February 15, 1999

Mr. Scott J. Ferguson
Hazardous Waste Management Section
Wisconsin Department of Natural Resources
4041 North Richards Street
Milwaukee, WI 53212

Subject: Phase II Supplemental Site Investigation Report
Navistar International Transportation Corp. - Waukesha Facility

Dear Mr. Ferguson:

On behalf of Navistar International Transportation Corp., RMT, Inc. (RMT), is submitting the enclosed Phase II Supplemental Site Investigation Report for the Navistar Waukesha Manufacturing facility at 1401 Perkins Avenue, Waukesha, Wisconsin.

The current site activities followed the scope and objectives presented in the Phase II Supplemental Site Investigation Work Plan and two Addenda. At the request of the Wisconsin Department of Natural Resources (WDNR), activities involved further soil and groundwater investigations on the Navistar property, the adjacent former Wisconsin Coach Lines (WCL) property, and the McGlenn property (the Investigation Area). This report contains the results of soil and groundwater sampling in the Investigation Area. Two distinct plumes of chlorinated solvents have been identified in the groundwater, neither originating on the Navistar site. One plume originates south and upgradient of the Navistar facility, and the other originates on the WCL property to the north of Navistar. The general groundwater flow direction is to the northwest.

No source of VOC impacts to the groundwater was identified on the Navistar property. Soil borings were advanced under and adjacent to the manufacturing facility but no evidence of sources were discovered. Therefore, we concluded that the source of the plume was off site.

Free product was found in one groundwater well on the former WCL property in the shallow acquifier, immediately north of Navistar and sampled for analysis. This material contained significant concentrations of chlorinated solvents and was identified to be a specialty industrial lubricant. This free product was comparable to oil found in piping within the former WCL facility and is likely the source of the plume originating north of Navistar on the WCL property.

The second plume was identified in conjunction with the McGlenn monitoring activities. Several possible upgradient sources were identified based upon file reviews. A portion of this

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southern plume discharges to the ornamental spring in Frame Park. We have previously notified the WDNR and the City of this testing.

This report also presents a preliminary evaluation of risk to human health and the environment as well as a preliminary identification of remedial options.

We appreciate your input on our report and look forward to moving forward in addressing the remaining environmental issues on this site.

Sincerely,

RMT, Inc.

Kathryn R. Huibregtse, P.E.
Vice President, Senior Consultant

cmk

Enclosures

cc: Lakshmi Sridharan, WDNR - SER
Frank Shultz, WDNR - SER
Edith Ardiente, Navistar International
Woody Deischel, Navistar International
Bernd Rehm, RMT, Inc.

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PHASE II SUPPLEMENTAL SITE INVESTIGATION REPORT

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION WAUKESHA, WISCONSIN

PREPARED FOR
NAVISTAR INTERNATIONAL
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CHICAGO, ILLINOIS

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Executive Summary

A supplemental soil and groundwater investigation was performed at the Navistar International Transportation Corporation (Navistar) foundry, the adjacent former Wisconsin Coach Lines (WCL) property, and the McGlenn Property located in Waukesha, Wisconsin (collectively designated the "Investigation Area"). The work was completed during March, April, November, and December of 1998 and January of 1999. The soil investigation included the installation and sampling of 26 soil borings with the objective of evaluating potential source areas in soil for VOC impacts to groundwater. The objective of the groundwater sampling was to provide a synoptic set of data over a broad area with which to assess the current groundwater flow conditions and contaminant occurrence and migration in groundwater.

Soil borings were advanced beneath the Navistar plant, in the alley between the Navistar and the former WCL buildings, in the "Whiterock" storage area to the west of the Navistar building, and in the area of the former tank excavation and hydraulic oil line at the former WCL site. Many of the soil samples did not have detections of the analyzed constituents—VOCs, DRO, and GRO. Free product was found floating on the water in a well adjacent to the former waste oil tank location on the WCL site. Based on chemical finger-printing, the product appears to be a lubricating oil. The oil contained 26,000 µg/L TCE and 24,000 µg/L TCA. This is comparable to the oil and solvent mixture previously found in pipes within the former WCL building. Dissolved-phase oil and residual oil found in soil throughout the area of the former WCL waste oil tank also matches the product found in the well.

Groundwater samples from 27 wells across the Investigation Area were analyzed for VOCs, DRO, and GRO. The hydrogeologic data and chemical distributions indicate that there are two distinct VOC plumes in the groundwater. The southern plume originates southeast (upgradient) of the McGlenn property, crosses the McGlenn property, and then crosses the southwestern corner of the Navistar property (the "McGlenn plume"). The northern plume appears to originate with past oil releases on the WCL property (the "WCL plume"). Since no sources of chlorinated solvents were found in unsaturated soil located on the Navistar site or between the Navistar and WCL buildings, the source of the chlorinated compounds present in the WCL plume is the former WCL waste oil system. Oil present in abandoned piping within the former WCL building contained high concentrations of chlorinated solvents confirming their on-site use.

The WCL plume appears to migrate to the northwest beyond the Navistar and WCL property lines under the influence of the fractures in the rock and a hydraulic gradient created by a quarry to the northwest of the site. The migration probably extends beyond the monitoring well network in place in the Investigation Area. It is expected that the VOCs will migrate about 4,000 feet to the north and be discharged to the quarries located there. Chlorinated compounds continue to be detected above NR 140 Groundwater Quality Standards, but concentrations have decreased from previous rounds in 1992 and 1996. The McGlenn plume migrates to the northwest, parallel to the plume originating at the former WCL facility. At least a portion of the McGlenn plume discharges to a spring in Frame Park.

The human, environmental, and ecological risk associated with the groundwater pathway, i.e., ingestion of or contact with VOC-impacted groundwater in the WCL plume, is low to nonexistent. In terms of groundwater ingestion, the pathway is not complete because no water supply wells are currently located in the area downgradient of the WCL plume (i.e., to the north of the Investigation Area in the deeper bedrock and to the northwest of the Investigation Area in the shallow bedrock), and city of Waukesha policies require that new residences or facility connect to the city water supply (personal communication, Mr. Jim Held, Waukesha Water Utility). In terms of groundwater discharge to surface water, the pathway is likely incomplete because dewatering at the quarries to the north of the Investigation Area cause groundwater flow to be toward the quarries, as opposed to discharging to the Fox River. The discharge of VOC-impacted groundwater at the quarries could in theory provide an opportunity for limited human exposures. However, a number of losses through attenuation, combined with likely minimal human contact with the water, are expected to render the risk to workers at the quarry insignificant.

VOC concentrations detected in soil have, for the most part, been minimal or of very limited extent. The current and continued use of the properties for industrial purposes limits the potential for exposures to workers at the site. Under these conditions, only the possibility of excavation by future construction poses a potential for exposure and possible worker risk. Evaluations of such concerns should be a part of construction planning if such work is to take place in the few areas where VOCs have been found.

There may also be potential human and ecological exposures associated with incidental contact with groundwater present in the ornamental spring located in Frame Park. The WDNR, the City of Waukesha, and/or the parties responsible for the VOCs found in the spring may wish to further evaluate possible risks resulting from such exposures.

The investigations completed to date are sufficient to allow for the preliminary evaluation of remedial options for the WCL plume. No evaluation of VOC migration in groundwater beyond the properties is included for the following reasons: migration is limited by the nearby bedrock

quarries, there are no current human or ecological exposures between the properties and the quarries, future potential human exposures in this area are limited by City of Waukesha policies (i.e., institutional control), and potential worker exposures in the quarries are expected to be minimal.

Remedial options for unsaturated soil and rock are not applicable because no impacted soil requiring remediation is present. Groundwater remedial options were identified to achieve containment of VOC migration and removal or destruction of the VOCs in the groundwater. Currently identified remedial options include hydraulic containment by pumping and treating groundwater, VOC degradation by engineered *in situ* bioremediation, and VOC removal by air sparging and soil vapor extraction. Institutional controls on the two properties will also have to be incorporated into the overall remedy.

Section 1
Introduction

1.1 Background

The Navistar International Transportation Corporation (Navistar) manufacturing facility in Waukesha, Wisconsin, is located at 1401 Perkins Avenue, in the NE ¼ of the SW ¼ of Section 35, T7N, R19E (Figure 1). The site is a casting facility that manufactures parts for use in the production of transportation equipment. Industrial activities at this site have been ongoing since before the 1940s. In 1946, International Harvestor purchased the property from the General Malleable Corporation and continued operations as a malleable iron castings foundry. Since the name change in 1986 to Navistar, the facility has continued to operate as an iron foundry.

The chlorinated solvent 1,1,1-trichloroethane (TCA) was stored and used at the Navistar facility through mid-1993 as a reducing agent (thinner) for a core coating process. However, there were no known or recorded releases of TCA to the environment at the Navistar site.

The property immediately to the north of the Navistar site was once owned by Wisconsin Coach Lines (WCL). WCL operated a bus repair shop and refueling depot at the site from the 1940s until 1993. The current owner of the former WCL site is Interstate Pump & Tank (IPT). IPT purchased the property from a previous owner who had purchased the site from WCL. The owner prior to IPT never occupied the facility. IPT is involved in wholesale distribution, installation, and service of petroleum equipment. On the basis of a site visit conducted on March 24, 1998, by RMT personnel, it appears that the on-site building is generally used for the storage of petroleum retailing equipment, particularly gasoline pumps and excavation equipment. The current facility owners report that no petroleum products are kept at the facility. RMT staff noted that hydraulic lifts once present in the western end of the WCL building have been removed and the floor has been patched with concrete. It is believed that the lifts were removed by WCL. The ground surface outside the building is predominantly composed of gravel fill with some patches of asphalt. Aside from several wood pallets outside the western wall of the building, the exterior of the building is uncluttered.

A search of the State of Wisconsin Department of Industry, Labor, and Human Resources (DILHR) database for registered underground storage tanks (USTs) found no USTs currently present on the IPT property. The database also indicated that five USTs were present on the former WCL property, but were abandoned prior to IPT acquiring the property. In addition to searching the DILHR list of USTs, RMT conducted a search of State and Federal "Right to

Know" databases. The databases indicate that no disclosures have been filed with state or federal agencies on behalf of IPT.

On October 24, 1990, a 12,000-gallon diesel UST and a 1,000-gallon waste oil UST were removed from the former WCL property in an area approximately 70 feet north of the Navistar site. There had been no recorded use of or known releases of chlorinated solvents at the WCL property. No visible leaks were observed on the diesel UST that was removed; however, the waste oil tank was pitted and had a 1-inch hole along a seam and stained soil was observed upon removal of the tank (GAS, 1992). Laboratory analyses for total petroleum hydrocarbons (TPH) referenced to waste oil ranged from 33 to 930 ppm in the base and sidewalls of the tank bed. On October 25, 1990, approximately 164 tons (approximately 117 cubic yards) of impacted soil were excavated and disposed at a landfill (GAS, 1992).

An investigation was conducted at the WCL site to determine the extent of impacts to soil and groundwater associated with the former USTs (GAS, 1992). In April and May 1991, groundwater monitoring wells MW-5 and MW-6 were installed near the former USTs. Chlorinated compounds were detected in both wells. In October and November 1991, based on soil field-screening data obtained with a flame ionization detector (FID), an additional 4,260 tons of soil (approximately 2,660 cubic yards) were excavated from above the bedrock surface and disposed. Approximately 3,340 cubic yards of overburden from the 10- to 12-foot depth range that were determined to be unimpacted by FID field-screening were returned into the excavation (GAS, 1992). An FID is capable of detecting a wide range of volatile compounds, including both petroleum hydrocarbons and chlorinated compounds. Although chlorinated compounds had already been documented in nearby groundwater, landfill documentation soil samples were only analyzed for diesel range organics (DRO) and petroleum compounds; therefore, it is not known whether soil in the former tank bed was impacted with chlorinated compounds. Four samples, AS-1 through AS-4, were collected in 1991 along the northern and western foundations of the former WCL building, from soil that was left in place to support the footings of the building (GAS, 1992). These soil samples were analyzed for DRO, gasoline range organics (GRO), and volatile organic compounds (VOCs). The samples contained only low levels of DRO and GRO (0.15 to 40 mg/kg) and no VOCs. The lack of petroleum hydrocarbons in the soil samples suggests that these samples were not representative of the impacted soil that was excavated. In late 1991 and early 1992, additional monitoring wells were installed, and the highest concentrations of chlorinated compounds were detected in groundwater in well MW-17, located on the former WCL property near the Navistar property boundary. Corresponding groundwater data from near the former waste oil tank were not available for this period since well MW-5 had been abandoned. However, comparable concentrations of chlorinated compounds were observed at NMW-6 at this time.

In a letter dated June 8, 1992, Navistar received a request from the Wisconsin Department of Natural Resources (WDNR) to investigate potential trichloroethene (TCE) and TCA impacts in groundwater at their facility. The investigation activities and the results of the investigation performed by RMT, Inc. (RMT), at the Navistar site were documented in a report submitted in April 1993 (RMT, 1993). This report stated that no source of the groundwater contamination could be found on the Navistar property and that the highest concentrations of VOCs in groundwater continue to be near the tank locations on the former WCL property.

On June 23, 1993, the WDNR issued an opinion to WCL that, based on information available at the time, WCL was not required to take further action for groundwater impacted with TCE or TCA. The WDNR's opinion was based primarily on recorded chemical usage at the two sites, which confirms TCA usage (but not TCE) at the Navistar site with no corresponding usage of chlorinated solvent use at the WCL site.

In 1996, RMT completed a supplemental soil and groundwater investigation for Navistar at both the Navistar and WCL sites to further document existing conditions. The investigation activities and the results of the supplemental investigation were submitted to the WDNR in September 1996 (RMT, 1996). This report confirmed that chlorinated compounds were still present in groundwater at both the Navistar and former WCL sites, with concentrations of TCE being higher than concentrations of TCA, and with the highest concentrations of both compounds being near the former WCL waste oil tank. The report noted that concentrations of both compounds had generally increased over those from the 1992 sampling round. In addition, a sample of hydraulic fluid in a pipeline within the former WCL building was found to contain chlorinated compounds, indicating that chlorinated compounds had been present on the former WCL site. The report concluded that neither soil near the former chemical storage area, nor soil near the used sand area on the Navistar site were source areas of chlorinated impacts to groundwater, and that residual chlorinated impacts remained in soil near the former WCL waste oil tank, despite the extensive excavation that had been performed in that area.

In 1997, a report was issued for the McGlenn property, located south-southwest of the Navistar site, in which detections of TCE and TCA at monitoring wells in the northern portion of the site were reported (MES, 1997). The report speculated that impacts to groundwater at the McGlenn site might be attributed to migration from the Navistar property. MES based this speculation on the following information: (1) recorded usage of TCA at Navistar; (2) the higher chlorinated concentrations observed in groundwater at the Navistar and former WCL sites than on the McGlenn property; (3) the detection of chlorinated compounds in the northern portion of the McGlenn property, south of Navistar property, in an area that had no known McGlenn business activities; and (4) the lack of detections of chlorinated compounds in unsaturated soil at the McGlenn site. The MES report disregarded the fact that the Navistar facility is not

hydraulically downgradient of the McGlenn property and the fact that chlorinated ethenes, the primary chemicals observed in the McGlenn wells, were not reported to have been used at Navistar. Soil samples collected in the northern portions of the site were collected from below the water table; it is therefore not known whether there were historical releases to soil in the northern end of the McGlenn property.

In a letter dated January 8, 1997, the WDNR requested that Navistar conduct additional investigation activities at their Waukesha facility and the properties adjacent thereto. Following discussions between Navistar and the WDNR, RMT submitted a Phase II Supplemental Site Investigation Work Plan (Work Plan) to the WDNR in March 1998 (RMT, 1998a).

This initial Work Plan called for the advancement and sampling of 20 soil borings and the sampling of 28 groundwater monitoring wells located across the Navistar site, the former WCL site, and the McGlenn site (the Investigation Area). The locations of the borings and wells are provided on Figure 2. The results from the spring 1998 Phase II investigations raised additional issues warranting further investigation. Addendum 2.0 to the Phase II Work plan was submitted to the WDNR in October 1998 (RMT, 1998b). This addendum included drilling and sampling of six additional borings, sampling of two monitoring wells, and further evaluation of the occurrence of groundwater use downgradient of the facility.

This report includes the findings of the Work Plan (RMT, 1998a) and the Addendum to the Work Plan (RMT, 1998b). It has been prepared as a supplement to the 1993 and 1996 reports. This report presents the results of soil and groundwater sampling performed in March, April, and November 1998 and January 1999, and integrates data from previous investigations performed at the Navistar site, the former WCL site, and the McGlenn site.

1.2 Objectives of Site Investigation

The overall goal of the current site investigation was to further assess potential source areas and delineate the vertical and lateral degree and extent of groundwater impacts in the Investigation Area in order to evaluate risk and support selection of an appropriate remedial response action, if required.

Specifically, the objectives of the current investigation were as follows:

- To obtain coordinated groundwater elevation measurements at all functional monitoring wells located at the Navistar, former WCL, and McGlenn sites, in order to evaluate flow directions and gradients
- To obtain synoptic VOC, DRO, and GRO concentrations in groundwater at all functional monitoring wells, in order to evaluate current groundwater quality

- To collect unsaturated soil samples for analysis of VOCs, DRO, and GRO, in order to assess soil chemistry in potential source areas
- To collect saturated soil samples for analysis of VOCs, DRO, and GRO as a surrogate measure of groundwater quality in areas beneath buildings where monitoring wells cannot be readily installed
- To obtain available information regarding active water supply wells within a 1-mile radius north and northwest of the site
- To summarize the construction details and pumping conditions at downgradient water supply wells
- To evaluate potential human and environmental exposures to site-related chemicals based on current conditions
- To identify additional information needs as appropriate

1.3 Scope of Services

The scope of services for the current investigation is given in detail in the Work Plan (RMT, 1998a) and the Work Plan Addendum 2.0 (RMT, 1998b) and is summarized here.

- Reviewed studies conducted independently on the Navistar, WCL, and McGlenn properties.
- Installed 26 soil borings for the collection of soil samples for laboratory analysis of VOCs, DRO, and GRO in areas within the Investigation Area where critical data gaps existed.
- Sampled 28 groundwater monitoring wells in the Investigation Area for analysis of VOCs, DRO, and GRO to evaluate current groundwater quality and local hydrogeology, and for confirmatory sampling in three locations.
- Assessed the extent of environmental impacts to site soil and groundwater, to the degree necessary to develop response strategies that are protective of human health and the environment.

1.4 Regulatory and Data Evaluation Framework

The information obtained from the environmental assessment was utilized in identifying appropriate response actions. This evaluation included a comparison with standards, consideration of land and groundwater use, and an assessment of the potential impacts to human health, safety, and the environment.

1.4.1 Environmental Regulation Considerations

Environmental contamination responses in Wisconsin are directed by Wisconsin Administrative Code (WAC) NR 700 (Investigation and Remediation of Environmental Contamination). The objectives of this rule are to establish consistent, uniform

standards, yet provide for site-specific flexibility pertaining to the identification, investigation, and remediation of sites and facilities subject to regulation under various statutes. The information presented in NR 700 is comprehensive, but the inherent flexibility in the rules allows investigations to be tailored to suit the complexity of the site and the known extent of impacts. Similarly, soil cleanup standards (NR 720) provide for the restoration of the environment to the extent practicable, and are intended to be protective of public health, safety, and the environment. If soil impacts are above the NR 720 Table 1 generic Residual Contaminant Levels (RCLs) or the site-specific standards, a remedial approach must be developed following procedures outlined in NR 722. This section requires the identification and evaluation of remedial action options and the submittal of a remedial action plan options report (NR 722.13). The WDNR may then respond to the options report by directing responsible parties to implement the action with or without Department review, approval, or acknowledgment.

Groundwater is regulated under WAC Chapter NR 140 (Groundwater Quality). The site groundwater data were compared with groundwater standards included in NR 140. This code presents two levels of concentration for the evaluation of constituents of concern. The Enforcement Standard (ES) is generally established at concentrations consistent with the Maximum Contaminant Levels (MCLs) published in the Federal Safe Drinking Water Act. If no MCL exists, then the ES is developed to be protective of human health, safety, and the environment based on existing toxicity data by the Wisconsin Department of Health and Social Services, and proper rule-making with public notice and opportunity to comment. The State has also identified Preventive Action Limits (PALs), which are established to be 10 percent or 20 percent of the ES, and which are frequently considered as indicators for possible future ES exceedences. Both ESs and PALs are applied at the point of monitoring. If an exceedence is confirmed, then a possible range of responses is identified. Ultimately, the goal is closure of environmental concerns. Two levels of closure are available: no further action closure with and without PAL exceedence exceptions under NR 140.28, and soil and groundwater well development restrictions recorded on the property deed with no further action.

1.4.2 Site-specific Data Evaluation Considerations

Both NR 700 and NR 140 allow for consideration of site-specific factors when evaluating remedial options and closure. One major factor is that much of the Investigation Area is covered by buildings and concrete pavement. There are no foreseeable plans for the transfer of the property or major changes in use for most of the Investigation Area. The area is located in the center of the city of Waukesha, and has been developed with

various commercial, industrial, and residential uses since the late 1800s. Municipal sewer and water utilities have served the site from the mid-1900s; and the street layouts have remained essentially the same over time.

Utility services are generally provided through underground lines. Numerous utility corridors exist in the rights-of-way along the sidewalks surrounding the facility. The depth of these features varies, but is expected to extend from 4 to 10 feet below ground surface.

Section 2
Field Investigation Activities and Methods

Field investigation activities were performed in March and April 1998, November and December 1998, and January 1999. The rationale and scope of the soil and groundwater investigation are fully discussed in the Work Plan (RMT, 1998a) and Work Plan Addendum 2.0 (1998b). Field activities are described in this section. Field methods used in this investigation are described in Appendix A of this Report.

2.1 Soil Investigation

The soil component of the investigation was designed to provide additional information to characterize soil type and chemistry across the area, and to assess areas of the facilities that had not been evaluated as potential source areas. In order to meet these objectives, soil borings were installed at the former WCL property and the Navistar property.

The soil investigation consisted of the installation of 26 soil borings adjacent to, and within, the former WCL and Navistar buildings and along the fence line of the former Whiterock Yard. The target depth of the borings was just below the water table. Borings were installed in the spring of 1998 with a Geoprobe® and with hollow-stemmed augers (HSA). Due to Geoprobe® refusal at borings SB-1, SB-6, and SB-11, only 17 of the 20 originally proposed borings produced soil samples for chemical analyses. Six additional borings were installed with HSAs in the fall of 1998. Summaries of the investigative purpose and of the analytical program at each of the borings are presented in the Work Plan (RMT, 1998a) and Work Plan Addendum 2.0 (RMT, 1998b). The boring locations are illustrated on Figure 2. Figure 2 also shows the locations of most soil borings advanced during previous studies in the Investigation Area. Soil borings advanced by Graef, Anhalf, Schloemer & Associates, Inc. (GAS), within the area that was subsequently excavated for soil remediation are not shown to improve the clarity of the figures and because this tested soil is no longer on the site. Boring logs and boring abandonment forms for SB-1 through SB-26 are contained in Appendix B.

To characterize soil conditions, soil samples were collected continuously in each boring, and were classified in accordance with the Unified Soil Classification System (USCS). Soil samples from four borings were analyzed for particle size, Atterberg limits, and total organic carbon. The headspace above each soil sample was field-screened with a photoionization detector (PID) equipped with an 11.8 eV lamp. Soil samples were selected for laboratory analysis based on the

results of the field-screening. Generally, the soil sample with the highest PID reading was selected from the unsaturated zone in each soil boring for VOC, GRO, and DRO analysis. The purpose of the upper sample was to evaluate soil chemistry in the unsaturated zone. A soil sample from just below the apparent water table interface was also submitted from each boring for laboratory analysis to identify constituents that may be present in the shallow groundwater system. Soil geotechnical data are contained in Appendix C. Soil laboratory analytical data are contained in Appendix D.

2.2 Groundwater Investigation

The groundwater investigation was designed to identify flow conditions and to characterize groundwater quality in the Investigation Area. The Work Plan (RMT, 1998) called for the sampling of 28 wells located across the three sites; however, one monitoring well on the McGlenn site (KEY MW-1, presumably located 60 feet west of Sigma MW-01) was not found during the sampling event. The locations of the wells that were sampled are illustrated on Figure 2. Of the 27 wells that were sampled, 24 were effectively water table wells and three were clearly piezometers. Eight of the wells are located on the Navistar property, twelve are located on the former WCL property, and seven are located on the northern portion of the McGlenn property. The locations, ground elevations, and reference elevations of the 27 wells were surveyed by a licensed land surveyor in April 1998 to provide a common and accurate survey. The reference elevation of NMW-6 could not be established at that time because the top of the well was below ponded surface water. The 1998 survey data and the 1996 survey of NMW-6 are contained in Appendix E.

The water level was measured at each well in order to determine flow directions and gradients. Field parameters—temperature, pH, specific conductance, and dissolved oxygen—were measured at each well during sample collection. Groundwater samples were sent for laboratory analysis of VOCs, DRO, and GRO, in order to assess current groundwater quality across the Investigation Area. Groundwater analytical data from this investigation is contained in Appendix F. Data validation according to USEPA procedures (USEPA, 1994) was performed on the 1998 and January 1999 groundwater analytical data. The data validation reports are contained in Appendix G.

Free product was discovered on the water surface of Well NMW-5. The investigation plan was revised to include collection of the product. The sample was collected by inserting a rigid polyethylene tube into the product and extracting the product with a peristaltic pump.

The sample was sent to Worldwide Geosciences, Inc., to identify the product by comparison with a range of hydrocarbon products. The results of this evaluation are provided in Appendix H.

After receipt of validated data for all 27 wells, the VOC results from two locations (MW-19 and NMW-11) appeared to be inconsistent with historical and spatial trends. These two wells were resampled in late 1998/early 1999, and the groundwater was analyzed for VOCs. In addition, water from the ornamental spring located in Frame Park was sampled and analyzed for VOCs, DRO, and GRO. The spring sampling procedure is described in Appendix A.

2.3 Potential Upgradient Sources Survey

The investigations completed in the first part of 1998 indicated that upgradient source(s) of solvents were responsible for at least one plume of groundwater impacts in the Investigation Area (i.e., the McGlenn plume). The following tasks were undertaken to provide a preliminary assessment of potential sources of the VOCs present in the McGlenn plume.

- A review of environmental databases for the presence of registered and leaking underground tanks, RCRA facilities, RCRA corrective actions, and other remedial actions was requested through Environmental Data Resources, Inc.
- A "windshield survey" of a several block area upgradient of the Investigation Area was completed to identify potential sources that may not be identified in the database review.
- A review of WDNR files for several sites selected on the basis of the database review and the "windshield" survey was completed to better assess VOC releases from upgradient sources.

The results of the upgradient source evaluation are presented in Subsection 3.8 of this report.

Section 3
Results of Investigation

3.1 Regional Setting, Geology, and Hydrogeology

The Navistar facility is located in the city of Waukesha, in southeastern Wisconsin, west of the city of Milwaukee, in the center of Waukesha County. This area was glaciated in the Wisconsinan era, which ended approximately 12,000 years ago. Unconsolidated glacial deposits overlie most of the area, with a thickness ranging from 0 to 50 feet in the vicinity of the city of Waukesha (Trotta and Cotter, 1973). The glacial deposits are part of the New Berlin Formation (Schneider, 1983). There are two principal members of the formation, the shallower being a mixture of sand and gravel with silt and clay (till) and the deeper being sand and gravel (outwash). The outwash can be up to 40 feet thick, while the till is no more than about 30 feet thick. The till is interpreted to be a basal till, typically with 60 percent sand and 40 percent silt and clay in the till matrix. The oxidized till is yellowish brown and the unoxidized till is grayish brown. Schneider (1983) does not describe the outwash.

The bedrock unit underlying the glacial deposits in the Waukesha area is the Niagara dolomite, which is Silurian in age. The Niagara Formation is an aquifer and is approximately 200 feet thick in the Waukesha area (Foley et al., 1953). A system of joints and fractures has developed in the Niagara, and these openings have been enlarged by dissolution, causing the unit to be permeable. Two predominant vertical fracture traces have been documented in the Niagara dolomite—one trending northwest/southeast, and one trending northeast/southwest (Janson, 1995). Janson (1995) noted that there are highly localized zones of enhanced permeability in the Niagara, and that pumping tests and data from high-capacity wells in the Niagara have indicated that drawdown is elongated along the fracture traces, indicating that they are preferential flow paths. A pumping test performed by RMT in the Niagara dolomite in Saukville, Wisconsin, located north of the city of Milwaukee, indicated that the northwest/southeast trending fracture trace was the predominant zone of groundwater flow (Appendix I). Wells in the Niagara can yield up to 500 gpm; however, most wells yield less than 200 gpm (Gonthier, 1975). The yield depends on the permeability and thickness of the Niagara Formation at the given well.

The Maquoketa shale underlies the Niagara dolomite. This shale is approximately 200 feet thick in the Waukesha area (Foley et al., 1953). The Maquoketa shale effectively acts as a confining unit between the glacial deposits and the Niagara dolomite above the shale, and the sandstone aquifers below the shale.

The Maquoketa shale is underlain by the Ordovician Galena-Platteville Formation (primarily dolomite), which is 250 feet thick in the Waukesha area (Foley et al., 1953). Below the Galena-Platteville Formation are approximately 150 feet of St. Peter Sandstone. The St. Peter is underlain by several hundred feet of Cambrian sandstones (Foley et al., 1953). The sandstones beneath the Maquoketa shale are aquifers, and many high-capacity wells in the area are constructed in these units.

The primary source of potable water in the city of Waukesha is derived from the city water supply wells. There are eight active and two abandoned municipal wells, all of which are constructed in the Cambrian sandstones, with intake zones between 400 and 2,000 feet below ground surface. The nearest wells to the Investigation Area are well number 1 (about 5,000 feet to the southwest), well number 2 (about 3,000 feet to the southwest), and well number 10 (about 5,000 feet to the northeast). The five remaining active wells are over 10,000 feet to the south and southwest. One new well is expected to be constructed 15,000 feet to the southwest of the Investigation Area. There are several areas of the city that are not yet supplied by city water, where private water supply wells are still in use. Some private water supply wells installed prior to the construction of municipal water lines may also be in use in areas supplied by municipal water. The active private wells within the city of Waukesha that are also in the sanitary district are now metered to charge for sewer service (personal communication, Mr. Jim Held, Waukesha Water Utility, 1999). These records will be available for review once the new billing system is in place (personal communication, Gene Strizak, Waukesha Water Utility, February 1999). Comparison of these records with available private well records will provide a more current understanding of any remaining active private wells nearby. Private wells serving private residences are generally constructed in the Niagara Formation (Foley et al., 1953; Gonthier, 1975). The relationship of these private wells to the occurrence of VOCs in the groundwater beneath the Investigation Area is discussed further in Section 4 of this report.

In Waukesha County, the water table generally occurs within the surficial deposits, although there are locations in the county to the north, west, and southwest of the site where the water table occurs within the Niagara Formation (Gonthier, 1975).

The 1972 Waukesha County water table map presented by Gonthier (1975) indicates that shallow groundwater on either side of the Fox River generally flows toward the river. However, there is a large cone of depression centered approximately 0.8 mile north of the Navistar site, causing groundwater in the Niagara dolomite from the vicinity of the Navistar site to flow north. This cone of depression was likely caused by the dewatering of a quarry located approximately 0.8 mile north-northwest of the Navistar site on the western edge of the Fox River (see Figure 3). This quarry was in operation in 1972 and is still operational. In 1972, the dewatering resulted in about 20 feet of drawdown within about 2,000 feet of the current

Navistar site (Gonthier, 1975). Water supply wells drilled into the bedrock aquifer along Badinger Road (Figure 3) outside the city of Waukesha limits in the late 1980s and early 1990s were reported to have static (nonpumping) water levels on the order of 200 feet below ground surface. The ground elevation in the area is about 950 feet; the hydraulic heads in the aquifer were therefore at an elevation on the order of 750 feet. Continued quarry operation and groundwater withdrawal has probably extended the cone of depression further to the south and closer to the site.

Further hydrogeologic information can be obtained from nearby site investigations. The Cooper Power Systems facility located to the north of the Investigation Area and on the west bank of the Fox River (Figure 3) has been the subject of subsurface investigations and remediation (SHS, 1994a; SHS, 1994b; ESC, 1998). Subsurface investigations were also undertaken along State Trunk Highway 164 (STH 164) adjacent to the Cooper facility (HNTB, 1994). In this area, the Niagara dolomite surface slopes toward the river from elevations of about 830 to 805 feet. The flow of groundwater was thought to be strongly controlled by the presence of fractures in the rock (SHS, 1994a). From 3 to 9 feet of soil fill cover the rock to the west of STH 164. Up to 14 feet of layered silt and sand alluvial sediment were also found over the rock. Piezometers installed in the dolomite between elevations of about 805 to 820 feet yield hydraulic heads between 820 to 830 feet in elevation. The presence of up to 1 foot of oil floating on the water surface introduces a degree of uncertainty as the water levels are corrected for the presence of the oil. The hydraulic gradient estimated from these piezometers is approximately east-northeast with a magnitude of about 0.08 (Figure 3). The direction of groundwater flow in the fractured rock under this gradient was not evaluated at the Cooper facility. One deeper piezometer (TW-8) was installed to the east of STH 164 with a screened elevation of about 785 to 790 feet. The head in this well is approximately 810 feet. The vertical gradient determined using an adjacent water table well is downward at a magnitude of about 0.1. The horizontal and vertical hydraulic gradients are counter to what might be expected given the proximity and direction of flow in the Fox River. The observed hydraulic heads are on the order of 10 feet higher than was estimated by Gonthier (1975), but the direction and magnitude of the gradient are consistent with Gonthier (1975) and are probably the result of the dewatering associated with the quarry to the northeast of the Cooper facility.

3.2 Site Setting

Navistar's Waukesha casting facility is located on an approximately 14-acre parcel of land bordered by Whiterock Avenue, Perkins Avenue, Cleveland Avenue, and Niagara Street in the city of Waukesha. The land uses in the surrounding area include active and former industrial facilities, closed municipal and foundry landfills, and commercial and residential properties. The areas to the east and south contain several small auto repair shops within the proximity of several blocks. Immediately north of Navistar is the former WCL property. North of the

former WCL property, are residential properties. Immediately south-southwest of the Navistar property is the McGlenn property. The Navistar property is located approximately 600 feet east of the Fox River. Between Navistar and the Fox River to the west, are several small businesses and residences, a railroad corridor, and a city park called Frame Park. The river level is controlled by a dam at the southern end of Frame Park. The elevation of the river pooled behind the dam is approximately 810 feet according to SHS (1994a). Environmental investigations have taken place, or are currently taking place, at the Navistar, the former WCL, the McGlenn, the Hein Werner (or Akerman), Alloy Products, Cooper Power Systems, Westwood (or Quality) Aluminum Casting, Waukesha Foundry, and Arcadian Avenue Landfill sites in the area.

3.3 Site Geology

Knowledge of the subsurface in the Investigation Area is based on the installation of numerous soil and rock borings at the three industrial sites. Many of these borings were completed as water table wells, extending to a depth of 20 to 25 feet below ground surface (bgs). Three borings on the former WCL site extended to approximately 45 feet bgs and were completed as piezometers. Soil and rock samples were not collected from the borings for monitoring wells NMW-10 and NMW-11 in the alley between the Navistar and former WCL site. The discussions that follow use the sample observations from borings SB-21 and SB-22 (each located within about 10 feet of the monitoring wells) to define the geology at the well locations.

A cross section locator map is presented on Figure 2 and geologic Cross Sections A-A', B-B', and C-C' are presented on Figure 4.

As illustrated on the cross sections, there are between 3 and 13 feet of fill at most borings. Fill consisted of sandy clay, clay, sand and gravel, crushed limestone, and foundry sand. The New Berlin Formation till and underlying outwash were deposited below the glacial ice and should therefore be very dense. Therefore, the fill could be differentiated from native deposits by the low number of blow counts (approximately 10 per foot) recorded during split-spoon advancement, as opposed to 20 to 40 blow counts per foot in native material.

Below the fill material are unconsolidated glacial deposits. The glacial deposits at the site are mostly sand and gravel deposits, which are silty or clayey in some locations. Geotechnical data for soil samples are summarized in Table 1. When the grain-size analyses are normalized following the removal of the gravel, the sandy soil contains an average of 58 percent sand and 42 percent clay and silt, consistent with that of the New Berlin Till (Schneider, 1983) as described in Subsection 3.1 of this report. However, based on the high proportion of gravel in the total soil samples (39 percent), the soil is assumed to be the outwash member of the New Berlin Formation.

Several feet of apparently lacustrine sediment were observed below the fill and above the outwash at boring MW-15 in the northwestern corner of the former WCL site (see Cross Section C-C' on Figure 4). Several feet of clay were observed below the outwash in borings MW-2, MW-3, and MW-4 in the eastern portion of the former WCL site (see Cross Section B-B' on Figure 4). Reported stratification suggests that this sediment is of lacustrine origin. The clay observed in borings MW-2, MW-3, and MW-4 pinches out to the west by the location of the borings in the alley (*e.g.*, SB-22, Figure 4). Borings SB-21 through SB-24 encountered a more till-like clay above the bedrock. The till-like material is stratigraphically below the outwash at borings SB-22 through -24.

The Silurian Niagara dolomite bedrock occurs at a depth of approximately 10 to 20 feet bgs in the Investigation Area. Several feet of weathered bedrock were identified at some locations (GP-9 and NPZ-1). This weathered zone consists of highly fractured rock and mixtures of rock fragments and the overlying soil. The weathered zone is expected to behave hydrogeologically more as a porous (rather than fractured) media. A weathered zone likely occurs across the Investigation Area to some extent, but was not consistently identified, probably due to differences in logging techniques and drilling methods used in the various phases of the investigations. The bedrock surface is relatively flat across much of the Investigation Area, but begins to slope downward toward the Fox River to the west-northwest in the western portion of the study area. A small mound or ridge of bedrock is found between the former WCL and Navistar sites as defined by boring GP-9 (Cross Section B-B' on Figure 4).

There are several lines of evidence for the occurrence of fractures in the Niagara dolomite at the site. Small horizontal and vertical fractures were observed in rock core obtained during the drilling of piezometers NPZ-1 and NPZ-2 and borings SB-21 through SB-24. The rock had an overall rock quality designation (RQD) of approximately 75 percent.

There was an increase in water production from 34 to 43 feet bgs (elevation of about 790 to 800 feet) during drilling of NPZ-1, and from 23 to 28 feet bgs (elevation of about 805 to 810 feet) during drilling of NPZ-2. This increase in water production from specific zones during drilling is characteristic of fracture flow in discrete zones. The investigations at Cooper Power Systems (SHS, 1994a) also found fractured, water-producing, bedrock between elevations 806 to 812 feet in borings B-6, B-7, and B-8. One of the Cooper borings also encountered a high-permeability zone in the rock between elevations 787 and 798 feet (B-10 in SHS, 1994a). The correspondence of the elevations of the permeable zones between two sites that are about 2,500 feet apart indicates that there are two layers of bedrock above an elevation of about 790 feet that are prone to chemical weathering and the development of secondary permeability. Further evidence of the occurrence of discrete fracture zones at the site is that piezometers NPZ-1 and MW-19 can be bailed dry, whereas piezometer NPZ-2 does not bail dry, suggesting a high

variability in hydraulic conductivity from well to well. This pattern was also observed at the Cooper site, with several borings drilled to as deep as 60 feet bgs without yielding significant flows of groundwater (SHS, 1994a). Fracturing in the Niagara dolomite is well documented in the literature (Foley et al., 1953; Gonthier, 1975; Jansen, 1995). Regional mapping of fracture patterns indicate two sets of near-vertical fractures or joints in the rock oriented at N 46° E and N 47° W (Jansen, 1995). The intersection of vertical fractures with horizontally bedded layers of more easily weathered rock often forms zones of significant increased permeability due to chemical weathering of the rock. Assuming that the increased permeability at NPZ-2 is due to the presence of one or both of these fracture sets intersecting a layer of weaker bedrock, the high-permeability fracture zone would extend southeastward between MW-12 and NPZ-1. The second set of fractures would be oriented northeastward at about right angles to the first fractures noted.

3.4 Site Hydrogeology

The March 30, 1998, water table map is presented on Figure 5. Well construction details are summarized in Table 2, and water level measurements for March 1998 are summarized in Table 3. Hydrogeologic calculations are contained in Appendix H. Previous water level measurements are contained in Appendix J. The survey of well casing elevations, which was performed in April 1998, identified errors in the previous reference elevations ranging from 0.90 foot higher than the new survey elevation to 7.83 feet lower than the new survey elevation (Appendix E). The March 1998 hydraulic head determinations are based upon the recent survey results. The historical depth to water data should be converted using the new reference elevations.

The water table generally occurs in the unconsolidated material just above the bedrock; however, in several locations, the water table occurs in the bedrock (Figure 4). Because the water table occurs in the unconsolidated material or in weathered bedrock, the shallow groundwater flow can be described as flow in a porous medium.

The horizontal hydraulic gradient at the water table in March 1998 was toward the northwest, which is consistent with previous sampling rounds in 1996 and 1992 on the Navistar and former WCL properties and which is consistent between the McGlenn and Navistar sites in 1998. The water table is relatively flat between NMW-4 in the east and the monitoring wells located in the study area on the western portion of each property, and then becomes steeper in the western portion of the Investigative Area. Well NMW-4 is damaged (bent well casing), causing the water level that is measured to be deeper than it actually is, in turn causing the calculated groundwater elevation to be lower than it actually is. However, the degree of error in the measurement is estimated to be on the order of 1 foot or less and does not account for the change in the magnitude of the gradient that occurs in the water table. In the portion of the

Investigation Area that is being studied (i.e., western portion), there is a relatively uniform horizontal hydraulic gradient of 0.03 to the northwest. Groundwater flow in the sediment and shallow weathered rock is expected to be generally parallel to the direction of the gradient because these materials are expected to behave as porous media.

The potentiometric surface in the fracture-controlled portion of the bedrock beneath the Investigation Area is defined by the three 45-foot-deep piezometers on the former WCL site (NPZ-1, NPZ-2, and MW-19). All three are completed in the 790- to 800-foot elevation zone in the dolomite aquifer. In the March 1998 sampling round, hydraulic heads at these piezometers indicated that the horizontal gradient deeper in the dolomite is toward the north-northwest. This gradient direction was not consistent with measurements from 1996 (corrected to new reference elevations), when the gradient was toward the northeast. Another set of water level measurements was collected from the piezometers in May 1998, to confirm the March 1998 deep gradient direction. The May 1998 measurements indicated a north-northeast gradient direction, more consistent with the 1996 data, but with less of an easterly component. The deep flow gradients observed in both 1996 and 1998 are very different from the shallow groundwater flow system. The difference between the shallow and deeper gradient directions indicates that there are two different flow systems. The deeper system is likely controlled by one or both of the predominant fracture traces, which are known to trend northwest/southeast and northeast/southwest and by the dewatering occurring at the quarry to the north-northwest of the Investigation Area.

As noted in Subsection 3.1, the hydraulic heads in the vicinity of the quarries 4,000 feet to the north of the Investigation Area (Figure 3) were on the order of 750 feet in the early 1990s. This is about 65 feet lower than the heads currently measured in the dolomite aquifer in the Investigation Area. This large difference indicates that the hydraulic gradient to the north of the Investigation Area is north, in the direction of the quarries.

The horizontal gradient in the deeper system is 0.003, which is one order of magnitude lower than the horizontal gradient in the shallow system. If the deep piezometer at the Cooper Power Systems facility (TW-8 in SHS, 1994a) is assumed to be downgradient of the Investigation Area, then the gradient between the sites would be about 0.002, similar to the gradient within the Investigation Area. Applying an assumed head of 750 feet in the area of the quarries to the north of the Investigation Area and the 4,000-foot separation distance between the Investigation Area and the quarries yields an average horizontal gradient of about 0.02. This is a strong horizontal gradient driving flow toward the quarry.

The vertical hydraulic gradient between the shallow system and the deeper system in the Investigation Area is approximately 0.06 downward. Again, this is about the same as was observed at the Cooper Power Systems facility to the north (SHS, 1994a). This vertical gradient

is greater in magnitude than either the shallow or deep horizontal gradients. Based upon the elevation of the piezometers, the vertical gradient is about 20 times greater than the horizontal gradient at the water table. This means that, in an isotropic porous medium, groundwater would migrate downward 20 feet for every foot of horizontal migration. In the Investigation Area, most of the flow, however, is in fractured rock, in which fractures and partings parallel to the near-horizontal bedding of the rock are expected to introduce a strong horizontal permeability anisotropy (Freeze and Cherry, 1979). If the horizontal permeability is 100 times greater than the vertical permeability, groundwater would migrate downward 20 feet for every 100 feet of horizontal travel. This downward migration of groundwater is a significant factor in the interpretation of contaminant transport in the Investigation Area.

The hydraulic conductivity of the bedrock was estimated to range from 2×10^{-4} cm/s to 2×10^{-2} cm/s on the basis of single-well response tests at NMW-1, NMW-2, and NMW-6 (RMT, 1993). Assuming that the higher value reflects the more fractured rock (the primary contaminant migration pathway) and that the rock porosity is 0.05 (Freeze and Cherry, 1979), the horizontal groundwater flow velocity would be on the order of 1,200 feet per year.

3.5 Product Chemistry

Free product as a light nonaqueous-phase liquid (LNAPL) was first reported on the former WCL property in well MW-5 in September 1991 (GAS, 1992). Approximately 1.2 feet of a diesel and oil mixture were reported in the well by GAS. This free product was apparently assumed to be associated with the waste oil releases due to the proximity of the well to the former waste oil UST. MW-5 was located within a few feet of the waste oil tank (Figure 2) and was removed during the soil excavation completed in November 1991. Monitoring well NMW-5 was later installed within a few feet from the original MW-5 location. The waste oil found at MW-5 was not tested for VOCs by WCL in 1991. This oil could have contained TCE and TCA since these solvents were often present in waste oil, as is recognized by the WDNR guidance for evaluating waste oil USTs, which requires VOC analyses for excavated soil intended for landfilling (WDNR, 1991). In 1996, a sample of oil was collected by RMT from what was assumed to be a hydraulic oil line in the western end of the former WCL building. TCE was reported at a concentration of 8,100 µg/L in the oil sample, and TCA was reported at a concentration of 3,800 µg/L (RMT, 1996). In the current investigation, LNAPL was observed floating on the water in well NMW-5 on the former WCL site. Analysis of this product yielded a reported TCE concentration of 26,000 µg/L and a reported TCA concentration of 24,000 µg/L. Finger-printing of the product sample against a library of petroleum products indicates that the petroleum-based material is a specialty industrial lubricant (Appendix H). The DRO chromatograms for the DRO analyses completed in this most recent investigation were compared to the chromatogram of the product found in well NMW-5. The DRO chromatograms for soil samples from borings SB-3 (13 to 15 feet), SB-4 (13 to 15 feet), SB-5 (13 to

15 feet), SB-15 (13 to 15 feet), and SB-17 (13 to 15 feet) all matched the free product chromatogram for NMW-5. The DRO chromatograms from water samples from wells NMW-5 and NMW-6 closely matched the product. The next closest match was over 250 feet away at NMW-7. A memorandum discussing the details of this comparison is provided in Appendix H. The spatial distribution of the petroleum hydrocarbons is discussed further in Subsection 3.6 of this report.

Although there was no record of the use of chlorinated compounds at the former WCL site, such compounds are present at high concentrations in oil that is present at the former WCL site. Because TCE and TCA are hydrophobic compounds, they will preferentially partition into nonaqueous liquids such as the oil found in the monitoring well (Pankow and Cherry, 1996). The solvent concentration found in the oil on a mass-per-volume basis will be greater than that found in the water. Assuming that octanol/water partition is a reasonable surrogate for LNAPL/water partitioning, results in estimated water concentrations of 110 µg/L and 76 µg/L for TCE and TCA, respectively (see Appendix K for calculations). These estimated concentrations are of the same order of magnitude as the groundwater collected below the LNAPL in 1998 (i.e., 200 µg/L and 27 µg/L for TCE and TCA, respectively). Given the lack of VOC sources in the unsaturated soil upgradient of the NMW-5 oil occurrence (discussed below), the VOC impacts found in the groundwater at the water table probably originated with the oil. Historical concentrations of TCE and TCA in groundwater from NMW-5 and MW-5 have been on the order of 10 times greater than the 1998 samples. These concentrations of VOCs could also have originated with residual oil because, over time, the continued partitioning of VOCs from the oil to the water would have lowered the concentrations of VOCs in the oil to their current level.

The reappearance of the LNAPL containing chlorinated solvents after the soil excavation was completed indicates that there is an ongoing source of oil leaking to the groundwater. Since product was found in piping below the former WCL building, it is reasonable to assume that the VOC-bearing product is originating with continued releases from the former WCL building and piping. Releases from the former waste oil tank area including hydraulic oil contaminated with TCE and TCA therefore appear to be the source of the WCL plume.

3.6 Soil Chemistry

In March and April 1998, 20 soil borings were installed to depths of 5 to 17 feet bgs for the collection of soil samples for laboratory analysis. The borings were designated SB-1 through SB-20, and the locations are indicated on Figure 6, along with the locations of previously installed soil borings. Borings SB-1 through SB-7, and SB-11 through SB-17 were installed in the area of the former WCL waste oil tank and the western end of the former WCL building; and borings SB-8 through SB-10, and SB-18 through SB-20 were installed beneath the Navistar plant,

in an effort to identify potential source areas of chlorinated compounds and petroleum impacts to groundwater. In November 1998, six additional borings were installed in accordance with the Work Plan Addendum 2.0 (RMT, 1998b). Four of the borings were installed in the alley between the former WCL building and the Navistar building to better characterize soil chemistry in potential source areas for the VOCs observed in groundwater at wells NMW-10 and NMW-11. Two of the borings were installed southwest of the Navistar building to evaluate conditions in the so called Whiterock Yard where chemical storage may have occurred. One or two unsaturated soil samples from each boring were sent for laboratory analysis for a full list of VOCs, as well as for DRO and GRO. One saturated soil sample was collected from each boring (if the water table was above the bedrock surface) and sent for laboratory analysis of VOCs, DRO, and GRO. These data were used as surrogates for groundwater analysis in areas where there are no monitoring wells at the water table.

The spatial distribution of chlorinated compounds and petroleum compounds in soil from the current and previous investigations are illustrated on Figures 6 and 7, respectively. Soil analytical data from the current investigation are summarized in Table 4, and the laboratory reports are included in Appendix D. Summaries of soil analytical results from previous investigations are included in Appendix L.

The compounds acetone, methylene chloride, and carbon disulfide were reported in soil samples at numerous borings. However, all of the acetone and carbon disulfide and several of the methylene chloride detections were identified as laboratory contaminants in the data validation process (see Appendix G). Because methylene chloride is a common laboratory contaminant (USEPA, 1994), and because it is not a constituent of concern in the investigation area, reported detections of methylene chloride that were not explicitly eliminated in the data validation process were also assumed to be laboratory artifacts and are therefore not discussed in this report.

In summary, chlorinated compounds were only detected in four of the borings, and DRO and GRO were detected in several borings; however, individual petroleum volatile organic compounds (PVOCs) were not detected. The few detections of chlorinated compounds and DRO/GRO are at low levels that do not account for the chlorinated or petroleum impacts observed in groundwater. Based on the existing data, a source area(s) in unsaturated soil has not been identified by the boring program. However, analyses of hydraulic fluid and free product at the former WCL site indicate that TCE and TCA were present at concentrations of 1,000's of µg/L in substances used at the former WCL site. An oily substance was observed at the bedrock surface in eight borings installed in the area of the excavation and the hydraulic fluid line at the former WCL site (see boring logs in RMT, 1996 and boring logs in Appendix B). The presence of an oily substance at the bedrock surface, the occurrence of chlorinated

compounds in oils (product in NMW-5 and hydraulic fluid pipeline) associated with the former WCL site, and the known release of oil from the former waste oil UST at the former WCL site, all indicate that the former tank bed and hydraulic fluid line are the most likely sources of chlorinated solvent impacts to groundwater in the area.

Furthermore, the lack of detectable chlorinated compound concentrations, other VOCs, or DRO/GRO in the saturated soil samples from beneath the Navistar building and the unsaturated soil samples from next to the building confirm that there is no source of VOCs or DRO/GRO emanating from this area that can account for the observed groundwater impacts present further downgradient from the Navistar building. These results and the data collected during previous investigations eliminate operations within the foundry and in the soil directly adjacent to the Navistar building and doors as sources of the chlorinated solvents in the groundwater.

3.6.1 Chlorinated Compounds in Soil

Of the chlorinated compounds, only TCE and cis-1,2-dichloroethene (cis-1,2-DCE) were detected above the laboratory detection limit in any of the soil samples collected during 1998 from SB-1 through SB-26 (Table 4). TCE was detected at 100 µg/kg in the 3- to 5-foot sample interval at SB-2, and at 660 µg/kg in the saturated 15- to 17-foot sample from SB-13. Both of these borings are located on the former WCL property in the general area of the former waste oil tank. In previous investigations, chlorinated compounds (tetrachloroethene [PCE] and TCE) have been detected in unsaturated soil samples collected at various other locations on the former WCL property (WCB-1 with 62 µg/kg PCE at 3 to 5 feet bgs; SB-2 with 100 µg/kg TCE at 3 to 5 feet bgs; GP-9 with 53 µg/kg TCE at 7 to 9 feet bgs; GP-15 with 50 µg/kg TCE at 5 to 7 feet bgs; and NMW-5 with 21 µg/kg TCE at 8 to 10 feet bgs).

Only two saturated soil samples (12 to 14 feet bgs) from the 1998 investigations on the Navistar site contained detectable VOC concentrations—160 and 450 µg/kg of cis-1,2-DCE at SB-21 and SB-22, respectively. Chlorinated VOCs in soil were also detected during past investigations at the following locations on the Navistar site: NMW-2, NMW-3, GP-5, NAV-1, NAV-3, NAV 4, NAV-5, NAV-6, SB-21, and SB-22. The previously detected compounds included PCE; TCE; TCA; 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA); and cis-1,2-DCE. The sum of all chlorinated compounds detected in each of the pre-1998 soil samples totaled close to or less than 100 µg/kg, with the exception of the 0.5- to 2.5-foot sample at NMW-2. In this shallow sample of foundry sand fill from NMW-2, TCA was reported at a concentration of 6,160 µg/kg by GAS. Chlorinated compounds were not detected in the 8- to 10-foot sample of native material at NMW-2 collected by RMT, indicating that there was no

vertical migration of the TCA at this location and therefore no threat to the underlying groundwater. Furthermore, this area is paved eliminating the potential of direct contact and volatilization into the breathing zone. As noted in Subsection 1.1, TCA was used in the coating of foundry cores. The lack of vertical migration suggests that this TCA occurrence probably represents foundry sand with TCA in it, rather than a release of liquid solvents from the storage area. The remaining borings beneath and adjacent to the Navistar solvent storage area found no evidence of solvent releases to soil or elevated concentrations in the soil or fill above the water table.

The presence of solvents in the oil found in the former WCL building and in the LNAPL found on the water table in well NMW-5 indicate that chlorinated compounds were present in oils used or stored on the former WCL site. Oil was known to have leaked from the waste oil UST at the former WCL site (GAS, 1992). The direct evidence for such historical releases was removed from the site when the soil around the tanks was excavated and disposed in a sanitary landfill. Although required by the WDNR LUST Analytical Guidance then in effect (WDNR, 1991), this soil was disposed and the investigations in the vicinity of the tanks were completed without analyses for the chlorinated ethenes and ethanes (with the few exceptions noted in Subsection 1.1). No soil samples from above the water table in the alley between the former WCL and Navistar buildings were found to contain chlorinated VOCs above the Detection Limit of 25 µg/kg. The weight of evidence indicates that the tank excavation and possibly the western end of the former WCL building were source areas for chlorinated compound impacts to groundwater in the area. Residual solvent-impacted oil may still be present in piping and soil beneath the building and could therefore represent a continuing source of TCE and TCA releases to the groundwater.

3.6.2 Petroleum Compounds in Soil

The WDNR-specified methods for the determination of GRO and DRO often overestimate the presence of petroleum hydrocarbons because the methods do not distinguish between other anthropogenic compounds (such as chlorinated solvents in the GRO determination) or naturally occurring organic compounds in the soil. The chromatograms for each 1998 GRO and DRO analysis were therefore reviewed by a chemist to determine whether the reported GRO and DRO occurrences actually represented a petroleum hydrocarbon. This review is provided in Appendix H. The confirmed petroleum occurrences are indicated by asterisks in Table 4.

Both GRO detections that were confirmed as hydrocarbons (3.5 mg/kg in SB-4 and 20 mg/kg in SB-15) were found in saturated soil samples in the vicinity of the tank removals on the former WCL property (Figure 7).

Seven of the 15 reported DRO concentrations were confirmed as petroleum hydrocarbons with concentrations between 4.1 and 1,600 mg/kg. All of the confirmed detections were on the former WCL property (Figure 7), and all but four were in saturated soil samples.

The spatial distribution of the confirmed petroleum hydrocarbon GRO and DRO detections is concentrated in the area of the past UST and soil removals completed by WCL. Several of the samples were from the clean soil returned to the excavation. The fact that this clean soil has now become impacted with petroleum indicates that the past remedial actions were insufficient to clean up the oil that had leaked. The highest concentrations of DRO are found beneath the northwestern corner of the former WCL facility, the same area in which solvent-contaminated oil was recovered from a pipeline and the area in which the hydraulic lifts for bus maintenance were located. This indicates that there are as yet undefined sources of hydrocarbon impacts beneath the building that continue to produce contaminant releases to the environment.

The presence of oil on the former WCL site was noted both quantitatively and qualitatively. In previous investigations, DRO and/or GRO were detected by laboratory analyses at GP-8 on the former WCL site and boring NMW-1 on the Navistar site. Visual and olfactory evidence of a black oily substance with a petroleum odor was encountered directly on top of bedrock at eight borings—WCB-3, NMW-5, GP-8, SB-2, SB-4, SB-5, SB-15, and SB-17—which are all located near the former WCL USTs or in the western end of the former WCL building (Figure 6). These observations are consistent with the recent laboratory findings and indicate that petroleum residuals, some of which may be contaminated with solvents, are widespread in the area of WCL's past remedial actions.

There have been few detections of individual PVOCs, and in all cases, with the exception of borings SB-15 and GP-12 on the former WCL site, the total of PVOCs was less than or equal to 100 µg/kg.

3.7 Groundwater Quality

A round of groundwater samples was collected from the existing 27 monitoring wells on the former WCL, Navistar, and McGlenn sites on March 31, April 1, and April 2, 1998. Two wells, MW-19 and MW-11 were resampled as part of the Work Plan Addendum 2.0 (RMT, 1998b). Well NMW-11 was also sampled. All three wells were sampled to confirm uncertain findings form the March/April 1998 sampling round. Groundwater samples were sent for laboratory analysis of the full list of VOCs included in SW846, Method 8260, and for DRO and GRO. The last sampling round performed at most wells prior to the investigations presented in this report

was in 1996. The results of the 1998 sampling rounds and previous sampling rounds for the wells sampled in 1998 are summarized in Table 5. Laboratory analytical reports for the sampling rounds are included in Appendix F. The spatial distribution of chlorinated compounds in groundwater samples from the 1998 sampling rounds are presented on Figure 8. Historical data from abandoned wells are also included on Figure 8 to add qualitative evidence as to the nature and extent of impacts. Historical summaries of groundwater analytical results are included in Appendix M. The vertical distribution of chlorinated compounds in groundwater is illustrated in cross section on Figure 9.

The compounds acetone, methylene chloride, and carbon disulfide were reported in groundwater samples. However, all of the acetone and carbon disulfide and several of the methylene chloride detections were classified as nondetections in the data validation process (see Appendix G). Because methylene chloride is a common laboratory contaminant (USEPA, 1994), and because it is not a constituent of concern in the investigation area, reported detections of methylene chloride that were not explicitly eliminated in the data validation process were also assumed to be laboratory artifacts and are therefore not discussed in this report.

3.7.1 Chlorinated Compounds in Groundwater

The compounds TCE and TCA, as well as degradation products such as 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCA; 1,2-DCA; and vinyl chloride, were detected in groundwater at all three sites in 1998. The concentration of TCE exceeds the concentration of TCA at every sampling location where the compounds were detected. There has been no reported use of TCE at any of the sites.

The highest concentrations of both TCE and TCA have been consistently detected at water table well NMW-6, located near the former USTs on the former WCL site. Historically, wells MW-17 and MW-22, which were located near the former USTs, also produced some of the highest VOC concentrations observed at either the Navistar or WCL properties (Figure 8). This area of high shallow groundwater concentrations extends upgradient to the Navistar plant wall in the dolomite aquifer (NMW-10 and NMW-11) and at the water table in the clayey soil overlying the dolomite (saturated soil samples from borings SB-21 and SB-22). As noted earlier, the soil above the water table in the area of NMW-10 and NMW-11 did not contain detectable VOC concentrations.

Concentrations of TCE and TCA in groundwater in the soil beneath and immediately adjacent to the Navistar plant were estimated, based on analysis of saturated soil samples at borings SB-8, SB-9, SB-10, SB-18, SB-19, SB-21, and SB-22. Beneath the alley between the former WCL building and the Navistar building only cis-1,2-DCE was

detected in saturated soil at SB-21 and SB-22 at concentrations of 160 and 450 µg/kg, respectively. The corresponding estimated concentrations of cis-1,2-DCE in groundwater are 310 and 880 µg/L. Assuming that TCE and TCA may have been present at a concentration of up to 24 µg/kg in the soil (i.e., 1 µg/kg less than the Detection Limit), the estimated concentration of TCE in groundwater was less than or equal to 37 µg/L, and the estimated concentration of TCA in groundwater was less than or equal to 32 µg/L. The calculations for all three VOCs were based on the fraction of organic carbon in the soil (f_{oc}), the organic carbon/water partition coefficient of the compound (K_{oc}), and the dry bulk density, and porosity of the soil (Pankow and Cherry, 1996). The carbon content data and the calculations of estimated TCE, TCA, and cis-1,2-DCE concentrations are presented in Appendix K. The low concentrations calculated for the groundwater in the soil pore spaces indicate the lack of a source of VOCs in the soil beneath the alley between the former WCL and Navistar buildings.

TCE, TCA, and cis-1,2-DCE were not detected above the laboratory Detection Limit of 25 µg/kg at the saturated soil sampling locations beneath the Navistar plant. Again assuming that the compounds may have been present at a concentration of up to 24 µg/kg in the soil, the estimated concentration of TCE in groundwater was less than or equal to 37 µg/L and the estimated concentration of TCA in groundwater was less than or equal to 32 µg/L. These estimated groundwater concentrations of TCE and TCA beneath the Navistar plant are not indicative of a source under the Navistar building and place an upgradient boundary on the high concentration area described in the previous paragraph.

The areal pattern of VOC occurrence in groundwater, combined with the VOC distribution in soil presented in Subsection 3.6 of this report suggests that a source for the VOCs probably existed in the area of the USTs that were removed from the western end of the former WCL building, not from beneath or next to the Navistar building. The evidence of a release in the area of the USTs was removed in 1991 without testing the soil for the presence of chlorinated VOCs. Soil samples collected in the alley from above the water table do not indicate the presence of a spill, and saturated soil samples from beneath the Navistar building did not contain VOCs ruling out a source from beneath or near the Navistar building.

The migration pathway of the chlorinated compounds observed in the saturated soil and the bedrock along the northern wall of the Navistar building has not been identified. Four possibilities are suggested by the site information: (1) upgradient migration of a mound of oil from the former WCL tank area, (2) upgradient migration of heavy residual product through the dolomite from the area where soil was excavated by WCL, (3) upgradient migration of VOCs on the WCL property by diffusion through

the clay and fractured rock, and (4) upgradient migration due to temporary or seasonal reversals of hydraulic gradient between the former UST area and the Navistar building.

The VOCs are not likely to have been transported upgradient by mounding of VOC-bearing LNAPL from the tank excavation on the former WCL property for two reasons: (a) there are several samples from saturated soil at the water table above the bedrock that are free of VOCs above concentrations of 25 µg/kg and there is no evidence of residual oil in the soil or rock; and (b) the soil through which the oil would have to pass is very rich in clay and of low permeability. The relative contribution from the remaining migration pathways from the WCL property cannot be assessed now. However, given the lack of widespread VOC impacts in the remaining unsaturated soils, this uncertainty will not impact the evaluation and selection of remedial alternatives.

The 200 µg/L contour line on Figure 8 is skewed toward the northern property line of the former WCL property. These VOC occurrences are coincident with the area of the VOC-bearing oil beneath the former WCL facility. As noted in Subsection 3.5, free product (*i.e.*, LNAPL) in the former UST area contains TCE and TCA, as did oil sampled within the former WCL building.

The VOCs originating from the UST area migrate westward with the horizontal hydraulic gradient at the water table (Figure 5). At the same time, the vertical hydraulic gradient carries the dissolved VOCs downward into the bedrock where a generally northward gradient combines with the permeability anisotropy resulting from fractures to cause VOC migration to be northwestward parallel to the fractures. This downward flow would be expected to carry dissolved VOCs downward several 10's of feet into the bedrock aquifer by the time the plume reaches the former WCL property line. This mechanism of downward migration is illustrated on Cross Section B-B' on Figure 9. The concentration contours shown on Figure 8 were drawn to reflect the edges of this descending VOC plume. The VOC concentrations that appear to be too low for a given contour interval (*e.g.*, 465 µg/L at MW-13 inside the 1,000 µg/L contour line), are simply lower concentrations above or below the main body of the plume, as shown on Figure 9.

The lateral horizontal extent of the plume to the north at the water table was generally defined by monitoring wells MW-8, MW-9, and MW-14 (since abandoned by WCL). The exact southern limits of the WCL plume are not well defined due to the presence of a second VOC plume, the McGlenn Plume (described further below). Concentrations of TCE; cis-1,2-DCE; and 1,1-DCE greater than WAC Chapter NR 140 Groundwater Quality Enforcement Standards are migrating to the northwest of the former WCL

property. Based on regional groundwater flow, the VOCs are migrating northward, toward the drawdown created in the dolomite aquifer by the quarry located northwest of the site. Chlorinated VOCs have been detected in the groundwater beneath the Cooper Power Systems facility located northwest of the Investigation Area (SHS, 1994b and HNTB, 1994). 1,1,1-TCA and its degradation products make up to about 90 percent of the VOC mass in the groundwater samples. The mixture of VOCs is not consistent with what has been found in the Investigation Area samples, where TCE and its degradation products typically make up from 75 to 90 percent of the VOC mass in the groundwater samples. The VOCs from the Investigative Area are therefore not likely to have migrated to Cooper Power Systems. This lack of connection between the Investigation Area and Cooper Power Systems is also supported by the eastward gradient reported in the monitoring wells at the Cooper facility (Figure 3).

The lower concentrations of VOCs observed at NPZ-1 (Cross Section B-B' on Figure 9) may suggest that there has been little vertical VOC migration below an elevation of about 795 feet as illustrated on Figure 9. However, only two samples have been collected and analyzed from this well and the results differ by a factor of 10, adding an element of uncertainty to the interpretation shown. It is possible that the VOCs in the groundwater are transported essentially horizontally through the higher permeability zones between the elevations of about 790 and 810 feet described in Subsection 3.3 of this report.

Monitoring wells listed in Table 5 and in historical groundwater chemistry tables compiled in Appendix M have been sampled up to four times over the last 7 years (1991, 1992, 1996, and 1998). The majority of the wells have shown a similar trend in TCE concentrations over time. TCE concentrations increased by several 100's of µg/L in most wells between 1991 and 1992 (from 100 to 500 µg/L up to 1,000 µg/L). This trend continued through 1996 when concentrations were on the order of 500 to 2,500 µg/L. The trend reversed between 1996 and 1998, with most wells currently yielding between 100 and 1,200 µg/L of TCE. Monitoring well NMW-6 follows this same trend but at concentrations that are about 10 times greater than is typical for most other wells. This general trend occurs across the Navistar and former WCL properties and in both the water table wells and piezometers. The TCA trends with time are slightly different from the TCE trends. The general pattern is one of relatively constant concentrations from 1991 through 1996, followed by a small decline from 1996 to 1998.

There are a few exceptions to the trends in TCE discussed above. The exceptions were not observed in the TCA data. NMW-3 and NMW-4, the two upgradient monitoring wells on the Navistar property, yielded steady concentrations on the order of 20 to

200 µg/L from 1992 through 1996. However, significant declines in concentrations were noted in these wells in 1998. The different concentration trend with time than that described in the previous paragraph, suggests that the concentrations in these wells are not related to the WCL plume, but rather the McGlenn plume. Given the upgradient location of these two wells, an off-site upgradient source is suggested. Potential upgradient sources are discussed in Subsection 3.8 of this report. The general concentration trends with time as observed at MW-16 also do not fit the typical site pattern. TCE concentrations from this well appear to have risen steadily from 350 to 990 µg/L over the 7 years of monitoring. As noted earlier in the discussion of spatial trends, the results from this well do not fit the patterns of the other wells on the Navistar and former WCL properties.

The chemistry data collected over the last 7 years show changes in plume composition over time in addition to the changes in concentrations described in the previous paragraph. These compositional changes are expected in plumes with both TCA and TCE because degradation rates and mechanisms are different. The concentration ratios should be consistent at a specific time for a group a wells that sample groundwater from a specific source.

Composition changes for the Investigation Area groundwater chemistry are illustrated on Figure 10 by graphing the concentration ratios of TCE to TCA. In 1991 and 1992, the few wells installed at that time yielded samples with a relatively small ratio of TCE to TCA concentrations (most between 1.0 and 2.2). Additional monitoring wells were installed in late 1992. A cluster of wells produced TCE to TCA ratios of 2.4 to 3.6. Only three wells in this cluster were present in early 1992 and late 1991 and had ratios of 1.2 to 2.0, suggesting that the concentration of TCE was 2 times higher than the TCA concentration in the late 1992 samples than in the early 1992 samples. Nine wells (MW-15, -16, -17, -18, -20, -21, and -22 and NMW-2 and -6) made up a more diverse group, with ratios of TCE to TCA between 4 and 10. By 1996, there was an approximately linear increase in the TCE to TCA ratio for all but one of the wells on the Navistar and former WCL property (MW-19), with most samples having ratios of 4.5 to 8.0. Of the nine wells that had ratios over 4 in 1992, five were abandoned by WCL (MW-17, -18, -20, -21, and -22) and four produced ratios comparable to the majority of the wells sampled (MW-15 and -16 and NMW-2 and -6). One monitoring well, MW-19, continued to demonstrate a separate path of chemical evolution with a TCE to TCA ratio of 14. The majority of monitoring wells on the Navistar and former WCL sites continued to evolve along a linear progression of TCE to TCA ratios with values typically between 6 to 10. Well MW-19 also continued along its separate trajectory, with ratios between 15 and 18 during 1998. The ratios in the plume evolved over time

because TCA is degrading/attenuating at a higher rate than TCE. As indicated on Figure 8, there appears to be a second southern plume of chlorinated compounds in the Investigation Area (i.e., the McGlenn plume). The McGlenn plume appears to originate upgradient of the McGlenn property and continues across the Navistar site (Key MW-3 and NMW-1 on Figure 8). The McGlenn plume is separated from the northern plume by lower chlorinated compound concentrations at wells NMW-2 and NMW-3 on the Navistar site. Potential sources for the McGlenn plume are discussed in Subsection 3.8 of this report.

The distinctness of the McGlenn plume is also apparent in the chemical composition of the plume as illustrated on Figure 10. Since 1992, the mixture of VOCs found in the McGlenn plume has always contained a lower proportion of TCE to TCA than the groundwater samples collected from beneath the Navistar or former WCL properties. The ratio of TCE to TCA in the McGlenn plume typically ranged from about 1.5 in 1992 to 3 in 1998, while samples from most of the plume beneath the Navistar and former WCL properties ranged from about 3 in 1992 to about 8 in 1998. The ratios in both WCL and McGlenn plumes increased over time because TCA is degrading/attenuating at a higher rate than TCE. However, the relative rate of TCA degradation appears to be higher in the WCL plume than in the McGlenn plume, resulting in the steeper slope for the WCL plume over time. Although the exact mechanism which results in the concentration changes of TCA is unknown, the consistency in the TCE/TCA ratios at groups of well locations is clearly illustrated on Figure 10. The divergence in the concentration ratio patterns supports the conclusion that two separate plumes are present in this area.

The groundwater analytical results from MES MW-5 and Key MW-3 only 40 feet away again demonstrate the vertical changes in groundwater VOC concentrations (Cross Sections A-A' and C-C', Figure 9). Well MES MW-5 yields water only from the surficial glacial sediment at VOC concentrations of a few 10's of µg/L. Well Key MW-3 draws water from both the glacial sediment and the immediately underlying bedrock. This slightly deeper well produces samples with VOC concentrations 10 times greater than the shallow well does. Assuming equally weighted inflows to Key MW-3 from soil and rock suggests that the concentrations in the rock may be greater than 1,000 µg/L. The available data and the review results suggest that the plume may be below the available McGlenn property wells and may therefore be significantly wider than is illustrated on Figure 8; however, because there is lack of deeper monitoring wells in the dolomite aquifer to the south of well Key MW-3, this cannot be demonstrated at the current time.

TCE concentrations in the McGlenn plume (wells NMW-1 and Key MW-3) also show a different pattern of concentration changes over time from wells on the former WCL and Navistar properties, one in which the concentrations are relatively constant over the 7-year period. This consistency of behavior over time supports the earlier indications of a distinct plume of VOCs based on spatial and chemical composition considerations.

An ornamental spring in Frame Park was sampled once in November 1998 and analyzed for VOCs using the same methods applied to groundwater samples. The spring water contained TCE; cis-1,2-DCE; 1,1,1-TCA; 1,1-DCE; and 1,1-DCA at concentrations above detection limits (Table 5). The total VOC concentration of the sample was about 480 µg/L. DRO and GRO were also reported at 250 and 100 mg/L, respectively. The water from the spring is directed to a nearby stream that flows west about 150 feet to the Fox River. The spring sample has a ratio of TCE to 1,1,1-TCA of 3.2, indicating that the VOCs are consistent with the McGlenn plume (see Figure 10).

3.7.2 Petroleum Compounds in Groundwater

Individual PVOCs were not detected above the laboratory Detection Limits at any of the former WCL or Navistar wells in 1998, with the exception of a detection of benzene at a concentration of 2.1 µg/L at well NMW-11, which is located in the alley between the two sites. The concentration of 2.1 µg/L benzene is above the PAL of 0.5 µg/L, but below the ES of 5 µg/L for benzene. Several individual PVOCs were detected at very low concentrations below the NR 140 PALs in an area of the McGlenn site known to have been impacted by petroleum compounds.

The GRO and DRO are subject to a great deal of uncertainty as was discussed previously for the analysis of GRO and DRO in soil. Chromatographically confirmed DRO was detected at six wells on the former WCL site at concentrations ranging from 330 to 7,000 µg/L, with the highest concentration at NMW-5. This was the well with LNAPL, as described in Subsection 3.5. Wells NMW-6 and NMW-7 also yielded groundwater samples with DRO that matched the chromatogram for the LNAPL in NMW-5. On the Navistar property, only well NMW-11 yielded DRO in the groundwater at a low concentration (330 mg/L). The DRO chromatogram at NMW-11 did not match the chromatogram of the LNAPL found at NMW-5. MW 11 also contained atypical DRO associated with a "hump" or rise in the baseline of the chromatogram. DRO was also confirmed to be present on the McGlenn property in areas that were known to have had petroleum releases.

Confirmed GRO was detected at only one well at a concentration of 300 µg/L. Examination of the chromatograms from the GRO analyses indicates that part or most of

the reported GRO in the groundwater samples from the Navistar and former WCL sites is due to the quantification of early peaks that represent chlorinated compounds rather than petroleum compounds (see Technical Memorandum in Appendix H). The confirmed GRO detection was on the McGlenn property in an area known to have had petroleum releases.

Based on the lack of significant detections of individual PVOCs, and on the reported DRO and GRO detections that are mostly associated with chlorinated compounds, there are no significant petroleum impacts to groundwater in the Investigation Area. The most elevated DRO concentrations were observed at wells NMW-5 and NMW-6 near the former WCL USTs, and these are likely associated with the release of oil that was known to have occurred from the former waste oil UST or with oil originating from under the former WCL building.

3.8 Potential Upgradient Sources of VOCs in Groundwater

An environmental database review (EDR, 1998), a "windshield" survey, and selected WDNR file reviews were conducted to identify potential upgradient sources of VOCs in groundwater. The basic findings with respect to potential upgradient releases and area hydrogeologic information are presented on Figure 11. One important hydrogeologic finding based on the review of WDNR file materials is the identification of a groundwater divide at the water table located about 3,000 feet to the southeast of the Investigation Area (the dashed blue line on Figure 11). Based on shallow wells completed in glacial drift or fill materials, groundwater flow to the north of the line is generally to the north and west while flow to the south of the line is to the south and west. Given the differences observed between the water table horizontal hydraulic gradient and the gradient observed in the bedrock within the Investigation Area (Figure 11), it is not certain whether the water table divide also reflects a potentiometric surface divide within the bedrock aquifer, since, according to the files, there were no wells completed in the bedrock aquifer. The cone of depression caused by pumping from the quarry to the north of the Investigation Area (described in Subsection 3.1 of this report) may actually extend some distance to the south and east of the Investigation Area. Therefore, for purposes of this assessment of potential upgradient sources of VOCs, the surveys and file reviews were focused within about the first 4,000 feet to the south and east of the Investigation Area.

The upgradient source information presented in the following paragraphs suggests that the Alloy Products Corporation at 1045 Perkins Avenue and possibly the former Akerman Company at 1005 Perkins Avenue are potential sources of chlorinated VOCs to the groundwater upgradient of the Investigation Area. Other possible sources may include Heale Manufacturing Co. at 1231 The Strand, and Cooper Power Systems at 1319 East Lincoln Avenue.

3.8.1 Database Review

The EDR (1998) database review identified a number of leaking USTs as well as registered USTs that have not reported a release. All but one of the USTs were listed as containing petroleum. The database noted the Akerman, Inc., property as having a UST associated with "RCRA hazardous waste." This site is discussed in more detail in Subsection 3.8.3. In general, the mere presence of a petroleum fuel UST was not considered significant.

Small and large quantity generators of hazardous waste under RCRA are also marked on Figure 11. Nine small quantity and one large quantity generator were listed in the area 4,000 feet generally upgradient of the Investigation Area. The small quantity generators were as follows:

Heale Manufacturing Co. -- 1231 The Strand

Waukesha Wholesale Electric Co. -- 1203 East Main Street

Alloy Products Co. -- 1045 Perkins Avenue

Akerman, Inc. -- 1005 Perkins Avenue

SpanCrete (WBC Corp.) -- 945 Blackstone Avenue

Neman Painting and Sandblasting -- 1405 Anoka Avenue

Quality Aluminum Castings -- 1242 Lincoln Avenue

Waukesha Foundry -- 1250 Lincoln Avenue

Mixer Systems (Waukesha Foundry) -- 1250 Lincoln Avenue

Cooper Power Systems, 1319 Lincoln Avenue, was the only large quantity generator identified. The current listing as small quantity generators may not be applicable to historical practices when higher use rates and more hazardous substances may have been in use at these locations, since waste minimization efforts and conversion to nonhazardous industrial materials has been common in industry since the early 1980s when RCRA was promulgated.

RCRA corrective action activity and solid or hazardous waste disposal were noted at two locations. Both, however, were beyond the immediate area of interest and were therefore not addressed further.

3.8.2 Windshield Survey

The area of interest to the south and east of the Investigation Area was visually surveyed by driving through the area on public roads. The objective of the survey was to identify other commercial or industrial facilities that could potentially be sources of VOCs to groundwater. The following facilities were identified in addition to those already noted in Subsection 3.8.1:

Zellmer & Sons Auto Repair -- 1230 The Strand

An unidentified operation -- 117 Adams Street and/or 1120 Perkins Avenue (These addresses had numerous wooden pallets stacked on the property. No other name or indication of industrial activity was apparent.)

Badger Pneumatics -- 1310 National Avenue

D.F. Tomasini -- Blackstone Avenue (construction contractor vehicles and equipment storage yard between 909 and 945 Blackstone Avenues)

Blackstone Plaza -- 909 Blackstone Plaza (possibly rehabilitated industrial facility)

Waukesha Foundry foundry sand landfill between Anoka Road and Arcadian Avenue

City of Waukesha Arcadian Avenue Landfill between Arcadian Avenue and Lincoln Avenue

Waukesha Iron and Metal -- 1351 Main Street

3.9 WDNR File Review

Eight locations were selected for review of Southeast Region WDNR files on the basis of proximity to the Investigation Area, the presence of RCRA hazardous waste (that may include chlorinated solvents), and the apparent industrial activities that are or may have taken place at a location.

Zellmer and Sons Auto Repair and Heale Manufacturing were selected due to their proximity to the McGlenn plume. Heale Manufacturing was also reported to be a hazardous waste generator. No WDNR files were found for either location.

Alloy Products Corporation was selected on the basis of proximity and hazardous waste generation. The facility WDNR FID No. is 268016760. The file contained reports and correspondence by consultants/engineers retained by Alloy Products, WDNR correspondence and memoranda, City of Waukesha correspondence, and other unidentified materials related to the facility. The information relevant to the assessment of the facility as a potential source of chlorinated VOCs to the groundwater is summarized below.

Since the 1940s, Alloy Products operations have included stainless-steel fabrication of tanks, pressure vessels, fittings, and valves. On-site processes have included pickling, electropolishing, mechanical polishing, metal pressing, welding, machining, degreasing, parts washing, assembly, inspection, and shipping. TCA was used in a vapor degreaser(s) in 1992. Parts cleaning and degreasing operations in 1992 were located in the eastern two-thirds on the plant. Small quantities of PCE, TCE, toluene, methylene chloride, and mineral spirits are either additional solvents reportedly used in small quantities or as ingredients in materials used in the manufacturing processes in 1992. Correspondence suggests that the TCA was being replaced by an aqueous caustic cleaner during the early 1990s. Solvent product and waste storage was located along the northern building wall in 1992.

Two acids pits were located on the property. The eastern pit was put into operation in the mid-1960s. The northern pit was constructed earlier, but no dates are available. The pits apparently received the waste acid from the pickling and acid cleaning of metal parts. Besides acid, metals such as copper, chromium, nickel, lead, and silver are contaminants that may be expected to be contained in the waste acids. The pits were reportedly "brick and clay lined." Waste acid was temporarily stored in the pits, transferred to trucks, and taken off-site for final management. The pits were closed in 1977 or 1978 "in cooperation with the DNR (or EPA)" according to Alloy Products (no documentation of the closure was available in the files). Closure reportedly included pumping out the pit contents and rinsing the pits with water. The pits were then filled with sand and gravel.

"Green sediment/sludge" was noted in snowmelt during a WDNR inspection in March 1992, apparently to the east of the building. A sample of the snowmelt tested by the WDNR found 240 mg/L of chromium, 3,200 mg/L sulfate, and concentrations of several other metals at concentrations below 1 mg/L. Drums along the building wall were the apparent source. There was no documentation in the files of how this spill was resolved. Several other instances of the outdoor storage of drums of waste liquids were documented in WDNR inspections in the early 1990s.

There was also correspondence between the WDNR, the City of Waukesha, and Alloy Products regarding the presence of oil/grease and metals contamination in sewer lines at concentrations

in excess of local ordinances. There was disagreement as to whether or not Alloy Products was the source of the "slugs" of wastewater entering the sewer.

The excavation of a "metal containment pit" used to collect runoff from hoppers containing chip turnings and metal cuttings resulted in the discovery of oil-impacted soil. A spill was reported to the WDNR in October 1992. A work plan to investigate the spill was submitted to the WDNR by Fluid Management, Inc. (FMI), in May 1993. A December 1993 letter to the WDNR recommends excavation of soil on the basis of soil borings and water table wells completed in August 1993. An August 1994 letter from FMI to the WDNR summarizes the investigation and excavation as follows:

- 260 tons of soil removed from an excavation measuring 24 feet by 29 feet by 6 to 10 feet deep (see attached map)
- DRO was noted in the excavation walls at concentrations between <10 to 3,130 mg/kg and in soil samples from borings beyond the excavation at concentrations of <10 to 104 mg/kg.
- Groundwater, at about 8 feet bgs, was found to flow to the north. DRO concentrations ranged from <0.1 to 0.94 mg/L in both up- and downgradient wells. Chlorinated VOCs were not included in the analyses present in the files. Based on the local determination of groundwater flow directions at the water table, some of the parts washing and degreasing operations identified in 1992 were upgradient of the site monitoring wells.
- No further soil remediation is recommended. Groundwater monitoring is proposed to continue semiannually as contamination in groundwater degrades naturally.

By June 1995, FMI reports that free product (type not specified) was present in one of the monitoring wells. A product recovery program was to be implemented. There is no further file information regarding the groundwater remediation.

An anonymous call to the WDNR in August 1996 reported that acid baths were dumped "out the back door" and that in the last 2 years contractors excavating around the plant had encountered "buried drums." No further action was taken by the WDNR because the 1992 response action was considered to be ongoing.

The industrial processes applied at the Alloy Products Corporation clearly included parts degreasing with chlorinated solvents. The use of TCE is not documented in the file materials; however, such use may have predated the period covered by the documents in the file. Information in the file indicates that there have been numerous releases of metals, oils, and probably acids to the soil. It is likely that degreasing solvents were released to the soil and groundwater. There are no reports of spills of degreasing solvents and these chemicals have never been analyzed for in soil. Oil has been quantified in groundwater, but neither metals nor solvents have been analyzed in the groundwater during previous sampling events.

Groundwater flow at the water table in the glacial sediment is toward the north, but no investigations have extended into the groundwater flow system in the bedrock. The Alloy Products data, combined with the WCL, Navistar, and McGlenn investigations as well as data collected at Akerman, Inc. suggest that this facility is a likely source of TCA and probably TCE in groundwater.

Akerman, Inc. (also known as the Hein Werner property) was selected for review due to its proximity to the Investigation Area and the database review that indicated that a UST remediation for hazardous waste had taken place on the property. The site was reportedly used for the assembly, painting, and demonstration of heavy construction equipment by Hein Warner from 1955 to 1981. Akerman, Inc. (now VME Americas, Inc.), owned the site from 1982 to 1993 and jointly operated the facility with Hein Werner. Mallory Improvements, Inc., bought the site in 1993 for leasing office and warehouse space. Badger Pneumatics and Span Crete (sites F and G, Figure 11) are apparently the current tenants for the eastern portions of the building. The property consists of two adjacent parcels separated by an unnamed stream and railroad right-of-way. The eastern parcel (WDNR FID No. 26809189) has been investigated by several consultants since 1992. This area is filled with up to 10 feet of foundry sand with other miscellaneous solid wastes. Contaminants identified in soil and fill to date include PCE, TCE, PCBs, and several metals. Remediation of the east area soil/fill containing PCBs has been completed by excavation and off-site disposal.

Two sand aquifers separated by clayey lacustrine sediment have been identified above a depth of 45 feet below ground surface (where dolomite bedrock is encountered). Three shallow wells installed in a sand aquifer indicate flow to the west. Groundwater samples have been reported with TCE, TCA, and 1,1-DCA. A work plan for further site investigation was submitted to the WDNR in November 1998. The WDNR responded in January 1999 indicating that investigation activities in addition to those included in the work plan would be needed to adequately define the horizontal and vertical extent of contamination on the parcel.

The western portion of the Akerman property was subject to environmental assessments in 1992 and 1993. During this period, five underground storage tanks were removed. The backfill around the tanks was found to contain greater than 10 mg/kg of petroleum constituents. Subsequent groundwater investigations identified the presence of chlorinated solvents that were not reportedly associated with the tanks.

Three shallow wells and nine soil borings with groundwater grab samples were completed in 1993. The soil beneath the site included about 9 feet of fill and till, about 13 feet of sand and gravel, about 18 feet of clayey lacustrine sediment, and about 5 feet of sand over the dolomite bedrock (elevation of about 800 feet). Horizontal groundwater flow in the upper sand aquifer is not well defined. Poor well construction with sand packs that may connect a confined

aquifer with the water table may bias the observed heads higher than the actual head in the upper sand aquifer. As reported, the data indicate radial flow to the west, south, and east (and possibly north) from the northcentral property line.

The monitoring well with the highest reported water level also contained significant concentrations of TCE (370 µg/L); TCA (330 µg/L); and 1,1-DCA (30 µg/L). Other monitoring well samples contained cis- and trans-1,2-DCE and 1,1-DCE in addition to the compounds listed previously. The Ackerman property could very reasonably be an upgradient source of VOCs to the Investigation Area because the water levels at this location are about 13 feet higher than those observed in the Investigation Area and the flow directions at the Ackerman property could be to the north and west.

The deeper sand aquifer was investigated using groundwater grab samples collected with a Hydropunch®. However, the borings were all located to the east and south of the high solvent occurrence and no determination was made as to whether groundwater in the deeper sand aquifer flowed to the east or south. The lack of VOCs in the deeper aquifer therefore does not preclude that VOCs could have migrated downward into the dolomite aquifer.

Quality Aluminum Casting Company (also known as Westwood Aluminum Casting) was selected for review due to its size, its potentially upgradient location with respect to the bedrock aquifer, and its listing as a hazardous waste generator. The WDNR FID No. is 268007080. The file contained one report regarding investigation and remediation.

Given the facility name, the site is assumed to be an aluminum casting operation. It is not currently known when the facility began operations and it is not apparent if the facility was operating in late 1998 when the visual survey was completed.

A report submitted by Swanson Environmental, Inc. (SEI), to the WDNR in April 1991 refers to an unreferenced environmental assessment prepared by Northern Environmental, Inc. (NEI), as part of a property transfer. This assessment reported identified impacts to groundwater by metals and the possible presence of a leaking UST. It was reported that "hazardous waste solvents" were potentially associated with the UST. This initial assessment by NEl was not in the file.

SEI submitted an investigation work plan to the WDNR in February 1990 (not in the file). The findings of the investigation were presented to the WDNR in the April 1991 submittal by SEI. A 1,000-gallon UST containing isopropyl alcohol was emptied and excavated (see attached map). Soil was excavated to about 8.5 feet without encountering groundwater. There were no "chemicals of environmental concern" in the soil, yet the soil was taken to a landfill for

disposal. Post-excavation soil samples found no alcohol or petroleum (as defined by total petroleum hydrocarbons [TPH]).

SEI collected groundwater samples from three shallow water table monitoring wells installed in glacial drift. Groundwater flow at the water table was to the southwest. The samples were analyzed for several metals, TPH, total dissolved solids, sulfate, and 1,1-DCE (the only volatile organic compound reportedly detected by NEI above an NR 140 Enforcement Standard). Only sulfate, iron, and manganese were reported at levels above what may be considered naturally occurring concentrations for the area.

The industrial processes applied at the Quality Aluminum Casting Company are not well defined. The groundwater flow in the glacial sediment appears to be toward the south, away from the Navistar and McGlenn properties. However, there is no information regarding groundwater flow in the bedrock. Based upon the limited data reviewed to date, there does not appear to be releases of solvents at the facility that could result in the groundwater contamination observed in the McGlenn plume.

Waukesha Foundry was selected for review due to its size, its potentially upgradient location with respect to the bedrock aquifer, its historical disposal of foundry sand in the area, and its listing as a hazardous waste generator. There is no WDNR FID number for this facility. The WDNR files contained a June 1996 report by Natural Resource Technology (NRT), addressing proposed construction on the Waukesha Foundry Landfill. The five-acre landfill is located immediately south of Arcadian Avenue, west of the Chicago and Northwestern Railroad line, east of Harding Avenue, and north of vacant lands also owned by Waukesha Foundry. Waukesha Foundry purchased the land in 1959. Disposal of foundry sand began some time after 1959 and continued until 1971.

Soil and groundwater investigations were completed by NRT to assess the landfill as a site for a proposed community service facility. Groundwater at the water table flows to the west according to NRT. Monitoring wells were analyzed for a full list of VOCs, including TCE and TCA. Chloroethane and 1,2-DCA were observed in samples from water table monitoring wells at concentrations of 34 and 1.4 µg/L, respectively. TCE and TCA were not detected in the limited sampling completed in 1996.

The site is potentially upgradient of the Investigation Area. However, based upon the limited testing and data currently available for review, at this time the Waukesha Foundry site does not appear to be a potential source of the VOCs migrating into the Investigation Area.

Cooper Power Systems was selected for review due to its size, its potentially upgradient location with respect to the bedrock aquifer, and its listing as a hazardous waste generator. The

WDNR FID No. for the site is 268017200. The facility manufactures transformers. The file contained several reports prepared by several consultants to Cooper. The work documented in the file related to UST removals.

Two 20,000-gallon USTs of non-PCB petroleum electrical insulating oil and one 5,000-gallon UST of non-PCB hydrocarbon dielectric fluid were removed from the northern part of the property in July 1991. Contaminated soil was excavated to 14 feet bgs, but excavation could not go deeper due to groundwater and equipment constraints. Soil could also not be over-excavated laterally due to utilities and building foundations. Total recoverable petroleum hydrocarbon (TRPH) exceedences were left in place. Fluorene and naphthalene were detected in shallow groundwater. In 1989, three 10,000-gallon fuel oil tanks were removed from southern part of facility, and some excavation was done.

The groundwater monitoring network at the Cooper site is very limited—consisting of three water table wells in surficial deposits. Groundwater has been analyzed for only PAHs. No discussion of historical site activities, which would support conclusions regarding the potential for solvent releases, was included in the file material. The groundwater flow direction at the water table is toward the west (the Navistar facility is to the northwest); however, groundwater flow directions in the bedrock aquifer are undefined. Chlorinated solvents have been observed in groundwater at another nearby Cooper facility (1900 East North Street, FID No. 268088810) located west of the Fox River. It is possible that such solvents are part of the operations at the Lincoln Avenue facility as well. Based on the information available to date, the potential for this site to contribute VOCs to the groundwater is uncertain.

3.10 Findings and Conclusions

3.10.1 Geology

- Fill occurs as the top 3 to 13 feet of material across the sites. The fill consists of sandy clay, clay, sand and gravel, and foundry sand.
- The unit overlying the bedrock is glacial outwash of the New Berlin Formation. The outwash generally consists of silty sand with gravel; however, areas of clean sand or gravel are encountered at several borings.
- The bedrock beneath the site is the Silurian Niagara dolomite, which occurs at approximately 10 to 20 feet below ground surface. The top several feet of bedrock are identified as weathered at several borings, and this is likely the case across the site. The bedrock surface slopes downward toward the west.
- The dolomite is fractured, with two dominant fracture orientations: northwest-southeast, and northeast-southwest (Janson, 1995). Pumping tests at a site in Grafton, Wisconsin, north of Milwaukee, indicated that the dominant fracture trace

for groundwater flow and contaminant transport in the Niagara dolomite at that location is the northwest-southeast fracture trace. The presence of fractures and more permeable zones in the dolomite at elevations from 790 to 800 feet and from 805 to 810 feet is indicated beneath both the Investigation Area and the Cooper Power Systems facility located about 2,500 feet to the northwest.

3.10.2 Hydrogeology

- The water table generally occurs in the outwash deposits; however, in several site monitoring wells, it occurs in the dolomite bedrock. The shallow horizontal groundwater flow in the outwash and weathered dolomite beneath all three sites is toward the northwest, with a horizontal gradient of 0.03. Based on the water level at well NMW-4 toward the eastern end of the Navistar site, the gradient is shallower to the east.
- Deeper groundwater flow appears to be dominated by fracture flow and is thus different from the shallow flow system. The flow direction has been variable over the years from north to northeast. The causes of variability in the deeper flow direction are unknown. The current horizontal hydraulic gradient in the deeper system is lower than in the shallow system, at 0.003.
- The vertical hydraulic gradient between the unconsolidated material/weathered bedrock and the deeper dolomite is approximately 0.06 downward.
- Groundwater horizontal flow velocities in the more permeable zones in the bedrock are on the order of 1,200 feet per year.

3.10.3 Soil Impacts

- Data from previous and current investigations uncovered no direct evidence in the unsaturated soil beneath or adjacent to the Navistar property of a source area for chlorinated compounds observed in the groundwater. There were few detections of chlorinated compounds in the soil samples that were analyzed, and these detections were not high enough to account for the level of impacts to groundwater; i.e., they were generally under 100 µg/kg. Although TCA was detected at 6,160 µg/kg in soil at NMW-2 on the Navistar site in October 1992, this was a sample of foundry sand fill and there were no detections of chlorinated compounds in the native soil sample collected below the fill. As such, the foundry sand was the suspected source of the TCA, as opposed to a release of solvent to the ground surface. Furthermore, the foundry sand is beneath pavement and well above the water table, limiting the potential for TCA migration to the water table.
- A floating free product phase was observed at NMW-5 in the former WCL waste oil cavity both historically and during the 1998 sampling activities. Furthermore, there was visual/olfactory evidence of an oily substance in the soil above bedrock at borings WCB-3, NMW-5, GP-8, SB-2, SB-5, SB-14, SB-15, and SB-17 near the former hydraulic fluid line, the former waste oil UST, and the former diesel UST on the former WCL site.

- A sample of oil from an assumed hydraulic oil line at the former WCL site yielded 8,100 µg/L TCE and 3,800 µg/L TCA (RMT, 1996); and a sample of the LNAPL in well NMW-5 yielded 26,000 µg/L TCE and 24,000 µg/L TCA. Finger-printing of the product in well NMW-5 indicates that the material is a specialty, industrial lubricant. Based on these analyses, it appears that the oils used at the WCL site contained chlorinated compounds at concentrations that are high enough to explain the concentrations of chlorinated compounds in the groundwater in wells near the former USTs and the western end of the WCL building. The oil found in NMW-5 was found in soil throughout the area of the former USTs and beneath the former WCL building.
- VOCs were not reported above the Detection Limit of 25 µg/kg in soil samples from above the water table in the alley between the former WCL and Navistar building.

3.10.4 Groundwater Impacts

- There were no exceedences of NR 140 PALs or ESs for PVOCs at the 27 wells that were sampled in March, April, and November 1998, and January 1999 at the three sites. Confirmed DRO and GRO were reported in the area of the UST remediation, beneath the former WCL building, and on the McGlenn site, in an area where there were known petroleum releases.
- TCE occurs in the groundwater at all three sites, with the maximum concentration of 2,900 µg/L occurring at well NMW-6 on the former WCL site. TCA occurs in the groundwater at all three sites, with the maximum concentration of 410 µg/L also occurring at well NMW-6. Degradation products such as 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCA; 1,2-DCA; and vinyl chloride also occur in the groundwater at all three sites.
- Due to the lack of detectable TCE and TCA concentrations in saturated soil samples, concentrations of TCE and TCA in groundwater in soil immediately adjacent to the northern wall of the Navistar plant at borings SB-21 and SB-22 were estimated to be less than 37 and less than 32 µg/L, respectively; with cis-1,2-DCE concentrations estimated to be on the order of 310 (SB-21) to 880 (SB-22) µg/L.
- Concentrations of TCE and TCA in groundwater beneath the Navistar plant were estimated at borings SB-8, SB-9, SB-10, SB-18, and SB-19, based on the lack of detectable TCE and TCA in saturated soil samples. The estimated concentrations were less than or equal to 37 µg/L TCE, and less than or equal to 32 µg/L TCA. These concentrations are not indicative of a source area beneath the plant.
- The source of the VOCs found in groundwater beneath the alley between the Navistar and former WCL sites appears most likely to be a historical release in the area of the former WCL excavation.
- There appear to be two separate plumes of chlorinated compounds in the Investigation Area. One plume appears to originate upgradient of the McGlenn property. Based on information in WDNR files, possible sources of the upgradient

plume include Alloy Products Company and the Akerman, Inc., property. Heale Manufacturing Co. and Cooper Power Systems may also be sources; however, there is no current file documentation for solvents having been present at these site. The other plume appears to originate from the area of the UST removal at the western outside wall of the former WCL building in association with solvent-impacted oil at the former WCL property.

- The plume of chlorinated compounds beneath the former WCL property and Navistar property appears to be descending into the deeper rock, as evidenced by higher concentrations in downgradient piezometers MW-19 and NPZ-2, than in nearby shallower wells. These higher concentrations in the piezometers may be due to a descending plume.
- Groundwater flow and VOC migration are controlled by a northwestward-trending fracture set, a regional higher permeability zone that may be present within the aquifer, and the northward hydraulic gradient in the deeper bedrock. VOCs appear to be migrating northwestward toward the drawdown induced in the Niagara Formation by a quarry located about 1 mile to the northwest.
- The vertical and downgradient horizontal extents of both solvent plumes extend beyond the limits of the monitoring well network in the Investigation Area. However, dewatering associated with several large quarries located approximately 4,000 feet north of the site apparently controls the groundwater flow direction and discharge in this area and limits potential exposures. Therefore, off-site plume delineation would not impact the evaluation of source control remedies discussed in Section 5.

3.10.5 Potential Upgradient Sources

- Alloy Products Corporation (1045 Perkins Avenue) has had historical operations and practices that may have released solvents to groundwater, although no evidence of solvent releases is present in WDNR files.
- Ackerman, Inc. (1005 Perkins Avenue), has had documented evidence of TCE and TCA in groundwater.

Section 4
Preliminary Evaluation of Risk

The preliminary evaluation of risk is based on the potential for exposures to impacted soil, groundwater, and surface water as defined by the water quality data obtained in the spring and fall of 1998; the groundwater flow direction data collected in 1996 and 1998; the soil data obtained during the various investigations performed at the sites in the Investigation Area; and the information on public and private groundwater use obtained from the US Geological Survey, the WDNR, and the city of Waukesha. The volatilization of TCE and TCA from the water table into ambient air was calculated using default criteria in the ASTM Risk Based Corrective Action model (ASTM, 1995; spreadsheet model by GSI, 1997) and found to be less than the USEPA Region 3 ambient air values (USEPA, 1998). Therefore, this pathway has not been evaluated further.

4.1 Human Exposures to Groundwater

There is a theoretical potential for human exposures to contaminants via the use of VOC-impacted groundwater downgradient of the Investigation Area and incidental contact with the ornamental spring present in Frame Park. The primary risk to humans would be associated with the use of private water supply wells in the Niagara dolomite downgradient of the Investigation Area. The theoretical potential for human exposures through well use is apparently not realized due to the presence of the quarry described in Section 3 of this report. This conclusion is developed in the following paragraphs. The risk related to incidental contact with water from the Frame Park spring is also discussed.

According to available well logs obtained from state and federal agencies, several private and commercial/industrial water supply wells may remain in use approximately 0.7 mile northwest (and potentially downgradient) of the Investigation Area as shown on Figure 3 (additional mapping and logs are provided in Appendix N). All of the wells included in the files are located outside of the city of Waukesha, in the town of Pewaukee. These well locations are approximate; for many logs, the well is located only to the nearest ¼-section and no attempt was made to field-check locations where street addresses are provided. Wells 15, 16, 17, and 33 were all described as being for residential use when they were installed between 1947 and 1963. The 1995 aerial photograph used as the base map for Figure 3 no longer shows residences in the area in which the wells were reportedly installed. The area is apparently being redeveloped. It is very likely that these wells were taken out of service when the homes were removed.

Waukesha Food Source, located about 2,000 feet north of the Investigation Area, is within the Waukesha city limits. It has historically maintained a well on their property, but no log for this well was found in WDNR files. The current status of the well is unknown, but the well was reported to be over 1,500 feet deep and not connected to the shallow Niagara dolomite (personal communication, Mr. Jim Held, Waukesha Water Utility, 1999). According to Mr. Held, the facility connected to city water in the fall of 1998. Therefore, it is very unlikely that there was ever a potential for human exposures.

Well number 14 was installed into the shallow bedrock aquifer in 1953 for the Wisconsin Electric Power Co. It is not known what use was (or is) made of the water at this location. Based on the work completed by Simon Hydro-Search (SHS, 1994a), horizontal gradients in the aquifer at the Cooper Power Systems facility to the east (Figure 3) are to the east. This would put well number 14 in a different flow system from that found beneath the Investigation Area. It therefore has no potential to be adversely affected by the VOCs found beneath the Investigation Area.

At least five residential wells and three commercial or industrial wells have been installed into the dolomite aquifer in the vicinity of Badinger Road (Figure 3). Groundwater flow rates of 1,200 feet per year, as calculated for the Investigation Area, are sufficient to potentially have transported VOCs from the site to these wells. However, the presence of the quarries immediately to the east of the wells should cut off the migration pathway between the Investigation Area and the wells. As described by Gonthier (1975), the quarries will produce a cone of depression in the dolomite aquifer potentiometric surface. The gradient to the west of the quarries will therefore be to the east and the Badinger Road wells will not be downgradient of the Investigation Area.

The municipal water-supply wells described in Subsection 3.1 of the report are not located within the area of expected downgradient migration of the VOC plume. In addition, the wells all withdraw groundwater from below depths of 400 to 500 feet below ground surface. At these depths, the water supply well intakes are expected to be separated from the dolomite aquifer in which the VOCs are found by the Maquoketa shale, a regional aquitard (Gonthier, 1975).

The City of Waukesha requires that all new construction within the city limits be connected to available city water service unless a variance is obtained from the City (personal communication, Mr. Jim Held, Waukesha Water Utility, 1999). Older homes that may have had wells prior to the date of the ordinance were allowed to keep their wells at the property owner's discretion. The Waukesha Water Utility identifies the presence of such wells (when known) through a metering system for wastewater billing purposes. The City identifies one such well at 1020 Moreland Boulevard (well number 1 on Figure 3 and in Appendix N). The city reports that the well was installed in 1900. No other information is known about the well

or its continued use. The well, if present and if deep enough to be in the bedrock, is not within the apparent path of VOC migration in the bedrock aquifer.

The City of Waukesha municipal water supply wells are located to the southeast and southwest of the Investigation Area. None of the wells are within the path of anticipated VOC migration in the dolomite aquifer. In addition, all of the municipal wells are cased through the confining Maquoketa shale and draw water from deeper aquifers. The Maquoketa shale is a low-permeability formation that is expected to provide a barrier to the vertical migration of impacted groundwater. The municipal water supply is therefore not expected to be at risk from impacted groundwater in the shallower dolomite aquifer.

4.2 Human and Ecological Exposures to Surface Water

Possible human and ecological exposures are associated with contact with water in the quarries and the ornamental spring in Frame Park. As noted in Section 3 of this report, the VOC impacts of the spring originate with the McGlenn plume rather the WCL plume that is found below the former WCL and Navistar properties. The spring is included in this section of the report for the potential consideration of the WDNR and other interested stakeholders.

The operations of the quarries to the north of the Investigation Area have not been evaluated. It is not known how groundwater that flows into the quarry bottoms is collected and managed. Based on observations made in similar settings, it is expected that the groundwater that is not lost directly to the atmosphere by evaporation from the quarry walls collects in ponds or sumps constructed at the lowest elevations of the quarries. If the concentrations observed between 1991 and 1998 are equivalent to the highest concentrations that were ever present, the concentration of VOCs in the plume by the time the quarries are reached would be less than what is observed in the Investigation Area due to physical, chemical, or biological attenuation processes that are probably occurring in the aquifer. The magnitude of such reduction, however, cannot be estimated on the basis of the available data. The VOC-bearing water from the site would make up only a small fraction of the potential inflows to the quarry, resulting in a large amount of dilution of any impacted water that may be present. Precipitation and storm water inflows that collect within the quarry would also contribute to the dilution of VOC concentrations. Water that collects in quarries is commonly removed by pumping. The pumped water could be reused in other quarry operations (i.e., stone washing, dust control, concrete production) or discharged to the Fox River.

Potential exposures to VOCs that may migrate into the quarries would be limited to workers who could come into contact with the water. Such contact is likely to be infrequent and of short duration. Incidental ingestion and dermal adsorption are the two most likely pathways that could result in a human exposure. The area would not be enclosed and exposure through

inhalation of VOCs that partition to the atmosphere is expected to be insignificant. Although not quantifiable with the available data, under the scenario described above, it is likely that the potential exposures in the quarries would not result in significant risks to the workers.

There are no direct ecological exposures associated with groundwater. Such exposures could occur where groundwater discharges to the surface of the earth. The VOC plume found beneath the former WCL and Navistar properties is not expected to discharge to the nearby Fox River because of the flow conditions in the aquifer resulting from the operations of the quarries.

There is no readily available gauging information on the Fox River elevation near the site. SHS (1994a) estimated the river stage in the pool behind the dam at Barstow Street to be about 810 feet. Extrapolation of the horizontal gradient observed in the aquifer beneath the Investigation Area (0.003) across the 1,000 feet to the river suggests that the head in the aquifer would be approximately equal to the river water level. Under these conditions, the VOC plume would not discharge into the river. With further VOC migration to the north, the effects of the quarry on the aquifer would become even more pronounced and there would be even less opportunity for the VOC plume to enter the river.

It is assumed that there would be no consequential ecological exposures within an active quarry. If groundwater were to be pumped from the quarry to the river, the same mechanisms that reduce the potential human exposure concentrations would apply to potential ecological exposures in the river. In addition, dilution of the quarry discharges in the river would result in even further dilution and losses by volatilization. Since the observed groundwater concentrations at the downgradient edge of the Investigation Area are generally less than the ecotoxicological benchmark values cited earlier (Suter and Mabrey, 1994), the diluted concentrations that may be present at the quarry would not be expected to pose adverse ecological risks.

Frame Park is a public park located between the Fox River to the west, Whiterock Avenue to the east, Moreland Avenue to the north, and Barstow Street to the south. The park is about 100 to 300 feet to the west of the Navistar property. The spring is approximately 5 feet in diameter, 2 feet deep, and surrounded by a low (less than 1-foot high) wall and sidewalk. Water from the spring is routed by a subsurface pipe to a stream/storm water discharge that enters the park through a grated opening to the southeast of the spring.

The spring is accessible to park visitors, although it is not intended as a source of water for drinking, swimming, or wading. Any actual contact with spring water is therefore expected to be very infrequent and of short duration as a result of accidental contact through falls or possibly someone stepping over the wall and wading in the spring pool. Potential routes of human exposure in such a setting would be through dermal contact and incidental ingestion.

Exposure through inhalation of VOCs as a result of volatilization from the water surface in the pool is not expected to be significant because the spring is not enclosed by any type of structure. Given possible infrequent exposures of short duration, the concentrations of VOCs observed during the one sampling of the spring are not likely to pose significant risks to human health. More detailed evaluation of possible risk is left to the discretion of the WDNR, the parties responsible for the VOC contamination, and other interested stakeholders.

During a single brief visit in November 1998, no macrovertebrates were observed in the spring. The spring water discharges to the nearby stream/storm water channel and then flows to the Fox River. Samples have not been collected from the nearby stream or the Fox River. However, there would be significant dilution as the spring discharges to the stream and the stream then discharges to the river. Once in the stream, volatilization of the VOCs to the atmosphere (with subsequent dilution and photodegradation) would further reduce the VOC concentrations in the surface water. Ecotoxicological screening benchmark concentrations for aquatic biota have been proposed by Suter and Mabrey (1994) as follows:

- TCE (5,758 µg/L for fish)
- TCA (2,457 µg/L for fish and 1,300 µg/L for daphnids)
- 1,2-DCEs (5,719 µg/L for fish)
- 1,1-DCE (447 µg/L for fish)
- 1,1-DCA (1,259 µg/L for fish)

These concentrations are well above what was observed in the spring. The safety factor is even greater when compared to the lower VOC concentrations that would be expected after mixing in the nearby surface water. This suggests that there is likely little concern for ecological risks associated with the spring water. As with the human health risk, more detailed evaluation of possible risk is left to the discretion of the WDNR, or parties responsible for the VOC impacts.

4.3 Soil

The former WCL and Navistar properties are currently used for industrial activities and there is no expectation that the site would be used for anything but industrial purposes in the future. Any potential exposures are therefore limited to workers on the properties.

The existing data indicates that subsurface soil contains only low concentrations of VOCs, except for one soil sample of foundry sand fill at boring NMW-2. Since most of the Investigation Area is paved or covered by buildings (including the NMW-2 location), there is little potential for routine worker exposure to soil by direct contact and therefore little risk to humans from direct contact with soil. Likewise, because unsaturated soil is not impacted, there is little risk of vapor migration. Future construction activities that could include excavation in

the area of NMW-2 on the WCL property have the potential to create exposures for the workers handling the soil. The degree to which such future construction could pose a risk is dependent upon the remaining VOC concentrations at the time of construction, the nature of the construction activity, and the degree to which worker protection methods are employed during the construction. Such an assessment would be appropriate if and when such activity is planned.

As noted previously, the area is used for industrial purposes and most of the area is covered by pavement and building. Potential ecological exposures in such a setting are expected to be insignificant.

Section 5
Preliminary Identification of Remedial Options

5.1 Basis for Remedial Approach

The continuing groundwater standard exceedences within the Investigation Area require a response consistent with Table 6 of WAC NR 140 Groundwater Quality regulations. Since the historical source area in the unsaturated soil has already been removed, the remedial strategies developed for the site are focused on groundwater. Furthermore, remedial options have been focused on groundwater within the former WCL and Navistar property boundaries for the following reasons:

- The VOC migration in the area's dolomite aquifer is of limited extent due to control by dewatering in a large quarry located approximately 4,000 feet to the north of the site.
- There are no current human or ecological groundwater users in the area of the WCL plume downgradient of the Navistar/WCL property.
- Future human groundwater use in the area of the plume is restricted in the city of Waukesha.

The remedial alternatives have been developed based upon the conceptual model described in Subsection 5.2 and the remedial action goals developed in Subsection 5.3. The remedial technologies are reviewed in Subsection 5.4, and the technologies to be retained for future remedial alternative analyses under NR 722 are selected. Subsection 5.5 goes on to briefly describe how the technology could be applied to the site to achieve the stated remedial action goals.

5.2 Conceptual Model

The conceptual model for the site is based upon the information presented in Sections 1 through 4 of this Phase II Supplemental Site Investigation Report as well as the supporting and ancillary reports developed for the Investigation Area. The major features of the model as they affect this preliminary remedial options review are the following:

- Approximately 10 to 25 feet of sandy-clay fill and outwash overly the regional bedrock aquifer. The soil thickness increases to the west. The bedrock surface slopes to the west from an elevation of about 825 feet beneath the Navistar building to 810 feet at the west property line. The water table is in the rock in the vicinity of the former WCL building and the Navistar building and is several feet above the bedrock at the downgradient (western) property line.

- Groundwater in the bedrock flows to the northwest. The hydraulic conductivity of the rock is assumed to be 0.1 cm/s, and the effective porosity is assumed to be 0.05. The observed hydraulic gradient is 0.003. The conductivity is assumed to result from secondary porosity in the form of fractures, joints, and bedding plane partings.
- Past remedial actions on the former WCL property included UST removal and the excavation and off-site disposal of about 4,420 tons of soil from the area of the former UST. The source area was the area of the UST excavation in the former WCL property. No significant concentrations of contaminants have been found to date in unsaturated soil or rock with the exception of a very thin layer of LNAPL in one monitoring well that contains on the order of 50,000 µg/L of chlorinated solvents. The excavation was filled with clean soil. The LNAPL is found in a monitoring well within the filled excavation and appears to be originating from beneath the former WCL building.
- In general, concentrations of volatile organic compounds (VOCs) in groundwater have decreased by about one-half order of magnitude between early 1996 and early 1998. Total VOC concentrations in early 1998 ranged from 50 to 3,000 µg/L.
- The VOCs of concern in groundwater include chlorinated ethenes and chlorinated ethanes. The specific compounds and their current approximate high concentrations include the following chemicals:
  - Trichloroethene (TCE) 1,500 µg/L
  - cis-1,2-Dichloroethene (cis-1,2-DCE) 150
  - Chloroethene (CE) 10
  - 1,1,1-Trichloroethane (TCA) 500
  - 1,1-Dichloroethene (1,1-DCE) 50
  - 1,1-Dichloroethane (1,1-DCA) 20
- Biodegradation of the chlorinated chemicals has occurred and may still be occurring based on the presence of the degradation products of the parent solvents assumed to have been released in the Investigation Area (TCE and TCA).

5.3 Remediation Goals

The primary remediation goal is to mitigate any continued off-site migration of VOCs in the groundwater in excess of NR 700 site closure requirements. The secondary remediation goal is to remediate on-site groundwater to the extent necessary to meet NR 700 closure requirements. Should a source(s) of the VOCs be identified in the unsaturated soil or rock, source remediation will also be a secondary remediation goal. These goals are based upon the following two assumptions:

- Groundwater is the only media of concern. Contaminants that may be present in unsaturated or saturated rock and saturated soil are only of concern as a possible long-term source of VOCs to the groundwater.

- Only groundwater within the limits of the Navistar and former WCL properties is considered in this options analysis. The VOCs in groundwater are expected to extend to the quarries located about 4,000 feet beyond the property line and are not expected to result in current or future human or ecological exposures that would result in significant risks. Remedial options for groundwater beyond the former WCL and Navistar properties are therefore not included in the following discussions.

5.4 Overview of Remedial Alternatives

In order to meet the primary remediation goals most cost-effectively, a review of applicable technologies was conducted. The groundwater remediation technologies were separated into containment options and on-site plume remediation options. The containment options focused on controlling the migration of impacted groundwater. The on-site plume remediation approach involved focused treatment of the more highly concentrated plume on site to remove the continued source of VOCs.

Institutional controls will also need to be incorporated into the overall plan. The continuation of currently promulgated City rules regarding groundwater development beyond the Investigation Area is a key feature of the management of the downgradient VOC plume. In addition, groundwater use and/or deed restrictions may be appropriate within the former WCL and Navistar properties.

Seven technologies were considered in detail for this facility. As stated earlier, these technologies focus on remediation of groundwater only. Based upon an initial review, one containment and two plume remediation technologies were retained for more in-depth assessment. These three technologies are as follows:

- Containment by hydraulic control (pumping)
- Plume remediation by engineered biodegradation
- Plume remediation by air sparging/soil vapor extraction

When considering the retained plume treatment technologies, it must be recognized that the primary remedial goal may be more effectively met if these technologies were performed in conjunction with hydraulic containment.

5.5 Discussion of Retained Remedial Technologies

5.5.1 Containment by Hydraulic Control

The remedial objective of mitigating off-site contaminant migration is met by this alternative through active control of the migration of impacted groundwater.

Groundwater recovery and treatment is a proven technology for hydraulic control at sites where groundwater remediation is required. The process can also provide some mass removal from the aquifer to the extent that chemicals of concern are dissolved in the water. Groundwater recovery at the site would be accomplished by using one or more recovery wells at the downgradient property boundary. The well(s) would be equipped with pumps and automatic controls to extract impacted water.

Pumped groundwater typically needs to be treated to specified concentrations prior to being discharged. The level to which groundwater is treated depends on the discharge options available. Discharge options applicable to this site include reuse of the groundwater in the foundry processes; discharge to the Waukesha Publicly Owned Treatment Works (POTW); or discharge to the storm sewer. Depending upon allowable VOC concentrations, pretreatment may not be required. Typical VOC removal processes such as air stripping or carbon adsorption could provide the pretreatment, if necessary.

Preliminary estimates of emission rates for VOCs and hazardous air pollutants indicate that construction permits under the air pollution control regulations will not be required. The estimates further suggest that compliance with emission limits of WAC Chapters NR 419 (VOC emission limits) and NR 445 (emission of hazardous air pollutants) can be achieved without the use of add-on emission control systems. If off-gas treatment is required, carbon adsorption, thermal oxidation or catalytic oxidation, may be needed. In accordance with WDNR requirements, the emissions from a full-scale remediation system must be monitored on a monthly basis for the duration of its operation to ensure compliance with NR 419 and NR 445. A key issue with this alternative is that the duration of treatment cannot de predetermined and the remediation costs must consider long-term operation.

5.5.2 Plume Remediation by Engineered Bioremediation

This alternative is intended to meet the remediation goal by actively reducing the mass of VOCs present in the on-site plume and sorbed to the aquifer matrix. This alternative may be combined with hydraulic containment.

Engineered bioremediation consists of stimulating the naturally occurring bacteria to degrade dissolved-phase chlorinated solvents in an anaerobic environment (in the absence of oxygen). The technology is relatively new, and consequently, a limited number of successful field applications are documented to date. However, the number of successful bench-scale applications has increased over the past few years.

The anaerobic biodegradation of chlorinated solvents can occur by a process known as reductive dehalogenation. This process is an oxidation-reduction reaction consisting of the oxidation of an electron donor (an organic substance such as naturally occurring carbon compounds or petroleum hydrocarbons) and the reduction of an electron acceptor (chlorinated solvents and their breakdown products in this case) by the replacement of a chlorine atom with a hydrogen atom. Various electron donors, such as methanol, lactate, acetate, and propionate, have been shown to support the engineered reductive dehalogenation of TCE and TCA and their respective breakdown products.

The delivery system for this alternative would consist of injection wells, a chemical metering pump, small diameter piping or rigid tubing running below the ground to the wells, a quantity of chemicals as described above, and two relatively small mixing tanks. If a pressurized water source is not available for continuous use during injection periods, an additional injection pump may be required. The equipment can be placed in an equipment storage shed near the injection wells.

Injection would likely take place in a phased approach based on monitoring results. That is, following injection of the electron donor solution, groundwater would need to be monitored in selected wells for VOCs and several key natural attenuation parameters, such as dissolved oxygen, nitrate, sulfate, iron, methane, chloride, carbon dioxide, alkalinity, redox potential, pH, and conductivity. Further injections would be conducted in the time frames and locations indicated by evaluation of the monitoring data.

The effectiveness of engineered bioremediation, like most *in situ* alternatives, is highly dependent on the hydrogeologic characteristics of the aquifer. Aquifer permeability dictates the efficiency with which the solution can be delivered to, and mixed within, the aquifer at a given radius from the injection well. This affects injection-well spacing, particularly in the axis perpendicular to the direction of natural groundwater flow and the rate of injection.

Initial VOC concentrations, the volume of the area to be treated, and the mass of VOCs sorbed to the soil matrix are parameters that affect the success and duration of this

alternative. A pilot test (initial injection data) would be necessary to evaluate the effectiveness and estimate the likely duration of treatment.

5.5.3 Plume Remediation by Air Sparging/Soil Vapor Extraction

This alternative also meets the remediation goal by actively reducing the mass of VOCs in the source areas. The remedial approach may also be combined with hydraulic containment.

Soil vapor extraction (SVE) is the process by which VOCs are removed from unsaturated soil or fractured rock by using forced or drawn air currents. VOCs are transferred from the soil or rock matrix into the air under vacuum and are recovered or exhausted to the atmosphere. A common configuration for an SVE system consists of a vacuum blower connected by a manifold system to one or more SVE wells installed in the zone of impacts. The SVE wells may be oriented either vertically or horizontally, depending on the depth to groundwater. Airflow meters, flow control valves, and sample ports are incorporated into the design to facilitate airflow balancing and to assess system efficiency.

Air sparging (AS) is the *in situ* process by which compressed ambient air (or other clean gases) is injected into the saturated zone of contamination to promote *in situ* stripping of VOCs. A secondary objective of air sparging is the addition of dissolved oxygen to enhance aerobic biodegradation of certain VOCs, such as petroleum hydrocarbons and some chlorinated VOCs. An SVE system in the unsaturated zone would be used in conjunction with air sparging to recover the organic vapors released from the unsaturated zone.

The SVE exhaust emissions can result in emitting VOC concentrations higher than WDNR atmospheric emission limits. Therefore, off-gas treatment, such as carbon adsorption, thermal oxidation, or catalytic oxidation, may be needed to reduce VOC emissions. In accordance with WDNR requirements, the emissions from a full-scale remediation system must be monitored on a monthly basis for the duration of its operation to ensure compliance with NR 419 (VOC emission limits) and NR 445 (emission of hazardous air pollutants).

Typically, a pilot test is conducted to confirm the feasibility of AS/SVE and to establish the design criteria for a full-scale AS/SVE system. The results of the pilot test would be used to determine the location and orientation of the AS/SVE wells, provide the necessary data to size the system components, and to estimate contaminant removal rates and exhaust emission concentrations.

SVE is a proven technology for removal of VOCs from unsaturated soil and unsaturated fractured bedrock. SVE would be effective at remediating soil impacted with VOCs such as the those found in the surface soil at the site. However, a large fraction of the VOC impacts occur in the underlying bedrock below the water table. AS would be used in the bedrock to partition VOCs to the vapor phase, and the SVE system would collect the vapors. Air sparging is a proven technology for remediation of VOCs in unconsolidated aquifers. However, it is difficult to estimate the effectiveness of the AS portion of this alternative due to the uncertainties associated with air migration in water-saturated fractured rock. It is most often implemented in unconsolidated soil materials and has not often been implemented in fractured bedrock, although this application is theoretically viable.

Section 6
References

ASTM, 1995. Standard guide for risk-based corrective action applied to petroleum release sites. American Society for Testing and Materials, publication E1739-95, November 1995.

EDR, 1998. Navistar International, 1401 Perkins Avenue, Waukesha, WI 53186; Inquiry Number: 320760.1s. Environmental Data Resources, Inc. December 15, 1998.

ESC, 1998. 1997 annual report - Groundwater monitoring program, Cooper Power Systems, North Street Facility, Waukesha, Wisconsin. Earth Sciences Consultants, Inc., February 1998.

Foley F.C., W.C. Walton, W.J. Drescher, 1953. Ground-water conditions in the Milwaukee-Waukesha Area, Wisconsin. Geological Survey Water-Supply Paper 1229. United States Department of the Interior, Geological Survey, in cooperation with the University of Wisconsin.

Freeze, R.A. and J.A. Cherry, 1979. Groundwater. Prentice Hall: Englewood, NJ. 604 pp.

GAS, 1992. Initial site assessment, extent of contamination and remediation progress report at Wisconsin Coach Lines, Inc. Waukesha, Wisconsin. Graef, Anhalt, Schloemer & Associates, Inc. July, 1992.

Gonthier, Joseph B., 1975. Ground-water resources of Waukesha County, Wisconsin. United States Department of the Interior Geological Survey, in cooperation with the University of Wisconsin - Extension, Geological and Natural History Survey.

GSI, 1997. Tier 1 and 2 RBCA spreadsheet system, Version 1.0.1. Groundwater Services, Inc.

HNTB Corporation, 1994. Revised Phase II Environmental Assessment, State Trunk Highway 164, Waukesha, Wisconsin. June, 1994.

Jansen, John R., 1995. Ground water exploration by the combined use of fracture trace analysis and azimuthal resistivity in the Silurian dolomite aquifer of eastern Wisconsin. Ph.D. Dissertation at the University of Wisconsin - Milwaukee.

MES, 1997. Limited Phase II environmental site assessment, Perkins Street property, Waukesha, Wisconsin. Prepared for McGlenn Partnership. Midwest Engineering Service, Inc. January 29, 1997.

Pankow, J.F. and J.A. Cherry, 1996. Dense chlorinated solvents and other DNAPLs in groundwater. Waterloo Press: Portland, OR, 522 pp.

Personal communication Mr. Jim Held, Waukesha Water Utility and Kathy Huibregtse, RMT, January 13, 1999.

Personal communication Mr. Gene Strizak, Waukesha Water Utility and Kathy Huibregtse, RMT. February 10, 1999.

RMT, 1993. Preliminary groundwater investigation at the Navistar International Transportation Corporation casting facility, Waukesha, Wisconsin. Prepared by RMT, Inc. Madison, Wisconsin, April 1993.

RMT, 1996. Supplemental soil and groundwater quality investigation for the Navistar International Transportation Corporation casting facility in Waukesha, Wisconsin. Prepared by RMT, Inc. Brookfield, Wisconsin, September 1996.

RMT, 1997. Subsurface investigation report for the Tecumseh Products Company Grafton Operation. April 1997.

RMT, 1998a. Phase II supplemental site investigation work plan, Navistar International Transportation Corporation Waukesha facility. Prepared by RMT, Inc. Brookfield, Wisconsin, March 1998.

RMT, 1998b. Attachment A Phase II Supplemental Site Investigation Work Plan Addendum 2.0, October 1998.

Schneider, A.F., 1983. Wisconsinan stratigraphy and glacial dequence in southeastern Wisconsin, in D.M. Mickelson and L. Clayton (eds). Late Pleistocene history of southeastern Wisconsin. Wisconsin Geological and Natural History Survey, Geoscience Wisconsin, Vol. 7, p. 59-85.

SHS, 1994a. Subsurface investigation, Cooper Power Systems, North Street Facility, Waukesha, Wisconsin. Simon Hydro-Search, January 1994.

SHS, 1994b. Report on additional sampling, Cooper Power Systems, North Street Facility, Waukesha, Wisconsin. Simon Hydro-Search, October 1994. Trotta L.C. and R.D. Cotter, 1973. Depth to Bedrock in Wisconsin. University of Wisconsin - Extension, Geological and Natural History Survey, in cooperation with the United States Geological Survey.

Suter G. W., II, and J. B. Mabrey, 1994. Toxicological benchmarks for screening potential contaminants of concern for effects on aquatic biota: 1994 revision. Oak Ridge National Laboratory, US Dept. of Energy, Report No. ES/ER/TM-96/R1.

Trotta, L.C. and R.D. Cotter, 1973. Depth to bedrock in Wisconsin (map). University of Wisconsin Extension.

USEPA, 1994. USEPA contract laboratory program, national functional guidelines for organic data review. Publication 92401-23; EPA/540/R/94/090; PB95-963519. December 1994.

USEPA, 1998. Risk-based concentration table. United States Environmental Protection Agency Region III, Jennifer Hubbard, Superfund Technical Support Section (3HS41). April 1, 1998.

WDNR, 1991. Leaking underground storage tank (LUST) and petroleum analytical and quality assurance guidance. PUBL-SW-130-91. June 1991.

Table 1
Summary of Soil Geotechnical Data
Navistar International Transportation Company
Waukesha, Wisconsin

Soil Sample Location	Material Description (USCS Classification)	Liquid Limit	Plastic Limit	% Gravel	% Sand	% Silt	% Clay	Interpreted Origin
SB-2 (11-13')	Silty sand with gravel (SM)	NV	NP	26.4	38.6	29.5	5.5	Till or Outwash
SB-7 (9-11')	Silty gravel with sand (GM)	NV	NP	47.7	36.9	11.7	3.7	Till or Outwash
SB-9 (9-11')	Silty gravel with sand (GM)	NV	NP	44.4	30.9	20.2	4.5	Till or Outwash
SB-15 (11-13')	Silty sand with gravel (SM)	NV	NP	26.4	44.0	23.7	5.9	Fill

Notes:
NP = nonplastic
NV = no value (unsaturated)

Table 2
Monitoring Well Construction Details
Navistar International Transportation Company
Waukesha, Wisconsin

Well ID	Type of Well	Well Installation Date	Reference Elevation (ft, MSL)	Ground Surface Elevation (ft, MSL)	Top of Bedrock (ft, MSL)	Depth to Bottom	Bottom of Screen (ft, MSL)	Top of Screen (ft, MSL)	Primary Saturated Screened Formation	Hydraulic Conductivity (cm/sec)
McGlenn Site Wells										
MES MW-1	Water Table	1996?	831.92	828.9		20.8	811.1	821.1		
MES MW-2	Water Table	2/7/96	832.46	829.5	816.5	21.0	808.6	818.6	Bedrock	
MES MW-5	Water Table	3/21/96	833.64	831.2	820.2	13.9	820.1	825.2	Surficial	
KEY MW-2	Water Table	1994/1995	833.43	830.4		15.7	817.7	827.7		
KEY MW-3	Water Table	1994/1995	833.59	831.1		17.1	816.5	826.5		
KEY MW-4	Water Table	1994/1995	831.12	828.8		21.0	810.1	820.1		
SIGMA MW-01	Water Table	1992	831.36	829.0		12.4	819.0	829.0		
Navistar Site Wells										
NMW-1	Water Table	10/7/92	831.43	831.8	814.8	22.0	809.3	819.3	Bedrock	4.0E-04
NMW-2	Water Table	10/7/92	832.92	833.1	816.1	23.5	809.1	819.1	Bedrock	1.5E-04
NMW-3	Water Table	10/7/92	831.72	831.9	819.9	17.1	813.9	823.9	Surficial/Bedrock	2.9E-03
NMW-4	Water Table	10/5/92	839.85	838.0	823.0	20.1	819.5	829.5	Surficial/Bedrock	6.1E-03
NMW-5	Water Table	10/8/92	832.29	832.5	815.5	20.3	811.5	821.5	Surficial/Bedrock	1.8E-02
NMW-6	Water Table	10/8/92	831.85	832.1	817.1	20.6	811.1	821.1	Bedrock	2.3E-02
NMW-7	Water Table	3/21/96	831.71	831.9	817.9	22.8	808.4	818.4	Bedrock	
NMW-8	Water Table	3/22/96	831.10	831.5	811.5	24.5	807.5	817.5	Surficial/Bedrock	
NMW-9	Water Table	3/20/96	831.95	832.4	809.9	25.6	806.4	816.4	Surficial/Bedrock	
NMW-10	Water Table	5/16/96	832.33	832.7	824.2 / 818.7	24.6	807.7	817.7	Bedrock	
NMW-11	Water Table	5/17/96	832.39	833.1	822.1 / 818.1	24.4	808.1	818.1	Surficial/Bedrock	
NPZ-1	Piezometer	4/11/96	832.20	832.6	814.6 / 813.6	42.3	790.3	795.3	Bedrock	
NPZ-2	Piezometer	4/10/96	832.09	832.4	809.4	42.6	790.3	795.3	Bedrock	

Table 2 (continued)
Monitoring Well Construction Details
Navistar International Transportation Company
Waukesha, Wisconsin

Well ID	Type of Well	Well Installation Date	Reference Elevation (ft, MSL)	Ground Surface Elevation (ft, MSL)	Top of Bedrock (ft, MSL)	Depth to Bottom	Bottom of Screen (ft, MSL)	Top of Screen (ft, MSL)	Primary Saturated Screened Formation	Hydraulic Conductivity (cm/sec)
Wisconsin Coach Lines Site Wells										
MW-2	Water Table	3/22/91	833.55	833.8	Well too shallow	14.5	819.3	829.3	Surficial	
MW-11	Water Table	12/16/91	832.12	832.4	817.4	20.6	810.8	820.8	Bedrock	
MW-12	Water Table	12/17/91	832.09	832.3	815.7	22.5	808.3	818.3	Bedrock	
MW-13	Water Table	12/18/91	832.28	832.6	813.1	25.7	806.6	816.6	Bedrock	
MW-15	Water Table	3/10/92	831.85	832.4	809.5	25.3	805.4	815.4	Surficial/Bedrock	
MW-16	Water Table	3/11/92	831.63	831.9	811.4	26.4	804.9	814.9	Surficial/Bedrock	
MW-19	Piezometer	3/13/92	831.97	832.4	814.9	42.6	789.4	794.4	Bedrock	

NOTES:

1. Reference elevation is the top of the PVC well casing
2. Top of PVC and ground surface survey performed by STS, Inc. on April 14, 1998, except for NMW-6 which was surveyed by RMT on 4/9/96.
3. Well NMW-4 is bent, reference elevation given is not representative of true reference elevation.
4. Well NMW-5 had product at a depth of 15.04 feet, and water at a depth of 15.07 feet.
5. Where two values are given for the top of bedrock, the first value is the top of weathered bedrock, the second value is the top of competent bedrock.
6. Well construction diagrams and boring logs were not available for MES MW-1, KEY MW-2, KEY MW-3, KEY MW-4, and SIGMA MW-01; screened interval is estimated based on depth to bottom of well.

Table 3
Summary of Water Level Data
Navistar International Transportation Company
Waukesha, Wisconsin

Well ID	Type of Well	Reference Elevation (ft, MSL)	Top of Bedrock (ft, MSL)	Depth to Bottom	Date	Depth to Water (feet)	Water Elevation (ft, MSL)	Formation of Water Table Occurrence
McGlenn Site Wells								
MES MW-1	Water Table	831.92		20.8	3/30/98	17.67	814.25	
MES MW-2	Water Table	832.46	816.5	21.0	3/30/98	17.85	814.61	Bedrock
MES MW-5	Water Table	833.64	820.2	13.9	3/30/98	9.35	824.29	Soil
KEY MW-2	Water Table	833.43		15.7	3/30/98	7.17	826.26	
KEY MW-3	Water Table	833.59		17.1	3/30/98	8.95	824.64	
KEY MW-4	Water Table	831.12		21.0	3/30/98	17.21	813.91	
SIGMA MW-01	Water Table	831.36		12.4	3/30/98	6.83	824.53	
Navistar Site Wells								
NMW-1	Water Table	831.43	814.8	22.0	3/30/98	17.00	814.43	Bedrock
NMW-2	Water Table	832.92	816.1	23.5	3/30/98	17.56	815.36	Bedrock
NMW-3	Water Table	831.72	819.9	17.1	3/30/98	8.87	822.85	Soil
NMW-4	Water Table	839.85	823.0	20.1	3/30/98	13.55	826.30	Soil
NMW-5	Water Table	832.29	815.5	20.3	3/30/98	15.04	817.25	Soil
NMW-6	Water Table	831.85	817.1	20.6	3/30/98	14.32	817.53	Soil
NMW-7	Water Table	831.71	817.9	22.8	3/30/98	15.31	816.40	Bedrock
NMW-8	Water Table	831.10	811.5	24.5	3/30/98	17.48	813.62	Soil
NMW-9	Water Table	831.95	809.9	25.6	3/30/98	18.06	813.89	Soil
NMW-10	Water Table	832.33	824.2 / 818.7	24.6	3/30/98	10.61	821.72	Weathered Bedrock
NMW-11	Water Table	832.39	822.1 / 818.1	24.4	3/30/98	8.60	823.79	Soil
NPZ-1	Piezometer	832.20	814.6 / 813.6	42.3	3/30/98	18.37	813.83	
					5/29/98	18.24	813.96	
NPZ-2	Piezometer	832.09	809.4	42.6	3/30/98	18.78	813.31	
					5/29/98	18.64	813.45	

Table 3 (continued)
Summary of Water Level Data
Navistar International Transportation Company
Waukesha, Wisconsin

Well ID	Type of Well	Reference Elevation (ft, MSL)	Top of Bedrock (ft, MSL)	Depth to Bottom	Date	Depth to Water (feet)	Water Elevation (ft, MSL)	Formation of Water Table Occurrence
Wisconsin Coach Lines Site Wells								
MW-2	Water Table	833.55	Well too shallow	14.5	3/30/98	7.44	826.11	Soil
MW-11	Water Table	832.12	817.4	20.6	3/30/98	17.41	814.71	Bedrock
MW-12	Water Table	832.09	815.7	22.5	3/30/98	17.48	814.61	Bedrock
MW-13	Water Table	832.28	813.1	25.7	3/30/98	17.75	814.53	Soil
MW-15	Water Table	831.85	809.5	25.3	3/30/98	17.96	813.89	Soil
MW-16	Water Table	831.63	811.4	26.4	3/30/98	17.82	813.81	Soil
MW-19	Piezometer	831.97	814.9	42.6	3/30/98	18.48	813.49	
					5/29/98	18.50	813.47	

NOTES:

1. Reference elevation is the top of the PVC well casing
2. Top of PVC and ground surface survey performed by STS, Inc. on April 14, 1998, except for NMW-6 which was surveyed by RMT on 4/9/96.
3. Well NMW-4 is bent, reference elevation given is not representative of true reference elevation.
4. Well NMW-5 had product at a depth of 15.04 feet, and water at a depth of 15.07 feet.
5. Where two values are given for the top of bedrock, the first value is the top of weathered bedrock, the second value is the top of competent bedrock.

Table 4

Summary of Chlorinated and Petroleum Constituents Detected in Soil Samples

Navistar International - Waukesha, Wisconsin

		µg/kg					mg/kg	
		Trichlorethene	cis-1,2-Di-chloroethene	Acetone	Carbon Disulfide	Methylene Chloride	DRO	GRO
NR 720 RCL		NE	NE	NE	NE	NE	100	100
Boring ID	Sample Depth (ft, bgs)							
SB-2	3-5'	100		<55	<25	<25	<4.2	<2.7
	5-7'	<25		<55	<25	<25	<4.2	<3.0
	13-15'	<25		<55	<25	<25	<3.9	<2.8
SB-3	3-5'	<25		<55	<25	<25	<4.5	<3.2
	7-9'	<25		<55	<25	<25	<4.6	<3.0
	13-15'	<25		<55	<25	<25	32**	<2.7
SB-4	5-7'	<25		<55	<25	<25	<4.6	<3.0
	9-11'	<25		<55	<25	<25	4.1*	<2.7
	13-15'	<25		<55	<25	<25	1200**	3.4*
SB-5	5-7'	<25		<55	<25	<25	<5.4	<3.3
	9-11'	<25		<55	<25	<25	<3.8	<2.6
	13-15'	<25		<55	<25	<25	1600**	<2.7
SB-7	7-9'	<25		120 QBfu	<25	<25	NA	NA
	13-15'	<25		170 Bfu	<25	<25	NA	NA
SB-8	7-9'	<25		160 Bfu	200 fu	<25	<5.3	<3.1
	11-13'	<25		210 Bfu	<25	<25	<4.3	<2.8
	15-17'	<25		150 Bfu	<25	<25	<3.8	<2.8
SB-9	5-7'	<25		290 Bfu	74 fu	<25	19	7.4
	9-11'	<25		180 Bfu	<25	<25	<3.9	<2.8
	13-15'	<25		140 Bfu	<25	<25	<3.8	<2.7
SB-10	5-7'	<25		210 Bfu	110 fu	<25	<4.2	<3.0
	7-9'	<25		190 Bfu	<25	<25	<4.0	<3.0
	11-13'	<25		130 QBfu	<25	<25	<3.6	<2.7
SB-12	3-5'	<25		<55	160 fu	<25	<4.5	<3.0
	7-9'	<25		<55	<25	<25	<4.6	<2.8
	11-13'	<25		<55	<25	<25	<3.7	<2.8
SB-13	7-9'	<25		<55	<25	33 Q	<4.0	<2.8
	11-13'	<25		<55	<25	30 Q	<4.3	<2.8
	15-17'	660		<55	<25	46 Q	<3.8	<3.0
SB-14	3-5'	<25		<55	<25	47 Q	<4.1	<3.1
	7-9'	<25		<55	<25	56 Q	<4.3	<3.0
	13-15'	<25		<55	<25	45 Q	<3.9	<2.9
SB-15	9-11'	<25		<55	<25	44 Q	<4.1	<2.8
	13-15'	<25		<55	<25	31 Q	110**	20*
SB-16	5-7'	<25		<55	<25	36 Q	47*	<2.9
	13-15'	<25		<55	<25	40 Q	<4.1	<2.7

Table 4

Summary of Chlorinated and Petroleum Constituents Detected in Soil Samples

Navistar International - Waukesha, Wisconsin

		µg/kg					mg/kg	
		Trichlorethene	cis-1,2-Di-chloroethene	Acetone	Carbon Disulfide	Methylene Chloride	DRO	GRO
NR 720 RCL		NE	NE	NE	NE	NE	100	100
Boring ID	Sample Depth (ft, bgs)							
SB-17	9-11'	<25		<55	<25	40 Q	5.3	<2.8
	13-15'	<25		<55	<25	48 Q	190**	<2.8
SB-18	5-7'	<25		150 Qfu	<25	<25	<4.5	<3.0
	9-11'	<25		170 fu	<25	<25	<4.2	<2.7
SB-19	5-7'	<25		140 Qfu	<25	<25	6.2	<2.9
	9-11'	<25		160 fu	<25	38 QBu	<3.9	<2.9
SB-20	7-9'	<25		<55	<25	34 QBu	NA	NA
	9-11'	<25		120 Qfu	<25	<25	NA	NA
SB-21	2-4'	<25	<25	1,500 Bu	<25	<25	<4.9	<3.1
	6-8'	<25	<25	1,200 Bu	<25	<25	10	<2.7
	12-14'	<25	160	1,200 Bu	<25	<25	<3.4	<2.8
SB-22	2-4'	<25	<25	1,500 Bu	<25	<25	<5.1	<3.5
	8-10'	<25	<25	1,200 Bu	<25	<25	<5.5	<2.7
	12-14'	<25	450	1,100 Bu	<25	<25	12	<2.7
SB-23	4-6'	<25	<25	1,400 Bu	<25	<25	<4.7	<3.1
	8-10'	<25	<25	1,200 Bu	<25	<25	6.0	<2.9
	12-14'	<25	<25	1,200 Bu	<25	<25	13	<2.9
SB-24	4-6'	<25	<25	1,400 Bu	<25	<25	<4.7	<3.1
	8-10'	<25	<25	1,200 Bu	<25	<25	<4.5	<2.7
	12-14'	<25	<25	1,200 Bu	<25	<25	<3.8	<2.8
SB-25	5-7'	<25	<25	1,300 Bu	<25	<25	<4.2	<3.0
SB-26	4-6'	<25	<25	1,300 Bu	<25	<25	<4.9	<2.9
	6-8'	<25	<25	1,100 Bu	<25	<25	4.4	<2.7

Notes:

The VOC analyses included the target compound list, however only the detected compounds are included in the table

Bold Indicates an exceedence of the NR 720 RCL.

Shading indicates a saturated soil sample.

Soil samples were not obtained from borings SB-1, SB-6, and SB-11.

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

B = Compound was detected in the laboratory method blank

f = Compound was detected in the field blank.

u = Compound was detected at less than 10 times the concentration in the associated laboratory method blank (B) for common laboratory contaminants, and is therefore qualified as non-detectable (u), according to USEPA data validation guidance (USEPA, 1994).

ft, bgs = feet below ground surface

NA = Parameter not analyzed

NE = Indicates NR 720 residual contaminant level not established for this compound

Q = Compound was identified by mass spectral evidence below the Quantitation Limit. Reported value is estimated.

RCL = Residual Contaminant Level

* = DRO or GRO confirmed as petroleum products based on chromatogram review.

(= DRO confirmed as petroleum product matching the product found floating in NMW-5.

Table 5
Summary of Constituents Detected in Groundwater
Navistart/McGlenn Property
Waukesha, Wisconsin

		Chlorinated Compounds											Petroleum Compounds						
Well ID	Date	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCA	1,2-DCA	Vinyl Chloride	Carbon Disulfide	Acetone	Methylene Chloride	Benzene	Toluene	Ethyl-benzene	Xylenes, Total	DRO	GRO	TRPH
NR 140 ES		5	200	7	70	100	850	5	0.2	1,000	1,000	5	5	343	700	620	NE	NE	NE
NR 140 PAL		0.5	40	0.7	7	20	85	0.5	0.02	200	200	0.5	0.5	68.6	140	124	NE	NE	NE
McGLENN SITE WELLS																			
Midwest Engineering Services Wells																			
MES MW-1	2/9/96	1.0																	
	3/31/98	0.45 Q			0.48 Q						9.6 fu			0.27 Q		0.79 Q	<100	<50	
MES MW-2	2/9/96	**2.4**	1.9		3.0				**5.3**										
	3/31/98	**4.7**	1.9		**10**		1.5		**19**	2.1 fu	6.3 Bfu		0.37 Q	6.5	2.9	20.9	1200*	52	
MES MW-5	3/22/96	**270**	**84**	**11**	**24**		16												
	4/3/96	**160**	**45**	**6.2**			13												
	3/31/98	**38**	11	**0.92 Q**	3.5		1.1										<100	<50	
Key Consultants Wells																			
KEY MW-2	9/22/94	**130**	36		**8.5**		8.7					**49**							
	3/22/96	**16**	12		**9.5**		2.1												
	3/31/98	**14**	35	**1.5**	**12**		3.5				4.2 fu						<100	<50	
KEY MW-3	9/22/94	**230**	**100**									**15**							
	3/22/96	**510**	**220**	**29**	**11**		17												
	3/31/98	**430**	**140**	**17**	6.2		13				8.1 Qfu	**4.8 Q**					<100	180	
KEY MW-4	9/22/94											**35**							
	2/9/96	**2.6**	2.4		1.0		1.6												
	3/31/98	**0.68 Q**			0.45 Q		0.46 Q		**0.52 Q**		7 fu				3.7	0.81	4800*	300*	
Sigma Wells																			
Sigma MW-01	3/31/98	**0.73 Q**									11 fu						130	<50	
Duplicate	3/31/98	**0.67 Q**									11 fu						310	<50	
NAVISTAR SITE WELLS																			
NMW-1	10/13/92	**750**	**560**									**67 B**					<100	530	<100
	12/18/92	**980**	**620**	**160**			11 J					100 Bu					<100	420	<100
	4/10/96	**870**	**300**	**29**			11												
	3/31/98	**930**	**350**	**32**			20				16 Qfu	8.2 QBu					<100	310	
NMW-2	10/13/92	**110 E**	35	**5.2**	**35**	12	3.9					**2.1 Bu**		2.5			<100	<100	<100
	12/18/92	**130**	19	**7.7**	**35**	13	2.3 J					19 Bu					<100	<100	<100
	4/10/96	**250**	32	**5.7**	**28**	6.4	4.4												
	3/31/98	**41**	18	0.61 Q	4.5	0.92 Q	2.3				3.0 Qfu						<100	<50	
NMW-3	10/13/92	**220**	**200**	11								30 Bu					<100	140	<100
	12/16/92	**200**	**60**	23 J								110 Bu					<100	<100	<100
	4/10/96	**200**	**60**	**6.7**	**11**	1.2	7.3												
	3/31/98	**110**	29	**3.4**	6.7	0.81 Q	4.8				5.1 fu						<100	<50	
NMW-4	10/13/92	**22**			3.0							1.5 Bu		4.4			<100	<100	<100
	12/16/92	**21**										8.7 Bu					<100	<100	<100
	4/10/96	**17**			2.0														
	4/1/98	**8.4**			1.2					1.1 fu	2.6 QBbfu						<100	<50	

Table 5 (continued)
Summary of Constituents Detected in Groundwater
Navistart/McGlenn Property
Waukesha, Wisconsin

		Chlorinated Compounds											Petroleum Compounds						
Well ID	Date	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCA	1,2-DCA	Vinyl Chloride	Carbon Disulfide	Acetone	Methylene Chloride	Benzene	Toluene	Ethyl-benzene	Xylenes, Total	DRO	GRO	TRPH
NR 140 ES		5	200	7	70	100	850	5	0.2	1,000	1,000	5	5	343	700	620	NE	NE	NE
NR 140 PAL		0.5	40	0.7	7	20	85	0.5	0.02	200	200	0.5	0.5	68.6	140	124	NE	NE	NE
NMW-5	10/13/92	910	370	86			25					26 Bu					4,200	1,700	2,400
	12/16/92	250	76	30 J	290		10 J					110 Bu					6,400	790	2,400
	4/10/96	590	110	30	470		28		94										
	4/1/98	200	27	16	140	2.4 Q	19	0.46 Q	58	1.2 fu	3.5 Bbfu						7000**	110	
NMW-6	10/13/92	7,900	2,300	580			120					2.5 Bu					3,800	4,300	2,500
	12/16/92	7,900	1,400	540								1,100 Bu					4,800	1,800	2,600
	4/10/96	12,000	1,500	260			150												
	4/1/98	2,900	410	70	48		38 Q				130bfu	24 QBu					1000**	1,100	
NMW-7	4/10/96	420	150	18			6.1												
	3/31/98	120	51	3.5	2.4		3.7				7.7 fu						450**	<50	
NMW-8	4/10/96	600	230	25			11												
	3/31/98	360	70	8.1	13		7.4				4.4 Qfu	2.0 QBu					<100	110	
NMW-9	4/11/96	1,000	160	21	200		20												
	3/31/98	210	19	1.7 Q	11		2.9				5.8 Qfu	2.4 Bu					<100	53	
uplicate	3/31/98	220	20	2.0 Q	12		3.0				6.6 fu	1.7 QBu					<100	53	
NMW-10	4/1/96	7,900	1,400	100	71														
	4/1/98	2,200	330	52 Q	50		28 Q					22 QBu					420	750	
NMW-11	4/1/96	4,600	1,000	81	84														
	4/1/98	50	8.6	2.9	82	1.1 Q	2.1	0.62 Q	1.7		4.9 Bbfu		2.1				330*	<50	
	1/11/99	630	99	15	50		9.6		2.0 Q		13 Qbu								
NPZ-1	4/11/96	1,400	370	42			23												
	4/2/98	160	33	5.0	51		10				3.5 fu						<100	54	
NPZ-2	4/11/96	1,900	250	44	90		31												
	3/31/98	1,300	160	31	17		26				15 Qfu	9.5 QB					<100	350	
WISCONSIN COACH LINE SITE WELLS																			
MW-2	4/10/91																		
	10/14/92											1.8 Bu							
	4/10/96																		
	4/1/98										3.1 QBbfu						180	<50	
Duplicate	4/1/98										5.9 Bbfu						<100	<50	
MW-11	12/23/91	110	56	1.2	12								130			160	<1,000		1,000
	1/28/92	360	180	260	64								150					1,200,000	<1,000
	10/13/92	560	230	67	280		22					17 B	290			38		1,200	
	4/10/96	1,700	200	32	180		29												
	4/2/98	550	57	7.0	36		8.8				14 Qbfu	3.1 QBu					170	160	
	11/11/98	1,200	110	16	110		20					25 Bbu					170	400	

Table 5 (continued)
Summary of Constituents Detected in Groundwater
Navistart/McGlenn Property
Waukesha, Wisconsin

		Chlorinated Compounds											Petroleum Compounds						
Well ID	Date	TCE	1,1,1-TCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCA	1,2-DCA	Vinyl Chloride	Carbon Disulfide	Acetone	Methylene Chloride	Benzene	Toluene	Ethyl-benzene	Xylenes, Total	DRO	GRO	TRPH
NR 140 ES		5	200	7	70	100	850	5	0.2	1,000	1,000	5	5	343	700	620	NE	NE	NE
NR 140 PAL		0.5	40	0.7	7	20	85	0.5	0.02	200	200	0.5	0.5	68.6	140	124	NE	NE	NE
MW-12	12/23/91	**210**	**150**	**23**	**86**								**51**				<1,000		1,000
	1/28/92	**450**	**390**	**88**	**380**				**100**				**1.3**					1,600,000	<1,000
	10/13/92	**1,100**	**310**	**140**	**1,300**							140 Bu						1,000	
	12/16/92	**680**	**240 J**	**78 J**	**790**							530 Bu						950	
	4/11/96	**2,600**	**490**	**71**	**600**		46												
	4/2/98	**580**	**91**	**15**	**140**		14		**1.7 Q**		15 Qbfu	2.8 QBu					370	180	
MW-13	12/23/91	**180**	**100**	**3.5**	**53**								**91**				<1,000		<1,000
	1/28/92	**410**	**300**	**66**	**240**								**38**					910,000	<1,000
	10/14/92	**1,100**	**300**			**58 J**						**240 B**						510	
	4/11/96	**2,500**	**420**	**58**	**300**		37												
	4/2/98	**390**	**53**	**5.8**	**66**	3.0 Q	8.7		**0.40 Q**		7.3bfu	1.3 QBu					300	130	
MW-15	3/16/92	**410**	**240**	**24**	**210**								**4.3**					470,000	<1,000
	10/13/92	**1,100**	**420**	**120**	**300**		28					28 Bu						830	
	4/11/96	**1,400**	**200**	**27**	**140**		23												
	3/31/98	**360**	39	6.1 Q	**28**		6.7					5.4 Qbu					<100	110	
MW-16	3/16/92	**490**	**320**	**39**														470,000	<2,000
	10/13/92	**350**	**120**	**31**	**7.7**							15 Bu						220	
	4/11/96	**540**	**99**	**9.4**	**8.4**		5.3												
	4/2/98	**990**	**140**	**23**	**35**		16				24 Qbfu	6.3 QBu					120	290	
MW-19	3/18/92	**480**	**220**	**33**	**22**													440,000	4,000
	10/14/92	**720**	**120**			16 J	17 J					100 Bu						250	
	4/11/96	**170**	12	**3.6**	4.7		2.1												
	4/2/98	**1,100**	**59**	**16**	**10**		22				37 fu	6.5 QBu					350	310	
	11/11/98	**1,700**	**110**	**25 Q**	**19 Q**		32					61 Bbu					<100	450	
Frame Park Spring	11/24/98	**350**	**110**	7.5	**15**		8.6				160 Bbu	1.4 Bbu					250	100	

Notes:

All concentrations are reported in µg/L.

A blank space for an individual compound indicates that the compound was analyzed for, but not detected above the laboratory Detection Limit.

A blank space for DRO, GRO, or TRPH indicates that these analyses were not performed.

Data from wells MES MW-1, -2, and -5 and from KEY MW-2, -3, and -4 prior to 1998 are from MES, 1997.

Data from WCL site wells prior to October 1992 are from GAS, 1992.

All other sampling events were conducted by RMT.

Bold = NR 140 PAL exceedence.

Bold = NR 140 ES exceedence.

DRO = diesel range organics.

E = Estimated value; analyte is above the calibration range.

ES = Enforcement Standard.

GRO = gasoline range organics.

NE = no NR 140 standard has been established.

PAL = Preventive Action Limit.

Q or J = compound was identified by mass spectral evidence below the Quantitation Limit. Reported value is estimated.

TRPH = total recoverable petroleum hydrocarbons.

b = compound was detected in the associated trip blank.

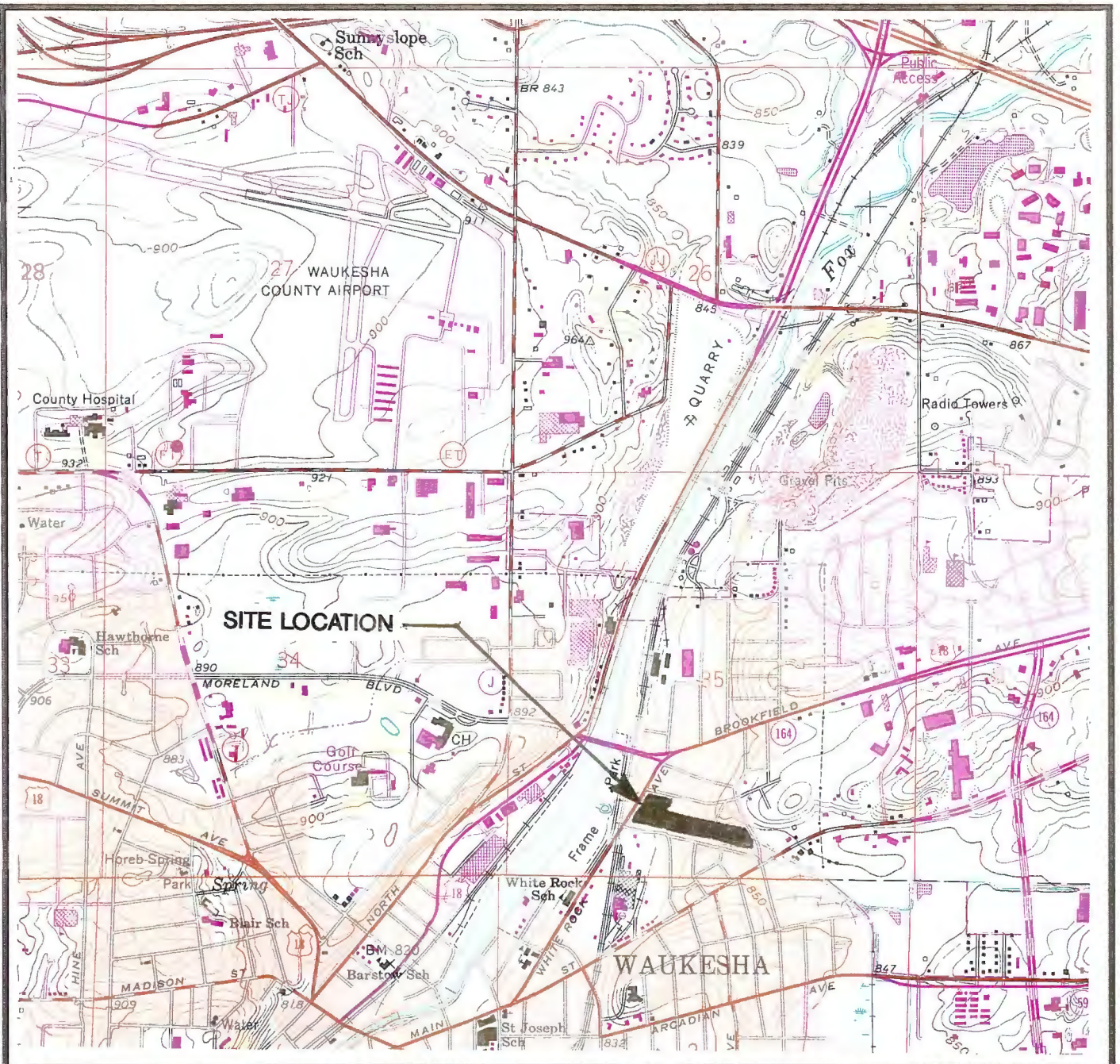
B = compound was detected in the associated method blank.

u = compound was detected at less than 10 times the concentration in the associated trip blank (b), and/or laboratory method blank (B), and is therefore qualified as nondetectable (u) according to USEPA data validation guidance (USEPA, 1994).

f = compound was detected in the associated field blank.

* = DRO or GRO confirmed as petroleum products based on chromatogram review.

** = DRO confirmed as petroleum product matching the product found floating in NMW-5.



STATE LOCATION

0 2000 4000

SCALE: 1"=2000'

N

SITE LOCATION MAP

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION WAUKESHA, WISCONSIN

SOURCE: BASE MAP FROM WAUKESHA, WISCONSIN 7.5 MIN. USGS QUADRANGLE, 1959, REVISED 1994.

RMT INC.

DWN. BY:	NOLDENR
APPROVED BY:	
DATE:	FEBRUARY 1999
PROJ. #	3777.06
FILE #	37770612.DWG

FIGURE 1

PLOT DATA:
Drawing Name: J:\03777\06\37770612.dwg
Operator Name: noldenr
Scale: 1"=1'
Dwg Size: 54425 Bytes
Plot Date: Thursday, February 4, 1999
Plot Time: 2:37.3465 PM
Attached Xref's: No xref's Attached.

RMT COMPUTER AIDED DESIGN & DRAFTING

Appendix A
Field Methods

Section A-1
Field Methods

1.1 Sampling Plan

1.1.1 Investigative Approach

A Geoprobe® was used for collecting discrete soil samples to evaluate the potential extent of VOCs in unsaturated and saturated soil at 11 locations at the Navistar site, 10 locations on the former WCL property, and two locations along the southern fence line of the former White Rock Yard west of the Navistar building. Due to drilling conditions (Geoprobe® refusal), three of the soil borings could not be advanced to their intended depths (SB-1, SB-6, and SB-11) and were replaced by hollow-stemmed auger borings (SB-12, SB-13, and SB-19). An En Core™ sampler was used to collect soil samples from the soil cores collected by the Geoprobe® and hollow-stemmed auger drill rig for analysis at En Chem Laboratory. All soil samples were analyzed for VOCs (Method SW846 8260), and certain samples were analyzed for gasoline range organics (GRO, WDNR Modified Method), and diesel range organics (DRO, WDNR Modified Method).

Water levels were measured during 1 day at a total of 27 monitoring wells: 15 wells on the Navistar site, 5 wells on the former WCL property, and 7 wells on the northern McGlenn site. Groundwater samples were also collected from the 27 monitoring wells and analyzed for VOCs, GRO, and DRO. The Work Plan called for 28 wells, however, one monitoring well could not be located on the northern McGlenn property.

1.1.2 Soil Investigative Procedures

Drilling and Sampling

The boreholes were advanced using Geoprobe® and hollow-stemmed auger techniques. Three of the boreholes (SB-21, SB-23, and SB-24) were extended into bedrock with a rotary drilling mode to obtain rock cores for visual description. The drilling locations are shown on Figure 2 of the Report and are described in Section 2.1. The borings were used to determine if areas were potential sources of VOCs. The soil sampling program consisted of the following:

- Soil was sampled continuously with the Geoprobe® and the hollow-stemmed auger drilling unit for identifying the unconsolidated units and for screening for VOCs in sample headspace with a photoionization detector (PID). The standard operating

procedures for a PID can be found in the Work Plan (SOP 9). The selection of the sampled boring intervals for collecting soil samples for chemical analyses with the En Core™ sampler were based on the results of visual and olfactory evidence and the results of PID field-screening for VOCs.

- Seventeen soil samples were collected for chemical analyses from the seven borings at the Navistar site.
  - Six unsaturated soil samples and three saturated soil samples were collected for VOC, DRO, and GRO analyses from the three borings drilled along the northern building wall (SB-8, SB-9, and SB-10).
  - Two unsaturated soil samples and two saturated soil samples were collected for VOC, DRO, and GRO analyses in the two borings near the current or former solvent use areas (SB-18 and SB-19).
  - Two soil samples were collected for VOC analysis from the boring on the northwestern corner of the main Navistar building near a closed-core oil tank (SB-7).
  - Two soil samples were collected for VOC analysis from the boring extended beneath the former foundry sand storage area (SB-20).
- Twenty-seven soil samples were collected from the 10 borings at the former WCL property site.
  - Eight unsaturated and four saturated soil samples were collected for VOC, DRO, and GRO analyses from four borings within the former WCL building (SB-2 through SB-5).
  - Nine unsaturated and six saturated soil samples were collected for VOC, DRO, and GRO analyses from the six borings outside the western and southwestern perimeter of the former WCL building (SB-12 through SB-17).
- Twelve soil samples were collected from the four borings in the former parking and cleaning area between the former WCL and Navistar buildings.
  - Eight unsaturated and four saturated soil samples were collected for VOC, DRO, and GRO analyses from four borings between the former WCL and Navistar buildings (SB-21 through SB-24). Three borings (SB-21, SB-23, and SB-24) were extended into bedrock and rock cores were collected and logged.
- Three soil samples were collected from the two borings along the southern fence line of the former White Rock Yard west of the Navistar building.
  - Three unsaturated soil samples were collected for VOC, DRO, and GRO analyses from two borings along the southern fence line of the former White Rock Yard west of the Navistar building (SB-25 and SB-26).

All soil samples collected during the investigation were described according to the Unified Soil Classification System (USCS) by an RMT geologist using the WDNR form

for soil borings. Up to four soil samples were also collected from distinct soil units identified during the drilling for the analysis of soil total organic carbon (TOC, EPA Method 600-415.1/SW-846 Method 9060), Atterberg limits (ASTM Method D4318), and grain-size analysis (ASTM Method D422).

Equipment Decontamination

The Geoprobe® and hollow-stemmed auger sampling equipment were cleaned with a laboratory-grade soap, and rinsed with tap water between soil samples. The Geoprobe® and hollow-stemmed auger sampling equipment were decontaminated by steam-cleaning between boreholes.

1.1.3 Groundwater Investigative Procedures

One round of groundwater samples was collected from all existing monitoring wells at the Navistar site, the former WCL property, and the northern McGlenn site. In general, water level measurements and groundwater samples were collected in a progression from least to most impacted wells, based on available data.

Groundwater samples were collected from each well after well purging. The groundwater sampling procedure was as follows:

- Collect the samples using precleaned sealed bailers.
- Purge four well volumes from each well prior to sample collection. If the well does not produce sufficient water to purge four well volumes, purge the well dry prior to collecting a sample.
- During purging, note the odor, color, and relative turbidity of the groundwater.
- Contain purge water in drums.
- Place each sample for chemical analysis in appropriate bottles and properly preserve when necessary.
- Analyze the samples and a trip blank using the proposed USEPA and WDNR analysis methods.

Field parameters, consisting of temperature, pH, specific conductance, and dissolved oxygen (DO) were analyzed in samples from each monitoring well. The SOPs for field parameter readings, water level measurements, and groundwater sampling were included in the Work Plan.

1.2 Frame Park Spring Sampling

A spring water sample was collected from a spring at Frame Park, west of the Navistar property.

A sample was collected from the spring using the following sampling procedure:

- Collect the sample using a precleaned sealed coliwasa sampler. The coliwasa sampler allows for sampling of a liquid at a specified depth. For the spring sampling, the coliwasa is intended to obtain a fresh sample at the bottom of the catch basin.
- During sampling, note the odor, color, and relative turbidity of the spring water.
- Place sample for chemical analysis in appropriate bottles and properly preserve when necessary.
- Analyze the samples and a trip blank using the proposed USEPA and WDNR analysis methods.

1.3 Product Sampling

Free product was discovered in monitoring well NMW-5 during the groundwater sampling event on March 30, 1998. A sample of the free product was obtained by inserting a rigid polyethylene tube to the product depth and pumping with a peristaltic pump into sample vials.

1.4 Management of Investigation-Derived Wastes

In addition to the purge water from groundwater sampling event, the Geoprobe® and hollow-stemmed auger sampling techniques produced soil cuttings during drilling. The investigation-derived waste was drummed, and the final disposal for the drummed soil was based on the results of waste characterization of the drummed waste. The sampling and analysis program was developed in cooperation with the waste management firm retained to dispose the waste.

Appendix B
Boring Logs and Boring Abandonment Forms for Borings SB-1 through SB-26

BORING LOGS

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other ______

SOIL BORING LOG INFORMATION

Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — —	SB-1

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/27/98 (MM DD YY)	03/27/98 (MM DD YY)	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	____ Feet MSL	____ Feet MSL	2 inches

Boring Location
State Plane ______ N, ______ E S/C/N Lat ______
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)/W Long ______

Local Grid Location (If applicable)
______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/(City)/or Village
Waukesha	68	Waukesha

Sample Number	Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
1	12	—	0–2	SAND + GRAVEL FILL	FILL			ND		M				
2	18	—	2–4	Lean clay with sand ~~SILTY CLAY~~, brown, slightly tight, slightly plastic 50% clay, 35% silt, 15% sand	CL			ND		M				
3	16	—	4–6					ND		M				
4	2	—	6–7					ND		M				
			8	END OF BORING AT 7 FEET BELOW GROUND SURFACE; OBSTRUCTION ENCOUNTERED										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mickey
Firm: RMT, Inc.

QC'd descr SSM 5/29/98

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International		SB-2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/27/98 (M M / D D / Y Y)	03/27/98 (M M / D D / Y Y)	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	Feet MSL	Feet MSL	2 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ ____ ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E W | Long ____ ____ ____

Local Grid Location (If applicable)
☐ N ____ Feet ☐ S ☐ E ____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE OVER SAND+GRAVEL FILL										
1	16	—	2	SAND + GRAVEL FILL	FILL			NO		M				
2	20	—	4					NO		M				
3	16	—	6	~~Lean clay~~ ~~SILTY CLAY~~, brown, moderately tight, moderately plastic, 55% clay, 35% silt, 10% sand	CL			NO		M				
4	12	—	8					NO		M				
5	8	—	10	~~Silty sand with gravel~~ ~~SAND + GRAVEL~~, brown, moist, 50% sand, 25% silt, 20% gravel, 5% clay, poorly-sorted fine to coarse	SM			NO		M				
6	8	—	12		~~GW~~			NO		M				
7	6	—	14	SILTY-CLAY, black from 14-15', petroleum odor, moist/wet	CL			2		M/W				
8	20	—	16	brown, no odor, moist/wet				NO		M/W				
			18	END OF BORING AT 17 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mirsky | Firm: RMT, Inc. | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International		SB-3

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM DD YY)	Date Drilling Completed (MM DD YY)	Drilling Method
Groundwater Management Service, Inc. Roger Ables	03/27/98	03/27/98	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	Feet MSL	Feet MSL	2 inches

Boring Location
State Plane ____ N. ____ E S/C/N Lat ____ Long ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE over SAND + GRAVEL FILL										
1	16	—	2	SAND + GRAVEL FILL	FILL			ND		M				
2	6	—	4	CLAY some silt, brown, moderately tight, moderately plastic, moist, 65% clay, 25% silt, 10% sand	CL			ND		M				
3	18	—	6					ND		M				
4	16	—	8					ND		M				
5	10	—	10	~~Well graded sand with silt and gravel~~ ~~SAND + GRAVEL~~, brown, moist, 55% sand, 25% gravel, 10% silt, 10% clay, poorly-sorted, fine to coarse	SW-SM			ND		M				
6	10	—	12		GW			ND		M				
7	12	—	14	CLAY some silt present	CL			ND		M				
			16	END OF BORING AT 15 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mosley Firm: RMT, Inc QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-4

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/27/98	03/27/98	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	—	_____ Feet MSL	_____ Feet MSL	2 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat ___ ___ ___ | Long ___ ___ ___
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE over SAND+GRAVEL FILL										
1	6	—	2	SAND+GRAVEL FILL	FILL			NO		M				
2	18	—	4	CLAY some silt, brown, moderately tight, moderately plastic, moist, 70% clay, 20% silt, 10% sand	CL			NO		M				
3	20	—	6	Silty SAND, fine-grained, little silt	SM			NO		M				
4	8	—	8	Silty sand with gravel, brown, moist, 60% sand, 25% gravel, 15% silt, poorly-sorted, fine to coarse	SM			NO		M				
5	8	—	10					NO		M				
6	14	—	12					NO		M				
7	16	—	14	Silty SAND, little silt, wet	SM			NO		W				
			16	END OF BORING AT 15 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mirly | Firm: RMT, Inc | QC'd description SSM 5/20/98

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other ____________

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-5

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/27/98 (MM/DD/YY)	03/27/98 (MM/DD/YY)	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	____ Feet MSL	____ Feet MSL	2 inches

Boring Location
State Plane ________ N, ________ E S/C/N Lat ____ Long ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)/W

Local Grid Location (If applicable) ____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/Comments
			0	CONCRETE OVER SAND+GRAVEL FILL										
1	18	—	2	SAND+GRAVEL FILL	FILL			ND		M				
2	16	—	4	CLAY some silt, brown, moderately tight, moderately plastic, moist 65% clay, 30% silt, 5% sand	CL			ND		M				
3	16	—	6					ND		M				
				Well graded sand with silt and gravel ~~SAND+GRAVEL~~, brown, moist, 65% sand, 25% gravel, 10% silt poorly-sorted, fine to coarse	SW-SM ~~GW~~									
4	12	—	8					ND		M				
5	14	—	10					ND		M				
6	8	—	12					ND		M				
7	18	—	14	Silty SAND, black, petroleum odor, wet	SM			ND		W				
			16	END OF BORING AT 16 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Misley Firm: RMT, Inc.

QC'd description SSM 5/20/98

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-6

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M D D Y Y)	Date Drilling Completed (M M D D Y Y)	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/27/98	03/27/98	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	—	_____ Feet MSL	_____ Feet MSL	2 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat ___ ___ ___ | Long ___ ___ ___
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	ROD/ Comments
			0	ASPHALT over SAND + GRAVEL FILL										
1	18	—	2	SAND + GRAVEL FILL	FILL			ND		M				
2	8	—	4	Sand with silt and gravel ~~SAND~~ some cobbles, 75% sand, 20% stones, 10% silt	SW-SM GW			ND		M				
3	0	—	6	NO RECOVERY				ND		M				
4	0	—	8					ND		M				
5	0	—	10					ND		M				
6	0	—	12					ND		M				
			14	END OF BORING AT 13 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mistler | Firm: RMT, Inc. | QC'd description SSM 5/20/98

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	_ _ _ _ _ _ _ _	SB-7

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/29/98 (M M D D Y Y)	03/29/98 (M M D D Y Y)	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	2 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat _____ Long _____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County: Waukesha | DNR County Code: 68 | Civil Town/City/or Village: Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE over SAND+GRAVEL FILL										
1	14	—	2	Poorly-Graded SAND, black, well-sorted, moist	SP			NO		M				
2	22	—	4	CLAY some silt, brown, mod. tight, mod. plastic, 65% clay, 25% silt, 10% sand	CL			NO		M				
3	14	—	6	Well graded sand with silt and gravel ~~SAND + GRAVEL~~, brown, moist, 60% sand, 30% gravel, 10% silt poorly-sorted, fine to coarse	SW-SM			NO		M				
4	12	—	8					NO		M				
5	18	—	10					NO		M				
6	5	—	12					NO		M				
7	6	—	14					NO		M				
			16	END OF BORING AT 15 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mosley | Firm: RMT, Inc. | Q'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International		SB-8

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M D D Y Y)	Date Drilling Completed (M M D D Y Y)	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/29/98	03/29/98	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	Feet MSL	Feet MSL	2 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)W

Local Grid Location (If applicable)
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE over SAND + GRAVEL FILL										
1	14	—	2	Poorly graded SAND, brown to black, well-sorted, moist	SP			NP		M				
2	12	—	4					ND		M				
3	12	—	6	Lean clay with sand ~~Sandy~~ little silt, dark brown, some black sand, 60% clay, 20% silt, 20% sand, med-to-right, med. plastic, moist	CL			ND		M				
4	20	—	8					ND		M				
5	6	—	10	Silty Sand with gravel ~~SAND + GRAVEL~~, brown, moist, 55% sand, 30% gravel, 15% silt poorly-sorted, fine to coarse	SM GW			ND		M				
6	10	—	12					ND		M				
7	8	—	14					ND		M				
8	12	—	16	very moist, refusal at 17'				ND		M/W				
			18	END OF BORING AT 17 FEET BELOW GROUND SURFACE BEDROCK ENCOUNTERED AT 17 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
David P. Mesley	RMT, Inc.	QC'd description SSM 5/20/98

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State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-9

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
Groundwater Management Service Inc. Roger Ahles	03/29/98	03/29/98	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	—	____ Feet MSL	____ Feet MSL	2 inches

Boring Location
State Plane ____ N. ____ E S/C/N | Lat ___ ___ ___ | Long ___ ___ ___
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE over SAND & GRAVEL FILL										
1	16	—	2	SAND, black, well-sorted, moist	SP			ND		M				
2	12	—	4					6		M				
3	16	—	6					18		M				
4	6	—	8	CLAY some silt, med-tight, med. plastic, brown, moist, odor, some black sand present	CL			ND		M				
5	8/0	—	10	~~SAND & GRAVEL~~ Silty sand with gravel, little silt, brown, moist, 55% sand, 25% gravel, 20% silt, poorly-sorted, fine to coarse	SM			ND		M				
6	10	—	12		GW			ND		M				
7	6	—	14	very moist, refusal at 15"				ND		M/W				
			16	END OF BORING AT 15 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 15 FEET										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Wisley | Firm: RMT, Inc. | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other ________

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — —	SB-10

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/29/98 (MM/DD/YY)	03/29/98 (MM/DD/YY)	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	____ Feet MSL	____ Feet MSL	2 inches

Boring Location
State Plane ________ N, ________ E S/C/N
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)/W
Lat ________ Long ________
Local Grid Location (If applicable) ____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	63	Waukesha

Sample Number	Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	CONCRETE OVER SAND + GRAVEL FILL										
1	10	—	2	SAND, black, well-sorted, moist	SP			ND		M				
2	10	—	4					ND		M				
3	10	—	6	~~Lean clay with sand~~ ~~CLAY~~ little silt, brown, moist, med. tight, med. plastic, 65% clay, 20% silt, 15% sand	CL			ND		M				
4	10	—	8					ND		M				
5	12	—	10					ND		M				
6	16	—	12	SILTY-CLAY with sand and gravel, 40% clay, 25% silt, 20% gravel, 15% sand moist/wet	CL			ND		M/W				
7	12	—	14	gray refusal at 15'				ND		M/W				
			16	END OF BORING AT 15 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 15 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
David P. Mixly	RMT, Inc. QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-11

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M D D Y Y)	Date Drilling Completed (M M D D Y Y)	Drilling Method
Groundwater Management Service, Inc. Roger Ahles	03/29/98	03/29/98	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	—	_____ Feet MSL	_____ Feet MSL	2 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat ___ ___ ___
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)W | Long ___ ___ ___

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	ROD/ Comments
			0	CONCRETE over SAND & GRAVEL FILL										
1	18	—	2	SAND, black, well-sorted, moist	SP			ND		M				
2	0	—	4	Obstruction at 3' bgs				—		—				
			6	END OF BORING AT 5 FEET BELOW GROUND SURFACE; OBSTRUCTION ENCOUNTERED										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mighy | Firm: RMT, Inc. | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☒ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	_ _ _ _ _ _ _	SB-12

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M / D D / Y Y)	Date Drilling Completed (M M / D D / Y Y)	Drilling Method
Groundwater Management Service, Inc. Jeff. Poeschl	04/01/98	04/01/98	2 1/4" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	4 inches

Boring Location
State Plane _____ N, _____ E S/C/N Lat _ _ _ Long _ _ _
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)W

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	ROD/ Comments
			0	SAND + GRAVEL FILL										
1	16	25-9 5-7	2	SAND, black, well-sorted, moist	SP			NO		M				
2	12	3-4 6-7	4	CLAY some silt, brown, mod tight, sand mod plastic, moist, 65% clay, 25% silt, 10% s	CL			NO		M				
3	10	3-14 15-15	6	Silty sand with gravel ~~SAND & GRAVEL~~, brown, moist, 50% sand, 30% gravel, 20% silt	SM			NO		M				
4	8	7-11 17-10	8	poorly-sorted, fine to coarse	~~GP~~			NO		M				
5	6	4-6 6-8	10					NO		M				
6	6	3-25	12	wet, refusal				NO		W				
				END OF BORING AT 12 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 12 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Miley — Firm: RMT, Inc. — QC'd description JSM 5/20/99

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-13

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM DD YY)	Date Drilling Completed (MM DD YY)	Drilling Method
Groundwater Management Service, Inc. Jeff Poeschl	04/01/98	04/01/98	2¼" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —		____ Feet MSL	____ Feet MSL	4 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County: Waukesha | DNR County Code: 68 | Civil Town/City/or Village: Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	SAND + GRAVEL FILL										
1	14	7-12 5-4	2	CLAY, some silt, black/brown, moist, moderately tight, mod plastic, 65% clay, 25% silt, 10% sand	CL			ND		M				
2	12	4-3 3-6	4					ND		M				
3	10	3-9 11-14	6	~~Well graded sand with silt + gravel~~ ~~SAND + GRAVEL~~, brown, moist, 60% sand, 30% gravel, 10% silt, poorly-sorted, fine to coarse	SW-SM			ND		M				
4	0	5-10 15-14	8					ND		M				
5	10	14-25 28-30	10					ND		M				
6	10	13-15 12-8	12					ND		M				
7	0	2-2 4-2	14	No Recovery	—	—		—		—				
8	10	5-8 —	16	SAND + GRAVEL, wet	GW			ND		W				
			18	END OF BORING AT 17 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 16 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mickey | Firm: RMT, Inc. | OK'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	_ _ _ _ _ _ _	SB-14

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
Groundwater Management Service, Inc. Jeff. Poeschl	04/01/98	04/01/98	2¼" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	4 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat _ _ _ Long _ _ _
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)W

Local Grid Location (If applicable)
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

County: Waukesha | DNR County Code: 68 | Civil Town/City/or Village: Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	GRAVEL										
1	10	6-5 4-4	2	SAND + GRAVEL FILL	FILL			NO		M				
2	6	8-6 3-2	4	CLAY some silt, mod tight, mod plastic, red-brown, moist 65% clay, 25% silt, 10% sand	CL			NO		M				
3	10	1-2 2-1	6					NO		M				
4	8	8-13 14-10	8	~~Silty sand with gravel~~ ~~SAND & GRAVEL~~, brown, moist, 50% sand, 35% gravel, 15% silt poorly-sorted, fine to coarse	SM			NO		M				
5	6	8-10 12-13	10					NO		M				
6	4	12-13 10-8	12					NO		M				
7	8	10-11 14-13	14	petro. odor at 13-15', wet	~~GW~~			NO		W				
8	2	25-26 30-30	16					NO		W				
			18	END OF BORING AT 17 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 17 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Misky (SSM) | Firm: | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	— — — — — — — —	SB-15

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M / D D / Y Y)	Date Drilling Completed (M M / D D / Y Y)	Drilling Method
Groundwater Management Services, Inc. Jeff. Poeschl	04/01/98	04/01/98	2¼ HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
— — —	— — — — — — — —	—	_____ Feet MSL	_____ Feet MSL	4 inches

Boring Location
State Plane _____ N. _____ E S/C/N | Lat ___ ___ ___ | Long ___ ___ ___
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)/W

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	GRAVEL										
1	4	3-6 6-9	2	SAND + GRAVEL FILL	FILL			ND		M				
2	3	5-7 9-11	4					ND		M				
3	2	2-4 6-4	6	CLAY some silt, brown, moist, little recovery	CL			ND		M				
4	0	1-2 2-1	8	No Recovery	—	—		—		—				
5	8	1-2 2-2	10	Silty sand with gravel ~~SAND + GRAVEL~~, brown, moist 50% sand, 25% gravel, 15% silt 10% clay, poorly sorted, fine to coarse	SM			ND		M				
6	12	4-6 5-6	12		GW			ND		M				
7	6	5-4 5-7	14	oily black color (14-15'), moist/wet, petro odor				ND		M/W				
8	2	5-6	16					ND		M/W				
				END OF BORING AT 16 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 16 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mirly | Firm: RMT, Inc. | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.1/7 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International		SB-16

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Jeff Poeschl	04/01/98 (M M / D D / Y Y)	04/01/98 (M M / D D / Y Y)	2¼" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		—	____ Feet MSL	____ Feet MSL	4 inches

Boring Location
State Plane ____ N, ____ E S/C/N
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)W
Lat ____ Long ____

Local Grid Location (If applicable)
☐ N ____ Feet ☐ S ☐ E ____ Feet ☐ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	ROD/ Comments
			0	GRAVEL										
1	2	2-8 10-10	2	SAND + GRAVEL FILL				ND		M				
2	2	5-5 3-3	4		FILL			ND		M				
3	12	7-14 8-6	6	some clay + silt				ND		M				
4	0	1-2 2-1	8	No Recovery	—	—		—		—				
5	0	1-3 1-2	10					—		—				
6	0	1-2 2-1	12	silty sand with gravel				—		—				
7	6	3-3 12-12	14	~~SAND + GRAVEL~~, brown, moist/wet, poorly-sorted, fine to coarse	~~SM~~ GW			ND		M/W				
			16	END OF BORING AT 15 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 15 FEET										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mihy
Firm: RMT, Inc.
QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	_ _ _ _ _ _ _ _	SB-17

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
Groundwater Management Service, Inc. Jeff Poeschl	04/01/98	04/01/98	2¼" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	4 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat ___ ___ ___ | Long ___ ___ ___
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E) W

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	GRAVEL										
1	8	4-4 3-3	2	Lean clay with sand ~~CLAY~~ some silt, brown, moist, mod tight, mod plastic				NO		M				
2	10	3-4 4-4	4	50% clay, 30% silt, 15% sand, 5% gravel	CL			NO		M				
3	10	3-4 4-5	6					ND		M				
4	0	1-2 2-1	8	No Recovery	—	—		—		—				
5	8	2-9 16-12	10	Silty sand with gravel ~~SAND & GRAVEL~~, brown, moist 60% sand, 25% gravel, 15% silt				ND		M				
6	10	7-10 10-10	12	poorly-sorted, fine to coarse	SM ~~GW~~			ND		M				
7	4	3-10 10-9	14					ND		M				
8	1	12-4 3-6	16	Oily black in color, moist/wet, petro. odor				NO		M/W				
			18	END OF BORING AT 17 FEET BELOW GRADE SURFACE. BEDROCK ENCOUNTERED AT 17 FEET.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mischky Firm: RMT, Inc. QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International		SB-18

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (M M / D D / Y Y)	Date Drilling Completed (M M / D D / Y Y)	Drilling Method
Groundwater Management Service, Inc. Keith.	04/25/98	04/25/98	2¼" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			____ Feet MSL	____ Feet MSL	4 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 (E)W

Local Grid Location (If applicable)
____ Feet ☐ N ☐ S ____ Feet ☐ E ☐ W

County: Waukesha | DNR County Code: 68 | Civil Town/City/or Village: Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	7" CONCRETE / SAND+GRAVEL FILL										
1	6	10-6 9-3	2	SAND + GRAVEL FILL, dark brown moist	FILL			NO		M				
2	10	3-2 2-2	4	SILTY-CLAY, moderately tight, moderately plastic, moist, 60% clay, 35% silt, 5% sand	CL			NO		M				
3	12	3-3 5-7	6					NO		M				
4	10	30-30 40—	8					NO		M				
5	14	7-12 28-26	10	Silty sand with gravel ~~SAND + GRAVEL~~, brown, wet, angular to subangular stones, poorly-sorted, 50% sand, 35% gravel, 15% silt	SM ~~GW~~			NO		W				
6	16	16-15 17-15	12					NO		W				
7	6	30-30	14					NO		W				
				END OF BORING AT 14 FEET BELOW GROUND SURFACE. BEDROCK ENCOUNTERED AT 14 FEET BGS.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Mighty | Firm: RMT, Inc. | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other

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Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International		SB-19

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
Groundwater Management Service, Inc. Keith.	04/25/98	04/25/98	2¼" HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	4 inches

Boring Location
State Plane ____ N, ____ E S/C/N | Lat ____ Long ____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E/W

Local Grid Location (If applicable)
☐ N ☐ E
____ Feet ☐ S ____ Feet ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
			0	7" CONCRETE / SAND + GRAVEL FILL										
1	12	5-5 7-8	2	SAND + GRAVEL FILL, dark brown, moist	FILL			NO		M				
2	10	6-6 7-8	4	SILTY-CLAY, moderately tight, moderately plastic, moist, brown 60% clay, 35% silt, 5% sand	CL			NO		M				
3	12	5-7 5-4	6					NO		M				
4	10	7-10 17-18	8	~~SAND + GRAVEL~~ silty sand with gravel, brown, moist/wet poorly-sorted, fine to coarse	SM GW			NO		M				
5	8	5-17 22-23	10	BEDROCK AT 11' bgs				NO		W				
			12	END OF BORING AT 11 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
David P. Mosley	RMT, Inc.	QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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 of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Navistar International	_ _ _ _ _ _ _	SB-20

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Groundwater Management Service, Inc. Dan Benforf	04/25/98 (MM/DD/YY)	04/25/98 (MM/DD/YY)	Geoprobe

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _	—	_____ Feet MSL	_____ Feet MSL	2 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat _____ Long _____
SE 1/4 of SW 1/4 of Section 35, T 7 N, R 19 E W

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/or Village
Waukesha	68	Waukesha

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/Comments
			0	CONCRETE										
1	4	—	2	SAND + GRAVEL FILL	FILL			ND		M				
2	10	—	4					ND		M				
3	1	—	6					ND		M				
4	6	—	8	CLAY some silt, brown, moist, med. tight, med. plasticity, sand with gravel	CL			ND		M				
5	8	—	10	Well graded SAND + GRAVEL, brown, moist, poorly-sorted, fine to coarse	SW GW			ND		M				
			12	END OF BORING AT 11 FEET BELOW GROUND SURFACE										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: David P. Wisly | Firm: RMT, Inc. | QC'd description SSM 5/20/98

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less 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.

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 1 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	12/2/98	12/2/98	SB-21

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock / Coring to Total De

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT - 22R	—	—	—	8 Inches

Boring Location: State Plane Easting Northing
SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19 E
Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town / City / or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
				GRAVEL FILL					
1	12	13-8 7-10	2	SAND, fine, black, moist, well-sorted		ND			
2	10	9-8 5-7	4	CLAY, moist, plastic, red-brown (5YR 4/4), tight, grades to olive gray (5YR 4/2) at 6 feet bgs, few stones		ND			
3	10	4-8 11-12	6	2-4': Lab samples VOCs 229, GRO 5U DRO 2336		ND			
4	4	3-15 16-15	8	6-8': Lab samples VOCs 2110, GRO 9512 DRO 2355		ND			
5	6	14-15 16-22	10	CLAY with sand; clay is plastic, moist, red-brown, tight; sand is f to coarse, few irregular stones		ND			
6	0	21-33 21-19	12	Rock in drive shoe		X			

Logged By: David P. Mickey
Checked By:
QCd descriptions soon 2/1/99

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 2 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	12/2/98	12/2/98	SB-21

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock / Coring to Total Depth

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
DRAT . 22R	—	—	—	8 Inches

Boring Location: State Plane — Easting — Northing — SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19E

Local Grid Location (If applicable): ☐ N Feet ☐ S ☐ E Feet ☐ W

County	State	DNR County Code	Civil Town/City/ or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
7	10	6-7 35-22	12	CLAY, plastic, light gray (5YR4/1), moist, tight, trace sand, f to c		ND			
				12-14': Lab Samples VOCs 2733 GRO 9318 DRO 1208					
			14	Hard rock found at 14½ bgs					
8	2	40- —		Weathered Dolomite, rock fragments to 15½' bgs		ND			
			16	DOLOMITE, gray, horizontal fractures with 2° mineralization at 17.0', 17.8', 18.5', 19.0', 20.0', 20.5', 21.3', 22.0', 23.0', and 23.9'. Vertical fractures at 21.3' – 21.6' and 22.3' bgs. Dark gray coloration found at fractures.					
			18						
			20	$RQD = \frac{74.0''}{102.0''} = 72.5\%$					
			22						
			24	END OF BORING AT 24 FEET BELOW GROUND SURFACE					
				No Oily Substances Observed					

Logged By: David P. Murphy Checked By:

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 1 of 3

Project Name	Start Date	End Date	Boring Number
Navistar - Add #2 NR700	1Dec98 1120	1DEC98	SB-22

Boring Drilled By	Drilling Method
Layne NW	HSA to set surf. casing → rotary wash to BDRK → coring to TD

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT-22R	—	—	—	8 Inches

Boring Location: State Plane Easting Northing
SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19E
Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town/City/or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID	Standard Penetration	Well Diagram	RQD/ Comments
A/D-2	12	3-1 5-9		Limestone – crush rock gravel	SS	0	6		
			2	SAND fine black with angular L.stone gravel and red-brn clay moist to wet (FILL, incl. Fdry Sd)					
B/2-4	18	3-5 9-9		as above	SS	0	14		
			4	CLAY moist plas. olive grey 5Y 4/2 grading to lt ol. brn 2.5Y 5/4 tr. f. sand — LAB SPL 9327/1895/3148 @ 1140h					
switch to rotary wash				4-6 not spld w/ SS — disturbed by switch to RWash	RW	0	grab spl from rotary bit.		
			6	CLAY black moist plastic little f to c sand little f. to c gravel (LS crushed rock) FILL					
				Drlg Fluid returns outside of surface casing — MOVE AHEAD ~ 3 FT & restart hole					
C/4-6	11	4-5 4-10	8	CLAY plastic moist red brn 5YR 4/4 little f to c sand tr f. gravel sub angular to rnded — rock in drive shoe (TILL)	w/ SS	HSA	9		
restart @ 1335									
			10						
D/6-8	0	11-30 31-28			SS		61		
			12						

Logged By: Bernd Rehm (SSM) Checked By: Descriptions QC'd SSM 2/8/99

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 2 of 3

Project Name	Start Date	End Date	Boring Number
Navistar Add #2	1Dec98	1 Dec 98	SB-22

Boring Drilled By	Drilling Method
Layne NW	HSA

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT-22R	—	—	—	8 Inches

Boring Location: State Plane — Easting — Northing — SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19E

Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town/City/ or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID ~~418~~	Standard Penetration	Well Diagram	ROD/ Comments
E 8-10	11	6-26 31-33		CLAY w/ f to c sand & f to c gravel, dionite rock frag in tip yel-brn 10YR 5/6. SILT "inclusions" yellow	SS	0	57		
			10	LAB SPL- 4429/3823/0533 collected @ 1405					
F 10-12	0	/							
			12						
G 12-14	24	8-36 35-31		CLAY plastic (when wetted) dry-moist tr f sand lt grey 5YR 6/1	SS	1.3	71		
				Lab Spls 1150/3610/4222 collected @ 1425					
			14						
F 14-16	0			rock in tip (LS/dolomite)	SS	—	—		
				SWITCH TO CORING THRU HSA					
			16	Weathered Dolomite, rock fragments to 16½' bgs					
				DOLOMITE, gray, horizontal fractures with 2° mineralization at 17.2', 18.5', 18.8', 18.9½', 20.0'. Dark gray coloration found at fractures					
			18						
			20						

Logged By: Checked By:

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09

Project Name	Start Date	End Date	Boring Number
Navistar Int'l	1 Dec 98	1 Dec 98	SB-22

Boring Drilled By	Drilling Method
Layne NW	HSA

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT-22R	—	—	—	8 Inches

Boring Location — State Plane: Easting / Northing
SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19 E

Local Grid Location (If applicable): ☐ N ☐ S Feet; ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town/City or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
			20	DOLOMITE, gray, horizontal fractures at 20.5', 22.5', & 23.1', and 23.4' bgs					
			22						
			24	RQD = $\frac{74.25"}{96.0"}$ = 77.3 %					
				END OF BORING AT 24.5' BELOW GRADE SURFACE No Oily Substances Observed					

Logged By: David P. Mayley

Checked By:

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 1 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	12/2/98	12/2/98	SB-23

Boring Drilled By	Drilling Method
Layne Northwest	4'1/4" HSA to Bedrock/ Coring to Total Depth

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT - 22R	—	—	—	8 Inches

Boring Location: State Plane — Easting — Northing — SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19E

Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town (City) or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
1	3	25-29 / 15-17	0	SAND + GRAVEL FILL, includes some crushed rock (limestone).		ND			
2	0	— / —	2	No RECOVERY		X			
3	10	5-5 / 11-14	4	CLAY, plastic, red-brown (5YR4/4), moist, tight, fill Lab Samples (4-6'): VOCs 2063 GRO 2415 DRO 3949		ND			
4	6	5-7 / 9-33	6	SAND + COBBLES (FILL) at 7' bgs, fine to very coarse		ND			
5	4	16-32 / 21-20	8	SAND, fine to medium coarse, some large stones, moist, brown Lab Samples (8-10'): VOCs 5326 GRO 9553 DRO 39193		ND			
6	0	42-53 / 45-40	10	No RECOVERY		ND			
			12						

Logged By: David P. Mickley

Checked By:

Descriptions QC'd SSM 2/8/99

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 2 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	12/2/98	12/2/98	SB-23

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock/Coring to Total Depth

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT - 22R		—	—	8 Inches

Boring Location: State Plane — Easting — Northing — SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19E

Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town/City/or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
7	12	36-16 17-29	12	CLAY, red-brown, moist, tight, plastic Lab Samples (12-14'): VOCs 30101, GRO 10451, DRO 687		ND			
			14	DOLOMITE, gray, horizontal fractures with secondary mineralization at 14.5', 14.7', 15.5', 16.3', 18.0', 18.6', 19.0', 20.0', 20.3', 21.0', and 21.6' bgs. Dark gray in color with the exception of 15.5' bgs (dark red).				S	
			16						
			18						
			20	RQD = 76.75" / 96.0" = 79.9 ~~80.0~~%					
			22	END OF BORING AT 22 FEET BELOW GROUND SURFACE No Oily Substances Observed					

Logged By: David P. Miley Checked By:

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 1 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	12/2/98	12/3/98	SB-24

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT-22R	—	—	—	8 Inches

Boring Location — State Plane — Easting — Northing
SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19 E
Local Grid Location (If applicable): ☐ N Feet ☐ S ☐ E Feet ☐ W

County	State	DNR County Code	Civil Town/(City) or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
1	2	20-26 30-32	0	SAND + GRAVEL FILL, some limestone (crushed)		ND			
2	10	9-6 10-14	2	CLAY, black grading to red-brown, plastic, moist, tight, no petro odor to black ~~color~~ material		ND			
3	12	6-5 10-26	4	CLAY, grading to gray Lab Samples (4-6): VOCs 1054 GRO 3075 DRO 2135		ND			
4	4	6-15 16-32	6	COBBLES (TILL) encountered, drive shoe impeded by cobbles; some sand present		ND			
5	6	8-17 25-30	8	WEATHERED ROCK and SAND, brown, moist Lab Samples (8-10): VOCs 9764; GRO 3497, DRO 2146		ND			
6	1	50/4"	10	SAME AS ABOVE		ND			
			12						

Logged By: David P. Mishky
Checked By:
Descriptions QC'd by SSM 2/8/99

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 2 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	12/2/98	12/3/98	SB-24

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT-22R	—	—	—	8 Inches

Boring Location — State Plane: Easting / Northing
SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19 E

Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

County	State	DNR County Code	Civil Town/(City) or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
7	16	11	12	SAME AS ABOVE		ND			
			14	END OF BORING AT 14 FEET BELOW GROUND SURFACE					

Logged By: David P. Mishy

Checked By:

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 1 of 1

Project Name	Start Date	End Date	Boring Number
Navistar Waukesha NR 700	10ec98 0950	10ec / 1050	SB-25

Boring Drilled By	Drilling Method
Layne NW	4¼ HSA

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT-22R	~~B-25~~	—	—	8 Inches

Boring Location: State Plane — Easting — Northing — SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19E

Local Grid Location (If applicable): ☐ N Feet ☐ S ☐ E Feet ☐ W

County	State	DNR County Code	Civil Town / City / or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID (ppm)	Standard Penetration	Well Diagram	ROD/ Comments
				asphalt 0-0.2' concrete 0.2'-0.8'					
A/1-3'	16	10-11-26-35	2	SAND fine, poorly-graded black - Fdry Sand	SS	0	37		
B/3-5	7	12-8 5-9	4	CLAY plastic moist yel-brn 10YR5/4 Little f. to c. sand, tr f. gravel (well rded) ~~Fill~~ FILL	SS	0	13		
C/5-7	12	5-9 11-40	6	Fdry Sd as above (~~0.3~~ 0.3') sample collected for lab = CLAY moist as above — 4006/1973/0250/3790/5454	SS	0	20		
			8	REFUSAL @ 7ft. insufficient recovery to fill all 6 spls broken rock fragments in SS tip Limestone/dolomite					
			10						
			12						

Logged By: Bernd Rehm (SRM) Checked By: Descriptions QC'd by SRM 2/8/99

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 1 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	11/30/98	12/1/98	SB-26

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock / Coring to total depth ~~Coring to Total Depth~~

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT - 22R	—	—	—	8 Inches

Boring Location: State Plane — Easting — Northing — SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19 E

Local Grid Location (If applicable): ☐ N Feet ☐ S ☐ E Feet ☐ W

County	State	DNR County Code	Civil Town/City/ or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	RQD/ Comments
				~~ASPHALT~~					
1	14	6-5 5-7		SAND, fine, black, moist, well-sorted (Fill)		ND			
			2						
2	6	6-4 5-8		CLAY, brown, moderately plastic, moderately tight, moist		ND			
			4						
3	12	6-6 6-10		Lab Samples (4-6): VOCs 3218 GRO 9807 DRO 4158		ND			
			6						
4	4	17-28 30-33		COBBLES and SAND, fine to coarse, angular stones, brown (Fill) Lab Samples (6-8'): VOCs 4024 GRO 3916 DRO 1518		ND			
			8						
5	6	26-32 44-40				ND			
				FRACTURED BEDROCK AT 9' BGS					
			10	Weathered Bedrock - no core recovered, & likely due to weathering.					
			12						

Logged By: David P. Hinkley Checked By:

F-204A (R 12-94)

RMT Field Soil Boring Log Information

RMT Project No: 3777.09 Page 2 of 2

Project Name	Start Date	End Date	Boring Number
Navistar International	11/30/98	12/01/98	SB-26

Boring Drilled By	Drilling Method
Layne Northwest	4¼" HSA to Bedrock/Coring to Total Depth

Drill Rig	Common Well Name	Initial Water Level	Surface Elevation	Borehole Diameter
BRAT - 22R	—	—	—	8 Inches

Boring Location
State Plane Easting Northing
SE 1/4 of SW 1/4 of Section 35 T 7 N,R 19 E

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

County	State	DNR County Code	Civil Town (City) or Village
Waukesha	WI	68	Waukesha

Number	Length (In) Recovered	Blow Counts	Depth In Feet	Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit)	Sample Type	PID/FID	Standard Penetration	Well Diagram	ROD/ Comments
				as above					
			14						
			16						
			18						

Logged By: David P. Misky

Checked By:

F-204A (R 12-94)

BORING ABANDONMENT FORMS

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-8

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-1

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	7	1/32	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Mishy - RMT
Date Signed: 4/22/98

Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-2

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☐ No

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	17	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Hlushy - RMT	Date Signed: 4/22/98
Street or Route: P.O. Box 259	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) Gov't Lot _____ Grid Number _____

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha WI 53186

Facility Well No. and/or Name (If Applicable): SB-3

WI Unique Well No.: _____

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks, Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Mushay - RMT
Date Signed: 4/22/98

Street or Route: P.O. Box 259
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected
District/County
Reviewer/Inspector
Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-4

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks, Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/10	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Thisley - RMT
Date Signed: 4/22/98

Street or Route: P.O. Box 258
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary?

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-5

WI Unique Well No. _ _ _ _ _ _ _ _

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/4	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work	Date Signed
David P. Hisley - RMT	4/22/98
Street or Route: P.O. Box 259	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-6

WI Unique Well No. _____

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	13	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Hurley - RMT
Date Signed: 4/22/98

Street or Route: P.O. Box 259
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-8

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) Gov't Lot ____ Grid Number ____

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-7

WI Unique Well No.

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/29/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/29/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/16	

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Hasly - RMT
Date Signed: 4/22/98

Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N R. 19 ☒ E ☐ W

(If applicable) Gov't Lot ____ Grid Number ____

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha WI 53186

Facility Well No. and/or Name (If Applicable): SB-8

WI Unique Well No.: _ _ _ _ _ _ _

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/29/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/29/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	17	4/10	

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work	Date Signed
David P. Mistry - RMT	4/22/98
Street or Route: P.O. Box 25[illegible]	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) ____ Gov't Lot ____ Grid Number

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-9

WI Unique Well No.

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/29/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/29/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks, Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/16	

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work	Date Signed
David P. Hlusky - RMT	4/22/98
Street or Route: P.O. Box 252	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ H

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-10

WI Unique Well No.: _____

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/29/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/29/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No
Did Material Settle After 24 Hours?	☐ Yes	☒ No
If Yes, Was Hole Retopped?	☐ Yes	☐ No

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Mosby - RMT
Date Signed: 04/22/98
Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☑ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-11

WI Unique Well No. _____

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 03/29/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 03/29/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☐ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	5	1/32	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Maly-RMT
Date Signed: 04/22/98

Street or Route: P.O. Box 252
Telephone Number: (414) 966-96000

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) Gov't Lot ____ Grid Number ____

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha WI 53186

Facility Well No. and/or Name (If Applicable): SB-12

WI Unique Well No.: ____

Reason For Abandonment: 2 1/4" HSA Boring

Date of Abandonment: 04/01/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 04/01/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks, Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	13	1/16	

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Mistly - RMT
Date Signed: 04/22/98
Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County
Reviewer/Inspector
Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable)

Gov't Lot _____ Grid Number _____

Grid Location

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-13

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: 2 1/4" HSA Boring

Date of Abandonment: 04/01/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 04/01/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	17	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Mushy - RMT
Date Signed: 04/22/98
Street or Route: P.O. Box 252
Telephone Number: (414) 906-9600
City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected
District/County
Reviewer/Inspector
Follow-up Necessary

5f

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Waukesha International

Street or Route: 1401 Pedling Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-14

WI Unique Well No.: _ _ _ _ _ _ _ _

Reason For Abandonment: 2¼" HSA Boring

Date of Abandonment: 04/01/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 04/01/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	17	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Nisley - RMT
Date Signed: 04/22/98

Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-15

WI Unique Well No.

Reason For Abandonment: 2¼" HSA Boring

Date of Abandonment: 04/01/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 04/01/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials — For monitoring wells and monitoring well boreholes only
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	17	4/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work	Date Signed
David P. Hasley - RMT	04/22/98
Street or Route: P.O. Box 252	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-16

WI Unique Well No. _ _ _ _ _ _

Reason For Abandonment: 2 1/4" HSA Boring

Date of Abandonment: 04/01/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 04/01/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	15	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: David P. Mesley - RMT
Date Signed: 04/22/98
Street or Route: P.O. Box 252
Telephone Number: (414) 906-9600.
City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected
District/County
Reviewer/Inspector
Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

Form 3300-5B

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Rev. 8-89

All 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

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 901 Niagara Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-17

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: 2 1/4" HSA Boring

Date of Abandonment: 04/01/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 04/01/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	17	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service, Inc.

Signature of Person Doing Work: Daniel P. Hisley - RMT
Date Signed: 04/22/98

Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 [X] E [ ] W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. [ ] N. [ ] S., _____ ft. [ ] E. [ ] W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-18

WI Unique Well No. _____

Reason For Abandonment: 2 1/4" HSA Boring

Date of Abandonment: 4/25/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 4/25/98

[ ] Monitoring Well
[ ] Water Well
[ ] Drillhole
[X] Borehole

Construction Report Available? [ ] Yes [X] No

Construction Type:
[X] Drilled [ ] Driven (Sandpoint) [ ] Dug
[ ] Other (Specify) _____

Formation Type:
[X] Unconsolidated Formation [ ] Bedrock

Total Well Depth (ft.) (From groundsurface) NA Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA [ ] Yes [ ] No [ ] Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	[ ] Yes	[ ] No	[X] Not Applicable
Liner(s) Removed?	[ ] Yes	[ ] No	[X] Not Applicable
Screen Removed?	[ ] Yes	[ ] No	[X] Not Applicable
Casing Left in Place?	[ ] Yes	[ ] No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	[ ] Yes	[ ] No	NA
Did Sealing Material Rise to Surface?	[X] Yes	[ ] No	
Did Material Settle After 24 Hours?	[ ] Yes	[X] No	
If Yes, Was Hole Retopped?	[ ] Yes	[ ] No	

(5) Required Method of Placing Sealing Material
[ ] Conductor Pipe-Gravity [ ] Conductor Pipe-Pumped
[ ] Dump Bailer [X] Other (Explain) Gravity

(6) Sealing Materials
[ ] Neat Cement Grout
[ ] Sand-Cement (Concrete) Grout
[ ] Concrete
[ ] Clay-Sand Slurry
[ ] Bentonite-Sand Slurry
[X] Chipped Bentonite

For monitoring wells and monitoring well boreholes only
[ ] Bentonite Pellets
[ ] Granular Bentonite
[ ] Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	14	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Groundwater Management Service

Signature of Person Doing Work	Date Signed
David P. Morley - RMT	4/25/98
Street or Route: P.O. Box 252	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
Rev. 8-89

All 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

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-19

WI Unique Well No.: _____

Reason For Abandonment: 2 1/4" HSA Boring

Date of Abandonment: 4/25/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 4/25/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA (From groundsurface) Casing Diameter (ins.) NA

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	11	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service

Signature of Person Doing Work	Date Signed
Paul P. Mosley - RMT	4/25/98
Street or Route: P.O. Box 252	Telephone Number: (414) 966-9600
City, State, Zip Code: North Lake, WI 53064	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
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All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 ☒ N ☐ S R. 19 ☒ E ☐ W

(If applicable)

_____ Gov't Lot _____ Grid Number

Grid Location

_____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Avenue

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Avenue

City, State, Zip Code: Waukesha, WI 53186

Facility Well No. and/or Name (If Applicable): SB-20

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: Geoprobe Boring

Date of Abandonment: 4/27/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 4/27/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (Specify) Geoprobe

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth (ft.) NA Casing Diameter (ins.) NA
(From groundsurface)

Casing Depth (ft.) NA

Was Well Annular Space Grouted? NA ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	NA

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	NA
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Dump Bailer ☒ Other (Explain) Gravity

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☐ Bentonite-Sand Slurry
☒ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite Chips	Surface	10	1/16	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
Groundwater Management Service

Signature of Person Doing Work: Daryl P. Hisky - AMT
Date Signed: 4/27/98

Street or Route: P.O. Box 252
Telephone Number: (414) 966-9600

City, State, Zip Code: North Lake, WI 53064

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B
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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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Street

City, State, Zip Code: Waukesha, WI

Facility Well No. and/or Name (If Applicable): SB-21

WI Unique Well No.: _ _ _ _ _ _

Reason For Abandonment: Temporary Boring

Date of Abandonment: 12/2/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 12/2/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth (ft.) 24 (From groundsurface) Casing Diameter (ins.) N/A

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? N/A ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) N/A

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	N/A

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	N/A
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☒ Bentonite-Sand Slurry
☐ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite/Sand Slurry	Surface	24		

(8) Comments: _____

Name of Person or Firm Doing Sealing Work: Layne Northwest

Signature of Person Doing Work: David P. Hinsley - RMT
Date Signed: 12/7/98

Street or Route: W229 N5005 Duplainville
Telephone Number: (414) 246-4646

City, State, Zip Code: Pewaukee, WI 53072

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Street

City, State, Zip Code: Waukesha, WI

Facility Well No. and/or Name (If Applicable): SB-22

WI Unique Well No. _ _ _ _ _ _

Reason For Abandonment: Temporary Boring

Date of Abandonment: 12/1/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 12/1/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth (ft.) 24 (From groundsurface) Casing Diameter (ins.) N/A

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? N/A ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) NA

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	N/A

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	N/A
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☒ Bentonite-Sand Slurry
☐ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite / Sand Slurry	Surface	24		

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work: Layne Northwest

Signature of Person Doing Work: David P. Mushy - RMT
Date Signed: 12/7/98

Street or Route: W229 N5005 Duplainville
Telephone Number: (414) 246-4646

City, State, Zip Code: Pewaukee, WI 53072

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

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State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

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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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) _____ Gov't Lot _____ Grid Number

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Street

City, State, Zip Code: Waukesha, WI

Facility Well No. and/or Name (If Applicable): SB-23

WI Unique Well No. _ _ _ _ _ _

Reason For Abandonment: Temporary Boring

Date of Abandonment: 12/2/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 12/2/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) _____

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth (ft.) 22 (From groundsurface) Casing Diameter (ins.) N/A

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? N/A ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) N/A

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	N/A

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	N/A
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☒ Bentonite-Sand Slurry
☐ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite/Sand Slurry	Surface	22		

(8) Comments: _____

Name of Person or Firm Doing Sealing Work: Layne Northwest

Signature of Person Doing Work: David P. Flisky - RMT
Date Signed: 12/7/98

Street or Route: W229 N5005 Duplainville
Telephone Number: (414) 246-4646

City, State, Zip Code: Pewaukee WI 53072

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location — County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) Gov't Lot ______ Grid Number ______

Grid Location ______ ft. ☐ N. ☐ S., ______ ft. ☐ E. ☐ W.

Civil Town Name:

Street Address of Well: 1401 Perkins Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known):

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Street

City, State, Zip Code: Waukesha, WI

Facility Well No. and/or Name (If Applicable): SB-24

WI Unique Well No.: - - - - -

Reason For Abandonment: Temporary Boring

Date of Abandonment: 12/3/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On (Date) 12/3/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify) ______

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth (ft.) 14 (From groundsurface)

Casing Diameter (ins.) N/A

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? N/A ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ______ Feet

(4) Depth to Water (Feet) N/A

Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable
Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable
Screen Removed? ☐ Yes ☐ No ☒ Not Applicable
Casing Left in Place? ☐ Yes ☐ No N/A
If No, Explain ______

Was Casing Cut Off Below Surface? ☐ Yes ☐ No N/A
Did Sealing Material Rise to Surface? ☒ Yes ☐ No
Did Material Settle After 24 Hours? ☐ Yes ☒ No
If Yes, Was Hole Retopped? ☐ Yes ☐ No

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☒ Bentonite-Sand Slurry
☐ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7)

Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite/Sand Slurry	Surface	14		

(8) Comments:

(9) Name of Person or Firm Doing Sealing Work: Layne Northwest

Signature of Person Doing Work: [signature] - RMT
Date Signed: 12/7/98

Street or Route: W229 N5005 Duplainville
Telephone Number: (414) 246-4646

City, State, Zip Code: Pewaukee WI 53072

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

Reviewer/Inspector

Follow-up Necessary

62

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

bandonment 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) Gov't Lot _____ Grid Number _____

Grid Location _____ ft. ☐ N. ☐ S., _____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Street

City, State, Zip Code: Waukesha, WI

Facility Well No. and/or Name (If Applicable): SB-25

WI Unique Well No.: _____

Reason For Abandonment: Temporary Boring

Date of Abandonment: 12/1/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 12/1/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth (ft.) 7 (From groundsurface) Casing Diameter (ins.) N/A

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? N/A ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? _____ Feet

(4) Depth to Water (Feet) N/A

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	N/A

If No, Explain _____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	N/A
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☒ Bentonite-Sand Slurry
☐ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite/Sand Slurry	Surface	7		

(8) Comments: _____

Name of Person or Firm Doing Sealing Work: Layne Northwest	
Signature of Person Doing Work: David P. Mosley - RMT	Date Signed: 12/7/98
Street or Route: W229 N5005 Duplainville	Telephone Number: (414) 246-4646
City, State, Zip Code: Pewaukee WI 53072	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

63

State of Wisconsin
Department of Natural Resources

WELL/DRILLHOLE/BOREHOLE ABANDONMENT

Form 3300-5B Rev. 8-89

All 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.

(1) GENERAL INFORMATION

Well/Drillhole/Borehole Location

County: Waukesha

SE 1/4 of SW 1/4 of Sec. 35 ; T. 7 N; R. 19 ☒ E ☐ W

(If applicable) Gov't Lot ____ Grid Number ____

Grid Location ____ ft. ☐ N. ☐ S., ____ ft. ☐ E. ☐ W.

Civil Town Name

Street Address of Well: 1401 Perkins Street

City, Village: Waukesha

(2) FACILITY NAME

Original Well Owner (If Known)

Present Well Owner: Navistar International

Street or Route: 1401 Perkins Street

City, State, Zip Code: Waukesha, WI

Facility Well No. and/or Name (If Applicable): SB-26

WI Unique Well No.: _____

Reason For Abandonment: Temporary Boring

Date of Abandonment: 12/1/98

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On

(Date) 12/1/98

☐ Monitoring Well
☐ Water Well
☐ Drillhole
☒ Borehole

Construction Report Available? ☐ Yes ☒ No

Construction Type:
☒ Drilled ☐ Driven (Sandpoint) ☐ Dug
☐ Other (Specify)

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth (ft.) 18 (From groundsurface) Casing Diameter (ins.) N/A

Casing Depth (ft.) N/A

Was Well Annular Space Grouted? N/A ☐ Yes ☐ No ☐ Unknown
If Yes, To What Depth? ____ Feet

(4) Depth to Water (Feet) N/A

Pump & Piping Removed?	☐ Yes	☐ No	☒ Not Applicable
Liner(s) Removed?	☐ Yes	☐ No	☒ Not Applicable
Screen Removed?	☐ Yes	☐ No	☒ Not Applicable
Casing Left in Place?	☐ Yes	☐ No	N/A

If No, Explain ____

Was Casing Cut Off Below Surface?	☐ Yes	☐ No	N/A
Did Sealing Material Rise to Surface?	☒ Yes	☐ No	
Did Material Settle After 24 Hours?	☐ Yes	☒ No	
If Yes, Was Hole Retopped?	☐ Yes	☐ No	

(5) Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Dump Bailer ☐ Other (Explain)

(6) Sealing Materials
☐ Neat Cement Grout
☐ Sand-Cement (Concrete) Grout
☐ Concrete
☐ Clay-Sand Slurry
☒ Bentonite-Sand Slurry
☐ Chipped Bentonite

For monitoring wells and monitoring well boreholes only
☐ Bentonite Pellets
☐ Granular Bentonite
☐ Bentonite - Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
Bentonite/Sand Slurry	Surface	18		

(8) Comments: ____

(9) Name of Person or Firm Doing Sealing Work: Layne Northwest

Signature of Person Doing Work: Paul P. Worley - RMT
Date Signed: 12/7/98

Street or Route: W229 N5005 Duplainville
Telephone Number: (414) 246-4646

City, State, Zip Code: Pewaukee WI 53072

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected | District/County

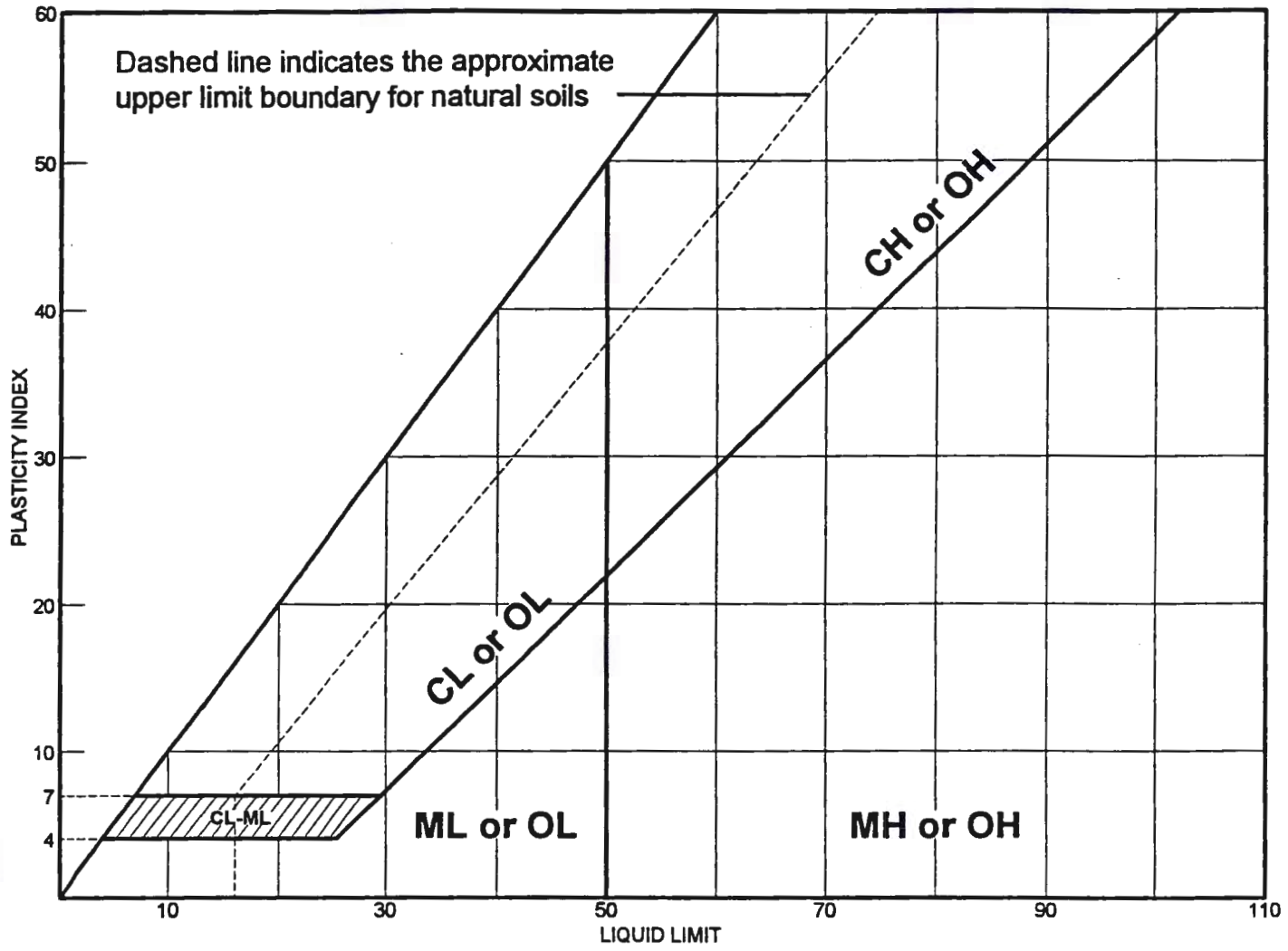
Reviewer/Inspector

Follow-up Necessary 64/44

Appendix C
Soil Geotechnical Data

JLH 4/14/98

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Silty sand with gravel	NV	NP		50.2	35.0	SM
■	Silty gravel with sand	NV	NP		26.9	15.4	GM
▲	Silty gravel with sand	NV	NP		36.5	24.7	GM
◆	Silty sand with gravel	NV	NP		48.3	29.6	SM

Project No. 3777.06 **Client:** NAVISTAR INTERNATIONAL

Project:

● **Location:** SB-2, 11-13'
■ **Location:** SB-7, 9-11'
▲ **Location:** SB-9, 9-11'
◆ **Location:** SB-15, 11-13'

Remarks:
●
■
▲
◆

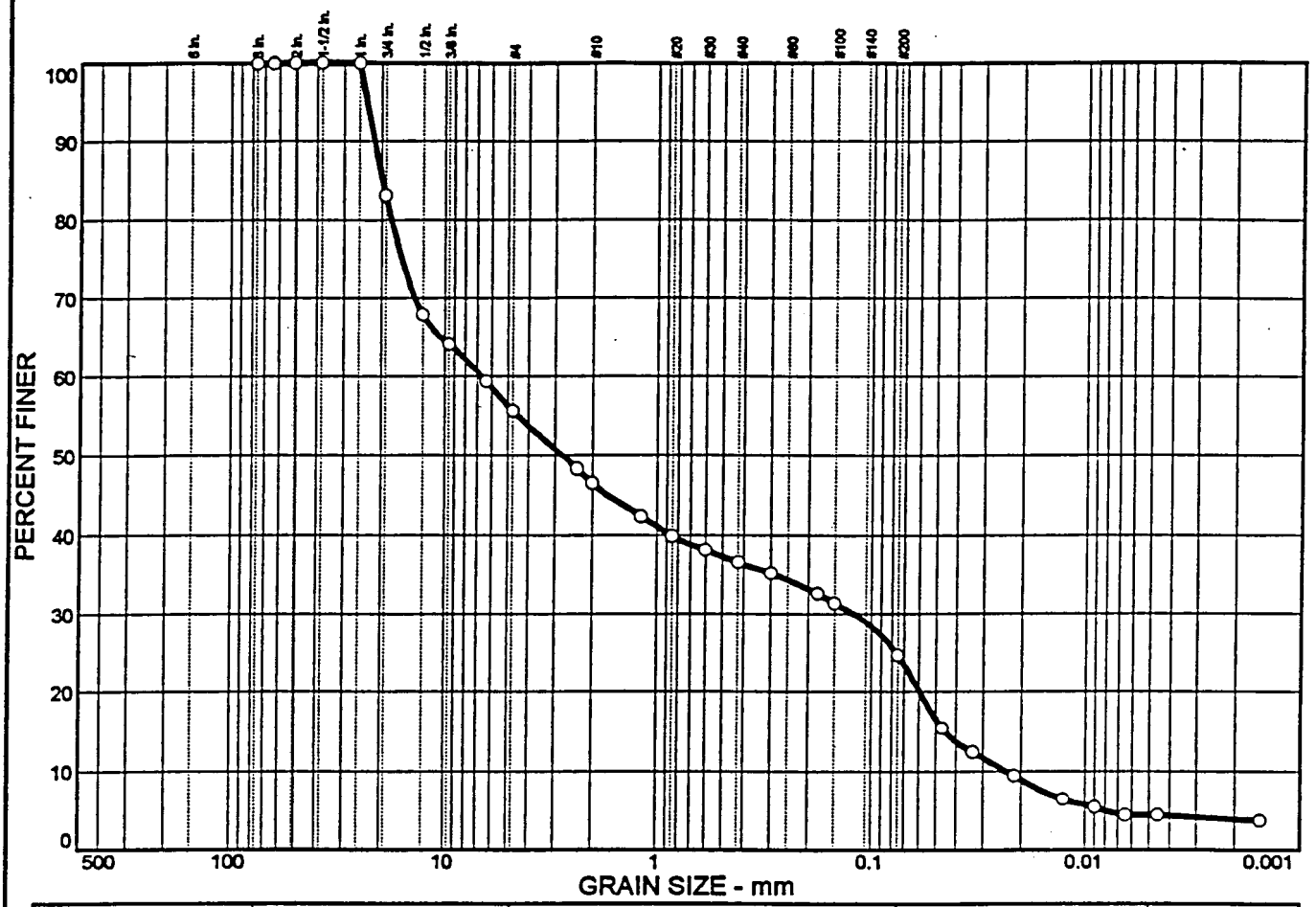
LIQUID AND PLASTIC LIMITS TEST REPORT

RMT, Inc.

Plate 1/6

JSH 4/14/98

PARTICLE SIZE DISTRIBUTION TEST REPORT



% + 3"	% GRAVEL	% SAND	% SILT	% CLAY
0.0	44.4	30.9	20.2	4.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3.0 in.	100.0		
2.5 in.	100.0		
2.0 in.	100.0		
1.5 in.	100.0		
1.0 in.	100.0		
.75 in.	83.1		
.5 in.	67.8		
.375 in.	64.1		
.25 in.	59.3		
#4	55.6		
#8	48.3		
#10	46.5		
#16	42.4		
#20	39.9		
#30	38.1		
#40	36.5		
#50	35.1		
#80	32.5		
#100	31.3		
#200	24.7		

* (no specification provided)

Soil Description

Silty gravel with sand

Atterberg Limits

PL= NP LL= NV PI=

Coefficients

D_{85}= 19.7 D_{60}= 6.70 D_{50}= 2.78
D_{30}= 0.122 D_{15}= 0.0451 D_{10}= 0.0236
C_u= 284.40 C_c= 0.09

Classification

USCS= GM AASHTO=

Remarks

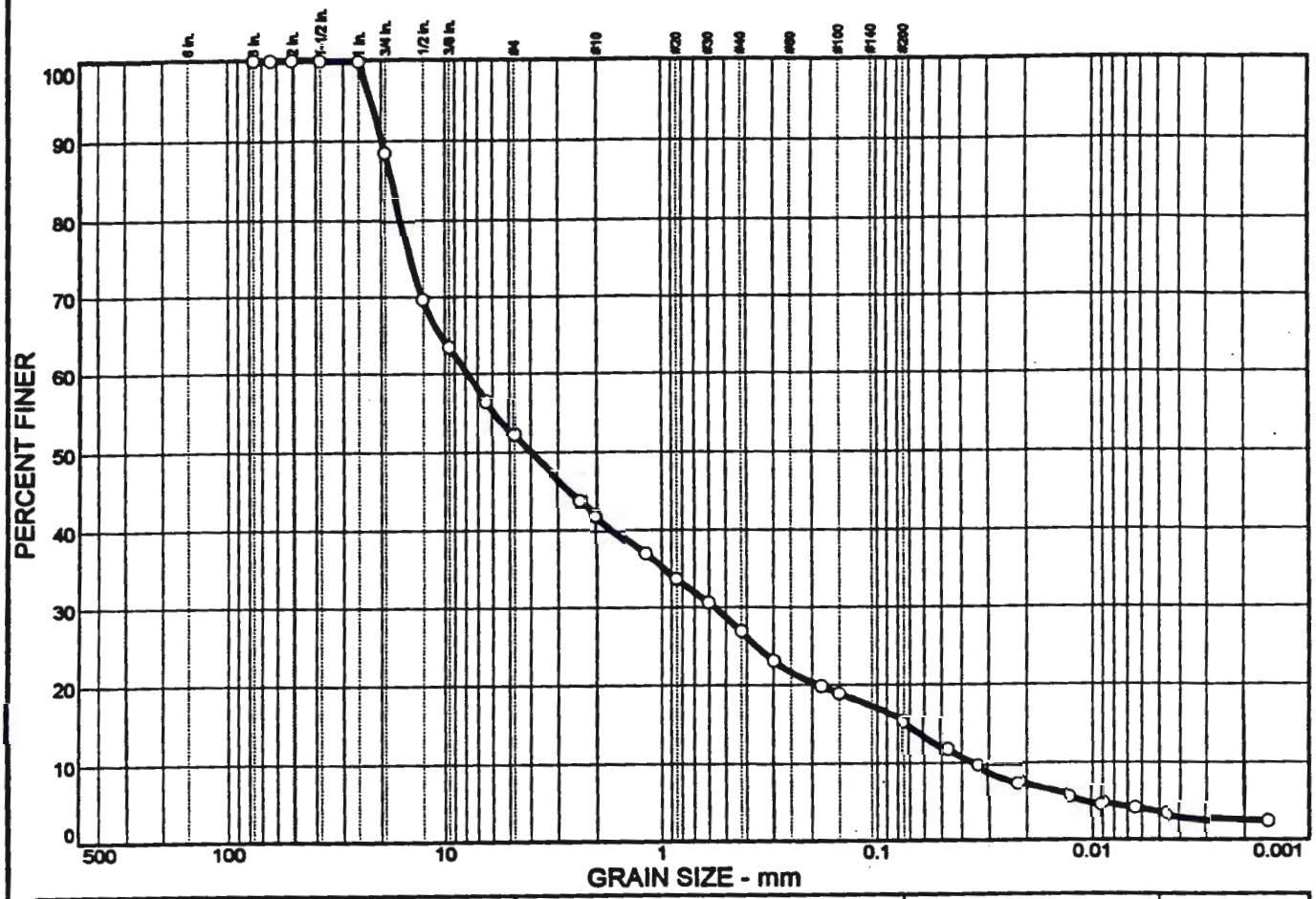
Sample No.: SB-9, 9-11' **Source of Sample:** **Date:** 4-3-98
Location: **Elev./Depth:**

RMT, Inc.

Client: NAVISTAR INTERNATIONAL
Project:
Project No: 3777.06 **Plate** 2

Job 4/14/98

PARTICLE SIZE DISTRIBUTION TEST REPORT



% + 3"	% GRAVEL	% SAND	% SILT	% CLAY
0.0	47.7	36.9	11.7	3.7

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3.0 in.	100.0		
2.5 in.	100.0		
2.0 in.	100.0		
1.5 in.	100.0		
1.0 in.	100.0		
.75 in.	88.5		
.5 in.	69.6		
.375 in.	63.4		
.25 in.	56.5		
#4	52.3		
#8	43.9		
#10	41.9		
#16	36.9		
#20	33.6		
#30	30.6		
#40	26.9		
#50	23.1		
#80	19.8		
#100	18.9		
#200	15.4		

* (no specification provided)

Soil Description

Silty gravel with sand

Atterberg Limits

PL= NP LL= NV PI=

Coefficients

D_{85}= 17.7 D_{60}= 7.81 D_{50}= 3.96
D_{30}= 0.564 D_{15}= 0.0708 D_{10}= 0.0353
C_u= 221.46 C_c= 1.15

Classification

USCS= GM AASHTO=

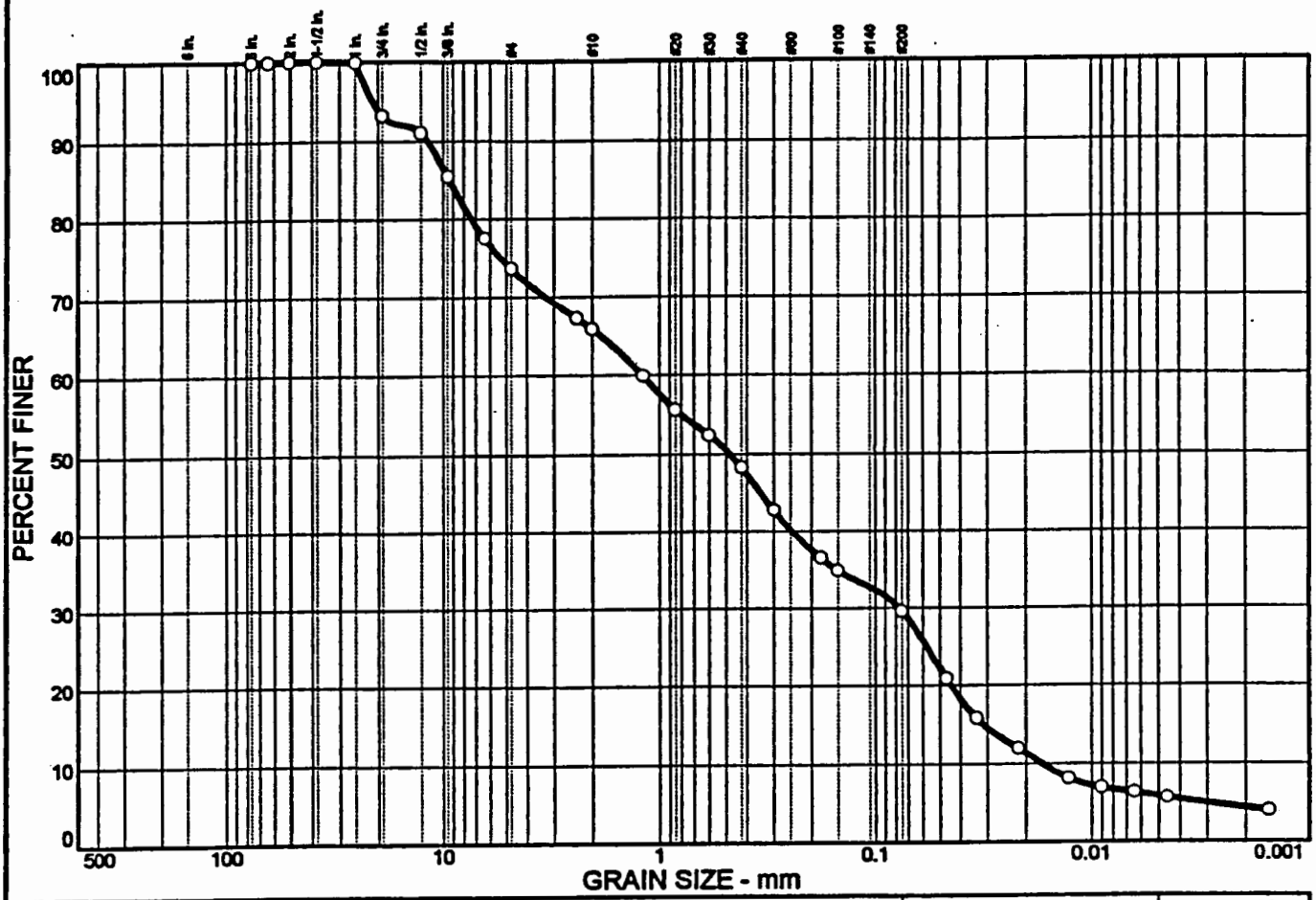
Remarks

Sample No.: SB-7, 9-11' **Source of Sample:** **Date:** 4-3-98
Location: **Elev./Depth:**

RMT, Inc.

Client: NAVISTAR INTERNATIONAL
Project:
Project No: 3777.06 **Plate**

PARTICLE SIZE DISTRIBUTION TEST REPORT



% + 3"	% GRAVEL	% SAND	% SILT	% CLAY
0.0	26.4	44.0	23.7	5.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3.0 in.	100.0		
2.5 in.	100.0		
2.0 in.	100.0		
1.5 in.	100.0		
1.0 in.	100.0		
.75 in.	93.3		
.5 in.	91.1		
.375 in.	85.5		
.25 in.	77.5		
#4	73.6		
#8	67.3		
#10	65.9		
#16	59.9		
#20	55.6		
#30	52.4		
#40	48.3		
#50	42.8		
#80	36.5		
#100	34.8		
#200	29.6		

* (no specification provided)

Soil Description

Silty sand with gravel

Atterberg Limits

PL= NP LL= NV PI=

Coefficients

D_{85}= 9.32 D_{60}= 1.19 D_{50}= 0.482
D_{30}= 0.0773 D_{15}= 0.0314 D_{10}= 0.0167
C_u= 71.14 C_c= 0.30

Classification

USCS= SM AASHTO=

Remarks

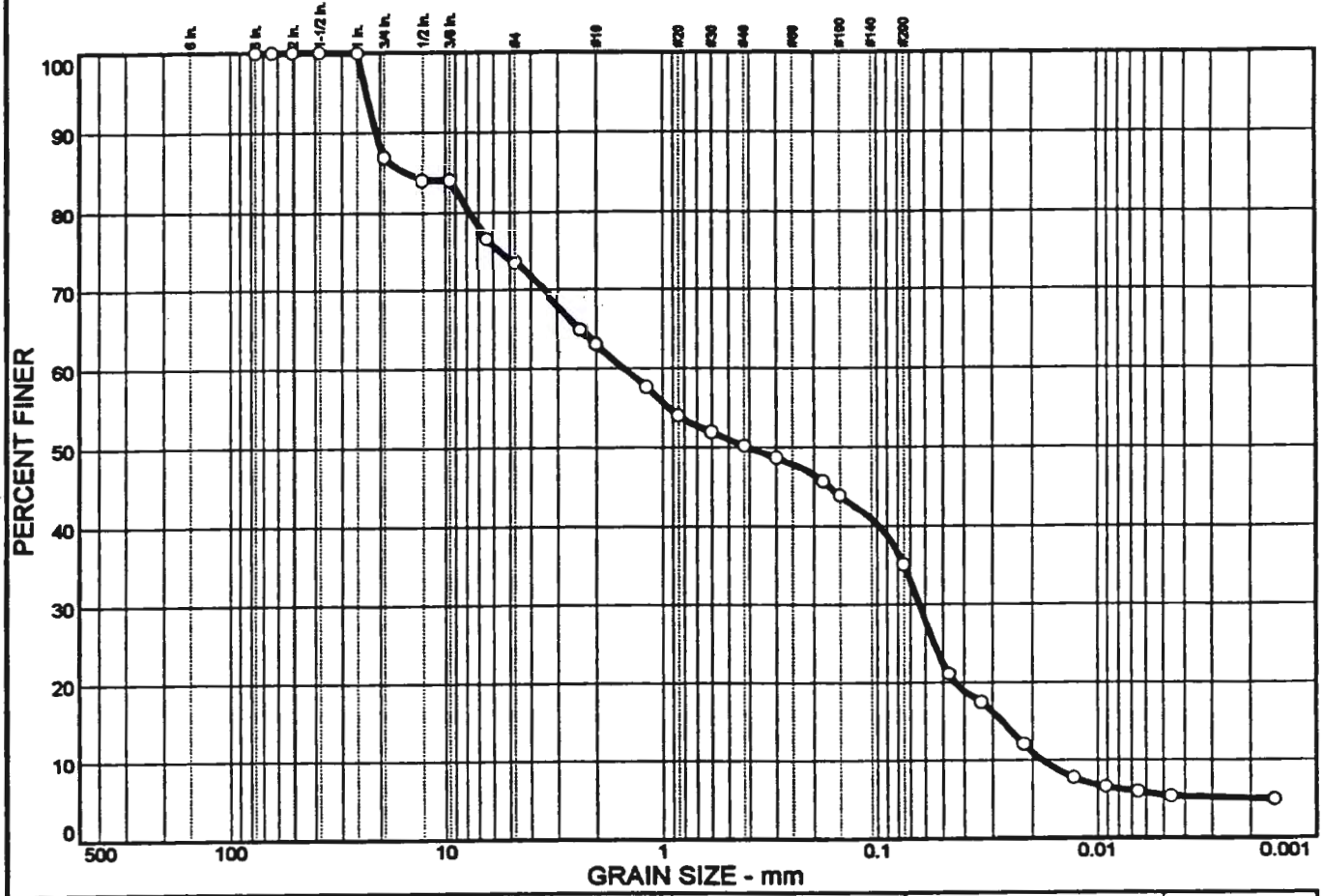
Sample No.: SB-15, 11-13' **Source of Sample:** **Date:** 4-3-98
Location: **Elev./Depth:**

RMT, Inc.

Client: NAVISTAR INTERNATIONAL
Project:
Project No: 3777.06 **Plate** 4

JHF 4/14/98

PARTICLE SIZE DISTRIBUTION TEST REPORT



% + 3"	% GRAVEL	% SAND	% SILT	% CLAY
0.0	26.4	38.6	29.5	5.5

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3.0 in.	100.0		
2.5 in.	100.0		
2.0 in.	100.0		
1.5 in.	100.0		
1.0 in.	100.0		
.75 in.	87.0		
.5 in.	84.3		
.375 in.	84.3		
.25 in.	76.7		
#4	73.6		
#8	65.1		
#10	63.0		
#16	57.6		
#20	54.0		
#30	51.9		
#40	50.2		
#50	48.7		
#80	45.7		
#100	43.9		
#200	35.0		

* (no specification provided)

Soil Description

Silty sand with gravel

Atterberg Limits

PL= NP LL= NV PI=

Coefficients

D_{85}= 14.9 D_{60}= 1.50 D_{50}= 0.407
D_{30}= 0.0636 D_{15}= 0.0272 D_{10}= 0.0179
C_u= 83.68 C_c= 0.15

Classification

USCS= SM AASHTO=

Remarks

Sample No.: SB-2, 11-13' **Source of Sample:** **Date:** 4-3-98
Location: **Elev./Depth:**

RMT, Inc.

Client: NAVISTAR INTERNATIONAL
Project:
Project No: 3777.06 **Plate** 5

Appendix D
Soil Analytical Reports, Current Investigation

EXPLANATION OF SOIL DUPLICATE ANALYSES

DUP1 corresponds to SB-2, 13-15'

DUP2 corresponds toSB-4, 13-15'

DUP3 corresponds toSB-8, 7-9'

DUP4 corresponds toSB-15, 13-15'

Blind duplicate samples are intended to be a check on field collection and laboratory analytical methods. The duplicate sample should be collected in the same manner and of the same material as the first sample collected. The laboratory is not aware of which sample the duplicate is from; therefore, it is a "blind" duplicate.

Soil is naturally heterogeneous; therefore, collection of a true duplicate sample is difficult. Theoretically, a soil sample should be homogenized before filling the sample container and the duplicate sample container. In the case of soil collection for analysis of volatile constituents, the sample cannot be homogenized, because volatile constituents might be lost during the mixing process.

At the Navistar site, at borings where visibly impacted soil was present, the visibly impacted portion in the two foot long soil retrieval device (Geoprobe® liner or split spoon sampler) was often just an inch or two of material at the bottom of the device. There was not enough visibly impacted material to fill two En Core® samplers for analysis. In this instance, the duplicate sample was collected from soil above the visibly impacted material within the two-foot long sampler and the pair is not representative of similar materials.

Because the soil duplicate pairs do not necessarily represent similar material and were not homogenized, the duplicates are presented in this Appendix and are discussed in the data validation report, but are not discussed in the text of the report.

ENCHEM INC.
1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client: RMT - MILWAUKEE

WI DNR LAB ID : 405132750

Report Date : 4/2/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881699-001	SB-2 3-5'	3/27/98			
881699-002	SB-2 5-7'	3/27/98			
881699-003	SB-2 13-15'	3/27/98			
881699-004	SB-3 3-5'	3/27/98			
881699-005	SB-3 7-9'	3/27/98			
881699-006	SB-3 13-15'	3/27/98			
881699-007	SB-4 5-7'	3/27/98			
881699-008	SB-4 9-11'	3/27/98			
881699-009	SB-4 13-15'	3/27/98			
881699-010	SB-5 5-7'	3/27/98			
881699-011	SB-5 9-11'	3/27/98			
881699-012	SB-5 13-15'	3/27/98			
881699-013	DUP1 (= SB-2 13-15')	3/27/98			
881699-014	DUP2 (= SB-4 13-15')	3/27/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

M Sulke — Approval Signature

4/2/98 — Date

ENCHEM INC.
1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

Lab#:	TestGroupID:	Comment:
881699-006 SB-3 13-15'	DRO-S	Hump was present late in chromatogram.
881699-008 SB-4 9-11'	DRO-S	Hump was present late in chromatogram.
881699-009 SB-4 13-15'	GRO-S-ME	Sample exhibits hydrocarbon pattern resembling diesel fuel or extremely weathered gasoline.
	DRO-S	Not run in upper half of the curve due to baseline rise.
	DRO-S	Hump was present late in chromatogram.
881699-012 SB-5 13-15'	DRO-S	Hump was present late in chromatogram.
881699-013 DUP1	GRO-S-ME	Late peaks were present outside of window.

ENCHEM INC.
1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-2 3-5'
Lab Sample Number : 881699-001
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	92.4				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.2			4.2	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		3/31/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/30/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

ENCHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
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Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-2 3-5'

Report Date : 4/1/98

Lab Sample Number : 881699-001

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Trichloroethene	100	27	65	ug/kg	3/30/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/30/98	SW846 8260
4-Bromofluorobenzene	80			%Recov	3/30/98	SW846 8260
Dibromofluoromethane	102			%Recov	3/30/98	SW846 8260
Toluene-d8	98			%Recov	3/30/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-2 5-7'
Lab Sample Number : 881699-002
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.4				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 3/30/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.2			4.2	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		3/31/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/30/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/30/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-2 5-7'

Report Date : 4/1/98

Lab Sample Number : 881699-002

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/30/98	SW846 8260
4-Bromofluorobenzene	87			%Recov	3/30/98	SW846 8260
Dibromofluoromethane	113			%Recov	3/30/98	SW846 8260
Toluene-d8	107			%Recov	3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-2 13-15'
Lab Sample Number : 881699-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.3				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 3/30/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.9			3.9	mg/kg		3/30/98	WI MOD DRO
Blank spike	86			50	%Recov		3/30/98	WI MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	WI MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		3/31/98	WI MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	WI MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	WI MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/30/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/30/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-2 13-15' **Report Date :** 4/1/98

Lab Sample Number : 881699-003 **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/30/98	SW846 8260
4-Bromofluorobenzene	91			%Recov	3/30/98	SW846 8260
Dibromofluoromethane	116			%Recov	3/30/98	SW846 8260
Toluene-d8	107			%Recov	3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-3 3-5'

Lab Sample Number : 881699-004

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/1/98

Collection Date : 3/27/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	78.8				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.5			4.5	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.2			3.2	mg/kg		3/31/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/30/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 | **Client :** RMT - MILWAUKEE

Field ID : SB-3 3-5' | **Report Date :** 4/1/98

Lab Sample Number : 881699-004 | **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 | **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/30/98	SW846 8260
4-Bromofluorobenzene	85			%Recov	3/30/98	SW846 8260
Dibromofluoromethane	105			%Recov	3/30/98	SW846 8260
Toluene-d8	105			%Recov	3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-3 7-9'

Report Date : 4/1/98

Lab Sample Number : 881699-005

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	83.3				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.6			4.6	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		3/31/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/30/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/30/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-3 7-9'

Report Date : 4/1/98

Lab Sample Number : 881699-005

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/30/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/30/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/30/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/30/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/30/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/30/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/30/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/30/98	SW846 8260
4-Bromofluorobenzene	81			%Recov	3/30/98	SW846 8260
Dibromofluoromethane	99			%Recov	3/30/98	SW846 8260
Toluene-d8	98			%Recov	3/30/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-3 13-15'

Lab Sample Number : 881699-006

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/1/98

Collection Date : 3/27/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.6				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	32			4.4	mg/kg		3/30/98	WI MOD DRO
Blank spike	86			50	%Recov		3/30/98	WI MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	WI MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		3/31/98	WI MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	WI MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	WI MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-3 13-15'

Report Date : 4/1/98

Lab Sample Number : 881699-006

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	82			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	87			%Recov	3/31/98	SW846 8260
Toluene-d8	87			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-4 5-7'
Lab Sample Number : 881699-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.0				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.6			4.6	mg/kg		3/30/98	WI MOD DRO
Blank spike	86			50	%Recov		3/30/98	WI MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	WI MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		3/31/98	WI MOD GRO
Blank Spike	110			1.00	%Recov		3/31/98	WI MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		3/31/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		3/31/98	WI MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-4 5-7' **Report Date :** 4/1/98

Lab Sample Number : 881699-007 **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	78			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	83			%Recov	3/31/98	SW846 8260
Toluene-d8	84			%Recov	3/31/98	SW846 8260

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EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-4 9-11'

Lab Sample Number : 881699-008

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/1/98

Collection Date : 3/27/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	93.8				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	4.1			3.9	mg/kg		3/30/98	WI MOD DRO
Blank spike	86			50	%Recov		3/30/98	WI MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	WI MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		4/1/98	WI MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	WI MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	WI MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-4 9-11' **Report Date :** 4/1/98

Lab Sample Number : 881699-008 **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	83			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	88			%Recov	3/31/98	SW846 8260
Toluene-d8	87			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-4 13-15'

Report Date : 4/1/98

Lab Sample Number : 881699-009

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	88.3				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	1200			70	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	3.4			2.8	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-4 13-15'

Report Date : 4/1/98

Lab Sample Number : 881699-009

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	86			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	92			%Recov	3/31/98	SW846 8260
Toluene-d8	90			%Recov	3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-5 5-7'
Lab Sample Number : 881699-010
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	76.7				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.4			5.4	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.3			3.3	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-5 5-7'

Report Date : 4/1/98

Lab Sample Number : 881699-010

Collection Date : 3/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	83			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	90			%Recov	3/31/98	SW846 8260
Toluene-d8	88			%Recov	3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-5 9-11'
Lab Sample Number : 881699-011
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	95.1				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI MOD DRO **Prep Date:** 3/30/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.8			3.8	mg/kg		3/30/98	WI MOD DRO
Blank spike	86			50	%Recov		3/30/98	WI MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	WI MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.6			2.6	mg/kg		4/1/98	WI MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	WI MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	WI MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/30/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-5 9-11' **Report Date :** 4/1/98

Lab Sample Number : 881699-011 **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	83			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	89			%Recov	3/31/98	SW846 8260
Toluene-d8	87			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-5 13-15'
Lab Sample Number : 881699-012
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/2/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.4				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 3/30/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	1600			62	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/30/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/1/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/1/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-5 13-15' **Report Date :** 4/2/98

Lab Sample Number : 881699-012 **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	4/1/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	4/1/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	4/1/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	4/1/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	4/1/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	4/1/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	4/1/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/1/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/1/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/1/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/1/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	4/1/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	4/1/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/1/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	4/1/98	SW846 8260
Styrene	< 25	25	60	ug/kg	4/1/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/1/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	4/1/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	4/1/98	SW846 8260
Toluene	< 25	25	60	ug/kg	4/1/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	4/1/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	4/1/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	4/1/98	SW846 8260
4-Bromofluorobenzene	82			%Recov	4/1/98	SW846 8260
Dibromofluoromethane	85			%Recov	4/1/98	SW846 8260
Toluene-d8	85			%Recov	4/1/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : DUP1 (= SB-2 13-15')
Lab Sample Number : 881699-013
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	90.1				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 3/30/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	3.9			3.3	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/30/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : DUP1 (= SB-2 13-15') **Report Date :** 4/1/98

Lab Sample Number : 881699-013 **Collection Date :** 3/27/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	82			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	87			%Recov	3/31/98	SW846 8260
Toluene-d8	87			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : DUP2 (= SB-4 13-15')
Lab Sample Number : 881699-014
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.4				%		3/30/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/30/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 3/30/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.1			5.1	mg/kg		3/30/98	Wi MOD DRO
Blank spike	86			50	%Recov		3/30/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		3/30/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/30/98	Wi MOD DRO

Organic Results

Preservation Date : 3/28/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	110			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	108			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

Preservation Date : 3/28/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/30/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : DUP2 (= SB-4 13-15')
Lab Sample Number : 881699-014
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/1/98
Collection Date : 3/27/98
Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	85			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	93			%Recov	3/31/98	SW846 8260
Toluene-d8	91			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

KA

Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Micky
Telephone: (414) 879-1212
Project Number: 3777-016
Project Name: Navistar International
Project Location: Waukesha, WI
Sampled By (Print): David P. Micky

Regulatory Program *(circle)*: UST RCRA CLP SDWA NPDES/WPDES CAA NR_____ Other _____

NR720 Confirmation Analysis Required? *(circle)*: Y N
(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

1241 Bellevue St., Suite 9, Green Bay, WI 54302, 920-469-2436 • 1-800-736-2436, FAX 920-469-8827
802 Deming Way, Madison, WI 53717, 608-827-5501 • 1-888-536-2436, Fax: 608-827-5503
1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

17550

Page _____ of _____
P.O. # _____ Quote # _____
Mail Report To: Dave Micky
Company: RMT, Inc.
Address: 150 N. Patrick Blvd. Brookfield, WI 53045
Invoice To: _____
Company: _____
Address: _____
Mail Invoice To: _____

FILTERED? (YES/NO): NO
PRESERVATION (CODE)*: E
ANALYSES REQUESTED: VOCs, GRO, DRO
Preserved w/ EnCore

FIELD ID	SAMPLE DESCRIPTION (Serial #'s)	COLLECTION DATE	COLLECTION TIME	VOCs	GRO	DRO	PID FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-2 3-5'	2470, 1541, 9377	3/27/98	11:08	1	1	1	0	Soil	✓	3	GRO 1:50	001
SB-2 5-7'	695, 3004, 330		11:12				0					002
SB-2 13-15'	751, 1848, 946		11:40				2					003
SB-3 3-5'	4321, 2541, 458		12:04				0					004
SB-3 7-9'	2433, 4084, 5066		12:15									005
SB-3 13-15'	4230, 1639, 3780		12:36									006
SB-4 5-7'	3792, 2333, 151		1:35									007
SB-4 9-11'	4046, 9543, 3726		1:50									008
SB-4 13-15'	1953, 1994, 1291		2:04									009
SB-5 5-7'	445, 627, 9035		2:11									010
SB-5 9-11'	1193, 1598, 3950		2:58									011
SB-5 13-15'	4460, 3723, 2379		3:10									012
Dup-1	4251, 1196, 7283		—									013

SHADED AREA FOR LABORATORY USE ONLY

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Micky	3/27/98 6:15		
Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	3/27-98 6:35		
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By: FE 414 547 7-3591	Date/Time:	Received By (En Chem): [signature]	Date/Time: 3/28/98 0945

En Chem Project No.: 881699
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals):
Coolers were sealed

KU

Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Misky
Telephone: (414) 879-1212
Project Number: 3777.06
Project Name: Navistar International
Project Location: Waukesha, WI
Sampled By (Print): David P. Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

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☐ 802 Deming Way, Madison, WI 53717, 608-827-5501 • 1-888-536-2436, Fax: 608-827-5503
☐ 1423 N. 8th Street., Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

17592

Page ____ of ____
P.O. # ____ Quote # ____
Mail Report To: Dave Misky
Company: RMT, Inc
Address: 150 N Patrick Blvd. Brookfield, WI 53045
Invoice To: ____
Company: ____
Address: ____
Mail Invoice To: ____

FILTERED? (YES/NO): No
PRESERVATION (CODE)*: E

ANALYSES REQUESTED: VOCs, GRO, DRO

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	VOCs	GRO	DRO						FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
Dup-2	3825, 9272, 3314	3/27/98	—	1	1	1						0	Soil	✓	3	Core 1-50g	814

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)
**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:	
David P. Misky	3/27/98 6:15 p.m.			En Chem Project No. 881699
[signature]	3-27-98 6:35			Sample Receipt Temp. ROI
				Sample Receipt pH (Wet/Metals)
FE 444572-3590		Received By (En Chem): [signature]	3/28/98 0945	Coolers Had Custody Seals

ENCHEM INC.
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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client: RMT - MILWAUKEE

WI DNR LAB ID : 405132750

Report Date : 4/17/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881714-001	SB-7 7-9'	3/29/98			
881714-002	SB-7 13-15'	3/29/98			
881714-003	SB-8 7-9'	3/29/98			
881714-004	SB-8 11-13'	3/29/98			
881714-005	SB-8 15-17'	3/29/98			
881714-006	SB-9 5-7'	3/29/98			
881714-007	SB-9 9-11'	3/29/98			
881714-008	SB-9 13-15'	3/29/98			
881714-009	SB-10 5-7'	3/29/98			
881714-010	SB-10 7-9'	3/29/98			
881714-011	SB-10 11-13'	3/29/98			
881714-012	DUP3 (= SB-8 7-9')	3/29/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

M. Sule — Approval Signature

4/17/98 — Date

ENCHEM INC.
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Green Bay, WI 54302
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800-7-ENCHEM
FAX: 920-469-8827

Lab#:	TestGroupID:	Comment:
881714	All Samples	B - Acetone is present in the laboratory environment. Detects should be considered suspect.
881714-006	DRO-S	Front peaks and late eluting peaks present in the chromatogram.
	GRO-S-ME	Low level peaks present in chromatogram.
881714-011	GRO-S-ME	Sample received overweight (35.7 grams).

ENCHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-7 7-9'

Lab Sample Number : 881714-001

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/17/98

Collection Date : 3/29/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	93.9				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL Prep Method: SW846 5030 Prep Date: 3/31/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	120	59	140		ug/kg	QB(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260
Benzene	< 25	25	60		ug/kg		3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Bromoform	< 25	25	60		ug/kg		3/31/98	SW846 8260
Bromomethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Carbon disulfide	< 25	25	60		ug/kg		3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chlorobenzene	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chloroethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chloroform	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chloromethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60		ug/kg		3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		3/31/98	SW846 8260
Ethylbenzene	< 25	25	60		ug/kg		3/31/98	SW846 8260
2-Hexanone	< 130	130	310		ug/kg		3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

ENCHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-7 7-9'

Report Date : 4/17/98

Lab Sample Number : 881714-001

Collection Date : 3/29/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	83			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	95			%Recov	3/31/98	SW846 8260
Toluene-d8	95			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

ENCHEM INC.

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800-7-ENCHEM
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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-7 13-15'

Lab Sample Number : 881714-002

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/17/98

Collection Date : 3/29/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.9				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	170	61	150		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260
Benzene	< 25	25	60		ug/kg		3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Bromoform	< 25	25	60		ug/kg		3/31/98	SW846 8260
Bromomethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Carbon disulfide	< 25	25	60		ug/kg		3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chlorobenzene	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chloroethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chloroform	< 25	25	60		ug/kg		3/31/98	SW846 8260
Chloromethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60		ug/kg		3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60		ug/kg		3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		3/31/98	SW846 8260
Ethylbenzene	< 25	25	60		ug/kg		3/31/98	SW846 8260
2-Hexanone	< 130	130	310		ug/kg		3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-7 13-15' **Report Date :** 4/17/98

Lab Sample Number : 881714-002 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	80			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	97			%Recov	3/31/98	SW846 8260
Toluene-d8	92			%Recov	3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-8 7-9'
Lab Sample Number : 881714-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	81.5				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI MOD DRO **Prep Date:** 3/31/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.3			5.3	mg/kg		3/31/98	WI MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	WI MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.1			3.1	mg/kg		4/1/98	WI MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	WI MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	160	67	160		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-8 7-9'

Lab Sample Number : 881714-003

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/17/98

Collection Date : 3/29/98

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	200	31	74	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	82			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	96			%Recov	3/31/98	SW846 8260
Toluene-d8	96			%Recov	3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-8 11-13'
Lab Sample Number : 881714-004
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	88.6				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 3/31/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.3			4.3	mg/kg		3/31/98	Wi MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/31/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	210	62	150		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-8 11-13' **Report Date :** 4/17/98

Lab Sample Number : 881714-004 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	78			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	91			%Recov	3/31/98	SW846 8260
Toluene-d8	89			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-8 15-17'
Lab Sample Number : 881714-005
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.2				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/31/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.8			3.8	mg/kg		3/31/98	Wi MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	150	62	150		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-8 15-17' **Report Date :** 4/17/98

Lab Sample Number : 881714-005 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	84			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	98			%Recov	3/31/98	SW846 8260
Toluene-d8	97			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-9 5-7'
Lab Sample Number : 881714-006
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.6				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 3/31/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	19			4.5	mg/kg		3/31/98	WI MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	WI MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	7.4			2.8	mg/kg		4/1/98	WI MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	WI MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/31/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	290	61	150		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-9 5-7' **Report Date :** 4/17/98

Lab Sample Number : 881714-006 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	74	28	67	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	77			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	93			%Recov	3/31/98	SW846 8260
Toluene-d8	89			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-9 9-11'
Lab Sample Number : 881714-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	88.2				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/31/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.9			3.9	mg/kg		3/31/98	Wi MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	180	62	150		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-9 9-11' **Report Date :** 4/17/98

Lab Sample Number : 881714-007 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	84			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	99			%Recov	3/31/98	SW846 8260
Toluene-d8	97			%Recov	3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-9 13-15'

Lab Sample Number : 881714-008

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/17/98

Collection Date : 3/29/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	93.7				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/31/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.8			3.8	mg/kg		3/31/98	Wi MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	140	59	140		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-9 13-15'

Report Date : 4/17/98

Lab Sample Number : 881714-008

Collection Date : 3/29/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	108			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	124			%Recov	3/31/98	SW846 8260
Toluene-d8	122			%Recov	3/31/98	SW846 8260

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ENCHEM INC.
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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-10 5-7'
Lab Sample Number : 881714-009
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.6				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 3/31/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.2			4.2	mg/kg		3/31/98	Wi MOD DRO
Blank spike	114			50.0	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	95			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 3/31/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/31/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	210	67	160		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-10 5-7'

Report Date : 4/17/98

Lab Sample Number : 881714-009

Collection Date : 3/29/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	110	30	72	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	85			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	99			%Recov	3/31/98	SW846 8260
Toluene-d8	98			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-10 7-9'
Lab Sample Number : 881714-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	84.5				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 3/31/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.0			4.0	mg/kg		3/31/98	Wi MOD DRO
Blank spike	79			50	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	90			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 3/31/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/1/98	Wi MOD GRO
Blank Spike	105			1.00	%Recov		4/1/98	Wi MOD GRO
Blank Spike Duplicate	104			1.00	%Recov		4/1/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	190	65	160		ug/kg	B(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-10 7-9'

Report Date : 4/17/98

Lab Sample Number : 881714-010

Collection Date : 3/29/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	80			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	95			%Recov	3/31/98	SW846 8260
Toluene-d8	90			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-10 11-13'
Lab Sample Number : 881714-011
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/17/98
Collection Date : 3/29/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.1				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 3/31/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.6			3.6	mg/kg		3/31/98	Wi MOD DRO
Blank spike	79			50	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	90			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD GRO — Prep Date: 4/1/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		4/2/98	Wi MOD GRO
Blank Spike	96			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	99			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 3/31/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	130	60	140		ug/kg	QB(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-10 11-13' **Report Date :** 4/17/98

Lab Sample Number : 881714-011 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg	3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	3/31/98	SW846 8260
4-Bromofluorobenzene	88			%Recov	3/31/98	SW846 8260
Dibromofluoromethane	106			%Recov	3/31/98	SW846 8260
Toluene-d8	102			%Recov	3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : DUP3 (= SB-8 7-9')

Lab Sample Number : 881714-012

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/17/98

Collection Date : 3/29/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	79.5				%		4/1/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 3/31/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 3/31/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.3			5.3	mg/kg		3/31/98	Wi MOD DRO
Blank spike	79			50	%Recov		3/31/98	Wi MOD DRO
Blank spike duplicate	90			50	%Recov		3/31/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		3/31/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/1/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.1			3.1	mg/kg		4/2/98	Wi MOD GRO
Blank Spike	96			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	99			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 3/31/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	110	69	170		ug/kg	QB(128)	3/31/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : DUP3 **Report Date :** 4/17/98

Lab Sample Number : 881714-012 **Collection Date :** 3/29/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		3/31/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		3/31/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
Carbon disulfide	48	31	74	ug/kg	Q	3/31/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		3/31/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		3/31/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		3/31/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		3/31/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		3/31/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		3/31/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		3/31/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		3/31/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		3/31/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		3/31/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		3/31/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg		3/31/98	SW846 8260
Styrene	< 25	25	60	ug/kg		3/31/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		3/31/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		3/31/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		3/31/98	SW846 8260
Toluene	< 25	25	60	ug/kg		3/31/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		3/31/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		3/31/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		3/31/98	SW846 8260
4-Bromofluorobenzene	81			%Recov		3/31/98	SW846 8260
Dibromofluoromethane	98			%Recov		3/31/98	SW846 8260
Toluene-d8	96			%Recov		3/31/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

60

Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Misky
Telephone: (414) 879-1212
Project Number: 3777.06
Project Name: Navistar International
Project Location: Waukesha, WI
Sampled By (Print): David P. Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

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802 Deming Way, Madison, WI 53717, 608-827-5501 • 1-888-536-2436, Fax: 608-827-5503
1423 N. 8th Street., Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

17555
Refrained 3 Encores.

Page ____ of ____
P.O. # ____ Quote # ____
Mail Report To: Dave Misky
Company: 150 N. Patrick Blvd
Address: Brookfield, WI 53045
Invoice To:
Company:
Address:
Mail Invoice To:

FILTERED? (YES/NO): No / No / No
PRESERVATION (CODE)*: E / E / E

ANALYSES REQUESTED: VOCs, GRO, DRO

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION (Serial #s)	COLLECTION DATE	COLLECTION TIME	VOCs	GRO	DRO							PID FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-7 7-9'	1750	3/29/98	11:50	1									0	Soil	X	1-5oz 1-enc		001
SB-7 13-15'	2487	↓	12:00	1									0	↓	↓	↓		002
SB-8 7-9'	1388, 2869, 556		1:20	1	1	1							0			1-5oz 3-enc		003
SB-8 11-13'	817, 5440, 3550		1:35	1	1	1							0			↓		004
SB-8 15-17'	1713, 417, 1980		1:55	1	1	1							0					005
SB-9 5-7'	2376, 9769, 2033		2:30	1	1	1							18					006
SB-9 9-11'	9179, 1913, 9945		2:45	1	1	1							0					007
SB-9 13-15'	9071, 755, 7855		3:00	1	1	1							0					008
SB-10 5-7'	4162, 5389, 1814		3:50	1	1	1							0					009
SB-10 7-9'	1086, 3310, 9003		4:00	1	1	1							0					010
SB-10 11-13'	2633, 2770, 431		4:18	1	1	1							0					011
DUP3	1883, 9939, 4456	↓	5:00	1	1	1							0	↓	↓	↓		012

***Preservation Code**
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Misky	3/29/98	[illegible]	3/30/98 1050
[illegible]	3/30/98	[illegible]	3/30/98 1210
[illegible]	3/30/98		
		Received By (En Chem): [illegible]	3/30/98 1530

En Chem Project No.: 881714
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals):
Custody Seal Rec'd Intact

EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client: RMT - MILWAUKEE

WI DNR LAB ID : 405132750

Report Date : 4/9/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881805-001	SB-12 3-5'	4/1/98			
881805-002	SB-12 7-9'	4/1/98			
881805-003	SB-12 11-13'	4/1/98			
881805-004	SB-13 7-9'	4/1/98			
881805-005	SB-13 11-13'	4/1/98			
881805-006	SB-13 15-17'	4/1/98			
881805-007	SB-14 3-5'	4/1/98			
881805-008	SB-14 7-9'	4/1/98			
881805-009	SB-14 13-15'	4/1/98			
881805-010	SB-15 9-11'	4/1/98			
881805-011	SB-15 13-15'	4/1/98			
881805-012	SB-16 5-7'	4/1/98			
881805-013	SB-16 13-15'	4/1/98			
881805-014	SB-17 9-11'	4/1/98			
881805-015	SB-17 13-15'	4/1/98			
881805-016	DUP 4 (= SB-15 13-15')	4/1/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duraseau — Approval Signature

4/9/98 — Date

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FAX: 920-469-8827

Lab#:	TestGroupID:	Comment:
881805	All Samples	Methylene chloride is present in the laboratory environment. Detects should be considered suspect.
881805-011 SB-15 13-15'	GRO-S-ME	Sample exhibits hydrocarbon pattern resembling diesel fuel or extremely weathered gasoline.
	DRO-S	Late eluting hump present along with diesel range peaks.
881805-012 SB-16 5-7'	DRO-S	Hump was present late in chromatogram.
881805-014 SB-17 9-11'	DRO-S	Hump was present late in chromatogram.
881805-015 SB-17 13-15'	DRO-S	Hump was present late in chromatogram.
881805-016 DUP 4	GRO-S-ME	Sample exhibits hydrocarbon pattern resembling diesel fuel or extremely weathered gasoline.
	DRO-S	Late eluting hump present along with diesel range peaks.

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Green Bay, WI 54302
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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-12 3-5'
Lab Sample Number : 881805-001
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.4				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.5			4.5	mg/kg		4/3/98	Wi MOD DRO
Blank spike	99			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	99			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-12 3-5' **Report Date :** 4/6/98

Lab Sample Number : 881805-001 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Carbon disulfide	160	30	72	ug/kg	4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/3/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	4/3/98	SW846 8260
4-Bromofluorobenzene	94			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	96			%Recov	4/3/98	SW846 8260
Toluene-d8	99			%Recov	4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-12 7-9'
Lab Sample Number : 881805-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	90.1				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.6			4.6	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-12 7-9' **Report Date :** 4/6/98

Lab Sample Number : 881805-002 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/3/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	4/3/98	SW846 8260
4-Bromofluorobenzene	97			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	98			%Recov	4/3/98	SW846 8260
Toluene-d8	99			%Recov	4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-12 11-13'
Lab Sample Number : 881805-003
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	88.5				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.7			3.7	mg/kg		4/3/98	WI MOD DRO
Blank spike	78			50	%Recov		4/3/98	WI MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	WI MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/4/98	WI MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	WI MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	WI MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-12 11-13' **Report Date :** 4/6/98

Lab Sample Number : 881805-003 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg	4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg	4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg	4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg	4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/3/98	SW846 8260
Methylene chloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg	4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg	4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg	4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg	4/3/98	SW846 8260
4-Bromofluorobenzene	92			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	92			%Recov	4/3/98	SW846 8260
Toluene-d8	95			%Recov	4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-13 7-9'
Lab Sample Number : 881805-004
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.4				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.0			4.0	mg/kg		4/3/98	WI MOD DRO
Blank spike	78			50	%Recov		4/3/98	WI MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	WI MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/4/98	WI MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	WI MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	WI MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-13 7-9'

Report Date : 4/6/98

Lab Sample Number : 881805-004

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	33	28	67	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	97			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	100			%Recov		4/3/98	SW846 8260
Toluene-d8	101			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-13 11-13'
Lab Sample Number : 881805-005
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.7				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.3			4.3	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-13 11-13'
Lab Sample Number : 881805-005
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	30	28	67	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	97			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	100.0			%Recov		4/3/98	SW846 8260
Toluene-d8	103			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-13 15-17'
Lab Sample Number : 881805-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.5				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.8			3.8	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-13 15-17' **Report Date :** 4/6/98

Lab Sample Number : 881805-006 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	46	30	72	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	660	30	72	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	99			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	99			%Recov		4/3/98	SW846 8260
Toluene-d8	103			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-14 3-5'

Lab Sample Number : 881805-007

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/6/98

Collection Date : 4/1/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	80.7				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.1			4.1	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.1			3.1	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-14 3-5' **Report Date :** 4/6/98

Lab Sample Number : 881805-007 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	47	31	74	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	95			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	97			%Recov		4/3/98	SW846 8260
Toluene-d8	99.9			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-14 7-9'

Report Date : 4/6/98

Lab Sample Number : 881805-008

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	84.1				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** WI MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.3			4.3	mg/kg		4/3/98	WI MOD DRO
Blank spike	78			50	%Recov		4/3/98	WI MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	WI MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/4/98	WI MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	WI MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	WI MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-14 7-9'

Report Date : 4/6/98

Lab Sample Number : 881805-008

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	56	30	72	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	88			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	90			%Recov		4/3/98	SW846 8260
Toluene-d8	95			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-14 13-15'
Lab Sample Number : 881805-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	86.2				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** WI MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.9			3.9	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-14 13-15'

Report Date : 4/6/98

Lab Sample Number : 881805-009

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	45	29	70	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	95			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	98			%Recov		4/3/98	SW846 8260
Toluene-d8	100			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-15 9-11'
Lab Sample Number : 881805-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	87.9				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.1			4.1	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-15 9-11'

Report Date : 4/6/98

Lab Sample Number : 881805-010

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	44	28	67	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	101			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	104			%Recov		4/3/98	SW846 8260
Toluene-d8	105			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-15 13-15'
Lab Sample Number : 881805-011
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	87.7				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	110			3.9	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	20			2.9	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-15 13-15'

Report Date : 4/6/98

Lab Sample Number : 881805-011

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	31	29	70	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	103			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	102			%Recov		4/3/98	SW846 8260
Toluene-d8	104			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-16 5-7'

Lab Sample Number : 881805-012

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/6/98

Collection Date : 4/1/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	87.0				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	47			4.2	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		4/4/98	Wi MOD GRO
Blank Spike	106			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	107			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/4/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-16 5-7' **Report Date :** 4/6/98

Lab Sample Number : 881805-012 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	36	29	70	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	100			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	101			%Recov		4/3/98	SW846 8260
Toluene-d8	101			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-16 13-15'
Lab Sample Number : 881805-013
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	92.6				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.1			4.1	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** BSJ

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		4/5/98	Wi MOD GRO
Blank Spike	99			1.0	%Recov		4/5/98	Wi MOD GRO
Blank Spike Duplicate	97			1.0	%Recov		4/5/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/5/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-16 13-15' **Report Date :** 4/6/98

Lab Sample Number : 881805-013 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	40	27	65	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	103			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	105			%Recov		4/3/98	SW846 8260
Toluene-d8	110			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-17 9-11'

Lab Sample Number : 881805-014

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/6/98

Collection Date : 4/1/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	90.7				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	5.3			3.8	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: BSJ

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/5/98	Wi MOD GRO
Blank Spike	99			1.0	%Recov		4/5/98	Wi MOD GRO
Blank Spike Duplicate	97			1.0	%Recov		4/5/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/5/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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Green Bay, WI 54302
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800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-17 9-11' **Report Date :** 4/6/98

Lab Sample Number : 881805-014 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	40	28	67	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	96			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	95			%Recov		4/3/98	SW846 8260
Toluene-d8	100			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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ENCHEM INC.
1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
Fax: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-17 13-15'
Lab Sample Number : 881805-015
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 4/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	87.8				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	190			10	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** BSJ

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		4/5/98	Wi MOD GRO
Blank Spike	99			1.0	%Recov		4/5/98	Wi MOD GRO
Blank Spike Duplicate	97			1.0	%Recov		4/5/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/5/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-17 13-15' **Report Date :** 4/6/98

Lab Sample Number : 881805-015 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	48	28	67	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	105			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	103			%Recov		4/3/98	SW846 8260
Toluene-d8	104			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : DUP 4 (= SB-15 13-15')

Report Date : 4/7/98

Lab Sample Number : 881805-016

Collection Date : 4/1/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.0				%		4/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	35			4.1	mg/kg		4/3/98	Wi MOD DRO
Blank spike	78			50	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	79			50	%Recov		4/3/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/3/98	Wi MOD DRO

Organic Results

Preservation Date : 4/2/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	9.0			2.8	mg/kg		4/6/98	Wi MOD GRO
Blank Spike	99			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	97			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/6/98	Wi MOD GRO

Organic Results

Preservation Date : 4/2/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/3/98	SW846 8260
2-Butanone	< 65	65	160		ug/kg		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : DUP 4 (= SB-15 13-15') **Report Date :** 4/7/98

Lab Sample Number : 881805-016 **Collection Date :** 4/1/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromodichloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromoform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Bromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon disulfide	< 25	25	60	ug/kg		4/3/98	SW846 8260
Carbon tetrachloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorodibromomethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chlorobenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloroform	< 25	25	60	ug/kg		4/3/98	SW846 8260
Chloromethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,2-Dichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Ethylbenzene	< 25	25	60	ug/kg		4/3/98	SW846 8260
2-Hexanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/3/98	SW846 8260
Methylene chloride	58	28	67	ug/kg	Q	4/3/98	SW846 8260
Styrene	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/3/98	SW846 8260
Trichloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Tetrachloroethene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Toluene	< 25	25	60	ug/kg		4/3/98	SW846 8260
Vinyl chloride	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylenes, -m, -p	< 25	25	60	ug/kg		4/3/98	SW846 8260
Xylene, -o	< 25	25	60	ug/kg		4/3/98	SW846 8260
4-Bromofluorobenzene	97			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	101			%Recov		4/3/98	SW846 8260
Toluene-d8	102			%Recov		4/3/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

☑ 1241 Bellevue St., Suite 9, Green Bay, WI 54302, 920-469-2436 • 1-800-736-2436, FAX 920-469-8827
☐ 802 Deming Way, Madison, WI 53717, 608-827-5501 • 1-888-536-2436, Fax: 608-827-5503
☐ 1423 N. 8th Street., Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-337-8238, FAX 715-392-5843

CHAIN OF CUSTODY

Company Name: RMT, Inc
Branch or Location: Milwaukee
Project Contact: Dave Misky
Telephone: (414) 879-1212
Project Number: 3777.06
Project Name: Navistar International
Project Location: Waukesha, WI
Sampled By (Print): David P. Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

Page ____ of ____
P.O. # ____ Quote # ____
Mail Report To: Dave Misky
Company: 150 N. Patrick Blvd
Address: Brookfield, WI 53045
Invoice To: ____
Company: ____
Address: ____
Mail Invoice To: ____

FILTERED? (YES/NO): No No No
PRESERVATION (CODE)*: E E E

ANALYSES REQUESTED: VOC (TCL LIST, SPECULATIONS); GRO; DRO

Returned 48 Encore

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION (Serial #'s)	COLLECTION DATE	COLLECTION TIME	VOC	GRO	DRO							FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-12 3.5'	4103, 2469, 3007	4/1/98	9:35	1	1	1							PID 0	Soil	✓	1 3 EnCore		001
SB-12 7-9'	3485, 3137, 4484 4409		9:48															002
SB-12 11-13'	1543, 205, 4407		10:02															003
SB-13 -9'	3144, 2454, 3717		11:05															004
SB-13 11-13'	3358, 3618, 9965		11:25															005
SB-13 15-17'	3790, 1357, 5530		11:38															006
SB-14 3.5'	745, 3909, 2665		12:12															007
SB-14 7-9'	4484, 1803, 4370		12:25															008
SB-14 13-15'	1085, 1204, 1037		12:50															009
SB-15 9-11'	1910, 4265, 948		2:05															010
SB-15 13-15'	740, 4139, 4318		2:17															011
SB-16 5-7'	845, 2576, 4266		2:58															012
SB-16 13-15'	1452, 5007, 700	↓	3:23	↓	↓	↓							↓	↓	↓	↓		013

***Preservation Code**
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

****If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.**

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Misky	4/1/98 5:30	[illegible]	4/2/98 11:45
[illegible]	4/2/98 12:00	[illegible]	4/2/98 12:00
[illegible]	4/2/98 15:20		
		Received By (En Chem): [illegible]	4/2/98 15:20

En Chem Project No.: 881805
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals): ____

EN CHEM INC.

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802 Deming Way
Madison, WI 53717
608-827-5501 • 1-888-536-2436
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1423 N. 8th Street., Suite 122
Superior, WI 54880
715-392-5844 • 1-800-837-8238
FAX 715-392-5843

CHAIN OF CUSTODY

1775

Page ____ of ____

P.O. # ____ Quote # ____

Company Name: RMT Inc

Branch or Location: Milwaukee

Project Contact: Dave Misky

Telephone: (414) 879-1212

Project Number: 3777.06

Project Name: Navistar International

Project Location: Waukesha, WI

Sampled By (Print): David P. Misky

Mail Report To: Dave Misky

Company: 152 N. Patrick Blvd.

Address: Brookfield, WI 53045

Invoice To: ____

Company: ____

Address: ____

Mail Invoice To: ____

Regulatory Program *(circle)*: UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? *(circle)*: Y N

(En Chem will not confirm unless otherwise instructed.)

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	FILTERED? (YES/NO)	PRESERVATION (CODE)*	ANALYSES REQUESTED: VOCs (TCL LIST)	ANALYSES REQUESTED: GRO	ANALYSES REQUESTED: DRO	FIELD SCREEN	MATRIX	SHADED AREA FOR LABORATORY USE ONLY: GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
				No	E									
SB-17 9-11'	Sival #5 9432, 2970, 3077	4/1/98	3:55	1	1	1			PID 0	Soil		3	1 set	014
SB-17 13-15'	1368, 2938, 9850	↓	4:06	↓	↓	↓			↓	↓		↓		015
Dup 4	1425, 1533, 1501	↓	—	↓	↓	↓			↓	↓		↓		016

*Preservation Code

A=None B=HCL C=H2SO4
D=HNO3 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Misky	4/1/98 5:00	[illegible]	4/2/98 11:45
[illegible]	4/2/98 12:00	[illegible]	4/2/98 1200
[illegible] 4/2/98	1520		
		Received By (En Chem): [illegible]	4/2/98 15:20

En Chem Project No. 88/805

Sample Receipt Temp. 20°

Sample Receipt pH (Wet/Metals)

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client: RMT - MILWAUKEE

WI DNR LAB ID : 405132750

Report Date : 4/30/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
882372-001	SB-18 5-7'	4/25/98			
882372-002	SB-18 9-11'	4/25/98			
882372-003	SB-19 5-7'	4/25/98			
882372-004	SB-19 9-11'	4/25/98			
882372-005	SB-20 7-9'	4/27/98			
882372-006	SB-20 9-11'	4/27/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duranceau — Approval Signature

4/30/98 — Date

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Lab#:	TestGroupID:	Comment:
882372	All Samples	B - Methylene chloride is present in the laboratory environment. Detects should be considered suspect.
882372-003 SB-19 5-7'	DRO-S	Hump was present late in chromatogram.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-18 5-7'
Lab Sample Number : 882372-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/29/98
Collection Date : 4/25/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	82.2				%		4/29/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/28/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 4/28/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.5			4.5	mg/kg		4/28/98	Wi MOD DRO
Blank spike	86			50	%Recov		4/28/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		4/28/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/28/98	Wi MOD DRO

Organic Results

Preservation Date : 4/27/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/28/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		4/29/98	Wi MOD GRO
Blank Spike	103			1.00	%Recov		4/29/98	Wi MOD GRO
Blank Spike Duplicate	114			1.00	%Recov		4/29/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/29/98	Wi MOD GRO

Organic Results

Preservation Date : 4/27/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/28/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	150	67	160		ug/kg	Q	4/28/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-18 5-7' **Report Date :** 4/29/98

Lab Sample Number : 882372-001 **Collection Date :** 4/25/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromodichloromethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromoform	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromomethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Carbon disulfide	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Carbon tetrachloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chlorodibromomethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chlorobenzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloroform	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloromethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Ethylbenzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
2-Hexanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
Methylene chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Styrene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Trichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	4/28/98	SW846 8260B
4-Bromofluorobenzene	97			%Recov	4/28/98	SW846 8260B
Dibromofluoromethane	101			%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-18 5-7'

Report Date : 4/29/98

Lab Sample Number : 882372-001

Collection Date : 4/25/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Toluene-d8	99	%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-18 9-11'
Lab Sample Number : 882372-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/29/98
Collection Date : 4/25/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	92.0				%		4/29/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/28/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 4/28/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.2			4.2	mg/kg		4/28/98	Wi MOD DRO
Blank spike	86			50	%Recov		4/28/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		4/28/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/28/98	Wi MOD DRO

Organic Results

Preservation Date : 4/27/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/28/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		4/29/98	Wi MOD GRO
Blank Spike	103			1.00	%Recov		4/29/98	Wi MOD GRO
Blank Spike Duplicate	114			1.00	%Recov		4/29/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/29/98	Wi MOD GRO

Organic Results

Preservation Date : 4/27/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/28/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	170	60	140		ug/kg		4/28/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-18 9-11'

Report Date : 4/29/98

Lab Sample Number : 882372-002

Collection Date : 4/25/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromodichloromethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromoform	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromomethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Carbon disulfide	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Carbon tetrachloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chlorodibromomethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chlorobenzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloroform	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloromethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Ethylbenzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
2-Hexanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
Methylene chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Styrene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Trichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	4/28/98	SW846 8260B
4-Bromofluorobenzene	97			%Recov	4/28/98	SW846 8260B
Dibromofluoromethane	104			%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-18 9-11'

Lab Sample Number : 882372-002

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/29/98

Collection Date : 4/25/98

Matrix Type : SOIL

Toluene-d8	100	%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-19 5-7'

Lab Sample Number : 882372-003

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/30/98

Collection Date : 4/25/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	85.3				%		4/29/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/28/98

DIESEL RANGE ORGANICS - SOIL **Prep Method:** Wi MOD DRO **Prep Date:** 4/28/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	6.2			5.3	mg/kg		4/29/98	Wi MOD DRO
Blank spike	86			50	%Recov		4/29/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		4/29/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/29/98	Wi MOD DRO

Organic Results

Preservation Date : 4/27/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL **Prep Method:** WI MOD.GRO **Prep Date:** 4/28/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		4/29/98	Wi MOD GRO
Blank Spike	103			1.00	%Recov		4/29/98	Wi MOD GRO
Blank Spike Duplicate	114			1.00	%Recov		4/29/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/29/98	Wi MOD GRO

Organic Results

Preservation Date : 4/27/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/28/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	140	64	150		ug/kg	Q	4/28/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06 **Client :** RMT - MILWAUKEE

Field ID : SB-19 5-7' **Report Date :** 4/30/98

Lab Sample Number : 882372-003 **Collection Date :** 4/25/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Benzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromodichloromethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromoform	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Bromomethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Carbon disulfide	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Carbon tetrachloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chlorodibromomethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chlorobenzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloroform	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Chloromethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Ethylbenzene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
2-Hexanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
Methylene chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Styrene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Trichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	4/28/98	SW846 8260B
4-Bromofluorobenzene	90			%Recov	4/28/98	SW846 8260B
Dibromofluoromethane	95			%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-19 5-7'

Lab Sample Number : 882372-003

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/30/98

Collection Date : 4/25/98

Matrix Type : SOIL

Toluene-d8	95	%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

111

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-19 9-11'

Report Date : 4/29/98

Lab Sample Number : 882372-004

Collection Date : 4/25/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	86.0				%		4/29/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/28/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 4/28/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.9			3.9	mg/kg		4/28/98	Wi MOD DRO
Blank spike	86			50	%Recov		4/28/98	Wi MOD DRO
Blank spike duplicate	91			50	%Recov		4/28/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		4/28/98	Wi MOD DRO

Organic Results

Preservation Date : 4/27/98

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 4/28/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		4/29/98	Wi MOD GRO
Blank Spike	103			1.00	%Recov		4/29/98	Wi MOD GRO
Blank Spike Duplicate	114			1.00	%Recov		4/29/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		4/29/98	Wi MOD GRO

Organic Results

Preservation Date : 4/27/98

SPECIAL VOLATILE LIST - SOIL/METHANOL — **Prep Method:** SW846 5030 **Prep Date:** 4/28/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	160	64	150		ug/kg		4/28/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-19 9-11'

Report Date : 4/29/98

Lab Sample Number : 882372-004

Collection Date : 4/25/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Benzene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Bromodichloromethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Bromoform	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Bromomethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Carbon disulfide	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Carbon tetrachloride	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Chlorodibromomethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Chlorobenzene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Chloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Chloroform	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Chloromethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Ethylbenzene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
2-Hexanone	< 130	130	310	ug/kg		4/28/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/28/98	SW846 8260B
Methylene chloride	38	29	70	ug/kg	QB(34)	4/28/98	SW846 8260B
Styrene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Trichloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Toluene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg		4/28/98	SW846 8260B
4-Bromofluorobenzene	93			%Recov		4/28/98	SW846 8260B
Dibromofluoromethane	102			%Recov		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-19 9-11'

Report Date : 4/29/98

Lab Sample Number : 882372-004

Collection Date : 4/25/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Toluene-d8	98	%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Field ID : SB-20 7-9'

Lab Sample Number : 882372-005

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/29/98

Collection Date : 4/27/98

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	89.2				%		4/29/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/27/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/28/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 55	55	130		ug/kg		4/28/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		4/28/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-20 7-9'

Report Date : 4/29/98

Lab Sample Number : 882372-005

Collection Date : 4/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

4-Methyl-2-pentanone	< 130	130	310	ug/kg		4/28/98	SW846 8260B
Methylene chloride	34	28	67	ug/kg	QB(34)	4/28/98	SW846 8260B
Styrene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Trichloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Toluene	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg		4/28/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg		4/28/98	SW846 8260B
4-Bromofluorobenzene	94			%Recov		4/28/98	SW846 8260B
Dibromofluoromethane	102			%Recov		4/28/98	SW846 8260B
Toluene-d8	100			%Recov		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : SB-20 9-11'
Lab Sample Number : 882372-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/29/98
Collection Date : 4/27/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.2				%		4/29/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 4/27/98

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030 **Prep Date:** 4/28/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	120	60	140		ug/kg	Q	4/28/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		4/28/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		4/28/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		4/28/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Field ID : SB-20 9-11'

Report Date : 4/29/98

Lab Sample Number : 882372-006

Collection Date : 4/27/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

4-Methyl-2-pentanone	< 130	130	310	ug/kg	4/28/98	SW846 8260B
Methylene chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Styrene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Trichloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	4/28/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	4/28/98	SW846 8260B
4-Bromofluorobenzene	88			%Recov	4/28/98	SW846 8260B
Dibromofluoromethane	99			%Recov	4/28/98	SW846 8260B
Toluene-d8	95			%Recov	4/28/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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☐ 525 Science Drive, Madison, WI 53711, 608-232-3300 • 1-888-536-2436, FAX: 608-233-0502

☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF COUSTODY

Company Name: [illegible]

Branch or Location: [illegible]

Project Contact: Dave Misky

Telephone: [illegible]

Project Number: [illegible]

Project Name: Navistar International

Project Location: Waukesha

Sampled By (Print): David P Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR_____ Other

NR720 Confirmation Analysis Required? (circle): Y N

(En Chem will not confirm unless otherwise instructed.)

Page ____ of ____

P.O. # ____ Quote # ____

Mail Report To: Dave Misky

Company: [illegible]

Address: [illegible]

Invoice To:

Company:

Address:

Mail Invoice To:

Returned 14 Coolers 24:14

Due Date 5/1/98

FILTERED? (YES/NO): No No No

PRESERVATION (CODE)*: N N No

ANALYSES REQUESTED: VOC-TCL, DRO, GRO

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	VOC-TCL	DRO	GRO	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS (ENCORE #)	LABORATORY NUMBER
SB-18	5-7'	4/25/98	11:41	X	X	X	[illegible]	[illegible]			V=3133 G=3872 1005 ~~0799~~	001
SB-18	9-11'	↓	12:06	X	X	X	↓	↓			V=9270 G=1721 0799	002
SB-19	5-7'	↓	1:10	X	X	X	↓	↓			V=3319 G=0597 9258	003
SB-19	9-11'	↓	1:22	X	X	X	↓	↓			V=0604 G=1937 5437	004
SB-20	7-9'	4/27/98	10:22	X			↓	↓			V=1705 [illegible]	005
SB-20	9-11'	↓	10:29	X			↓	↓			V=9916 [illegible]	006

*Preservation Code

A=None B=HCL C=H2SO4

D=HN03 E=EnCore F=Methanol**

G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By	Date/Time	Received By	Date/Time
David P Misky	4/27/98 11:30	[illegible]	4/27/98 11:30
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	4/28/98 13:45		
		Received By (En Chem): [illegible]	[illegible]

En Chem Project No. 882372

Sample Receipt Temp. ROI

Sample Receipt pH (Wet/Metals)

ENCHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Client: RMT - MILWAUKEE

WI DNR LAB ID : 405132750

Report Date : 12/16/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
887259-001	SB-21 2-4'	12/2/98			
887259-002	SB-21 6-8'	12/2/98			
887259-003	SB-21 12-14'	12/2/98			
887259-004	SB-23 4-6'	12/2/98			
887259-005	SB-23 8-10'	12/2/98			
887259-006	SB-23 12-14'	12/2/98			
887259-007	SB-24 4-6'	12/2/98			
887259-008	SB-24 8-10'	12/2/98			
887259-009	SB-24 12-14'	12/3/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duraceau — Approval Signature

12/16/98 — Date

EN CHEM INC.

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Lab #	TestGroupID:	Comment:
887259-	SPECVOA-S-ME	Acetone is present in the laboratory environment. Detects should be considered suspect.
887259-002 SB-21 6-8'	DRO-S	Hump was present late in chromatogram.
887259-005 SB-23 8-10'	DRO-S	Hump was present late in chromatogram.
887259-006 SB-23 12-14'	DRO-S	Late eluting hump present along with diesel range peaks.

EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 2-4'
Lab Sample Number : 887259-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	80.3				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 12/7/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.9			4.9	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** **Prep Date:** 12/7/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 12/7/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.1			3.1	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 2-4'
Lab Sample Number : 887259-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1500	68	160		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 2-4'
Lab Sample Number : 887259-001
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	89			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	87			%Recov	12/10/98	SW846 8260B
Toluene-d8	89			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 6-8'
Lab Sample Number : 887259-002
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	92.6				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	10			3.5	mg/kg		12/8/98	WI MOD DRO
Blank spike	70			50	%Recov		12/8/98	WI MOD DRO
Blank spike duplicate	74			50	%Recov		12/8/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		12/8/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		12/8/98	WI MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	WI MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	WI MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 6-8'
Lab Sample Number : 887259-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	59	140		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 6-8'
Lab Sample Number : 887259-002
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	96			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	92			%Recov	12/10/98	SW846 8260B
Toluene-d8	92			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-21 12-14'
Lab Sample Number : 887259-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	90.6				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.4			3.4	mg/kg		12/7/98	WI MOD DRO
Blank spike	70			50	%Recov		12/7/98	WI MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	WI MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		12/8/98	WI MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	WI MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	WI MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	WI MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Field ID : SB-21 12-14'

Lab Sample Number : 887259-003

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 12/23/98

Collection Date : 12/2/98

Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	61	150		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	160	28	67		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08 **Client :** RMT - MILWAUKEE

Field ID : SB-21 12-14' **Report Date :** 12/23/98

Lab Sample Number : 887259-003 **Collection Date :** 12/2/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	102			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	98			%Recov	12/10/98	SW846 8260B
Toluene-d8	100			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-23 4-6'
Lab Sample Number : 887259-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	80.7				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: WI MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.1			3.1	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-23 4-6'
Lab Sample Number : 887259-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1400	68	160		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-23 4-6'
Lab Sample Number : 887259-004
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	95			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	92			%Recov	12/10/98	SW846 8260B
Toluene-d8	94			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-23 8-10'
Lab Sample Number : 887259-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	87.2				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 12/7/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	6.0			4.3	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** **Prep Date:** 12/7/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 12/7/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Field ID : SB-23 8-10'

Lab Sample Number : 887259-005

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 12/23/98

Collection Date : 12/2/98

Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	63	150		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-23 8-10'
Lab Sample Number : 887259-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	100			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	96			%Recov	12/10/98	SW846 8260B
Toluene-d8	101			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-23 12-14'
Lab Sample Number : 887259-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	87.4				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO — **Prep Date:** 12/7/98 — **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	13			4.1	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Client : RMT - MILWAUKEE

Field ID : SB-23 12-14'

Report Date : 12/23/98

Lab Sample Number : 887259-006

Collection Date : 12/2/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	63	150		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08 **Client :** RMT - MILWAUKEE

Field ID : SB-23 12-14' **Report Date :** 12/23/98

Lab Sample Number : 887259-006 **Collection Date :** 12/2/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	93			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	88			%Recov	12/10/98	SW846 8260B
Toluene-d8	91			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 4-6'
Lab Sample Number : 887259-007
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	81.5				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.7			4.7	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.1			3.1	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 4-6'
Lab Sample Number : 887259-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1400	67	160		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 4-6'
Lab Sample Number : 887259-007
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	91			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	86			%Recov	12/10/98	SW846 8260B
Toluene-d8	89			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 8-10'
Lab Sample Number : 887259-008
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.9				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.5			4.5	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Field ID : SB-24 8-10'

Lab Sample Number : 887259-008

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 12/23/98

Collection Date : 12/2/98

Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	60	140		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 8-10'
Lab Sample Number : 887259-008
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/2/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	96			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	91			%Recov	12/10/98	SW846 8260B
Toluene-d8	95			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 12-14'
Lab Sample Number : 887259-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/3/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	90.6				%		12/7/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/4/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 3.8			3.8	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.8			2.8	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-24 12-14'
Lab Sample Number : 887259-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/3/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	61	150		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08 **Client :** RMT - MILWAUKEE

Field ID : SB-24 12-14' **Report Date :** 12/23/98

Lab Sample Number : 887259-009 **Collection Date :** 12/3/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	99			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	94			%Recov	12/10/98	SW846 8260B
Toluene-d8	95			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

EN CHEM INC.

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☐ 525 Science Drive, Madison, WI 53711, 608-232-3300 • 1-888-536-2436, FAX: 608-233-0502
☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

35 Returned ENCORES 474

Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Mishy
Telephone: (414) 879-1212
Project Number: 3777.08
Project Name: Navistar International
Project State: WI
Sampled By (Print): David P. Mishy

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ______

NR720 Confirmation Analysis Required? (circle): Y (N)
(En Chem will not confirm unless otherwise instructed.)

Page ____ of ____
P.O. # ______ Quote # ______
Mail Report To: Dave Mishy
Company:
Address:
Invoice To:
Company:
Address:
Mail Invoice To:

FILTERED? (YES/NO)
PRESERVATION (CODE)* E E E

ANALYSES REQUESTED: VOCs-TCL, GRO, DRO

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	VOCs-TCL	GRO	DRO	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-21	2-4'	12/2/98	7:40	1	1	1	PID=0	S.I	Y	1502	D 2336 G 0506 V-0224	-001
SB-21	6-8'	↓	7:55	1	1	1	0	↓	↓	↓	D-3345 G-9812 V-3110	-002
SB-21	12-14'	↓	8:20	1	1	1	0	↓	↓	↓	D-1204 G-9315 V-2213	-003
SB-23	4-6'	↓	10:55	1	1	1	↓	↓	↓	↓	~~D-3383 G-9995~~ D5149 ~~V-4376~~ G2415 V2068	-004
SB-23	8-10'	↓	11:15	1	1	1	↓	↓	↓	↓	D 3883 G 9553 V 5326	-005
SB-23	12-14'	↓	11:35	1	1	1	↓	↓	↓	↓	D 0097 V-3061 G-2891	-006
Matrix	Spike	↓	—	1	1	1	↓	↓	↓	↓	D-1231 G-3384 V-0549	NS ~~007~~
Matrix	Spike Duplicate	↓	—	1	1	1	↓	↓	↓	↓	D 3750 G-3221 V-2544	MS ~~008~~
SB-24	4-6'	↓	3:00	1	1	1	↓	↓	↓	↓	D-2155 V1659 G-0075	-007 ~~008~~
SB-24	8-10'	↓	3:53	1	1	1	↓	↓	↓	↓	D-2146 G-1997 V 9765	-008 ~~009~~
SB-24	12-14'	12/3/98	7:30	1	1	1	↓	↓	↓	↓	D 9661 G 1297 V0752	-009 ~~010~~

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Mishy	12/3/98 8:00	[illegible signature]	12/3/98 9:30
[illegible signature]	12/3/98 4:00		
[illegible]	12-4-98 9:00	[illegible]	[illegible]

En Chem Project No.: 887259
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals):
Custody Seal:

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- Analytical Report -

Project Name : NAVISTAR INT'L

Project Number : 3777.08

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 12/16/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
887232-001	SB-25(5-7)	12/1/98			
887232-002	SB-22(2-4)	12/1/98			
887232-003	SB-22(8-10)	12/1/98			
887232-004	SB-22(12-14)	12/1/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Durocean — Approval Signature

12/16/98 — Date

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Fax: 920-469-8827

Lab#	TestGroupID:	Comment:
887232-	SPECVOA-S-ME	Acetone is present in the laboratory environment. Detects should be considered suspect.
887232-004 SB-22(12-14)	DRO-S	Late eluting hump present along with diesel range peaks.

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-25(5-7)
Lab Sample Number : 887232-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	83.8				%		12/4/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/3/98

DIESEL RANGE ORGANICS - SOIL — Prep Method: Wi MOD DRO — Prep Date: 12/7/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.2			4.2	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — Prep Method: WI MOD.GRO — Prep Date: 12/7/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.0			3.0	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-25(5-7)
Lab Sample Number : 887232-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1300	66	160		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-25(5-7)
Lab Sample Number : 887232-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	101			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	93			%Recov	12/10/98	SW846 8260B
Toluene-d8	96			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(2-4)
Lab Sample Number : 887232-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	70.8				%		12/4/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO — **Prep Date:** 12/7/98 — **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.1			5.1	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** Wi MOD.GRO — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 3.5			3.5	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(2-4)
Lab Sample Number : 887232-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1500	78	190		ug/kg	B(960)	12/11/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/11/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/11/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/11/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(2-4)
Lab Sample Number : 887232-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/11/98	SW846 8260B
4-Bromofluorobenzene	89			%Recov	12/11/98	SW846 8260B
Dibromofluoromethane	83			%Recov	12/11/98	SW846 8260B
Toluene-d8	86			%Recov	12/11/98	SW846 8260B

Organic Results

VOC-BLK Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(8-10)
Lab Sample Number : 887232-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.7				%		12/4/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO — **Prep Date:** 12/7/98 — **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 5.5			5.5	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** Wi MOD.GRO — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(8-10)
Lab Sample Number : 887232-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1200	60	140		ug/kg	B(960)	12/11/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/11/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/11/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/11/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(8-10)
Lab Sample Number : 887232-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/11/98	SW846 8260B
4-Bromofluorobenzene	102			%Recov	12/11/98	SW846 8260B
Dibromofluoromethane	95			%Recov	12/11/98	SW846 8260B
Toluene-d8	100			%Recov	12/11/98	SW846 8260B

Organic Results

VOC-BLK Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(12-14)
Lab Sample Number : 887232-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	91.9				%		12/4/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/3/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO — **Prep Date:** 12/7/98 — **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	12			3.2	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** Wi MOD.GRO — **Prep Date:** 12/7/98 — **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(12-14)
Lab Sample Number : 887232-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1100	60	140		ug/kg	B(960)	12/11/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/11/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
cis-1,2-Dichloroethene	450	27	65		ug/kg		12/11/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/11/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/11/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/11/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/11/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INT'L
Project Number : 3777.08
Field ID : SB-22(12-14)
Lab Sample Number : 887232-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 12/1/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/11/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/11/98	SW846 8260B
4-Bromofluorobenzene	97			%Recov	12/11/98	SW846 8260B
Dibromofluoromethane	93			%Recov	12/11/98	SW846 8260B
Toluene-d8	94			%Recov	12/11/98	SW846 8260B

Organic Results

VOC-BLK Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

RETURN 14 ENCORE

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- ☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

G 32473

Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Misky
Telephone: (414) 879-1212
Project Number: 3777.08
Project Name: Navistar Int'l
Project State: Waukesha, WI
Sampled By (Print): David P. Misky / Bernd Rehm

Regulatory Program (*circle*): UST RCRA CLP SDWA NPDES/WPDES CAA NR____
Other ____

NR720 Confirmation Analysis Required? (*circle*): Y N
(*En Chem will not confirm unless otherwise instructed.*)

Page ____ of ____
P.O. # ____ Quote # ____
Mail Report To: Dave Misky
Company:
Address:
Invoice To:
Company:
Address:
Mail Invoice To:

FILTERED? (YES/NO): — — —
PRESERVATION (CODE)*: E E E

ANALYSES REQUESTED: VOC-TCL / ~~DRO~~ / GRO(?); DRO; GRO

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	VOC-TCL	DRO	GRO	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-25 (5-7)	soil - 5 EnCore + 1 150mL PL	1 DEC	1040	2	2	1	0 ppmv	soil	X	1-? 2 EnCore	D-1993 VOC-.3890, 4006 GRO 0.350, 5454	001
SB-22 (2-4)	soil - EnCores	"	1140	1	1	1	0 ppm	soil	↓	1-6 1-509	D-.3148 G-1895 V-9377	002
SB-22 (8-10)		"	1405	1	1	1	0 ppm	soil	↓	2-203 2 EnCore	D-.0551 GRO-3835 VOC 4239	003
SB-22 (12-14)		"	1425	1	1	1	1.3 ppm	soil	↓	↓	D-.3610 G-1150 V-.4322	004
	~~MEOH BLANK~~								↓	1-203	12/3/98 GD	~~005~~

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:	
David P. Misky	12/1/98 5:00	[signature]	12/2/98 10:10	En Chem Project No. 887232
[signature]	12/2/98 4:00			Sample Receipt Temp. RoI
				Sample Receipt pH (Wet/Metals)
Dun Ham	12/3/98 0815	[signature]	12/3/98 0815	Custody Seal

EN CHEM INC.

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FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Client: RMT - MILWAUKEE

WI DNR LAB ID : 405132750

Report Date : 12/16/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
887194-001	SB-26 4-6'	11/30/98			
887194-002	SB-26 6-8'	11/30/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

M. Suha — Approval Signature

122398 — Date

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Lab ID	TestGroupID:	Comment:
887194-002	DRO-S	Hump was present late in chromatogram.
SB-26 6-8'		

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-26 4-6'
Lab Sample Number : 887194-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 11/30/98
Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	85.4				%		12/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/2/98

DIESEL RANGE ORGANICS - SOIL — **Prep Method:** Wi MOD DRO **Prep Date:** 12/7/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 4.9			4.9	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — **Prep Method:** **Prep Date:** 12/7/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL — **Prep Method:** WI MOD.GRO **Prep Date:** 12/7/98 **Analyst:** PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.9			2.9	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

ENCHEM INC.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-26 4-6'
Lab Sample Number : 887194-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 11/30/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL **Prep Method:** SW846 5030B **Prep Date:** 12/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1300	64	150		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-26 4-6'
Lab Sample Number : 887194-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 11/30/98
Matrix Type : SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	98			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	91			%Recov	12/10/98	SW846 8260B
Toluene-d8	92			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08

Client : RMT - MILWAUKEE

Field ID : SB-26 6-8'

Report Date : 12/23/98

Lab Sample Number : 887194-002

Collection Date : 11/30/98

WI DNR LAB ID : 405132750

Matrix Type : SOIL

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method	Analyst
Solids, percent	93.1				%		12/3/98	SM2540G	SM2540G	DJB

Organic Results

Preservation Date : 12/2/98

DIESEL RANGE ORGANICS - SOIL Prep Method: Wi MOD DRO Prep Date: 12/7/98 Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	4.4			4.2	mg/kg		12/7/98	Wi MOD DRO
Blank spike	70			50	%Recov		12/7/98	Wi MOD DRO
Blank spike duplicate	74			50	%Recov		12/7/98	Wi MOD DRO
Blank	< 5.0			5.0	mg/kg		12/7/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK Prep Method: Prep Date: 12/7/98 Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	627-81						12/8/98	

Organic Results

GASOLINE RANGE ORGANICS - SOIL/METHANOL Prep Method: WI MOD.GRO Prep Date: 12/7/98 Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Gasoline Range Organics	< 2.7			2.7	mg/kg		12/8/98	Wi MOD GRO
Blank Spike	91			1.0	%Recov		12/8/98	Wi MOD GRO
Blank Spike Duplicate	98			1.0	%Recov		12/8/98	Wi MOD GRO
Blank	< 2.5			2.5	mg/kg		12/8/98	Wi MOD GRO

All soil results are reported on a dry weight basis unless otherwise noted.

ENCHEM INC.

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Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.08
Field ID : SB-26 6-8'
Lab Sample Number : 887194-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/23/98
Collection Date : 11/30/98
Matrix Type : SOIL

Organic Results

SPECIAL VOLATILE LIST - SOIL/METHANOL — Prep Method: SW846 5030B — Prep Date: 12/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	1100	59	140		ug/kg	B(960)	12/10/98	SW846 8260B
2-Butanone	< 65	65	160		ug/kg		12/10/98	SW846 8260B
Benzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromodichloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromoform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Bromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon disulfide	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Carbon tetrachloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorodibromomethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chlorobenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloroform	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Chloromethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,2-Dichloropropane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
cis-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,2-Dichloroethene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
trans-1,3-Dichloropropene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Ethylbenzene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
2-Hexanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
4-Methyl-2-pentanone	< 130	130	310		ug/kg		12/10/98	SW846 8260B
Methylene chloride	< 25	25	60		ug/kg		12/10/98	SW846 8260B
Styrene	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,1-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B
1,1,2-Trichloroethane	< 25	25	60		ug/kg		12/10/98	SW846 8260B

All soil results are reported on a dry weight basis unless otherwise noted.

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FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.08 **Client :** RMT - MILWAUKEE

Field ID : SB-26 6-8' **Report Date :** 12/23/98

Lab Sample Number : 887194-002 **Collection Date :** 11/30/98

WI DNR LAB ID : 405132750 **Matrix Type :** SOIL

Trichloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Tetrachloroethene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Toluene	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Vinyl chloride	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylenes, -m, -p	< 25	25	60	ug/kg	12/10/98	SW846 8260B
Xylene, -o	< 25	25	60	ug/kg	12/10/98	SW846 8260B
4-Bromofluorobenzene	102			%Recov	12/10/98	SW846 8260B
Dibromofluoromethane	97			%Recov	12/10/98	SW846 8260B
Toluene-d8	99			%Recov	12/10/98	SW846 8260B

Organic Results

VOC-BLK Prep Method: SW846 5030B Prep Date: 12/7/98 Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	610-87						12/10/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.

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Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Misky
Telephone: (414) 879-1212
Project Number: 3777.03
Project Name: Navistar International
Project Location: Waukesha
Sampled By (Print): David P. Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

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☐ 525 Science Drive, Madison, WI 53711, 608-232-3300 • 1-888-536-2436, FAX: 608-233-0502
☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY 23290

Page ____ of ____
P.O. # ____ Quote # ____
Mail Report To: Dave Misky
Company:
Address:
Invoice To:
Company:
Address:
Mail Invoice To:

FILTERED? (YES/NO): No
PRESERVATION (CODE)*: E, A

ANALYSES REQUESTED: VOCs - Target Compound List; GRO; DRO; Dry Weight

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	VOCs	GRO	DRO	Dry Weight					FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-26	4-6'	11/30/98	2:05PM	2	2	2	1					PID-0	Soil	Y	1 SOZ, 2 2OZ, 2 EnCore	DRO-2768, 9807; VOC-0824, 3218; DRO 3916, 4024	-001
SB-26	6-8'	↓	2:15PM	1	1	1	1					PID-0	Soil	↓ NA	1 SOZ, 1 2OZ, 6 EnCore	G-3916 D-1514; V-0821	-002

① Per Dave Misky MAA 12/3/98

X RA CHECK 60 12/3/98
3218 9807
0324 4024
2768 3916

*Preservation Code
A=None B=HCL C=H2SO4
D=HNO3 E=EnCore F=Methanol**
G=NaOH O=Other (indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Misky	11/30/98 5:30	[signature]	12/1/98 10:30
[signature]	12/1/98 4:00		
[signature]	12-2-98 A:00	Received By (En Chem): [signature]	12-2-98 A:00

En Chem Project No.: 887194
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals):

Appendix E
Monitoring Well Survey Data

APPENDIX E
COMPARISON OF PREVIOUS AND NEW SURVEY RESULTS
NAVISTAR INTERNATIONAL TRANSPORTATION COMPANY
WAUKESHA, WISCONSIN

Well ID	NEW (1998) Reference Elevation (ft, MSL)	PREVIOUS Reference Elevation (ft, MSL)	DIFFERENCE (NEW-PREVIOUS)
McGlenn Site Wells			
MW-01	831.36		
KEY MW-2	833.43		
KEY MW-3	833.59		
KEY MW-4	831.12		
MES MW-1	831.92		
MES MW-2	832.46		
MES MW-5	833.64		
Navistar Site Wells			
NMW-1	831.43	832.33	-0.90
NMW-2	832.92	832.39	0.53
NMW-3	831.72	831.14	0.58
NMW-4 [1]	839.85	832.02	7.83
NMW-5	832.29	832.25	0.04
NMW-6 [2]		831.85	
NMW-7	831.71	831.76	-0.05
NMW-8	831.10	831.14	-0.04
NMW-9	831.95	832.02	-0.07
NMW-10	832.33	832.33	0.00
NMW-11	832.39	832.39	0.00
NPZ-1	832.20	832.19	0.01
NPZ-2	832.09	831.90	0.19
Wisconsin Coach Lines Site Wells			
MW-2	833.55	833.50	0.05
MW-11	832.12	832.02	0.10
MW-12	832.09	831.14	0.95
MW-13	832.28	832.02	0.26
MW-15	831.85	832.33	-0.48
MW-16	831.63	832.39	-0.76
MW-19	831.97	831.14	0.83

NOTES:

1. Reference elevation is the top of the PVC well casing.
2. New top of PVC Survey by STS on April 14, 1998.

[1] Well NMW-4 is damaged--casing is bent. 1998 survey elevation represents top of bent well casing.

[2] Well NMW-6 was submerged on 4/14/98 and was last surveyed by RMT on 5/1/96.

NAVISTAR SITE - WAUKESHA - MONITORING WELL SURVEY
STS PROJECT NO. 85633

Monitoring Well No.	Top of PVC	Top of Casing	Top of Interior Casing	Existing Ground	Misc.
KEY MW-4	831.12	831.01		828.84	
MES MW-2	832.46	832.13		829.54	
NMW-3	831.72	831.89		831.89	
NMW-7	831.71	831.89		831.89	
NMW-1	831.43	831.71		831.82	Cap missing
NMW-8	831.10	831.47		831.48	
NMW-2	832.92	833.11		833.10	
MW-16	831.63	831.92		831.94	
NMW-9	831.95	832.30		832.38	
NPZ-2	832.09	832.47	832.21	832.37	
MW-15	831.85	832.32		832.35	
MW-13	832.28	832.56		832.58	
MW-19	831.97	832.44		832.44	
MW-11	832.12	832.39		832.36	
MW-12	832.09	832.38		832.33	
MW-2	833.55	833.83		833.84	
NMW-11	832.39	832.99		833.10	
NMW-10	832.33	832.79		832.72	
NMW-6		832.09			Under water-recommend draining and reshooting
NMW-5	832.29	832.47		832.47	
NPZ-1	832.20	832.59	832.21	832.59	
MES MW-5	833.64	833.83		831.23	
KEY MW-3	833.59	833.64		831.10	
KEY MW-2	833.43	833.17		830.38	
MW-01	831.36	831.12		829.03	
MES MW-1	831.92	831.68		828.88	
NMW-4	839.85	839.87		838.00	Bent - PVC and casing shot on west edge

*Elevation taken on north edges unless otherwise noted!

3-LETTER CODES (ALPHABETICAL)

ABT	ABUTMENT
ASH	ASH
BAL	BALE-EROSION
BCR	BUILDING CORNER (NOTE: COR, TYPE)
BES	BUREAU OF ELECTRICAL SERVICES
BGR	BEAM GUARD RAIL ({NOTE: SIZE, DIR)
BIG	BREAK IN GRADE
BIT	BITUMINOUS
BM	BENCH MARK
BOB	BOTTOM OF BANK
BOC	BACK OF CURB
BOR	BORING LOCATION
BOW	BACK OF WALK
BOX	BOX CULVERT, CENTER
BRL	BARREL
BRM	BERM
BS	BACK SIGHT
BSH	BUSH OR BRUSH
BSL	BOTTOM OF SLOPE
BWI	BACK OF WALK INTERSECTION
CBR	CATCH BASIN ROUND
CBS	CATCH BASIN SQUARE
CBT	CATCH BASIN TRENCH DRAIN
CCP	CONCRETE CULVERT PIPE
CLB	CENTERLINE BITUMINOUS
CLC	CENTERLINE CONCRETE
CLE	CENTERLINE ENTRANCE
CLG	CENTERLINE GRAVEL
CLT	CENTERLINE TRACK
CLW	CENTERLINE WATER
CLY	CLAY
CMP	CORRUGATED METAL CULVERT PIPE (FL)
COL	COLUMN
COM	COMMUNICATION LINES
CON	CONCRETE (NOTE: DESCRIBE)
CPA	CONCRETE PIPE, ARCH
CPO	CONCRETE POST
CRS	CHISELED CROSS
DHN	DOUBLE HEADED NAIL
DIG	DIGINET
DIT	DITCH
DRP	DRAIN PIPE (NOTE: SIZE & TYPE)
EDC	EDGE OF CONCRETE
EDK	END OF DECK
ELV	ELEVATION
EOB	EDGE OF BITUMINOUS
EOC	END OF CURB
EOD	EDGE OF DECK
EOG	EDGE OF GRAVEL
EOR	END OF RADIUS
EOS	EDGE OF SHOULDER
EOW	EDGE OF WATER
EPD	ELECTRIC PEDESTAL
ETW	ELECTRIC TOWER
FAB	FABRIC
FCL	FENCE LINE (NOTE: TYPE, HT, DIR)
FCR	FENCE CORNER (NOTE: EG: SW COR)
FIB	FIBEROPTICS
FLG	FLANGE OF CURB
FOC	FACE OF CURB
FON	FOUNDATION CORNER
FOW	FACE OF WALK
FWI	FACE OF WALK INTERSECTION
GEO	GEOPROBE
GND	GROUND
GPO	GUY POLE
GRD	GUARD RAIL
GTR	GUTTER FLOWLINE
GUY	GUY WIRE
GVL	GRAVEL
HEG	HEDGE
HSV	HOUSE SERVICE VALVE
HYD	HYDRANT
INV	INVERT ELEVATION
IPI	IRON PIPE (NOTE: SIZE, PLUG)
IRD	IRON ROD (NOTE: SIZE, CAP)
JNT	JOINT
LIG	LIGHT
LPO	LIGHT POLE
LPS	LIGHT POLE WITH SIGNAL
LTP	LIGHT-TELEPHONE-POWER POLE
MAT	MAT - EROSION
MHC	MANHOLE COMMUNICATION
MHE	MANHOLE ELECTRIC
MHG	MANHOLE GAS
MHM	MANHOLE METERING
MHO	MANHOLE STORM
MHS	MANHOLE SANITARY
MHT	MANHOLE TELEPHONE
MHU	MANHOLE UNKNOWN
MHW	MANHOLE WATER
MIS	MISCELLANEOUS (NOTE: DESCRIBE)
MLB	MAILBOX
MON	MONUMENT (NOTE: TYPE, SIZE)
MPA	CORRUGATED METAL PIPE, ARCH
MPO	METAL POST
MWL	MONITOR WELL
OIL	WESTSHORE PIPELINE ETC.
PIE	PIEZOMETER
PIP	PI POINT
PK	PARKER-KAYLONE NAIL
PLB	PULL BOXES
PLP	POWER-LIGHT-POLE
POL	POINT ON LINE
PRP	POWER POLE
PST	POST
PTV	POWER-TELEPHONE-CABLE TV POLE
PVC	POLYVINYL CHLORIDE PIPE
RAI	RAILING
RBR	REBAR (NOTE: SIZE, CAP)
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING WALL (NOTE: TYPE, WIDTH, HT)
RIP	RIP RAP
RLC	REFERENCE LINE CONCRETE
RLN	REFERENCE LINE
ROT	ROOT ZONE
ROW	RIGHT OF WAY
RRB	RAILROAD SIGNAL BOX
RRC	RAILROAD CROSSING ARM
RRL	LEFT RAIL
RRR	RIGHT RAIL
RRS	RAILROAD SPIKE
RRT	RAILROAD TRACK (NOTE: RAIL)
RWP	RIGHT OF WAY POST
SAN	SANITARY SEWER (LINE)
SBP	SIGNAL BOX PEDESTAL
SIG	SIGN (NOTE: TYPE)
SLT	SILT FENCE
SPK	SPIKE (NOTE: SIZE)
SPL	PAVEMENT SPLIT
SPR	SPRINT
STO	STORM SEWER LINE
STP	STEP SHOT
TGP	TELEGRAPH POLE
TIE	TIE POINT
TOB	TOP OF BANK
TOP	TOPSOIL
TOW	TOP OF WATER
TPE	TELEPHONE PEDESTAL
TPO	TELEPHONE POLE
TPP	TELEPHONE-POWER POLE
TPT	TRAVERSE POINT
TRC	TREE CONIFEROUS (NOTE: SIZE, TYPE)
TRD	TREE DECIDUOUS (NOTE: SIZE, TYPE)
TRN	TRENCH
TSB	TRAFFIC SIGNAL BOX
TSL	TOP OF SLOPE
TSP	TRAFFIC SIGNAL POLE
TST	TEST PIT
TVO	CABLE TV POLE
TVP	CABLE TV-POWER POLE
UGE	UNDERGROUND ELECTRIC
UGG	UNDERGROUND GAS LINE
UGT	UNDERGROUND TELEPHONE
UGV	UNDERGROUND GAS VALVE
UTV	UNDERGROUND CABLE TV
UVT	UNDERGROUND VAULT
VNT	VENT PIPE
VPE	CABLE TV PEDESTAL
WAK	WALK EDGE
WAT	WATERMAIN UNDERGROUND
WET	WETLANDS
WIG	WING WALL
WIT	WITNESS MONUMENT
WOE	WOODS EDGE
WPO	WOOD POST
WSB	WATER STOP BOX
WVU	WATER VALVE UNDERGROUND

DETAILED CROSS SECTION SHOTS

X	CROSS SECTION
XBB	BOTTOM OF BANK
XBC	BACK OF CURB
XBL	BOTTOM OF SLOPE
XBT	BITUMINOUS
XCL	CENTERLINE (PAVEMENT)
XCM	CENTER OF MEDIAN
XCN	CONCRETE
XDT	CENTER OF DITCH
XEP	EDGE OF PAVEMENT
XEW	EDGE OF WALK
XFG	FLANGE
XFL	FENCE LINE
XGN	GROUND
XGR	GRAVEL
XGT	SHOT AT GUTTER
XRL	REFERENCE LINE
XRW	RIGHT-OF-WAY
XSH	EDGE OF SHOULDER
XTB	TOP OF BANK
XTS	TOP OF SLOPE
XTT	JOINT

RMT - NAVISTAR - JOB # 85633

	HI	+	−	ELEV	ADJ
BM 1	842.43	6.79		835.64	
			2.585	839.845	
			2.56	839.87	
			4.43	838.00	
BM 1			6.79	835.64	
BM 1	837.23	1.59		835.64	
			6.00	831.23	
			3.59	833.64	
			3.40	833.83	
			6.13	831.10	
			3.64	833.59	
TP 1	835.64	2.00	3.59	833.64	
			5.26	830.38	
			2.21	833.43	
			2.47	833.17	
			6.61	829.03	
			4.28	831.36	
TP 2	834.675	3.56	4.525	831.115	
			5.80	828.875	
			2.755	831.92	
TP 3	834.125	2.45	3.00	831.675	

(C1)
4-14-98
50° CLOUDY
WINDY
DJB KLD

"O" OF OPEN - HYD S/S PERKINS BETWEEN RAYMOND +
TOP PVC W/S (MARK) NMW-4 STRONG
TOP CASING W/S (HIGH POINT) NMW-4
GROUND N/S NMW-4
V OK

MES MW 5 N/E GROUND
" " " " TOP PVC
" " " " TOP CASING
KEY MW 3 N/E GROUND
" " " " TOP PVC
" " " " TOP CASING
KEY MW 2 N/E GROUND
" " " " TOP PVC
" " " " TOP CASING
MW 01 N/E GROUND
" " " " TOP PVC
" " " " TOP CASING
MES MW 1 " GROUND
" " " " TOP PVC
" " " " TOP CASING

RMTT - NAVSTAR - JOB # 85633

4-14-98
50° CLOUDY
WINDY
DJD KRD

834.125	HI	+	−	ELEV	ADJ
			5.285	828.84	
			3.01	831.115	
			3.12	831.005	
			4.59	829.535	
			1.665	832.46	
TP 4	834.555	2.425	1.995	832.130	
TP 5	836.62	6.80	4.735	829.820	
			4.74	831.88	831.89
			4.905	831.715	831.72
			4.74	831.88	831.89
BM 1			0.99	835.63	835.64

KEY MW4	N/E	GROUND	
"	"	"	TOP PVC
"	"	"	TOP CASING
MES MW2		"	GROUND (CONC.)
"	"	"	TOP PVC
"	"	"	TOP CASING
CM BOC			
NMW-3		N/E	GROUND
"	"	"	TOP PVC
"	"	"	TOP CASING
BM 1	−.01		

RMT - NAVISTAR - JOB 85 633

4-14-98
55° PT SUNNY
WINDY
DJB KRD

	HI	+	−	ELEV	ADJ				
BM 1	837.35	1.71		835.64		HYD - "O" OF MAN S/S PERKINS BETWEEN RAYMOND + STRAND			
TP 6	835.49	2.58	4.44	832.91		HYD - "O" " S/S PERKINS BETWEEN STRAND + WHITE-ROCK			
TP 7	835.190	3.315	3.615	831.875		HYD - "O" " SE QUAD WHITEROCK + PERKINS			
TP 8	837.22	6.75	4.72	830.47		CM BOC			
			5.33	831.89		NMW-7	N/K	GROUND (BIT)	
			5.51	831.71		"	"	"	TOP PVC
			5.33	831.89		"	"	"	TOP CASING
			5.40	831.82		NMW-1		"	GROUND (BIT)
			5.79	831.43		"	"	"	TOP PVC CAP MISSING!
~~TP~~			5.51	831.71		"	"	"	TOP CASING
			5.74	831.48		NMW-8		"	GROUND
			6.12	831.10		"	"	"	TOP PVC
TP 9	837.570	6.105	5.755	831.465		"	"	"	TOP CASING
			4.47	833.10		NMW-2		"	GROUND (BIT)
			4.65	832.92		"	"	"	TOP PVC
			4.46	833.11		"	"	"	TOP CASING
			5.63	831.94		MW-16		"	GROUND (BIT)
			5.945	831.625		"	"	"	TOP PVC
			5.65	831.92		"	"	"	TOP CASING
			5.19	832.38		NMW-9		"	GROUND
			5.62	831.95		"	"	"	TOP PVC
			5.27	832.30		"	"	"	TOP CASING

838.57		RMT - WAVISTAR			
	HI	+	-	ELEV	ADJ
			5.20	832.37	
			5.48	832.09	
			5.36	832.21	
			5.10	832.47	
			5.22	832.35	
			5.72	831.85	
TP10	838.99	5.67	5.25	832.32	
			5.41	832.58	
			5.71	832.28	
			5.43	832.56	
			5.55	832.44	
			6.02	831.97	
			5.55	832.44	
			5.63	832.36	
			5.87	832.12	
			5.60	832.39	
			5.66	832.33	
			5.90	832.09	
			5.61	832.38	
TP11	838.20	5.91	5.70	832.29	
			4.36	833.84	
			4.65	833.55	
			4.37	833.83	

VG3 #85633

(64)
4-14-98
SEPT TURN
WINDY
DOB. KRD

NPZ-2	N/E	GROUND	(BIT)	
"	"	TOP PVC		
"	"	TOP CASING	INSIDE	
"	"	TOP CASING	OUTSIDE	
MW-15	"	GROUND	(BIT)	
"	"	TOP PVC		
"	"	TOP CASING		
MW-13	"	GROUND	(BIT)	
"	"	TOP PVC		
"	"	TOP CASING		
MW-19	N/E	GROUND	(BIT)	
"	"	TOP PVC		
"	"	TOP CASING		
MW-11	"	GROUND	(BIT)	
"	"	TOP PVC		
"	"	TOP CASING		
MW-12	"	GROUND	(BIT)	
"	"	TOP PVC		
"	"	TOP CASING		
CM BIT				
MW-2	N/E	GROUND		
"	"	TOP PVC		
"	"	TOP CASING		

838.20

RMT - NAVISTAR

	HI	+	−	ELEV	ADJ
			5.10	833.10	
			5.81	832.39	
			5.21	832.99	
			5.48	832.72	
			5.87	832.33	
			5.41	832.79	
			6.11	832.09	
			5.73	832.47	
			5.91	832.29	
			5.73	832.47	
TP 12	838.42	6.00	5.88	832.32	
			5.83	832.59	
			6.22	832.20	
			6.21	832.21	
			5.83	832.59	
TP 13	839.065	5.065	6.42	832.00	
TP 14	834.305	0.66	3.42	833.645	
TP 15	836.82	6.43	3.915	830.390	
BM1			1.18	835.64	
BM1	841.115	5.475		835.64	
			0.715	840.400	

JOB # 85633

(65)

4-14-98
60° PARTLY SUNNY
WINDY
DJB KRD

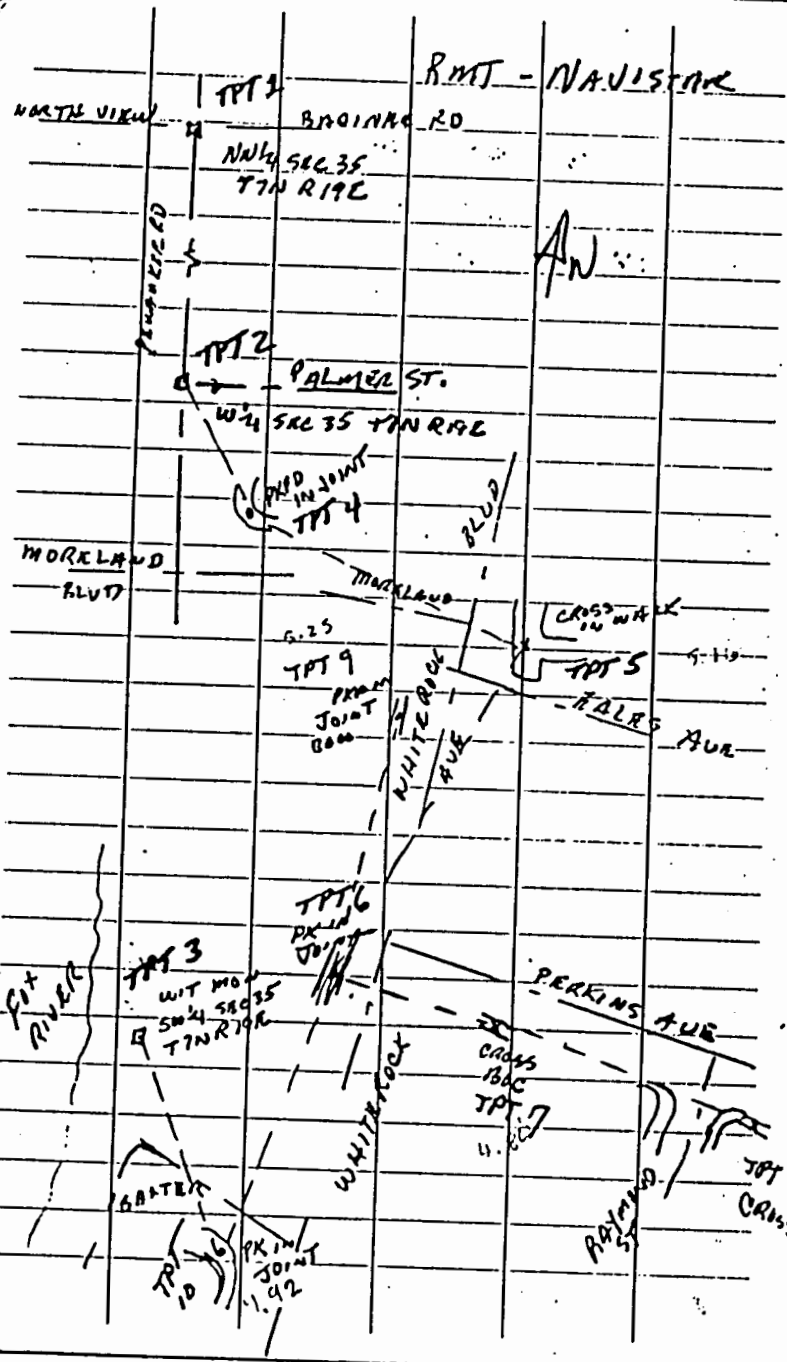
NMW-11	N/E		GROUND
"	"	"	TOP PVC
"	"	"	TOP CASING
NMW-10	"		GROUND
"	"	"	TOP PVC
"	"	"	TOP CASING
NMW-6	"		TOP OF CASING ← EST UNDER WATER
NMW-5	"		GROUND
"	"	"	TOP PVC
"	"	"	TOP CASING

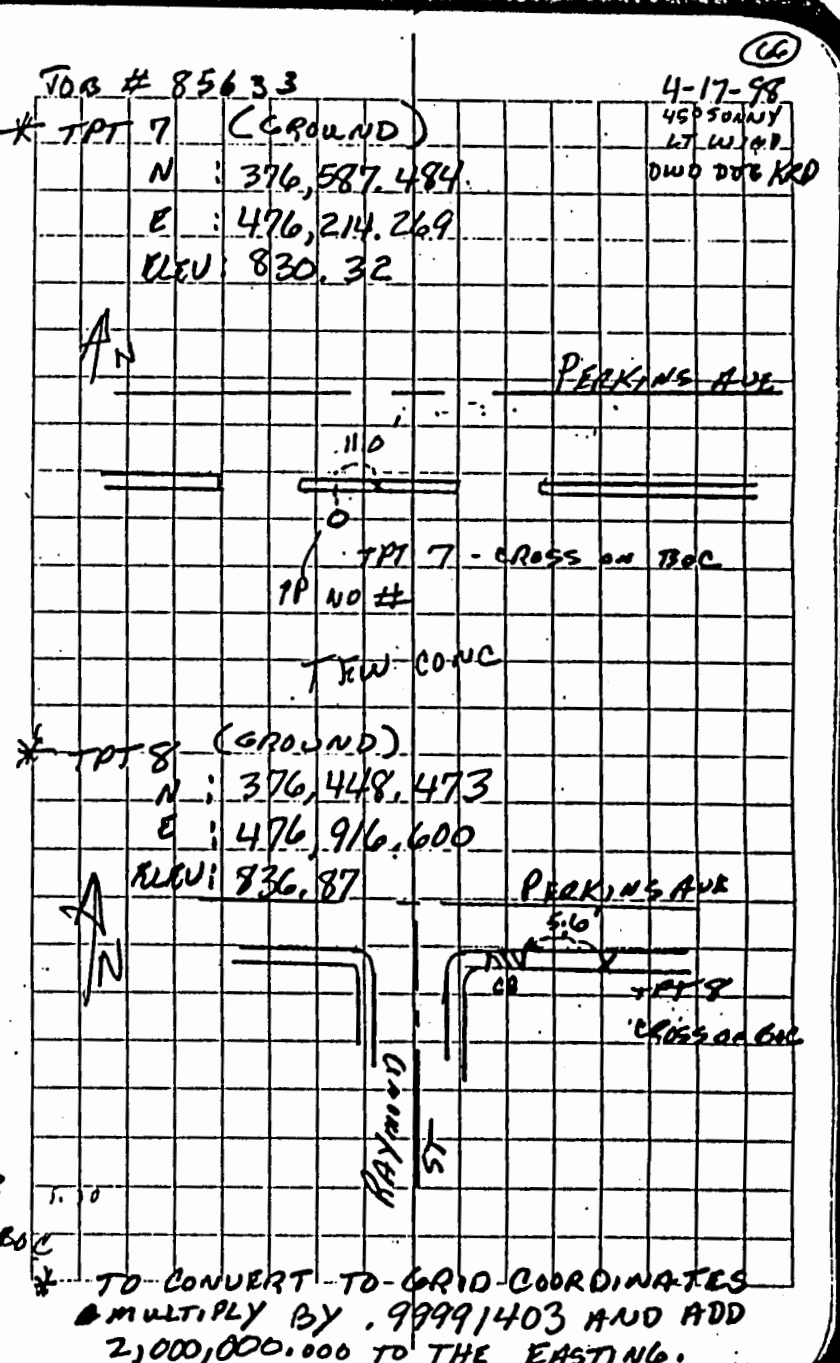
cm BIT

NPZ-1		N/E	GROUND (BIT)
"	"	"	TOP PVC
"	"	"	TOP CASING INNER
"	"	"	TOP CASING OUTTER

cm BOC
HYD "0" S/S WHITEROCK - AT RR - NO. OF PERKINS
cm BOC
BM1 ± 0.00

HYD "0"
HYD "0" BM2 - CITY 840.387 +.01
S/S PERKINS BETWEEN RAYMOND + ADAMS


RMT - NAVISTAR
TPT 1
BROOKING RD
NW¼ SEC 35 T7N R19E
NORTH VIEW
PENNSYLVANIA
TPT 2
PALMER ST.
W½ SEC 35 T7N R19E
PKD IN JOINT
TPT 4
BLVD
MORELAND BLVD
MARKLAND
CROSS WALK
TPT 5
TPT 9
PKD IN JOINT
WHITEROCK AVE
TPT 6
PK IN JOINT
PERKINS AVE
FOX RIVER
TPT 3
WIT MON
SW¼ SEC 35
T7N R19E
CROSS BOC
TPT 7
WHITEROCK
RAYMOND ST
GATE
TPT 10
PK IN JOINT
1.92
TPT 8
CROSS BOC
AN


JOB # 85633
4-17-98
45° SUNNY
LT WIND
DWD DOG RD
* TPT 7 (GROUND)
N : 376,587.484
E : 476,214.269
ELEV: 830.32
PERKINS AVE
110
TPT 7 - CROSS on BOC
PP NO #
TKW CONC
* TPT 8 (GROUND)
N : 376,448.473
E : 476,916.600
ELEV: 836.87
PERKINS AVE
5.6
CB
TPT 8
CROSS on BOC
RAYMOND ST
5.10
* TO CONVERT TO GRID COORDINATES MULTIPLY BY .9999403 AND ADD 2,000,000.000 TO THE EASTING.

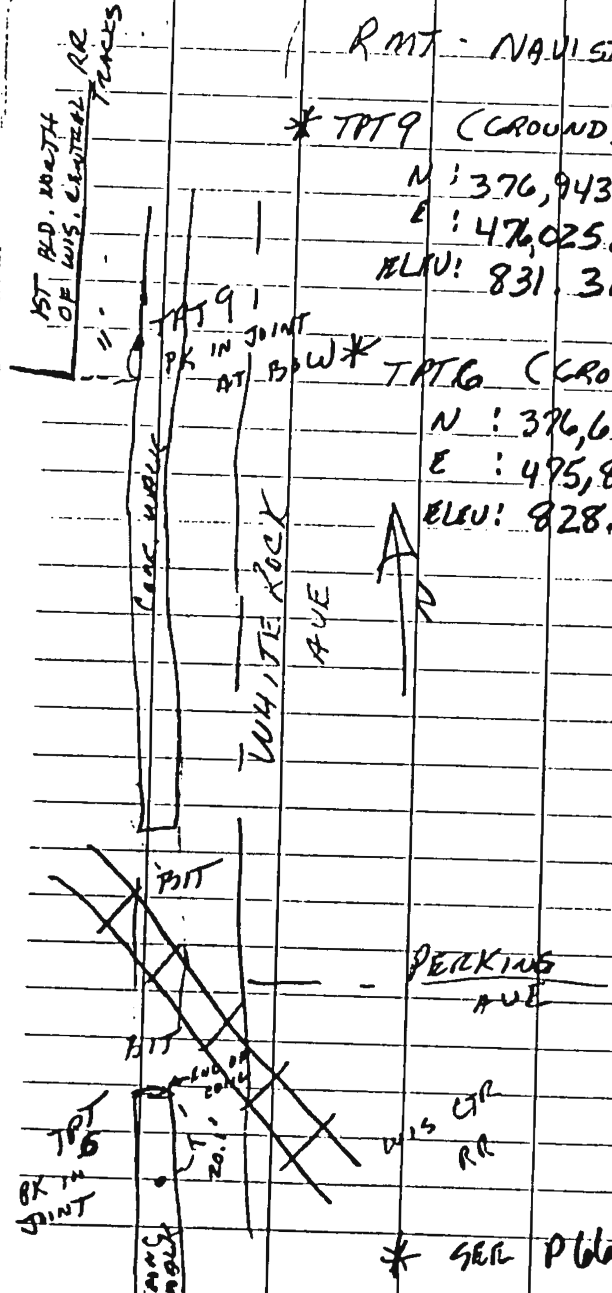
RMT - NAVISTAR

*TPT9 (GROUND)

N : 376,943.753
E : 476,025.985
ELEV: 831.32

*TPT6 (GROUND)

N : 376,670.920
E : 475,866.253
ELEV: 828.91



*SEE P66

JOB # 85633

4-16-98
40° RAIN
WIMDY
DOB KRD

833.645 - TP14 - HYD B/S WHITEROOK "O" (OPEN)
+ 1.92
835.565
- 4.25
TPT 9 831.315

835.565
- 6.655
828.910 TPT 6

832.91 TP6 - HYD S/S PERKINS "O" (OPEN)
+ 3.28
836.19
- 5.87
830.32 TPT 7

835.64 BM1
+ 5.135
840.775
- 3.905
836.876 TPT 8

STS Letter of Transmittal

11425 West Lake Park Drive
Milwaukee, WI 53224
414-359-3030/414-359-0822 (FAX)

To: TIM PETRICK
RMT INC.
150 N. PATRICK BLVD.
BROOKFIELD, WI. 53045

Date: 4-20-98 STS Project No: 85633

Project: NAVISTAR - WAUKESHA

From: KEN DONAHUE

Location: CITY OF WAUKESHA

We are Sending the Following Item(s):

☒ Attached ☐ Via Fax ☐ Under Separate Cover

☒ Prints - FIELD BOOK NOTES	☐ Copy of Letter	☒ Proposal/Report
☐ Shop Drawings	☐ Test Results	☐ Samples
☐ Specifications	☐ Boring Logs	☐ Change Order

☒ Other CADD FILE TO BE E-MAIL BY DON LENZ
COPY OF OUR 3-LETTER CODE LIST - KEYS & TEE HANDLE

They are Transmitted as Indicated:

☐ For Approval	☐ As Requested
☒ For Your Use	☐ For Review and Comment

Remarks: TIES TO CONTROL POINTS AND GRID & GROUND CONVERSION INFO IS CONTAINED IN THE FIELD BOOK NOTES. ALSO IN THESE NOTES ARE BENCH MARK (VERT-CONTROL) DESCRIPTIONS AND HORIZONTAL CONTROL POINT COORDINATES. THIS INFORMATION SHOULD HELP YOU WITH ANY FUTURE WORK NEEDED ON THE SITE. CALL IF YOU HAVE ANY QUESTIONS - THANKS KEN

STS Representative

NAVISTAR

5-1-96

3777.01

T. PETENCK
T. STEINERT

SUNNY, 40's, WINDY

LEVEL SURVEY NEW WELLS

SOKKIA S/N 116422

STA	BS	HI	FS	SS	ELEV	DESC
NMW-1	5.84	837.31			831.47	EXST MW (BM)
NMW-7	5.33	837.09	~~5.53~~	5.35	831.96	GRADE
	~~5.55~~		~~5.43~~		831.76	WELL TOP PVC
NMW-8			5.55	5.56	831.53	GRADE
	6.03	837.17	5.95		831.14	WELL TOP PVC
NMW-1			5.70		831.47	
	17.20		17.20			
NMW-15	5.75	837.50			831.75	EXST MW (BM)
MW-11				5.21	832.29	GRADE
	5.39	837.41	5.48		832.02	WELL TOP PVC
NMW-9	5.62			5.08	832.33	GRADE
	~~5.61~~	837.65	5.38		832.02	WELL TOP PVC
NP2-2	5.73		5.75	5.32	832.33	GRADE
	~~5.76~~	837.63	~~5.61~~		831.90	WELL TOP PVC
NMW-15			~~5.62~~		831.75	
			5.88			
	22.49		22.49			

STA	BS	HI	FS	SS	ELEV	DESC	
MW13	5.24	837.55			832.26	EXIST MW (BM)	
NP2-1				4.99	832.56	Grade	(NO LOCK)
	5.70	837.89	5.36		832.19	WELL TOP PVC	
NMW-6				5.78	832.11	GRADE	
	6.10	837.95	6.04		831.85	WELL TOP PVC	
NMW-5				6.50	832.45	GRADE	
	5.32	837.57	5.70	5.50	832.25	WELL TOP PVC	
MW-13						WELL TOP PVC	
			5.32		832.25		
	22.41		22.42				

Appendix F
Groundwater Analytical Reports, Current Investigation

MARCH/APRIL 1998
GROUNDWATER SAMPLING

ENCHEM INC.

1795 Industrial Drive
Green Bay, WI 54302
920-469-2436
800-7-ENCHEM
FAX: 920-469-8827

- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.06

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 4/10/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881786-001	KEY MW3	3/31/98			
881786-002	ME5 MW5	3/31/98			
881786-003	KEY MW2	3/31/98			
881786-004	FB01	3/31/98			
881786-005	KEY MW4	3/31/98			
881786-008	MES MW1	3/31/98			
881786-009	MES MW2	3/31/98			
881786-010	MW01	3/31/98			
881786-011	DUP01 (= MW01)	3/31/98			
881786-012	TRIP BLANK	3/31/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duracean — Approval Signature

4/10/98 — Date

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800-7-ENCHEM
FAX: 920-469-8827

Lab#:	TestGroupID:	Comment:
881786	All Samples	Methylene chloride and Acetone are present in the laboratory environment. Detects should be considered suspect.
881786-001 KEY MW3	GRO-W	Value reported due to early unidentified peaks in window.
881786-002 ME5 MW5	GRO-W	Early unidentified peaks in window.
881786-003 KEY MW2	GRO-W	Early unidentified peaks in window.
881786-005 KEY MW4	SPECVOA-W	Sample exhibits hydrocarbon pattern resembling gasoline. Late peaks were present.
881786-010 MW01	DRO-W	Hump was present late in chromatogram.
881786-011 DUP01	DRO-W	Front peaks and late eluting hump present in the chromatogram.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : KEY MW3
Lab Sample Number : 881786-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	180			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	8.1	5.0	16		ug/L	Q	4/3/98	SW846 8260
2-Butanone	< 4.5	4.5	14		ug/L		4/3/98	SW846 8260
Benzene	< 1.4	1.4	4.5		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 1.5	1.5	4.8		ug/L		4/3/98	SW846 8260
Bromoform	< 2.2	2.2	7.0		ug/L		4/3/98	SW846 8260
Bromomethane	< 3.5	3.5	11		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 1.2	1.2	3.8		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : KEY MW3
Lab Sample Number : 881786-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	<	1.7	1.7	5.4	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	<	2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Chlorobenzene	<	1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
Chloroethane	<	2.7	2.7	8.6	ug/L		4/3/98	SW846 8260
Chloroform	<	1.7	1.7	5.4	ug/L		4/3/98	SW846 8260
Chloromethane	<	3.0	3.0	9.6	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane		13	1.7	5.4	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene		17	2.1	6.7	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	<	1.8	1.8	5.7	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene		6.2	1.4	4.5	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	4.0	4.0	13	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Ethylbenzene	<	1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
2-Hexanone	<	3.4	3.4	11	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	<	4.8	4.8	15	ug/L		4/3/98	SW846 8260
Methylene chloride		4.8	1.8	5.7	ug/L	Q	4/3/98	SW846 8260
Styrene	<	0.85	0.85	2.7	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane		140	1.5	4.8	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	3.4	3.4	11	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	<	3.0	3.0	9.6	ug/L		4/3/98	SW846 8260
Trichloroethene		430	1.8	5.7	ug/L		4/3/98	SW846 8260
Tetrachloroethene	<	2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Toluene	<	1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
Vinyl chloride	<	1.0	1.0	3.2	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	<	2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Xylene, -o	<	1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene		108			%Recov		4/3/98	SW846 8260
Dibromofluoromethane		110			%Recov		4/3/98	SW846 8260
Toluene-d8		111			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : ME5 MW5
Lab Sample Number : 881786-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	WI MOD DRO
Blank spike	92			25	%Recov		4/2/98	WI MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	WI MOD DRO
Blank	< 50			50	ug/l		4/2/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	WI MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	WI MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	WI MOD GRO
Blank	< 50			50	ug/l		4/2/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 1.0	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.9		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : ME5 MW5
Lab Sample Number : 881786-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L		4/2/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L		4/2/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L		4/2/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L		4/2/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
1,1-Dichloroethane		1.1	0.35	1.1	ug/L		4/2/98	SW846 8260
1,1-Dichloroethene		0.92	0.43	1.4	ug/L	Q	4/2/98	SW846 8260
1,2-Dichloroethane	<	0.37	0.37	1.2	ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene		3.5	0.28	0.89	ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L		4/2/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L		4/2/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L		4/2/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L		4/2/98	SW846 8260
1,1,1-Trichloroethane		11	0.30	0.96	ug/L		4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
Trichloroethene		38	0.37	1.2	ug/L		4/2/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L		4/2/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L		4/2/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L		4/2/98	SW846 8260
4-Bromofluorobenzene		106			%Recov		4/2/98	SW846 8260
Dibromofluoromethane		111			%Recov		4/2/98	SW846 8260
Toluene-d8		114			%Recov		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : KEY MW2
Lab Sample Number : 881786-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	4.2	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : KEY MW2
Lab Sample Number : 881786-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
1,1-Dichloroethane	3.5	0.35	1.1	ug/L	4/2/98	SW846 8260
1,1-Dichloroethene	1.5	0.43	1.4	ug/L	4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
cis-1,2-Dichloroethene	12	0.28	0.89	ug/L	4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/2/98	SW846 8260
1,1,1-Trichloroethane	35	0.30	0.96	ug/L	4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
Trichloroethene	14	0.37	1.2	ug/L	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/2/98	SW846 8260
4-Bromofluorobenzene	107			%Recov	4/2/98	SW846 8260
Dibromofluoromethane	111			%Recov	4/2/98	SW846 8260
Toluene-d8	113			%Recov	4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : FB01
Lab Sample Number : 881786-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 5/28/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** Wi MOD DRO **Prep Date:** 4/2/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/2/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/2/98 **Analyst:** DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	4.8	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	0.86	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : FB01
Lab Sample Number : 881786-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 5/28/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L	4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L	4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/2/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
Trichloroethene	< 0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/2/98	SW846 8260
4-Bromofluorobenzene	106			%Recov	4/2/98	SW846 8260
Dibromofluoromethane	109			%Recov	4/2/98	SW846 8260
Toluene-d8	114			%Recov	4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : KEY MW4
Lab Sample Number : 881786-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** Wi MOD DRO **Prep Date:** 4/2/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	4800			200	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/2/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	300			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	7.0	1.0	3.2		ug/L		4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : KEY MW4
Lab Sample Number : 881786-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L		4/3/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L		4/3/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L		4/3/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane		0.46	0.35	1.1	ug/L	Q	4/3/98	SW846 8260
1,1-Dichloroethene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	<	0.37	0.37	1.2	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene		0.45	0.28	0.89	ug/L	Q	4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Ethylbenzene		3.7	0.32	1.0	ug/L		4/3/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L		4/3/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L		4/3/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
Trichloroethene		0.68	0.37	1.2	ug/L	Q	4/3/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L		4/3/98	SW846 8260
Vinyl chloride		0.52	0.20	0.64	ug/L	Q	4/3/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Xylene, -o		0.81	0.24	0.76	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene		107			%Recov		4/3/98	SW846 8260
Dibromofluoromethane		110			%Recov		4/3/98	SW846 8260
Toluene-d8		114			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MES MW1
Lab Sample Number : 881786-008
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	9.6	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.99	0.99	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MES MW1
Lab Sample Number : 881786-008
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L		4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L		4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L		4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L		4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene	0.48	0.28	0.89	ug/L	Q	4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L		4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L		4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L		4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L		4/2/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L		4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
Trichloroethene	0.45	0.37	1.2	ug/L	Q	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Toluene	0.27	0.27	0.86	ug/L	Q	4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L		4/2/98	SW846 8260
Xylenes, -m, -p	0.44	0.43	1.4	ug/L	Q	4/2/98	SW846 8260
Xylene, -o	0.35	0.24	0.76	ug/L	Q	4/2/98	SW846 8260
4-Bromofluorobenzene	107			%Recov		4/2/98	SW846 8260
Dibromofluoromethane	109			%Recov		4/2/98	SW846 8260
Toluene-d8	115			%Recov		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MES MW2
Lab Sample Number : 881786-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 5/28/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** Wi MOD DRO **Prep Date:** 4/2/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	1200			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/2/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	52			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/2/98 **Analyst:** DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	6.3	1.0	3.2		ug/L	B (2.19)	4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	0.37	0.27	0.86		ug/L	Q	4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	2.1	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MES MW2
Lab Sample Number : 881786-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 5/28/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
1,1-Dichloroethane	1.5	0.35	1.1	ug/L	4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
cis-1,2-Dichloroethene	10	0.28	0.89	ug/L	4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Ethylbenzene	2.9	0.32	1.0	ug/L	4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/2/98	SW846 8260
1,1,1-Trichloroethane	1.9	0.30	0.96	ug/L	4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
Trichloroethene	4.7	0.37	1.2	ug/L	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Toluene	6.5	0.27	0.86	ug/L	4/2/98	SW846 8260
Vinyl chloride	19	0.20	0.64	ug/L	4/2/98	SW846 8260
Xylenes, -m, -p	12	0.43	1.4	ug/L	4/2/98	SW846 8260
Xylene, -o	8.9	0.24	0.76	ug/L	4/2/98	SW846 8260
4-Bromofluorobenzene	104			%Recov	4/2/98	SW846 8260
Dibromofluoromethane	96			%Recov	4/2/98	SW846 8260
Toluene-d8	102			%Recov	4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW01
Lab Sample Number : 881786-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	130			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	11	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW01
Lab Sample Number : 881786-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L		4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L		4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L		4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L		4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L		4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L		4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L		4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L		4/2/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L		4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
Trichloroethene	0.73	0.37	1.2	ug/L	Q	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L		4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L		4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L		4/2/98	SW846 8260
4-Bromofluorobenzene	108			%Recov		4/2/98	SW846 8260
Dibromofluoromethane	110			%Recov		4/2/98	SW846 8260
Toluene-d8	114			%Recov		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : DUP01 (= MW01)
Lab Sample Number : 881786-011
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	310			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	11	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : DUP01 (= MW01)
Lab Sample Number : 881786-011
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L		4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L		4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L		4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L		4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L		4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L		4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L		4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L		4/2/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L		4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
Trichloroethene	0.67	0.37	1.2	ug/L	Q	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L		4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L		4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L		4/2/98	SW846 8260
4-Bromofluorobenzene	106			%Recov		4/2/98	SW846 8260
Dibromofluoromethane	109			%Recov		4/2/98	SW846 8260
Toluene-d8	113			%Recov		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881786-012
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 1.0	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73		ug/L		4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7		ug/L		4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1		ug/L		4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9		ug/L		4/2/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1		ug/L		4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4		ug/L		4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2		ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89		ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881786-012
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/2/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
Trichloroethene	< 0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/2/98	SW846 8260
4-Bromofluorobenzene	107			%Recov	4/2/98	SW846 8260
Dibromofluoromethane	110			%Recov	4/2/98	SW846 8260
Toluene-d8	113			%Recov	4/2/98	SW846 8260

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☐ 1423 N. 8th Street., Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

Company Name: RMT
Branch or Location: Brookfield
Project Contact: Dave Misky
Telephone: 414 879 1212
Project Number: 3777.06
Project Name: Navistar
Project Location: Waukesha WI
Sampled By (Print): Tim Petrie/Dave Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

Page 1 of 1
P.O. # ____ Quote # ____
Mail Report To: RMT INC.
Company: Dave Misky
Address: 150 N Patrick Blvd, Brookfield
Invoice To: Company: Address: SAME
Mail Invoice To:

FILTERED? (YES/NO): N | N
PRESERVATION (CODE)*: B | B

ANALYSES REQUESTED: VOC + TCL list MN; GRO; DRO

FIELD ID	SAMPLE DESCRIPTION	DATE	TIME	VOC	GRO/DRO								FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
	Keg MW3	3/31	8:30	5	1								N	GW	✓	5 40ml / 1 L Amber		001
	MES MW5	3/31	9:00	5	1										✓			002
	Keg MW2	3/31	9:30	5	1										Y w Bub			003
	FB01	3/31	9:50	5	1										✓			004
	Keg MW4	3/31	10:15	5	1										Y w Bub			005
	Keg MW4 MS	3/31	10:15	5	1										✓			~~006~~
	Keg MW4 MSD	3/31	10:15	5	1													~~007~~
	MES MW1	3/31	11:10	5	1													008
	MES MW2	3/31	11:40	5	1													009
	MW01	3/31	12:00	5	1													010
	DUP01	3/31	—	5	1										↓	↓		011
																		—
	trip blank			2	—										✓	2 40ml		012

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Petrie	3/31/98 5:30	[illegible]	4/1/98 1130
[illegible]	4/1/98 1015	[illegible]	4/1/98 10:15
[illegible]	4/1/98 1540		
		Received By (En Chem): [illegible]	4/1/98

En Chem Project No.: 881786
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals):

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.06

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 4/9/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881787-001	NMW-3	3/31/98			
881787-002	NMW-1	3/31/98			
881787-003	NMW-8	3/31/98			
881787-004	NMW-7	3/31/98			
881787-005	NMW-2	3/31/98			
881787-006	NMW-9	3/31/98			
881787-007	DUP 02 = (NMW-9) 2 kes 5.2.98	3/31/98			
881787-008	NPZ-2	3/31/98			
881787-009	MW15	3/31/98			
881787-010	TRIP BLANK	3/31/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duracean — Approval Signature

4/9/98 — Date

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Lab#:	TestGroupID:	Comment:
881787	All Samples	Methylene chloride and Acetone are present in the laboratory environment. Detects should be considered suspect.
881787-001 NMW-3	GRO-W	Early unidentified peaks in window.
881787-002 NMW-1	GRO-W	Value reported due to early unidentified peaks in window.
881787-003 NMW-8	GRO-W	Value reported due to early unidentified peaks in window.
881787-004 NMW-7	DRO-W	Hump was present late in chromatogram.
	GRO-W	Early unidentified peaks in window.
881787-006 NMW-9	GRO-W	Value reported due to early unidentified peaks in window.
881787-007 DUP 02	GRO-W	Value reported due to early unidentified peaks in window.
881787-008 NP2-2	GRO-W	Value reported due to early unidentified peaks in window.
881787-009 MW15	GRO-W	Value reported due to early unidentified peaks in window.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-3
Lab Sample Number : 881787-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/2/98	Wi MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	Wi MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	5.1	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-3
Lab Sample Number : 881787-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L		4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L		4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L		4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L		4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
1,1-Dichloroethane	4.8	0.35	1.1	ug/L		4/2/98	SW846 8260
1,1-Dichloroethene	3.4	0.43	1.4	ug/L		4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene	6.7	0.28	0.89	ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
trans-1,2-Dichloroethene	0.81	0.79	2.5	ug/L	Q	4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L		4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L		4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L		4/2/98	SW846 8260
1,1,1-Trichloroethane	29	0.30	0.96	ug/L		4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
Trichloroethene	110	0.37	1.2	ug/L		4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L		4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L		4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L		4/2/98	SW846 8260
4-Bromofluorobenzene	112			%Recov		4/2/98	SW846 8260
Dibromofluoromethane	109			%Recov		4/2/98	SW846 8260
Toluene-d8	114			%Recov		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-1
Lab Sample Number : 881787-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER Prep Method: WI MOD DRO Prep Date: 4/2/98 Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	WI MOD DRO
Blank spike	92			25	%Recov		4/2/98	WI MOD DRO
Blank spike duplicate	89			25	%Recov		4/2/98	WI MOD DRO
Blank	< 50			50	ug/l		4/2/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER Prep Method: WI MOD.GRO Prep Date: 4/2/98 Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	310			50	ug/l		4/2/98	WI MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	WI MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	WI MOD GRO
Blank	< 50			50	ug/l		4/2/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER Prep Method: SW846 5030 Prep Date: 4/3/98 Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	16	10	32		ug/L	Q	4/3/98	SW846 8260
2-Butanone	< 8.9	8.9	28		ug/L		4/3/98	SW846 8260
Benzene	< 2.7	2.7	8.6		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 3.0	3.0	9.6		ug/L		4/3/98	SW846 8260
Bromoform	< 4.4	4.4	14		ug/L		4/3/98	SW846 8260
Bromomethane	< 7.0	7.0	22		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 2.4	2.4	7.6		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-1
Lab Sample Number : 881787-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 3.4	3.4	11	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	< 4.2	4.2	13	ug/L		4/3/98	SW846 8260
Chlorobenzene	< 2.3	2.3	7.3	ug/L		4/3/98	SW846 8260
Chloroethane	< 5.4	5.4	17	ug/L		4/3/98	SW846 8260
Chloroform	< 3.5	3.5	11	ug/L		4/3/98	SW846 8260
Chloromethane	< 6.1	6.1	19	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	20	3.5	11	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	32	4.3	14	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	< 3.7	3.7	12	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 2.8	2.8	8.9	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 3.2	3.2	10	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 7.9	7.9	25	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 4.3	4.3	14	ug/L		4/3/98	SW846 8260
Ethylbenzene	< 3.2	3.2	10	ug/L		4/3/98	SW846 8260
2-Hexanone	< 6.9	6.9	22	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 9.5	9.5	30	ug/L		4/3/98	SW846 8260
Methylene chloride	8.2	3.6	11	ug/L	QB(0.31)	4/3/98	SW846 8260
Styrene	< 1.7	1.7	5.4	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	350	3.0	9.6	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 6.9	6.9	22	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 6.1	6.1	19	ug/L		4/3/98	SW846 8260
Trichloroethene	930	3.7	12	ug/L		4/3/98	SW846 8260
Tetrachloroethene	< 4.3	4.3	14	ug/L		4/3/98	SW846 8260
Toluene	< 2.7	2.7	8.6	ug/L		4/3/98	SW846 8260
Vinyl chloride	< 2.0	2.0	6.4	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	< 4.3	4.3	14	ug/L		4/3/98	SW846 8260
Xylene, -o	< 2.4	2.4	7.6	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene	106			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	110			%Recov		4/3/98	SW846 8260
Toluene-d8	114			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-8
Lab Sample Number : 881787-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** WI MOD DRO **Prep Date:** 4/2/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	WI MOD DRO
Blank spike	91			25	%Recov		4/2/98	WI MOD DRO
Blank spike duplicate	86			25	%Recov		4/2/98	WI MOD DRO
Blank	< 50			50	ug/l		4/2/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/2/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	110			50	ug/l		4/2/98	WI MOD GRO
Blank Spike	92			1.0	%Recov		4/2/98	WI MOD GRO
Blank Spike Duplicate	94			1.0	%Recov		4/2/98	WI MOD GRO
Blank	< 50			50	ug/l		4/2/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	4.4	2.0	6.4		ug/L	Q	4/3/98	SW846 8260
2-Butanone	< 1.8	1.8	5.7		ug/L		4/3/98	SW846 8260
Benzene	< 0.54	0.54	1.7		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.60	0.60	1.9		ug/L		4/3/98	SW846 8260
Bromoform	< 0.88	0.88	2.8		ug/L		4/3/98	SW846 8260
Bromomethane	< 1.4	1.4	4.5		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.48	0.48	1.5		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-8
Lab Sample Number : 881787-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	<	0.68	0.68	2.2	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	<	0.84	0.84	2.7	ug/L		4/3/98	SW846 8260
Chlorobenzene	<	0.46	0.46	1.5	ug/L		4/3/98	SW846 8260
Chloroethane	<	1.1	1.1	3.5	ug/L		4/3/98	SW846 8260
Chloroform	<	0.70	0.70	2.2	ug/L		4/3/98	SW846 8260
Chloromethane	<	1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane		7.4	0.70	2.2	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene		8.1	0.86	2.7	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	<	0.74	0.74	2.4	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene		13	0.56	1.8	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.64	0.64	2.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Ethylbenzene	<	0.64	0.64	2.0	ug/L		4/3/98	SW846 8260
2-Hexanone	<	1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	<	1.9	1.9	6.1	ug/L		4/3/98	SW846 8260
Methylene chloride		2.0	0.72	2.3	ug/L	QB(0.31)	4/3/98	SW846 8260
Styrene	<	0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane		70	0.60	1.9	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	<	1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
Trichloroethene		360	0.74	2.4	ug/L		4/3/98	SW846 8260
Tetrachloroethene	<	0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Toluene	<	0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Vinyl chloride	<	0.40	0.40	1.3	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	<	0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Xylene, -o	<	0.48	0.48	1.5	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene		106			%Recov		4/3/98	SW846 8260
Dibromofluoromethane		112			%Recov		4/3/98	SW846 8260
Toluene-d8		114			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-7
Lab Sample Number : 881787-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	450			100	ug/l		4/3/98	WI MOD DRO
Blank spike	91			25	%Recov		4/3/98	WI MOD DRO
Blank spike duplicate	86			25	%Recov		4/3/98	WI MOD DRO
Blank	< 50			50	ug/l		4/3/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	WI MOD GRO
Blank Spike	101			1.00	%Recov		4/3/98	WI MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	WI MOD GRO
Blank	< 50			50	ug/l		4/3/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	7.7	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.9		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-7
Lab Sample Number : 881787-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
1,1-Dichloroethane	3.7	0.35	1.1	ug/L	4/2/98	SW846 8260
1,1-Dichloroethene	3.5	0.43	1.4	ug/L	4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
cis-1,2-Dichloroethene	2.4	0.28	0.89	ug/L	4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/2/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/2/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/2/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/2/98	SW846 8260
1,1,1-Trichloroethane	51	0.30	0.96	ug/L	4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
Trichloroethene	120	0.37	1.2	ug/L	4/2/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/2/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/2/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/2/98	SW846 8260
4-Bromofluorobenzene	104			%Recov	4/2/98	SW846 8260
Dibromofluoromethane	98			%Recov	4/2/98	SW846 8260
Toluene-d8	102			%Recov	4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-2
Lab Sample Number : 881787-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	WI MOD DRO
Blank spike	91			25	%Recov		4/2/98	WI MOD DRO
Blank spike duplicate	86			25	%Recov		4/2/98	WI MOD DRO
Blank	< 50			50	ug/l		4/2/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	WI MOD GRO
Blank Spike	101			1.00	%Recov		4/3/98	WI MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	WI MOD GRO
Blank	< 50			50	ug/l		4/3/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/2/98 — Analyst: DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	3.0	1.0	3.2		ug/L	Q	4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-2
Lab Sample Number : 881787-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L		4/2/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L		4/2/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L		4/2/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L		4/2/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L		4/2/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
1,1-Dichloroethane		2.3	0.35	1.1	ug/L		4/2/98	SW846 8260
1,1-Dichloroethene		0.61	0.43	1.4	ug/L	Q	4/2/98	SW846 8260
1,2-Dichloroethane	<	0.37	0.37	1.2	ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene		4.5	0.28	0.89	ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
trans-1,2-Dichloroethene		0.92	0.79	2.5	ug/L	Q	4/2/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L		4/2/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L		4/2/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L		4/2/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L		4/2/98	SW846 8260
1,1,1-Trichloroethane		18	0.30	0.96	ug/L		4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L		4/2/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L		4/2/98	SW846 8260
Trichloroethene		41	0.37	1.2	ug/L		4/2/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L		4/2/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L		4/2/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L		4/2/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L		4/2/98	SW846 8260
4-Bromofluorobenzene		104			%Recov		4/2/98	SW846 8260
Dibromofluoromethane		98			%Recov		4/2/98	SW846 8260
Toluene-d8		102			%Recov		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-9
Lab Sample Number : 881787-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	91			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	86			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	53			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	101			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	5.8	2.0	6.4		ug/L	Q	4/3/98	SW846 8260
2-Butanone	< 1.8	1.8	5.7		ug/L		4/3/98	SW846 8260
Benzene	< 0.54	0.54	1.7		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.60	0.60	1.9		ug/L		4/3/98	SW846 8260
Bromoform	< 0.88	0.88	2.8		ug/L		4/3/98	SW846 8260
Bromomethane	< 1.4	1.4	4.5		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.48	0.48	1.5		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW-9
Lab Sample Number : 881787-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	<	0.68	0.68	2.2	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	<	0.84	0.84	2.7	ug/L		4/3/98	SW846 8260
Chlorobenzene	<	0.46	0.46	1.5	ug/L		4/3/98	SW846 8260
Chloroethane	<	1.1	1.1	3.5	ug/L		4/3/98	SW846 8260
Chloroform	<	0.70	0.70	2.2	ug/L		4/3/98	SW846 8260
Chloromethane	<	1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane		2.9	0.70	2.2	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene		1.7	0.86	2.7	ug/L	Q	4/3/98	SW846 8260
1,2-Dichloroethane	<	0.74	0.74	2.4	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene		11	0.56	1.8	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.64	0.64	2.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Ethylbenzene	<	0.64	0.64	2.0	ug/L		4/3/98	SW846 8260
2-Hexanone	<	1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	<	1.9	1.9	6.1	ug/L		4/3/98	SW846 8260
Methylene chloride		2.4	0.72	2.3	ug/L	B(0.31)	4/3/98	SW846 8260
Styrene	<	0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane		19	0.60	1.9	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	<	1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
Trichloroethene		210	0.74	2.4	ug/L		4/3/98	SW846 8260
Tetrachloroethene	<	0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Toluene	<	0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Vinyl chloride	<	0.40	0.40	1.3	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	<	0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Xylene, -o	<	0.48	0.48	1.5	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene		107			%Recov		4/3/98	SW846 8260
Dibromofluoromethane		109			%Recov		4/3/98	SW846 8260
Toluene-d8		115			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : DUP 02 (= NMWA)
Lab Sample Number : 881787-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/2/98	Wi MOD DRO
Blank spike	91			25	%Recov		4/2/98	Wi MOD DRO
Blank spike duplicate	86			25	%Recov		4/2/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/2/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	53			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	101			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	6.6	2.0	6.4		ug/L		4/3/98	SW846 8260
2-Butanone	< 1.8	1.8	5.7		ug/L		4/3/98	SW846 8260
Benzene	< 0.54	0.54	1.7		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.60	0.60	1.9		ug/L		4/3/98	SW846 8260
Bromoform	< 0.88	0.88	2.8		ug/L		4/3/98	SW846 8260
Bromomethane	< 1.4	1.4	4.5		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.48	0.48	1.5		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.06

Field ID : DUP 02 (= NMW-9)

Lab Sample Number : 881787-007

WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE

Report Date : 4/6/98

Collection Date : 3/31/98

Matrix Type : WATER

Carbon tetrachloride	< 0.68	0.68	2.2	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	< 0.84	0.84	2.7	ug/L		4/3/98	SW846 8260
Chlorobenzene	< 0.46	0.46	1.5	ug/L		4/3/98	SW846 8260
Chloroethane	< 1.1	1.1	3.5	ug/L		4/3/98	SW846 8260
Chloroform	< 0.70	0.70	2.2	ug/L		4/3/98	SW846 8260
Chloromethane	< 1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	3.0	0.70	2.2	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	2.0	0.86	2.7	ug/L	Q	4/3/98	SW846 8260
1,2-Dichloroethane	< 0.74	0.74	2.4	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene	12	0.56	1.8	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.64	0.64	2.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Ethylbenzene	< 0.64	0.64	2.0	ug/L		4/3/98	SW846 8260
2-Hexanone	< 1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 1.9	1.9	6.1	ug/L		4/3/98	SW846 8260
Methylene chloride	1.7	0.72	2.3	ug/L	QB(0.31)	4/3/98	SW846 8260
Styrene	< 0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	20	0.60	1.9	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
Trichloroethene	220	0.74	2.4	ug/L		4/3/98	SW846 8260
Tetrachloroethene	< 0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Toluene	< 0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Vinyl chloride	< 0.40	0.40	1.3	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	< 0.86	0.86	2.7	ug/L		4/3/98	SW846 8260
Xylene, -o	< 0.48	0.48	1.5	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene	108			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	110			%Recov		4/3/98	SW846 8260
Toluene-d8	114			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name :	NAVISTAR		
Project Number :	3777.06	Client :	RMT - MILWAUKEE
Field ID :	NP2-2 2 5.21.98	Report Date :	4/6/98
Lab Sample Number :	881787-008	Collection Date :	3/31/98
WI DNR LAB ID :	405132750	Matrix Type :	WATER

Organic Results

DIESEL RANGE ORGANICS - WATER   Prep Method: Wi MOD DRO   Prep Date: 4/2/98   Analyst: DJB

Analyte		Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	<	100			100	ug/l		4/3/98	Wi MOD DRO
Blank spike		91			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate		86			25	%Recov		4/3/98	Wi MOD DRO
Blank	<	50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER   Prep Method: WI MOD.GRO   Prep Date: 4/2/98   Analyst: EGS

Analyte		Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS		350			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike		101			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate		100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	<	50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER   Prep Method: SW846 5030   Prep Date: 4/3/98   Analyst: RJN

Analyte		Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone		15	10	32		ug/L	Q	4/3/98	SW846 8260
2-Butanone	<	8.9	8.9	28		ug/L		4/3/98	SW846 8260
Benzene	<	2.7	2.7	8.6		ug/L		4/3/98	SW846 8260
Bromodichloromethane	<	3.0	3.0	9.6		ug/L		4/3/98	SW846 8260
Bromoform	<	4.4	4.4	14		ug/L		4/3/98	SW846 8260
Bromomethane	<	7.0	7.0	22		ug/L		4/3/98	SW846 8260
Carbon disulfide	<	2.4	2.4	7.6		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NP-2
Lab Sample Number : 881787-008
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 3.4	3.4	11	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	< 4.2	4.2	13	ug/L		4/3/98	SW846 8260
Chlorobenzene	< 2.3	2.3	7.3	ug/L		4/3/98	SW846 8260
Chloroethane	< 5.4	5.4	17	ug/L		4/3/98	SW846 8260
Chloroform	< 3.5	3.5	11	ug/L		4/3/98	SW846 8260
Chloromethane	< 6.1	6.1	19	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	26	3.5	11	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	31	4.3	14	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	< 3.7	3.7	12	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene	17	2.8	8.9	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 3.2	3.2	10	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 7.9	7.9	25	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 4.3	4.3	14	ug/L		4/3/98	SW846 8260
Ethylbenzene	< 3.2	3.2	10	ug/L		4/3/98	SW846 8260
2-Hexanone	< 6.9	6.9	22	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 9.5	9.5	30	ug/L		4/3/98	SW846 8260
Methylene chloride	9.5	3.6	11	ug/L	QB(0.31)	4/3/98	SW846 8260
Styrene	< 1.7	1.7	5.4	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	160	3.0	9.6	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 6.9	6.9	22	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 6.1	6.1	19	ug/L		4/3/98	SW846 8260
Trichloroethene	1300	3.7	12	ug/L		4/3/98	SW846 8260
Tetrachloroethene	< 4.3	4.3	14	ug/L		4/3/98	SW846 8260
Toluene	< 2.7	2.7	8.6	ug/L		4/3/98	SW846 8260
Vinyl chloride	< 2.0	2.0	6.4	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	< 4.3	4.3	14	ug/L		4/3/98	SW846 8260
Xylene, -o	< 2.4	2.4	7.6	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene	107			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	110			%Recov		4/3/98	SW846 8260
Toluene-d8	114			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW15
Lab Sample Number : 881787-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/2/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	WI MOD DRO
Blank spike	91			25	%Recov		4/3/98	WI MOD DRO
Blank spike duplicate	86			25	%Recov		4/3/98	WI MOD DRO
Blank	< 50			50	ug/l		4/3/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/2/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	110			50	ug/l		4/3/98	WI MOD GRO
Blank Spike	101			1.00	%Recov		4/3/98	WI MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	WI MOD GRO
Blank	< 50			50	ug/l		4/3/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 5.0	5.0	16		ug/L		4/3/98	SW846 8260
2-Butanone	< 4.5	4.5	14		ug/L		4/3/98	SW846 8260
Benzene	< 1.4	1.4	4.5		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 1.5	1.5	4.8		ug/L		4/3/98	SW846 8260
Bromoform	< 2.2	2.2	7.0		ug/L		4/3/98	SW846 8260
Bromomethane	< 3.5	3.5	11		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 1.2	1.2	3.8		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW15
Lab Sample Number : 881787-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/6/98
Collection Date : 3/31/98
Matrix Type : WATER

Carbon tetrachloride	< 1.7	1.7	5.4	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	< 2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Chlorobenzene	< 1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
Chloroethane	< 2.7	2.7	8.6	ug/L		4/3/98	SW846 8260
Chloroform	< 1.7	1.7	5.4	ug/L		4/3/98	SW846 8260
Chloromethane	< 3.0	3.0	9.6	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	6.7	1.7	5.4	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	6.1	2.1	6.7	ug/L	Q	4/3/98	SW846 8260
1,2-Dichloroethane	< 1.8	1.8	5.7	ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene	28	1.4	4.5	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 4.0	4.0	13	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Ethylbenzene	< 1.6	1.6	5.1	ug/L		4/3/98	SW846 8260
2-Hexanone	< 3.4	3.4	11	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 4.8	4.8	15	ug/L		4/3/98	SW846 8260
Methylene chloride	5.4	1.8	5.7	ug/L	QB(0.31)	4/3/98	SW846 8260
Styrene	< 0.85	0.85	2.7	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	39	1.5	4.8	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 3.4	3.4	11	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 3.0	3.0	9.6	ug/L		4/3/98	SW846 8260
Trichloroethene	360	1.8	5.7	ug/L		4/3/98	SW846 8260
Tetrachloroethene	< 2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Toluene	< 1.4	1.4	4.5	ug/L		4/3/98	SW846 8260
Vinyl chloride	< 1.0	1.0	3.2	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	< 2.1	2.1	6.7	ug/L		4/3/98	SW846 8260
Xylene, -o	< 1.2	1.2	3.8	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene	107			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	108			%Recov		4/3/98	SW846 8260
Toluene-d8	112			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881787-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/2/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	101			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/2/98 **Analyst:** DJF

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 1.0	1.0	3.2		ug/L		4/2/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/2/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/2/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/2/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/2/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/2/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/2/98	SW846 8260
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		4/2/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		4/2/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73		ug/L		4/2/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7		ug/L		4/2/98	SW846 8260
Chloroform	< 0.35	0.35	1.1		ug/L		4/2/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9		ug/L		4/2/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1		ug/L		4/2/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4		ug/L		4/2/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2		ug/L		4/2/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89		ug/L		4/2/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0		ug/L		4/2/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881787-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/3/98
Collection Date : 3/31/98
Matrix Type : WATER

trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L	4/2/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L	4/2/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L	4/2/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L	4/2/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L	4/2/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L	4/2/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L	4/2/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L	4/2/98	SW846 8260
Trichloroethene	<	0.37	0.37	1.2	ug/L	4/2/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L	4/2/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L	4/2/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L	4/2/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L	4/2/98	SW846 8260
4-Bromofluorobenzene		104			%Recov	4/2/98	SW846 8260
Dibromofluoromethane		97			%Recov	4/2/98	SW846 8260
Toluene-d8		104			%Recov	4/2/98	SW846 8260

Company Name: P.M.T.

Branch or Location: Brookfield

Project Contact: Dave Mickley

Telephone: 414 879 1212

Project Number: 3777.06

Project Name: Navistar

Project Location: Waukesha, WI

Sampled By (Print): Tim Patrick

Regulatory Program *(circle)*: UST RCRA CLP SDWA NPDES/WPDES CAA NR_____ Other _____

NR720 Confirmation Analysis Required? *(circle)*: Y N

(En Chem will not confirm unless otherwise instructed.)

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19641

Page 1 of 1

P.O. # _____ Quote # _____

Mail Report To: Dave Mickley

Company: P.M.T.

Address: 150 N Patrick Rd Brookfield WI

Invoice To: _____

Company: _____

Address: _____

Mail Invoice To: _____

FILTERED? (YES/NO): N N

PRESERVATION (CODE)*: B B

ANALYSES REQUESTED: TCL LIST. MAP METALS; VOCs & GRO; DRO

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME										FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
	NMW-3	3/31	1520	5	1								N	GW	✓	5	40ml Amber	001
	NMW-1	3/31	2140	5	1								N	GW	✓			002
	NMW-8	3/31	3210	5	1								N	GW	✓			003
	NMW-7	3/31	3215	5	1								N	GW	✓			004
	NMW-2	3/31	3240	5	1								N	GW	✓			005
	NMW-9	3/31	410	5	1								N	GW	✓			006
	DUP 02	3/31	—	5	1								N	GW	✓			007
	NP2-2	3/31	445	5	1								N	GW	✓			008
	MW15	3/31	455	5	1								N	GW	✓			009
5	trip blank		—	2												2 40ml	VOA	010

SHADED AREA FOR LABORATORY USE ONLY

*Preservation Code

A=None B=HCL C=H2SO4

D=HN03 E=EnCore F=Methanol**

G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Patrick	3/31/98 5:30	[illegible]	4/1/98 11:30
[illegible]	4/1/98 WIST	[illegible]	4/1/98 10:15
[illegible]	4/1/98 1540		
		Received By (En Chem): [illegible]	4/1/98 13:40

En Chem Project No.: 981787

Sample Receipt Temp.: ROT

Sample Receipt pH (Wet/Metals):

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.06

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 4/10/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881818-001	NMW4	4/1/98			
881818-002	NMW4MS	4/1/98			
881818-003	NMW4MSD	4/1/98			
881818-004	FB02	4/1/98			
881818-005	NMW5	4/1/98			
881818-006	NMW6	4/1/98			
881818-007	DUP03 (=MW-2)	4/1/98			
881818-008	MW2	4/1/98			
881818-009	NMW11	4/1/98			
881818-010	FB03	4/1/98			
881818-011	NMW1D	4/1/98			
881818-012	TRIP BLANK	4/1/98			

O KLS 5.21.98

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duranceau — Approval Signature

4/10/98 — Date

S1

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Lab#:	TestGroupID:	Comment:
881818	All Samples	Methylene chloride is present in the laboratory environment. Detects should be considered suspect.
	All Samples	Acetone present in instrument blank.
881818-002	SPECVOA-W	Sample was not used as the MS/MSD for this set of data, but can be viewed as a duplicate sample point of 881818-001.
881818-003	SPECVOA-W	Sample was not used as the MS/MSD for this set of data, but can be viewed as a duplicate sample point of 881818-001.
881818-005	GRO-W	Sample exhibits a non-typical hydrocarbon pattern. Early peaks were present.
	DRO-W	Late eluting hump present along with diesel range peaks.
881818-006	GRO-W	Sample exhibits a non-typical hydrocarbon pattern. Early peaks were present.
	DRO-W	Late eluting hump present along with diesel range peaks.
881818-008	DRO-W	Hump was present late in chromatogram.
881818-009	DRO-W	Hump was present late in chromatogram.
881818-011	GRO-W	Sample exhibits a non-typical hydrocarbon pattern. Early peaks were present.
	DRO-W	Hump was present late in chromatogram.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW4
Lab Sample Number : 881818-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	2.6	1.0	3.2		ug/L	QB(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	1.1	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW4
Lab Sample Number : 881818-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L	4/3/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L	4/3/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L	4/3/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L	4/3/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
1,1-Dichloroethane	<	0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
1,1-Dichloroethene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
1,2-Dichloroethane	<	0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
cis-1,2-Dichloroethene		1.2	0.28	0.89	ug/L	4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene		8.4	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
4-Bromofluorobenzene		103			%Recov	4/3/98	SW846 8260
Dibromofluoromethane		95			%Recov	4/3/98	SW846 8260
Toluene-d8		101			%Recov	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW4MS
Lab Sample Number : 881818-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	2.6	1.0	3.2		ug/L	QB(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	2.4	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW4MS
Lab Sample Number : 881818-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/3/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/3/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/3/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/3/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
cis-1,2-Dichloroethene	1.3	0.28	0.89	ug/L	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene	9.0	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
4-Bromofluorobenzene	102			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	97			%Recov	4/3/98	SW846 8260
Toluene-d8	102			%Recov	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW4MSD
Lab Sample Number : 881818-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** WI MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	WI MOD DRO
Blank spike	92			25	%Recov		4/3/98	WI MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	WI MOD DRO
Blank	< 50			50	ug/l		4/3/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/3/98 **Analyst:** CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	WI MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	WI MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	WI MOD GRO
Blank	< 50			50	ug/l		4/3/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	4.4	1.0	3.2		ug/L	B(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	3.3	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW4MSD
Lab Sample Number : 881818-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L		4/3/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L		4/3/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L		4/3/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	<	0.35	0.35	1.1	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane		0.39	0.37	1.2	ug/L	Q	4/3/98	SW846 8260
cis-1,2-Dichloroethene		1.3	0.28	0.89	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L		4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L		4/3/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L		4/3/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
Trichloroethene		8.6	0.37	1.2	ug/L		4/3/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L		4/3/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene		103			%Recov		4/3/98	SW846 8260
Dibromofluoromethane		98			%Recov		4/3/98	SW846 8260
Toluene-d8		102			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : FB02
Lab Sample Number : 881818-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** Wi MOD DRO **Prep Date:** 4/3/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** Wi MOD GRO **Prep Date:** 4/3/98 **Analyst:** CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/3/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	3.8	1.0	3.2		ug/L	B(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.99	0.99	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	2.4	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : FB02
Lab Sample Number : 881818-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/3/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/3/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/3/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/3/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
4-Bromofluorobenzene	102			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	97			%Recov	4/3/98	SW846 8260
Toluene-d8	102			%Recov	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW5
Lab Sample Number : 881818-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	7000			330	ug/l		4/4/98	WI MOD DRO
Blank spike	92			25	%Recov		4/4/98	WI MOD DRO
Blank spike duplicate	92			25	%Recov		4/4/98	WI MOD DRO
Blank	< 50			50	ug/l		4/4/98	WI MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	110			50	ug/l		4/3/98	WI MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	WI MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	WI MOD GRO
Blank	< 50			50	ug/l		4/3/98	WI MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	3.5	1.0	3.2		ug/L	B(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.99	0.99	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	1.2	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW5
Lab Sample Number : 881818-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L		4/3/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L		4/3/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L		4/3/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	19	0.35	1.1	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	16	0.43	1.4	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	0.46	0.37	1.2	ug/L	Q	4/3/98	SW846 8260
cis-1,2-Dichloroethene	140	0.28	0.89	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene	2.4	0.79	2.5	ug/L	Q	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L		4/3/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L		4/3/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane	27	0.30	0.96	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
Trichloroethene	200	0.37	1.2	ug/L		4/3/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L		4/3/98	SW846 8260
Vinyl chloride	58	0.20	0.64	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene	103			%Recov		4/3/98	SW846 8260
Dibromofluoromethane	97			%Recov		4/3/98	SW846 8260
Toluene-d8	102			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW6
Lab Sample Number : 881818-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: WI MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	1000			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	1100			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	130	40	130		ug/L		4/7/98	SW846 8260
2-Butanone	< 36	36	110		ug/L		4/7/98	SW846 8260
Benzene	< 11	11	35		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 12	12	38		ug/L		4/7/98	SW846 8260
Bromoform	< 18	18	57		ug/L		4/7/98	SW846 8260
Bromomethane	< 28	28	89		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 9.6	9.6	31		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW6
Lab Sample Number : 881818-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	<	14	14	45	ug/L		4/7/98	SW846 8260
Chlorodibromomethane	<	17	17	54	ug/L		4/7/98	SW846 8260
Chlorobenzene	<	9.2	9.2	29	ug/L		4/7/98	SW846 8260
Chloroethane	<	22	22	70	ug/L		4/7/98	SW846 8260
Chloroform	<	14	14	45	ug/L		4/7/98	SW846 8260
Chloromethane	<	24	24	76	ug/L		4/7/98	SW846 8260
1,1-Dichloroethane		38	14	45	ug/L	Q	4/7/98	SW846 8260
1,1-Dichloroethene		70	17	54	ug/L		4/7/98	SW846 8260
1,2-Dichloroethane	<	15	15	48	ug/L		4/7/98	SW846 8260
cis-1,2-Dichloroethene		48	11	35	ug/L		4/7/98	SW846 8260
cis-1,3-Dichloropropene	<	13	13	41	ug/L		4/7/98	SW846 8260
trans-1,2-Dichloroethene	<	32	32	100	ug/L		4/7/98	SW846 8260
trans-1,3-Dichloropropene	<	17	17	54	ug/L		4/7/98	SW846 8260
Ethylbenzene	<	13	13	41	ug/L		4/7/98	SW846 8260
2-Hexanone	<	28	28	89	ug/L		4/7/98	SW846 8260
4-Methyl-2-pentanone	<	38	38	120	ug/L		4/7/98	SW846 8260
Methylene chloride		24	14	45	ug/L	QB(0.24)	4/7/98	SW846 8260
Styrene	<	6.8	6.8	22	ug/L		4/7/98	SW846 8260
1,1,1-Trichloroethane		410	12	38	ug/L		4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	28	28	89	ug/L		4/7/98	SW846 8260
1,1,2-Trichloroethane	<	24	24	76	ug/L		4/7/98	SW846 8260
Trichloroethene		2900	15	48	ug/L		4/7/98	SW846 8260
Tetrachloroethene	<	17	17	54	ug/L		4/7/98	SW846 8260
Toluene	<	11	11	35	ug/L		4/7/98	SW846 8260
Vinyl chloride	<	8.0	8.0	25	ug/L		4/7/98	SW846 8260
Xylenes, -m, -p	<	17	17	54	ug/L		4/7/98	SW846 8260
Xylene, -o	<	9.6	9.6	31	ug/L		4/7/98	SW846 8260
4-Bromofluorobenzene		104			%Recov		4/7/98	SW846 8260
Dibromofluoromethane		108			%Recov		4/7/98	SW846 8260
Toluene-d8		112			%Recov		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : DUP03 (= MW-2)
Lab Sample Number : 881818-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/6/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: Wi MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	5.9	1.0	3.2		ug/L	B(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : DUP03 (= MW-2)
Lab Sample Number : 881818-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/3/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/3/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/3/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/3/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
4-Bromofluorobenzene	104			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	95			%Recov	4/3/98	SW846 8260
Toluene-d8	102			%Recov	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW2
Lab Sample Number : 881818-008
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	180			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	3.1	1.0	3.2		ug/L	QB(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.9		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW2
Lab Sample Number : 881818-008
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/3/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/3/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/3/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/3/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L	4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene	< 0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
4-Bromofluorobenzene	101			%Recov	4/3/98	SW846 8260
Dibromofluoromethane	96			%Recov	4/3/98	SW846 8260
Toluene-d8	102			%Recov	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW11
Lab Sample Number : 881818-009
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	330			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	4.9	1.0	3.2		ug/L	B(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.9		ug/L		4/3/98	SW846 8260
Benzene	2.1	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW11
Lab Sample Number : 881818-009
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L		4/3/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L		4/3/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L		4/3/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L		4/3/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L		4/3/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
1,1-Dichloroethane		2.1	0.35	1.1	ug/L		4/3/98	SW846 8260
1,1-Dichloroethene		2.9	0.43	1.4	ug/L		4/3/98	SW846 8260
1,2-Dichloroethane		0.62	0.37	1.2	ug/L	Q	4/3/98	SW846 8260
cis-1,2-Dichloroethene		82	0.28	0.89	ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
trans-1,2-Dichloroethene		1.1	0.79	2.5	ug/L	Q	4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L		4/3/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L		4/3/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L		4/3/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L		4/3/98	SW846 8260
1,1,1-Trichloroethane		8.6	0.30	0.96	ug/L		4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L		4/3/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L		4/3/98	SW846 8260
Trichloroethene		50	0.37	1.2	ug/L		4/3/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L		4/3/98	SW846 8260
Vinyl chloride		1.7	0.20	0.64	ug/L		4/3/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L		4/3/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L		4/3/98	SW846 8260
4-Bromofluorobenzene		103			%Recov		4/3/98	SW846 8260
Dibromofluoromethane		97			%Recov		4/3/98	SW846 8260
Toluene-d8		101			%Recov		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : FB03
Lab Sample Number : 881818-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/3/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/3/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/3/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/3/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/3/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/3/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/3/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	3.9	1.0	3.2		ug/L	B(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	0.44	0.24	0.76		ug/L	Q	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : FB03
Lab Sample Number : 881818-010
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	<	0.34	0.34	1.1	ug/L	4/3/98	SW846 8260
Chlorodibromomethane	<	0.42	0.42	1.3	ug/L	4/3/98	SW846 8260
Chlorobenzene	<	0.23	0.23	0.73	ug/L	4/3/98	SW846 8260
Chloroethane	<	0.54	0.54	1.7	ug/L	4/3/98	SW846 8260
Chloroform	<	0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
Chloromethane	<	0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
1,1-Dichloroethane	<	0.35	0.35	1.1	ug/L	4/3/98	SW846 8260
1,1-Dichloroethene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
1,2-Dichloroethane	<	0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
cis-1,2-Dichloroethene	<	0.28	0.28	0.89	ug/L	4/3/98	SW846 8260
cis-1,3-Dichloropropene	<	0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene	<	0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
Bromofluorobenzene		100			%Recov	4/3/98	SW846 8260
Bromofluoromethane		97			%Recov	4/3/98	SW846 8260
Toluene-d8		102			%Recov	4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW1D O kes 5.21.98
Lab Sample Number : 881818-011
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/8/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/3/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	420			100	ug/l		4/4/98	Wi MOD DRO
Blank spike	92			25	%Recov		4/4/98	Wi MOD DRO
Blank spike duplicate	92			25	%Recov		4/4/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/4/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	750			50	ug/l		4/4/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/4/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/6/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 50	50	160		ug/L		4/6/98	SW846 8260
2-Butanone	< 44	44	140		ug/L		4/6/98	SW846 8260
Benzene	< 14	14	45		ug/L		4/6/98	SW846 8260
Bromodichloromethane	< 15	15	48		ug/L		4/6/98	SW846 8260
Bromoform	< 22	22	70		ug/L		4/6/98	SW846 8260
Bromomethane	< 35	35	110		ug/L		4/6/98	SW846 8260
Carbon disulfide	< 12	12	38		ug/L		4/6/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NMW10 kms 5.21.98
Lab Sample Number : 881818-011
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/8/98
Collection Date : 4/1/98
Matrix Type : WATER

Carbon tetrachloride	< 17	17	54	ug/L		4/6/98	SW846 8260
Chlorodibromomethane	< 21	21	67	ug/L		4/6/98	SW846 8260
Chlorobenzene	< 12	12	38	ug/L		4/6/98	SW846 8260
Chloroethane	< 27	27	86	ug/L		4/6/98	SW846 8260
Chloroform	< 18	18	57	ug/L		4/6/98	SW846 8260
Chloromethane	< 30	30	96	ug/L		4/6/98	SW846 8260
1,1-Dichloroethane	28	18	57	ug/L	Q	4/6/98	SW846 8260
1,1-Dichloroethene	52	22	70	ug/L	Q	4/6/98	SW846 8260
1,2-Dichloroethane	< 18	18	57	ug/L		4/6/98	SW846 8260
cis-1,2-Dichloroethene	50	14	45	ug/L		4/6/98	SW846 8260
cis-1,3-Dichloropropene	< 16	16	51	ug/L		4/6/98	SW846 8260
trans-1,2-Dichloroethene	< 40	40	130	ug/L		4/6/98	SW846 8260
trans-1,3-Dichloropropene	< 22	22	70	ug/L		4/6/98	SW846 8260
Ethylbenzene	< 16	16	51	ug/L		4/6/98	SW846 8260
2-Hexanone	< 34	34	110	ug/L		4/6/98	SW846 8260
4-Methyl-2-pentanone	< 48	48	150	ug/L		4/6/98	SW846 8260
Methylene chloride	22	18	57	ug/L	QB(0.29)	4/6/98	SW846 8260
Styrene	< 8.5	8.5	27	ug/L		4/6/98	SW846 8260
1,1,1-Trichloroethane	330	15	48	ug/L		4/6/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 34	34	110	ug/L		4/6/98	SW846 8260
1,1,2-Trichloroethane	< 30	30	96	ug/L		4/6/98	SW846 8260
Trichloroethene	2200	18	57	ug/L		4/6/98	SW846 8260
Tetrachloroethene	< 22	22	70	ug/L		4/6/98	SW846 8260
Toluene	< 14	14	45	ug/L		4/6/98	SW846 8260
Vinyl chloride	< 10	10	32	ug/L		4/6/98	SW846 8260
Xylenes, -m, -p	< 22	22	70	ug/L		4/6/98	SW846 8260
Xylene, -o	< 12	12	38	ug/L		4/6/98	SW846 8260
4-Bromofluorobenzene	102			%Recov		4/6/98	SW846 8260
Dibromofluoromethane	96			%Recov		4/6/98	SW846 8260
Toluene-d8	102			%Recov		4/6/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881818-012
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/3/98 — Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/4/98	Wi MOD GRO
Blank Spike	102			1.00	%Recov		4/4/98	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		4/4/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/4/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/3/98 — Analyst: RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	2.2	1.0	3.2		ug/L	QB(1.59)	4/3/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/3/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/3/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/3/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/3/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/3/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/3/98	SW846 8260
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		4/3/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		4/3/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73		ug/L		4/3/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7		ug/L		4/3/98	SW846 8260
Chloroform	< 0.35	0.35	1.1		ug/L		4/3/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9		ug/L		4/3/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1		ug/L		4/3/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4		ug/L		4/3/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2		ug/L		4/3/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89		ug/L		4/3/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0		ug/L		4/3/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881818-012
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/7/98
Collection Date : 4/1/98
Matrix Type : WATER

trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L	4/3/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L	4/3/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L	4/3/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L	4/3/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L	4/3/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L	4/3/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L	4/3/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L	4/3/98	SW846 8260
Trichloroethene	<	0.37	0.37	1.2	ug/L	4/3/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L	4/3/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L	4/3/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L	4/3/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L	4/3/98	SW846 8260
4-Bromofluorobenzene		100			%Recov	4/3/98	SW846 8260
Dibromofluoromethane		97			%Recov	4/3/98	SW846 8260
Toluene-d8		103			%Recov	4/3/98	SW846 8260

* 2 coolers *

Company Name: RMT
Branch or Location: Brookfield
Project Contact: Dave Misling
Telephone: 414 879 1212
Project Number: 3777.06
Project Name: Navistar
Project Location: Waukesha, WI
Sampled By (Print): Tim Petrick

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR______ Other

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

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CHAIN OF COUSTODY

19045

Page 1 of 1
P.O. # ______ Quote # ______
Mail Report To: Dave Misling
Company: RMT
Address: 150 N Patrick Blvd, Brookfield WI
Invoice To:
Company: SAME
Address:
Mail Invoice To:

FILTERED? (YES/NO): N, N
PRESERVATION (CODE)*: B, B
ANALYSES REQUESTED: VOL (Special-W TCL LIST), GRO, DRO

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	VOL, GRO	DRO							FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
	Nmw 4	4/1	830	5	1							N	GW	✓	5, 1 Amber		001
	Nmw4ms	4/1	830	5	1							N	GW	Vw Bub			002
	Nmw 4msD	4/1	830	5	1							N	GW	✓			003
	FB02	4/1	940	5	1							N	GW	✓			004
	Nmw 5	4/1	1015	5	1							N	GW	Vw Bub			005
	Nmw 6	4/1	1130	5	1							N	GW	✓			006
	Dup03	4/1	—	5	1							N	GW				007
	mw 2	4/1	1245	5	1							N	GW				008
	Nmw11	4/1	145	5	1							N	GW				009
	FB.03	4/1	200	5	1							N	GW				010
	Nmw 10	4/1	245	5	1							N	GW	↓	↓		011
	trip blank	—		4	—									✓	4 40ml		012

SHADED AREA FOR LABORATORY USE ONLY

***Preservation Code**
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

****If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.**

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Petrick	4/1/98 430 pm	[illegible]	4/2/98 11
[illegible]	4/2/98 12:00	Wacker	4/2/98 2:00
Wacker	4/2/98 15:20		
		Received By (En Chem): [illegible]	4/2/98 15:20

En Chem Project No.: 881818
Sample Receipt Temp.: ROI
Sample Receipt pH (Wet/Metals):

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.06

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 4/10/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
881851-001	MW-16	4/2/98			
881851-002	MW-12	4/2/98			
881851-003	MW-13	4/2/98			
881851-004	NPZ-1	4/2/98			
881851-005	MW-11	4/2/98			
881851-006	MW-19	4/2/98			
881851-007	TRIP BLANK	4/2/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duranceau — Approval Signature

4/10/98 — Date

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Lab#:	TestGroupID:	Comment:
881851	All Samples	Methylene chloride and Acetone are present in the laboratory environment. Detects should be considered suspect.
881851-001 MW-16	GRO-W	Value reported due to early unidentified peaks in window.
	DRO-W	Hump was present late in chromatogram.
881851-002 MW-12	GRO-W	Value reported due to early unidentified peaks in window.
	DRO-W	Hump was present late in chromatogram.
881851-003 MW-13	GRO-W	Value reported due to early unidentified peaks in window.
	DRO-W	Hump was present late in chromatogram.
881851-004 NPZ-1	GRO-W	Value reported due to early unidentified peaks in window.
881851-005 MW-11	GRO-W	Value reported due to early unidentified peaks in window.
	DRO-W	Hump was present late in chromatogram.
881851-006 MW-19	GRO-W	Value reported due to early unidentified peaks in window.
	DRO-W	Hump was present late in chromatogram.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-16
Lab Sample Number : 881851-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/6/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	120			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	97			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	96			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/6/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	290			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	24	10	32		ug/L	Q	4/7/98	SW846 8260
2-Butanone	< 8.9	8.9	28		ug/L		4/7/98	SW846 8260
Benzene	< 2.7	2.7	8.6		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 3.0	3.0	9.6		ug/L		4/7/98	SW846 8260
Bromoform	< 4.4	4.4	14		ug/L		4/7/98	SW846 8260
Bromomethane	< 7.0	7.0	22		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 2.4	2.4	7.6		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-16
Lab Sample Number : 881851-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Carbon tetrachloride	< 3.4	3.4	11	ug/L		4/7/98	SW846 8260
Chlorodibromomethane	< 4.2	4.2	13	ug/L		4/7/98	SW846 8260
Chlorobenzene	< 2.3	2.3	7.3	ug/L		4/7/98	SW846 8260
Chloroethane	< 5.4	5.4	17	ug/L		4/7/98	SW846 8260
Chloroform	< 3.5	3.5	11	ug/L		4/7/98	SW846 8260
Chloromethane	< 6.1	6.1	19	ug/L		4/7/98	SW846 8260
1,1-Dichloroethane	16	3.5	11	ug/L		4/7/98	SW846 8260
1,1-Dichloroethene	23	4.3	14	ug/L		4/7/98	SW846 8260
1,2-Dichloroethane	< 3.7	3.7	12	ug/L		4/7/98	SW846 8260
cis-1,2-Dichloroethene	35	2.8	8.9	ug/L		4/7/98	SW846 8260
cis-1,3-Dichloropropene	< 3.2	3.2	10	ug/L		4/7/98	SW846 8260
trans-1,2-Dichloroethene	< 7.9	7.9	25	ug/L		4/7/98	SW846 8260
trans-1,3-Dichloropropene	< 4.3	4.3	14	ug/L		4/7/98	SW846 8260
Ethylbenzene	< 3.2	3.2	10	ug/L		4/7/98	SW846 8260
2-Hexanone	< 6.9	6.9	22	ug/L		4/7/98	SW846 8260
4-Methyl-2-pentanone	< 9.5	9.5	30	ug/L		4/7/98	SW846 8260
Methylene chloride	6.3	3.6	11	ug/L	QB(0.24)	4/7/98	SW846 8260
Styrene	< 1.7	1.7	5.4	ug/L		4/7/98	SW846 8260
1,1,1-Trichloroethane	140	3.0	9.6	ug/L		4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 6.9	6.9	22	ug/L		4/7/98	SW846 8260
1,1,2-Trichloroethane	< 6.1	6.1	19	ug/L		4/7/98	SW846 8260
Trichloroethene	990	3.7	12	ug/L		4/7/98	SW846 8260
Tetrachloroethene	< 4.3	4.3	14	ug/L		4/7/98	SW846 8260
Toluene	< 2.7	2.7	8.6	ug/L		4/7/98	SW846 8260
Vinyl chloride	< 2.0	2.0	6.4	ug/L		4/7/98	SW846 8260
Xylenes, -m, -p	< 4.3	4.3	14	ug/L		4/7/98	SW846 8260
Xylene, -o	< 2.4	2.4	7.6	ug/L		4/7/98	SW846 8260
4-Bromofluorobenzene	105			%Recov		4/7/98	SW846 8260
Dibromofluoromethane	107			%Recov		4/7/98	SW846 8260
Toluene-d8	113			%Recov		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-12
Lab Sample Number : 881851-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/6/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	370			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	97			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	96			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/6/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	180			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	15	5.0	16		ug/L	Q	4/7/98	SW846 8260
2-Butanone	< 4.5	4.5	14		ug/L		4/7/98	SW846 8260
Benzene	< 1.4	1.4	4.5		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 1.5	1.5	4.8		ug/L		4/7/98	SW846 8260
Bromoform	< 2.2	2.2	7.0		ug/L		4/7/98	SW846 8260
Bromomethane	< 3.5	3.5	11		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 1.2	1.2	3.8		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-12
Lab Sample Number : 881851-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Carbon tetrachloride	< 1.7	1.7	5.4	ug/L		4/7/98	SW846 8260
Chlorodibromomethane	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Chlorobenzene	< 1.2	1.2	3.8	ug/L		4/7/98	SW846 8260
Chloroethane	< 2.7	2.7	8.6	ug/L		4/7/98	SW846 8260
Chloroform	< 1.7	1.7	5.4	ug/L		4/7/98	SW846 8260
Chloromethane	< 3.0	3.0	9.6	ug/L		4/7/98	SW846 8260
1,1-Dichloroethane	14	1.7	5.4	ug/L		4/7/98	SW846 8260
1,1-Dichloroethene	15	2.1	6.7	ug/L		4/7/98	SW846 8260
1,2-Dichloroethane	< 1.8	1.8	5.7	ug/L		4/7/98	SW846 8260
cis-1,2-Dichloroethene	140	1.4	4.5	ug/L		4/7/98	SW846 8260
cis-1,3-Dichloropropene	< 1.6	1.6	5.1	ug/L		4/7/98	SW846 8260
trans-1,2-Dichloroethene	< 4.0	4.0	13	ug/L		4/7/98	SW846 8260
trans-1,3-Dichloropropene	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Ethylbenzene	< 1.6	1.6	5.1	ug/L		4/7/98	SW846 8260
2-Hexanone	< 3.4	3.4	11	ug/L		4/7/98	SW846 8260
4-Methyl-2-pentanone	< 4.8	4.8	15	ug/L		4/7/98	SW846 8260
Methylene chloride	2.8	1.8	5.7	ug/L	QB(0.24)	4/7/98	SW846 8260
Styrene	< 0.85	0.85	2.7	ug/L		4/7/98	SW846 8260
1,1,1-Trichloroethane	91	1.5	4.8	ug/L		4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 3.4	3.4	11	ug/L		4/7/98	SW846 8260
1,1,2-Trichloroethane	< 3.0	3.0	9.6	ug/L		4/7/98	SW846 8260
Trichloroethene	580	1.8	5.7	ug/L		4/7/98	SW846 8260
Tetrachloroethene	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Toluene	< 1.4	1.4	4.5	ug/L		4/7/98	SW846 8260
Vinyl chloride	1.7	1.0	3.2	ug/L	Q	4/7/98	SW846 8260
Xylenes, -m, -p	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Xylene, -o	< 1.2	1.2	3.8	ug/L		4/7/98	SW846 8260
4-Bromofluorobenzene	105			%Recov		4/7/98	SW846 8260
Dibromofluoromethane	108			%Recov		4/7/98	SW846 8260
Toluene-d8	111			%Recov		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-13
Lab Sample Number : 881851-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** WI MOD DRO **Prep Date:** 4/6/98 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	300			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	97			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	96			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/6/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	130			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/7/98 **Analyst:** JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	7.3	2.0	6.4		ug/L		4/7/98	SW846 8260
2-Butanone	< 1.8	1.8	5.7		ug/L		4/7/98	SW846 8260
Benzene	< 0.54	0.54	1.7		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 0.60	0.60	1.9		ug/L		4/7/98	SW846 8260
Bromoform	< 0.88	0.88	2.8		ug/L		4/7/98	SW846 8260
Bromomethane	< 1.4	1.4	4.5		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 0.48	0.48	1.5		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-13
Lab Sample Number : 881851-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Carbon tetrachloride	< 0.68	0.68	2.2	ug/L		4/7/98	SW846 8260
Chlorodibromomethane	< 0.84	0.84	2.7	ug/L		4/7/98	SW846 8260
Chlorobenzene	< 0.46	0.46	1.5	ug/L		4/7/98	SW846 8260
Chloroethane	< 1.1	1.1	3.5	ug/L		4/7/98	SW846 8260
Chloroform	< 0.70	0.70	2.2	ug/L		4/7/98	SW846 8260
Chloromethane	< 1.2	1.2	3.8	ug/L		4/7/98	SW846 8260
1,1-Dichloroethane	3.7	0.70	2.2	ug/L		4/7/98	SW846 8260
1,1-Dichloroethene	5.8	0.86	2.7	ug/L		4/7/98	SW846 8260
1,2-Dichloroethane	< 0.74	0.74	2.4	ug/L		4/7/98	SW846 8260
cis-1,2-Dichloroethene	66	0.56	1.8	ug/L		4/7/98	SW846 8260
cis-1,3-Dichloropropene	< 0.64	0.64	2.0	ug/L		4/7/98	SW846 8260
trans-1,2-Dichloroethene	3.0	1.6	5.1	ug/L	Q	4/7/98	SW846 8260
trans-1,3-Dichloropropene	< 0.86	0.86	2.7	ug/L		4/7/98	SW846 8260
Ethylbenzene	< 0.64	0.64	2.0	ug/L		4/7/98	SW846 8260
2-Hexanone	< 1.4	1.4	4.5	ug/L		4/7/98	SW846 8260
4-Methyl-2-pentanone	< 1.9	1.9	6.1	ug/L		4/7/98	SW846 8260
Methylene chloride	1.3	0.72	2.3	ug/L	QB(0.24)	4/7/98	SW846 8260
Styrene	< 0.34	0.34	1.1	ug/L		4/7/98	SW846 8260
1,1,1-Trichloroethane	53	0.60	1.9	ug/L		4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 1.4	1.4	4.5	ug/L		4/7/98	SW846 8260
1,1,2-Trichloroethane	< 1.2	1.2	3.8	ug/L		4/7/98	SW846 8260
Trichloroethene	390	0.74	2.4	ug/L		4/7/98	SW846 8260
Tetrachloroethene	< 0.86	0.86	2.7	ug/L		4/7/98	SW846 8260
Toluene	< 0.54	0.54	1.7	ug/L		4/7/98	SW846 8260
Vinyl chloride	0.40	0.40	1.3	ug/L	Q	4/7/98	SW846 8260
Xylenes, -m, -p	< 0.86	0.86	2.7	ug/L		4/7/98	SW846 8260
Xylene, -o	< 0.48	0.48	1.5	ug/L		4/7/98	SW846 8260
4-Bromofluorobenzene	107			%Recov		4/7/98	SW846 8260
Dibromofluoromethane	110			%Recov		4/7/98	SW846 8260
Toluene-d8	112			%Recov		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NPZ-1
Lab Sample Number : 881851-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/6/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	97			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	96			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/6/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	54			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	3.5	1.0	3.2		ug/L		4/7/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/7/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/7/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/7/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : NPZ-1
Lab Sample Number : 881851-004
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Carbon tetrachloride	< 0.34	0.34	1.1	ug/L	4/7/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3	ug/L	4/7/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73	ug/L	4/7/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7	ug/L	4/7/98	SW846 8260
Chloroform	< 0.35	0.35	1.1	ug/L	4/7/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9	ug/L	4/7/98	SW846 8260
1,1-Dichloroethane	10	0.35	1.1	ug/L	4/7/98	SW846 8260
1,1-Dichloroethene	5.0	0.43	1.4	ug/L	4/7/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	4/7/98	SW846 8260
cis-1,2-Dichloroethene	51	0.28	0.89	ug/L	4/7/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	4/7/98	SW846 8260
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	4/7/98	SW846 8260
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	4/7/98	SW846 8260
Ethylbenzene	< 0.32	0.32	1.0	ug/L	4/7/98	SW846 8260
2-Hexanone	< 0.69	0.69	2.2	ug/L	4/7/98	SW846 8260
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	4/7/98	SW846 8260
Methylene chloride	< 0.36	0.36	1.1	ug/L	4/7/98	SW846 8260
Styrene	< 0.17	0.17	0.54	ug/L	4/7/98	SW846 8260
1,1,1-Trichloroethane	33	0.30	0.96	ug/L	4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	4/7/98	SW846 8260
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	4/7/98	SW846 8260
Trichloroethene	160	0.37	1.2	ug/L	4/7/98	SW846 8260
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	4/7/98	SW846 8260
Toluene	< 0.27	0.27	0.86	ug/L	4/7/98	SW846 8260
Vinyl chloride	< 0.20	0.20	0.64	ug/L	4/7/98	SW846 8260
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	4/7/98	SW846 8260
Xylene, -o	< 0.24	0.24	0.76	ug/L	4/7/98	SW846 8260
4-Bromofluorobenzene	105			%Recov	4/7/98	SW846 8260
Dibromofluoromethane	111			%Recov	4/7/98	SW846 8260
Toluene-d8	113			%Recov	4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-11
Lab Sample Number : 881851-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/6/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	170			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	97			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	96			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/6/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	160			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	14	5.0	16		ug/L	Q	4/7/98	SW846 8260
2-Butanone	< 4.5	4.5	14		ug/L		4/7/98	SW846 8260
Benzene	< 1.4	1.4	4.5		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 1.5	1.5	4.8		ug/L		4/7/98	SW846 8260
Bromoform	< 2.2	2.2	7.0		ug/L		4/7/98	SW846 8260
Bromomethane	< 3.5	3.5	11		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 1.2	1.2	3.8		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-11
Lab Sample Number : 881851-005
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Carbon tetrachloride	< 1.7	1.7	5.4	ug/L		4/7/98	SW846 8260
Chlorodibromomethane	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Chlorobenzene	< 1.2	1.2	3.8	ug/L		4/7/98	SW846 8260
Chloroethane	< 2.7	2.7	8.6	ug/L		4/7/98	SW846 8260
Chloroform	< 1.7	1.7	5.4	ug/L		4/7/98	SW846 8260
Chloromethane	< 3.0	3.0	9.6	ug/L		4/7/98	SW846 8260
1,1-Dichloroethane	8.8	1.7	5.4	ug/L		4/7/98	SW846 8260
1,1-Dichloroethene	7.0	2.1	6.7	ug/L		4/7/98	SW846 8260
1,2-Dichloroethane	< 1.8	1.8	5.7	ug/L		4/7/98	SW846 8260
cis-1,2-Dichloroethene	36	1.4	4.5	ug/L		4/7/98	SW846 8260
cis-1,3-Dichloropropene	< 1.6	1.6	5.1	ug/L		4/7/98	SW846 8260
trans-1,2-Dichloroethene	< 4.0	4.0	13	ug/L		4/7/98	SW846 8260
trans-1,3-Dichloropropene	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Ethylbenzene	< 1.6	1.6	5.1	ug/L		4/7/98	SW846 8260
2-Hexanone	< 3.4	3.4	11	ug/L		4/7/98	SW846 8260
4-Methyl-2-pentanone	< 4.8	4.8	15	ug/L		4/7/98	SW846 8260
Methylene chloride	3.1	1.8	5.7	ug/L	QB(0.24)	4/7/98	SW846 8260
Styrene	< 0.85	0.85	2.7	ug/L		4/7/98	SW846 8260
1,1,1-Trichloroethane	57	1.5	4.8	ug/L		4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 3.4	3.4	11	ug/L		4/7/98	SW846 8260
1,1,2-Trichloroethane	< 3.0	3.0	9.6	ug/L		4/7/98	SW846 8260
Trichloroethene	550	1.8	5.7	ug/L		4/7/98	SW846 8260
Tetrachloroethene	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Toluene	< 1.4	1.4	4.5	ug/L		4/7/98	SW846 8260
Vinyl chloride	< 1.0	1.0	3.2	ug/L		4/7/98	SW846 8260
Xylenes, -m, -p	< 2.1	2.1	6.7	ug/L		4/7/98	SW846 8260
Xylene, -o	< 1.2	1.2	3.8	ug/L		4/7/98	SW846 8260
4-Bromofluorobenzene	106			%Recov		4/7/98	SW846 8260
Dibromofluoromethane	111			%Recov		4/7/98	SW846 8260
Toluene-d8	113			%Recov		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-19
Lab Sample Number : 881851-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 4/6/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	350			100	ug/l		4/6/98	Wi MOD DRO
Blank spike	97			25	%Recov		4/6/98	Wi MOD DRO
Blank spike duplicate	96			25	%Recov		4/6/98	Wi MOD DRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 4/6/98 — Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	310			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER — Prep Method: SW846 5030 — Prep Date: 4/7/98 — Analyst: JJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	37	10	32		ug/L		4/7/98	SW846 8260
2-Butanone	< 8.9	8.9	28		ug/L		4/7/98	SW846 8260
Benzene	< 2.7	2.7	8.6		ug/L		4/7/98	SW846 8260
Bromodichloromethane	< 3.0	3.0	9.6		ug/L		4/7/98	SW846 8260
Bromoform	< 4.4	4.4	14		ug/L		4/7/98	SW846 8260
Bromomethane	< 7.0	7.0	22		ug/L		4/7/98	SW846 8260
Carbon disulfide	< 2.4	2.4	7.6		ug/L		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : MW-19
Lab Sample Number : 881851-006
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/9/98
Collection Date : 4/2/98
Matrix Type : WATER

Carbon tetrachloride	< 3.4	3.4	11	ug/L		4/7/98	SW846 8260
Chlorodibromomethane	< 4.2	4.2	13	ug/L		4/7/98	SW846 8260
Chlorobenzene	< 2.3	2.3	7.3	ug/L		4/7/98	SW846 8260
Chloroethane	< 5.4	5.4	17	ug/L		4/7/98	SW846 8260
Chloroform	< 3.5	3.5	11	ug/L		4/7/98	SW846 8260
Chloromethane	< 6.1	6.1	19	ug/L		4/7/98	SW846 8260
1,1-Dichloroethane	22	3.5	11	ug/L		4/7/98	SW846 8260
1,1-Dichloroethene	16	4.3	14	ug/L		4/7/98	SW846 8260
1,2-Dichloroethane	< 3.7	3.7	12	ug/L		4/7/98	SW846 8260
cis-1,2-Dichloroethene	10	2.8	8.9	ug/L		4/7/98	SW846 8260
cis-1,3-Dichloropropene	< 3.2	3.2	10	ug/L		4/7/98	SW846 8260
trans-1,2-Dichloroethene	< 7.9	7.9	25	ug/L		4/7/98	SW846 8260
trans-1,3-Dichloropropene	< 4.3	4.3	14	ug/L		4/7/98	SW846 8260
Ethylbenzene	< 3.2	3.2	10	ug/L		4/7/98	SW846 8260
2-Hexanone	< 6.9	6.9	22	ug/L		4/7/98	SW846 8260
4-Methyl-2-pentanone	< 9.5	9.5	30	ug/L		4/7/98	SW846 8260
Methylene chloride	6.5	3.6	11	ug/L	QB(0.24)	4/7/98	SW846 8260
Styrene	< 1.7	1.7	5.4	ug/L		4/7/98	SW846 8260
1,1,1-Trichloroethane	59	3.0	9.6	ug/L		4/7/98	SW846 8260
1,1,2,2-Tetrachloroethane	< 6.9	6.9	22	ug/L		4/7/98	SW846 8260
1,1,2-Trichloroethane	< 6.1	6.1	19	ug/L		4/7/98	SW846 8260
Trichloroethene	1100	3.7	12	ug/L		4/7/98	SW846 8260
Tetrachloroethene	< 4.3	4.3	14	ug/L		4/7/98	SW846 8260
Toluene	< 2.7	2.7	8.6	ug/L		4/7/98	SW846 8260
Vinyl chloride	< 2.0	2.0	6.4	ug/L		4/7/98	SW846 8260
Xylenes, -m, -p	< 4.3	4.3	14	ug/L		4/7/98	SW846 8260
Xylene, -o	< 2.4	2.4	7.6	ug/L		4/7/98	SW846 8260
4-Bromofluorobenzene	105			%Recov		4/7/98	SW846 8260
Dibromofluoromethane	110			%Recov		4/7/98	SW846 8260
Toluene-d8	111			%Recov		4/7/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881851-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/8/98
Collection Date : 4/2/98
Matrix Type : WATER

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** WI MOD.GRO **Prep Date:** 4/6/98 **Analyst:** EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		4/6/98	Wi MOD GRO
Blank Spike	89			1.0	%Recov		4/6/98	Wi MOD GRO
Blank Spike Duplicate	91			1.0	%Recov		4/6/98	Wi MOD GRO
Blank	< 50			50	ug/l		4/6/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030 **Prep Date:** 4/6/98 **Analyst:** RJN

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	2.5	1.0	3.2		ug/L	Q	4/6/98	SW846 8260
2-Butanone	< 0.89	0.89	2.8		ug/L		4/6/98	SW846 8260
Benzene	< 0.27	0.27	0.86		ug/L		4/6/98	SW846 8260
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		4/6/98	SW846 8260
Bromoform	< 0.44	0.44	1.4		ug/L		4/6/98	SW846 8260
Bromomethane	< 0.70	0.70	2.2		ug/L		4/6/98	SW846 8260
Carbon disulfide	< 0.24	0.24	0.76		ug/L		4/6/98	SW846 8260
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		4/6/98	SW846 8260
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		4/6/98	SW846 8260
Chlorobenzene	< 0.23	0.23	0.73		ug/L		4/6/98	SW846 8260
Chloroethane	< 0.54	0.54	1.7		ug/L		4/6/98	SW846 8260
Chloroform	< 0.35	0.35	1.1		ug/L		4/6/98	SW846 8260
Chloromethane	< 0.61	0.61	1.9		ug/L		4/6/98	SW846 8260
1,1-Dichloroethane	< 0.35	0.35	1.1		ug/L		4/6/98	SW846 8260
1,1-Dichloroethene	< 0.43	0.43	1.4		ug/L		4/6/98	SW846 8260
1,2-Dichloroethane	< 0.37	0.37	1.2		ug/L		4/6/98	SW846 8260
cis-1,2-Dichloroethene	< 0.28	0.28	0.89		ug/L		4/6/98	SW846 8260
cis-1,3-Dichloropropene	< 0.32	0.32	1.0		ug/L		4/6/98	SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 881851-007
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 4/8/98
Collection Date : 4/2/98
Matrix Type : WATER

trans-1,2-Dichloroethene	<	0.79	0.79	2.5	ug/L	4/6/98	SW846 8260
trans-1,3-Dichloropropene	<	0.43	0.43	1.4	ug/L	4/6/98	SW846 8260
Ethylbenzene	<	0.32	0.32	1.0	ug/L	4/6/98	SW846 8260
2-Hexanone	<	0.69	0.69	2.2	ug/L	4/6/98	SW846 8260
4-Methyl-2-pentanone	<	0.95	0.95	3.0	ug/L	4/6/98	SW846 8260
Methylene chloride	<	0.36	0.36	1.1	ug/L	4/6/98	SW846 8260
Styrene	<	0.17	0.17	0.54	ug/L	4/6/98	SW846 8260
1,1,1-Trichloroethane	<	0.30	0.30	0.96	ug/L	4/6/98	SW846 8260
1,1,2,2-Tetrachloroethane	<	0.69	0.69	2.2	ug/L	4/6/98	SW846 8260
1,1,2-Trichloroethane	<	0.61	0.61	1.9	ug/L	4/6/98	SW846 8260
Trichloroethene	<	0.37	0.37	1.2	ug/L	4/6/98	SW846 8260
Tetrachloroethene	<	0.43	0.43	1.4	ug/L	4/6/98	SW846 8260
Toluene	<	0.27	0.27	0.86	ug/L	4/6/98	SW846 8260
Vinyl chloride	<	0.20	0.20	0.64	ug/L	4/6/98	SW846 8260
Xylenes, -m, -p	<	0.43	0.43	1.4	ug/L	4/6/98	SW846 8260
Xylene, -o	<	0.24	0.24	0.76	ug/L	4/6/98	SW846 8260
4-Bromofluorobenzene		103			%Recov	4/6/98	SW846 8260
Dibromofluoromethane		95			%Recov	4/6/98	SW846 8260
Toluene-d8		101			%Recov	4/6/98	SW846 8260

KAV

Company Name: RMT
Branch or Location: Brookfield
Project Contact: Dave Mishny
Telephone: 414 879 1212
Project Number: 3777.06
Project Name: Navistar
Project Location: Waukesha
Sampled By (Print): Tim Pethan

Regulatory Program (circle): UST RCRA CLP SDWA NPDES WPDES CAA NR_____
Other _____

NR720 Confirmation Analysis Required? (circle): Y N
(En Chem will not confirm unless otherwise instructed.)

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Superior, WI 54880
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FAX 715-392-5843

CHAIN OF CUSTODY

19045

Page 1 of 1
P.O. # _____ Quote # _____
Mail Report To: Dave Mishny
Company: RMT
Address: 150 N Patrick Blvd Brookfield, WI
Invoice To: _____
Company: SAME
Address: _____
Mail Invoice To: _____

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	# OF CONTAINERS	FILTERED? (YES/NO)	PRESERVATION (CODE)*	DEC-VOA ANALYSES REQUESTED	VOC's GRO	DRO	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
					N	B									
	MW-16	4/2	9:30	5		1				N	GW	X	1-40ml	under	001
	MW-12	4/2	10:30	5		1				N	GW				002
	MW-13	4/2	11:00	5		1				N	GW				003
	NP2-1	4/2	11:45	5		1				N	GW				004
	MW-11	4/2	11:55	5		1				N	GW				005
	MW-19	4/2	12:30	5		1				N	GW				006
6	trip blank			2		-							2-40ml		007

SHADED AREA FOR LABORATORY USE ONLY

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Pethan	4/2/98 1000	Laura	4/3/98 1030
Laura	4/3/98	Tom Wasko	4/3/98 1200
Tom Wasko	4/3/98 1530		
		Kate Hart	4/3/98 1531

En Chem Project No.: 881851
Sample Receipt Temp: ROT
Sample Receipt pH (Wet/Metals):

NOVEMBER 1998/JANUARY 1999
GROUNDWATER SAMPLING

EN CHEM INC.

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.09

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 11/20/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
886819-001	MW11	11/11/98			
886819-002	MW19	11/11/98			
886819-003	TRIP BLANK	11/11/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

M. Sulk — Approval Signature

112398 — Date

99

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Lab#	TestGroupID:	Comment:
886819-	SPECVOA-W	Methylene chloride is present in the laboratory environment. Detects should be considered suspect.
886819-001 MW11	GRO-W	Early unidentified peaks account for most of the reported GRO value.
	DRO-W	Hump was present late in chromatogram.
886819-002 MW19	GRO-W	Early unidentified peaks account for most of the reported GRO value.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : MW11
Lab Sample Number : 886819-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 11/23/98
Collection Date : 11/11/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - BLANK Prep Method: Prep Date: 11/16/98 Analyst: djb

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	624-77						11/16/98	

Organic Results

DIESEL RANGE ORGANICS - WATER Prep Method: Wi MOD DRO Prep Date: 11/16/98 Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	170			100	ug/l		11/16/98	Wi MOD DRO
Blank spike	94			25	%Recov		11/16/98	Wi MOD DRO
Blank spike duplicate	86			25	%Recov		11/16/98	Wi MOD DRO
Blank	< 50			50	ug/l		11/16/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK Prep Method: Prep Date: 11/17/98 Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	626-79						11/18/98	

Organic Results

GASOLINE RANGE ORGANICS - WATER Prep Method: WI MOD.GRO Prep Date: 11/17/98 Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	400			50	ug/l		11/18/98	Wi MOD GRO
Blank Spike	98			1.0	%Recov		11/18/98	Wi MOD GRO
Blank Spike Duplicate	93			1.0	%Recov		11/18/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : MW11
Lab Sample Number : 886819-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 11/23/98
Collection Date : 11/11/98
Matrix Type : WATER

Blank	< 50	50	ug/l		11/18/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030B **Prep Date:** 11/17/98 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 10	10	32		ug/L		11/17/98	SW846 8260B
2-Butanone	< 8.9	8.9	28		ug/L		11/17/98	SW846 8260B
Benzene	< 2.7	2.7	8.6		ug/L		11/17/98	SW846 8260B
Bromodichloromethane	< 3.0	3.0	9.6		ug/L		11/17/98	SW846 8260B
Bromoform	< 4.4	4.4	14		ug/L		11/17/98	SW846 8260B
Bromomethane	< 7.0	7.0	22		ug/L		11/17/98	SW846 8260B
Carbon disulfide	< 2.4	2.4	7.6		ug/L		11/17/98	SW846 8260B
Carbon tetrachloride	< 3.4	3.4	11		ug/L		11/17/98	SW846 8260B
Chlorodibromomethane	< 4.2	4.2	13		ug/L		11/17/98	SW846 8260B
Chlorobenzene	< 2.3	2.3	7.3		ug/L		11/17/98	SW846 8260B
Chloroethane	< 5.4	5.4	17		ug/L		11/17/98	SW846 8260B
Chloroform	< 3.5	3.5	11		ug/L		11/17/98	SW846 8260B
Chloromethane	< 6.1	6.1	19		ug/L		11/17/98	SW846 8260B
1,1-Dichloroethane	20	3.5	11		ug/L		11/17/98	SW846 8260B
1,1-Dichloroethene	16	4.3	14		ug/L		11/17/98	SW846 8260B
1,2-Dichloroethane	< 3.7	3.7	12		ug/L		11/17/98	SW846 8260B
1,2-Dichloropropane	< 3.5	3.5	11		ug/L		11/17/98	SW846 8260B
cis-1,2-Dichloroethene	110	2.8	8.9		ug/L		11/17/98	SW846 8260B
cis-1,3-Dichloropropene	< 3.2	3.2	10		ug/L		11/17/98	SW846 8260B
trans-1,2-Dichloroethene	< 7.9	7.9	25		ug/L		11/17/98	SW846 8260B
trans-1,3-Dichloropropene	< 4.3	4.3	14		ug/L		11/17/98	SW846 8260B
Ethylbenzene	< 3.2	3.2	10		ug/L		11/17/98	SW846 8260B
2-Hexanone	< 6.9	6.9	22		ug/L		11/17/98	SW846 8260B
4-Methyl-2-pentanone	< 9.5	9.5	30		ug/L		11/17/98	SW846 8260B
Methylene chloride	25	3.6	11		ug/L	B(27.1)	11/17/98	SW846 8260B
Styrene	< 1.7	1.7	5.4		ug/L		11/17/98	SW846 8260B
1,1,1-Trichloroethane	110	3.0	9.6		ug/L		11/17/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 6.9	6.9	22		ug/L		11/17/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : MW11
Lab Sample Number : 886819-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 11/23/98
Collection Date : 11/11/98
Matrix Type : WATER

1,1,2-Trichloroethane	< 6.1	6.1	19	ug/L	11/17/98	SW846 8260B
Trichloroethene	1200	3.7	12	ug/L	11/17/98	SW846 8260B
Tetrachloroethene	< 4.3	4.3	14	ug/L	11/17/98	SW846 8260B
Toluene	< 2.7	2.7	8.6	ug/L	11/17/98	SW846 8260B
Vinyl chloride	< 2.0	2.0	6.4	ug/L	11/17/98	SW846 8260B
Xylenes, -m, -p	< 4.3	4.3	14	ug/L	11/17/98	SW846 8260B
Xylene, -o	< 2.4	2.4	7.6	ug/L	11/17/98	SW846 8260B
4-Bromofluorobenzene	103			%Recov	11/17/98	SW846 8260B
Dibromofluoromethane	101			%Recov	11/17/98	SW846 8260B
Toluene-d8	109			%Recov	11/17/98	SW846 8260B

Organic Results

VOC-BLK **Prep Method:** SW846 5030B **Prep Date:** 11/17/98 **Analyst:**

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	VBLK36							SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : MW19
Lab Sample Number : 886819-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 11/23/98
Collection Date : 11/11/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 11/16/98 — Analyst: djb

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	624-77						11/16/98	

Organic Results

DIESEL RANGE ORGANICS - WATER — Prep Method: Wi MOD DRO — Prep Date: 11/16/98 — Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	< 100			100	ug/l		11/16/98	Wi MOD DRO
Blank spike	94			25	%Recov		11/16/98	Wi MOD DRO
Blank spike duplicate	86			25	%Recov		11/16/98	Wi MOD DRO
Blank	< 50			50	ug/l		11/16/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK — Prep Method: — Prep Date: 11/17/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	626-79						11/18/98	

Organic Results

GASOLINE RANGE ORGANICS - WATER — Prep Method: WI MOD.GRO — Prep Date: 11/17/98 — Analyst: PMS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	450			50	ug/l		11/18/98	Wi MOD GRO
Blank Spike	98			1.0	%Recov		11/18/98	Wi MOD GRO
Blank Spike Duplicate	93			1.0	%Recov		11/18/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : MW19
Lab Sample Number : 886819-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 11/23/98
Collection Date : 11/11/98
Matrix Type : WATER

Blank	< 50	50	ug/l		11/18/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030B **Prep Date:** 11/17/98 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	< 25	25	80		ug/L		11/17/98	SW846 8260B
2-Butanone	< 22	22	70		ug/L		11/17/98	SW846 8260B
Benzene	< 6.8	6.8	22		ug/L		11/17/98	SW846 8260B
Bromodichloromethane	< 7.5	7.5	24		ug/L		11/17/98	SW846 8260B
Bromoform	< 11	11	35		ug/L		11/17/98	SW846 8260B
Bromomethane	< 18	18	57		ug/L		11/17/98	SW846 8260B
Carbon disulfide	< 6.0	6.0	19		ug/L		11/17/98	SW846 8260B
Carbon tetrachloride	< 8.5	8.5	27		ug/L		11/17/98	SW846 8260B
Chlorodibromomethane	< 10	10	32		ug/L		11/17/98	SW846 8260B
Chlorobenzene	< 5.8	5.8	18		ug/L		11/17/98	SW846 8260B
Chloroethane	< 14	14	45		ug/L		11/17/98	SW846 8260B
Chloroform	< 8.8	8.8	28		ug/L		11/17/98	SW846 8260B
Chloromethane	< 15	15	48		ug/L		11/17/98	SW846 8260B
1,1-Dichloroethane	32	8.8	28		ug/L		11/17/98	SW846 8260B
1,1-Dichloroethene	25	11	35		ug/L	Q	11/17/98	SW846 8260B
1,2-Dichloroethane	< 9.2	9.2	29		ug/L		11/17/98	SW846 8260B
1,2-Dichloropropane	< 8.8	8.8	28		ug/L		11/17/98	SW846 8260B
cis-1,2-Dichloroethene	19	7.0	22		ug/L	Q	11/17/98	SW846 8260B
cis-1,3-Dichloropropene	< 8.0	8.0	25		ug/L		11/17/98	SW846 8260B
trans-1,2-Dichloroethene	< 20	20	64		ug/L		11/17/98	SW846 8260B
trans-1,3-Dichloropropene	< 11	11	35		ug/L		11/17/98	SW846 8260B
Ethylbenzene	< 8.0	8.0	25		ug/L		11/17/98	SW846 8260B
2-Hexanone	< 17	17	54		ug/L		11/17/98	SW846 8260B
4-Methyl-2-pentanone	< 24	24	76		ug/L		11/17/98	SW846 8260B
Methylene chloride	61	9.0	29		ug/L	B(67.8)	11/17/98	SW846 8260B
Styrene	< 4.2	4.2	13		ug/L		11/17/98	SW846 8260B
1,1,1-Trichloroethane	110	7.5	24		ug/L		11/17/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 17	17	54		ug/L		11/17/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : MW19
Lab Sample Number : 886819-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 11/23/98
Collection Date : 11/11/98
Matrix Type : WATER

1,1,2-Trichloroethane	< 15	15	48	ug/L	11/17/98	SW846 8260B
Trichloroethene	1700	9.2	29	ug/L	11/17/98	SW846 8260B
Tetrachloroethene	< 11	11	35	ug/L	11/17/98	SW846 8260B
Toluene	< 6.8	6.8	22	ug/L	11/17/98	SW846 8260B
Vinyl chloride	< 5.0	5.0	16	ug/L	11/17/98	SW846 8260B
Xylenes, -m, -p	< 11	11	35	ug/L	11/17/98	SW846 8260B
Xylene, -o	< 6.0	6.0	19	ug/L	11/17/98	SW846 8260B
4-Bromofluorobenzene	104			%Recov	11/17/98	SW846 8260B
Dibromofluoromethane	106			%Recov	11/17/98	SW846 8260B
Toluene-d8	110			%Recov	11/17/98	SW846 8260B

Organic Results

VOC-BLK — **Prep Method:** SW846 5030B **Prep Date:** 11/17/98 **Analyst:**

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	VBLK36							SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : TRIP BLANK
Lab Sample Number : 886819-003
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/14/98
Collection Date : 11/11/98
Matrix Type : WATER

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030B **Prep Date:** 11/17/98 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	2.8	1.0	3.2		ug/L	QB(2.48)	11/17/98	SW846 8260B
2-Butanone	< 0.89	0.89	2.8		ug/L		11/17/98	SW846 8260B
Benzene	< 0.27	0.27	0.86		ug/L		11/17/98	SW846 8260B
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		11/17/98	SW846 8260B
Bromoform	< 0.44	0.44	1.4		ug/L		11/17/98	SW846 8260B
Bromomethane	< 0.70	0.70	2.2		ug/L		11/17/98	SW846 8260B
Carbon disulfide	< 0.24	0.24	0.76		ug/L		11/17/98	SW846 8260B
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		11/17/98	SW846 8260B
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		11/17/98	SW846 8260B
Chlorobenzene	< 0.23	0.23	0.73		ug/L		11/17/98	SW846 8260B
Chloroethane	< 0.54	0.54	1.7		ug/L		11/17/98	SW846 8260B
Chloroform	< 0.35	0.35	1.1		ug/L		11/17/98	SW846 8260B
Chloromethane	< 0.61	0.61	1.9		ug/L		11/17/98	SW846 8260B
1,1-Dichloroethane	< 0.35	0.35	1.1		ug/L		11/17/98	SW846 8260B
1,1-Dichloroethene	< 0.43	0.43	1.4		ug/L		11/17/98	SW846 8260B
1,2-Dichloroethane	< 0.37	0.37	1.2		ug/L		11/17/98	SW846 8260B
1,2-Dichloropropane	< 0.35	0.35	1.1		ug/L		11/17/98	SW846 8260B
cis-1,2-Dichloroethene	< 0.28	0.28	0.89		ug/L		11/17/98	SW846 8260B
cis-1,3-Dichloropropene	< 0.32	0.32	1.0		ug/L		11/17/98	SW846 8260B
trans-1,2-Dichloroethene	< 0.79	0.79	2.5		ug/L		11/17/98	SW846 8260B
trans-1,3-Dichloropropene	< 0.43	0.43	1.4		ug/L		11/17/98	SW846 8260B
Ethylbenzene	< 0.32	0.32	1.0		ug/L		11/17/98	SW846 8260B
2-Hexanone	< 0.69	0.69	2.2		ug/L		11/17/98	SW846 8260B
4-Methyl-2-pentanone	< 0.95	0.95	3.0		ug/L		11/17/98	SW846 8260B
Methylene chloride	0.37	0.36	1.1		ug/L	QB(2.71)	11/17/98	SW846 8260B
Styrene	< 0.17	0.17	0.54		ug/L		11/17/98	SW846 8260B
1,1,1-Trichloroethane	< 0.30	0.30	0.96		ug/L		11/17/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2		ug/L		11/17/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : TRIP BLANK
Lab Sample Number : 886819-003
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/14/98
Collection Date : 11/11/98
Matrix Type : WATER

1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	11/17/98	SW846 8260B
Trichloroethene	< 0.37	0.37	1.2	ug/L	11/17/98	SW846 8260B
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	11/17/98	SW846 8260B
Toluene	< 0.27	0.27	0.86	ug/L	11/17/98	SW846 8260B
Vinyl chloride	< 0.20	0.20	0.64	ug/L	11/17/98	SW846 8260B
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	11/17/98	SW846 8260B
Xylene, -o	< 0.24	0.24	0.76	ug/L	11/17/98	SW846 8260B
4-Bromofluorobenzene	101			%Recov	11/17/98	SW846 8260B
Dibromofluoromethane	104			%Recov	11/17/98	SW846 8260B
Toluene-d8	110			%Recov	11/17/98	SW846 8260B

Organic Results

VOC-BLK **Prep Method:** SW846 5030B **Prep Date:** 11/17/98 **Analyst:**

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	VBLK36							SW846 8260

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EN CHEM INC.

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FAX 715-392-5843

CHAIN OF CUSTODY

32858

Page 1 of 1

Company Name: RMT
Branch or Location: Brookfield
Project Contact: Dave Misling
Telephone: 414 879 1212
Project Number: 3777.09
Project Name: NAVISTAR
Project State: WI
Sampled By (Print): Tim Petrick

P.O. # ____ Quote # ____
Mail Report To: Dave Misling
Company: RMT Brookfield
Address:

Invoice To: RMT — Madison
Company:
Address:

Mail Invoice To:

Regulatory Program *(circle)*: UST RCRA CLP SDWA NPDES/WPDES CAA NR____
Other ____

NR720 Confirmation Analysis Required? *(circle)*: Y N
(En Chem will not confirm unless otherwise instructed.)

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	ANALYSES REQUESTED: 8260 VOC	GRO	DRO						FIELD SCREEN	MATRIX	SHADED AREA FOR LABORATORY USE ONLY: GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
				FILTERED? (YES/NO)	N	N	N										
				PRESERVATION (CODE)*	B	B	B										
	MW11	11/11/98	1520	3	3	1						N	GW	Y	1-G 6-40ml		001
	MW19	↓	2100	3	3	1						N	GW		↓		002
	trip blank	—		1	—	—						—	—	↓	1-40ml		003

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Petrick	11/11/98 1520	[illegible]	11/12/98 3:30
[illegible]	11/12/98 4:00	Dunham	
Dunham		Rita Alerts	11/13/98 8:15

En Chem Project No. 886819
Sample Receipt Temp. ROT
Sample Receipt pH (Wet/Metals)
Custody Seal

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 3777.09

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 1/22/99

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
890066-001	NMW11	1/11/99			
890066-002	TRIP BLANK	1/11/99			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

M. Suha — Approval Signature

010299 — Date

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Lab#:	TestGroupID:	Comment:
890066-001	GRO-W	Early peaks were present outside of window.
	DRO-W	Hump was present late in chromatogram.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : NMW11
Lab Sample Number : 890066-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 1/22/99
Collection Date : 1/11/99
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - WATER **Prep Method:** Wi MOD DRO **Prep Date:** 1/12/99 **Analyst:** DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	110			100	ug/l		1/12/99	Wi MOD DRO
Blank spike	93			25	%Recov		1/12/99	Wi MOD DRO
Blank spike duplicate	85			25	%Recov		1/12/99	Wi MOD DRO
Blank	< 50			50	ug/l		1/12/99	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK **Prep Method:** **Prep Date:** 1/12/99 **Analyst:** CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	638-91						1/12/99	

Organic Results

GASOLINE RANGE ORGANICS - WATER **Prep Method:** Wi MOD GRO **Prep Date:** 1/12/99 **Analyst:** CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	130			50	ug/l		1/12/99	Wi MOD GRO
Blank Spike	104			1.00	%Recov		1/12/99	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		1/12/99	Wi MOD GRO
Blank	< 50			50	ug/l		1/12/99	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : NMW11
Lab Sample Number : 890066-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 1/22/99
Collection Date : 1/11/99
Matrix Type : WATER

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030B **Prep Date:** 1/13/99 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	13	5.0	16		ug/L	Q	1/13/99	SW846 8260B
2-Butanone	< 4.5	4.5	14		ug/L		1/13/99	SW846 8260B
Benzene	< 1.4	1.4	4.5		ug/L		1/13/99	SW846 8260B
Bromodichloromethane	< 1.5	1.5	4.8		ug/L		1/13/99	SW846 8260B
Bromoform	< 2.2	2.2	7.0		ug/L		1/13/99	SW846 8260B
Bromomethane	< 3.5	3.5	11		ug/L		1/13/99	SW846 8260B
Carbon disulfide	< 1.2	1.2	3.8		ug/L		1/13/99	SW846 8260B
Carbon tetrachloride	< 1.7	1.7	5.4		ug/L		1/13/99	SW846 8260B
Chlorodibromomethane	< 2.1	2.1	6.7		ug/L		1/13/99	SW846 8260B
Chlorobenzene	< 1.2	1.2	3.8		ug/L		1/13/99	SW846 8260B
Chloroethane	< 2.7	2.7	8.6		ug/L		1/13/99	SW846 8260B
Chloroform	< 1.7	1.7	5.4		ug/L		1/13/99	SW846 8260B
Chloromethane	< 3.0	3.0	9.6		ug/L		1/13/99	SW846 8260B
1,1-Dichloroethane	9.5	1.7	5.4		ug/L		1/13/99	SW846 8260B
1,1-Dichloroethene	15	2.1	6.7		ug/L		1/13/99	SW846 8260B
1,2-Dichloroethane	< 1.8	1.8	5.7		ug/L		1/13/99	SW846 8260B
1,2-Dichloropropane	< 1.7	1.7	5.4		ug/L		1/13/99	SW846 8260B
cis-1,2-Dichloroethene	50	1.4	4.5		ug/L		1/13/99	SW846 8260B
cis-1,3-Dichloropropene	< 1.6	1.6	5.1		ug/L		1/13/99	SW846 8260B
trans-1,2-Dichloroethene	< 4.0	4.0	13		ug/L		1/13/99	SW846 8260B
trans-1,3-Dichloropropene	< 2.1	2.1	6.7		ug/L		1/13/99	SW846 8260B
Ethylbenzene	< 1.6	1.6	5.1		ug/L		1/13/99	SW846 8260B
2-Hexanone	< 3.4	3.4	11		ug/L		1/13/99	SW846 8260B
4-Methyl-2-pentanone	< 4.8	4.8	15		ug/L		1/13/99	SW846 8260B
Methylene chloride	< 1.8	1.8	5.7		ug/L		1/13/99	SW846 8260B
Styrene	< 0.85	0.85	2.7		ug/L		1/13/99	SW846 8260B
1,1,1-Trichloroethane	98	1.5	4.8		ug/L		1/13/99	SW846 8260B
1,1,2,2-Tetrachloroethane	< 3.4	3.4	11		ug/L		1/13/99	SW846 8260B
1,1,2-Trichloroethane	< 3.0	3.0	9.6		ug/L		1/13/99	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : NMW11
Lab Sample Number : 890066-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 1/22/99
Collection Date : 1/11/99
Matrix Type : WATER

Trichloroethene	630	1.8	5.7	ug/L	1/13/99	SW846 8260B
Tetrachloroethene	< 2.1	2.1	6.7	ug/L	1/13/99	SW846 8260B
Toluene	< 1.4	1.4	4.5	ug/L	1/13/99	SW846 8260B
Vinyl chloride	< 1.0	1.0	3.2	ug/L	1/13/99	SW846 8260B
Xylenes, -m, -p	< 2.1	2.1	6.7	ug/L	1/13/99	SW846 8260B
Xylene, -o	< 1.2	1.2	3.8	ug/L	1/13/99	SW846 8260B
4-Bromofluorobenzene	113			%Recov	1/13/99	SW846 8260B
Dibromofluoromethane	104			%Recov	1/13/99	SW846 8260B
Toluene-d8	104			%Recov	1/13/99	SW846 8260B

Organic Results

VOC-BLK **Prep Method:** SW846 5030B **Prep Date:** 1/13/99 **Analyst:**

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	1VBLK76							SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : TRIP BLANK
Lab Sample Number : 890066-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 1/22/99
Collection Date : 1/11/99
Matrix Type : WATER

Organic Results

GASOLINE RANGE ORGANICS - BLANK Prep Method: Prep Date: 1/12/99 Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	638-91						1/12/99	

Organic Results

GASOLINE RANGE ORGANICS - WATER Prep Method: Wi MOD GRO Prep Date: 1/12/99 Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	< 50			50	ug/l		1/12/99	Wi MOD GRO
Blank Spike	104			1.00	%Recov		1/12/99	Wi MOD GRO
Blank Spike Duplicate	100			1.00	%Recov		1/12/99	Wi MOD GRO
Blank	< 50			50	ug/l		1/12/99	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER Prep Method: SW846 5030B Prep Date: 1/13/99 Analyst: HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	2.5	1.0	3.2		ug/L	Q	1/13/99	SW846 8260B
2-Butanone	< 0.89	0.89	2.8		ug/L		1/13/99	SW846 8260B
Benzene	< 0.27	0.27	0.86		ug/L		1/13/99	SW846 8260B
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		1/13/99	SW846 8260B
Bromoform	< 0.44	0.44	1.4		ug/L		1/13/99	SW846 8260B
Bromomethane	< 0.70	0.70	2.2		ug/L		1/13/99	SW846 8260B
Carbon disulfide	< 0.24	0.24	0.76		ug/L		1/13/99	SW846 8260B
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		1/13/99	SW846 8260B
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		1/13/99	SW846 8260B
Chlorobenzene	< 0.23	0.23	0.73		ug/L		1/13/99	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 3777.09
Field ID : TRIP BLANK
Lab Sample Number : 890066-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 1/22/99
Collection Date : 1/11/99
Matrix Type : WATER

Chloroethane	< 0.54	0.54	1.7	ug/L	1/13/99	SW846 8260B
Chloroform	< 0.35	0.35	1.1	ug/L	1/13/99	SW846 8260B
Chloromethane	< 0.61	0.61	1.9	ug/L	1/13/99	SW846 8260B
1,1-Dichloroethane	< 0.35	0.35	1.1	ug/L	1/13/99	SW846 8260B
1,1-Dichloroethene	< 0.43	0.43	1.4	ug/L	1/13/99	SW846 8260B
1,2-Dichloroethane	< 0.37	0.37	1.2	ug/L	1/13/99	SW846 8260B
1,2-Dichloropropane	< 0.35	0.35	1.1	ug/L	1/13/99	SW846 8260B
cis-1,2-Dichloroethene	< 0.28	0.28	0.89	ug/L	1/13/99	SW846 8260B
cis-1,3-Dichloropropene	< 0.32	0.32	1.0	ug/L	1/13/99	SW846 8260B
trans-1,2-Dichloroethene	< 0.79	0.79	2.5	ug/L	1/13/99	SW846 8260B
trans-1,3-Dichloropropene	< 0.43	0.43	1.4	ug/L	1/13/99	SW846 8260B
Ethylbenzene	< 0.32	0.32	1.0	ug/L	1/13/99	SW846 8260B
2-Hexanone	< 0.69	0.69	2.2	ug/L	1/13/99	SW846 8260B
4-Methyl-2-pentanone	< 0.95	0.95	3.0	ug/L	1/13/99	SW846 8260B
Methylene chloride	< 0.36	0.36	1.1	ug/L	1/13/99	SW846 8260B
Styrene	< 0.17	0.17	0.54	ug/L	1/13/99	SW846 8260B
1,1,1-Trichloroethane	< 0.30	0.30	0.96	ug/L	1/13/99	SW846 8260B
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2	ug/L	1/13/99	SW846 8260B
1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	1/13/99	SW846 8260B
Trichloroethene	< 0.37	0.37	1.2	ug/L	1/13/99	SW846 8260B
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	1/13/99	SW846 8260B
Toluene	< 0.27	0.27	0.86	ug/L	1/13/99	SW846 8260B
Vinyl chloride	< 0.20	0.20	0.64	ug/L	1/13/99	SW846 8260B
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	1/13/99	SW846 8260B
Xylene, -o	< 0.24	0.24	0.76	ug/L	1/13/99	SW846 8260B
4-Bromofluorobenzene	110			%Recov	1/13/99	SW846 8260B
Dibromofluoromethane	99			%Recov	1/13/99	SW846 8260B
Toluene-d8	106			%Recov	1/13/99	SW846 8260B

Organic Results

VOC-BLK **Prep Method:** SW846 5030B **Prep Date:** 1/13/99 **Analyst:**

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	1VBLK76							SW846 8260

Company Name: RMT
Branch or Location: Brookfield
Project Contact: Dave Mislang
Telephone: 414 879 1212
Project Number: 3777.09
Project Name: NAVISTAR
Project State: WI
Sampled By (Print): Tim Patrick

Regulatory Program *(circle)*: UST RCRA CLP SDWA
NPDES/WPDES CAA NR____
Other ____

NR720 Confirmation Analysis Required? *(circle)*: Y N
(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

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☐ 1423 N 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

33278

Page 1 of 1
P.O. # ____ Quote # ____
Mail Report To: Dave Mislang
Company: RMT
Address: Brookfield
Invoice To: ____
Company: ____
Address: SAME
Mail Invoice To: ____

Due 1/15/99

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	ANALYSES REQUESTED: DRO	VOC; GRO	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
				FILTERED? (YES/NO)							
				PRESERVATION (CODE)*							
	NMW 11	1/11/99	11—	1 6		N	GW	X	1-1L 5-40ml		001
	trip blank			2		N	—	b6	2-40ml		002

SHADED AREA FOR LABORATORY USE ONLY

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Patrick	1/11/99 1200	B Kempen	1/11/99 1230
B Kempen	1/11/99 1545		

En Chem Project No.: 8900660
Sample Receipt Temp.: 12°I
Sample Receipt pH (Wet/Metals):
Custody Seal:

NOVEMBER 1998
FRAME PARK SPRING SAMPLING

ENCHEM INC.

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- Analytical Report -

Project Name : NAVISTAR

Project Number : 4376.05

WI DNR LAB ID : 405132750

Client: RMT - MILWAUKEE

Report Date : 12/4/98

Sample No.	Field ID	Collection Date	Sample No.	Field ID	Collection Date
887135-001	SPRING	11/24/98			
887135-002	TRIP BLANK	11/24/98			

The "Q" flag is present when a parameter has been detected below the LOQ. This indicates the results are qualified due to the uncertainty of the parameter concentration between the LOD and the LOQ.

Soil VOC detects are corrected for the total solids, unless otherwise noted.

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

J. Duncan

Approval Signature

12/4/98

Date

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Lab#:	TestGroupID:	Comment:
887135-	SPECVOA-W	Methylene chloride and acetone are present in the laboratory environment. Detects should be considered suspect.
887135-001 SPRING	GRO-W	Reported concentration due to early peaks in window.
	GRO-W	Early unidentified peaks account for most of the reported GRO value.
	DRO-W	Hump was present late in chromatogram.

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 4376.05
Field ID : SPRING
Lab Sample Number : 887135-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/4/98
Collection Date : 11/24/98
Matrix Type : WATER

Organic Results

DIESEL RANGE ORGANICS - BLANK Prep Method: Prep Date: 11/30/98 Analyst: djb

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	637-10						11/30/98	

Organic Results

DIESEL RANGE ORGANICS - WATER Prep Method: Wi MOD DRO Prep Date: 11/30/98 Analyst: DJB

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
DIESEL RANGE ORGANICS	250			100	ug/l		11/30/98	Wi MOD DRO
Blank spike	90			25	%Recov		11/30/98	Wi MOD DRO
Blank spike duplicate	89			25	%Recov		11/30/98	Wi MOD DRO
Blank	< 50			50	ug/l		11/30/98	Wi MOD DRO

Organic Results

GASOLINE RANGE ORGANICS - BLANK Prep Method: Prep Date: 11/30/98 Analyst: EGS

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Blank	638-10						12/1/98	

Organic Results

GASOLINE RANGE ORGANICS - WATER Prep Method: WI MOD.GRO Prep Date: 11/30/98 Analyst: CAR

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
GASOLINE RANGE ORGANICS	100			50	ug/l		12/1/98	Wi MOD GRO
Blank Spike	93			1.0	%Recov		12/1/98	Wi MOD GRO
Blank Spike Duplicate	89			1.0	%Recov		12/1/98	Wi MOD GRO

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 4376.05
Field ID : SPRING
Lab Sample Number : 887135-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/4/98
Collection Date : 11/24/98
Matrix Type : WATER

Blank	< 50	50	ug/l		12/1/98	Wi MOD GRO

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030B **Prep Date:** 11/30/98 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Acetone	160	2.0	6.4		ug/L	B(30.4)	11/30/98	SW846 8260B
2-Butanone	< 1.8	1.8	5.7		ug/L		11/30/98	SW846 8260B
Benzene	< 0.54	0.54	1.7		ug/L		11/30/98	SW846 8260B
Bromodichloromethane	< 0.60	0.60	1.9		ug/L		11/30/98	SW846 8260B
Bromoform	< 0.88	0.88	2.8		ug/L		11/30/98	SW846 8260B
Bromomethane	< 1.4	1.4	4.5		ug/L		11/30/98	SW846 8260B
Carbon disulfide	< 0.48	0.48	1.5		ug/L		11/30/98	SW846 8260B
Carbon tetrachloride	< 0.68	0.68	2.2		ug/L		11/30/98	SW846 8260B
Chlorodibromomethane	< 0.84	0.84	2.7		ug/L		11/30/98	SW846 8260B
Chlorobenzene	< 0.46	0.46	1.5		ug/L		11/30/98	SW846 8260B
Chloroethane	< 1.1	1.1	3.5		ug/L		11/30/98	SW846 8260B
Chloroform	< 0.70	0.70	2.2		ug/L		11/30/98	SW846 8260B
Chloromethane	< 1.2	1.2	3.8		ug/L		11/30/98	SW846 8260B
1,1-Dichloroethane	8.6	0.70	2.2		ug/L		11/30/98	SW846 8260B
1,1-Dichloroethene	7.5	0.86	2.7		ug/L		11/30/98	SW846 8260B
1,2-Dichloroethane	< 0.74	0.74	2.4		ug/L		11/30/98	SW846 8260B
1,2-Dichloropropane	< 0.70	0.70	2.2		ug/L		11/30/98	SW846 8260B
cis-1,2-Dichloroethene	15	0.56	1.8		ug/L		11/30/98	SW846 8260B
cis-1,3-Dichloropropene	< 0.64	0.64	2.0		ug/L		11/30/98	SW846 8260B
trans-1,2-Dichloroethene	< 1.6	1.6	5.1		ug/L		11/30/98	SW846 8260B
trans-1,3-Dichloropropene	< 0.86	0.86	2.7		ug/L		11/30/98	SW846 8260B
Ethylbenzene	< 0.64	0.64	2.0		ug/L		11/30/98	SW846 8260B
2-Hexanone	< 1.4	1.4	4.5		ug/L		11/30/98	SW846 8260B
4-Methyl-2-pentanone	< 1.9	1.9	6.1		ug/L		11/30/98	SW846 8260B
Methylene chloride	1.4	0.72	2.3		ug/L	QB(5.84)	11/30/98	SW846 8260B
Styrene	< 0.34	0.34	1.1		ug/L		11/30/98	SW846 8260B
1,1,1-Trichloroethane	110	0.60	1.9		ug/L		11/30/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 1.4	1.4	4.5		ug/L		11/30/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 4376.05
Field ID : SPRING
Lab Sample Number : 887135-001
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/4/98
Collection Date : 11/24/98
Matrix Type : WATER

1,1,2-Trichloroethane	< 1.2	1.2	3.8	ug/L	11/30/98	SW846 8260B
Trichloroethene	350	0.74	2.4	ug/L	11/30/98	SW846 8260B
Tetrachloroethene	< 0.86	0.86	2.7	ug/L	11/30/98	SW846 8260B
Toluene	< 0.54	0.54	1.7	ug/L	11/30/98	SW846 8260B
Vinyl chloride	< 0.40	0.40	1.3	ug/L	11/30/98	SW846 8260B
Xylenes, -m, -p	< 0.86	0.86	2.7	ug/L	11/30/98	SW846 8260B
Xylene, -o	< 0.48	0.48	1.5	ug/L	11/30/98	SW846 8260B
4-Bromofluorobenzene	104			%Recov	11/30/98	SW846 8260B
Dibromofluoromethane	102			%Recov	11/30/98	SW846 8260B
Toluene-d8	106			%Recov	11/30/98	SW846 8260B

Organic Results

VOC-BLK — **Prep Method:** SW846 5030B **Prep Date:** 11/30/98 **Analyst:**

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	1VBLK42							SW846 8260

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 4376.05
Field ID : TRIP BLANK
Lab Sample Number : 887135-002
WI DNR LAB ID : 405132750

Client : RMT - MILWAUKEE
Report Date : 12/1/98
Collection Date : 11/24/98
Matrix Type : WATER

Organic Results

SPECIAL VOLATILE LIST - WATER **Prep Method:** SW846 5030B **Prep Date:** 11/30/98 **Analyst:** HW

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
Methylene chloride	0.47	0.36	1.1		ug/L	QB(2.92)	11/30/98	SW846 8260B
Acetone	2.3	1.0	3.2		ug/L	QB(15.2)	11/30/98	SW846 8260B
2-Butanone	< 0.89	0.89	2.8		ug/L		11/30/98	SW846 8260B
Benzene	< 0.27	0.27	0.86		ug/L		11/30/98	SW846 8260B
Bromodichloromethane	< 0.30	0.30	0.96		ug/L		11/30/98	SW846 8260B
Bromoform	< 0.44	0.44	1.4		ug/L		11/30/98	SW846 8260B
Bromomethane	< 0.70	0.70	2.2		ug/L		11/30/98	SW846 8260B
Carbon disulfide	< 0.24	0.24	0.76		ug/L		11/30/98	SW846 8260B
Carbon tetrachloride	< 0.34	0.34	1.1		ug/L		11/30/98	SW846 8260B
Chlorodibromomethane	< 0.42	0.42	1.3		ug/L		11/30/98	SW846 8260B
Chlorobenzene	< 0.23	0.23	0.73		ug/L		11/30/98	SW846 8260B
Chloroethane	< 0.54	0.54	1.7		ug/L		11/30/98	SW846 8260B
Chloroform	< 0.35	0.35	1.1		ug/L		11/30/98	SW846 8260B
Chloromethane	< 0.61	0.61	1.9		ug/L		11/30/98	SW846 8260B
1,1-Dichloroethane	< 0.35	0.35	1.1		ug/L		11/30/98	SW846 8260B
1,1-Dichloroethene	< 0.43	0.43	1.4		ug/L		11/30/98	SW846 8260B
1,2-Dichloroethane	< 0.37	0.37	1.2		ug/L		11/30/98	SW846 8260B
1,2-Dichloropropane	< 0.35	0.35	1.1		ug/L		11/30/98	SW846 8260B
cis-1,2-Dichloroethene	< 0.28	0.28	0.89		ug/L		11/30/98	SW846 8260B
cis-1,3-Dichloropropene	< 0.32	0.32	1.0		ug/L		11/30/98	SW846 8260B
trans-1,2-Dichloroethene	< 0.79	0.79	2.5		ug/L		11/30/98	SW846 8260B
trans-1,3-Dichloropropene	< 0.43	0.43	1.4		ug/L		11/30/98	SW846 8260B
Ethylbenzene	< 0.32	0.32	1.0		ug/L		11/30/98	SW846 8260B
2-Hexanone	< 0.69	0.69	2.2		ug/L		11/30/98	SW846 8260B
4-Methyl-2-pentanone	< 0.95	0.95	3.0		ug/L		11/30/98	SW846 8260B
Styrene	< 0.17	0.17	0.54		ug/L		11/30/98	SW846 8260B
1,1,1-Trichloroethane	< 0.30	0.30	0.96		ug/L		11/30/98	SW846 8260B
1,1,2,2-Tetrachloroethane	< 0.69	0.69	2.2		ug/L		11/30/98	SW846 8260B

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- Analytical Report -

Project Name : NAVISTAR
Project Number : 4376.05
Field ID : TRIP BLANK
Lab Sample Number : 887135-002
WI DNR LAB ID : 405132750
Client : RMT - MILWAUKEE
Report Date : 12/1/98
Collection Date : 11/24/98
Matrix Type : WATER

1,1,2-Trichloroethane	< 0.61	0.61	1.9	ug/L	11/30/98	SW846 8260B
Trichloroethene	< 0.37	0.37	1.2	ug/L	11/30/98	SW846 8260B
Tetrachloroethene	< 0.43	0.43	1.4	ug/L	11/30/98	SW846 8260B
Toluene	< 0.27	0.27	0.86	ug/L	11/30/98	SW846 8260B
Vinyl chloride	< 0.20	0.20	0.64	ug/L	11/30/98	SW846 8260B
Xylenes, -m, -p	< 0.43	0.43	1.4	ug/L	11/30/98	SW846 8260B
Xylene, -o	< 0.24	0.24	0.76	ug/L	11/30/98	SW846 8260B
4-Bromofluorobenzene	107			%Recov	11/30/98	SW846 8260B
Dibromofluoromethane	103			%Recov	11/30/98	SW846 8260B
Toluene-d8	108			%Recov	11/30/98	SW846 8260B

Organic Results

VOC-BLK — Prep Method: SW846 5030B — Prep Date: 11/30/98 — Analyst:

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
VOC-BLK	1VBLK42							SW846 8260

Company Name: KMT
Branch or Location: Brookfield
Project Contact: Dave Misky
Telephone: 414 879 1212
Project Number: 4376.05
Project Name: Novistar
Project Location: Waukesha, WI
Sampled By (Print): Tim Petrick

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR_____ Other

NR720 Confirmation Analysis Required? (circle): Y N

(En Chem will not confirm unless otherwise instructed.)

EN CHEM INC.

☐ 1241 Bellevue St., Suite 9, Green Bay, WI 54302, 920-469-2436 • 1-800-736-2436, FAX 920-469-8827

☒ 525 Science Drive, Madison, WI 53711, 608-232-3300 • 1-888-536-2436, FAX: 608-233-0502

☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY

23289

Page 1 of
P.O. # Quote #
Mail Report To: Dave Misky
Company: RMT
Address: Brookfield

Invoice To:
Company: RMT
Address: Brookfield
Mail Invoice To: Dave Misky

FILTERED? (YES/NO): N N N
PRESERVATION (CODE)*: B B B

ANALYSES REQUESTED: 8260 VOC, GRO, DRO

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	8260 VOC	GRO	DRO						FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
	Spring	11/24	245	3	3	1						N	GW	✓	1 liter 6 40ml		001
	trip Blank	--	–	1										✓	1 40ml		002

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
Tim Petrick	11/24/98 300	[signature]	11/25/98 9:30
[signature]	11/25/98 1:00	[signature]	11/25/98
[signature]	11/25/98 1600		
		Received By (En Chem): [signature]	11/25/98 1600

En Chem Project No. 887135
Sample Receipt Temp. ROI
Sample Receipt pH (Wet/Metals)

SHADED AREA FOR LABORATORY USE ONLY

1/30

Appendix G
Data Validation Reports

EVALUATION OF MARCH AND APRIL 1998 DATA QUALITY FOR GROUNDWATER AND SOIL SAMPLES FROM THE NAVISTAR SITE WAUKESHA, WISCONSIN

Prepared for
Navistar International
Transportation Corporation

Prepared By
RMT, Inc.
Madison, Wisconsin

May 1998

1/22

DATA QUALITY EVALUATION

Data validation was accomplished by comparing the quality assurance and quality control (QA/QC) results contained in the laboratory data packages to the requirements specified in the Quality Assurance Project Plan (QAPP) for the Navistar International Transportation Corporation Site, Waukesha, Wisconsin; the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review Multi-Media, Multi-Concentration (OLMO 1.0) and Low Concentration Water (OLCO 1.0) (USEPA, 1994); and the general guidelines published in SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (USEPA, 1990), where appropriate. Particular attention was paid to raw data, chain-of-custody forms, initial and continuing calibrations, blanks, duplicate analyses, and matrix spikes and matrix spike duplicates (MSs/MSDs). The discussion that follows describes the results of the QA/QC activities.

Usability

A total of 27 groundwater and 44 soil samples were collected in March/April 1998 by RMT, Inc., and analyzed by EnChem, Inc., for volatile organic compounds (VOC Method 8260, SW-846), diesel range organics (DRO Wisconsin Modified DRO Method), and gasoline range organics (GRO Wisconsin Modified GRO Method). Additionally, trip and field blanks, MSs/MSDs, and blind field duplicates were collected and analyzed for quality control purposes.

The data quality objectives for the project were met, and the data are usable for the purposes of the soil and groundwater investigation at the site. The procedures specified in the methods were implemented, and the data packages were found to contain all of the deliverables specified in the QAPP.

Sample Tracking

Laboratory reports received from EnChem, Inc., were compared to shipping records to confirm that results were received for each sample that was shipped. All of the results for all sampling locations were received.

Holding Times and Sample Preservation

All holding times were met. As specified by the methods, VOC analyses were performed within 14 days of sample collection. Water samples were extracted for DRO analyses within 7 days of sample collection, and were analyzed within 40 days of extraction. Extraction solvent was added to the soil samples for DRO analyses within 10 days, and the samples were

analyzed within 47 days of sample collection. GRO analyses were performed within 14 days for water samples and within 21 days for soil samples.

GC/MS Instrument Performance Check

Satisfactory gas chromatograph/mass spectrometer (GC/MS) instrument performance checks ensure adequate mass resolution; compound identification; and, to some degree, sensitivity. The criteria established for instrument performance checks were met at all times. The analyses of the instrument performance check solution were performed at the required frequency (every 12 hours of sample analysis per instrument). Bromofluorobenzene (BFB) was used as a check compound in VOC analysis. The ion abundance and the mass assignment criteria were met for all instrument performance checks. The ion abundances were correctly normalized to the approximate m/z (mass/charge) ratio.

Calibrations

Initial calibration establishes that the instrument is capable of acceptable performance at the beginning of the analytical sequence and that the calibration curve is linear. Continuing calibration verifies the calibration and evaluates daily instrument performance.

GC/MS Calibration

Initial calibrations containing target compounds and system monitoring compounds were performed at the required frequency and concentration levels. Initial calibrations of the GC/MS at five concentrations were performed after instrument performance check criteria were met and prior to the analysis of samples and blanks. Internal standards were added to all calibration standards and samples (including blanks and MSs/MSDs). The GC/MS calibration was verified every 12 hours with one mid-range standard.

The minimum Relative Response Factor (RRF) criterion was met in the GC/MS analyses. The stability of the compound Response Factors was indicated by acceptable percent Relative Standard Deviation (RSD) values of the RRFs. The percent difference criteria for continuing calibration were met.

GC Calibration

A five-point initial calibration was performed in the GC/FID (gas chromatograph/flame ionization detector) analyses of DRO and GRO, and continuing calibration checks were performed at the required frequency and concentration level to verify the calibration. The linearity of initial calibrations was good as evidenced by acceptable correlation coefficient values. Calibration verifications were also acceptable.

Internal Standard Responses and Retention Times in the GC/MS Analysis

The quantitative determination of the VOC compounds is based on the use of internal standards added immediately prior to analysis. Therefore, satisfactory internal standard responses in all calibration standards, samples, and blanks are critical.

Four internal standard constituents (pentafluorobenzene; 1,4-dichlorobenzene-d4; 1,4-difluorobenzene; and chlorobenzene-d5) were used in the VOC analysis. All internal standard area counts and retention times (RTs) were within the QC limits in the analysis of samples for VOCs and SVOCs.

Compound Identification

To verify that VOCs were not erroneously identified, the relative retention times (RRTs) of the samples were checked to see if they were within the standard RRT. For acceptable analysis, the mass spectra of the samples and standards also have to match. The QC criteria of the GC analysis were acceptable: the retention times of the blank spikes were within the correct RT windows in the GC analysis. No off-scale chromatographic peaks were present.

Method Blanks and Extraction Blanks

Method blanks and extraction blanks were analyzed to assess potential sample contamination resulting from laboratory procedures. A method or extraction blank (procedural blank) is carried through the same analytical steps (preparation and analysis) as the samples. Extraction blanks were analyzed for the soil samples to check for potential contamination from the extraction solvent.

Ten method blanks were analyzed for VOCs in water. Three extraction blanks were analyzed for VOCs in soil. Low levels of acetone and methylene chloride were reported from several method and/or extraction blanks. When these VOC constituents were detected in the associated samples at less than ten times the blank concentration, the apparent sample detections may be a result of laboratory or handling contamination. Therefore, the sample results were qualified as nondetected ("u") in accordance with USEPA (1994) data validation guidance. Even though these common laboratory contaminants were not detected in all method, trip, or field blanks associated with sample detections, and therefore the sample results were not qualified as nondetected, any methylene chloride detections in the samples should be considered suspect and as potentially originating from laboratory procedures.

Nine method blanks were analyzed for DRO and GRO. No DRO and GRO were detected in these blanks.

Trip Blanks

To assess the potential for sample contamination during sample collection, shipment, and storage, four trip blanks were analyzed for VOCs and GRO.

Low levels of acetone were detected in two trip blanks. On the basis of trip blanks and/or method blanks, acetone detections in the samples that were below 10 times the associated blank value were qualified as nondetected ("u") in accordance with USEPA (1994) data validation guidance as discussed above.

Field Blanks

To check for procedural contamination at the site, which may cause sample contamination, three field blanks (rinsate blanks) were analyzed for all analytical parameters. No analytes were detected in the field blanks analyzed for DRO and GRO.

Acetone and carbon disulfide were detected from three field blanks. Acetone concentrations in two of the field blanks should be considered as nondetected on the basis of associated method and/or trip blank detections. The reported sample concentrations of acetone and carbon disulfide were qualified as nondetected on the basis of field blank detections when the sample concentrations were less than ten (acetone) and five (carbon disulfide) times the field blank concentrations, and were potentially resulting from sample handling contamination.

Matrix Spikes/Matrix Spike Duplicates (MSs/MSDs), and Blank Spikes and Duplicates (BSs/BSDs)

Matrix spikes (MSs) and matrix spike duplicates (MSDs) provide information about the effects of the sample matrix on the sample preparation and measurement performance. A matrix spike consists of a sample that is spiked with a group of target constituents representative of the method analytes and carried through the appropriate steps of the analysis, including extraction. If the spike is added to reagent water, it is referred to as a blank-spike.

Sixty two spike compounds were used in four MS/MSD and BS/BSD analyses performed for VOCs. In place of MS/MSD analyses, laboratory duplicate analysis was performed for one groundwater sample. Six MS/MSD analyses were performed in water, and six BS/BSD analyses were performed in soil. With the exception of one of the 62 spike compounds in one of the six VOC spike analyses that had an elevated (above 125 percent) MS/MSD recovery and two other compounds in the same VOC spike analysis that had recoveries below 75 percent, all MS/MSD recoveries for VOCs were acceptable. The laboratory performed a laboratory control sample (LCS) analysis following the MS/MSD analysis. All LCS results were acceptable. The relative percent difference of one spike compound in another VOC spike analysis was above 15 percent. However, the spike recoveries were within control limits. All surrogate recoveries from these samples were acceptable.

None of these exceedences are believed to have a significant impact on the associated investigative samples. Therefore, no data validation qualifiers were added on the basis of these findings.

Surrogate/System Monitoring Compound (SMC) Spikes

Surrogate/SMC spikes are compounds similar to the analytes of interest in chemical behavior, but they are not normally found in environmental samples. Laboratory performance for the VOC analysis of individual samples and blanks was established by spiking all samples and blanks prior to extraction and analysis to determine surrogate/SMC spike recoveries among the samples, blanks, and MSs/MSDs in the sample and blank matrices.

Three surrogate compounds, toluene-d8, 4-bromofluorobenzene, and dibromofluoromethane, were used in the VOC analysis. All surrogate recoveries were acceptable.

Blind Field Duplicate Samples

Four pairs of blind field duplicates were compared for VOCs, DRO, and GRO in the soil. Three pairs were compared for the same parameters in the groundwater. Tables 1 and 2 show the comparison of the reported analytes in the duplicate pairs for soil and groundwater samples. Relative Percent Difference (RPD) values were calculated for only those pairs in which both reported results were above the Limit of Quantitation. Constituents that were less than the Limit of Detection are not shown. All calculated RPDs were below 10 percent for all detected VOCs. However, the DRO and GRO results were frequently not consistent in the duplicate pairs.

Several of the DRO and DRO sample chromatograms exhibit a baseline rise with the following hump in the chromatogram. When DRO and GRO were quantified by the modified Wisconsin method where the quantification encompasses also the area of the hump, elevated concentrations and a great deal of variability resulted in the duplicate results.

Soil Samples

Low levels (below the Limit of Quantitation) of the common laboratory contaminant, methylene chloride were reported from SB-15 (13-15') and its duplicate pair. Methylene chloride detections should also be considered suspect because of its frequent occurrence in the method blanks.

Low levels of DRO were reported from the duplicate pair of SB-2 (13-15') but were not confirmed by the original sample.

The concentration of DRO reported from SB-4 (13-15') was not confirmed by the duplicate pair. The reported DRO value of 1,200 mg/kg was largely due to the hump in the chromatogram.

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The concentration of GRO reported from the duplicate of SB-4 (13-15') was not confirmed by the original sample.

Although the DRO and GRO chromatograms of SB-15 (13-15') and in its duplicate pair exhibit a chromatographic pattern of petroleum hydrocarbons, the DRO chromatogram exhibits double humps. Also, a portion of the reported GRO concentration in SB-15 (13-15') and in its duplicate pair is due to the baseline rise. Consequently, the precision of both DRO and GRO results expressed as RPD values, is poor.

Groundwater Samples

Low levels (below the Limit of Quantitation) of trichloroethene were reported from the Sigma well MW-01 and its duplicate at the McGlenn Site. The concentrations of 1,1-dichloroethane, 1,1-dichloroethene; cis-1,2-dichloroethene; 1,1,1-trichloroethene; and trichloroethene reported from the duplicate pair of NMW-9 at the Navistar Site were consistent.

The peaks quantified as GRO from the duplicate pair of NMW-9 likely represent chlorinated compounds.

The DRO results from Sigma MW-01 and MW-2 are highly variable. The DRO chromatograms of Sigma MW-01 and the corresponding duplicate pair contain a baseline rise contributing to the reported value. The DRO concentration reported from MW-2 was not confirmed by the corresponding duplicate pair.

References

USEPA. 1994. USEPA contract laboratory program, national functional guidelines for organic data review. Multi-media, multi-concentration (OLMO 1.0) and low concentration water (OLCO 1.0).

LABORATORY QUALIFIERS	
B	Compound was present in the method blank.
J or Q	The compound was identified by mass spectral evidence. Reported value is estimated. The value was below the limit of quantilation.
DATA VALIDATION QUALIFIERS	
b	Analyte was present in the trip blank.
f	Analyte is present in the field blank.
u	Analyte is present at less than 10 times the concentration in the associated method (B), trip (b), and/or field blanks for common laboratory contaminants, or at less than 5 times the blank concentration of other analytes, and is therefore qualified as nondetectable (u) according to USEPA data validation procedures (USEPA, 1994).

Table 1
Detected Organic Parameters in the Blind Field Duplicate Pairs from Soil

PARAMETER	SB-2 (13-15') 03/27/98	SB-2 (13-15') DUP1 03/27/98	RPD %
Methylene chloride, µg/kg	<25	<25	–
DRO, mg/kg	<3.9	3.9	–
GRO, mg/kg	<2.8	<2.8	–
	SB-4 (13-15') 03/27/98	**SB-4 (13-15') DUP2 03/27/98**	**RPD %**
Methylene chloride, µg/kg	<25	<25	–
DRO, mg/kg	1,200	<5.1	–
GRO, mg/kg	3.4	<3.0	–
	SB-8 (7-9') 03/29/98	**SB-8 (7-9') DUP3 03/29/98**	**RPD %**
Methylene chloride, µg/kg	<25	<25	–
DRO, mg/kg	<5.3	<5.3	–
GRO, mg/kg	<3.1	<3.1	–
	SB-15 (13-15') 04/01/98	**SB-15 (13-15') DUP4 04/01/98**	**RPD %**
Methylene chloride, µg/kg	31 Q	58 Q	–
DRO, mg/kg	110	35	103
GRO, mg/kg	20	9.0	76

Notes:

– Either one or both values are less than the Limit of Quantitation; therefore, an RPD calculation is of limited significance and was not calculated.

Q Compound was identified by mass spectral evidence. The result is estimated; the value was below the Limit of Quantitation.

Table 2
Detected Organic Parameters in the Blind Field Blind Duplicates in Groundwater
(units µg/L)

PARAMETER	MW-1 MGS 03/31/98	MW-1 MGS DUP1 03/31/98	RPD %	MW-2 WCL 04/01/98	MW-2 WCL DUP3 04/01/98	RPD %	NMW-9 NS 03/31/98	NMW-9 NS DUP2 03/31/98	RPD %
1,1-Dichloroethane	<0.35	<0.35	--	<0.35	<0.35	--	2.9	3.0	3
1,1-Dichloroethene	<0.43	<0.43	--	<0.43	<0.43	--	1.7 Q	2.0 Q	--
cis-1,2-Dichloroethene	<0.28	<0.28	--	<0.28	<0.28	--	11	12	9
1,1,1-Trichloroethane	<0.30	<0.30	--	<0.30	<0.30	--	19	20	5
Trichloroethene	0.73 Q	0.67 Q	--	<0.37	<0.37	--	210	220	5
DRO	130	310	82	180	<100	--	<100	<100	--
GRO	<50	<50	--	<50	<50	--	53	53	0

Notes:

MGS McGlenn Site, unidentified well

WCL Wisconsin Coach Line Site well

NS Navistar Site well

-- Either one or both values are less than the Quantitation Limit; therefore, an RPD calculation is of limited significance and was not done.

B Compound was present in the associated method blank.

Q Compound was identified by mass spectral evidence. The result is estimated; the value was below the Limit of Quantitation.

B Compound was present in the associated trip blank.

u Compound was considered nondetected on the basis of detections in the method and/or trip blanks.

All other VOCs were below the Limits of Detection.

EVALUATION OF NOVEMBER/DECEMBER 1998 AND JANUARY 1999 DATA QUALITY FOR GROUNDWATER AND SOIL SAMPLES FROM THE NAVISTAR SITE WAUKESHA, WISCONSIN

PREPARED FOR
NAVISTAR INTERNATIONAL
TRANSPORTATION CORPORATION

PREPARED BY
RMT, INC.
MADISON, WISCONSIN

January 1999

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Data Quality Evaluation

Data validation was accomplished by comparing the quality assurance and quality control (QA/QC) results contained in the laboratory data packages to the requirements specified in the Quality Assurance Project Plan (QAPP) for the Navistar International Transportation Corporation Site, Waukesha, Wisconsin; the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review Multi-Media, Multi-Concentration (OLMO 1.0) and Low Concentration Water (OLCO 1.0) (USEPA, 1994); and the general guidelines published in SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (USEPA, 1990), where appropriate. Particular attention was paid to raw data, chain-of-custody forms, initial and continuing calibrations, blanks, duplicate analyses, and matrix spikes and matrix spike duplicates (MSs/MSDs). The discussion that follows describes the results of the QA/QC activities.

Usability

A total of two groundwater, one spring, and 16 soil samples were collected in November/December 1998 by RMT, Inc., and analyzed by EnChem, Inc., for volatile organic compounds (VOC Method 8260B, SW-846), diesel range organics (DRO Wisconsin Modified DRO Method), and gasoline range organics (GRO Wisconsin Modified GRO Method). Additionally, trip blanks, and MSs/MSDs were collected and analyzed for quality control purposes.

The data quality objectives for the project were met, and the data are usable for the purposes of the soil and groundwater investigation at the site. The procedures specified in the methods were implemented, and the data packages were found to contain all of the deliverables specified in the QAPP.

Sample Tracking

Laboratory reports received from EnChem, Inc., were compared to shipping records to confirm that results were received for each sample that was shipped. All of the results for all sampling locations were received.

Holding Times and Sample Preservation

All holding times were met. As specified by the methods, VOC analyses were performed within 14 days of sample collection. Water samples were extracted for DRO analyses within 7 days of sample collection, and were analyzed within 40 days of extraction. Extraction solvent was added to the soil samples for DRO analyses within 10 days, and the samples were

analyzed within 47 days of sample collection. GRO analyses were performed within 14 days for water samples and within 21 days for soil samples.

GC/MS Instrument Performance Check

Satisfactory gas chromatograph/mass spectrometer (GC/MS) instrument performance checks ensure adequate mass resolution; compound identification; and, to some degree, sensitivity. The criteria established for instrument performance checks were met at all times. The analyses of the instrument performance check solution were performed at the required frequency (every 12 hours of sample analysis per instrument). Bromofluorobenzene (BFB) was used as a check compound in VOC analysis. The ion abundance and the mass assignment criteria were met for all instrument performance checks. The ion abundances were correctly normalized to the appropriate m/z (mass/charge) ratio.

Calibrations

Initial calibration establishes that the instrument is capable of acceptable performance at the beginning of the analytical sequence and that the calibration curve is linear. Continuing calibration verifies the calibration and evaluates daily instrument performance.

GC/MS Calibration

Initial calibrations containing target compounds and system monitoring compounds were performed at the required frequency and concentration levels. Initial calibrations of the GC/MS at six concentrations were performed after instrument performance check criteria were met and prior to the analysis of samples and blanks. Internal standards were added to all calibration standards and samples (including blanks and MSs/MSDs). The GC/MS calibration was verified every 12 hours with one mid-range standard.

The minimum Relative Response Factor (RRF) criterion was met in the GC/MS analyses. The stability of the compound Response Factors was indicated by acceptable percent Relative Standard Deviation (RSD) and correlation coefficient (r^2) values of the RRFs. The percent difference criteria for continuing calibration were met.

GC Calibration

A five-point initial calibration was performed in the GC/FID (gas chromatograph/flame ionization detector) analyses of DRO and GRO, and continuing calibration checks were performed at the required frequency and concentration level to verify the calibration. The linearity of initial calibrations was good, as evidenced by acceptable r^2 values. Calibration verifications were also acceptable.

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Internal Standard Responses and Retention Times in the GC/MS Analysis

The quantitative determination of the VOC compounds is based on the use of internal standards added immediately prior to analysis. Therefore, satisfactory internal standard responses in all calibration standards, samples, and blanks are critical.

Four internal standard constituents (pentafluorobenzene; 1,4-dichlorobenzene-d4; 1,4-difluorobenzene; and chlorobenzene-d5) were used in the VOC analysis. All internal standard area counts and retention times (RTs) were within the QC limits in the analysis of samples for VOCs.

Compound Identification

To verify that VOCs were not erroneously identified, the relative retention times (RRTs) of the samples were checked to see if they were within the standard RRT. For acceptable analysis, the mass spectra of the samples and standards also have to match. The QC criteria of the GC analysis were acceptable: the retention times of the blank spikes were within the correct RT windows in the GC analysis. No off-scale chromatographic peaks were present.

The identification of DRO and GRO are based on the total peak areas within the defined chromatographic retention time (RT) window. Low levels of DRO were quantified in MW-11 and from the spring sample, and GRO was quantified in MW-11 and MW-19. No fuel pattern was evident in the chromatograms for these samples. The peaks quantified as GRO from the two groundwater samples likely represent chlorinated compounds that elute from the chromatographic column within the GRO window. DRO was also reported from the spring sample and five soil samples (SB-21 [6-8'], SB-22 [12-14'], SB-23 [8-10'] and (12-14'), and SB-26 [6-9']). The chromatograms for the DRO reports for the above water and soil samples contain a baseline rise contributing to the reported value.

Method Blanks and Extraction Blanks

Method blanks and extraction blanks were analyzed to assess potential sample contamination resulting from laboratory procedures. A method or extraction blank (procedural blank) is carried through the same analytical steps (preparation and analysis) as the samples. Extraction blanks were analyzed for the soil samples to check for potential contamination from the extraction solvent. One instrument blank (QC blank) that does not involve the sample preparation was also analyzed during the analysis of soil samples.

Two method blanks were analyzed for VOCs in water. One extraction blank was analyzed for VOCs in soil. Low levels of acetone and methylene chloride were reported from the method and extraction blanks. Acetone was also reported from the instrument blank during the soil sample analysis. When these VOC constituents were detected in the associated samples at less

than ten times the blank concentration, the apparent sample detections may have been a result of laboratory or handling contamination. Therefore, the sample results were qualified as nondetected ("u") in accordance with USEPA (1994) data validation guidance.

Two method blanks were analyzed for DRO and GRO in water, and one method blank was analyzed in soil. No DRO and GRO were detected in these blanks.

Trip Blanks

To assess the potential for sample contamination during sample collection, shipment, and storage, four trip blanks were analyzed for VOCs and GRO.

Low levels of acetone and methylene chloride were detected in two trip blanks. On the basis of trip blanks and/or method blanks, acetone detections in the samples that were below 10 times the associated blank value were qualified as nondetected ("u") in accordance with USEPA (1994) data validation guidance as discussed above.

Matrix Spikes/Matrix Spike Duplicates (MSs/MSDs), and Blank Spikes and Duplicates (BSs/BSDs)

Matrix spikes (MSs) and matrix spike duplicates (MSDs) provide information about the effects of the sample matrix on the sample preparation and measurement performance. A matrix spike consists of a sample that is spiked with a group of target constituents representative of the method analytes and carried through the appropriate steps of the analysis, including extraction. If the spike is added to reagent water, it is referred to as a blank-spike.

Thirty five spike compounds were used in four MS/MSD and BS/BSD analyses performed for VOCs. Two MS/MSD analyses were performed in water and one in soil, and one BS/BSD analysis was performed in soil. With the exception of one of the 35 spike compounds in one of the VOC spike analyses and two spike compounds in another VOC spike analysis performed in water that exceeded the laboratory QC limit slightly (2 to 3 percent) for spike recovery, all MS/MSD recoveries for VOCs in water were acceptable. The relative percent difference (RPD) of one spike compound for water was above 15 percent. However, the spike recoveries for this compound were within control limits. Because of matrix interferences, the recovery of six spike compounds for VOCs from soil were below method-specific control limits. However, all spike recoveries and RPDs from the BS/BSD analysis of the soil were acceptable indicating good instrument performance. All surrogate recoveries from these samples were acceptable.

These exceedences are not believed to have a significant impact on the associated investigative samples. Therefore, no data validation qualifiers were added on the basis of this finding.

Surrogate/System Monitoring Compound (SMC) Spikes

Surrogate/SMC spikes are compounds similar to the analytes of interest in chemical behavior, but they are not normally found in environmental samples. Laboratory performance for the VOC analysis of individual samples and blanks was established by spiking all samples and blanks prior to extraction and analysis to determine surrogate/SMC spike recoveries among the samples, blanks, and MSs/MSDs in the sample and blank matrices.

Three surrogate compounds, toluene-d8, 4-bromofluorobenzene, and dibromofluoromethane, were used in the VOC analysis. All surrogate recoveries were acceptable.

References

USEPA. 1994. USEPA contract laboratory program, national functional guidelines for organic data review. Multi-media, multi-concentration (OLMO 1.0) and low concentration water (OLCO 1.0).

USEPA. 1990. SW-846 Test methods for evaluating solid waste, physical/chemical methods. With revisions.

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LABORATORY QUALIFIERS	
B	Compound was present in the method blank.
J or Q	The compound was identified by mass spectral evidence. Reported value is estimated. The value was below the Limit of Quantitation.
DATA VALIDATION QUALIFIERS	
b	Analyte was present in the trip blank.
f	Analyte was present in the field blank.
u	Analyte was present at less than 10 times the concentration in the associated method (B), trip (b), and/or field blanks for common laboratory contaminants, or at less than 5 times the blank concentration of other analytes, and is therefore qualified as nondetectable (u) according to USEPA data validation procedures (USEPA, 1994).

Appendix H
NMW-5 Free Product Evaluation

WORLDWIDE GEOSCIENCES, INC.
REPORT

WORLDWIDE
GEOSCIENCES, INC.

6100 Corporate Drive
Suite 320
Houston, Texas 77036
Phone: 713 / 988-9401
FAX: 713 / 988-8784

CHARACTERIZATION OF A FREE PRODUCT SAMPLE NAVISTAR SITE

PREPARED FOR
RMT INC.
JUNE, 1998

CHARACTERIZATION OF A FREE PRODUCT SAMPLE
NAVISTAR SITE

SUMMARY

A free product sample was analyzed by high resolution capillary gas chromatography to determine the type or types of parent products associated with this sample. Compositional characteristics indicate the product present is a lubricant product. A specialty, industrial lubricant rather than a motor oil is indicated. Analysis of the product sample by EPA Method 8260 and by GC/AED found solvent type chlorinated hydrocarbons to be associated with this lubricant product with trichloroethane and trichloroethene specifically identified.

INTRODUCTION

One free product sample from the Navistar site was received at the offices of Worldwide Geosciences via Federal Express overnight delivery on April 2, 1998. The free product sample was contained in three, forty ml., glass V.O.A. vials. All samples were packed in an insulated cooler with ice used as a preservative. Sample identification as per the attached chain of custody form and its assigned laboratory number is as follows:

Sample ID	Laboratory No.
PRODUCT	80407004

Worldwide Geosciences was requested to characterize the sample in terms of product type and determine whether the sample contained any chlorinated hydrocarbons.

The sample was analyzed as received by high resolution capillary gas chromatography using a 30 meter DB1 column with a flame ionization detector (FID). A Perkin-Elmer Autosystem was utilized. The analysis procedure follows the analytical procedures of ASTM Method D-3328, but modified to reflect current instrumentation. Two procedural methods are routinely used for product characterization. One provides better resolution of the gasoline range hydrocarbons but has a more limited carbon number range. This is Method 1 as defined in the procedural description provided in Appendix II. The second method is routinely used to characterize products

heavier than gasoline. The gasoline range hydrocarbons are compressed as a result of a more rapid increase in column temperature. This is Method 2 as described in Appendix II. This sample was analyzed under Method 2 conditions on April 7, 1998. The sample was analyzed again diluted in methylene chloride on a ten to one basis under Method 4 conditions on May 6, 1998.

Display copies of the chromatograms, both labeled and unlabeled, are incorporated into the report as Appendix I. A full-scale display in which all the peaks have been kept onscale for accurate visualization of the relative proportions of the hydrocarbons present is provided. Also included in Appendix I is a table listing the abbreviations used to identify peaks on the chromatograms and their corresponding names.

The sample was also analyzed for volatile target compounds following the procedural protocols of EPA Method 8260. The volatile target compound analysis results are included as Appendix III.

Total chloride in the sample was also determine by combined gas chromatography/atomic emission detection. The GC/AED results are included as Appendix IV.

Analyses were performed by our associated laboratory, Consolidated Sciences, Inc.

RESULTS

In discussing the compositional characteristics of the sample analyzed and analog signatures, the various peaks present in the chromatograms will be referred to in terms of the hydrocarbons they represent. As a general aid to visualizing the types of hydrocarbons involved, Figure 1 is provided to illustrate the structural characteristics of the main classes of hydrocarbons.

Figure 2 displays the chromatographic signature obtained on the submitted Navistar product sample as analyzed directly and diluted in methylene chloride solvent. The product signature shows a prominent baseline rise or hump eluting late in the chromatogram or in the twenty to forty (C20 to C40) carbon number range of the signature. Such a baseline rise or hump in this heavier carbon number range is typical of lubricant type products. The baseline rise or hump represents a complex mixture of individual

hydrocarbons which are not present at sufficient individual abundance to elute as discrete peaks.

Figure 3 compares the chromatogram of the Navistar product sample with the chromatogram of a motor oil product sample. The subordinate, earlier eluting baseline rise in the C11 to C16 range of the chromatogram is not characteristic of motor oil.

The possibility was considered that the submitted product sample could represent a lubricant with a subordinate contribution from another petroleum derived product, which is represented by the baseline rise in the C11 to C16 range. The standard petroleum derived product type which comes closest to reflecting this carbon number range is a kerosene distillation cut type product. The chromatogram of a fresh kerosene product sample and a biodegraded kerosene signature or chromatogram are shown in Figure 4. The carbon number range of kerosenes is broader than the subordinate baseline rise and also shows a prominence of the 13 to 16 carbon number isoprenoid peaks (IP13, IP14, IP15, and IP16). The subordinate baseline rise or hump is consequently considered lubricant related, and a specialty, industrial type lubricant rather than a motor oil is indicated. A specific match with a specialty type lubricant in our files was not obtained.

The possibility that the product sample submitted contained chlorinated hydrocarbons was investigated by analyzing the product for volatile target compounds by EPA Method 8260, and analyzing the product for the presence of chlorinated hydrocarbons by combined gas chromatography/atomic emission detection (GC/AED). The GC/AED results found the chloride containing organics to be restricted to lower carbon numbers consistent with chlorinated hydrocarbons typically used as solvents. Figure 5 displays the GC/AED chromatogram obtained on the Navistar product sample, and shows the chloride containing molecules to be present at the light end or early eluting portion of the sample signature. A total chloride content of 16 parts per million was found. The EPA Method 8260 analysis found trichloroethane to be present at 24 parts per million and trichloroethene to be present at 26 parts per million.

FIGURE I
TYPES OF HYDROCARBONS

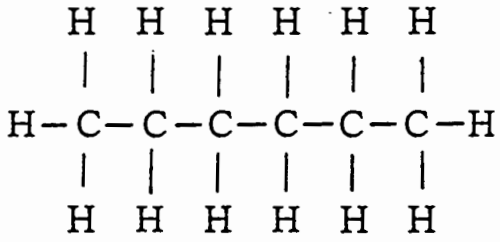
SATURATES

CARBON ATOMS CONNECTED BY SINGLE BONDS

PARAFFINS OR ALKANES

NORMAL PARAFFINS OR ALKANES

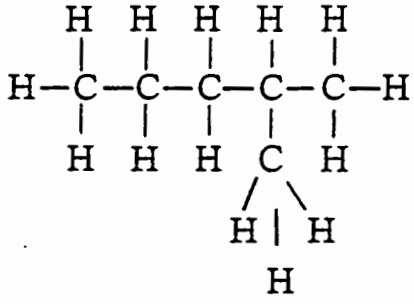
STRAIGHT CHAINS



NORMAL HEXANE (NC6)

ISO-PARAFFINS OR ALKANES

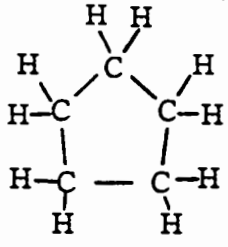
BRANCHED CHAIN PARAFFINS



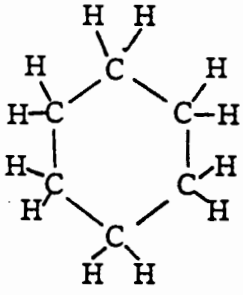
2METHYL PENTANE (2MP)

NAPTHENES OR CYCLOPARAFFINS OR CYCLOALKANES

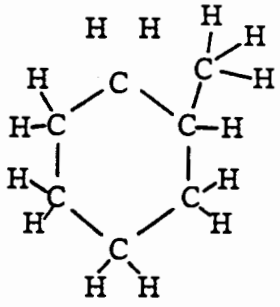
RING OR CYCLIC STRUCTURE



CYCLOPENTANE (CCP)



CYCLOHEXANE (CH)



METHYLCYCLOHEXANE (MCH)

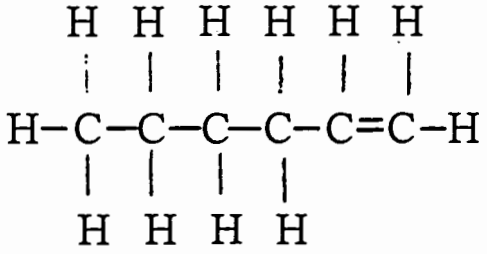
FIGURE 1 (CONT.)
TYPES OF HYDROCARBONS

UNSATURATES

HAVE ONE OR MORE CARBON DOUBLE BONDS

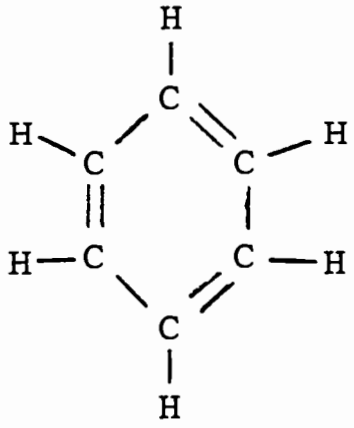
OLEFINS OR ALKENES

CAN BE STRAIGHT CHAIN, BRANCHED CHAIN, OR CYCLIC

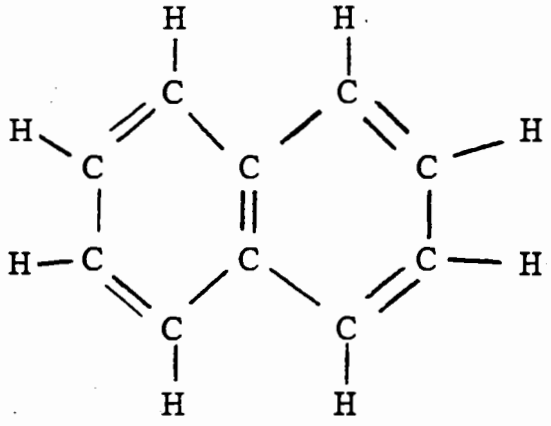


NORMAL HEXENE

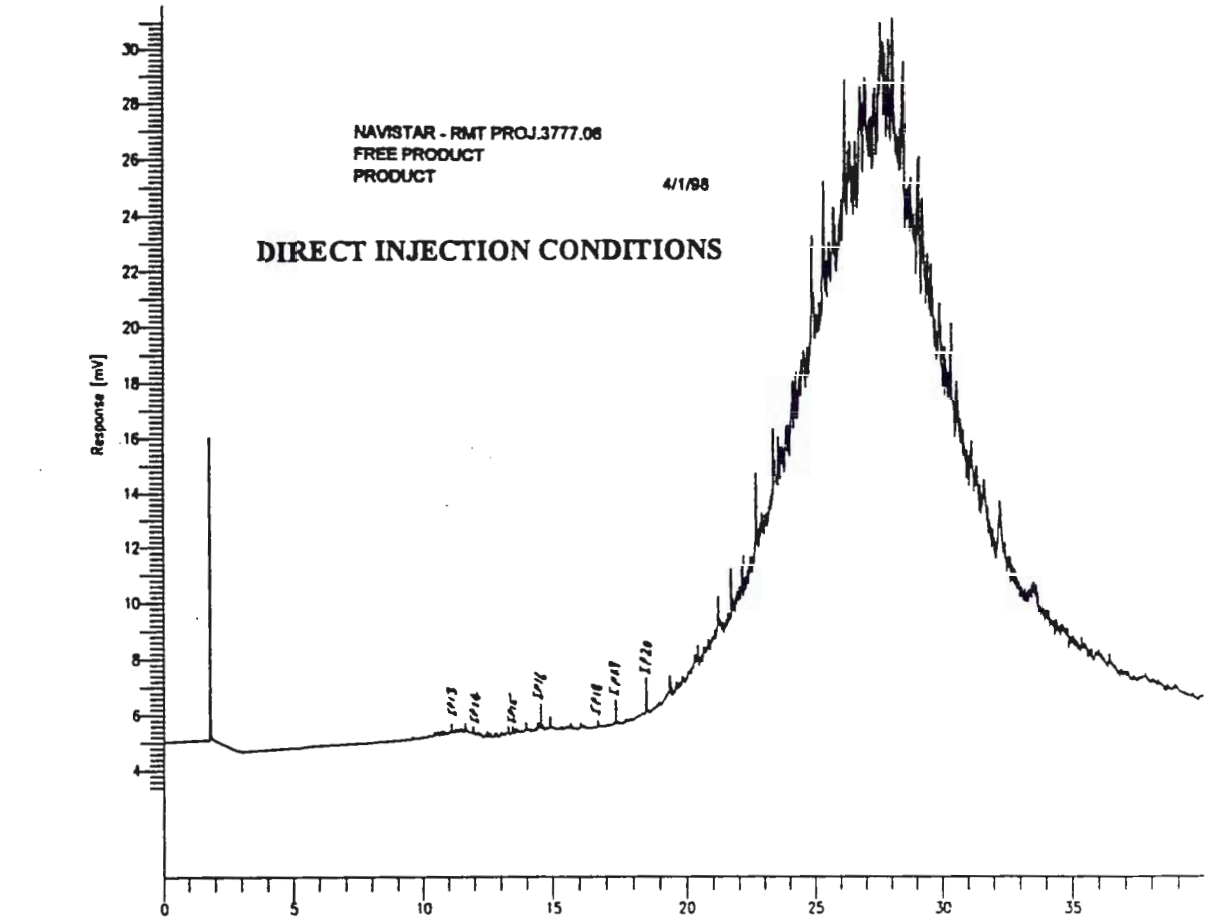
AROMATICS



BENZENE



NAPHTHALENE



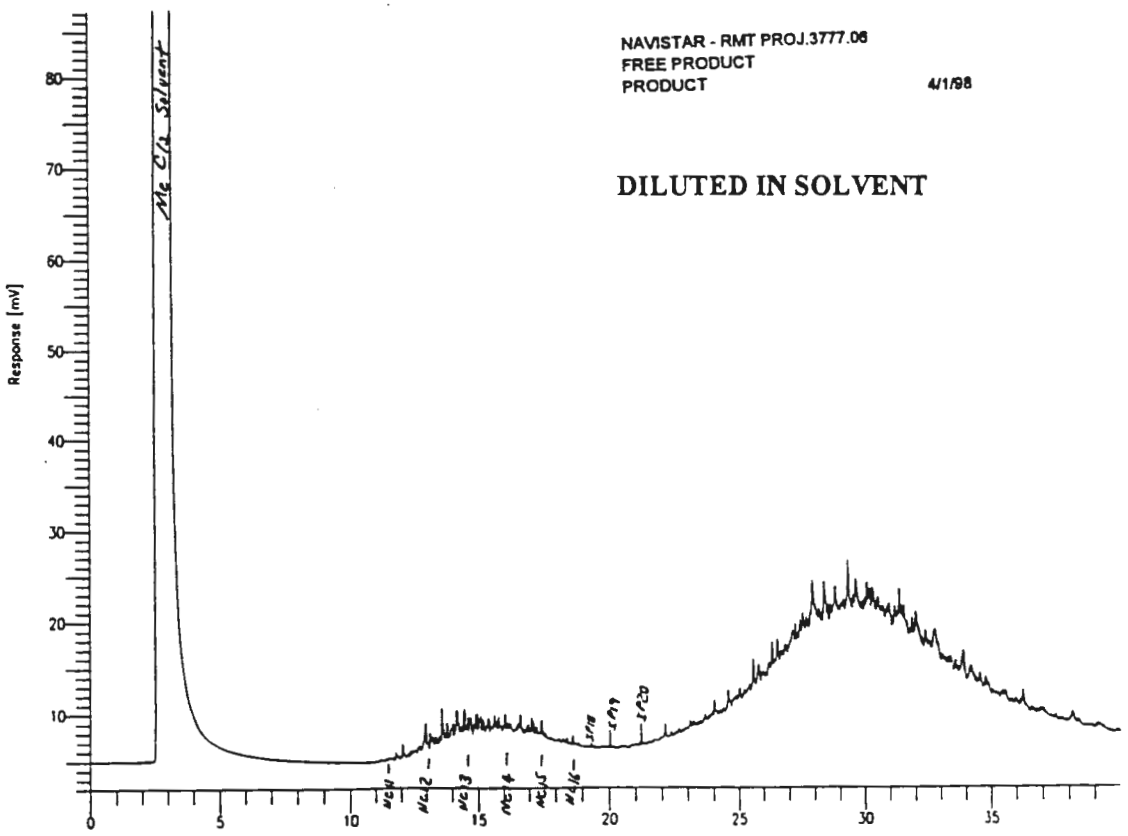


FIGURE 2: CHROMATOGRAPHIC SIGNATURE OF THE PRODUCT SAMPLE AS OBTAINED UNDER DIRECT INJECTION CONDITIONS AND DILUTED IN SOLVENT

11

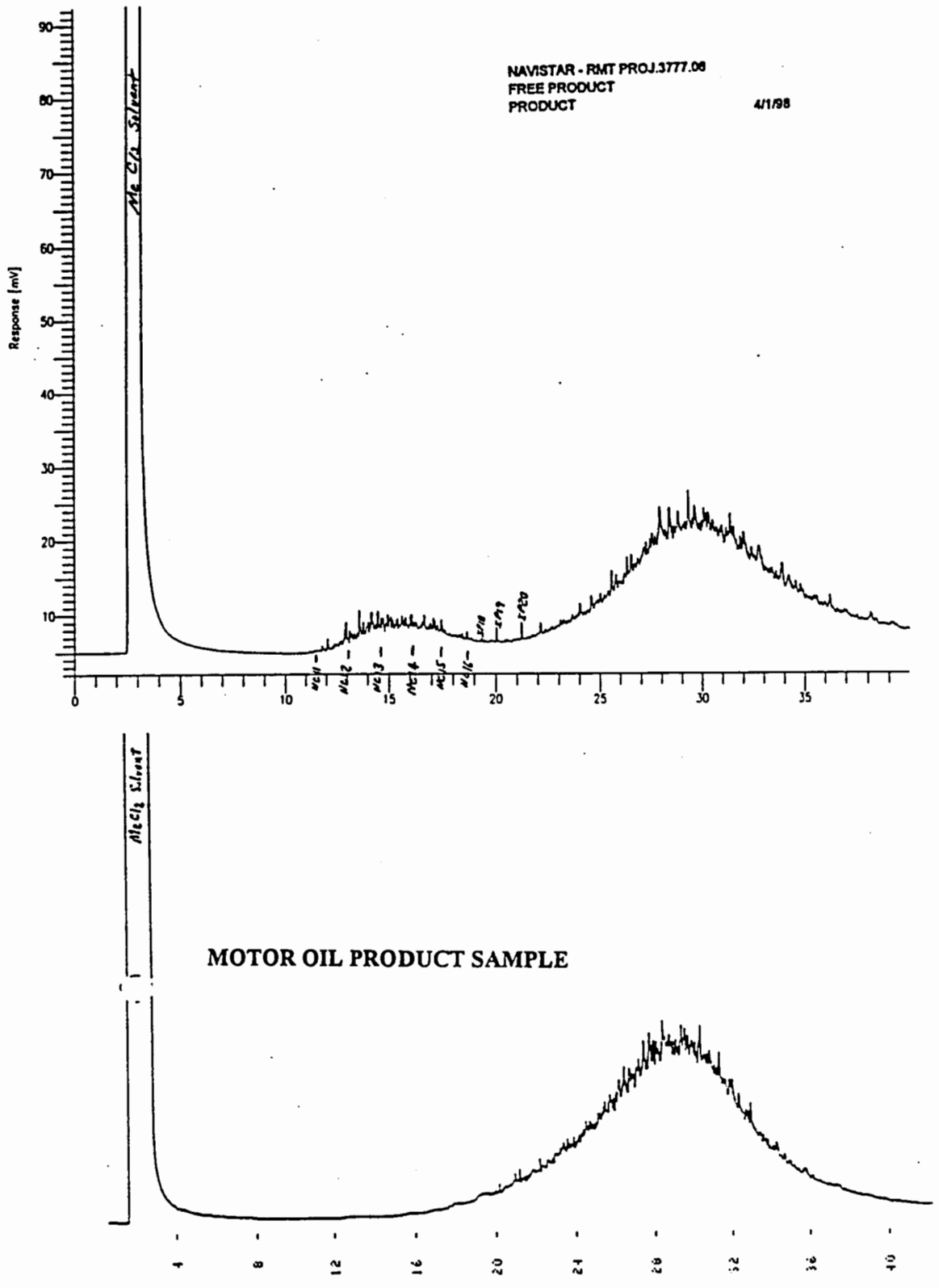
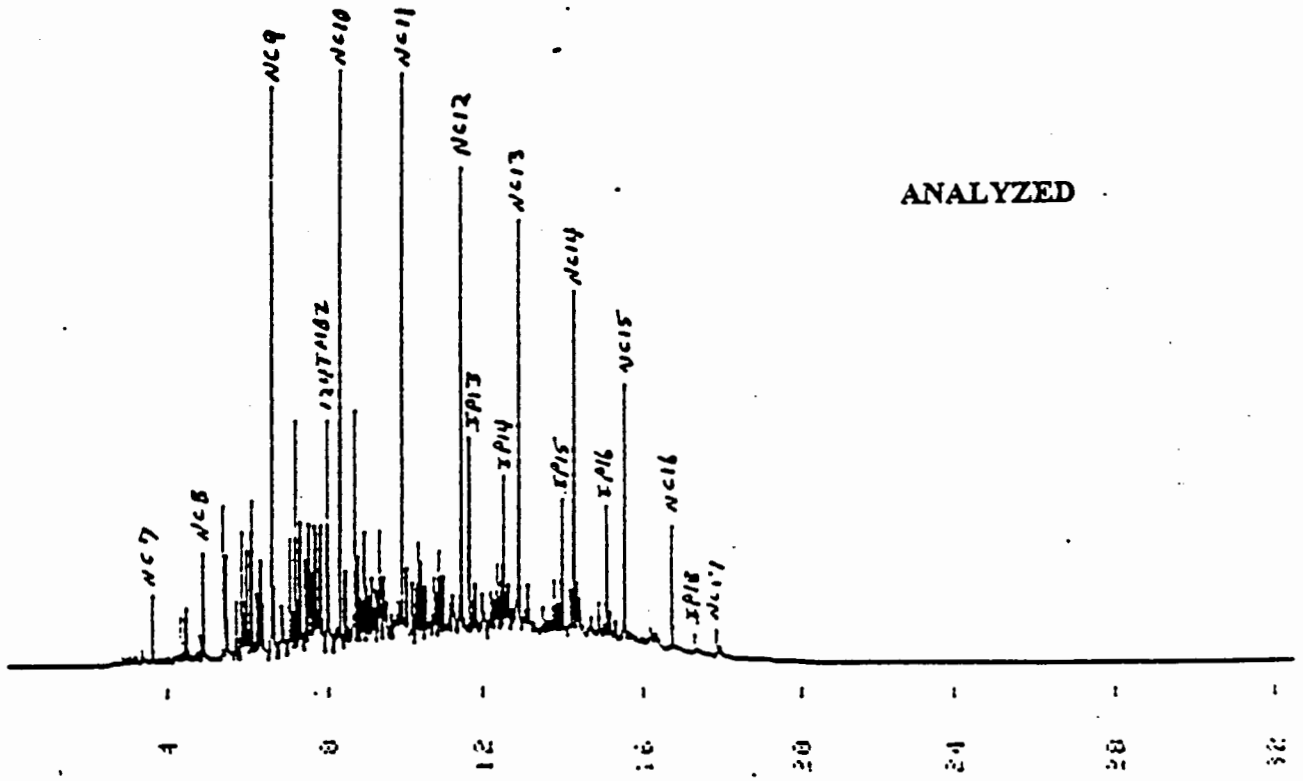


FIGURE 3: COMPARISON OF THE CHROMATOGRAPHIC SIGNATURES OF THE NAVISTAR PRODUCT SAMPLE AND A MOTOR OIL PRODUCT SAMPLE



ARTIFICIALLY DEGRADED (NORMALS WHITED OUT)

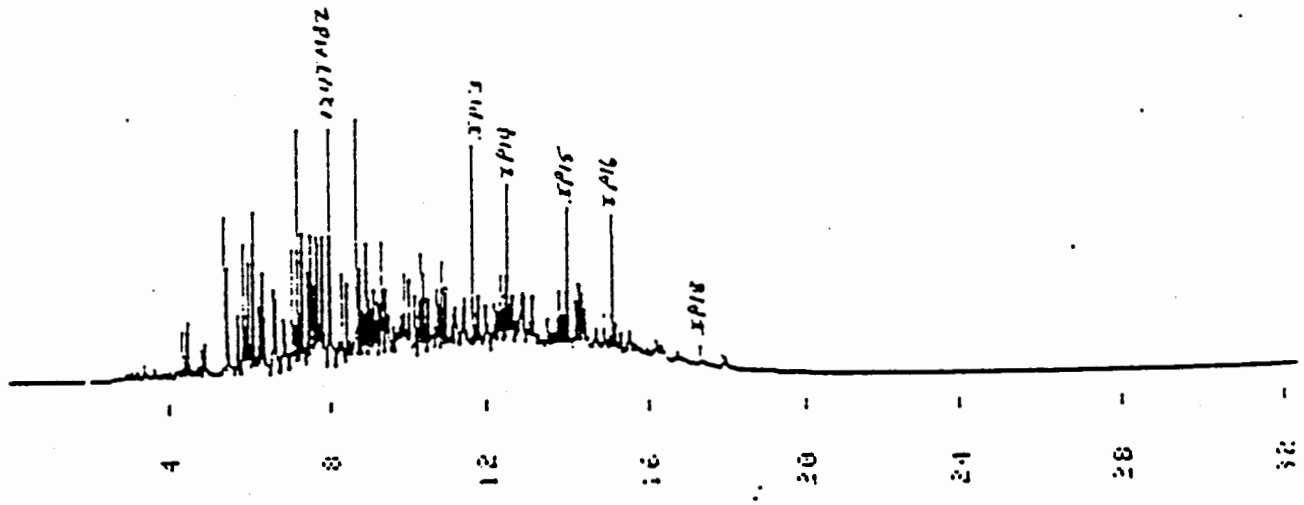


FIGURE 4: CHROMATOGRAPHIC SIGNATURE OF A KEROSENE PRODUCT AS ANALYZED AND ARTIFICIALLY DEGRADED (NORMALS WHITED OUT)

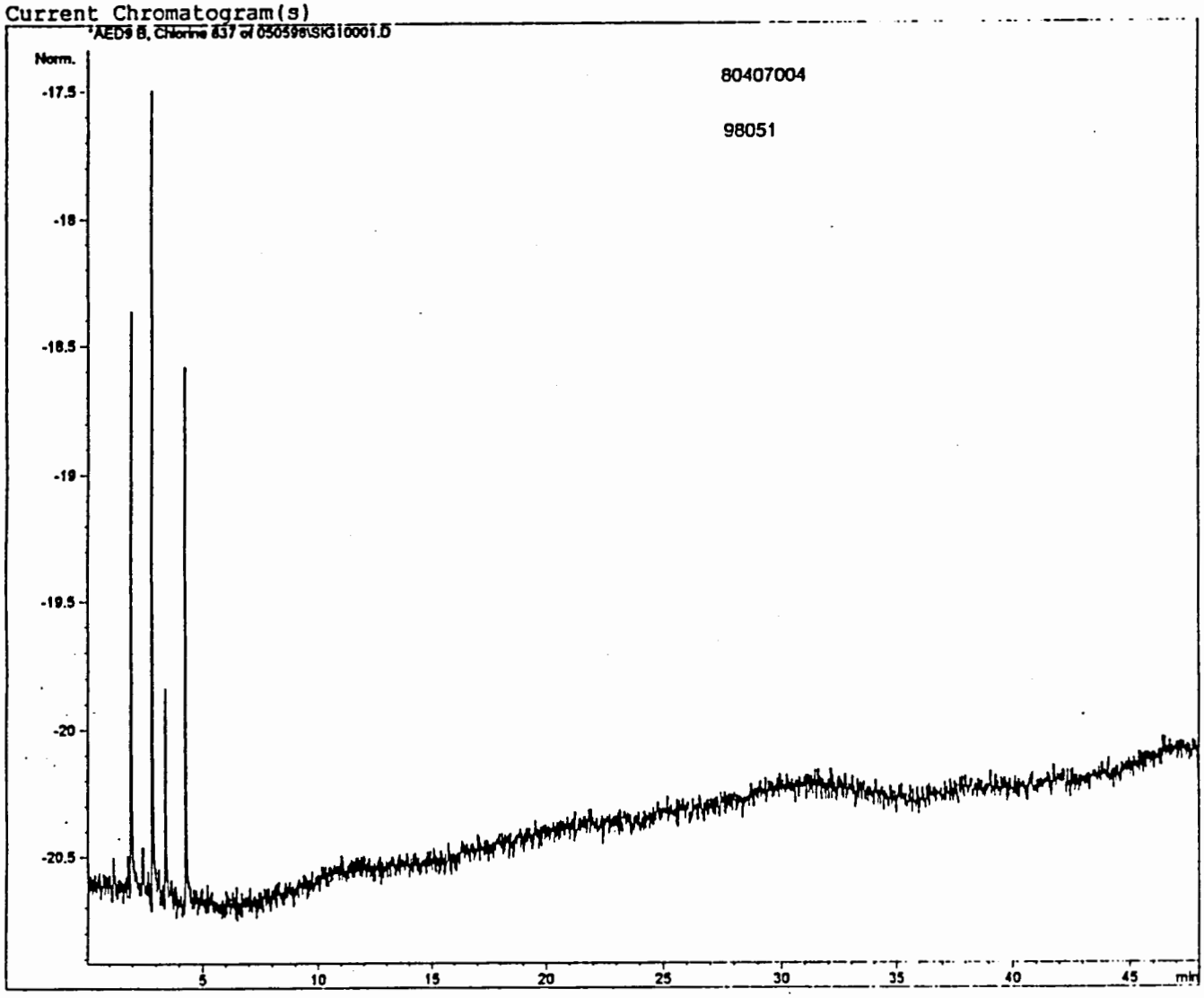


FIGURE 5: GC/AED CHROMATOGRAM FOR CHLORINE CONTAINING MOLECULES

CHAIN OF CUSTODY RECORD № 059400

RMT, INC. LABORATORIES

1500 Patrick Blvd Brookfield WI 53045

744 Heartland Trail, P.O. Box 8923 • Madison, WI 53708-8923 • Phone (608) 831-4444 • FAX (608) 831-7530

Project No.	Project/Client:
3777.06	Navistar

Project Manager/Contact Person: Dave Seitz

Lab No.	Yr. 98 Date	Time	Sample Station ID	Total Number Of Containers	MATRIX	Filtered (Yes/No) N	Preserved (Code) A	Analyses Requested for Discussion	Comments:
	4/1	10⁰⁰	Product	3	GW				fingerprint product

PRESERVED CODES
A - NONE
B - HNO_3
C - H_2SO_4
D - NaOH
E - HCl
F - METHANOL
G - _____

SPECIAL INSTRUCTIONS call w/ questions

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
Tim Fethke	4/1/98 4³⁰ pm	FEDEX	4/1/98 4³⁰ pm
Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
Fed Ex		Patricia J. Mucky	4/2/98 11⁰⁰ AM
Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
SI			

Custody Seal: Present/Absent Intact/Not Intact Seal #'s

HAZARDS ASSOCIATED WITH SAMPLES
- ☐ Flammable
- ☐ Corrosive
- ☐ Highly Toxic
- ☐ Other (list) _____

Turn Around (circle one) (Normal) Rush

Report Due _____

(For Lab Use Only)

Receipt Temp: Receipt pH

Temp Blank Y N (Wet/Metals)

F-268 (06/95) WHITE - LABORATORY COPY YELLOW - REPORT APPENDIX PINK - SAMPLER/SUBMITTER

APPENDIX I

DISPLAY CHROMATOGRAMS

ABBREVIATIONS USED TO IDENTIFY PEAKS

ABBREVIATIONS	HYDROCARBON
C1	METHANE
C2	ETHANE
C3	PROPANE
IC4	ISOBUTANE
NC4	NORMAL BUTANE
ETH	ETHANOL
22C3	2 2 DIMETHYL PROPANE
IC5	ISOPENTANE
NC5	NORMAL PENTANE
MeC2	METHYLENE CHLORIDE
22DMB	2 2 DIMETHYL BUTANE
23DMB	2 3 DIMETHYL BUTANE
2MP	2 METHYLPENTANE
3MP	3 METHYLPENTANE
NC6	NORMAL HEXANE
22DMP	2,2 DIMETHYLPENTANE
MCP	METHYLCYCLOPENTANE
24DMP	2,4 DIMETHYLPENTANE
BZ	BENZENE
CH	CYCLOHEXANE
2MH	2 METHYLHEXANE
23DMP	2,3 DIMETHYLPENTANE
3MH	3 METHYLHEXANE
T13DMCP	T13DIMETHYLCYCLOPENTANE
C13DMCP	C13DIMETHYLCYCLOPENTANE
224TMP	2,2,4 TRIMETHYLPENTANE(PRINCIPAL ISO-OCTANE)
NC7	NORMAL HEPTANE
234TMP	2,3,4 TRIMETHYLPENTANE(ISO-OCTANE)
MCH	METHYLCYCLOHEXANE
TOL	TOLUENE
23DMH	2,3 DIMETHYLHEXANE
2MC7	2METHYLHEPTANE
3MC7	3METHYLHEPTANE
224TMH	2,2,4 TRIMETHYLHEXANE
223TMH	2,2,3 TRIMETHYLHEXANE
NC8	NORMAL OCTANE
EBZ	ETHYL BENZENE
M+P XYL	META AND PARA XYLENES
O XYL	ORTHO XYLENE
NC9	NORMAL NONANE
N-PROPYL BZ	NORMAL PROPYL BENZENE
1M3EBZ	1METHYL3ETHYLBENZENE
135TMBZ	1,3,5 TRIMETHYLBENZENE
1M2EBZ	1METHYL2ETHYLBENZENE

ABBREVIATIONS USED TO IDENTIFY PEAKS

ABBREVIATIONS	HYDROCARBON
124TMBZ	1,2,4 TRIMETHYLBENZENE
NC10	NORMAL DECANE
123TMBZ	1,2,3 TRIMETHYLBENZENE (TERT BUTYL BENZENE COELUTES AT THIS POSITION)
NAPH	NAPHTHALENE
2M.NAPH	2METHYL NAPHTHALENE
1M.NAPH	1METHYL NAPHTHALENE

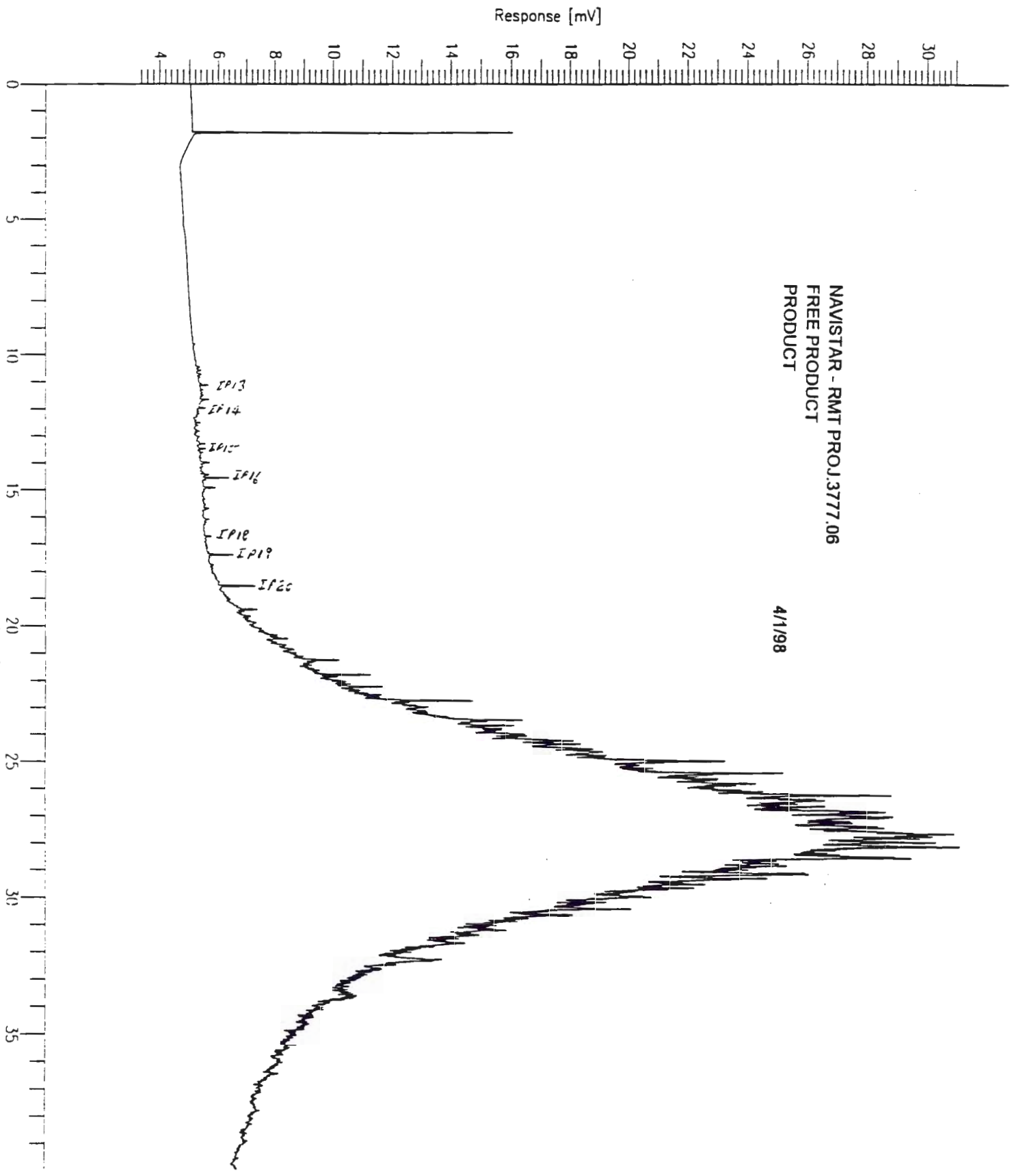
NC____ Normal paraffin with number of carbon atoms in molecule shown
IP____ Isoprenoid iso-paraffin with number C atoms in molecule shown

WWG II - 10S

18

mple Name : J98051 PRODUCT 10S
leName : C:\TC41\2WWG\72WW093.raw
thod : WWG2__10
art Time : 0.00 min End Time : 40.00 min
cale Factor: 1.0 Plot Offset: 3 mV

Sample #: 80407004 Page 1 of 1
Date : 4/16/98 01:27 PM
Time of Injection: 4/7/98 05:00 PM
Low Point : 3.36 mV High Point : 31.15 mV
Plot Scale: 27.8 mV

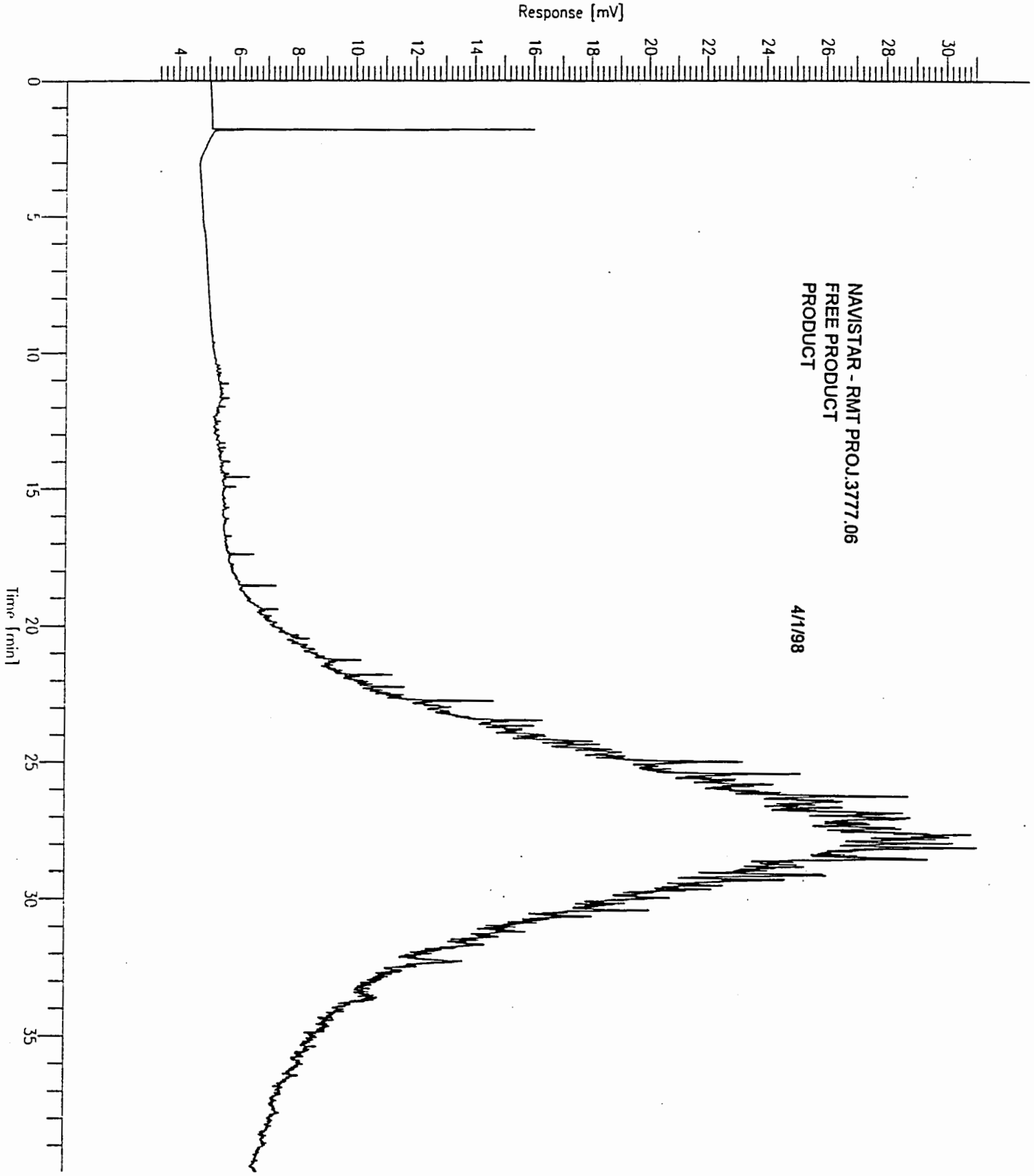


WWG II - 10S

CC

ample Name : J98051 PRODUCT 10S
leName : C:\TC41\2WWG\72WW093.raw
ethod : WWG2__10
tart Time : 0.00 min End Time : 40.00 min
cale Factor: 1.0 Plot Offset: 3 mV

Sample #: 80407004 Page 1 of 1
Date : 4/16/98 01:27 PM
Time of Injection: 4/7/98 05:00 PM
Low Point : 3.36 mV High Point : 31.15 mV
Plot Scale: 27.8 mV

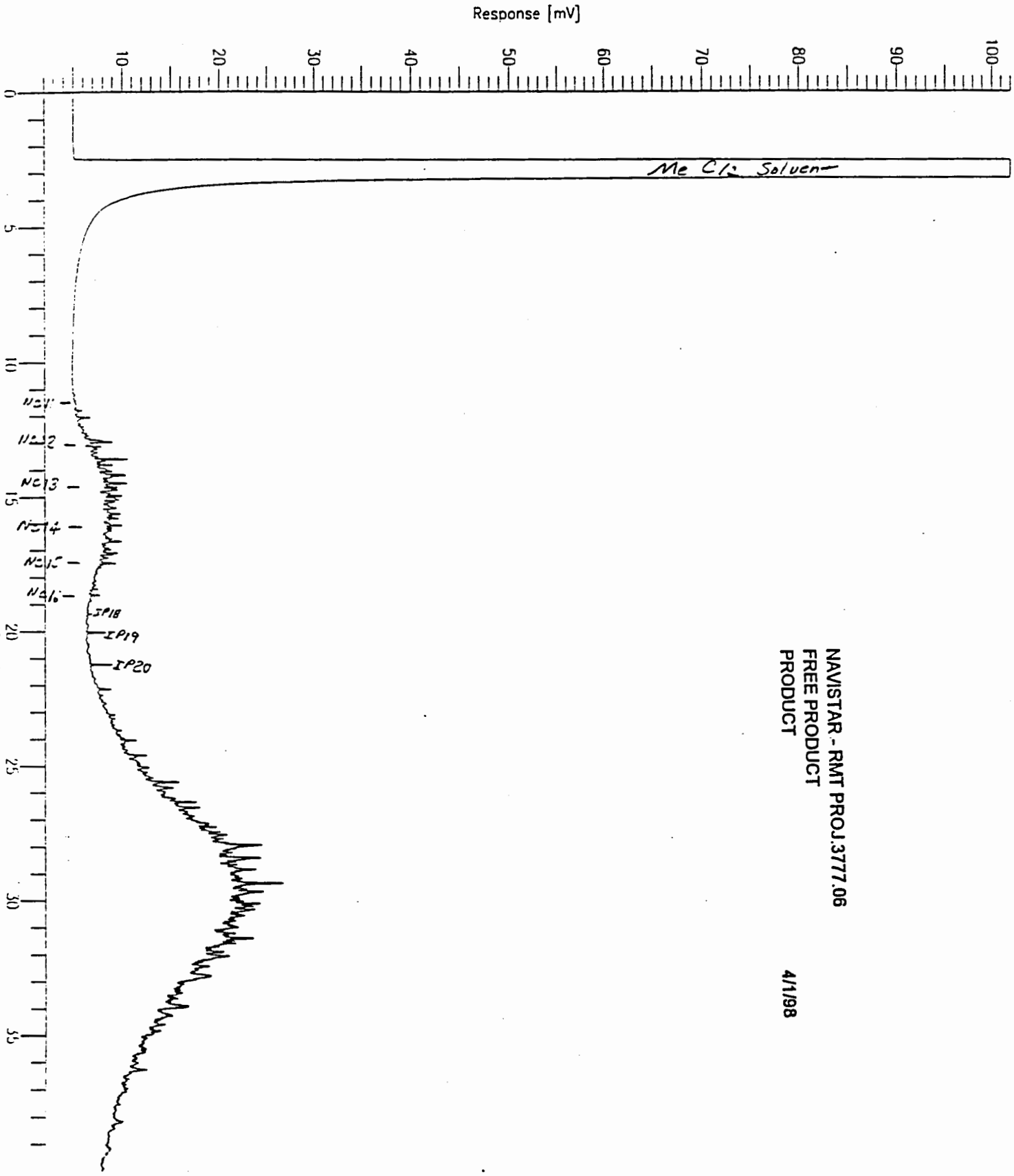


WORLD WIDE GEOSCIENCES - 1

GC

Sample Name : J98051 PRODUCT 1/10 10SL
Filename : C:\TC41\5WAG\5WAG067.RAW
Method : WAG.MTH
Start Time : 0.00 min End Time : 40.00 min
Sample Factor: 0.0 Plot Offset: 2 mV

Sample #: 80407004 Page 1 of 1
Date : 5/13/98 07:57 AM
Time of Injection: 5/6/98 03:11 PM
Low Point : 2.00 mV High Point : 102.00 mV
Plot Scale: 100.0 mV



NAVISTAR - RMT PROJ.3777.06
FREE PRODUCT
PRODUCT

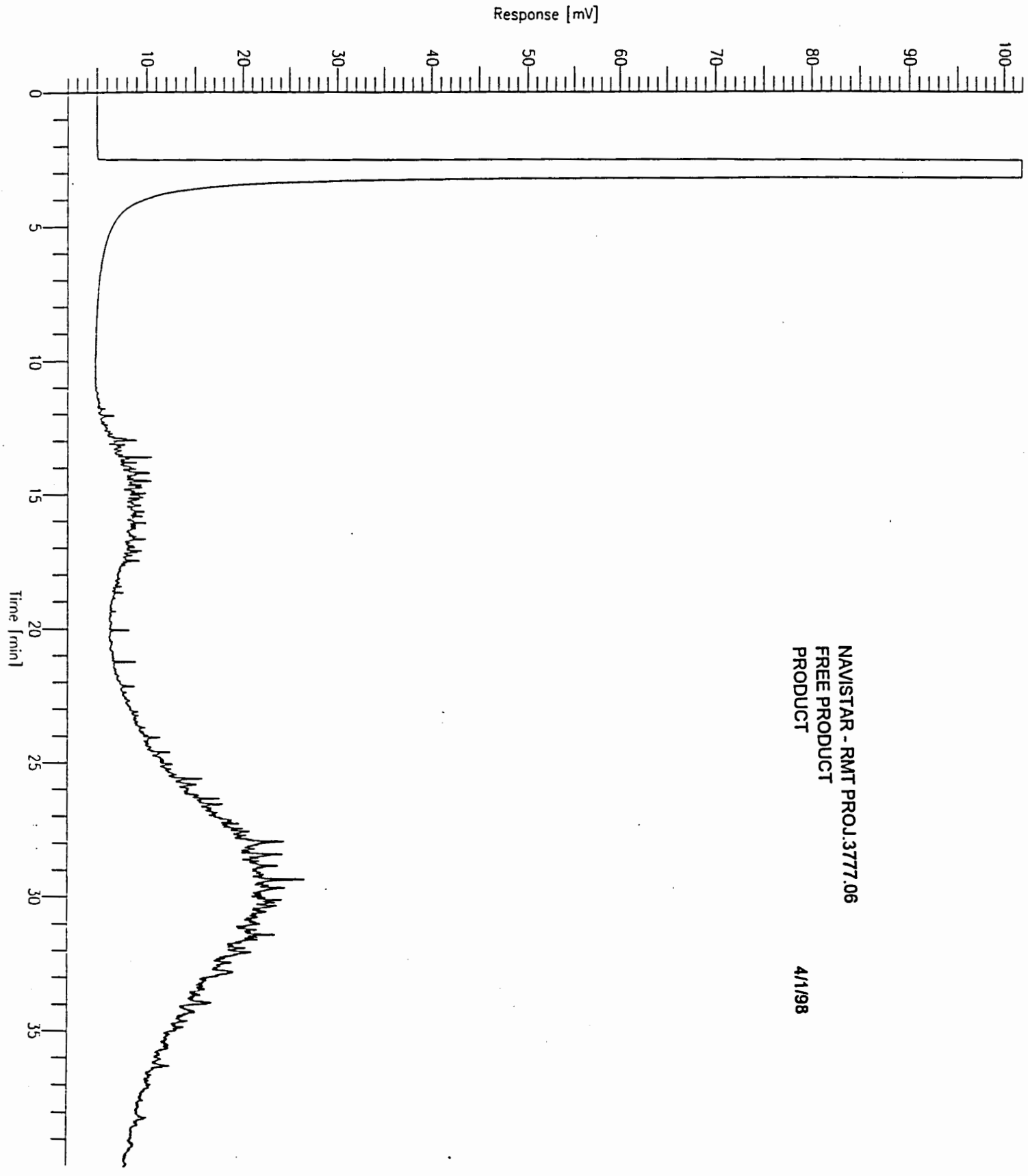
4/1/98

WORLD WIDE GEOSCIENCES - I

hc

ample Name : J98051 PRODUCT 1/10 10SL
leName : C:\TC41\5WWG\5WWG067.RAW
thod : WWG.MTH
art Time : 0.00 min End Time : 40.00 min
ale Factor: 0.0 Plot Offset: 2 mV

Sample #: 80407004 Page 1 of 1
Date : 5/13/98 07:57 AM
Time of Injection: 5/6/98 03:11 PM
Low Point : 2.00 mV High Point : 102.00 mV
Plot Scale: 100.0 mV



NAVISTAR - RMT PROJ.3777.06
FREE PRODUCT
PRODUCT

4/1/98

APPENDIX II

OPERATING CONDITIONS

GC OPERATING CONDITIONS

Instrument: Perkin-Elmer Autosystem

Column: 30m*0.25mm ID*0.25u Methyl Silicon, Restek Rtx-1
(Cat# 10138, Fused Silica Column; Bonded,
Non-Polar, Silicone Based Polymer Liquid Phase)

Carrier Gas: Helium
Linear Velocity = 30 cm/sec
Column Pressure 16.9 psig.

Injection Port: Split/Splitless Type
Temperature 300 deg C

Detector: Flame Ionization Type
Temperature 300 deg C
Range 1, Attn.4

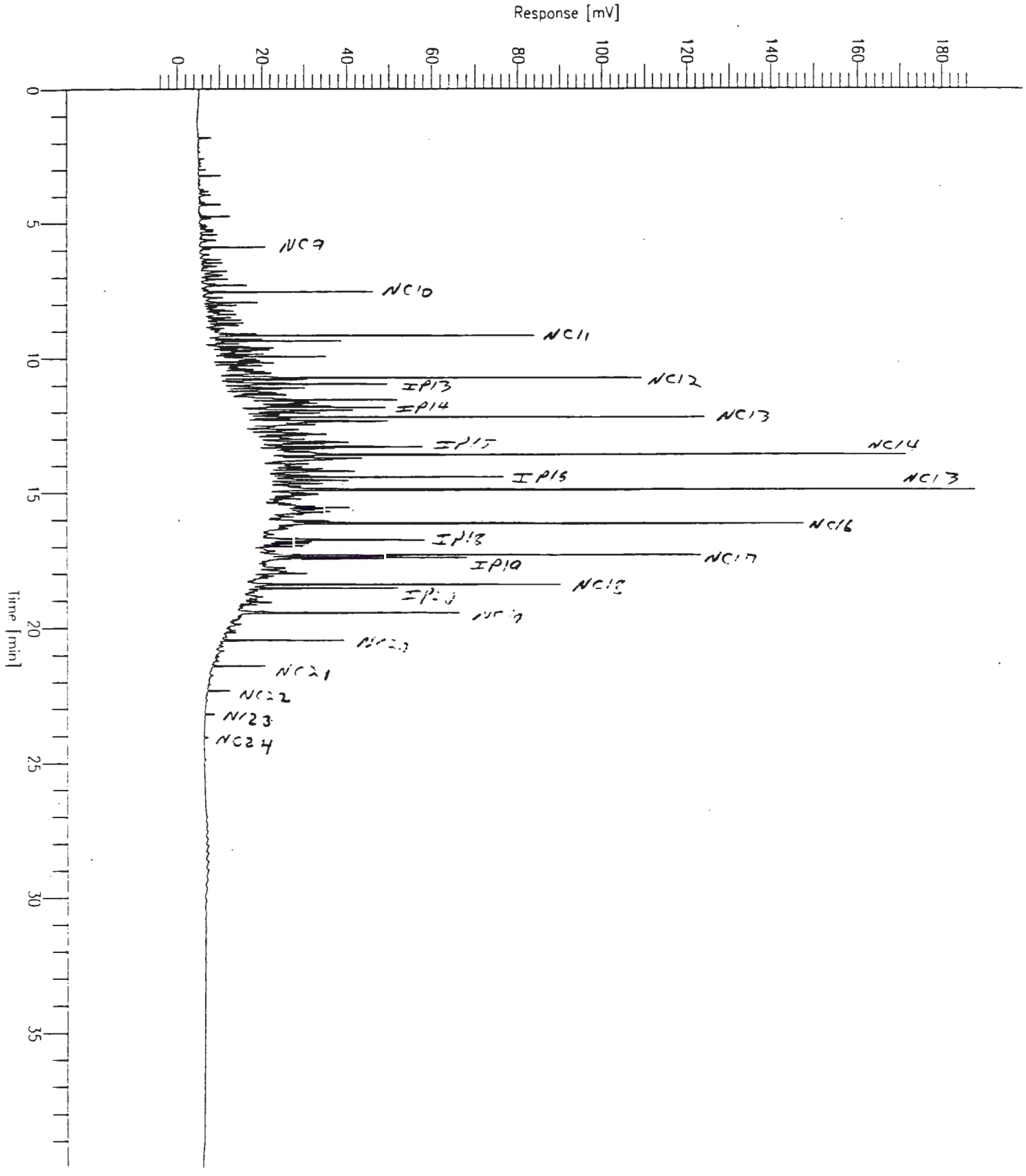
	Method 1	Method 2	Method 3	Method 4
Injection Type	Split	Split	Splitless	Splitless
Acronym	5/s	10/s	5/sl	10/sl
Split Vent	On	On	Off	Off
Split Vent Time,min	---	---	0.5	0.5
Split Rate ml/min	100	100	100	100
Initial Temp, deg C	30	30	30	30
Initial Time, min	5	1	5	1
Ramp Rate, deg C/min	5	10	5	10
Final Temp, deg C	300	300	300	300
Final Time, min	0	15	0	15
Run Time, min	40	40	40	40

WWG II - 10S

6c

Sample Name : D-2 10S
FileName : C:\TC41\2WWG\72WW092.raw
Method : WWG2__10
Start Time : 0.00 min End Time : 40.00 min
Scale Factor: 1.0 Plot Offset: -4 mV

Sample #: STANDARD Page 1 of 1
Date : 4/16/98 01:27 PM
Time of Injection: 4/7/98 03:35 PM
Low Point : -4.46 mV High Point : 187.92 mV
Plot Scale: 192.4 mV

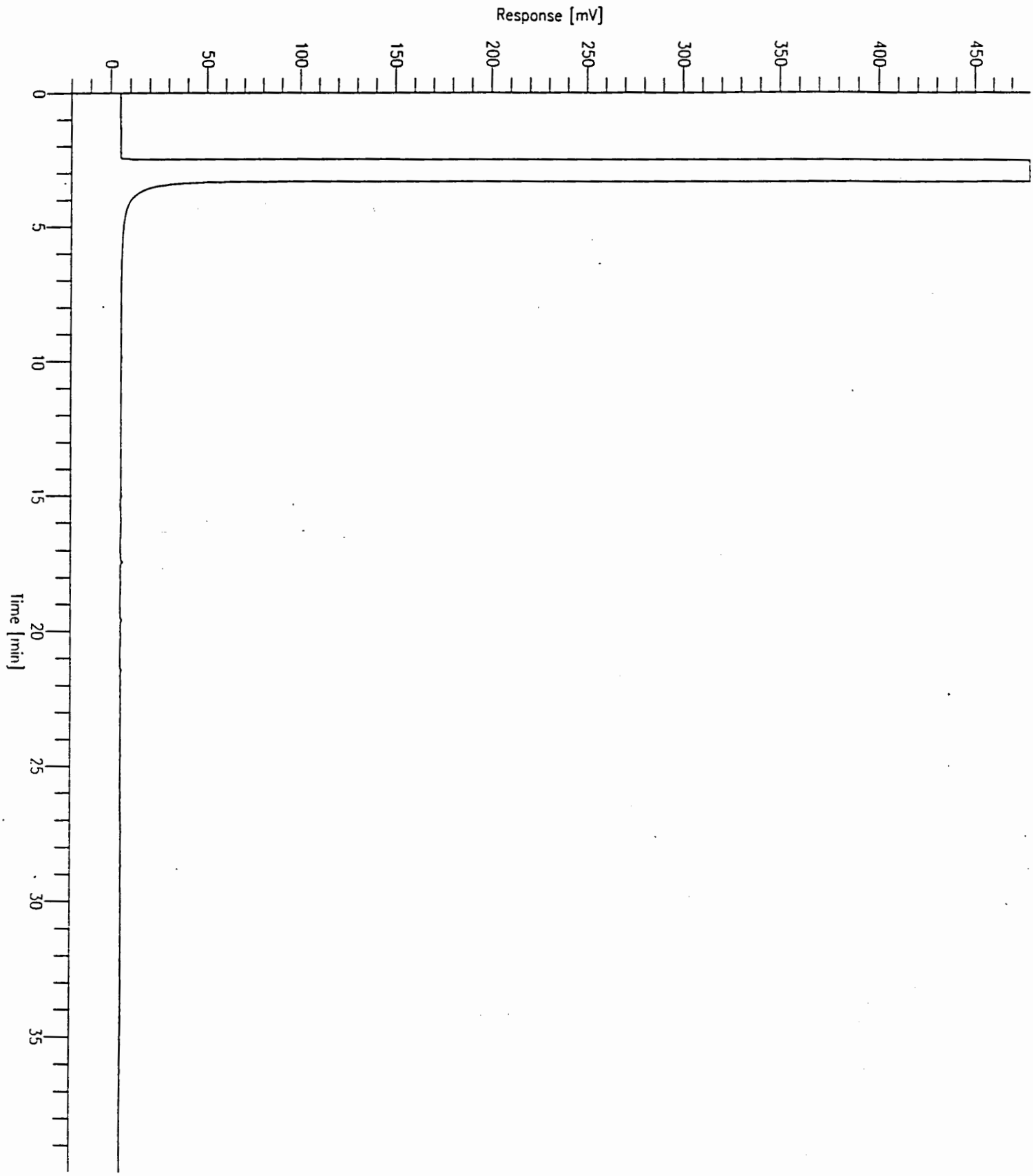


WWG I - 10 SL

30

Sample Name : BLANK
FileName : C:\TC41\5WWG\5WWG065.raw
Method : WWG1__10
Start Time : 0.00 min End Time : 40.00 min
Scale Factor: -1.0 Plot Offset: -20 mV

Sample #: BLANK Page 1 of 1
Date : 5/8/98 10:08 AM
Time of Injection: 5/6/98 01:26 PM
Low Point : -20.03 mV High Point : 479.97 mV
Plot Scale: 500.0 mV

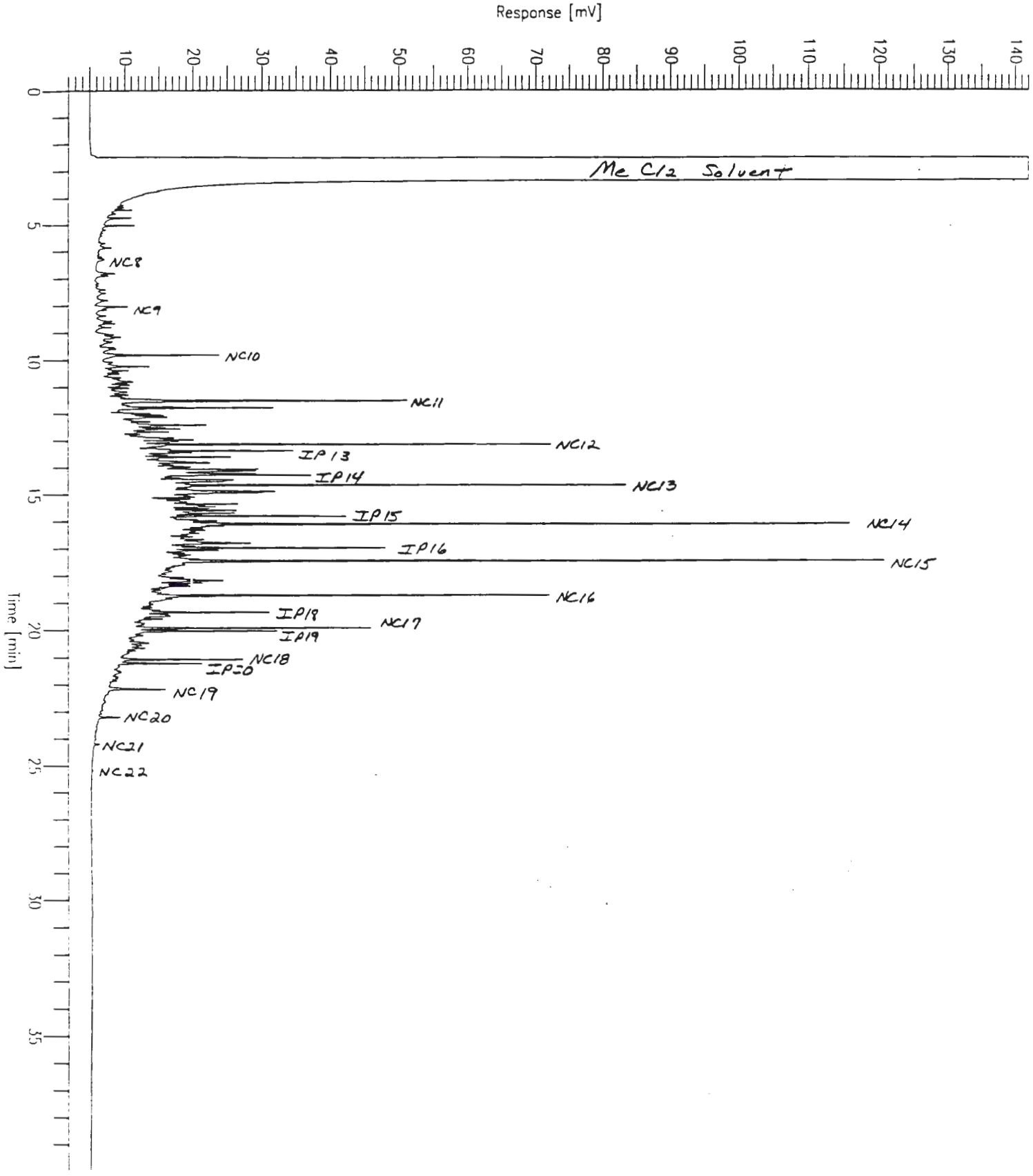


1E

WORLD WIDE GEOSCIENCES - I

Sample Name : D-2 10SL
FileName : C:\TC41\5WWG\5WWG066.RAW
Method : WWG.MTH
Start Time : 0.00 min End Time : 40.00 min
Scale Factor: 0.0 Plot Offset: 2 mV

Sample #: STANDARD Page 1 of 1
Date : 5/13/98 07:56 AM
Time of Injection: 5/6/98 02:19 PM
Low Point : 2.00 mV High Point : 142.00 mV
Plot Scale: 140.0 mV



APPENDIX III

VOLATILE TARGET COMPOUNDS BY EPA METHOD 8260

CONSCI

Worldwide Geosciences
6100 Corporate Drive
Houston, Texas 77036

May 8, 1998

Attn: Neil Peterson

Certificate #:80407004
Sample ID: J98051 Product
Date Received: April 7, 1998
Date Analyzed: May 7, 1998 @ 1500

GAS CHROMATOGRAPHY/MASS SPECTROMETRY
VOLATILE ANALYSIS BY EPA 8260

Compound	Concentration mg/L	Detection Limit mg/L
Trichlorofluoromethane	ND	0.50
Chloromethane	ND	0.50
Bromomethane	ND	0.50
Vinyl Chloride	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Chloroethane	ND	0.50
Methylene chloride	ND	0.50
1,1-Dichloroethene	ND	0.50
1,1-Dichloroethane	ND	0.50
Chloroform	ND	0.50
Bromodichloromethane	ND	0.50
Bromochloromethane	ND	0.50
1,1,1-Trichloroethane	24.1	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Trichloroethene	26.3	0.50

CONSOLIDATED SCIENCES. INCORPORATED 1416 SOUTHMORE PASADENA, TEXAS 77502 (713) 920-1696 FAX (713) 920-1648

CONSCI

Certificate #:80407004
Sample ID: J98051 Product
Date Received: April 7, 1998
Date Analyzed: May 7, 1998 @ 1500

GAS CHROMATOGRAPHY/MASS SPECTROMETRY
VOLATILE ANALYSIS BY EPA 8260

Compound	Concentration mg/L	Detection Limit mg/L
1,2-Dichloropropane	ND	0.50
1,1,2,2-Tetrachloroethane	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,2,3-Trichloropropane	ND	0.50
Toluene	ND	0.50
cis-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
Tetrachloroethene	ND	0.50
Chlorodibromomethane	ND	0.50
1,2-Dibromoethane	ND	0.50
Chlorobenzene	ND	0.50
1,1,1,2-Tetrachloroethane	ND	0.50
Ethylbenzene	ND	0.50
m+p-Xylene	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	0.50
1,3-Dichlorobenzene	ND	0.50
1,4-Dichlorobenzene	ND	0.50
1,2-Dichlorobenzene	ND	0.50

CONSOLIDATED SCIENCES. INCORPORATED 1416 SOUTHMORE PASADENA, TEXAS 77502 (713) 920-1696 FAX (713) 920-1648

CONSCI

Certificate #:80407004
Sample ID: J98051 Product
Date Received: April 7, 1998
Date Analyzed: May 7, 1998 @ 1500

GAS CHROMATOGRAPHY/MASS SPECTROMETRY
VOLATILE ANALYSIS BY EPA 8260

Surrogate Standard Recovery		Limits
1,2-Dichloroethane-d4	91 %	76-114 %
Toluene-d8	91 %	88-110 %
4-Bromofluorobenzene	93 %	86-115 %

Daniel M. Kowalski

DMK/gb

CONSOLIDATED SCIENCES, INCORPORATED 1416 SOUTHMORE PASADENA, TEXAS 77502 (713) 920-1696 FAX (713) 920-1648

Quantitation Report

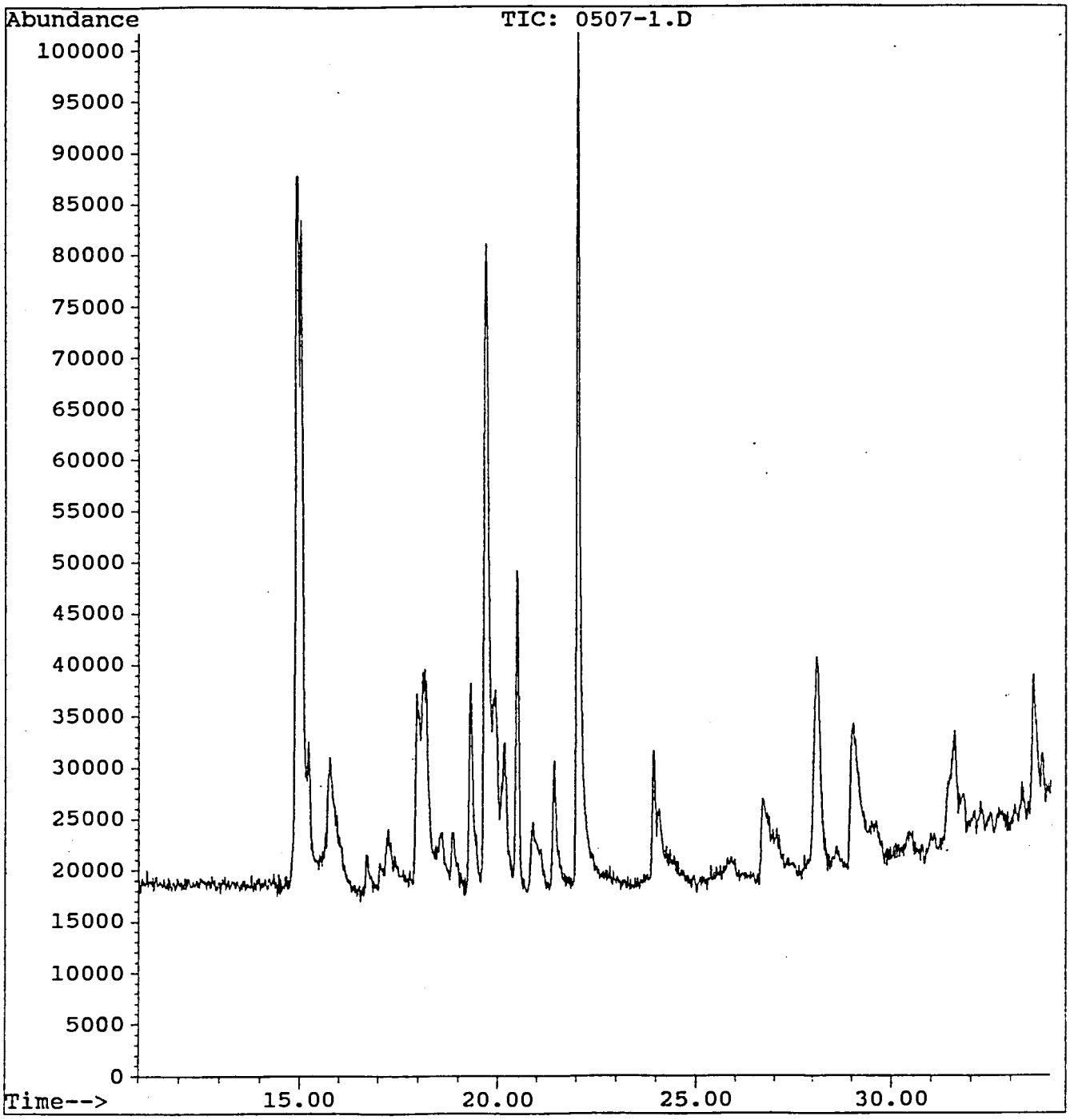
Data File : G:\DATAAQ\MASPEC-4\0507-1.D
Acq Time : 7 MAY 98 9:42 Operator:
Sample : 80407004 1/2 100ul Inst :
Misc : DL = 0.5 mg/L Multiplr: 100.00
Quant Time: May 7 15:03 1998

Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	20.12	49	10924	40.00 ug/L	0.08
14) 1,4-Difluorobenzene	21.42	114	38526	40.00 ug/L	0.04
27) Chlorobenzene-d5	26.70	117	34273	40.00 ug/L	0.09
System Monitoring Compounds					**%Recovery**
10) 1,2-Dichloroethane-d4	20.85	65	19918	36.40 ug/L	90.99%
21) Toluene-d8	23.93	98	61622	36.26 ug/L	90.64%
39) 4-Bromofluorobenzene	29.03	95	21635	37.32 ug/L	93.29%
Target Compounds					**Qvalue**
9) 1,1,1-Trichloroethane	20.48	97	47524	24112.10 ug/L	100
17) Trichloroethene	22.02	130	85739	26306.20 ug/L	100

(#) = qualifier out of range (m) = manual integration
0507-1.D 8260.M Thu May 07 16:55:33 1998

File : G:\DATAAQ\MASPEC-4\0507-1.D
Operator :
Acquired : 7 MAY 98 9:42 using AcqMethod
Instrument :
Sample Name:
Misc Info :
Vial Number: 0

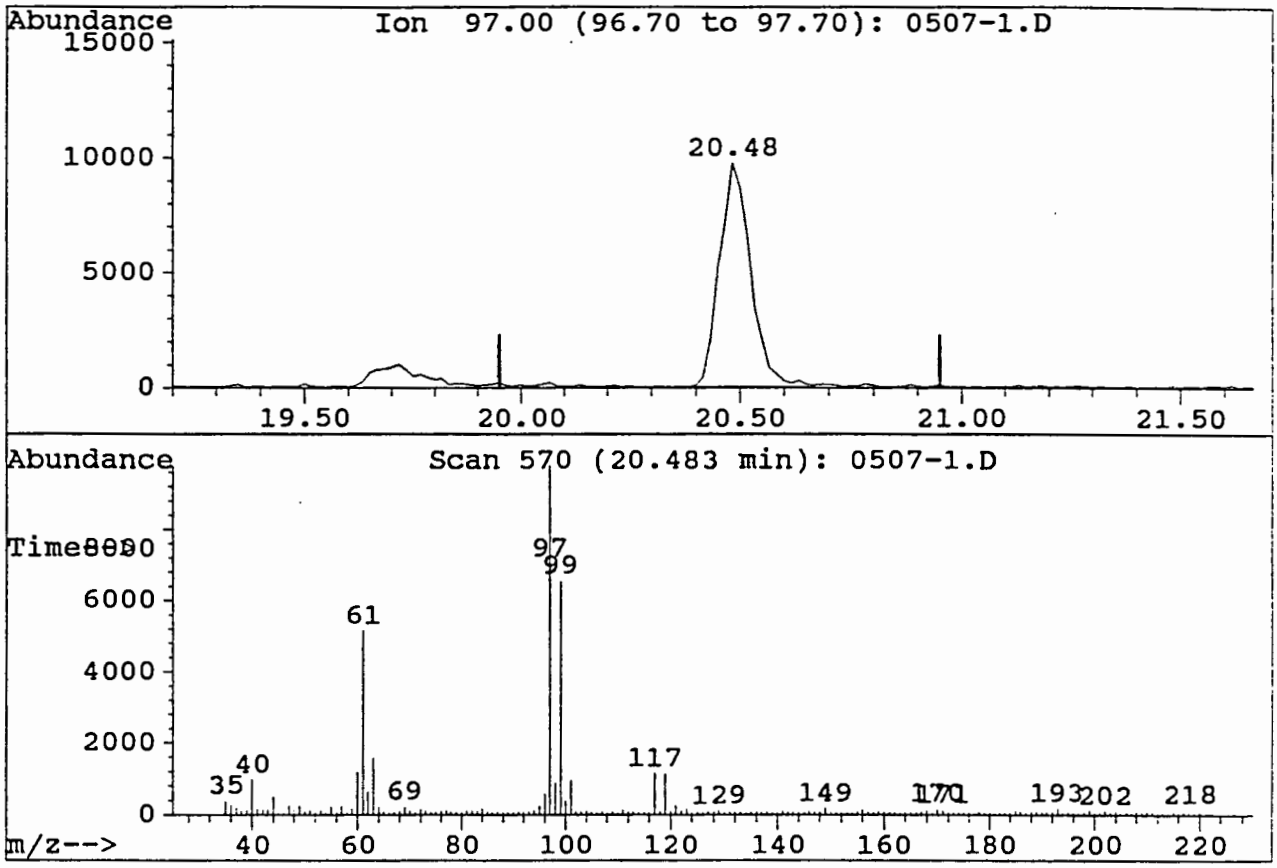


Quantitation Report

Data File : G:\DATAAQ\MASPEC-4\0507-1.D
Acq Time : 7 MAY 98 9:42
Sample :
Misc :
Quant Time: May 7 15:03 1998

Operator:
Inst :
Multiplr: 100.00

Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Multiple Level Calibration



TIC: 0507-1.D

(9) 1,1,1-Trichloroethane
20.48min 241.12ug/L
response 47524

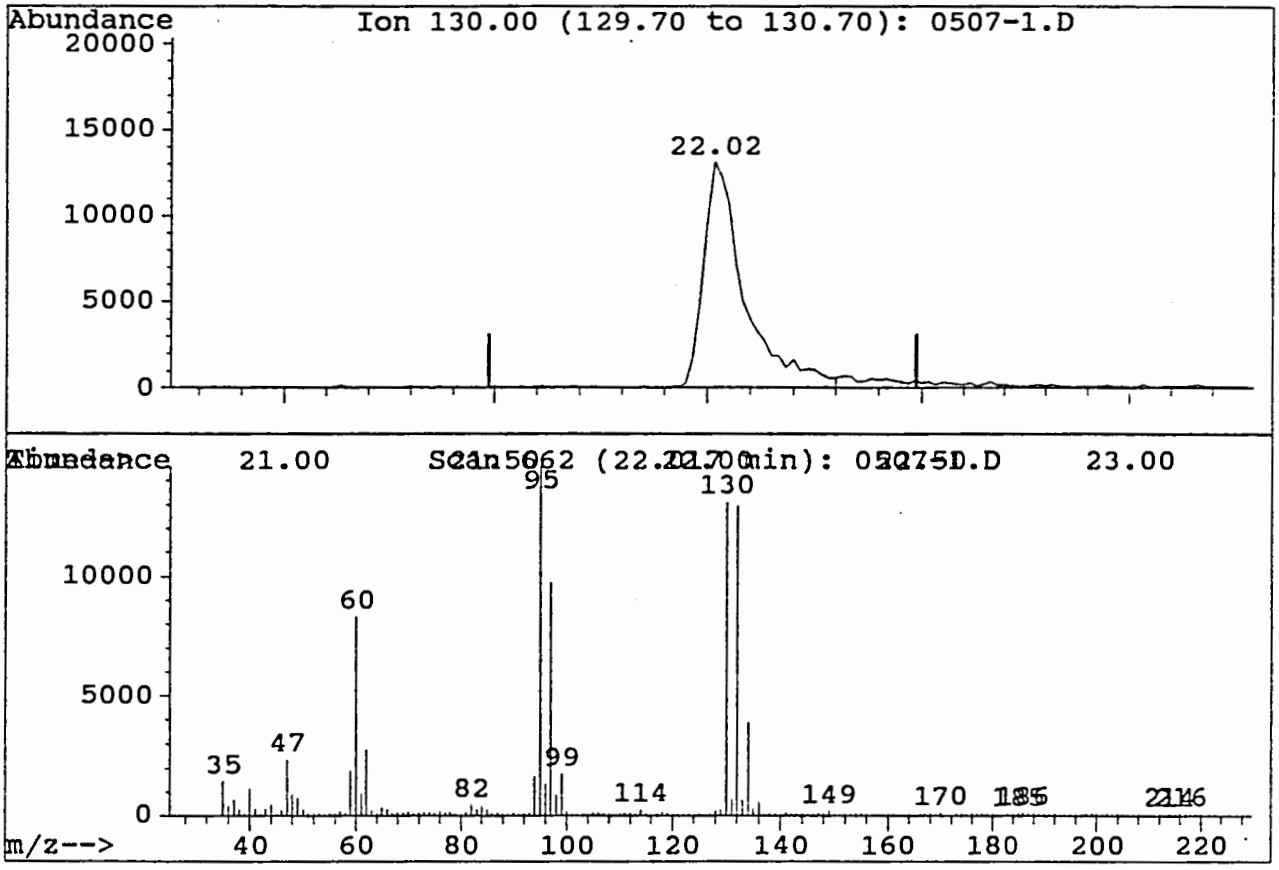
Ion	Exp%	Act%
97.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : G:\DATAAQ\MASPEC-4\0507-1.D
Acq Time : 7 MAY 98 9:42
Sample :
Misc :
Quant Time: May 7 15:03 1998

Operator:
Inst :
Multiplr: 100.00

Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Multiple Level Calibration



TIC: 0507-1.D

(17) Trichloroethene
22.02min 263.06ug/L
response 85739

Ion	Exp%	Act%
130.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : G:\DATAAQ\MASPEC-4\0507-3.D
Acq Time : 7 MAY 98 14:15 Operator:
Sample : 40 ppb std Inst :
Misc : DL = 0.005 mg/L Multiplr: 1.00
Quant Time: May 8 12:22 1998

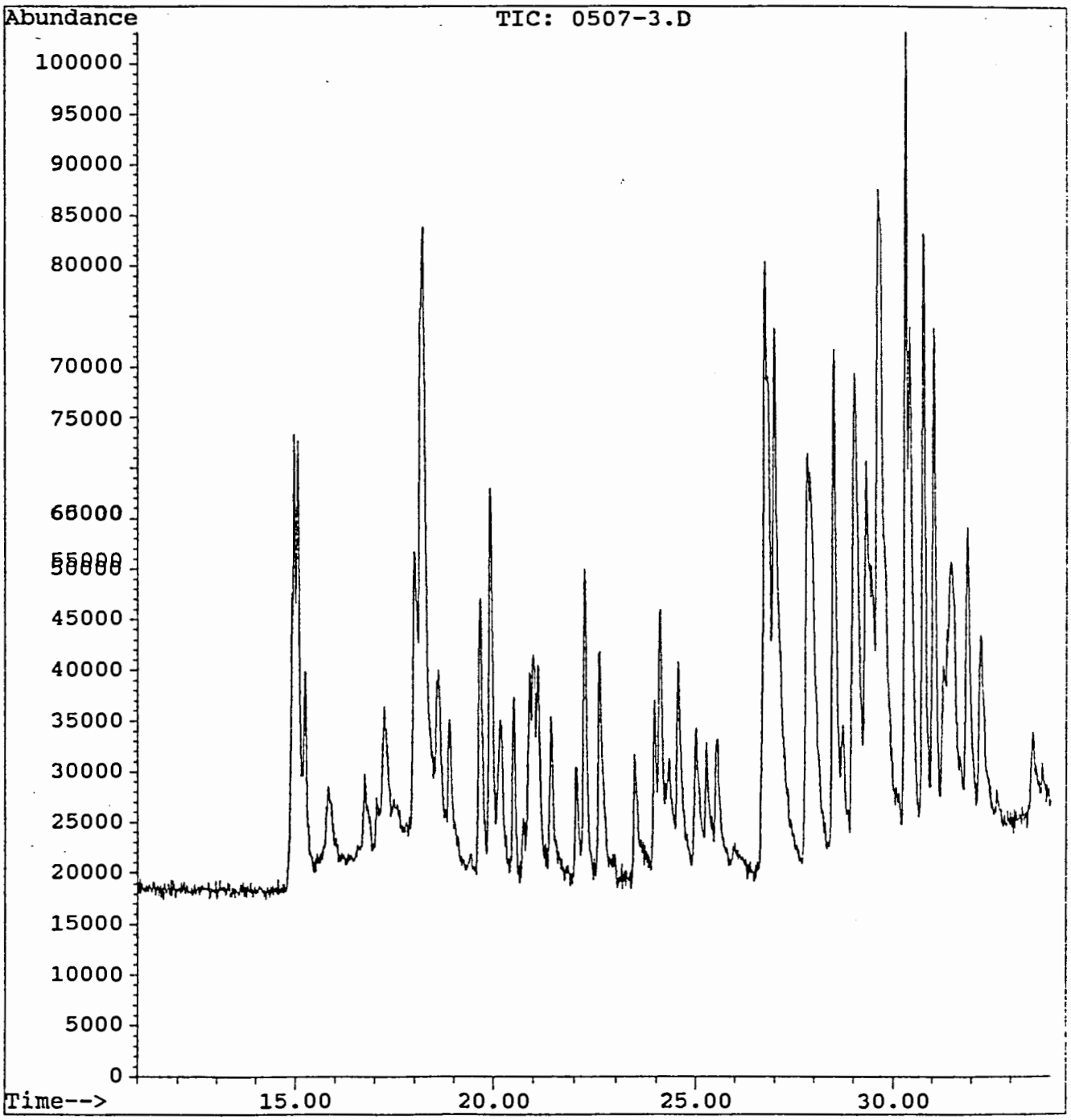
Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	20.13	49	17443	40.00	ug/L	0.10
14) 1,4-Difluorobenzene	21.43	114	42365	40.00	ug/L	0.06
27) Chlorobenzene-d5	26.72	117	59831	40.00	ug/L	0.11
System Monitoring Compounds						**%Recovery**
10) 1,2-Dichloroethane-d4	20.88	65	33434	38.26	ug/L	95.65%
21) Toluene-d8	23.97	98	71497	38.26	ug/L	95.64%
39) 4-Bromofluorobenzene	28.98	95	42802	42.29	ug/L	105.72%
Target Compounds						**Qvalue**
2) 1,1-Dichloroethene	17.48	96	9305	27.38	ug/L	100
3) Methylene Chloride	17.98	84	52258	11.13	ug/L	100
4) cis-1,2-Dichloroethene	18.45	96	8560	30.69	ug/L	100
5) 1,1-Dichloroethane	18.88	63	29538	37.04	ug/L	100
6) 2,2-Dichloropropane	19.65	77	15094	39.50	ug/L	100
7) trans-1,2-Dichloroethene	19.72	96	12881	33.66	ug/L	100
8) Bromochloromethane	20.10	128	4934	32.60	ug/L	100
9) 1,1,1-Trichloroethane	20.52	97	15450	49.09	ug/L	100
11) 1,2-Dichloroethane	21.00	62	33767	43.42	ug/L	100
12) Bromodichloromethane	22.60	83	17471	49.73	ug/L	100
13) 1,3-Dichloropropane	25.02	76	25004	38.46	ug/L	100
15) Chloroform	19.90	83	34733	41.94	ug/L	100
16) Benzene	21.12	78	81839	37.94	ug/L	100
17) Trichloroethene	22.05	130	15056	42.01	ug/L	100
18) 1,2-Dichloropropane	22.25	63	35215	49.65	ug/L	100
19) Dibromomethane	22.72	93	11435	46.20	ug/L	100
20) 1,3-Dichloropropene	23.47	75	33827	59.55	ug/L	100
22) Toluene	24.08	92	47517	38.34	ug/L	100
23) 1,1-Dichloropropene	24.32	75	15693	35.20	ug/L	100
24) 1,1,2-Trichloroethane	24.57	97	11826	36.83	ug/L	100
25) Tetrachloroethene	25.28	164	7737	50.46	ug/L	100
26) Dibromochloromethane	25.55	129	6521	37.83	ug/L	100
28) Carbon tetrachloride	20.92	117	9627	37.51	ug/L	100
29) 1,2-Dibromoethane	26.07	107	11659	28.64	ug/L	100
30) Chlorobenzene	26.77	112	49859	33.78	ug/L	100
31) 1,1,1,2-Tetrachloroethane	26.73	131	11509	47.17	ug/L	100
32) Ethylbenzene	26.83	91	70202	27.76	ug/L	100
33) m+p-Xylene	26.98	91	146070	46.13	ug/L	100
34) o-Xylene	27.80	91	98218	51.76	ug/L	100
35) Styrene	27.92	104	53449	32.82	ug/L	100
36) Bromoform	28.24	173	2380	64.76	ug/L	100
37) Isopropylbenzene	28.48	105	131667	59.88	ug/L	100
38) 1,1,2,2-Tetrachloroethane	28.73	83	14541	47.03	ug/L	100
40) 1,2,3-Trichloropropane	29.02	75	40869	55.62	ug/L	100
41) 2-Chlorotoluene	29.20	91	137091	39.61	ug/L	100
42) n-Propylbenzene	29.32	120	23642	31.84	ug/L	100

43) Bromobenzene	29.43	77	39343	30.58 ug/L	100
44) 1,3,5-Trimethylbenzene	29.51	105	51515	42.14 ug/L	100
45) sec-Butylbenzene	29.60	105	131367	57.67 ug/L	100
46) 4-Chlorotoluene	29.77	91	92094	41.57 ug/L	100
47) 1,2,4-Trimethylbenzene	30.40	105	107768	45.65 ug/L	100
48) 1,2-Dichlorobenzene	31.27	146	26647	40.22 ug/L	100
49) 1,3-Dichlorobenzene	31.48	146	32148	44.13 ug/L	100
50) tert-Butylbenzene	31.70	119	21044	18.15 ug/L	100
51) n-Butylbenzene	31.88	91	87823	47.61 ug/L	100
52) 1,4-Dichlorobenzene	32.13	146	22391	37.14 ug/L	100
53) p-Isopropyltoluene	32.22	119	1633	27.71 ug/L	100

(#) = qualifier out of range (m) = manual integration
0507-3.D 8260.M Fri May 08 14:13:53 1998

File : G:\DATAAQ\MASPEC-4\0507-3.D
Operator :
Acquired : 7 MAY 98 14:15 using AcqMethod
Instrument :
Sample Name:
Misc Info :
Vial Number: 0



Quantitation Report

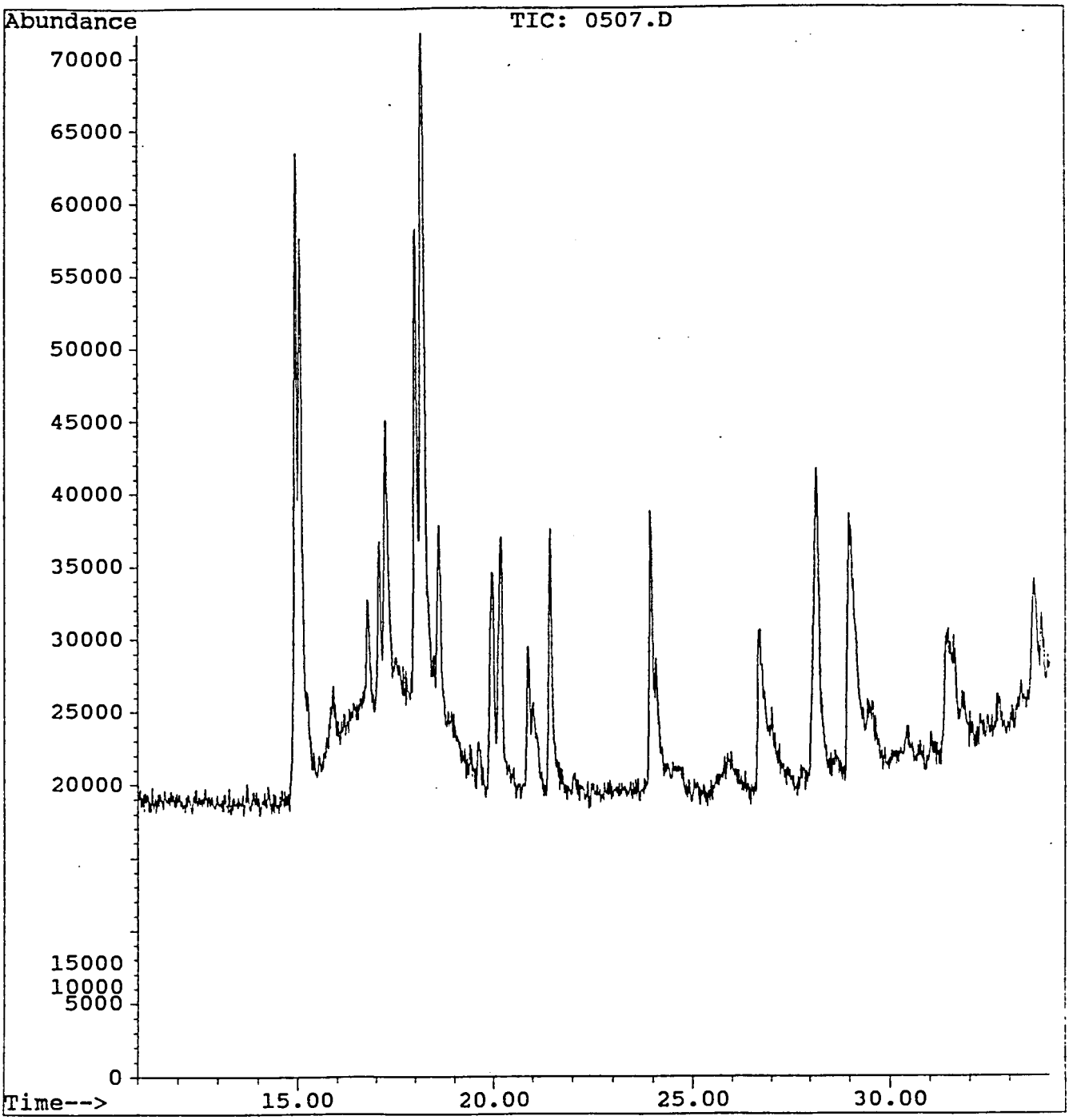
Data File : G:\DATAAQ\MASPEC-4\0507.D
Acq Time : 7 MAY 98 8:45 Operator:
Sample : Blank Inst :
Misc : DL = 0.005 mg/L Multiplr: 1.00
Quant Time: May 7 14:50 1998

Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	20.12	49	19579	40.00	ug/L	0.08
14) 1,4-Difluorobenzene	21.43	114	46915	40.00	ug/L	0.06
27) Chlorobenzene-d5	26.67	117	32514	40.00	ug/L	0.06
System Monitoring Compounds						**%Recovery**
10) 1,2-Dichloroethane-d4	20.85	65	37491	38.22	ug/L	95.56%
21) Toluene-d8	23.93	98	77476	37.43	ug/L	93.59%
39) 4-Bromofluorobenzene	28.98	95	20010	36.38	ug/L	90.95%
Target Compounds						**Qvalue**

(#) = qualifier out of range (m) = manual integration
0507.D 8260.M Thu May 07 16:40:39 1998

File : G:\DATAAQ\MASPEC-4\0507.D
Operator :
Acquired : 7 MAY 98 8:45 using AcqMethod
Instrument :
Sample Name:
Misc Info :
Vial Number: 0



Compound List Report

Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Initial Calibration
Total Cpnds : 53

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1		Bromochloromethane	49	20.03	1.000	A	0	A	B
2		1,1-Dichloroethene	96	17.34	0.866	A	0	A	B
3		Methylene Chloride	84	17.85	0.891	A	0	A	B
4		cis-1,2-Dichloroethene	96	18.30	0.913	A	0	A	B
5		1,1-Dichloroethane	63	18.79	0.938	A	0	A	B
6		2,2-Dichloropropane	77	19.58	0.978	A	0	A	B
7		trans-1,2-Dichloroethene	96	19.60	0.978	A	0	A	B
8		Bromochloromethane	128	20.02	0.999	A	0	A	B
9		1,1,1-Trichloroethane	97	20.45	1.021	A	0	A	B
10	S	1,2-Dichloroethane-d4	65	20.80	1.038	A	0	A	B
11		1,2-Dichloroethane	62	20.93	1.045	A	0	A	B
12		Bromodichloromethane	83	22.56	1.126	A	0	A	B
13		1,3-Dichloropropane	76	24.92	1.244	A	0	A	B
14		1,4-Difluorobenzene	114	21.38	1.000	A	0	A	B
15		Chloroform	83	19.84	0.928	A	0	A	B
16		Benzene	78	21.06	0.985	A	0	A	B
17		Trichloroethene	130	21.99	1.028	A	0	A	B
18		1,2-Dichloropropane	63	22.21	1.039	A	0	A	B
19		Dibromomethane	93	22.62	1.058	A	0	A	B
20		1,3-Dichloropropene	75	23.39	1.094	A	0	A	B
21	S	Toluene-d8	98	23.91	1.118	A	0	A	B
22		Toluene	92	24.05	1.125	A	0	A	B
23		1,1-Dichloropropene	75	24.21	1.132	A	0	A	B
24		1,1,2-Trichloroethane	97	24.52	1.147	A	0	A	B
25		Tetrachloroethene	164	25.24	1.181	A	0	A	B
26		Dibromochloromethane	129	25.48	1.192	A	0	A	B
27		Chlorobenzene-d5	117	26.61	1.000	A	0	A	B
28		Carbon tetrachloride	117	20.85	0.784	A	0	A	B
29		1,2-Dibromoethane	107	25.86	0.972	A	0	A	B
30		Chlorobenzene	112	26.68	1.003	A	0	A	B
31		1,1,1,2-Tetrachloroethane	131	26.72	1.004	A	0	A	B
32		Ethylbenzene	91	26.78	1.006	A	0	A	B
33		m+p-Xylene	91	26.93	1.012	A	0	A	B
34		o-Xylene	91	27.76	1.043	A	0	A	B
35		Styrene	104	27.79	1.044	A	0	A	B
36		Bromoform	173	28.41	1.068	A	0	A	B
37		Isopropylbenzene	105	28.44	1.069	A	0	A	B
38		1,1,2,2-Tetrachloroethane	83	28.68	1.078	A	0	A	B
39	S	4-Bromofluorobenzene	95	28.91	1.086	A	0	A	B
40		1,2,3-Trichloropropane	75	28.94	1.088	A	0	A	B
41		2-Chlorotoluene	91	29.24	1.099	A	0	A	B
42		n-Propylbenzene	120	29.24	1.099	A	0	A	B
43		Bromobenzene	77	29.33	1.102	A	0	A	B
44		1,3,5-Trimethylbenzene	105	29.44	1.106	A	0	A	B
45		sec-Butylbenzene	105	29.56	1.111	A	0	A	B
46		4-Chlorotoluene	91	29.61	1.113	A	0	A	B
47		1,2,4-Trimethylbenzene	105	30.36	1.141	A	0	A	B
48		1,2-Dichlorobenzene	146	31.19	1.172	A	0	A	B
49		1,3-Dichlorobenzene	146	31.38	1.179	A	0	A	B

50	tert-Butylbenzene	119	31.79	1.195	A	0	A	B
51	n-Butylbenzene	91	31.83	1.196	A	0	A	B
52	1,4-Dichlorobenzene	146	32.15	1.208	A	0	A	B
53	p-Isopropyltoluene	119	32.12	1.207	A	0	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

8260.M Fri May 08 14:18:24 1998

Response Factor Report

Method : C:\HPCHEM\METHODS\8260.M
Title : EPA 8260 Volatiles
Last Update : Wed Jul 30 16:44:45 1997
Response via : Initial Calibration

Calibration Files
80 =0729-4.D 60 =0729-3.D 40 =0729-2.D
20 =0729-1.D 10 =0729.D

		Compound	80	60	40	20	10	Avg	%RSD
1)		Bromochloromethane	ISTD						
2)		1,1-Dichloroethene	0.746	0.753	0.686	0.852	0.860	0.779	9.59
3)		Methylene Chloride	4.939	6.176	7.418	12.537	22.771	10.768	67.84
4)		cis-1,2-Dichloroethene	0.579	0.597	0.579	0.700	0.742	0.640	11.97
5)		1,1-Dichloroethane	1.748	1.719	1.745	1.934	1.999	1.829	7.00
6)		2,2-Dichloropropane	0.803	0.823	0.948	0.948	0.860	0.876	7.84
7)		trans-1,2-Dichloroethene	0.844	0.900	0.815	0.907	0.921	0.877	5.21
8)		Bromochloromethane	0.269	0.250	0.208	0.360	0.649	0.347	51.15
9)		1,1,1-Trichloroethane	0.663	0.664	0.791	0.727	0.763	0.722	8.00
10)	S	1,2-Dichloroethane-d4	0.699	0.973	1.255	2.451	4.641	2.004	80.78
11)		1,2-Dichloroethane	1.873	1.812	1.575	1.743	1.914	1.783	7.47
12)		Bromodichloromethane	0.799	0.770	0.862	0.778	0.819	0.806	4.59
13)		1,3-Dichloropropane	1.565	1.532	1.420	1.472	1.467	1.491	3.85
14)		1,4-Difluorobenzene	ISTD						
15)		Chloroform	0.741	0.739	0.766	0.813	0.851	0.782	6.24
16)		Benzene	1.649	1.765	1.975	2.236	2.560	2.037	18.07
17)		Trichloroethene	0.318	0.317	0.343	0.340	0.375	0.338	6.96
18)		1,2-Dichloropropane	0.567	0.622	0.696	0.711	0.752	0.670	11.07
19)		Dibromomethane	0.221	0.230	0.246	0.239	0.232	0.234	3.97
20)		1,3-Dichloropropene	0.436	0.473	0.585	0.578	0.610	0.536	14.33
21)	S	Toluene-d8	0.493	0.706	1.103	2.135	4.387	1.765	90.45
22)		Toluene	0.898	0.974	1.127	1.264	1.588	1.170	23.34
23)		1,1-Dichloropropene	0.347	0.380	0.463	0.461	0.454	0.421	12.77
24)		1,1,2-Trichloroethane	0.286	0.305	0.296	0.312	0.317	0.303	4.14
25)		Tetrachloroethene	0.125	0.140	0.154	0.155	0.150	0.145	8.73
26)		Dibromochloromethane	0.148	0.147	0.169	0.165	0.184	0.163	9.53
27)		Chlorobenzene-d5	ISTD						
28)		Carbon tetrachloride	0.121	0.122	0.209	0.186	0.219	0.172	27.53
29)		1,2-Dibromoethane	0.264	0.248	0.289	0.267	0.293	0.272	6.90
30)		Chlorobenzene	0.939	0.984	1.070	0.994	0.946	0.987	5.32
31)		1,1,1,2-Tetrachloroethane	0.139	0.136	0.176	0.167	0.197	0.163	15.63
32)		Ethylbenzene	1.651	1.647	1.687	1.774	1.695	1.691	3.02
33)		m+p-Xylene	2.209	2.257	2.064	1.924	2.131	2.117	6.17
34)		o-Xylene	1.418	1.388	1.127	1.092	1.318	1.269	11.85
35)		Styrene	1.179	1.191	0.989	0.987	1.097	1.089	9.08
36)		Bromoform	0.021	0.022	0.030	0.020	0.030	0.025	21.19
37)		Isopropylbenzene	1.524	1.570	1.245	1.311	1.701	1.470	12.81
38)		1,1,2,2-Tetrachloroethane	0.193	0.183	0.185	0.171	0.301	0.207	25.81
39)	S	4-Bromofluorobenzene	0.300	0.387	0.414	0.837	1.444	0.677	70.45
40)		1,2,3-Trichloropropane	0.348	0.370	0.367	0.465	0.907	0.491	48.17
41)		2-Chlorotoluene	1.598	1.621	1.742	2.023	4.586	2.314	55.37
42)		n-Propylbenzene	0.366	0.363	0.403	0.448	0.902	0.496	46.21
43)		Bromobenzene	0.833	0.858	0.726	0.784	1.101	0.860	16.73
44)		1,3,5-Trimethylbenzene	0.775	0.773	0.716	0.794	1.028	0.817	14.87
45)		sec-Butylbenzene	1.425	1.392	1.305	1.890	1.603	1.523	15.23

46)	4-Chlorotoluene	1.143	1.174	1.147	1.270	2.673	1.481	45.11
47)	1,2,4-Trimethylbenzene	1.439	1.482	1.315	1.939	1.715	1.578	15.74
48)	1,2-Dichlorobenzene	0.411	0.485	0.378	0.448	0.493	0.443	11.04
49)	1,3-Dichlorobenzene	0.492	0.518	0.413	0.566	0.445	0.487	12.37
50)	tert-Butylbenzene	0.715	0.715	0.661	0.785	1.000	0.775	17.17
51)	n-Butylbenzene	1.170	1.444	0.709	1.228	1.614	1.233	27.74
52)	1,4-Dichlorobenzene	0.411	0.427	0.343	0.463	0.371	0.403	11.67
53)	p-Isopropyltoluene	0.050	0.047	0.036	0.018	0.045	0.039	32.85

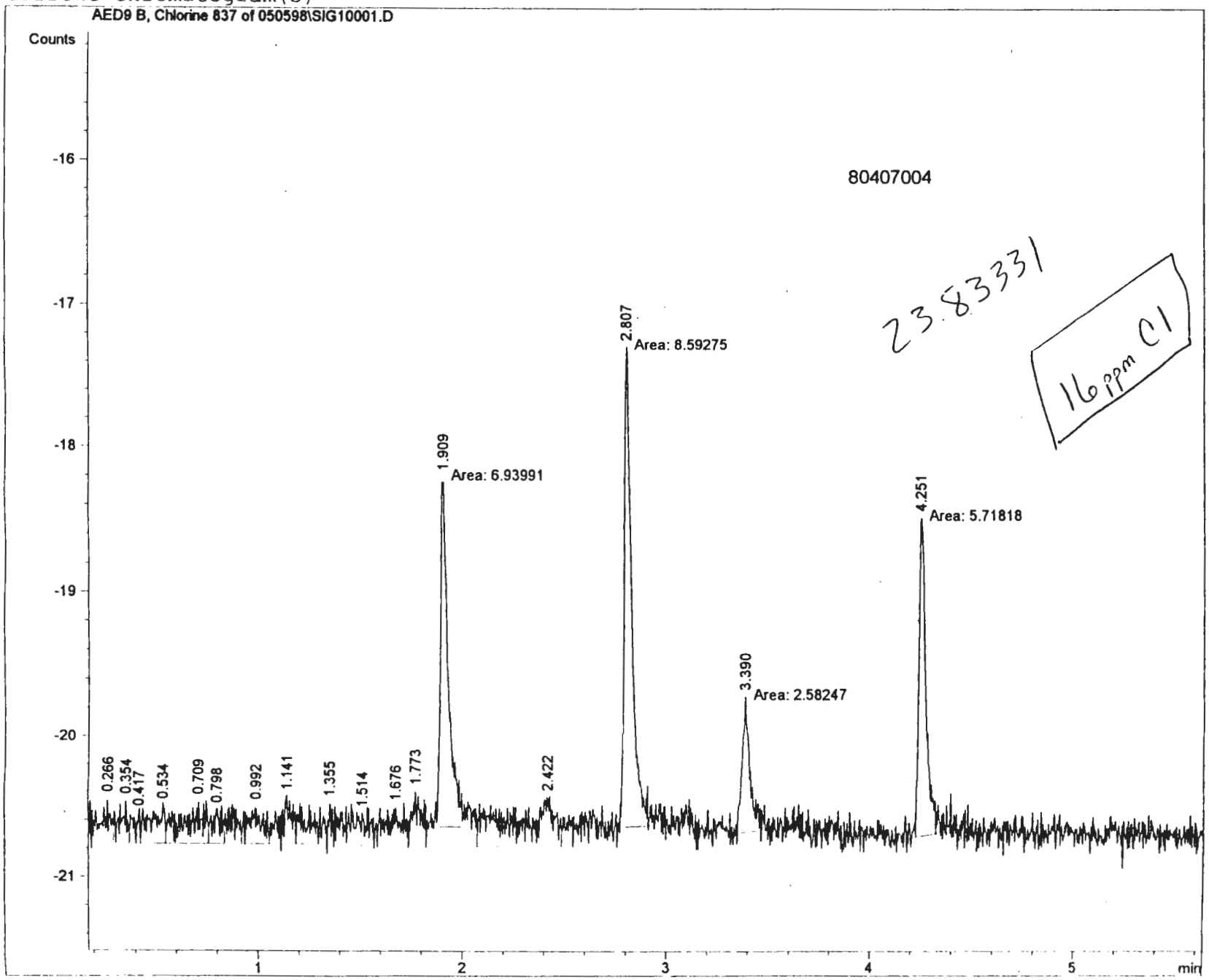
(#) = Out of Range

8260.M Fri May 08 14:18:40 1998

APPENDIX IV

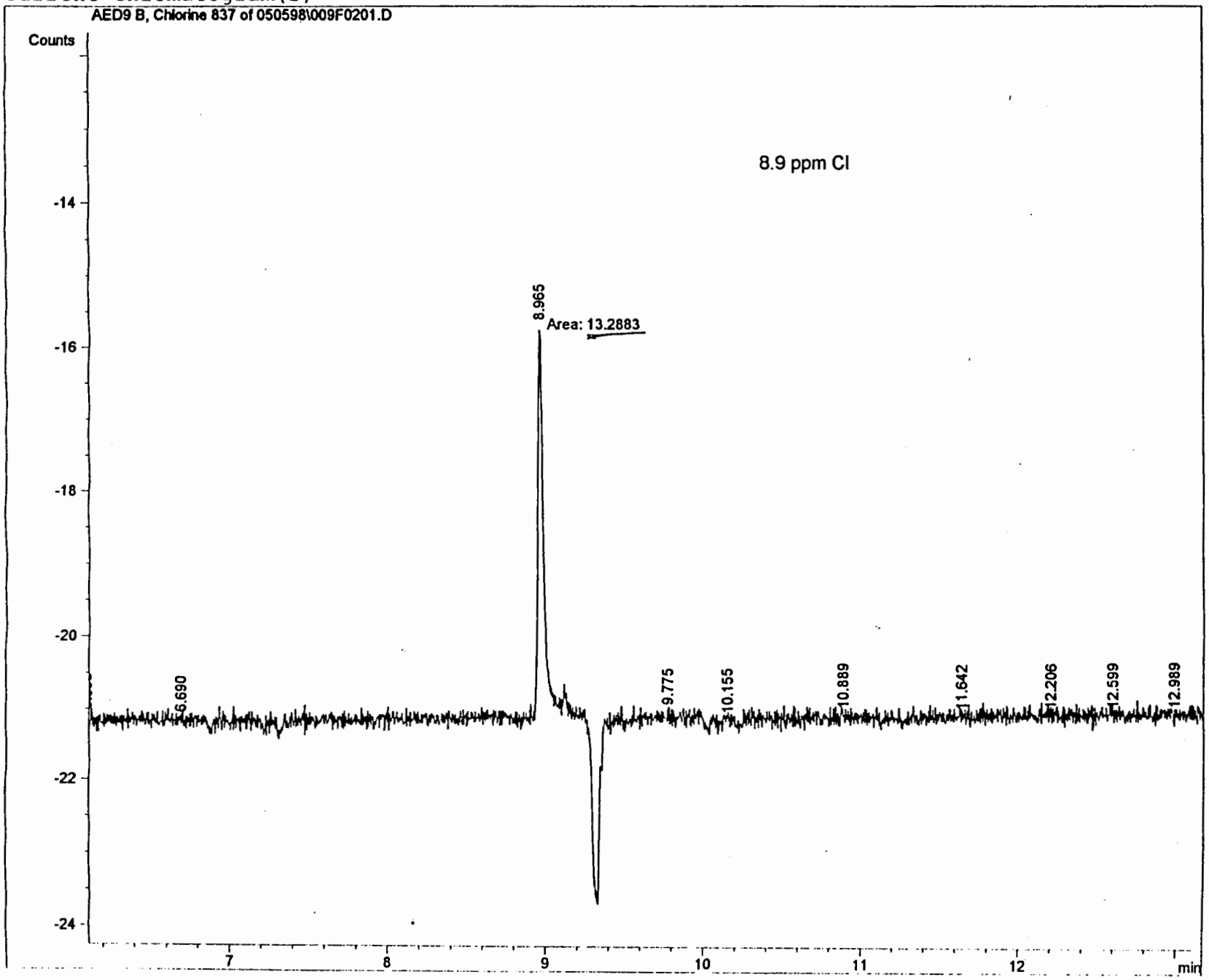
GC/AED ANALYSIS RESULTS

Current Chromatogram(s)



SS

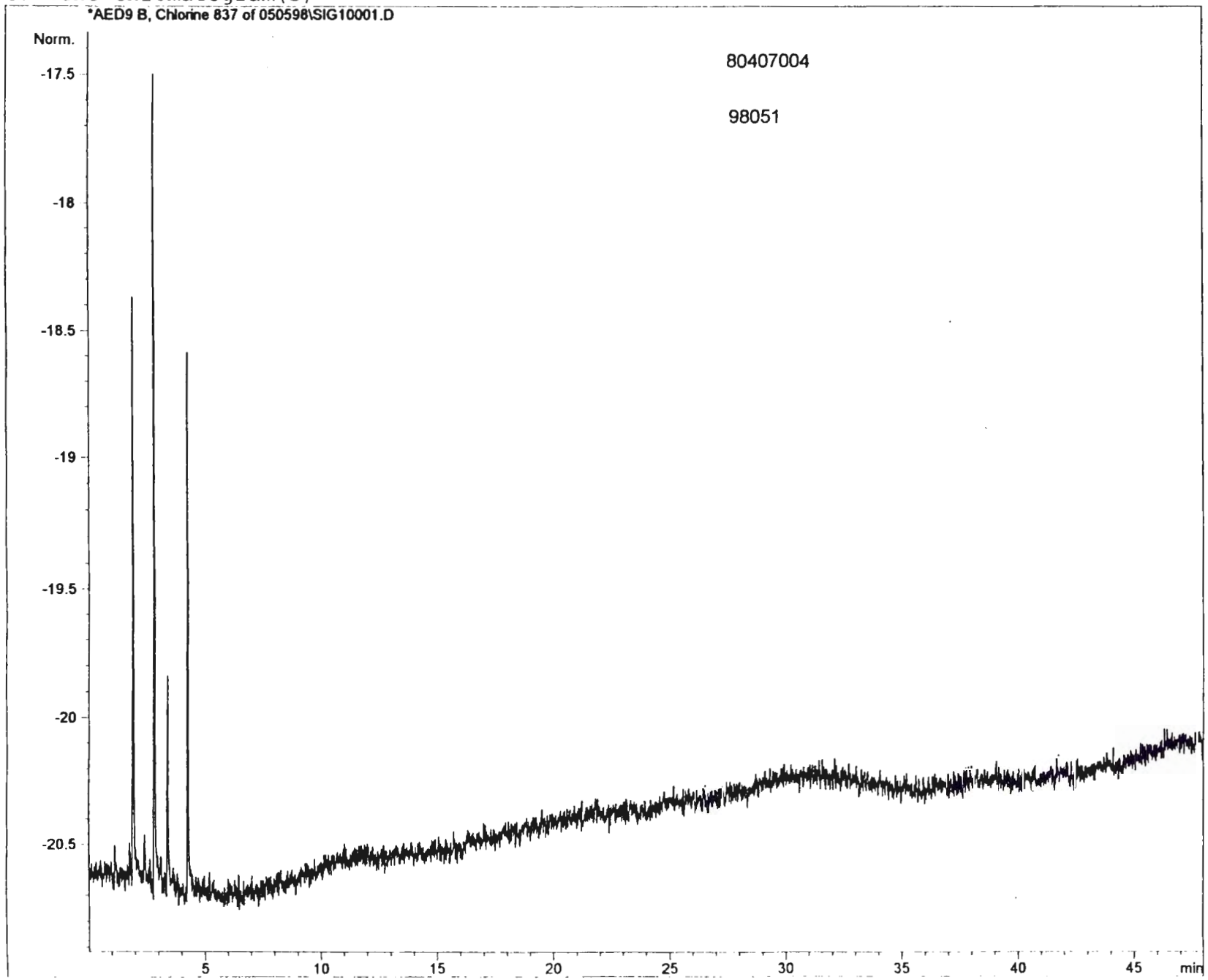
Current Chromatogram(s)



SG

Instrument 1 5/6/98 4:59:33 PM

Current Chromatogram(s)



LS

Instrument 1 5/18/98 9:44:57 AM

CONSCI

Worldwide Geosciences
6100 Corporate Drive
Houston, Texas 77036

May 7, 1998

Attn: Neil Peterson

Certificate #:80407004
Sample ID: J98051 Product
Date Received: April 4, 1998

CERTIFICATE OF ANALYSIS

Parameter	Result	Units
Total Chloride	16	ppm

Daniel M. Kowalski

DMK/gb

58

CONSOLIDATED SCIENCES, INCORPORATED 1416 SOUTHMORE PASADENA, TEXAS 77502 (713) 920-1696 FAX (713) 920-1648

RMT EVALUATION

Technical Memorandum

Date: 7/10/98

To: Bernd Rehm, Susannah Michaels

cc: Dave Seitz

From: Tom Stolzenburg

Project No: 3777.06

Subject: More detailed analysis of GRO/DRO chromatograms

This memo focuses on the information contained in the GRO and DRO chromatograms. VOC results are discussed elsewhere in more detail.

DRO

LNAPL in NMW-5

The DRO chromatographic peak pattern or fingerprint of the groundwater sample collected from NMW-5, which contained LNAPL identified as a specialty industrial lubricant (heavier than diesel), was compared to other groundwater and soil samples. For instance, NMW-6, less than 50 feet to the south-southwest, contains a chromatographic fingerprint very similar to NMW-5. The next closest match is NMW-7, which is another 280 feet to the southwest. Directly between NMW-7 and NMW-6 is NMW-2, which contains no trace of the same fingerprint. Other well locations that exhibit possible traces of the same fingerprint are NMW-10 and 11 to the southeast, and MW-12, 13, and 19 to the northwest. However, the match is not as certain.

Several soil samples exhibit peak patterns matching the chromatographic fingerprint of NMW-5. SB-5 13-15', SB-4 13-15', SB-3 13-15', SB-15 13-15', and SB-17 13-15' are all within 45' to the south and east of NMW-5 and all show a strong match to the fingerprint in NMW-5. Curiously, SB-16 13-15', between SB-15 and SB-17, contains no detectable DRO (see discussion below). Also, SB-13, SB-12, SB-14, and SB-2, all a few feet further to the south or southeast, contain no detectable DRO at any depth in the soil column down to 15 feet. The 13-15' level is saturated in all samples cited. A few shallow soil column samples contain detectable DRO.

Only one contains a pattern that may be similar to NMW-5. That sample is SB-16 5-7'. However, the match is not as close as the samples at the 13-15' level.

Given these data and the fact that groundwater flow is generally west-northwest, the source of the product appears to be east of SB-5 and possibly north of SB-2. This would not explain what appears to be traces of this product in NMW-10 and 11, which would be sidegradient to the source. This projected source location also does not explain an apparent match at NMW-7, which would be side gradient as well.

It should also be noted that the presence of this petroleum product may be very discrete in a vertical sense, possibly flowing in a very narrow vertical layer at the groundwater surface or along bedrock. This observation may be borne out by the results from SB-4 13-15', which contained 1,200 mg/kg DRO and a very prominent petroleum hydrocarbon pattern consistent with the product found in NMW-5. The duplicate for this sample showed no detectable DRO and the chromatogram was flat. An explanation is that subsamples were taken from slightly different (vertically) sections of the Geoprobe sleeve. It is even possible that the duplicate was taken from just above the saturated zone. This phenomenon may also explain the apparent lack of petroleum product in SB-16 13-15'.

Other petroleum products in SB-15 13-15, MES MW-2, and Key MW-4

In addition to the petroleum lubricant that matches the LNAPL in NMW-5, SB-15 13-15' contains a second distinctive petroleum product in the DRO chromatogram, that is lighter than the NMW-5 product. It is in the diesel range. A third petroleum product, which is slightly heavier than the one in SB-15 13-15' is present in both MES MW-2 and Key MW-4. These locations are within 65 feet of each other. Less than 100 feet to the south is MES MW-1, which contains no detectable DRO, and no visually detectable trace of a petroleum product in the chromatogram.

Unidentified non-petroleum peaks in the diesel range

An individual peak (i.e. compound) is prominent in the DRO chromatograms of these samples: NMW-10, NMW-11, SB-3 13-15', SB-4 9-11', SB-9 5-7', SB-16 5-7', and possibly NMW-7. There is no method blank for DRO and no other QC analyses to determine if this is a spurious peak associated with the laboratory procedure. Also, no SVOCs were analyzed, so the identity of this compound cannot be established. In SB-16 5-7' an apparently different compound of similar molecular weight is also present. SB-19 5-7' contains an individual compound that appears slightly larger than the compound in the samples cited above.

It is important to note that these individual peaks/compounds may, in fact, be spurious. For instance, the duplicate sample of MW-1 (DUP-1) contains 3 prominent individual peaks in the DRO chromatogram. None of those peaks appears in the DRO chromatogram for MW-1. Therefore, from the information available, the true presence of additional compounds in the samples cited above is not confirmed.

NMW-6 contains a very large peak which may comprise more than one compound. This compound(s) is larger than the compounds noted in the samples above and does not appear in any other samples. Since no SVOC analysis was performed this compound cannot be identified.

GRO

Method blank peaks

At first glance several of the GRO chromatograms exhibit more prominent peaks/compounds than accounted for in the VOC analysis. However, all four trip blanks for GRO reveal three prominent peaks near the front end of the GRO chromatograms in the same general retention time area as the major VOCs appear. This precludes a quick visual comparison of the chromatograms.

Petroleum products present in the GRO range

Petroleum products, lighter than those cited in DRO analyses above and heavier than gasoline, are present in several samples. For instance, Key MW-4 contains petroleum product at the heavy end of the GRO range. Approximately in the same range is a petroleum product in SB-4 13-15' and SB-15 13-15'. The reported GRO concentrations in these samples do not accurately reflect this petroleum product, as much of the product elutes outside the retention time range of a standard GRO scan. SB-4 and SB-15 are within 35' of each other, but Key MW-4 is over 750 feet to the southwest. Within 65 feet (and apparently upgradient) of Key MW-4 is MES MW-2. The chromatogram for MES MW-2 contains a barely visual trace of a possible petroleum hydrocarbon in the same range as Key MW-4, SB-4 13-15' and SB-15 13-15'. At MES MW-1, 80 feet south of Key MW-4, no detectable GRO was reported by the laboratory. An even fainter trace of a possible petroleum hydrocarbon in the same range may be present in the chromatogram.

Recall that in the above discussion of petroleum products identified in the DRO, Key MW-4 and MES MW-2 contained the same product, while MES MW-1 contained no analytically or visually detectable DRO or petroleum product. The DRO results seem to confirm a hydraulic

link between Key MW-4 and MES MW-2, and no link with MES MW-1. However, the GRO results indicate a much weaker hydraulic link between Key MW-4 and MES MW-2. The DRO and GRO results taken together suggest:

- the location of the source of the GRO in Key MW-4 is very close to Key MW-4 and different from the DRO

Other observations of note

Three locations contain peaks throughout the retention time window of the GRO chromatogram. They are SB-9 5-7', MES MW-2 and Key MW-4. The above statement is not meant to indicate that the chromatographic pattern for SB-9 5-7' is similar to MES MW-2 or Key MW-4. In fact the pattern in SB-9 5-7' is relatively nondescript and there appears to be no clear petroleum pattern present. Also, the lighter peaks in the Key MW-4 chromatogram may be the contamination peaks observed in the trip blanks. In fact no VOCs above reporting limits were found in Key MW-4.

Appendix I
Hydrogeologic Calculations and Saukville Pumping Test Results

COMPUTATION SHEET

SHEET _____ OF _____

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED		CHECKED		PROJECT / PROPOSAL NO.
Navistar International	By: SSM	Date: 5/26/98	By: MLW	Date: 6/12/98	3777.06

Horizontal Gradient 3/30/98 ✓

Shallow System: Use 824 contour to well NMW-8

$$\frac{dh}{dl} = \frac{824 - 813.62}{415} = \frac{10.38}{415} = 0.03$$ ✓

Deeper System: Use 813.7 contour to NPZ-2

$$\frac{dh}{dl} = \frac{813.7 - 813.31}{120} = \frac{0.39}{120} = 0.003$$ ✓

Vertical Gradients 3/30/98 ✓

NMW-9/NPZ-2 Nest

		Head	Measuring Pt.
Water Table	NMW-9	813.89	813.89
Piez.	NPZ-2	813.31	793.~~58~~

$$\frac{dh}{dl} = \frac{813.89 - 813.31}{813.89 - 793.58} = \frac{0.58}{20.39} = 0.03$$ downward

NMW-3/MW-19 Nest

		Head	Measuring Pt.
Water Table	~~NMW-3~~ MW-13	814.53	814.53
Piez.	MW-19	813.49	~~793.0~~ 792.9

$$\frac{dh}{dl} = \frac{814.53 - 813.49}{814.53 - 792.9} = \frac{1.04}{21.63} = 0.05$$ downward

NPZ-1 not nested, use ~~8~~ approximate 816.0 contour

		Head	Measuring Pt.
Water Table	816 contour	816	816
Piez.	NPZ-1	813.83	793.98

$$\frac{dh}{dl} = \frac{816 - 813.83}{816 - 793.98} = \frac{2.17}{22.02} = 0.1$$ downward

Average Vertical Gradient = $\frac{0.03 + 0.05 + 0.1}{3} = 0.06$ downward

1/14

COMPUTATION SHEET

SHEET _____ OF _____

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED	CHECKED	PROJECT / PROPOSAL NO.
Navistar	By BWR Date: 12/9/98	By SSM Date: 12/12/98	3777.06

Groundwater Velocity Calculation in Deeper Bedrock

$$V = \frac{KI}{n_e}$$

K = hydraulic conductivity
I = horizontal gradient
n_e = effective porosity

$K = 2 \times 10^{-2}$ cm/s RMT, 1992 representative of more permeable fracture flow

$I = 0.003$

$n_e \cong 0.05$ (Freeze + Cherry, 1979)

$$V = \frac{KI}{n_e} = \frac{\left(2 \times 10^{-2} \frac{cm}{s}\right)(0.003)}{0.05} = 0.0012 \frac{cm}{s}$$

$$0.0012 \frac{cm}{s} \cdot \frac{0.033 ft.}{1 cm} \cdot \frac{31,536,000 s}{yr.} = 1,249 \frac{ft.}{yr.} \cong \boxed{1,200 \frac{ft}{yr}}$$

COMPUTATION SHEET

RMT.

SHEET _____ OF _____

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED		CHECKED		PROJECT / PROPOSAL NO.
Navistar	By: SDM	Date: 2/2/99	By: BWR	Date: 2/2/99	3777.06

Horizontal Hydraulic Gradients betw. Investigation Area and North Ave Cooper Power Systems and Quarries

Investigation Area — Cooper

Head in dolomite in Investigation Area: ~ 813 feet

Head in well TW-8 in dolomite at Cooper Site: ~ 810 feet (SHS, 1994)

Distance between 2 areas: ~ 2,000 ft.

$$\text{Gradient} = \frac{dh}{dl} = \frac{813 - 810}{2{,}000} = \boxed{0.002}$$

Investigation Area — Quarries

Head at Investigation Areas: ~ 813'

Head at Quarries: ~ 750'

Distance between areas: ~ 4,000'

$$\text{Gradient} = \frac{dh}{dl} = \frac{813 - 750}{4{,}000} = \boxed{0.02}$$

ANALYSIS OF THE SAUKVILLE AREA PHOTOLINEAMENTS AND FRACTURE ANISOTROPY

COMPUTATION SHEET

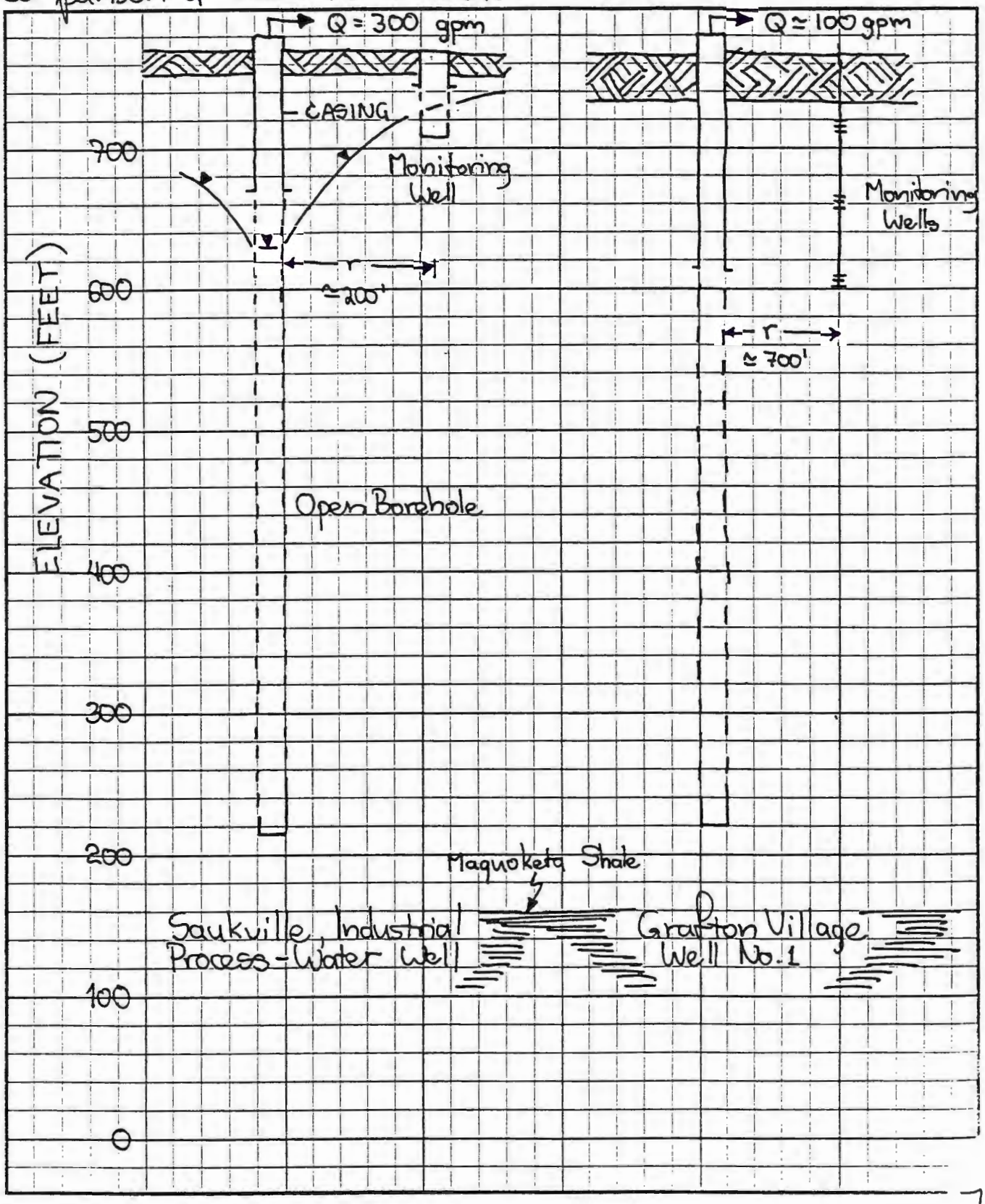
RMT

SHEET 1 OF 7

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED By:	Date:	CHECKED By:	Date:	PROJECT / PROPOSAL NO.
Tecumseh Products Co.-Grafton NR700			CSD	7-23-96	3084.18

Comparison of Saukville & Grafton Wells.

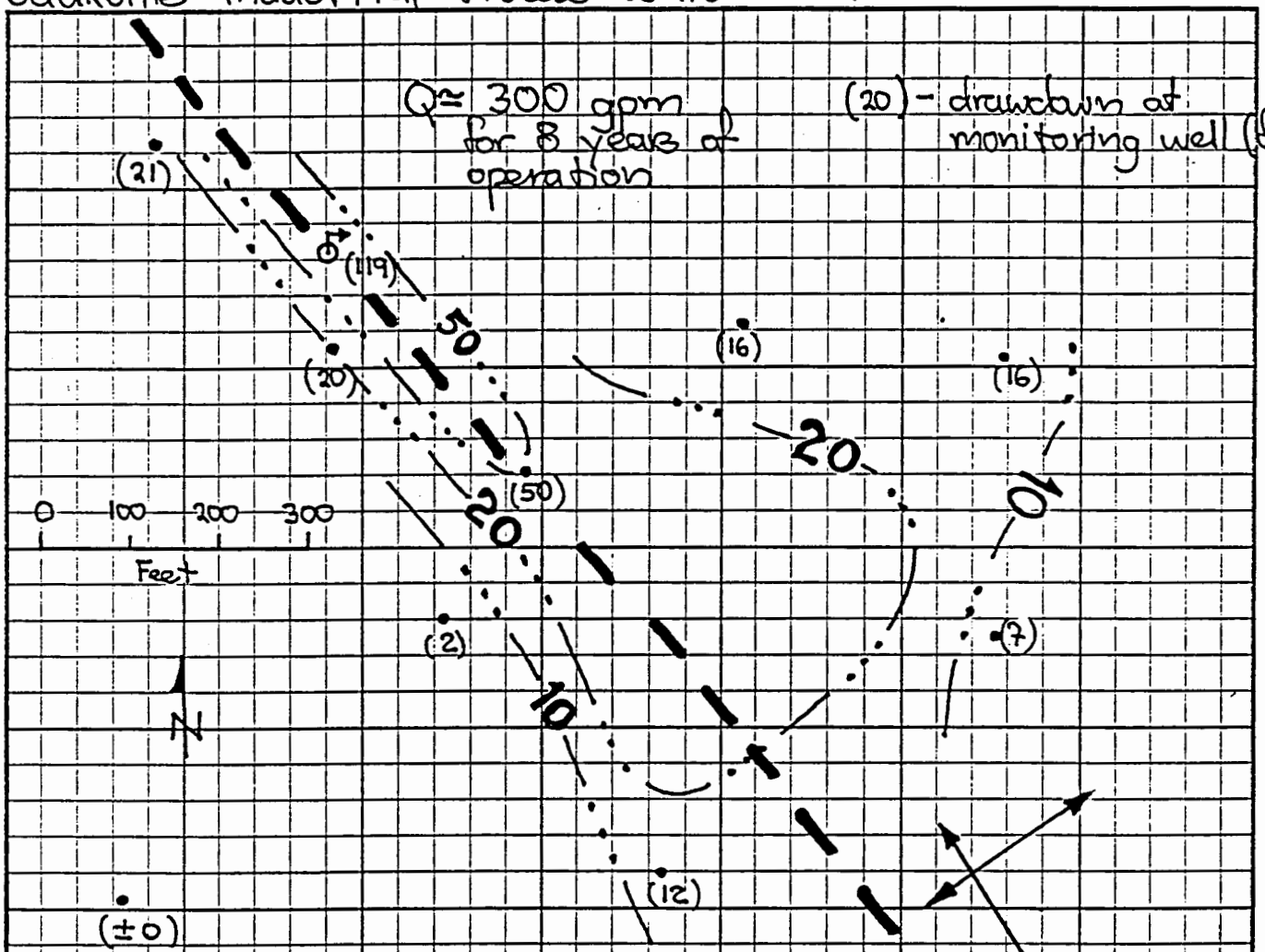


COMPUTATION SHEET

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED By:	Date:	CHECKED By: LSD	Date: 7-23-96	PROJECT / PROPOSAL NO.
TPCo - Grafton NR 700					3084.18

Saukville Industrial Process-Water Well Drawdowns



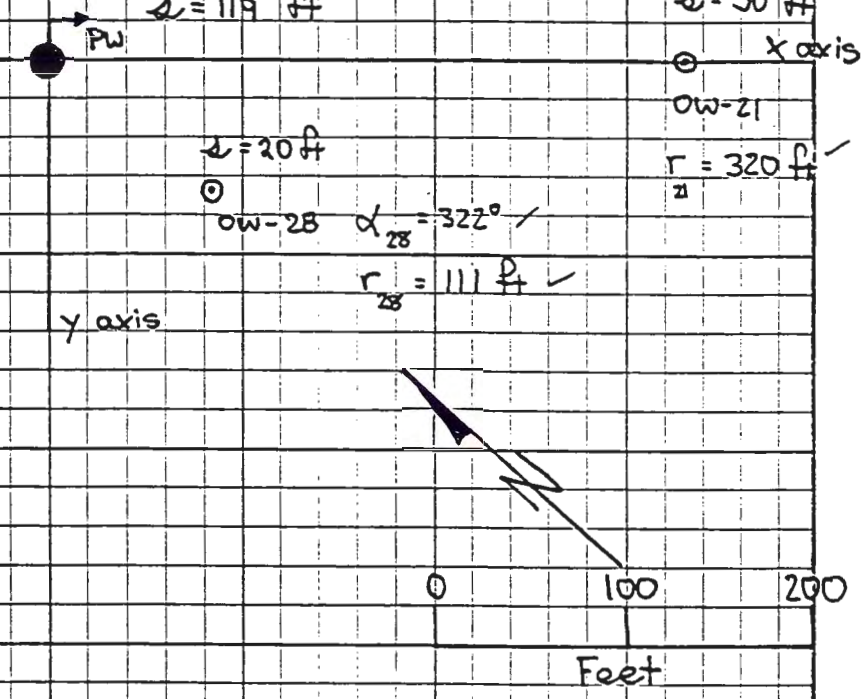
744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED By:	Date:	CHECKED By: CSD	Date: 7-23-96	PROJECT / PROPOSAL NO.
Tecumseh Products Co - Grafton NR800					3084.18

Anisotropic aquifer analysis of CCP well 30 drawdowns

Hantush (1966) method as in Kruseman & DeRidder (1989) p. 133-138

300 gpm = 40 ft³/min = 58,000 ft³/day ✓



$$(KD)_e = \frac{2.30\,Q}{4\pi\Delta s} = \frac{(2.30)(58000\ ft^3/d)}{(4)(3.14)(28.5\ ft)} = 373\ ft^2/d$$ ✓

$$\frac{S}{(KD)_{21}} = \frac{2.25\,t_{021}}{r^2} = \frac{(2.25)(45\ d)}{(320)^2} = 9.9E-4\ d/ft^2$$ ✓

$$\frac{S}{(KD)_{22}} = \frac{2.25\,t_{022}}{r^2} = \frac{(2.25)(425\ d)}{(234)^2} = 1.8E-2\ d/ft^2$$ ✓

$$\frac{S}{(KD)_{28}} = \frac{2.25\,t_{028}}{r^2} = \frac{(2.25)(460\ d)}{(111\ ft)^2} = 8.4E-2\ d/ft^2$$ ✓

$$a_{21} = \frac{(KD)_{21}}{(KD)_{21}} = 1 \qquad a_{22} = \frac{(KD)_{21}}{(KD)_{22}} = 18 \qquad a_{28} = \frac{(KD)_{21}}{(KD)_{28}} = 85$$

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED By:	Date:	CHECKED By:	Date:	PROJECT / PROPOSAL NO.
TPCo - Gratton - NR700			LSD	7-23-96	3084.18

$$\tan(2\theta) = -2\left\{\frac{(85-1)\sin^2(196^\circ) - (18-1)\sin^2(322^\circ)}{(85-1)\sin(2\times 196^\circ) - (18-1)\sin(322^\circ\times 2)}\right\}$$

$$-2\left\{\frac{6.382 - 6.444}{44.57 - (-16.50)}\right\} = -2\left\{\frac{-0.0617}{61.01}\right\} = 0.0020$$

$\theta \simeq 0^\circ$ from X axis

$KD_x = KD_{11} = 370\ ft^2/d$

$$m = \frac{a_{22}\cos^2\theta - \cos^2(\theta + \alpha_{22})}{\sin^2(\theta+\alpha_{22}) - a_{22}\sin^2\theta} = \frac{18\cos^2\theta - \cos^2(\theta + 196^\circ)}{\sin^2(\theta+196^\circ) - 18\sin^2\theta}$$

$$= \frac{18 - 0.924}{0.0760 - 0} = 225$$

$$KD_y = \frac{KD_x}{m} = \frac{370\ ft^2/d}{225} = 2\ ft^2/d$$

@ $D \simeq 400\ ft$

$K_x = 0.93\ ft/d = 3.3E-4\ cm/s$

$K_y = 0.005\ ft/d = 1.8E-6\ cm/s$

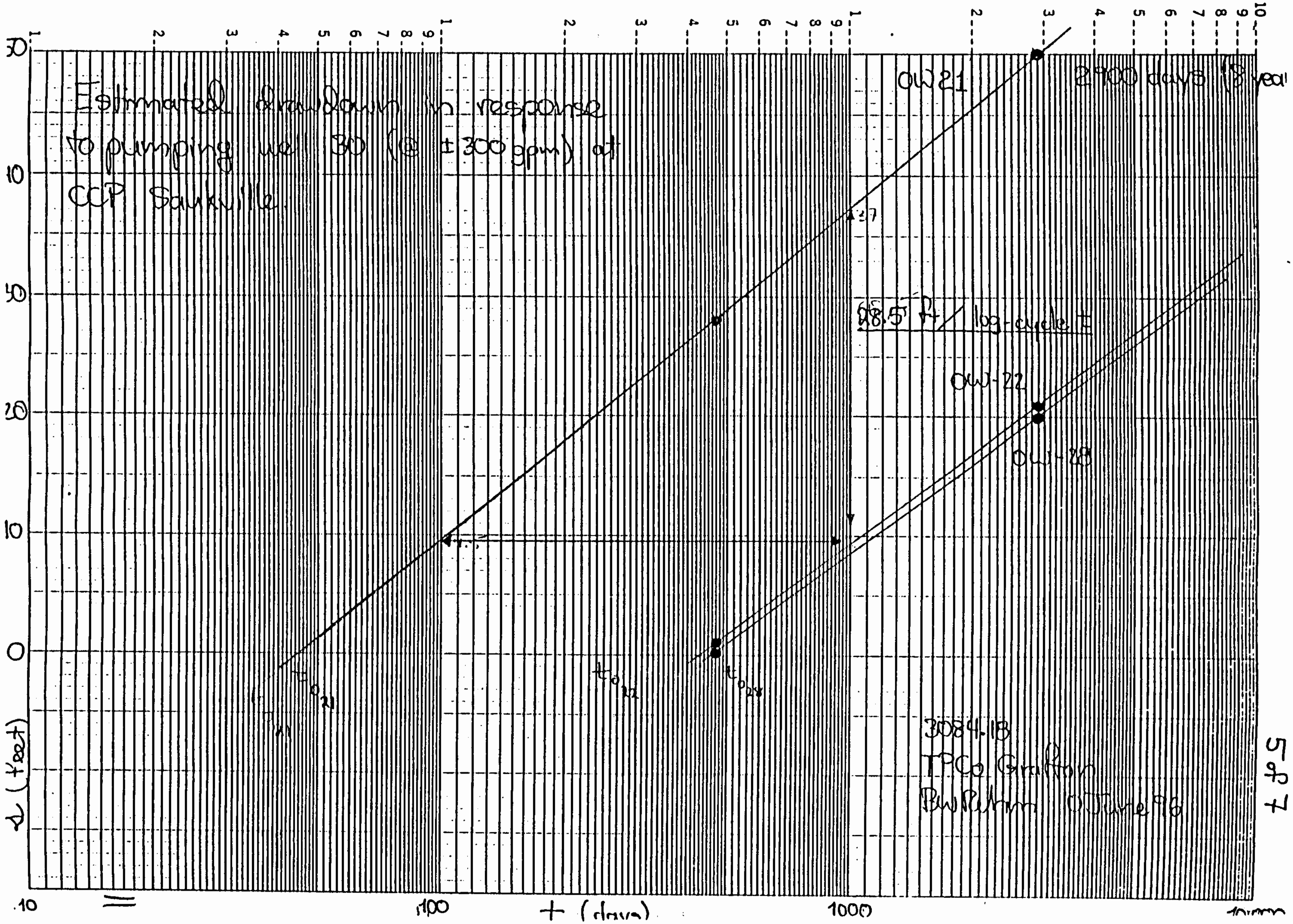
$K_x \simeq 180\ K_y$

$KD_e = ((KD)_x \times (KD)_y)^{1/2} = 27\ ft^2/d$ $K_e = 0.07\ ft/d = 2.4E-5\ cm/s$

10

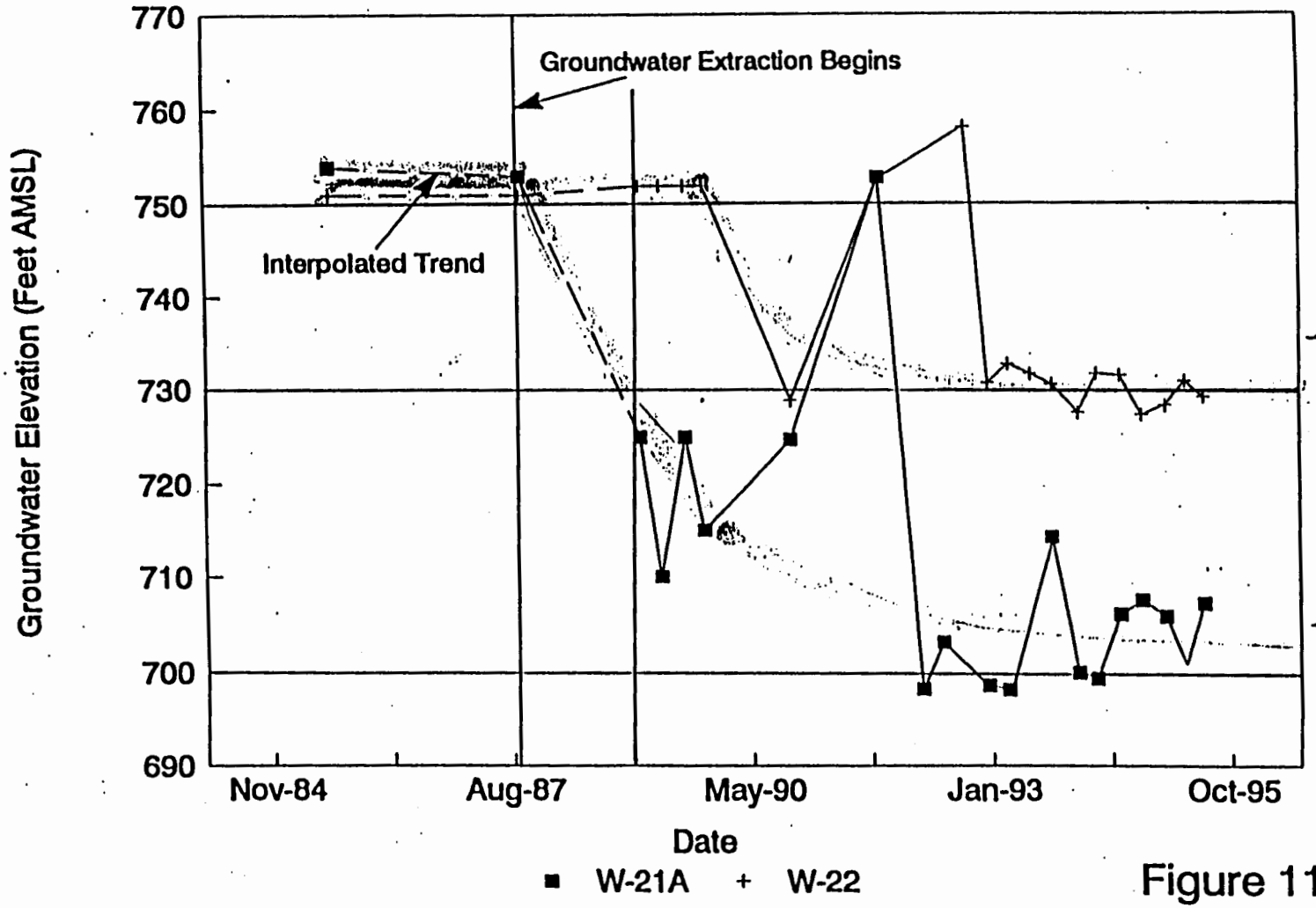
K•E SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 5490



WATER ELEVATION OVER TIME

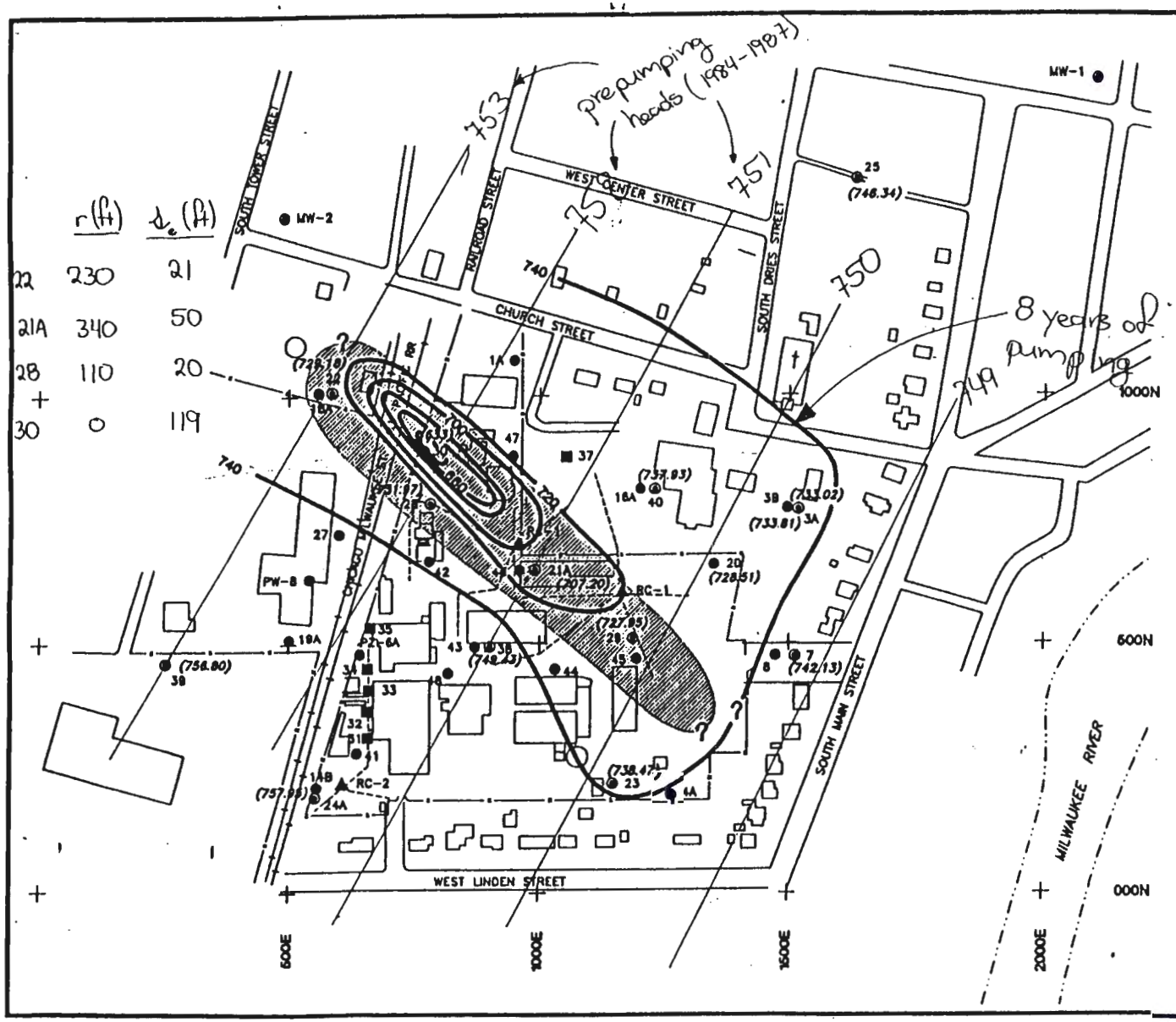
Monitoring Wells in Shallow Dolomite



$s_e \approx 21$ ft

$s_e \approx 50$ ft

Figure 11



	r (ft)	d_e (ft)
22	230	21
21A	340	50
28	110	20
+ 30	0	119

LEGEND

- BUILDING
- ROAD
- FENCE
- RAILROAD
- WATERLINE
- DEEP DOLOMITE WELL
- SHALLOW DOLOMITE WELL
- GLACIAL OVERBURDEN WELL
- GLACIAL OVERBURDEN WITHDRAWAL WELL
- RANNEY COLLECTOR
- (746.34) WATER ELEVATION (MEASURED JULY 5, 1995)
- 740 POTENTIOMETRIC SURFACE CONTOUR, 20' CONTOUR INTERVAL
- APPROXIMATE EXTENT OF DEWATERED ROCK

NOTES

1. BASE MAP WAS DEVELOPED FROM HATCHER-SAYRE, INC. 1992.
2. ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL (MSL).
3. THIS FIGURE DOES NOT TAKE INTO ACCOUNT THE POTENTIAL EXISTENCE OF SEEPAGE FACES IN EXTRACTION WELLS 21A AND 30.

N

0 200 400
SCALE: 1"=200'

POTENTIOMETRIC SURFACE MAP
SHALLOW DOLOMITE - SUMMER 1995
COOK COMPOSITES & POLYMERS
RCRA FACILITY INVESTIGATION
SAUKVILLE, WISCONSIN

DRAWN BY BLG
APPROVED BY ELM
DATE OCTOBER 1995
PROJ # 1832.92
REF # 18329204

FIGURE 10

Appendix J
Previous Water Level Summaries

from: Supplemental Soil and Groundwater Quality Investigation for the NITC Casting Facility in Waukesha, Wisconsin. RMT, 1996

TABLE 1

GROUNDWATER ELEVATION SUMMAY - NAVISTAR

Monitoring Well I.D.	Elevation Top of PVC (feet, MSL)	Elevation Top of Ground (feet, MSL)	April 9, 1996		May 21, 1996		June 19, 1996		June 26, 1996		August 15, 1996	
			Depth to Water (feet)	Water Level Elevation (feet, MSL)	Depth to Water (feet)	Water Level Elevation (feet, MSL)	Depth to Water (feet)	Water Level Elevation (feet, MSL)	Depth to Water (feet)	Water Level Elevation (feet, MSL)	Depth to Water (feet)	Water Level Elevation (feet, MSL)
MW-11	832.02	832.29	18.12	813.90	--	--	16.11	815.91	--	--	--	--
MW-12	831.14	831.53	17.89	813.25	--	--	16.14	815.00	17.84	813.30	--	--
MW-13	832.02	832.33	18.43	813.59	--	--	16.48	815.54	--	--	--	--
MW-15	832.33	832.70	18.67	813.66	--	--	16.34	815.99	--	--	--	--
MW-16	832.39	832.93	18.47	813.92	--	--	16.31	816.08	--	--	--	--
MW-19	831.14	831.53	18.62	812.52	--	--	17.81	813.33	17.14	814.00	18.81	812.33
NMW-1	832.33	832.70	17.09	815.24	--	--	15.88	816.45	--	--	--	--
NMW-2	832.39	832.93	15.74	816.65	--	--	17.26	815.13	--	--	--	--
NMW-3	831.14	831.53	18.93	812.21	--	--	7.65	823.49	--	--	--	--
NMW-4	832.02	832.33	13.83	818.19	--	--	12.81	819.21	--	--	--	--
NMW-5	832.25	832.45	15.21	817.04	--	--	15.25	817.00	--	--	--	--
NMW-6	831.85	832.11	14.63	817.22	--	--	14.20	817.65	--	--	--	--
NMW-7	831.76	831.96	15.45	816.31	15.03	816.73	14.55	817.21	--	--	--	--
NMW-8	831.14	831.53	17.96	813.18	16.96	814.18	15.96	815.18	--	--	--	--
NMW-9	832.02	832.33	18.78	813.24	17.61	814.41	16.31	815.71	--	--	--	--
NMW-10	832.33	832.70	-	-	10.03	822.30	10.51	821.82	--	--	--	--
NMW-11	832.39	832.93	-	-	7.87	824.52	8.92	823.47	--	--	--	--
NPZ-1	832.19	832.56	18.60	813.59	18.06	814.13	17.61	814.58	17.11	815.08	18.20	813.99
NPZ-2	831.90	832.33	17.90	814.00	18.27	813.63	17.26	814.64	17.25	814.65	18.10	813.80

NOTES: MSL = Mean Sea Level

5/1

From: Preliminary Groundwater Investigation at the NITC Casting Facility Waukesha, Wisconsin. RMT, 1993

TABLE 1

GROUNDWATER ELEVATIONS DETERMINED FROM MEASUREMENTS MADE OCTOBER 13-14, 1992

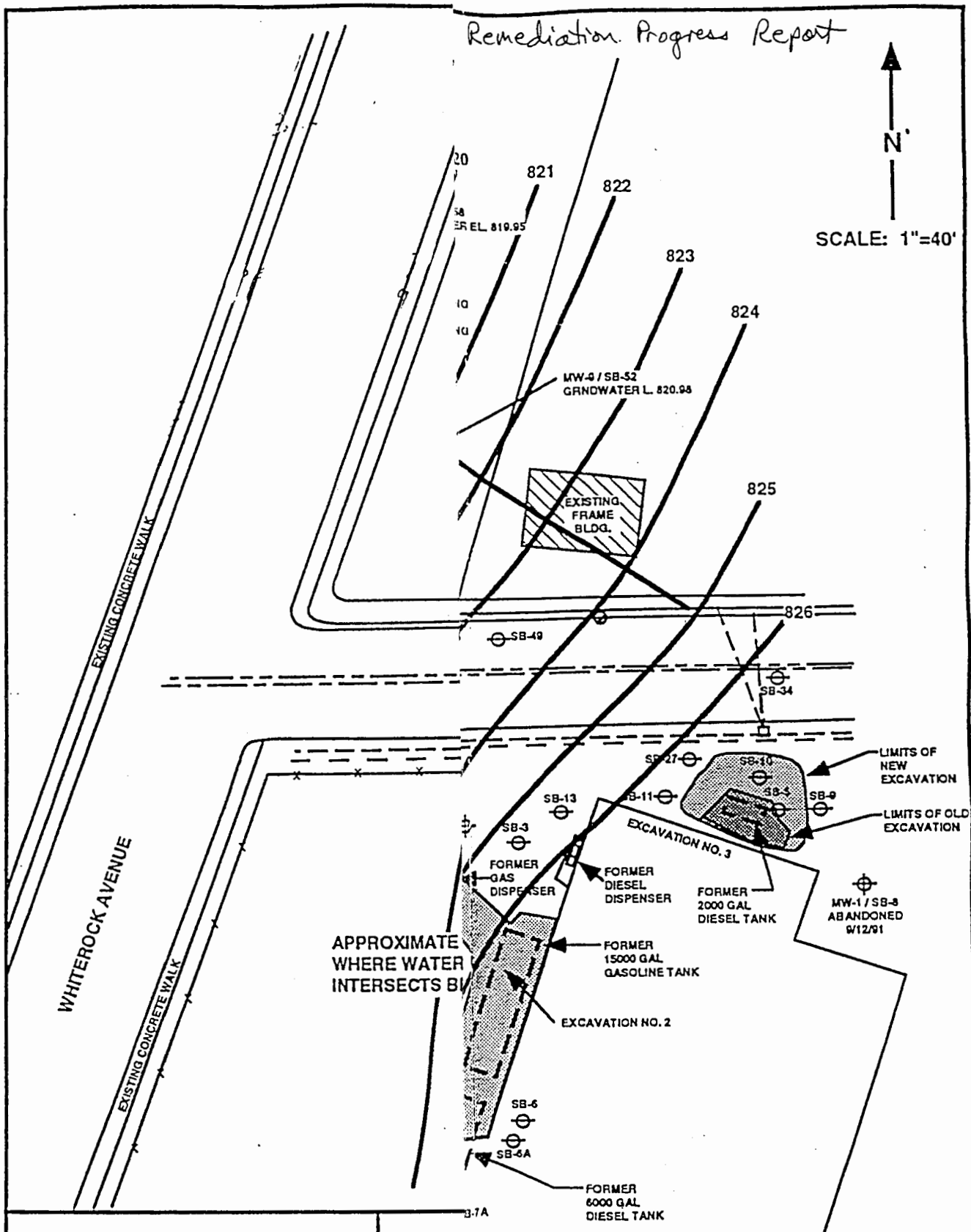
Monitoring Well Name	Elevation of TPVC Measuring Point (ft., M.S.L.)	Depth to Water (ft. below TPVC)	Groundwater Elevation (ft., M.S.L.)
NMW-1	831.47	17.01	814.46
NMW-2	832.93	15.87	817.06
NMW-3	831.62	9.15	822.47
NMW-4	840.01	13.47	826.54
NMW-5	832.39	15.29	817.10
NMW-6	831.96	14.75	817.21
MW-1	abandoned		
MW-2	833.50	8.78	824.72
MW-3	832.47	8.74	823.73
MW-4	833.05	8.75	824.30
MW-6	831.90	17.87	814.03
MW-7	832.42	12.21	820.21
MW-8	832.32	12.84	819.48
MW-9	832.89	13.36	819.53
MW-10	832.39	dry	
MW-11	831.70	17.83	813.87
MW-12	832.09	18.07	814.02
MW-13	832.26	18.48	813.78
MW-14	832.94	13.45	819.49
MW-15	831.75	18.92	812.83
MW-16	831.60	18.85	812.75
MW-17	832.06	14.56	817.50
MW-18	832.55	19.59	812.96
MW-19	831.94	18.90	813.04
MW-20	831.92	16.97	814.95
MW-21	832.80	9.02	823.78
MW-22	832.15	13.82	818.33
MW-23	833.27	13.65	819.62

NOTE:

Measuring point reference elevations supplied by G.A.S. for WCL wells.

2

Remediation Progress Report

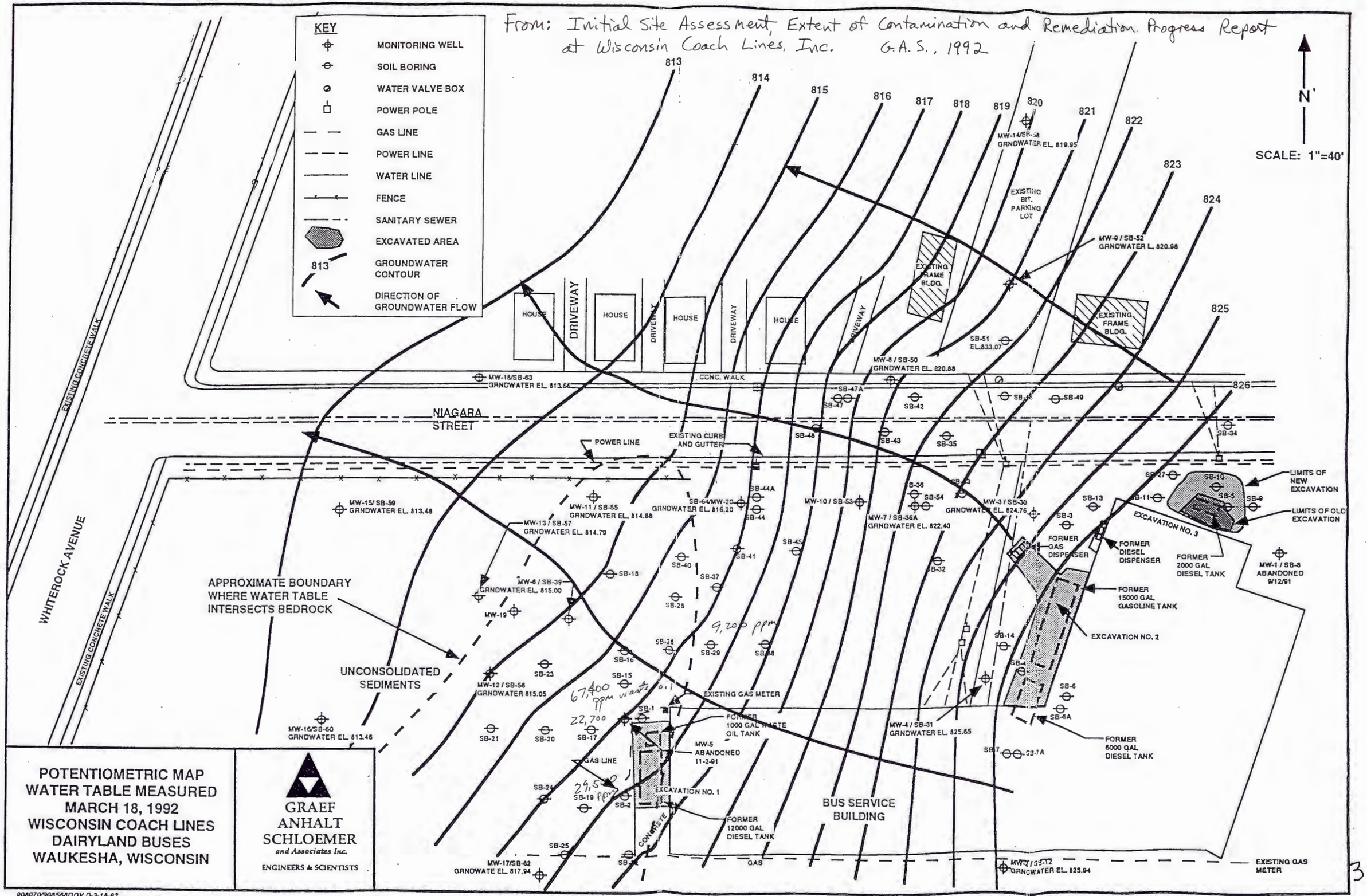


POTENTIOMETRIC MAP
WATER TABLE MEASURED
MARCH 18, 1992
WISCONSIN COACH LINES
DAIRYLAND BUSES
WAUKESHA, WISCONSIN

90807/90856SDGV.D-3-18-92

FIGURE 8

From: Initial Site Assessment, Extent of Contamination and Remediation Progress Report at Wisconsin Coach Lines, Inc. G.A.S., 1992



POTENTIOMETRIC MAP
WATER TABLE MEASURED
MARCH 18, 1992
WISCONSIN COACH LINES
DAIRYLAND BUSES
WAUKESHA, WISCONSIN

GRAEF ANHALT SCHLOEMER and Associates Inc.
ENGINEERS & SCIENTISTS

908070/908568DGV.D-3-18-92

FIGURE 8

TABLE 3
SUMMARY OF GROUNDWATER ELEVATIONS

Well Number	Top of Casing Elevation	Groundwater Elevations 4-10-96	4-26-96
Key MW-1	98.20	91.78	91.56
Key MW-2	100.48	92.96	93.25
Key MW-3	100.60	91.43	91.88
Key MW-4	98.10	80.68	81.11
Sigma MW-1	98.37	91.38	91.80
MES MW-1	98.90	80.83	81.42
MES MW-2	99.51	80.34	81.49
MES MW-5	100.67	94.19	81.11

From:
"Limited Phase II Environmental Site Assessment; Perkins Street Property, Waukesha, WI"
Prepared for: McGlenn Partnership
by: Midwest Engineering Services, Inc.
January 29, 1997

51083sum.tbl

Appendix K
Soil TOC Data and Estimated Groundwater Concentration Calculations

APPENDIX K
SUMMARY OF SOIL TOTAL ORGANIC CARBON ANALYSES
NAVISTAR INTERNATIONAL TRANSPORTATION COMPANY
WAUKESHA, WISCONSIN

			Total Organic Carbon	foc
Boring	**Sample Depth**	**Sample Description**	**mg/kg**	**unitless**
SB-5	11-13'	Well graded sand with gravel and silt (SW-SM)	2,400	0.0024
SB-8	13-15'	Silty sand with gravel (SM)	18,000	0.018
SB-10	9-11'	Lean clay with sand/Silty clay with sand and gravel (CL)	6,400	0.0064
SB-15	11-13'	Silty sand with gravel (SM)	1,400	0.0014

Prepared by: DPM 5/30/98
Checked by: SSM 6/1/98

Notes:
foc = fraction of organic carbon = total organic carbon in mg/kg divided by 10^{6}
Average total organic carbon of sandy samples is 7,300 mg/kg. Average corresponding foc is 0.0073.

Calculation of Groundwater Concentrations from Saturated Soil Data
Navistar International, Waukesha, Wisconsin

Formula (Pankow and Cherry, 1996):

Cw = (Ct * rhob) / ((Kd * rhob) + thetaw + (Hc * thetaa))

Definitions:

Cw = pore water concentration in ug/L

Ct = Dry weight soil concentration in ppb

rhob = Dry bulk density in g/cm^3

Kd = pore water/ soil solids partition coefficient for compound and temperature of interest in cm^3/g

Kd = (Koc)(foc), where Koc is organic carbon/water partition coefficient in cm^3/g for the compound and foc is the unitless fraction organic carbon (total organic carbon in mg/kg divided by 10^6)

thetaw = water filled porosity

Hc = dimensionless Henry's Gas Law constant for the compound and temperature of interest

thetaa = air-filled porosity = 0 in a saturated sample

Compound: TCE

Definition	Dry wgt. soil concentration	Dry bulk density	Organic carbon/water partition coeff.	Fraction organic carbon	Water-filled porosity	Air-filled porosity		Calculated Pore Water Concentration
Symbol	Ct	rhob	Koc	foc	thetaw	thetaa		
Units	ppb	g/cm3	cm3/g	fraction	fraction	fraction		ug/L
Saturated soil samples from borings SB-8, -9, -18, -19 (silty sand with gravel)								
Value	24	1.86	126	0.0073	0.3	0		**37**
Saturated soil sample from boring SB-13 (sand and gravel)								
Value	660	1.86	126	0.0073	0.3	0		**1,006**
Saturated soil sample from borings SB-10, -21, -22 (clay)								
Value	24	1.86	126	0.0064	0.4	0		**37**

3

Compound: 1,1,1-TCA

Definition	Dry wgt. soil concentration	Dry bulk density	Organic carbon/water partition coeff.	Fraction organic carbon	Water-filled porosity	Air-filled porosity		Calculated Pore Water Concentration
Symbol	Ct	rhob	Koc	foc	thetaw	thetaa		
Units	ppb	g/cm3	cm3/g	fraction	fraction	fraction		ug/L
Saturated soil samples from borings SB-8, -9, -13, -18, -19 (silty sand with gravel)								
Value	24	1.86	152	0.0073	0.3	0		**32**
Saturated soil samples from borings SB-10, -21, -22 (clay)								
Value	24	1.86	152	0.0064	0.4	0		**33**

Compound: cis-1,2-DCE

Definition	Dry wgt. soil concentration	Dry bulk density	Organic carbon/water partition coeff.	Fraction organic carbon	Water-filled porosity	Air-filled porosity		Calculated Pore Water Concentration
Symbol	Ct	rhob	Koc	foc	thetaw	thetaa		
Units	ppb	g/cm3	cm3/g	fraction	fraction	fraction		ug/L
Saturated soil samples from borings SB-21 (clay, 12-14 feet bgs)								
Value	160	1.86	86	0.0064	0.4	0		**313**
Saturated soil samples from borings SB-22 (clay, 12-14 feet bgs)								
Value	450	1.86	86	0.0064	0.4	0		**881**

Prepared by: SSM 2/2/99
Checked by: MBG 2/2/99

Notes:
Soil concentrations of 24 ppb used where concentrations were listed as "<25 ppb".
Koc values from Pankow and Cherry, 1996.
foc used is from site data. The average foc for sandy samples is 0.0073, and the one clay value is 0.0064.
Porosity for sandy materials is assumed to be 30%; porosity for clayey till materials is assumed to be 40%.

COMPUTATION SHEET

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED		CHECKED		PROJECT / PROPOSAL NO.
	By:	Date:	By:	Date:	
Navistar - Waukesha	BWR	18 Jun 98			3777.06

What would be the equilibrium partitioning between oil and water for the hydrophobic compounds TCE & TCA?

Assume octanol : water partitioning is reasonable surrogate for LNAPL : water partitioning at the site.

Given 1.) mg/L TCE in oil = 26

mg/L TCA in oil = 24

$$2.)\ K_{oc} = \frac{\text{mg TCE}/L_{octanol}}{\text{mg TCE}/L_{water}} \approx \frac{\text{mg TCE}/L_{LNAPL}}{\text{mg TCE}/L_{water}}$$

$$\text{mg TCE}/L_{water} = \frac{\text{mg TCE}/L_{LNAPL}}{K_{oc}}$$

3.) K_{oc} (TCE) = 240 K_{oc} (TCA) = 316 (from Griffen & others, 1990. EPA/600/8-90/003)

$$\text{mg TCE}/L_{water} = \frac{26}{240} = 0.11$$

$$\text{mg TCA}/L_{water} = \frac{24}{316} = 0.076$$

COMPUTATION SHEET

744 Heartland Trail P.O. Box 8923 Madison, WI 53708-8923 (608) 831-4444 FAX: (608) 831-3334 VOICE: (608) 831-1989

PROJECT / PROPOSAL NAME	PREPARED By:	Date:	CHECKED By:	Date:	PROJECT / PROPOSAL NO.
Navistar-Waukesha NR700	PBurke	4Aug98			3777.06

What would be the equilibrium partition of TCE & TCA into oil @ water concentrations of

2,200 ug/L TCE
300 ug/L TCA
} NMW-10, April 98.

Assume octanol:water partitioning adequately models LNAPL:water partitioning at the site:

Given:

① $$K_{oc} = \frac{mg\ TCE/L_{oct.}}{mg\ TCE/L_{wtr}} \approx \frac{mg\ TCE/L_{LNAPL}}{mg\ TCE/L_{wtr}}$$

$$mg\ TCE/L_{LNAPL} = K_{oc}\left(mg\ TCE/L_{wtr}\right)$$

②
$$K_{oc}(TCE) = 240 \qquad K_{oc}(TCA) = 316$$

(from Griffen & others, 1990 - EPA/600/8-90/003)

$$mg\ TCE/L_{LNAPL} = 240\left(2.2\ mg\ TCE/L_{wtr}\right) = 528$$

$$mg\ TCA/L_{LNAPL} = 316\left(0.3\ mg\ TCA/L_{wtr}\right) = 95$$

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL

Project Number : 3777.06

Client : RMT - MILWAUKEE

Report Date : 4/27/98

WI DNR LAB ID : 113138520

Lab Sample No.	Field ID	Collection Date
981318-001	SB-5 11-13'	3/27/98
981318-002	SB-8 13-15'	3/29/98
981318-003	SB-10 9-11'	3/29/98
981318-004	SB-15 11-13'	4/1/98
981318-005	WC-5 S	4/2/98
981318-006	WC-6 GW	4/2/98
981318-007	TRIP BLANK	3/27/98

(Waste Characterization - Soil)
(Waste Characterization - Groundwater)

SSM 1/29/99

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

Approval Signature

4-29-98
Date

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Station ID : SB-5 11-13'
Lab Sample Number : 981318-001
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 3/27/98
Matrix Type : SOIL
WI DNR LAB ID : 113138520

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
TOC as NPOC	2400	120	380		mg/kg		4/10/98	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Station ID : SB-8 13-15'
Lab Sample Number : 981318-002
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 3/29/98
Matrix Type : SOIL
WI DNR LAB ID : 113138520

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
TOC as NPOC	18000	120	380		mg/kg		4/10/98	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Station ID : SB-10 9-11'
Lab Sample Number : 981318-003
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 3/29/98
Matrix Type : SOIL
WI DNR LAB ID : 113138520

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
TOC as NPOC	6400	120	380		mg/kg		4/10/98	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Station ID : SB-15 11-13'
Lab Sample Number : 981318-004
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 4/1/98
Matrix Type : SOIL
WI DNR LAB ID : 113138520

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
TOC as NPOC	1400	120	380		mg/kg		4/10/98	SW846 9060	SW846 9060

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Station ID : WC-S-B (Waste Characterization-Soil)
Lab Sample Number : 981318-005
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 4/2/98
Matrix Type : SOIL
WI DNR LAB ID : 113138520

Inorganic Results

Test		Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Arsenic - TCLP	<	0.70			0.70	mg/L		4/10/98	SW846 3015	SW846 6010B
Barium - TCLP		0.62			0.20	mg/L		4/10/98	SW846 3015	SW846 6010B
Cadmium - TCLP	<	0.010			0.010	mg/L		4/10/98	SW846 3015	SW846 6010B
Chromium - TCLP	<	0.010			0.010	mg/L		4/10/98	SW846 3015	SW846 6010B
Copper - TCLP	<	0.020			0.020	mg/L		4/10/98	SW846 3015	SW846 6010B
Lead - TCLP	<	0.20			0.20	mg/L		4/10/98	SW846 3015	SW846 6010B
Mercury - TCLP	<	0.00040			0.00040	mg/L		4/14/98	SW846 7470A	SW846 7470A
Nickel - TCLP		0.030			0.020	mg/L		4/10/98	SW846 3015	SW846 6010B
Selenium - TCLP	<	0.70			0.70	mg/L		4/10/98	SW846 3015	SW846 6010B
Silver - TCLP	<	0.010			0.010	mg/L		4/10/98	SW846 3015	SW846 6010B
Zinc - TCLP	<	0.20			0.20	mg/L	P	4/10/98	SW846 3015	SW846 6010B
Cyanide, reactive	<	2.5			2.5	mg/kg as is		4/10/98	SW - 7.3.3.2	SW - 7.3.3.2
Flashpoint		>210				degrees F		4/14/98	SW846 1020A	SW846 1020A
pH, measured in water		8.2				su		4/10/98	SW846 9045C	SW846 9045C
Phenolics, total rec. - TCLP		0.027			0.010	mg/L		4/14/98	EPA 420.2	EPA 420.2
Solids, percent		90.0				%		4/17/98	SM 2540G	SM 2540G
Specific gravity - Soil		1.3						4/14/98	SM 2710F	SM 2710F
Sulfide, reactive	<	10			10	mg/kg as is		4/9/98	SW 7.3.4.1	SW 7.3.4.1

All soil results are reported on a dry weight basis unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Station ID : WC-6W Waste Characterization - Groundwater
Lab Sample Number : 981318-006
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 4/2/98
Matrix Type : WATER
WI DNR LAB ID : 113138520

Inorganic Results

Test	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Prep Method	Analysis Method
Arsenic	24	4.7	15		ug/L		4/20/98	SW846 3015	SW846 6010B
Barium	510	0.54	1.7		ug/L		4/20/98	SW846 3015	SW846 6010B
Cadmium	13	0.37	1.2		ug/L		4/20/98	SW846 3015	SW846 6010B
Chromium	91	0.64	2.0		ug/L		4/20/98	SW846 3015	SW846 6010B
Copper	130	1.1	3.5		ug/L		4/20/98	SW846 3015	SW846 6010B
Lead	160	2.4	7.6		ug/L		4/20/98	SW846 3015	SW846 6010B
Mercury	0.52	0.080	0.25		ug/L		4/23/98	SW846 7470A	SW846 7470A
Nickel	76	4.0	13		ug/L		4/20/98	SW846 3015	SW846 6010B
Selenium	< 4.8	4.8	15		ug/L		4/20/98	SW846 3015	SW846 6010B
Silver	< 2.4	2.4	7.6		ug/L		4/21/98	SW846 3015	SW846 6010B
Zinc	1900	3.9	12		ug/L		4/20/98	SW846 3015	SW846 6010B
Flashpoint	>210				degrees F		4/14/98	SW846 1020A	SW846 1020A
Free liquids (paint filter)	100				%		4/16/98	SW846 9095	SW846 9095
pH, Laboratory	7.7				su		4/10/98	EPA 150.1	EPA 150.1
Phenolics, total recoverable	1.3	0.085	0.27		mg/L		4/14/98	EPA 420.2	EPA 420.2
Reactive Cyanide - Water	< 2.5			2.5	mg/kg as is		4/10/98	SW - 7.3.3.2	SW - 7.3.3.2
Reactive Sulfide - Water	< 10			10	mg/kg as is		4/9/98	SW 7.3.4.1	SW 7.3.4.1
Solids, total	3400	2.0	6.4		mg/L		4/8/98	EPA 160.3M	EPA 160.3M
Specific gravity	1.0						4/14/98	SM 2710F	SM 2710F

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : WC-5 (Waste Characterization- Soil)
Lab Sample Number : 981318-005
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 4/2/98
Matrix Type : SOIL
WI DNR LAB ID : 113138520

Semivolatile Organic Results

TCLP LIST - SEMIVOLATILES — Prep Method: SW846 3510 — Prep Date: 4/13/98

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
2,4,5-Trichlorophenol	< 0.12			0.12	mg/L		4/21/98	SW846 8270
2,4,6-Trichlorophenol	< 0.050			0.050	mg/L		4/21/98	SW846 8270
2,4-Dinitrotoluene	< 0.050			0.050	mg/L		4/21/98	SW846 8270
Cresol, total	< 0.050			0.050	mg/L		4/21/98	SW846 8270
Hexachlorobenzene	< 0.050			0.050	mg/L		4/21/98	SW846 8270
Hexachlorobutadiene	< 0.050			0.050	mg/L		4/21/98	SW846 8270
Hexachloroethane	< 0.050			0.050	mg/L		4/21/98	SW846 8270
Nitrobenzene	< 0.050			0.050	mg/L		4/21/98	SW846 8270
Pentachlorophenol	< 0.12			0.12	mg/L		4/21/98	SW846 8270
Pyridine	< 0.050			0.050	mg/L		4/21/98	SW846 8270
1,2-Dichlorobenzene-d4	90			1.0	%Recov		4/21/98	SW846 8270
2,4,6-Tribromophenol	89			1.0	%Recov		4/21/98	SW846 8270
2-Chlorophenol-d4	74			1.0	%Recov		4/21/98	SW846 8270
2-Fluorobiphenyl	93			1.0	%Recov		4/21/98	SW846 8270
2-Fluorophenol	55			1.0	%Recov		4/21/98	SW846 8270
Nitrobenzene-d5	93			1.0	%Recov		4/21/98	SW846 8270
Phenol-d5	34			1.0	%Recov		4/21/98	SW846 8270
Terphenyl-d14	98			1.0	%Recov		4/21/98	SW846 8270

Volatile Organic Results

TCLP LIST - VOLATILES — Prep Method: SW846 5030

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,1-Dichloroethene	< 0.10			0.10	mg/L		4/10/98	SW846 8260
1,2-Dichloroethane	< 0.10			0.10	mg/L		4/10/98	SW846 8260
1,4-Dichlorobenzene	< 0.10			0.10	mg/L		4/10/98	SW846 8260
2-Butanone	< 0.20			0.20	mg/L		4/10/98	SW846 8260
Benzene	< 0.10			0.10	mg/L		4/10/98	SW846 8260
Carbon tetrachloride	< 0.10			0.10	mg/L		4/10/98	SW846 8260
Chlorobenzene	< 0.10			0.10	mg/L		4/10/98	SW846 8260
Chloroform	< 0.10			0.10	mg/L		4/10/98	SW846 8260
Tetrachloroethene	< 0.10			0.10	mg/L		4/10/98	SW846 8260
Trichloroethene	< 0.10			0.10	mg/L		4/10/98	SW846 8260
Vinyl chloride	< 0.050			0.050	mg/L		4/10/98	SW846 8260
4-Bromofluorobenzene	104			1.0	%Recov		4/10/98	SW846 8260
Dibromofluoromethane	109			1.0	%Recov		4/10/98	SW846 8260
Toluene-d8	95			1.0	%Recov		4/10/98	SW846 8260

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- Analytical Report -

Project Name :	NAVISTAR INTERNATIONAL	**Submitter :**	RMT - MILWAUKEE
Project Number :	3777.06	**Report Date :**	4/27/98
Field ID :	WC-5	**Collection Date :**	4/2/98
Lab Sample Number :	981318-005	**Matrix Type :**	SOIL
Lab Project Number :	981318	**WI DNR LAB ID :**	113138520

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote surrogate spike recovery. All recoveries pass in-house control limits unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : WC-6W (Waste Characterization - Groundwater)
Lab Sample Number : 981318-006
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 4/2/98
Matrix Type : WATER
WI DNR LAB ID : 113138520

Semivolatile Organic Results

SPECIAL SEMI-VOLATILE LIST — Prep Method: SW846 3510 — Prep Date: 4/7/98

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
2,4,5-Trichlorophenol	< 6.0	6.0	19		ug/L		4/22/98	SW846 8270
2,4,6-Trichlorophenol	< 3.9	3.9	12		ug/L		4/22/98	SW846 8270
2,4-Dinitrotoluene	< 3.8	3.8	12		ug/L		4/22/98	SW846 8270
Cresol, total	< 5.1	5.1	16		ug/L		4/22/98	SW846 8270
Hexachlorobenzene	< 8.7	8.7	28		ug/L		4/22/98	SW846 8270
Hexachlorobutadiene	< 15	15	48		ug/L		4/22/98	SW846 8270
Hexachloroethane	< 14	14	45		ug/L		4/22/98	SW846 8270
Nitrobenzene	< 5.1	5.1	16		ug/L		4/22/98	SW846 8270
Pentachlorophenol	< 12	12	38		ug/L		4/22/98	SW846 8270
Pyridine	< 11	11	35		ug/L		4/22/98	SW846 8270
1,2-Dichlorobenzene-d4	84				%Recov		4/22/98	SW846 8270
2,4,6-Tribromophenol	78				%Recov		4/22/98	SW846 8270
2-Chlorophenol-d4	60				%Recov		4/22/98	SW846 8270
2-Fluorobiphenyl	82				%Recov		4/22/98	SW846 8270
2-Fluorophenol	42				%Recov		4/22/98	SW846 8270
Nitrobenzene-d5	81				%Recov		4/22/98	SW846 8270
Phenol-d5	28				%Recov		4/22/98	SW846 8270
Terphenyl-d14	76				%Recov		4/22/98	SW846 8270

Volatile Organic Results

SPECIAL VOLATILE LIST — Prep Method: SW846 5030

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,1-Dichloroethene	5.4	1.1	3.5		ug/L		4/10/98	SW846 8260
1,2-Dichloroethane	< 0.94	0.94	3.0		ug/L		4/10/98	SW846 8260
1,4-Dichlorobenzene	< 0.92	0.92	2.9		ug/L		4/10/98	SW846 8260
2-Butanone	< 4.7	4.7	15		ug/L		4/10/98	SW846 8260
Benzene	< 0.80	0.80	2.5		ug/L		4/10/98	SW846 8260
Carbon tetrachloride	< 0.86	0.86	2.7		ug/L		4/10/98	SW846 8260
Chlorobenzene	< 0.58	0.58	1.8		ug/L		4/10/98	SW846 8260
Chloroform	< 1.0	1.0	3.2		ug/L		4/10/98	SW846 8260
Tetrachloroethene	< 0.88	0.88	2.8		ug/L		4/10/98	SW846 8260
Trichloroethene	260	0.76	2.4		ug/L		4/10/98	SW846 8260
Vinyl chloride	2.1	1.3	4.1		ug/L	Q	4/10/98	SW846 8260
4-Bromofluorobenzene	108				%Recov		4/10/98	SW846 8260
Dibromofluoromethane	106				%Recov		4/10/98	SW846 8260
Toluene-d8	104				%Recov		4/10/98	SW846 8260

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- Analytical Report -

Project Name :	NAVISTAR INTERNATIONAL	**Submitter :**	RMT - MILWAUKEE
Project Number :	3777.06	**Report Date :**	4/27/98
Field ID :	WC-6W	**Collection Date :**	4/2/98
Lab Sample Number :	981318-006	**Matrix Type :**	WATER
Lab Project Number :	981318	**WI DNR LAB ID :**	113138520

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote surrogate spike recovery. All recoveries pass in-house control limits unless otherwise noted.

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- Analytical Report -

Project Name : NAVISTAR INTERNATIONAL
Project Number : 3777.06
Field ID : TRIP BLANK
Lab Sample Number : 981318-007
Lab Project Number : 981318

Submitter : RMT - MILWAUKEE
Report Date : 4/27/98
Collection Date : 3/27/98
Matrix Type : BLANK
WI DNR LAB ID : 113138520

Volatile Organic Results

SPECIAL VOLATILE LIST

Prep Method: SW846 5030

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,1-Dichloroethene	< 0.56	0.56	1.8		ug/L		4/9/98	SW846 8260
1,2-Dichloroethane	< 0.47	0.47	1.5		ug/L		4/9/98	SW846 8260
1,4-Dichlorobenzene	< 0.46	0.46	1.5		ug/L		4/9/98	SW846 8260
2-Butanone	< 2.3	2.3	7.3		ug/L		4/9/98	SW846 8260
Benzene	< 0.40	0.40	1.3		ug/L		4/9/98	SW846 8260
Carbon tetrachloride	< 0.43	0.43	1.4		ug/L		4/9/98	SW846 8260
Chlorobenzene	< 0.29	0.29	0.92		ug/L		4/9/98	SW846 8260
Chloroform	< 0.50	0.50	1.6		ug/L		4/9/98	SW846 8260
Tetrachloroethene	< 0.44	0.44	1.4		ug/L		4/9/98	SW846 8260
Trichloroethene	< 0.38	0.38	1.2		ug/L		4/9/98	SW846 8260
Vinyl chloride	< 0.63	0.63	2.0		ug/L		4/9/98	SW846 8260
4-Bromofluorobenzene	102				%Recov		4/9/98	SW846 8260
Dibromofluoromethane	101				%Recov		4/9/98	SW846 8260
Toluene-d8	98				%Recov		4/9/98	SW846 8260

All soil results are reported on a dry weight basis unless otherwise noted.
Units of %Recov(ery) denote surrogate spike recovery. All recoveries pass in-house control limits unless otherwise noted.

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Data Qualifier Sheet

P	Digested spike recovery fails accuracy criteria; post-digestion spike recovery accepted.
Q	The analyte has been detected between the Limit of Detection(LOD) and Limit of Quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.

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SAMPLE NARRATIVE
SEMIVOLATILE GC ORGANIC ANALYSIS

PROJECT NAME:	NAVISTAR INTERNATIONAL
WORKORDER NUMBER:	981318
DATE:	4/28/98

Sample number 981318-006 (WC-6W) was diluted 1:5 due to background matrix interferences. The normal detection limits will be elevated accordingly.

EN CHEM INC.

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☒ 802 Deming Way, Madison, WI 53717, 608-827-5501 • 1-888-536-2436, Fax: 608-827-5503
☐ 1423 N. 8th Street, Suite 122, Superior, WI 54880, 715-392-5844 • 1-800-837-8238, FAX 715-392-5843

CHAIN OF CUSTODY 17777

Company Name: RMT, Inc.
Branch or Location: Milwaukee
Project Contact: Dave Misky
Telephone: (414) 879-1212
Project Number: 3777.06
Project Name: Navistar International
Project Location: Waukesha, WI
Sampled By (Print): David P. Misky

Regulatory Program (circle): UST RCRA CLP SDWA NPDES/WPDES CAA NR____ Other ____

NR720 Confirmation Analysis Required? (circle): Y (N)

(En Chem will not confirm unless otherwise instructed.)

Page ____ of ____
P.O. # ____ Quote # ____
Mail Report To: Dave Misky
Company: RMT, Inc.
Address: 150 N. Patrick Blvd. Brookfield, WI 53045
Invoice To: SAME
Company:
Address:
Mail Invoice To:

FILTERED? (YES/NO): No No No No No No No No
PRESERVATION (CODE)*: A A A D A C A B

ANALYSES REQUESTED: Total Organic Carbon | TCLP VOA | TCLP Metals, VOC, SVOA, Dry Weight | Metals | Chlorine, R SO2, R-CN | Phenolics | SVOA | VOA + Trip Blanks

SHADED AREA FOR LABORATORY USE ONLY

FIELD ID	SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	Total Organic Carbon	TCLP VOA	TCLP Metals, VOC, SVOA, Dry Weight	Metals	Chlorine, R SO2, R-CN	Phenolics	SVOA	VOA + Trip Blanks	FIELD SCREEN	MATRIX	GOOD COND.	TOTAL BOTTLES	COMMENTS	LABORATORY NUMBER
SB-5	11-13'	3/27/98	3:04	1								PID=0	Soil	X	1		98138-001
SB-8	13-15'	3/31/98	1:45	1								PID=0	↓	↓	↓		002
SB-10	9-11'	3/31/98	4:10	1								PID=0	↓	↓	↓		003
SB-15	11-13'	4/1/98	2:10	1								PID=0	↓	↓	↓		004
WC-5		4/2/98	1:00		2	1						—	↓	↓	3		005
WC-6W		4/2/98	1:00				1	3	1	2	5	—	GW	ǂ	10		006
	Trip blank BC 4/3													X	2		007

*Preservation Code
A=None B=HCL C=H2SO4
D=HN03 E=EnCore F=Methanol**
G=NaOH O=Other (Indicate)

**If not using En Chem's methanol, indicate volume of methanol added and mark the appropriate samples.

Relinquished By:	Date/Time:	Received By:	Date/Time:
David P. Misky	4/2/98 1:30P	[signature]	4/3/98 1030
[signature]	4/3/98 1530	Erika C Victor	4/3/98 1530
		Received By (En Chem):	

En Chem Project No.:
Sample Receipt Temp.: iced
Sample Receipt pH (Wet/Metals): adjusted ǂ
Custody seal

Appendix L
Previous Soil Analytical Summaries

From: Supplemental Soil and Groundwater Quality Investigation for the NITC Casting Facility in Waukesha, WI RMT, 1996

TABLE 2

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION
SOIL QUALITY DATA - SUMMARY OF DETECTED COMPOUNDS
SOIL SAMPLES FROM THE NAVISTAR PROPERTY
MARCH 1, 1996

Compound	NITC CHEMICAL STORAGE AREA								USED SAND AREA
	GP-1	GP-2	GP-3	GP-4	GP-5	GP-5	GP-6	GP-6	HA-1
Sample depth bls.	5-7'	5-7'	3-5'	3-5'	1-3'	5-7'	3-5'	7-9'	2-3'
Sample Number	3	3	2	2	1	3	2	4	
PID	<2	<2	<2	<2	3	<2	3	<2	3
Benzene									180
n-Butylbenzene									62
sec-Butylbenzene									20
tert-Butylbenzene									
2-Chlorotoluene									
Cis-1,2-Dichloroethene									
1,1 Dichloroethane					65				
Ethylbenzene									130
Hexachlorobutadiene									
Isopropylbenezene									30
p-Isopropyltoluene									40
Methylene Chloride	56	50	64	68	60	59		68	
Methyl-tert-butyl-ether									
Naphthalene							60		410
n-Propylbenzene									59
Tetrachloroethene									
Toluene	30					40			310(B)
1,1,1-Trichloroethane									
Trichloroethene					69				
1,2,3-Trichlorobenzene			50						
1,2,4-Trichlorobenzene			50						
1,2,4-Trimethylbenzene									260
1,3,5-Trimethylbenzene									100
Xylenes, Total								30	480

NOTES:

All concentrations reported in ppb.
Blank cells indicate that parameter was not detected.
(B) indicates parameter was also detected in the laboratory sample bank
Samples were analyzed by method 8021 for Wisconsin LUST List VOCs

1/21

From: Supplemental Soil and Groundwater Quality Investigation for the NITC Casting Facility in Waukesha, Wisconsin. RMT, 1996

TABLE 2A

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION
SOIL QUALITY DATA - SUMMARY OF DETECTED COMPOUNDS
SOIL SAMPLES FROM WISCONSIN COACH LINES PROPERTY

	WCL WASTE OIL AREA			SOUTHERN BORDER OF WCL PROPERTY							WCL HYDRAULIC OIL
Compound	GP-7	GP-8	GP-9	GP-10	GP-11	GP-12	GP-12	GP-13	GP-14	GP-15	WCL OIL 1
Sample depth bls.	11-13'	13-15'	7-9'	5-7'	7-9'	1-3'	5-7'	5-7'	7-9'	5-7'	
Sample Number	6	7	4	3	4	1	3	3	4	3	
PID	<2	5	<2	<2	<2	<2	<2	<2	<2	<2	
Benzene											1900
n-Butylbenzene		120									3700
sec-Butylbenzene		91									2300
tert-Butylbenzene		30									
2-Chlorotoluene		20									
Cis-1,2-Dichloroethene		30									
1,1 Dichloroethane											
Ethylbenzene		20									1600
Hexachlorobutadiene		110(B)									
Isopropylbenezene		40									960
p-Isopropyltoluene											620
Methylene Chloride											810
Methyl-tert-butyl-ether											
Naphthalene				60(B)		60(B)		20(B)			970
n-Propylbenzene		60									2400
Tetrachloroethene		40									590
Toluene						20					5500
1,1,1-Trichloroethane											3800
Trichloroethene		20	53							50	8100
1,2,3-Trichlorobenzene		83(B)									
1,2,4-Trichlorobenzene		70(B)									
1,2,4-Trimethylbenzene		30				20					2900
1,3,5-Trimethylbenzene		30									910
Xylenes, Total		50				50					5300

NOTES:

All concentrations reported in ppb
Blank cells indicate that parameter was not detected
(B) indicates parameter was also detected in the laboratory sample bank
Samples were analyzed by method 8021 for Wisconsin LUST List VOCs

2

Tables 3A through 3D from: Preliminary Groundwater Investigation at the NITC Casting Facility Waukesha, WI. RMT, 1993

TABLE 3A
SUMMARY OF COMPOUNDS DETECTED IN SOIL - NAVISTAR INTERNATIONAL TRANSPORTATION, INC.

Sample Location	Sample Number	Sample Interval Depth	Field-Screening Results (Instrument units ppm benzene)	Concentration Units as µg/kg					
				Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	GRO	TRPH	DRO
NMW-1	1	0.5-2.5	1						
	2	3-5	1	ND (ND)	ND (ND)	ND (ND)	ND (ND)	160,000	230,000
	3	5.5-7.5	1						
	4	8-10							
NMW-2	1	0.5-2.5	43	(10)	(6160)	(ND)	(ND)		
	2	3-5							
	3	5.5-7.5	1						
	4	8-10	42	ND (ND)	ND (519)**	ND (ND)	ND (ND)	ND	ND
	5	10.5-12.5							
	6	13-14	1						
NMW-3	1	0.5-2.5	6	7.9 (ND)	1.7 (32)	~~40~~ 4.0 (11.4)	ND (ND)	16,000	ND
	2	3-5	23						
	3	5.5-7.5	1						
	4	8-10	1	(ND)	(7.0)	(45)	(ND)		
	5	11-12	1						
NMW-4	1	0-2	1						
	2	2.5-4.5	1						
	3	5-7							
	4	7.5-9.5	1						
	5	10-12	1	ND (ND)	ND (ND)	ND (ND)	ND (ND)	ND	ND
	6	12.5-14.5	1						

3

TABLE 3A (CONTINUED)
SUMMARY OF COMPOUNDS DETECTED IN SOIL - NAVISTAR INTERNATIONAL TRANSPORTATION, INC.

Sample Location	Sample Number	Sample Interval Depth	Field-Screening Results (Instrument units ppm benzene)	Concentration Units as µg/kg					
				Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	GRO	TRPH	DRO
NMW-5	1	0.5-2.5	1						
	2	3-5	1						
	3	5.5-7.5	1						
	4	8-10	1	(ND)	(ND)	(21.0)	(ND)		
	5	10.5-12.5	1						
	6	13-15	1	ND	ND	3.3	ND	57,000	ND
	7	15.5-17.5	13						
NMW-6	1	0.5-2.5	7	ND	ND	ND	ND	76,000	ND
	2	3-5	1						
	3	5.5-7.5	1						
	4	8-10	1						
	5	10.5-12.5		(ND)	(ND)	(14.0)	(ND)		
	6	13-15							

NOTES:

ND = Not detected.
** Sample suspected of containing non-representative soil from a shallower depth.

Concentrations shown in parentheses are reported by Graef, Anhalt, and Schloemer (G.A.S.).
G.A.S. samples were analyzed for VOCs and GRO only.

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TABLE 3B

SUMMARY OF COMPOUNDS DETECTED IN SUPPLEMENTAL SOIL SAMPLES AT NITC

RMT RESULTS
(collected March 19–20, 1993, by Layne Geoscience)
(Concentrations in μg/kg)

Sample Identification	NAV1-S1	NAV3-S2	NAV4-S2	NAV5-S1	NAV6B-S1
Sample Depth (feet)	2-4	6-8	6-8	2-4	3-4
Compound					
1,1-Dichloroethene	9				
1,1,1-Trichloroethane	100			24	3
Trichloroethene				67	3
Benzene				3	
Toluene	7	1		17	2
Ethylbenzene	1			2	
Xylene	5	1	1	10	2

NOTES:

- No compounds were detected in the trip blank accompanying these samples.
- Samples were analyzed according to EPA Method 8260.

TABLE 3C

SUMMARY OF COMPOUNDS DETECTED IN SUPPLEMENTAL SOIL SAMPLES AT NITC

LAYNE GEOSCIENCE RESULTS

(Collected March 19–20, 1993 by Layne Geoscience)
(Concentrations in µg/kg)

Sample Identification	NAV1-S1	NAV3-S2	NAV4-S2	NAV5-S1	NAV6-S1
Sample Depth (feet)	2-4	2-4	2-4	2-4	2-4
Compounds					
Benzene	2.7	2.5		21.1	4.5
1,1-Dichloroethane	32 ~~2~~				
Ethylbenzene	8.8	10.8	20.5	15.1	11
Naphthalene	39 ~~9~~				
Toluene	14.4	15.1	17.1		17.1
1,1,1-Trichloroethene	369 ~~360~~	14.1	19.3	203	
Trichloroethene	2.7			96	
Trichlorofluoromethane	2.4			19.7	
1,3,5-Trimethylbenzene			21	7.3	6.4
1,2,4-Trimethylbenzene	8.5				
Xylene	4.4		7.5	12	5.1

TABLE 3D

SUMMARY OF COMPOUNDS DETECTED IN SUPPLEMENTAL SOIL SAMPLES AT WCL

RMT RESULTS
(Collected April 14, 1993, by RMT)
(Concentrations in µg/kg)

Sample Identification	WCB-1(104)	WCB-1(06)	WCB-2A(04)	WCB-2A(08)	WCB-3(10)	WCB-3(12)	WCB-4(04)	WCB-4(12)
Sample Depth (feet)	3-5	5-7	3-5	7-9	9-11	11-13	3-5	11-13
Compounds								
Tetrachloroethene	62							
1,2,4-Trimethylbenzene							13	
N-butylbenzene							14	
Trichloroethylene								1.7W
Xylene							12	

NOTES:

- No compounds were detected in the trip blank accompanying these samples.
- Samples were analyzed according to EPA Method 8021.
- Only detected compounds are listed.

W = Sample received with headspace.

TABLE 2

Detected Chlorinated Compounds in Soil
(All concentrations in ppb)

Boring	Depth (ft.)	Date	Approximate Groundwater Depth (ft.)	Tri-chloroethene	Tetra-chloroethane	1,1,1-Tri-chloroethane
SIGMA SB-1	7-9	2-26-92	7	6.6	ND	ND
SIGMA SB-1	11-13	2-26-92	7	6.6	ND	MD
KEY B-3	2-4	8-12-94	10	ND	ND	ND
KEY B-4	10 1/2-12	8-17-94	9	490	ND	ND
KEY B-5	5-8	8-17-94	7.5	340	ND	ND
NMW-2	1/2-2 1/2	4-93	9-10	ND	10	6160
NMW-3	1/2-2 1/2	4-93	9-10	40	7.9	32

From:
"Limited Phase II Environmental Site Assessment; Perkins Street Property, Waukesha, WI"
Prepared for: McGlenn Partnership
by: Midwest Engineering Services, Inc.
January 29, 1997

"Initial Site Assessment, Extent of Contamination and Remediation Progress Report" at Wisconsin Coach Lines, Inc.

G.A.S., 1992

TABLE 2
WISCONSIN COACH LINES, INC.

FLAME IONIZATION DETECTOR READINGS AND LABORATORY RESULTS FOR TOTAL PETROLEUM HYDROCARBONS

FOR TANK EXCAVATION NO. 1

October 25, 1990

Model OVA 128

FIELD$^{\Delta}$ SAMPLE NUMBER	LABORATORY SAMPLE NUMBER	SAMPLE LOCATION	DEPTH FEET	FID FIELD SCREEN READING	LABORATORY RESULTS FOR TPH IN PPM
1	SS-1	Beneath East End of Waste Oil Tank (Tank No. 1)	6.5	7*	Diesel <5 Gasoline <5 Waste Oil 33
2	SS-2	Beneath West End of Waste Oil Tank (Tank No. 1)	6.5	2*	Diesel <5 Gasoline <5 Waste Oil 930
3	SS-3	Beneath South End of Diesel Tank (Tank No. 2)	11	ND	Diesel <5 Gasoline <5 Waste Oil <5
4	SS-4	Beneath North End of Diesel Tank (Tank No. 2)	11	ND	Diesel <5 Gasoline <5 Waste Oil 61
5		Center of West Wall of Excavation	8	ND	NT
6		Center of East Wall of Excavation	8	ND	NT
7	SS-7	Center of South Wall of Excavation	8	ND	Diesel <5 Gasoline <5 Waste Oil 75
8	SS-8	Under Diesel Tank's (Tank No. 2) Piping	3	ND	Diesel <5 Gasoline <5 Waste Oil 85
9		Under Diesel Tank's (Tank No. 2) Piping	5	ND	NT

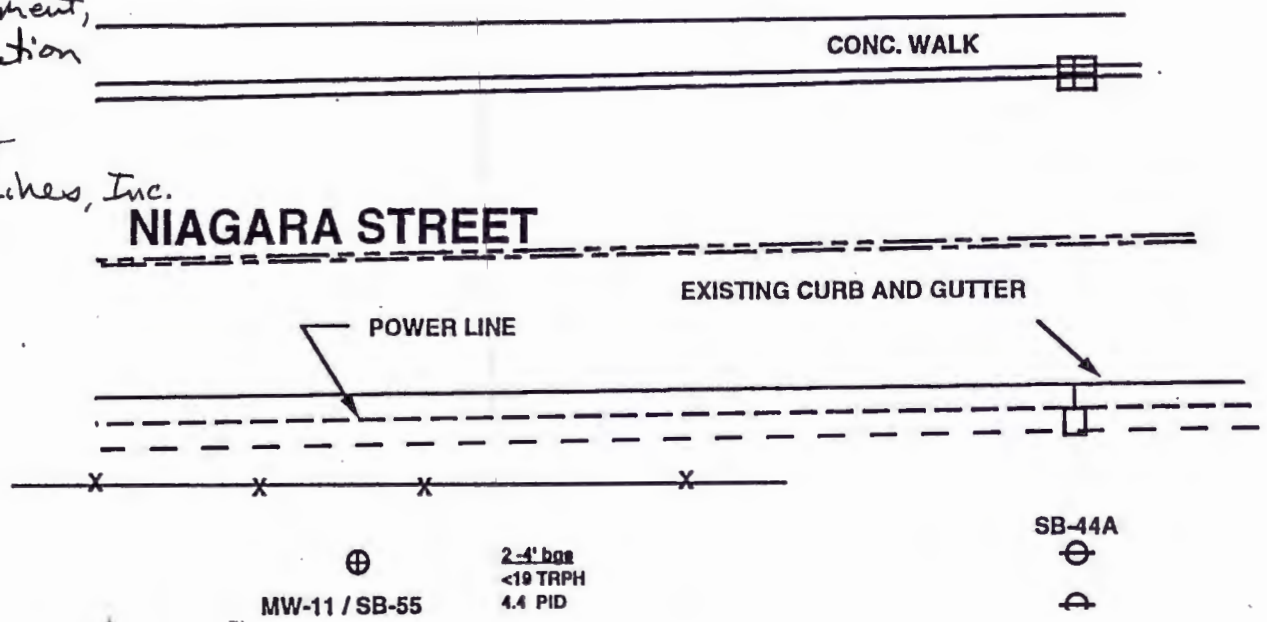
Δ = See Figure 3 for soil sampling locations

* = Field Screened with an HNu Photoionization Detector

ND = No Detect

NT = Not Tested

From:
Initial Site Assessment,
Extent of Contamination
and Remediation
Progress Report at
Wisconsin Coach Lines, Inc.
GAS, 1992



PERIMETERS

SOIL CONTAMINATION PLUME PERIMETERS (DETERMINED WHEN ANALYTICAL RESULTS WERE LESS THAN 10 ppm TPH)

GRO	GASOLINE RANGE ORGANICS
DRO	DIESEL RANGE ORGANICS
WO	WASTE OIL
IU	INSTRUMENT UNITS
FID	FLAME IONIZATION DETECTOR
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

NOTE: ANALYTICAL PARAMETERS NOT LISTED WERE NOT DETECTED

EXTENT OF SOIL CONTAMINATION MAP

WISCONSIN COACH EXCAVATION NO. 1 WAUKESHA, WISCONSIN

SCALE:	1" = 20'
DATE:	7-24-91
PROJ. MGR:	DGV
DRAWN BY:	TMW
JOB NUMBER:	908070 / 908568
REVISION DATE:	3-26-92

GRAEF ANHALT SCHLOEMER and Associates Inc.
ENGINEERS & SCIENTISTS

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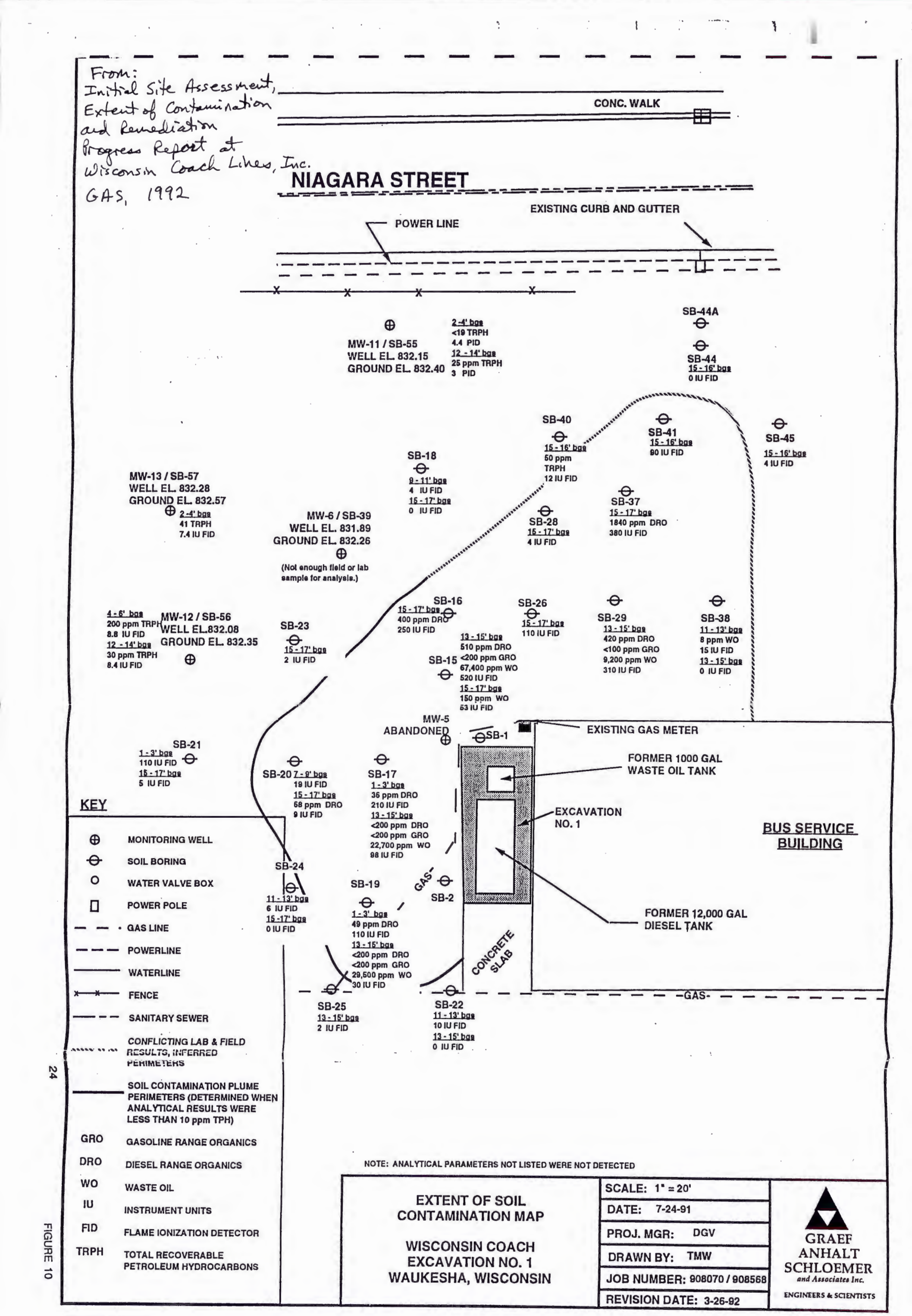
FIGURE 10

908070/908568DGV.D11 EXC. 1

From:
Initial Site Assessment,
Extent of Contamination
and Remediation
Progress Report at
Wisconsin Coach Lines, Inc.
GAS, 1992



NOTE: ANALYTICAL PARAMETERS NOT LISTED WERE NOT DETECTED

EXTENT OF SOIL CONTAMINATION MAP WISCONSIN COACH EXCAVATION NO. 1 WAUKESHA, WISCONSIN	SCALE: 1" = 20'
	DATE: 7-24-91
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	DRAWN BY: TMW
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	REVISION DATE: 3-26-92

GRAEF ANHALT SCHLOEMER and Associates Inc.
ENGINEERS & SCIENTISTS

FIGURE 10

908070/908568DGV.D11 EXC. 1

From: Initial Site Assessment, Extent of Contamination and Remediation Progress Report at Wisconsin Coach Lines. GAS, 1992

TABLE 3

WISCONSIN COACH LINES INC.

FLAME IONIZATION DETECTOR READINGS FOR SOIL BORINGS SB-15 TO SB-64

March 25 through December 17, 1991

Dates	Soil Boring	Sample Number	Depth Feet	Field Screen Readings Instrument Units (IU)	Laboratory Samples	Laboratory Results TPH DRO (ppm)	GRO (ppm)	Oil (ppm)
03/25/91	SB-15	1	1-3	0.0				
		2	3-5	0.0				
		3	5-7	0.0				
		4	7-9	3.0				
		5	9-11	4.0				
		6	11-13	3.0				
		7	13-15	520.0	X	510.	<200	67,400.
		8	15-17	53.0	X	<5.	<5.	150.
03/25/91	SB-16	1	1-3	0.0				
		2	3-5	1.0				
		3	5-7	9.0				
		4	7-9	4.0				
		5	9-11	7.0				
		6	11-13	0.0				
		7	13-15	34.0				
		8	15-17	250.0	X	400.	<5.	<5.
03/25/91	SB-17	1	1-3	210.0	X	36.	<5.	<5.
		2	3-5	10.0				
		3	5-7	11.0				
		4	7-9	5.0				
		5	9-11	5.0				
		6	11-13	5.0				
		7	13-15	98.0	X	<200.	<200.	22,700.
		8	15-17	35.0				
03/25/91	SB-18	1	1-3	0.0				
		2	3-5	0.0				
		3	5-7	0.0				
		4	7-9	0.0				
		5	9-11	4.0	X	<5.	<5.	<5.
		6	11-13	6.0				
		7	13-15	0.0				
		8	15-16	0.0	X	<5.	<5.	<5.
03/28/91	SB-19	1	1-3	110.0	X	49.	<5.	<5.
		2	3-5	28.0				
		3	5-7	22.0				
		4	7-9	18.0				
		5	9-11	----				
		6	11-13	14.0				
		7	13-15	30.0	X	<200.	<200.	29,500

Table 3 (Continued)

Dates	Soil Boring	Sample Number	Depth Feet	Field Screen Readings Instrument Units (IU)	Laboratory Samples	Laboratory Results TPH DRO (ppm)	GRO (ppm)	Oil (ppm)
03/28/91	SB-20	1	1-3	15.0				
		2	3-5	2.0				
		3	5-7	19.0				
		4	7-9	19.0	X	<5.	<5.	<5.
		5	9-11					
		6	11-13	19.0				
		7	13-15	8.0				
		8	15-16	9.0	X	58.	<5.	<5.
03/28/91	SB-21	1	1-3	110.0	X	<5.	<5.	<5.
		2	3-5	4.0				
		3	5-7	16.0				
		4	7-9	16.0				
		5	9-11	15.0				
		6	11-13	18.0				
		7	13-15	12.0				
		8	15-17	5.0	X	<5.	<5.	<5.
03/28/91	SB-22	1	1-3	8.0				
		2	3-5	4.0				
		3	5-7	8.0				
		4	7-9	9.0				
		5	9-11	6.0				
		6	11-13	10.0	X	<5.	<5.	<5.
		7	13-15	0.0	X	<5.	<5.	<5.
03/28/91	SB-23	1	11-13	5.0				
		2	13-15	4.0				
		3	15-17	2.0	X	<5.	<5.	<5.
03/29/91	SB-24	1	1-3	10.0				
		2	11-13	6.0				
		3	13-15	6.0	X	<5.	<5.	<5.
		4	15-17	0.0	X	<5.	<5.	<5.
03/29/91	SB-25	1	11-13	8.0				
		2	13-15	2.0	X	<5.	<5.	<5.
		3	15-17	2.0				
03/29/91	SB-26	1	11-13	8.0				
		2	13-15	4.0				
		3	15-17	110.0	X	<5.	<5.	<5.
03/29/91	SB-28	1	11-13	4.0				
		2	13-15	5.0				
		3	15-17	4.0	X	<5.	<5.	<5.

Table 3 (Continued)

Dates	Soil Boring	Sample Number	Depth Feet	Field Screen Readings Instrument Units (IU)	Laboratory Samples	Laboratory Results TPH DRO (ppm)	GRO (ppm)	Oil (ppm)
05/29/91	SB-29	1	11-13	10.0				
		2	13-15	310.0	X	420.	<100.	9,200.
		3	15-17	150.0				
05/29/91	SB-37	1	11-13	0.0				
		2	13-15	0.0				
		3	15-17	380.0	X	1,840.	<5.	<5.
05/30/91	SB-38	1	1-3	0.0				
		2	3-5	0.0				
		3	5-7	0.0				
		4	7-9	0.0				
		5	9-11	0.0				
		6	11-13	15.0	X	<5.	<5.	8.
		7	13-15	2.0	X	<5.	<5.	<5.
		8	15-17	0.0				
05/30/91	SB-39	1	11-13	Not Enough Recovery For Field or Laboratory Samples				
		2	12-14	Not Enough Recovery For Field or Laboratory Samples				
07/09/91	SB-40	1	11-13	0.0				
		2	13-15	0.0				
		3	15-17	12.0	X	<5.	NT	NT
07/09/91	SB-41	1	11-13	0.0				
		2	13-15	0.0				
		3	15-17	90.0	X	<5.	NT	NT
07/10/91	SB-44	1	8-10	6.0				
		2	10-12	8.0	X	<5.	NT	NT
		3	12-14	3.0				
		4	14-16	0.0	X	<5.	NT	NT

Table 3 (Continued)

Dates	Soil Boring	Sample Number	Depth Feet	Field Screen Readings Instrument Units (IU)	Laboratory Samples	Laboratory Results TPH DRO (ppm)	GRO (ppm)	Oil (ppm)
03/29/91	SB-45	1	9-11	3.0				
		2	11-13	1.0				
		3	13-15	0.0	X	<5.	NT	NT
			15-17	4.0	X	<5.	NT	NT
12/13/91	SB-55	1	0-2	2.8				
		2	2-4	4.4	X	<5.	NT	NT
		3	4-6	4.2				
		4	6-8	4.0				
		5	8-10	3.8				
		6	10-12	----				
		7	12-14	3.0	X	<5.	NT	NT
12/13/91	SB-56	1	0-2	10.0				
		2	2-4	6.2				
		3	4-6	8.8	X	<5.	NT	NT
		4	6-8	NS				
		5	8-10	9.2				
		6	10-12	7.6				
		7	12-14	8.4	X	<5.	NT	NT
		8	14-16	NS				
12/17/91	SB-57	1	0-2	9.6				
		2	2-4	7.4	X	<5.	NT	NT
		3	4-6	6.6				
		4	6-8	NS				
		5	8-10	3.2				
03/09/92	SB-59	1	1-3	4.2				
		2	3-5	4.4				
		3	5-7	5.0				
		4	7-9	6.0				
		5	9-11	8.2				
		6	11-13	8.4				
		7	13-15	7.6				
		8	15-17	7.8				
		9	17-19	4.1				
		10	19-21	4.4	X	NT	13	NT
		11	21-23	7.0				
03/09/92	SB-60	1	1-3	3.1				
		2	3-5	---				
		3	5-7	3.4				
		4	7-9	1.0				
		5	9-11	2.4				
		6	11-13	2.2				
		7	13-15	2.7				
		8	15-17	3.3				
		9	17-19	3.4				
		10	19-21	5.2	X	NT	<5.	NT

Table 3 (Continued)

Dates	Soil Boring	Sample Number	Depth Feet	Field Screen Readings Instrument Units (IU)	Laboratory Samples	Laboratory Results TPH DRO (ppm)	GRO (ppm)	Oil (ppm)
03/10/92	SB-62	1	1-3	7.7				
		2	3-5	0.8				
		3	5-7	2.9				
		4	7-9	1.1				
		5	9-11	5.2				
		6	11-13	4.1				
		7	13-15	4.9	X	NT	<5.	NT
		8	15-17	5.2				
03/11/92	SB-63	1	1-3	4.0				
		2	3-5	6.4				
		3	5-7	5.8				
		4	7-9	5.9				
		5	9-11	1.3				
		6	11-13	3.5				
		7	13-15	2.9				
		8	15-17	4.3	X	NT	<5.	NT
		9	17-19	1.4				
		10	19-21	1.0				
03/12/92	SB-64	1	1-3	0.5				
		2	3-5	0.4				
		3	5-7	2.3				
		4	7-9	1.2				
		5	9-11	3.3				
		6	11-13	2.4	X	NT	<5.	NT
		7	13-15	0.0				
		8	15-17	0.9				

TPH = Total Petroleum Hydrocarbons
DRO = TPH Reference as Diesel Range Organics
GRO = TPH Reference as Gasoline Range Organics
ppm = Parts Per Million
NS = No Sample
NT = Not Tested

From: Initial Site Assessment, Extent of Contamination and Remedial Progress Report at Wisc. Coach Lines. Inc. GAS, 1992

TABLE 4

WISCONSIN COACH LINES, INC.

ANALYTICAL SOIL RESULTS FOR SOIL BORINGS SB-15 to SB-64

March 25 through December 17, 1991

Soil Boring (SB)	Sample No.	Depth (feet)	Date Sampled	TPH DRO ppm	TPH GRO ppm	TPH Waste Oil ppm	TRPH ppm	VOC Detect ppm	Pb ppm	Cd ppm
SB-15	7	13-15	03/25/91	510.	<200.	67,400.	NT	NT	NT	NT
SB-15	8	15-17	03/25/91	<5.	<5.	150.	NT	NT	NT	NT
SB-16	8	15-17	03/25/91	400.	<5.	<5.	NT	NT	NT	NT
SB-17	1	1- 3	03/25/91	36.	<5.	<5.	NT	NT	NT	NT
SB-17	7	13-15	03/25/91	<200.	<200.	22,700.	NT	NT	NT	NT
SB-18	5	9-11	03/25/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-18	8	15-17	03/25/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-19	1	1- 3	03/28/91	49.	<5.	<5.	NT	NT	NT	NT
SB-19	7	13-15	03/28/91	<200.	<200.	29,500.	NT	NT	NT	
SB-20	4	7- 9	03/28/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-20	8	15-17	03/28/91	58.	<5.	<5.	NT	NT	NT	NT
SB-21	1	1- 3	03/28/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-21	8	15-17	03/28/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-22	6	11-13	03/28/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-22	7	13-15	03/28/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-23	3	15-17	03/28/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-24	2	11-13	03/29/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-24	4	15-17	03/29/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-25	2	13-15	03/29/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-26	3	15-17	03/29/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-28	3	15-17	03/29/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-29	2	13-15	04/01/91	420.	<100.	9,200.	NT	NT	NT	NT

Not Tested

Table 4 (Continued)

Soil Boring (SB)	Sample No.	Depth (feet)	Date Sampled	TPH DRO ppm	TPH GRO ppm	TPH Waste Oil ppm	TRPH ppm	VOC Detect ppm	Pb ppm	Cd ppm
SB-37	3	15-17	05/29/91	1,840.	<5.	<5.	NT	NT	NT	NT
SB-38	6	11-13	05/30/91	<5.	<5.	8.	NT	NT	NT	NT
SB-38	7	13-15	05/30/91	<5.	<5.	<5.	NT	NT	NT	NT
SB-40	3	15-16	07/09/91	<5.	NT	NT	50.	ND	23.	<2.5
SB-41	3	15-16	07/09/91	<5.	NT	NT	<10.	ND	24.	<2.5
SB-44	2	11-13	07/10/91	<5.	NT	NT	<10.	ND	32.	<2.5
SB-44	4	15-16	07/10/91	<5.	NT	NT	<10.	ND	25.	<2.5
SB-45	4	15-16	07/10/91	<5.	NT	NT	<10.	ND	30.	<2.5
SB-55	2	2- 4	12/15/91	<5.	NT	NT	<19.	ND	NT	NT
SB-55	7	12-14	12/15/91	<5.	NT	NT	25.	ND	NT	NT
SB-56	3	4- 6	12/16/91	<5.	NT	NT	200.	0.2 Xylenes	NT	NT
SB-56	7	12-14	12/16/91	<5.	NT	NT	30.	ND	NT	NT
SB-57	2	2- 4	12/17/91	<5.	NT	NT	41.	ND	NT	NT
SB-59	10	19-21	03/09/92	NT	13	NT	<10.	ND	ND	ND
SB-60	10	19-21	03/09/92	NT	<5.	NT	<10.	ND	ND	ND
SB-62	7	13-15	03/09/92	NT	<5.	NT	<10.	ND	ND	ND
SB-63	8	15-17	03/09/92	NT	<5.	NT	<10.	ND	ND	ND
SB-64	6	11-13	03/09/92	NT	<5.	NT	<10.	ND	ND	ND

ppm = Parts Per Million
NT = Not Tested
ND = Not Detected
TPH = Total Petroleum Hydrocarbons
DRO = TPH referenced as Diesel Range Organics
GRO = TPH referenced as Gasoline Range Organics
TRPH = Total Recoverable Petroleum Hydrocarbons
Pb = Lead
Cd = Cadmium

TABLE 6

WISCONSIN COACH LINES, INC.

From: Initial Site Assessment, Extent of Contamination and Remedial Progress Report at Wisc. Coach Lines, Inc. GAS, 1992

ANALYTICAL SOIL RESULTS
FOR REMEDIAL EXCAVATION

October 29 through November 7, 1991

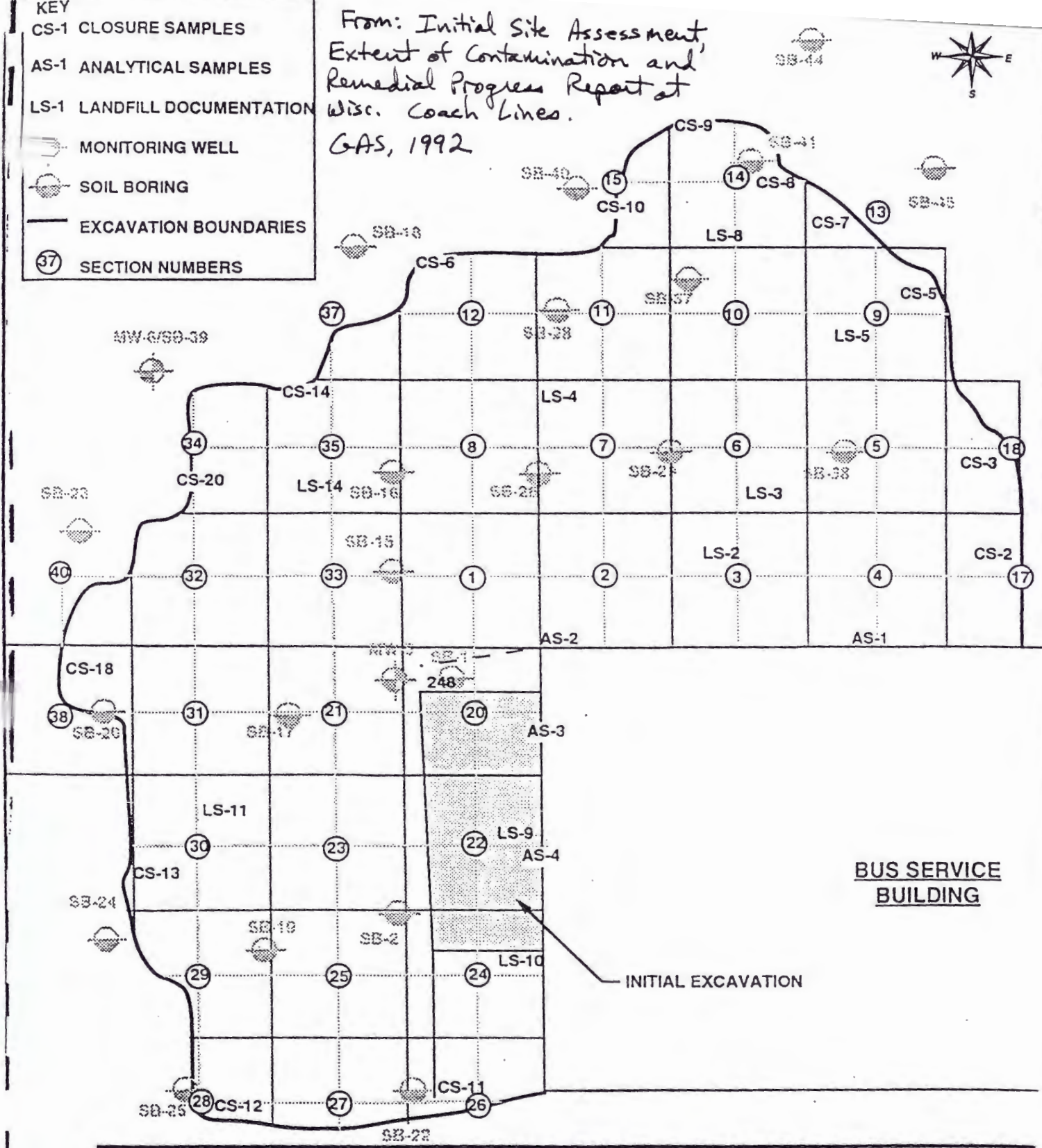
LABORATORY SAMPLE NUMBER	FIELD SCREEN NUMBER	FID (IU)	DRO	VOC BENZENE	XYLENES O	XYLENES M	XYLENES P	METHYL T BUTYLETHER	ETHYL-BENZENE	1,2,4 TRIMETHYL-BENZENE	1,3,5 TRIMETHYL-BENZENE	TOLUENE	1,2,3 TRICHLORO-BENZENE	1,2,4 TRICHLORO-BENZENE	GRO
CS-2	83	2.6	0.24	•	•	•	•	•	•	•	•	•	•	•	NT
CS-3	84	0.6	0.93	•	•	•	•	•	•	•	•	•	•	•	NT
CS-5	163	2.2	0.30	•	•	•	•	•	•	•	•	•	•	•	NT
CS-6	215	0.6	0.45	•	•	•	•	•	•	•	•	•	•	•	NT
CS-7	224	1.0	.19	•	•	•	•	•	•	•	•	•	•	•	NT
CS-8	232	ND	0.95	0.23	.15	.24	.15	•	•	•	•	•	•	•	NT
CS-9	235	ND	0.70	•	•	•	.15	•	•	•	•	•	•	•	NT
CS-10	244	1.2	0.18	•	•	•	.15	•	•	•	•	•	•	•	NT
CS-11	325	0.4	.27	•	•	•	•	•	•	•	•	•	•	•	NT
CS-12	342	0.5	.45	•	•	•	•	•	•	•	•	•	•	•	NT
CS-13	395	2.2	0.20	•	•	•	•	•	•	•	•	•	•	•	NT
CS-14	441	0.2	0.35	•	•	•	•	•	•	•	•	•	•	•	NT
CS-18	445	4.5	2.49	•	•	•	•	•	•	•	•	•	•	•	NT
CS-20	457	0.6	0.35	•	•	•	•	•	•	•	•	•	•	•	NT
LS-2	17	760.1	•	•	•	•	•	•	•	•	•	•	•	•	NT
LS-3	37	360	0.93	0.15	0.15	•	•	•	•	•	•	•	•	•	NT
LS-4	114	50	•	•	•	•	•	•	•	•	•	•	•	•	NT
LS-5	162	58	30.1	•	0.48	1.20	1.22	0.69	0.33	•	•	•	•	•	NT
LS-8	236	106	51.8	1.49	.17	.93	1.23	•	0.33	•	•	•	•	•	NT
LS-9	267	74	2.1	•	•	•	•	•	•	•	•	•	•	•	NT
LS-10	299	78	4.06	•	0.15	•	0.25	•	•	•	•	•	•	•	NT
LS-11	356	110	1.68	0.15	•	•	0.15	•	•	•	•	•	•	•	NT
LS-14	433	97	1.1	•	•	•	0.15	•	•	•	•	•	•	•	NT
AS-1	86	0.6	0.15	•	•	•	•	•	•	•	•	•	•	•	NT
AS-2	97	54	40.23	1.1	1.37	3.16	1.82	0.69	0.42	0.70	0.59	•	•	•	4.4
AS-3	261	112	0.17	0.15	•	•	•	•	•	•	•	•	•	•	0.50
AS-4	334	60	8.6	0.32	•	•	•	0.15	•	•	•	0.29	0.15	0.15	5.7

• = Indicates Sample Tested Below Minimum Level of Detection (MDL)
LS = Landfill Documentation Sample
CS = Closure Sample
AS = Analytical Sample to Determine Remaining Contamination
NT = Not Tested
Not Detected
Instrument Units

47

58

19



ANALYTICAL SAMPLE LOCATION MAP WISCONSIN COACH DAIRYLAND BUSES WAUKESHA, WISCONSIN	SCALE: 1"=20' DATE: 3-4-92 PROJECT MGR: DGV DRAWN BY: MRW JOB NUMBER: 908070 / 908568 REVISION DATE: 3-26-92

GRAEF ANHALT SCHLOEMER and Associates Inc.
CONSULTING ENGINEERS

908070DGV.D14

Appendix M
Previous Groundwater Analytical Summaries

From: Supple
For the
RMT,

Compound	NR 140 STANDARDS		NMW-1	NW-16	MW-19
	ES	PAL			
1,1 Dichloroethane	850	85	11	5.3	2.1
1,1 Dichloroethene	7	0.7	29	9.4	3.6
Cis-1,2-Dichloroethene	70	7	<10	8.4	4.7
Trans-1,2-Dichloroethene	100	20	<10	<5.0	<1.0
1,1,1-Trichloroethane	200	40	300	99	12
Trichloroethene	5	0.5	870	540	170
Vinyl chloride	0.2	0.02	<10	<5.0	<1.0

NOTES:
Bolded data represent NR 140 PAL exceedances.
Bolded and underlined data represent NR 140 ES exceedances.
Samples were analyzed by Method 8021 for Wisconsin LUST List \

1/8

From: Supplemental Soil and Groundwater Quality Investigation
For the NITC Casting Facility in Waukesha, Wisconsin.
RMT, 1996

TABLE 3

NAVISTAR INTERNATIONAL TRANSPORTATION CORPORATION
APRIL 1996 GROUNDWATER QUALITY DATA - SUMMARY OF DETECTED COMPOUNDS
(concentrations in µg/L)

Compound	NR 140 STANDARDS		NMW-1	NMW-2	NMW-3	NMW-4	NMW-5	NMW-6	NMW-7	NMW-8	NMW-9	NMW-10	NMW-11	NPZ-1	NPZ-2	MW-2	MW-11	MW-12	MW-13	MW-15	MW-16	MW-19
	ES	PAL																				
1,1 Dichloroethane	850	85	11	4.4	7.3	<1.0	28	150	6.1	11	20	<50	<50	23	31	<1	29	46	37	23	5.3	2.1
1,1 Dichloroethene	7	0.7	29	5.7	6.7	<1.0	30	260	18	25	21	100	81	42	44	<1	32	71	58	27	9.4	3.6
Cis-1,2-Dichloroethene	70	7	<10	28	11	2	470	<100	<5.0	<5.0	200	71	84	<10	90	<1	180	600	300	140	8.4	4.7
Trans-1,2-Dichloroethene	100	20	<10	6.4	1.2	<1.0	<10	<100	<5.0	<5.0	<10	<50	<50	<10	<20	<1	<20	<25	<20	<10	<5.0	<1.0
1,1,1-Trichloroethane	200	40	300	32	60	<1.0	110	1500	150	230	160	1400	1000	370	250	<1	200	490	420	200	99	12
Trichloroethene	5	0.5	870	250	200	17	590	12000	420	600	1000	7900	4600	1400	1900	<1	1700	2600	2500	1400	540	170
Vinyl chloride	0.2	0.02	<10	<2.0	<1.0	<1.0	94	<100	<5.0	<5.0	<10	<50	<50	<10	<20	<1	<20	<25	<20	<10	<5.0	<1.0

NOTES:
Bolded data represent NR 140 PAL exceedances.
Bolded and underlined data represent NR 140 ES exceedances.
Samples were analyzed by Method 8021 for Wisconsin LUST List VOCs.

1/8

From: Preliminary Groundwater Investigation at the NITC Casting Facility Waukesha, Wisconsin. RMT, 1993

TABLE 4

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER
(concentrations in µg/L)

		Monitoring Wells/Date 1992																
		NMW-1			NMW-2			DUP 1 (NMW-2)	NMW-3			NMW-4			NMW-5		NMW-6	
Parameter	NR 141 Enforcement Standards	10/13	10/13	12/16	10/13	10/13	12/16	10/13	10/13	10/13	12/16	10/13	10/13	12/16	10/13	12/16	10/13	12/16
Trichloroethene	5		750	980		E110	130	E 110	205	220	200		22	21	910	250	7900	7900
1,1,1-Trichloroethane	200	916	560	620	30	35	19	34	10	200	60				370	76	2300	1400
cis-1,2-Dichloroethene	100				52	35	35	34					3.0			290		
Trans-1,2-Dichloroethene	100					12	13	12										
Chloromethane								3.1										
1,1-Dichloroethene		97		160	50	5.2	7.7	5.4	21	11	J 23				86	J 30	580	540
1,1-Dichloroethane	850	16		J 11	5	3.9	J 2.3	3.8	11						25	J 10	120	
Methylene chloride	150		B (2.8) 67	B (190) 100		B(2.9) 2.1	B(5.0) 19	B(2.9) 2.9		B(2.8) 30	B(85) 110		B(2.9) 1.5	B(8.5) 8.7	B(2.8) 26	B85 (110)	B(J2.8) 2.5	B(850) 1100
Toluene	343	6			4	2.5		2.3				4	4.4					
Benzene	5																	
Naphthalene	40																	
o-Xylene	620																	
Chloromethane																		
1,1,2-Trichloroethane	0.6																	
GRO			530	420						140					1700	790	4300	1800
DRO		NA			NA				NA			NA			4200	6400	3800	4800
TRPH		NA			NA				NA			NA			2400	2400	2500	2600

NOTES:

DATA presented in shaded columns were reported in summary form by G.A.S. - not verified against data sheets.
DATA from split samples at NMW-5 and NMW-6 were not provided by G.A.S.
RMT's VOC analysis was conducted by EPA Method 8260.
Blank indicates not detected.

Applicable data qualifiers.
B = Analyte found in associated method blank at indicated concentration.
E = Estimated value; analyte is above calibration range.
J = Analyte positively identified below quantitation limit.

TABLE 4 (CONTINUED)
SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER
(concentrations in µg/L)

Parameter	NR 141 Enforcement Standards	Monitoring Wells/Date 1992																	
		MW-13		MW-12 D-1	MW-12			MW-11		MW-15		MW-16		MW-18		MW-20		MW-23	
		9/21	10/14	9/21	9/21	10/13	12/16	9/22	10/13	9/21	10/13	9/21	10/13	9/22	10/14	9/22	10/14	9/23	12/16
Trichloroethene	5	950	1,100	1,100	1,300	1,100	680	920	560	2,700	1,100	530	350	510	380	530	630	1.3	27
1,1,1-Trichloroethane	200	290	300	320	420	310	J 240	140	230	400	420	120	120	91	69	120			
cis-1,2-Dichloroethene	100	480		820	1,100	1,300	790	300	280		300		7.7	250	230	450		45	
Trans-1,2-Dichloroethene	100		J58																
Chloromethane																			
1,1-Dichloroethene						140	J 78		67		120		31		22				
1,1-Dichloroethane	850			28				9.9	22		28				14		J14		
Methylene chloride	150		B(11) 240			B (5.5) 140	B (420) 530		B(2.8) 17		B (2.8) 28		B (2.8) 15		B (5.5) 42		B (11) 110		B(8.5) 7.6
Toluene	343																		
Benzene	5							18	290						28				
Naphthalene	40								12										
o-Xylene	620								38										
Chloromethane																			
1,1,2-Trichloroethane	0.6																150		
1,2,3-Trichloropropane		J 1.9																	J1.9
1,2-Dibromoethane	0.01							15											
1,2- and 2,2-Dichloropropane		900		1,050	1,400			320		63				330				63	
Vinyl chloride	0.2																	1	
GRO		360	510	440	410	1,000	950	300	1,200	360	830		220	210	300	290	330		
DRO			NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA
TRPH			NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA

NOTES:
Blank indicates not detected.

Applicable data qualifiers.
B = Analyte found in associated method blank at indicated concentration.
E = Estimated value; analyte is above calibration range.
J = Analyte positively identified below quantitation limit.

TABLE 4 (CONTINUED)
SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER
(concentrations in µg/L)

Parameter	NR 141 Enforcement Standards	Monitoring Wells/Date 1992																
		D-2 (MW-17)	MW-17			Dup (MW-17)	MW-22			MW-21			MW-2		MW-6		MW-19	
		9/22	9/22	10/14	12/16	12/16	9/23	10/14	12/16	9/23	10/14	12/16	9/22	10/14	9/22	10/14	9/22	10/14
Trichloroethene	5	11,000	14,000	5,400	8,600	8,500	290	2,700	3,500	58	J42	J 3.8	0.8		110	81	75	720
1,1,1-Trichloroethane	200	1,500	1,800	2,000	1,600	1,900	43	440	J 460	5.8					63	65	23	120
cis-1,2-Dichloroethene	100						3.4			340		29			200	490		
Trans-1,2-Dichloroethene	100							J55										J16
Chloromethane										1.4						B(4.0)37		
1,1-Dichloroethene		190	260	600	550	640	5.3		J 240	5.4						20		
1,1-Dichloroethane	850	56	71	96	J 89	J 100	1.3			6.6					7.9			J17
Methylene chloride	150			B (2.8) 350	B (420) 540	(256) 460		B (11) 220	B(850) 1000		B (11) 120	B(5.0) 8.3		B (5.5) 1.8		B (5.5) 31		B (11) 100
Toluene	343																	
Benzene	5									8.1	110							
Naphthalene	40																	
o-Xylene	620																	
Chloromethane																		
1,1,2-Trichloroethane	0.6																	
1,2-Dibromoethane	0.01																	
1,2- and 2,2-Dichloropropane	0.2						4.4			490					280			
Vinyl chloride							2.2											
GRO		1,100	880	620	1,800	1,700		340	970		130				110	250	100	250
DRO		NA		NA			NA	NA		NA	NA		NA	NA	NA	NA	NA	NA
TRPH		NA		NA			NA	NA		NA	NA		NA	NA	NA	NA	NA	NA

NOTES:
First data column beneath each well ID is from the October round, the second (shaded) column is from the December round.
NA = Not analyzed.
Blank indicates not detected.

Applicable data qualifiers:
B = Analyte found in associated method blank at indicated concentration.
E = Estimated value; analyte is above calibration range.
J = Analyte positively identified below quantitation limit.

TABLE 5

ANALYTICAL GROUNDWATER RESULTS FOR GROUNDWATER MONITORING WELLS
AND GRAB WATER SAMPLES FROM SOIL BORING
DECEMBER 12 1990 THROUGH DECEMBER 23, 1991

DAIRYLAND BUS, INC.

SOIL BORING (SB) OR MONITORING WELL (MW)	DATE SAMPLED	Only detected compounds listed Concentrations in Parts Per Billion (ppb) except where noted. BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	1,1-DICHLORO-ETHANE	1,2-DICHLORO-ETHANE	CIS-1,2-DICHLORO-ETHENE	TRANS-1,2-DICHLORO-ETHENE	1,1,2,2-TETRACHLORO-ETHANE
SB-6A	12/11/90	<1	<1	<1	<1	<1	20	<1	<1	26
MW-2	4/10/91	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-3	4/10/91	<1	<1	<1	<1	<1	8.5	<1	<1	<1
MW-4	4/10/91	<1	<1	<1	<1	<1	<1	<1	<1	<1
SB-42	7/10/91	25	<1	<1	<1	<1	NT	NT	<1	<1
MW-7	7/12/91	260	1100	600	170	<1	<1	<1	<1	<1
MW-4	9/13/91	<2	<2	<2	<2	NT	NT	NT	NT	NT
MW-8	9/13/91	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-9	9/13/91	26	3.8	3.5	<1	2.3	<1	1.1	1.3	<1
MW-4	12/23/91	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-14	12/23/91	<1	2.7	<1	1.1	<1	<1	<1	<1	<1
Enforcement Standard		5	343	1360	620	850	5	100	100	*
Preventive Action Limit		0.067	68.6	272	124	85	0.05	10	20	*

SOIL BORING (SB) OR MONITORING WELL (MW)	DATE SAMPLED	TETRA-CHLORO-ETHENE	1,1,1-TRICHLOR0-ETHANE	TRICHLORO-ETHENE	1,2,4-TRIMETHYL-BENZENE	1,3,5-TRIMETHYL-BENZENE	DRO (ppm)	GRO (ppm)	LEAD
SB-6A	12/11/90	7	<1	10	NT	NT	NT	NT	12
MW-2	4/10/91	<1	<1	<1	NT	NT	NT	NT	NT
MW-3	4/10/91	<1	<1	<1	NT	NT	NT	NT	NT
MW-4	4/10/91	<1	<1	<1	NT	NT	NT	NT	NT
SB-42	7/10/91	<1	<1	<1	NT	NT	NT	3.3	NT
MW-7	7/12/91	<1	<1	78	110	49	<5	13.0	NT
MW-4	9/13/91	NT	NT	NT	<2	<2	<5	<0.1	NT
MW-8	9/13/91	<1	<1	<1	<1	<1	NT	<0.1	NT
MW-9	9/13/91	<1	<1	10	<1	<1	NT	0.29	NT
MW-4	12/23/91	<1	<1	<1	<1	<1	NT	<0.05	NT
MW-14	12/23/91	<1	3.3	2.0	<1	<1	NT	<0.05	NT
Enforcement Standard		1	200	5	*	*	*	*	50
Preventive Action Limit		0.1	40	0.18	*	*	*	*	5

NT = Not Tested
ppm = Parts Per Million
** Groundwater Enforcement Standard or Preventive Action Limit does not exist for this compound.*

From: Initial Site Assessment, Extent of Contamination and Remediation Progress Report.

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TABLE 5

WISCONSIN COACH LINES, INC.
ANALYTICAL GROUNDWATER RESULTS
FOR GROUNDWATER MONITORING WELLS

April 3, 1991 through March 16, 1992

Monitoring Well (MW)	Date Sampled	Volatile Organic Compounds (VOCs) Above Preventive Action Limits (PAL) (Some PALs currently not established) Concentrations in Parts Per Billion (ppb) Except Where Noted											DRO ppm	GRO ppm	TRPH ppm
		Benzene	Dichloro Di-Fluoro-methane	Chloro-methane	1.1 Di-chloroethene	cis-1.2 Di-chloroethene	Methyle-chloride	Methyl-t-butyl-ether	1.1.1 Tri-chloroethane	Tri-chloroethene	Vinyl chloride	Xylenes			
PAL		0.067	NE	NE	0.024	10	15	12	40	.18	.0015	124	NE	NE	NE
ES		5	NE	NE	7	100	150	60	200	5	.2	620	NE	NE	NE
MW-5*	04/10/91	-	-	-	47	-	-	-	310	610	-	-	NT	NT	NT
MW-6	06/07/91	-	-	-	39	48,000.	16.	-	290	510	-	-	NT	NT	NT
MW-6	08/16/91	-	-	-	26	170.	-	-	130	330	20	-	NT	NT	NT
MW-6	10/18/91	-	-	-	97	430.	-	-	620	740	-	-	<1.0	NT	2.0
MW-11	12/23/91	130	-	-	1.2	12.	-	16.	56	110	-	160	<1.0	NT	1.0
MW-12	12/23/91	51	-	-	23	86.	-	-	150	210	-	-	<1.0	NT	1.0
MW-13	12/23/91	91	-	-	3.5	53.	-	-	100	180	-	-	<1.0	NT	<1.0

NE = Not Established
- = Below laboratory detection limit or PAL
NT = Not Tested
* = Well removed with excavation work (date removed)
ppm = Parts per million

From: Initial Site Assessment, Extent of Contamination and Remediation Progress Report at Wisconsin Coach Lines, Inc.

GAS, 1992

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TABLE 5

WISCONSIN COACH LINES, INC.
ANALYTICAL GROUNDWATER RESULTS
FOR GROUNDWATER MONITORING WELLS

April 3, 1991 through March 16, 1992

Monitoring Well (MW)	Date Sampled	Volatile Organic Compounds (VOCs) Above Preventive Action Limits (PAL) (Some PALs currently not established) Concentrations in Parts Per Billion (ppb) Except Where Noted											DRO ppm	GRO ppm	TRPH ppm
		Benzene	Dichloro Di-Fluoro-methane	Chloro-methane	1,1 Di-chloroethene	cis-1,2 Di-chloroethene	Methyle-chloride	Methyl-t-butyl-ether	1,1,1 Tri-chloroethane	Tri-chloroethene	Vinyl chloride	Xylenes			
MW-6	01/28/92	-	730	59	440	230	-	-	300	390	87	-	NT	780	30
MW-11	01/28/92	150	67	-	260	64	-	15	180	360	-	-	NT	1,200	<1.0
MW-12	01/28/92	1.3	45	53	88	380	-	-	390	450	100	-	NT	1,600	<1.0
MW-13	01/28/92	38	5.9	3.7	66	240	-	-	300	410	-	-	NT	910	<1.0
MW-15	03/16/92	4.3	-	-	24	210	-	-	240	410	-	-	NT	470	<1.0
MW-16	03/16/92	-	-	-	39	-	-	-	320	490	-	-	NT	470	<2.0
MW-17	03/17/92	-	-	-	49	-	-	-	520	590	-	-	NT	1,900	<2.0
MW-18	03/18/92	2.8	-	-	10	40	-	30	150	360	-	-	NT	280	<1.0
MW-19	03/18/92	-	-	-	33	22	-	-	220	480	-	-	NT	440	4.0
MW-20	03/17/92	-	-	-	86	46	-	-	320	500	-	-	NT	440	<1.0

NE = Not Established
- = Below laboratory detection limit or PAL
NT = Not Tested
* = Well removed with excavation work (date removed)
ppm = Parts per million

From:
"Limited Phase II Environmental Site Assessment; Perkins Street Property, Waukesha, WI"
Prepared for: McGlenn Partnership
by: Midwest Engineering Services, Inc.
January 29, 1997

[redacted]

Table 1
Detected Chlorinated Compounds in Groundwater
(All Concentrations in ppb)

Well Location	Date	Compound							
		1,1-Dichloroethane	1,1-Dichloroethylene	Methylene Chloride	1,1,1-Trichloroethane	Trichloroethylene	CIS-1,2-Dichloroethene	Dichloropropane	Vinyl Chloride
Sigma MW-1	3/2/92	2.9	[9.8]	5.1	15	[180]	13	ND	ND
	5/27/92	2	1	ND	8	[54]	7	ND	ND
	12/2/92	3.3	6.1	ND	51	[140]	7.8	8.7	[1.5]
	7/15/93	2.1	5.2	ND	35.9	[129]	2.3	ND	ND
	3/22/96	7.1	ND	ND	6.2	[23]	18	ND	ND
Key MW-1	9/22/94	ND	ND	2.0	ND	ND	ND	ND	ND
	3/22/96	ND	ND	ND	ND	ND	ND	ND	ND
Key MW-2	9/22/94	8.7	ND	49	36	[130]	8.5	ND	ND
	3/22/96	2.1	ND	ND	12	[16]	9.5	ND	ND
Key MW-3	9/22/94	ND	ND	15	100	[230]	ND	ND	ND
	3/22/96	17	[29]	ND	[220]	[510]	11	ND	ND
Key MW-4	9/22/94	ND	ND	35	ND	ND	ND	ND	ND
	2/9/96	1.6	ND	ND	2.4	2.6	1.0	ND	ND
MES MW-5	10/22/96								
	3/22/96	16	[11]	ND	84	[270]	24	ND	ND
	4/3/96	13	6.2	ND	45	[160]	ND	ND	ND
MES MW-1	10/22/96								
	2/9/96	ND	ND	ND	ND	1.0	ND	ND	ND
MES MW-2	10/22/96								
	2/9/96	ND	ND	ND	1.9	2.4	3.0	ND	[10] [5.3]
NMW-1	10/13/92	16	[97]	ND	[916]	[1010]	ND	–	–
	12/16/92	11	[160]	100	[620]	[980]	ND	–	–
	1/21/94	ND	ND	ND	[590]	[1200]	ND	–	–
NMW-3	10/13/92	11	[21]	ND	[205]	[319]	10	–	–
	12/16/92	ND	[23]	110	60	[200]	ND	–	–
	1/25/94	ND	ND	ND	130	[350]	14	–	–
PAL		850	7	150	200	5	70	5	0.2
ES		85	0.7	15	40	0.5	7	0.5	0.02

NOTES:
ND = Not Detected
ppb = Parts Per Billion
PAL = NR 140 Preventive Action Limit
ES = NR140 Enforcement Standard
NMW-1 and NMW-3 are on the Navistar prope

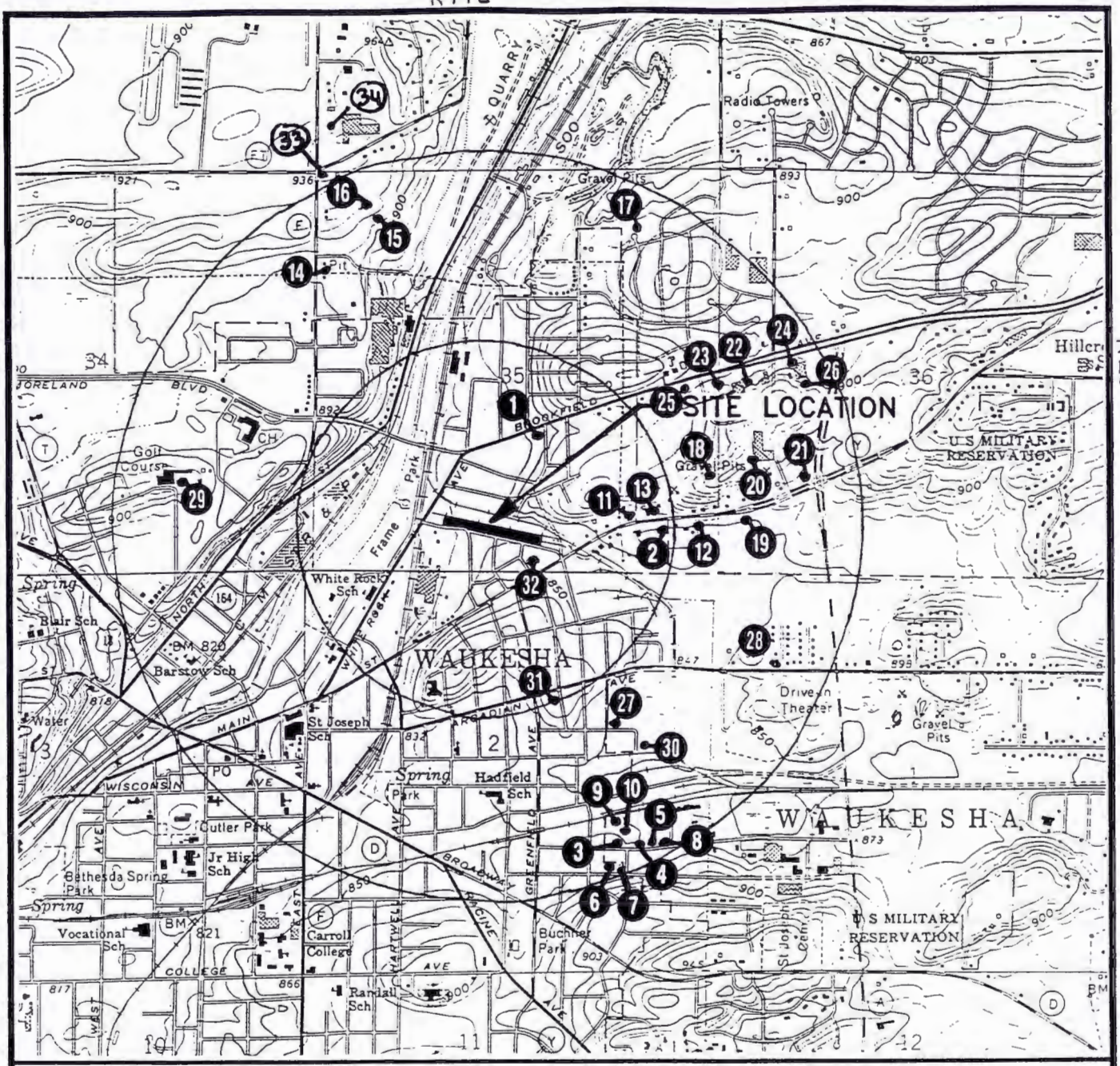
7-51083/dchlo.T1

Appendix N
Private Well Map and Well Logs

R19E

T07N

T06N



STATE LOCATION

0 2000 4000

SCALE: 1" =2000'

POTENTIALLY ACTIVE PRODUCTION WELLS

NAVISTAR INTERNATIONAL WAUKESHA, WISCONSIN

SOURCE: BASE MAP FROM WAUKESHA, WISCONSIN 7.5 MINUTE USGS QUADRANGLE.

RMT INC.

DWN. BY:	DPM
APPROVED BY:	
DATE:	JUNE 1998
PROJ. #	3777.01
FILE #	37770112

FIGURE 1-0

Database of Domestic Groundwater Supply Wells In Waukesha
From the City of Waukesha Water Utility
Summary of Potentially Active Wells

WELLCAND.XLS

CANDIDATES FOR WELL PREMISES
PREPARED AUGUST 27, 1990
REVISED TO EXCEL DATABASE JUNE 8, 1993

1 = YES

ENTRY #	TAX KEY NO.	Well Number on Figure 3 of RMT Report	HOUSE #	STREET	DATE BUILT	SERVICE INSTALLED	ACCOUNT NUMBER	SEWRPC PAGE NO.	WELL IN USE*
1603	1004.972		2205	PATRICIA LANE	1960		1-12-572.000	12	1
1604	1004.995		2209	PATRICIA LANE	1959		1-12-573.000	12	1
1605	1005.975		2213	PATRICIA LANE	1959			12	1
1606	1005.976		2217	PATRICIA LANE	1959		1-12-575.000	12	1
1607	1005.995		2212	PATRICIA LANE	1900		1-12-601.000	12	1
1608	1006.181		2122	NORTHVIEW ROAD	1950		1-16-12.000	13	1
1609	1006.182		2112	NORTHVIEW ROAD	1953		1-16-11.000	13	1
1610	1006.183		2707	SILVERNAIL ROAD	1940			29	1
1611	1006.980		2401	SILVERNAIL ROAD	1900			29	1
1612	1007.987		2821	SILVERNAIL ROAD	1900			47	1
1613	1007.991		822	MAPLEWAY NORTH	1959			47	1
1614	1127.988		301	MAPLEWAY SOUTH	1960			47	1
1615	1130.994.004	1	1020	MORELAND BLVD	1900			48	1
1616	1130.994.005		2000	SUMMIT AVE.	1924			94	1
1617	996.980		1929	NORTHVIEW ROAD	1900		1-16-609.000	105	1
1618	1130.994.006		2016	SUMMIT AVE.	1900			106	1
1619	1130.996		2027	SUMMIT AVE.	1954		1-18-173.000	124	1
1620	1299.984		2103	SUMMIT AVE.	1950		1-18-171.000	124	1
1621	1299.990		2130	SUMMIT AVE.	1930			125	1
1622	1299.993		621	GRANDVIEW BLVD.	1932			136	1
1623	1304.066		1603	DELAFIELD STREET	1900			151	1
1624	1304.998		1501	DELAFIELD STREET	1951			151	1
[illegible]	1304.993		2103	ALLEN LANE	1900			235	1
[illegible]	1304.995		2105	DAVIDSON ROAD	1940		3-9-509.000	235	1
1627	1330.989		1221	GRAND AVE.	1941		2-22-105.000	544	1
1628	1330.991		329	DOUGLASS AVE.	1948			550	1
1629	1336.933		1328	HICKORY DRIVE	1955		2-22-87.000	553	1
1630	1336.940		1320	HICKORY DRIVE	1960			553	1
1631	1342.972		130	ELLSWORTH DRIVE	1913			553	1
1632	1342.974		140	SUNSET DRIVE	1948			553	1
1633	1342.976		116	SUNSET DRIVE	1940		2-22-200.000	553	1
1634	1342.998		1506	RACINE AVE.	1900			569	1
1635	1342.992		1541	RACINE AVE.	1934			631	1
1636	1002.981		W222S316	RACINE AVE.	1900			642	1
1637	973.991.C01		1910	GUTHRIE ROAD	1900			644	1
1638	973.992		1813	OAKDALE DRIVE				704	1
1639	994.976		1211	SUNSET DRIVE	1957			712	1
1640	1003.941		25042	NORTHVIEW ROAD		08-Mar-62	4-1-50.000		1
1641	1003.989		2421	SILVERNAIL ROAD	1955			2	1
1642	1004.120		2000	DAVIDSON ROAD	1883			10	1
1643	1299.967		1801	GATEWAY DRIVE	1981		3-9-649.000	11	1
1644	1299.988		1800	GATEWAY DRIVE	1980		3-9-692.000	11	1
1645	1299.989		W228 S70	HWY A	1971			12	1
1646	1299.991.001		2302	MORELAND BLVD.	1970			12	1
1647	1299.992		2208	MORELAND BLVD.	1970		3-9-229.300	13	1
1648	1299.994.001	3	1337	PEARL STREET	1949			18	1
1649	1302.004		1700	RACINE AVE.	1900			39	1
1650	1299.026		1910	GUTHRIE ROAD	1950				1
1651	1304.081	4	1427	PEARL STREET			3-16-181.000	4	1
1652	1304.082	5	1413	PEARL STREET				4	1
1653	1304.083		W277S208	COMMERCE			3-16-445.000	4	1
1654	1304.084	6	1344	ELLIS STREET				5	1
1655	1304.085	7	1322	ELLIS STREET		08-Nov-67	3-16-15.000	5	1
1656	1304.086		1700	RACINE				10	1
1657	1304.088		1305	LOOKOUT DRIVE		15-Aug-39			
1658	1304.989		1313	LOOKOUT DRIVE		15-Aug-39			
[illegible]	1304.990		1321	LOOKOUT DRIVE		15-Aug-39			
[illegible]	1304.069		1324	LOOKOUT DRIVE		15-Aug-39			
1661	1304.999		1325	LOOKOUT DRIVE		15-Aug-39			
1662	1304.065		1326	LOOKOUT DRIVE		15-Aug-39			
1663	1304.998		1404	LOOKOUT DRIVE		15-Aug-39			
1664	1299.985.001		1405	LOOKOUT DRIVE		15-Aug-39			
1665	1335.995		1411	LOOKOUT DRIVE		15-Aug-39			
1666	1336.930		1414	LOOKOUT DRIVE		15-Aug-39			
1667	1343.985		1500	LOOKOUT DRIVE		15-Aug-39			

Waukesha Water Utility
SERVING WAUKESHA SINCE 1886

P. O. BOX 1026
WAUKESHA, WI 53187-1026

BRIAN S. BARRETT, P.E. — General Manager

June 11, 1993

1302 E Main St

Mr. Rich Sternkopf
335 W. Evert
P.O. Box 2046
Room A539
Milwaukee, Wi 53201

main st.
Slater Motors

Dear Rich:

Enclosed is the map with the properties with private wells marked with blue dots. The area highlighted in yellow is the city boundary. Arrows indicate the city side of boundary. The blue dots are numbered and the following are the addresses:

#2 on Fig.

1. 1415 E. Main Street
2. 1350 Ellis Street
3. 1421 Pearl Street (Green Engineering)
4. 405 Commerece Street (Wildeck)
5. 1337 Pearl Street

Pink circle indicates 1 mile of radius. If you have any further questions, please give me a call.

Sincerely.

WAUKESHA WATER UTILITY

Jim Price
Meter Dept. Supervisor

mka

Enclosure

(3357)

RECEIVED
JUN 14 1993
ENVIRONMENTAL DEPARTMENT

3

WELL CONSTRUCTOR'S REPORT — WISCONSIN STATE BOARD OF HEALTH — WK-649-U — Wel 6

1. COUNTY: Waukesha — CHECK ONE: ☒ Town ☐ Village ☐ City — NAME: Waukesha — RECEIVED

LOCATION (Number and Street or ¼ section, section, township and range. Also give subdivision name, lot and block numbers when available.)
2114 Pearl Street T6N R19E S½, SW, NE, SE, Sec 2 — MAR 25 1966

3. OWNER AT TIME OF DRILLING
Oconomowac Electro Plating Co,

4. OWNER'S COMPLETE MAIL ADDRESS
Oconomowac Electro Plating Co. - 2114 Pearl Street - Waukesha, Wis.

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	WASTE WATER DRAIN TILE
6					None			6 8

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
54		78	65	80					

RECEIVED APR - 7 1966 SANITARY ENGINEERING

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Plating Shop

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20
7 (6⅝)	20	230

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
7	Black steel Iron Pipe 26#	Surface	55

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drilled Mud	Surface	20

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Clay (red)	Surface	5
Gravel (coarse)	5	38
Clay (blue)	38	55
Limestone (water)bearing	55	230

Well construction completed on 12/14 1965

Well is terminated 8 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

11. MISCELLANEOUS DATA

Yield test: 12 Hrs. at 40 GPM

Depth from surface to normal water level 30 ft.

Depth to water level when pumping 64 ft.

Water sample sent to Madison laboratory on: 3/21 1966

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, subsurface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: Nick Palbusbi — Registered Well Driller

COMPLETE MAIL ADDRESS: 459 W 22 St Glengary P. Waukesha Wis

Please do not write in space below

COLIFORM TEST RESULT	GAS — 24 HRS.	GAS — 48 HRS.	CONFIRMED	REMARKS
				5 plat 78350

WK-648-U

Wel. 6-30M (6-50) 9

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side WK-648-U

1. County Waukesha — Town ☒ Village ☐ City ☐ Waukesha (Check one and give name)
2. Location E. Pearl St. Waukesha — NW, SW, NE, SE, Sec. 2 T6N R19E (Name of street and number of premise or Section, Town and Range numbers)
3. Owner ☒ or Agent ☐ Central Machine Works (Name of individual, partnership or firm)
4. Mail Address 453 W. Main St. Waukesha (Complete address required)
5. From well to nearest: Building 6 ft; sewer — ft; drain 40 ft; septic tank 55 ft; dry well or filter bed 20 ft; abandoned well ____ ft.
6. Well is intended to supply water for: Machine shop

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	30	8"	30	128

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Standard Blk. Steel	0	91

9. GROUT:

Kind	From (ft.)	To (ft.)
Puddled Clay	0	30

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Hardpan	0	30
Sand	30	80
Gravel	80	91
Limestone	91	128

RECEIVED AUG 17 1956 ENVIRONMENTAL SANITATION

Construction of the well was completed on: Aug 11 1956

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 12 Hrs. at 8 GPM.

Depth from surface to water-level: 40 ft.

Water-level when pumping: 40 ft.

Water sample was sent to the state laboratory at: Madison (City) on Aug 13 1956

Signature Donald Hearst (Registered Well Driller) — Edgewood Drilling Co. 311 W. St. Paul Ave Waukesha (Complete Mail Address)

Please do not write in space below

Rec'd AUG 13 1956 No. [illegible]

Ans'd

Interpretation SAFE

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	0				6

plot

Examiner 783508

SE,NE,SE, T6N R19E Sec 2, 1

Wel. 6-30M-((6-50)

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Waukesha — Town ☑ / Village ☐ / City ☐ Waukesha (Check one and give name)

2. Location Pearl Street
Name of street and number of premise or Section, Town and Range numbers

OCT 1952 ENVIRONMENTAL SANITATION

3. Owner ☑ or Agent ☐ Otto B Lukas
Name of individual, partnership or firm

4. Mail Address Pearl St Waukesha 1315 East Broadway
Complete address required

5. From well to nearest: Building 5 ft; sewer ____ ft; drain ____ ft; septic tank ____ ft; dry well or filter bed ____ ft; abandoned well ____ ft.

6. Well is intended to supply water for: Plumbing Shop

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	67			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Standard Weight Black Steel Pipe	0	67

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Gravel broken rock	0	20
Sandy clay	20	55
Gravel (water bearing)	55	67

Construction of the well was completed on: Oct-6- 1952

The well is terminated 8 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ____ No ✓

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 15 Hrs. at 10 GPM.

Depth from surface to water-level: 6 ft.

Water-level when pumping: 18 ft.

Water sample was sent to the state laboratory at: Madison City on Oct-14 1952

Signature Andrew Egofske
Registered Well Driller

R3 Box 89 Waukesha, Wisc
Complete Mail Address

Please do not write in space below

Rec'd OCT 15 1952 No. 19047

Ans'd ____

Interpretation Unsafe

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	0	0	0	0	0
48 hrs.	+	0	+	+	0
Confirm					
B. Coli	+	0	+	+	07

Examiner ____

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

11

1. County Waukesha { Town ☑ / Village ☐ / City ☐ } Pewaukee — Check one and give name

2. Location S.E.¼ S.E.¼ Sec 35 T7N. R19E
Name of street and number of premise or Sec. Tn. and R. numbers

3. Owner ☑ or Agent ☐ Pettijohn Locker Plant
Name of individual, partnership or firm

4. Mail Address Waukesha RR 4
Complete address required

5. From well to nearest: Building 8 ft; sewer none in at time of drilling ft; drain ft; septic tank ft;
dry well or filter bed ft; abandoned well ft.

6. Well is intended to supply water for:

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)
6	0	38 ft.

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6"	Std Steel	0	35'6"

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Filling	0	5
Sand	5	30
Sandy Gravel	30	38

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 25 GPM.

Depth from surface to water: 8 ft.

Water-level when pumping: 15 ft.

Water sample sent to laboratory at

on 19

Signature H. A. Butler
Registered Well Driller

Construction of the well was completed on Oct. 27 19 47

The well is terminated 6 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No

Was the well sealed watertight upon completion? Yes ✓ No

Delafield Wis. R 1
Complete Mail Address

8

Wel. 6-30M (6-50)

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

NE, SE, SE, Sec. 35 T7N R19E

12

1. County Waukesha — Town ☐ Village ☐ City ☒ — PEWAUKEE (Check one and give name)

2. Location 1500 E. Main St., Waukesha, Wis.
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☒ or Agent ☐ Hilbert Graham
Name of individual, partnership or firm

4. Mail Address 415 N. Park Ave, Waukesha, Wis.
Complete address required

5. From well to nearest: Building 6 ft; sewer 30 ft; drain 30 ft; septic tank 55 ft; dry well or filter bed 60 ft; abandoned well ___ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	0	30	6	30	62

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Standard Black Steel	0	62

9. GROUT:

Kind	From (ft.)	To (ft.)
Puddled Clay	0	30

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Gravel	0	30
Clay	30	36
Sand	36	58
Gravel	58	62

RECEIVED DEC 8 1958 SANITATION

Construction of the well was completed on: Nov. 22 1958

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ___

Was the well sealed watertight upon completion? Yes X No ___

11. MISCELLANEOUS DATA:

Yield test: 8 Hrs. at 8 GPM.

Depth from surface to water-level: 32 ft.

Water-level when pumping: 32 ft.

Water sample was sent to the state laboratory at: Madison (City) on Nov. 24 19 58

Signature Donald Weast — Registered Well Driller — Edgewood Drilling, 311 N. St. Paul Ave. Waukesha, Wis. — Complete Mail Address

Please do not write in space below

Rec'd [illegible] No. 88173

Ans'd ___

Interpretation SAFE

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	0				

plot

Examiner 72342

9

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

APR 19 1976

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT

Form 3300-15
Rev. 10-75

COUNTY	CHECK (✓) ONE:	Name
Waukesha	☒ Town ☐ Village ☐ City	Pewaukee

2. LOCATION

¼ Section	Section	Township	Range
NE, SE, SE	35	7N	19E

OK – Grid or Street No.: S12 W23085
Street Name: E. Main Street
AND – If available subdivision name, lot & block No.:

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE
Fayette Trucking Corp.
ADDRESS: W234 S5502 Big Bend Road
POST OFFICE: Waukesha

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
50							63			

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other				Seepage Pit
				Clearwater Dr.		Clearwater Sump					not	in	Seepage Bed
													Seepage Trench

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well									
		Pump									
		Tank									

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: small commercial

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	6	20	70

CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	new black steel pipe	Surface	
	welded joints		
	18.97 lbs. ASTM A53		
	Youngstown		60

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
drilling mud	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
hardpan	Surface	60
limestone	60	70

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool
☐ Rotary-air w/drilling mud
☐ Rotary-w/drilling mud
☒ Rotary-hammer w/drilling mud
☐ Rotary-hammer & air
☐ Reverse Rotary
☐ Jetting with: ☐ Air ☐ Water

Well construction completed on 3-31 19 76

11. MISCELLANEOUS DATA

Yield Test: 7 Hrs. at 25 GPM
Depth from surface to normal water level 8 Ft.
Depth of water level when pumping 15 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 8 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on 4-1 19 76

If opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Richard Boucher Registered Well Driller

Complete Mail Address: 12665 W. Lisbon Rd. Brookfield, Wis. 53005

Plat 723471

10

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

265 (14)

1. County Waukesha Town ☑ Village ☐ City ☐ Pewaukee
Check one and give name

2. Location NW1 Sw 1/4 NW 1/4 Sec 35 T7N R19E
Name of street and number of premises or Section, Town and Range Number

RECEIVED FEB 1 1955 ENVIRONMENTAL SANITATION

3. Owner ☑ or Agent ☐ W. E. P. Co.
Name of individual, partnership or firm

4. Mail Address Waukesha
Complete address required

5. From well to nearest: Building 6 ft; sewer — ft; drain — ft; septic tank — ft; —
dry well or filter bed — ft; abandoned well — ft.

6. Well is intended to supply water for: Shop

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	86			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std Steel		74'11"

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Drift	0	74
Limestone	74	86

Construction of the well was completed on:

19 53

11. MISCELLANEOUS DATA:

Yield test: ________ Hrs. at 25 GPM.

Depth from surface to water-level: 54 ft.

Water-level when pumping: 63 ft.

Water sample was sent to the state laboratory at:

Madison on ________ 19___
City

The well is terminated 11 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes ✓ No ____

Was the well sealed watertight upon completion?

Yes ✓ No ____

Signature ________________________ Registered Well Driller

________________________ Complete Mail Address

Please do not write in space below

Rec'd ________________ No. ________

Ans'd ________________

Interpretation ________________

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

plot 783439

Examiner ________

11

SW, NW, NW, Sec 35

~~WELL CONSTRUCTOR'S~~ REPORT TO WISCONSIN STATE BOARD OF HEALTH

Wel 6

See Instructions on Reverse Side

1. County Waukesha — Town ☒ / Village ☐ / City ☐ Pewaukee (Check one and give name)

2. Location ~~SW 1/4 S 26~~ T 7 N R 19 E
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☒ or Agent ☐ John Pike
Name of individual, partnership or firm

4. Mail Address W239 S 354 Pewaukee Rd.
Complete address required

5. From well to nearest: Building 39 ft; sewer 50 ft; drain 50 ft; septic tank 60 ft; dry well or filter bed 65 ft; abandoned well 30 ft.

6. Well is intended to supply water for: Older Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10"	0	39	6	73	133
7" OD	0	73			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
7" OD	Steel 23 lbs ft	0	73
6"	open Rock hole	73	133

9. GROUT:

Kind	From (ft.)	To (ft.)
Drilling Mud	0	39

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Stoney Red Clay	0	34
Shelf Rock	34	38
Hard Pan	38	57
Shelf Rock	57	60
Hard Pan + Loose Rock	60	73
Brown Lime	73	133

11. MISCELLANEOUS DATA:

Yield test: 42 Hrs. at 14 GPM.

Depth from surface to water-level: 67 ft.

Water-level when pumping: 70 ft.

Water sample was sent to the state laboratory at: Madison (City) on Feb 26 1963

Construction of the well was completed on: Feb 25 1963

The well is terminated 24" inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No

Was the well sealed watertight upon completion? Yes ✓ No

Signature Donald Prom N81 W15151 Appleton Ave Menomonee Falls
Registered Well Driller — Complete Mail Address

FEB 27 1963

Please do not write in space below

Rec'd No 5849

Ans'd

Interpretation ~~SAFE~~ BACTERIOLOGICALLY

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner

plot

12

723432

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

Pewaukee WK-773-U

RECEIVED MAR 10 1949 BUREAU SAN. ENG.

1. County Waukesha — Town ☐ Village ☐ City ☐ Waukesha (Check one and give name)

2. Location SW¼ NW¼ of NW¼ Sec 35 T 7N R 19E
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ Theodore Fejnas
Name of individual, partnership or firm

4. Mail Address R. 5 Box 594 Waukesha Wis
Complete address required

5. From well to nearest: Building 8 ft; sewer 25 ft; drain 25 ft; septic tank 60 ft; dry well or filter bed 100 ft; abandoned well none ft.

6. Well is intended to supply water for: Private Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	20			
6	20	132			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Standard Steel	0	98

9. GROUT:

Kind	From (ft.)	To (ft.)
puddled clay	0	98

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
clay	0	4
hard pan	4	95
broken lime stone	95	98
solid lime stone	98	132

11. MISCELLANEOUS DATA:

Yield test: 2 Hrs. at 20 GPM.

Depth from surface to water-level: 90 ft.

Water-level when pumping: 90 ft.

Water sample was sent to the state laboratory at: Kenosha City on March 10 1949

Construction of the well was completed on: Dec 30 1948

The well is terminated 6 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No

Was the well sealed watertight upon completion? Yes ✓ No

Signature Fred Kuck Registered Well Driller

Burlington Wis Complete Mail Address

Please do not write in space below

Rec'd 2-11-49 No. 5118

Ans'd 2-13-49

Interpretation OK

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	0	0	0	0	0
48 hrs.	0	0	0	0	0
Confirm					
B. Coli					

Examiner AH

plot

783437

13

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

DEC 7 1947

17

1. County Waukesha { Town / ~~Village~~ / ~~City~~ } Pewaukee

2. Location NE¼NE¼ Sec. 35 T 7N R 19E

3. Owner or Agent J. P. Brenner

4. Address Waukesha RR

5. From well to nearest: Building 5 ft; sewer 25 ft; drain 25 ft; septic tank 50 ft; ~~Drain runs to river~~ dry well or filter bed ____ ft; abandoned well ____ ft.

6. Well is intended to supply water for: residence

7. DRILLHOLE OR EXCAVATION:

Dia. (in.)	From (ft.)	To (ft.)
6	0	98

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Std steel	0	16'10"

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	Thickness (ft.)	Total Depth (ft.)
Gravely H.P.	9	9
Crumbly Limestone	6	15
Limestone	83	98

11. MISCELLANEOUS DATA:

Yield test: 1½ Hrs. at 10 GPM.

Depth from surface to water: 18 ft.

Water-level when pumping: 45 ft.

Water sample sent to laboratory at

_____ on _____ 19____

Signature H. A. Butler
Registered Well Driller

Construction of the well was completed on 5/31 1947

The well is terminated 6 inches (above) ~~(below)~~ the permanent grade.

Was the well disinfected upon completion?

Yes ✓ No _____

Was the well sealed watertight upon completion?

Yes ✓ No _____

Delafield, Wis.
Complete Mail Address

14

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

Wel 6 (18)

See Instructions on Reverse Side

1. County Waukesha — Town ☐ / Village ☐ / City ☐ Pewaukee — Check one and give name

2. Location High. 18 - 2 Blks East City Limits Waukesha — T7N R19E w½ Sec. 36
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ Johnson Sand & Gravel Inc. (Gravel Pit)
Name of individual, partnership or firm

4. Mail Address 2224 S. 65th St. West Allis, Wis.
Complete address required

5. From well to nearest: Building 4 ft; sewer — ft; drain — ft; septic tank — ft; dry well or filter bed — ft; abandoned well — ft.

RECEIVED
MAY 31 1961
SANITARY ENGINEERING

6. Well is intended to supply water for: Repair Shop - Garage

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	20			
Rod	20	105			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
Rod	Steel	0	92

9. GROUT:

Kind	From (ft.)	To (ft.)
drill cuttings	0	20

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Sandy clay	0	32
Sand	32	80
Hard pan	80	92
Lime rock	92	105

Construction of the well was completed on: May 22 1961

The well is terminated 8 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ☐

Was the well sealed watertight upon completion? Yes ✓ No ☐

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 15 GPM.

Depth from surface to water-level: 36 ft.

Water-level when pumping: 39 ft.

Water sample was sent to the state laboratory at: Madison City on May 22 1961

Signature Joseph Kasha 13671-W Greenfield Ave. New Berlin, Wis.
Registered Well Driller — Complete Mail Address

Please do not write in space below

Rec'd May 24, 1961 No. 16846

Ans'd

Interpretation SAFE—BACTERIOLOGICALLY

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	0				

Examiner

15

SEC 36 T7N R19E

Vol 6 — 19

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Waukesha — Town ☑ / Village ☐ / City ☐ Pewaukee (Check one and give name)

2. Location SW1/4 Sec. 36 T7N R19E (Name of street and number of premise or Section, Town and Range number)

RECEIVED
SEP-21-1959
ENVIRONMENTAL SANITATION

3. Owner ☑ or Agent ☐ Geo. Jesse (Name of individual, partnership or firm)

4. Mail Address Waukesha Wis. (Complete address required)

5. From well to nearest: Building ~~ft~~; sewer ~~ft~~; drain ____ft; septic tank ____ft; dry well or filter bed ____ft; abandoned well ____ft.

6. Well is intended to supply water for: farm

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
14"	0	43			
10"	43	139			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
14"	Steel	0	43
10"	1/3" #/ft Steel	0	57

9. GROUT:

Kind	From (ft.)	To (ft.)
Cement	0	43

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay	0'	5'
Sand & gravel	5'	27'
Gravel	27'	49'
Broken Limestone	49'	57'
Limestone	57'	139'

Construction of the well was completed on: Sept. 4 1959

The well is terminated 14 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 6 Hrs. at 60 GPM.

Depth from surface to water-level: 7 ft.

Water-level when pumping: 35 ft.

Water sample was sent to the state laboratory at: Madison (City) on Sept 8 1959

Signature [signature] Registered Well Driller

LIEBAU-LAUN, INC.
ROUTE 4 BOX 271-A
THIENSVILLE, WISCONSIN
Complete Mail Address

Please do not write in space below

Rec'd SEP 10 1959 31521

Ans'd ____

Interpretation SAFE

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	O				

Examiner 16

7.03.14

George Tesch Well, Waukesha, Wisconsin
SW¼, Sec. 36, T 7N, R 19E
Liebau-Laun, Inc., Driller,
Sample Nos. 214265-214292 - Examined by M. E. Ostrom

DRIFT	0- 5	5		St&Cl,dk yl bn,slgt dolic,cem,mch VC-Vfn snd	7' water cement grout 0-43'
	5- 15	10		Snd,dk yl bn,Vfn-VC,Srnd,P srtg,mxd,mch calcic, mch st & cl	
	15- 20	5		Snd,yl bn,Vfn-VC,Sang,P srtg,mch st,cl & dol gvl	14"hole 14"pipe
	20- 25	5		Gvl,Vfn-M,ang,P srtg,mxd,mch dol,st,& Vfn-M snd	
	25- 30	5		Snd,yl bn,Vfn-VC,ang,P srtg,mxd,mch st & gvl	
	30- 35	5		Gvl,Vfn-M,ang,P srtg,mxd,mch dol,st,& Vfn-VC snd	
	35- 50	15		Gvl,Vfn-fn,ang,P srtg,mxd,mch dol,st,& Vfn-VC mxd snd	43'
50					10"hole
NIAGARA	50- 55	5		Dol,ol gry,Vfn-fn,dns,ltl st&cl,tr pyr	57' 10"pipe
	55- 70	15		Dol,ol gry,Vfn-fn,dns,ltl st&cl,tr pyr	
	70- 85	15		Dol,ol gry,Vfn-fn,dns,tr st,cl & pyr	
	85- 90	5		Dol,lt ol gry,Vfn-fn,dns,ltl pyr,tr st & wh cht	
	90-100	10		Dol,lt ol gry,Vfn-fn,dns,ltl pyr,tr st	
	100-115	15		Dol,lt ol gry,Vfn-fn,dns,mot gry,ltl pyr & bn cl,tr st	
	115-120	5		Dol,lt ol gry,Vfn-fn,dns,ltl pyr & bn cl	
	120-125	5		Dol,lt ol gry,Vfn-fn,dns,mot bn,ltl pyr & bn cl	
	125-130	5		Dol,lt gry,Vfn-fn,slgt por,tr pyr & bn cl	
	130-135	5		Dol,lt gry,Vfn-fn,dns,tr pyr & bn cl	
90	135-140	5		Dol,lt gry,Vfn,dns,tr pyr	140'

Formations: Drift, Niagara
Well tested for 6 hrs. at 60 gpm, specific capacity 2.14 gpm per foot of drawdown.
Driller reports bedrock at 57', total depth of 139'

608-831-3334

WELL CONSTRUCTOR'S REPORT — WISCONSIN STATE BOARD OF HEALTH — WK-352 — Well (20)

1. COUNTY: Waukesha — CHECK ONE: ☐ Town ☐ Village ☒ City — NAME: Waukesha

2. LOCATION (Number and Street or ¼ section, section, township and range. Also give subdivision name, lot and block numbers when available.)
NW ¼ SW ¼ SE ¼; NE ¼; NW ¼; Section 36; T7N; R19E. T7N

RECEIVED
MAR 16 1966
SANITARY ENGINEERING

3. OWNER AT TIME OF DRILLING
SPANCRETE INDUSTRIES, INC.

4. OWNER'S COMPLETE MAIL ADDRESS
S11 W22876 E. Main St. Waukesha, Wisconsin

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WATER DRAIN C. I.	WATER DRAIN TILE

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: industry.

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
14"	Surface	20	8"	95	150
8-5/8"	20	95			

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
14"	3/8. Steel	Surface 8"+	20
8"	Steel	8"+	95

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Neat cement	Surface 8"+	20

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Drift	Surface	95
Limestone	95	150

11. MISCELLANEOUS DATA
Yield test: 6 Hrs. at 61 GPM
Depth from surface to normal water level 37 ft.
Depth to water level when pumping 61 ft.

Well construction completed on August 19 65
Well is terminated 8 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to (upon installation of permanent pump) laboratory on: 19

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, subsurface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: O E Leicht — LAYNE-NORTHWEST CO. Registered Well Driller

COMPLETE MAIL ADDRESS: 6005 W. Martin Drive, Milwaukee, Wis.
March 7, 1966 TEL.s

Please do not write in space below

COLIFORM TEST RESULT	GAS — 24 HRS.	GAS — 48 HRS.	CONFIRMED	REMARKS
			cc: M.E. Ostrom 3/3/67	plot 783447 19

NW1 SW1 SW1 | T7N R19E S1 Sec 36 303 (21)

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

Wel 6

See Instructions on Reverse Side

RECEIVED JUN 19 1964 SANITARY ENGINEERING

1. County Waukesha — Town ☒ Village ☐ City ☐ Brookfield (Check one and give name)
2. Location S2 W22955 Main Street (Name of street and number of premise or Section, Town and Range numbers)
3. Owner ☒ or Agent ☐ Mrs. Emery Gronvold (Name of individual, partnership or firm)
4. Mail Address S2 W22955 Main Street - Waukesha, Wis. (Complete address required)
5. From well to nearest: Building 15 ft; sewer ___ ft; drain ___ ft; septic tank 55 ft; ___ dry well or filter bed ___ ft; abandoned well ___ ft. Drilled Deeper
6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
			7	145	200

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
7	Black Steel Iron Pipe	0	200

9. GROUT:

Kind	From (ft.)	To (ft.)
Drilled Mud	0	20

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
~~Gravel (coarse)~~	145	165
~~Clay (blue)~~	165	183
Gravel (coarse)	183	200
Limestone (water) (bearing)	200	230

Construction of the well was completed on: 6/2 19 64

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ___

Was the well sealed watertight upon completion? Yes x No ___

11. MISCELLANEOUS DATA:

Yield test: 8 Hrs. at 10 GPM.

Depth from surface to water-level: 120 ft.

Water-level when pumping: 125 ft.

Water sample was sent to the state laboratory at: Madison (City) on 6/2 19 64

Signature Nick Palkoski S.54 W22815 Glengarry Rd Waukesha Wis.
Registered Well Driller — Complete Mail Address

Please do not write in space below

Rec'd ___ No ___

Ans'd ___

Interpretation ___

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					20

Examiner ___

NW 1/4 SW 1/4 | SEC 36

Wd. 6

3(22)4

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Waukesha — Town ☒ Village ☐ City ☐ Pewaukee (Check one and give name)

2. Location ~~SW 1/4 NE 1/4 Sec 33~~ T 7 R 19 (Name of street and number of premise or Section, Town and Range numbers)

3. Owner ☒ or Agent ☐ Mrs Dahlgren (Name of individual, partnership or firm)

RECEIVED FEB 18 1955 ENVIRONMENTAL ...

4. Mail Address Waukesha (Complete address required)

5. From well to nearest: Building 5 ft; sewer 20 ft; drain 20 ft; septic tank 30 ft; dry well or filter bed 55 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	58			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
~~Drift~~		
Pit	0	5
Drift	5	36
Limestone	36	58

Construction of the well was completed on: Aug 1946

The well is terminated 48 inches ☐ above, below ☒ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 1 Hrs. at 10 GPM.

Depth from surface to water-level: 23 ft.

Water-level when pumping: 26 ft.

Water sample was sent to the state laboratory at: Madison (City) on ____ 19__

Signature ____ Registered Well Driller ____ Complete Mail Address

Please do not write in space below

Rec'd ____ No. ____		10 ml	10 ml	10 ml	10 ml	10 ml
Ans'd ____	Gas—24 hrs.					
Interpretation ____	48 hrs.					
	Confirm					
	B. Coli					

21

Examiner ____

Wd. 6

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Waukesha | Town ☐ Village ☐ City ☐ Check one and give name Pewaukee

2. Location NW¼ SW¼ Sec 32 T 7 R 19
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ F. Dahlgren
Name of individual, partnership or firm

4. Mail Address Waukesha
Complete address required

RECEIVED FEB 18 1955 ENVIRONMENTAL SANITATION

5. From well to nearest: Building 5 ft; sewer 20 ft; drain 20 ft; septic tank 55 ft; dry well or filter bed 50 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	223			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std Steel	0	194

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay	—	—
Drift	0	188
Limestone	188	223

Construction of the well was completed on: Oct 1948

11. MISCELLANEOUS DATA:

Yield test: ____ Hrs. at 500 GPM.

Depth from surface to water-level: 110 ft.

Water-level when pumping: 110 ft.

Water sample was sent to the state laboratory at: Pewaukee City on ____ 19____

The well is terminated ____ inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

Signature ____ Registered Well Driller

Complete Mail Address

Please do not write in space below

Rec'd ____ No ____

Ans'd ____

Interpretation ____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner ____

22

T7N R19E

WELL CONSTRUCTOR'S REPORT

Wel–6

JAN 2 1970.

WHITE COPY – DIVISION'S COPY
GREEN COPY – DRILLER'S COPY
YELLOW COPY – OWNER'S COPY

APR 27 1970.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

COUNTY	CHECK ONE	NAME
WAUKESHA	☒ Town ☐ Village ☐ City	PEWAUKEE

LOCATION (Number and Street or ¼ section, section, township and range. Also give subdivision name, lot and block numbers when available.)
S.6-W.22887 HWY 18 - T7N, NW, NW, SW, sec. 36

3. OWNER AT TIME OF DRILLING
Wilde Pontiac

4. OWNER'S COMPLETE MAIL ADDRESS
S.6-W.22887 Hwy. "18" Waukesha Wisconsin 53186

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	WASTE WATER DRAIN TILE
5 ft.			40		40		40	

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
		160			160				

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for:
Auto Sales and Service

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	6	102	200
6.25	20	102			

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
25	Blk. 26 lb. F&C.	Surface	102

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drill mud	Surface	20

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Clay hardpan	Surface	3
Gravel clay	3	18
Sand clay silt	18	87
Gravel clay hardpan	87	102
Limestone crev.	102	137
Limestone	137	168
Limestone Crev WB	168	198
Limestone	198	200

Well construction completed on May 13 1969

Well is terminated 8 inches ☒ above ☐ below final grade

11. MISCELLANEOUS DATA

Yield test: 6 Hrs. at 30 GPM

Depth from surface to normal water level 45 ft.

Depth to water level when pumping 46 ft.

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on: 5/14 19 69

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, subsi[illegible]e pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Garber & Son
B. A. Garber Registered Well Driller

COMPLETE MAIL ADDRESS
22386 W. Green Rd Waukesha Wis. 53186

Please do not write in space below

COLIFORM TEST RESULT	GAS – 24 HRS.	GAS – 48 HRS.	CONFIRMED	REMARKS
				23

NW, NW, SW, T7N R19E SC 36

25

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

RECEIVED WK-145-U
NOV 1 1964
SANITARY ENGINEERING

1. County Waukesha {Town ☑ Village ☐ City ☐} Pewaukee Check one and give name

2. Location Hy 18 So. & W. 22993 Se¼, Sec 36 T7N, R19E
Name of street and number of premise or Section, Town and Range number

3. Owner ☑ or Agent ☐ R. Frederick
Name of individual, partnership or firm

4. Mail Address 8204 W. Slinger Ave. West Allis
Complete address required

5. From well to nearest: Building 200 ft; sewer ____ ft; drain ____ ft; septic tank 250 ft; dry well or filter bed 250 ft; abandoned well ____ ft.

6. Well is intended to supply water for: concrete mix-plant

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
12	0	20	8	20	~~440~~ 444

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
8	steel-32 lbs ft	0	119

9. GROUT:

Kind	From (ft.)	To (ft.)
Bentonite Mud	0	20 and deeper

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay & gravel	0	22
sand	22	65
gravel	65	109
Hard-pan	109	119
Limestone	119	444

11. MISCELLANEOUS DATA:

See questionable High Cap file

Yield test: 8 Hrs. at 45 GPM.

Depth from surface to water-level: 84 ft.

Water-level when pumping: 142 ft.

Water sample was sent to the state laboratory at: Madison City on Oct. 5 1964

Construction of the well was completed on: July 10 1964

The well is terminated 8 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

Signature Alex Polacy, 4535 N. 76 St. Milw. 17, Wisc.
Registered Well Driller Complete Mail Address

Please do not write in space below

Rec'd OCT 6 1964 No. 47484
OCT 13 1964

Ans'd ____

Interpretation ____

6.2 ppm = DITERGENT PRESENT

SAFE—BACTERIOLOGICALLY

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	+				
48 hrs.	+	0	0	0	0
Confirm	0				
B. Coli	0				

Examiner 24

plot 723446

NOV 30 1971

26

WELL CONSTRUCTOR'S REPORT
FORM 3300–15

NOTE
WHITE COPY – DIVISION'S COPY
GREEN COPY – DRILLER'S COPY
YELLOW COPY – OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

PEWAUKEE

COUNTY: Waukesha

CHECK ONE: ☒ Town ☐ Village ☐ City

NAME: Waukesha

2. LOCATION — ¼ Section: NE, NW, SW | Section: 36 | Township: 7N | Range: 19E

OR – Grid or street no.: W. 228 S. 707 | Street name: Hwy A

AND – If available subdivision name, lot & block no.:

3. OWNER AT TIME OF DRILLING: Steel Line Builders, Inc.

ADDRESS: 16601 West Dakota, Lt

POST OFFICE: New Berlin Wis

4. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	WASTE WATER DRAIN TILE
10	50	—	55	—	—	—	—	—

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
—	—	60	—	—	75	—	—	—	—

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: INDUSTRY, SPORTING GOOD'S STORE

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	30	6 1/8	30	170

7. CASING, LINER, CURBING, AND SCREEN

(in.)	Kind and Weight	From (ft.)	To (ft.)
7	OD New, Blk. Steel 17 C, .23#	Surface	115

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Clay	Surface	30
gravel	30	90
Sand	90	115
Limestone	115	170

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Clay Slurry	Surface	30

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary
☐ Rotary – air w/drilling mud ☐ Rotary – hammer with drilling mud & air ☐ Jetting with ☐ Air ☐ Water

Well construction completed on: NOV 13 19 71

11. MISCELLANEOUS DATA

Yield test: 9 Hrs. at 10 GPM

Depth from surface to normal water level: 45 ft.

Depth to water level when pumping: 60 ft.

Well is terminated 8 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison, Wis laboratory on: Nov 29 19 71

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, joints of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE

Kenny Hartman Registered Well Driller

COMPLETE MAIL ADDRESS

5700 N. 56 St. Milw. Wis

Please do not write in space below

COLIFORM TEST RESULT	GAS – 24 HRS.	GAS – 48 HRS.	CONFIRMED	REMARKS
				25

T6N R19E SEC 2

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

27

1. County Waukesha ... (Town / Village / City) X- Waukesha

2. Location S 17 W22109 Anoka Ave.

3. Owner X or Agent Merritt Eacsaig

4. Mail Address S. 17 W22109 Anoka Ave Waukesha Wis.

5. From well to nearest: Building 15 ft; sewer ft; drain ft; septic tank 65 ft; 65

dry well or filter bed 65 ft; abandoned well ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia.	In.	Ft.	Dia.	In.	Ft.
10	0	22	6	22	115

8. CASING AND LINER PIPE OR CURBING:

Dia.	Weight	From ft.	To ft.
6	std. bl.	0	93

9. GROUT:

	From ft.	To ft.
cuttings	0	93

10. FORMATIONS:

	From	To
clay	0	16
sand	16	93
limestone	93	115

Construction of the well was completed on:

10/17/61 19...

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 15 GPM.

Depth from surface to water-level: 4 ft.

Water-level when pumping: 60 ft.

Water sample was sent to the state laboratory at:

Madison (City) on 10/22/61 19...

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes X No

Was the well sealed watertight upon completion?

Yes X No

Signature A. C. Eddy Rt. Hartentown Wis.
Registered Well Driller — Complete Mail Address

Please do not write in space below

Rec'd. OCT 24 '61 No. 51121

	10 ml	10 ml	10 ml	10 ml	10 ml
Ans'd					
Gas—24 hrs					
48 hrs.					
Confirm					
B. Coli					

Interpretation UNSAFE—BACTERIOLOGICALLY

Because of the presence of B. Coli in one of the 10 cc. portions of this sample another examination is advisable.

Examined

26

T6N R19E Sec 1 NW/4

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

28

1. County Waukesha (Town ☐ Village ☒ City) Waukesha

2. Location Hy. 59 & Antioch St.

3. Owner ☐ or Agent ☒ Ben Heeren

4. Mail Address Rt. 6, Waukesha

5. From well to nearest: Building 5 ft; sewer 30 ft; drain ft; septic tank 50 ft;
dry well or filter bed 60 ft; abandoned well ft.

6. Well is intended to supply water for: Home & restaurant

7. DRILLHOLE:

Dia. in.	From ft.	To ft.	Dia. in.	From ft.	To ft.
10	0	30	6	30	36

8. CASING AND LINER PIPE OR CURBING:

Dia. in.	Kind and Weight	From ft.	To ft.
6	Standard Black Steel	0	30

9. GROUT:

Kind	From ft.	To ft.
Puddled clay	0	25

10. FORMATIONS:

Kind	From ft.	To ft.
Clay	0	25
Sand	25	34
Gravel	34	36

Construction of the well was completed on: August 14 19 56

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No

Was the well sealed watertight upon completion? Yes X No

11. MISCELLANEOUS DATA:

Yield test: 5 Hrs. at 8 GPM.

Depth from surface to water-level: 26 ft.

Water-level when pumping: 28 ft.

Water sample was sent to the state laboratory at: Madison on Aug. 15 19 56

Signature [signature] Registered Well Driller

Edgewood Drilling Company
311 W. St. Paul Ave., Waukesha, Wis.
Complete Mail Address

AUG 15 1956

Please do not write in space below

			10 ml	10 ml	10 ml	10 ml	1 ml
Rec'd	No						
Ans'd		Gas—24 hrs					
Interpretation UNSAFE		48 Hrs.					
		Confirm					
		B. Coli					

27

WELL CONSTRUCTOR'S REPORT

MAR 2 3 1978

NOTE
WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

(29)

COUNTY	CHECK ONE: Town	Village	X City	NAME
Waukesha				Waukesha

LOCATION – ¼ Section: SE | Section: 34 | Township: 7 North | Range: 19 East

6. Grid or street no. | Street name

10. If available subdivision name, lot & block no.

3. OWNER AT TIME OF DRILLING
Waukesha County Park System
ADDRESS
500 Riverview Ave.
POST OFFICE
Waukesha, WI 53186

Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER DRAIN C.I.	SANITARY SEWER DRAIN TILE	STORM DRAIN C.I.	STORM DRAIN TILE	FOX STATION DRAIN SEWER CONNECTED IN SUPERINTENDENT	WASTE WATER DRAIN C.I.	WASTE WATER DRAIN TILE

CLEAR WATER DRAIN C.I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	OTHER

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, use, etc.)

Well is intended to supply water for:
Moor Downs Golf Course - Irrigation only.

4. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	55			
9	55	160			

5. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
10	ASTM A53 Grade B .365" - 40#/ft.	Surface	35

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Glacial drift	Surface	34
Limestone	34	150
Sandstone (hard)	150	160

AMOUNT DATE AFKI
FILE LOCATION WAUKESHA
cc STATE GEOLOGIST

6. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
None	Surface	

10. TYPE OF DRILLING MACHINE USED
[X] Cable Tool | [ ] Direct Rotary | [ ] Reverse Rotary | [ ] Rotary – air | [ ] Rotary – hammer with drilling mud & air | [ ] Jetting with [ ] Air [ ] Water

Well construction completed on August 10 19 77

11. MISCELLANEOUS DATA
Yield test: 8 Hrs. at 150-60 GPM

Well is terminated 12 inches [X] above [ ] below final grade

Depth from surface to normal water level 30 ft.

Well disinfected upon completion [ ] Yes [X] No

Depth to water level when pumping 80 ft.

Well sealed watertight upon completion [ ] Yes [X] No

Water sample sent to not required laboratory on: 19

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE
Registered Well Driller

COMPLETE MAIL ADDRESS
20950 Enterprise Ave.
Brookfield, WI 53005

Please do not write in space below

WELL FORM TEST RESULT	GAL. / HRS.	GAL. / HRS.	CONFIRMED	REMARKS

28

High Capacity Well Summary Report

Moor Downs Golf Course -- 500 Riverview Ave, Waukesha
Second well (PWELLNUM 34348)
Depth = 280 feet
Niagara Aquifer

T6N R19E SEC 2

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

(30)

1. County Waukesha — Town X / Village / City — Waukesha

2. Location S 17 W22109 Anoka Ave.

3. Owner X or Agent ☐ Merritt Eassaig

4. Mail Address S. 17 W22109 Anoka Ave Waukesha Wis.

5. From well to nearest: Building 15 ft; sewer ft; drain ft; septic tank 65 ft; 65 dry well or filter bed 65 ft; abandoned well ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia.	From ft.	To ft.	Dia.	From ft.	To ft.
10	0	22	6	22	115

8. CASING AND LINER PIPE OR CURBING:

Dia.	Kind and Weight	From ft.	To ft.
6	std. bl.	0	93

9. GROUT:

Kind	From ft.	To ft.
cuttings	0	93

10. FORMATIONS:

Kind	From ft.	To ft.
clay	0	18
sand	18	93
limestone	93	115

Construction of the well was completed on: 10/17/61 19

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes x No

Was the well sealed watertight upon completion? Yes x No

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 15 GPM.

Depth from surface to water-level: 4 ft.

Water-level when pumping: 60 ft.

Water sample was sent to the state laboratory at: Madison (City) on 10/22/61 19

Signature A.C. Eddy Rl Germantown Wis.
Registered Well Driller — Complete Mail Address

Please do not write in space below

Rec'd. OCT 2 ... No. 41691 — 10 ml 10 ml 10 ml 10 ml 10 ml

Ans'd — Gas—24 hrs.

Interpretation UNSAFE—BACTERIOLOGICALLY — 48 hrs.

Because of the presence of B. Coli in one of the 10 cc. portions of this sample another examination is advisable. — Confirm — B. Coli — Examiner

31

JUN 29 1972

31

WELL C[illegible]TOR'S REPORT

[illegible] 3300-15

NOTE
WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin

1. COUNTY: Waukesha — CHECK ONE: X Town / Village / City — NAME: Waukesha

2. LOCATION — ¼ Section, Section, Township, Range: [illegible]
OR Grid or street no.: 816 W2217 — Street name: Arcadian Ave.
AND — If available subdivision name, lot & block no.

3. OWNER AT TIME OF DRILLING: Mr. E. P. Krumrich
ADDRESS: 1214 E. Laflin Ave.
POST OFFICE: Waukesha, Wis. 53186

4. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C.I.	SANITARY SEWER TILE	FLOOR DRAIN C.I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C.I.	WASTE WATER DRAIN TILE
15								

CLEAR WATER DRAIN C.I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
		50							

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10 O. D.	Surface	20	6 1/8	20	113
			6 ¼	113	150

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
7 O.D.	New Black steel Iron pipe 26# T&C	Surface	113

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drilled Cuttings	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Clay (top soil	Surface	2
Clay (red)	2	16
Sand (fine)	16	24
Clay (blue)	24	76
Gravel & Clay	76	112
Limestone (broken)	112	113
Limestone (waterbearing)	113	150

10. TYPE OF DRILLING MACHINE USED
X Cable Tool; Direct Rotary; Reverse Rotary; Rotary - air w/drilling mud; Rotary - hammer w/drilling mud & air; Jetting with Air / Water

Well construction completed on 5/22 19 72
Well is terminated 8 inches X above / below final grade
Well disinfected upon completion X Yes No
Well sealed watertight upon completion X Yes No

11. MISCELLANEOUS DATA
Yield test: 8 Hrs. at 10 GPM
Depth from surface to normal water level 50 ft.
Depth to water level when pumping 60 ft.

Water sample sent to Madison laboratory on: 5/22 19 72

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seal type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: [illegible] — Registered Well Driller
COMPLETE MAIL ADDRESS: S55 W22773 Glengarry Rd., Waukesha, Wis. 53[illegible]

Please do not write in space below

COLIFORM TEST RESULT | GAS 24 HRS | GAS 48 HRS | CONFIRMED | REMARKS

3-71

32

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Waukesha — Town ☒ Village ☐ City ☐ Pewaukee — Check one and give name.

2. Location S E 1/4 S E 1/4 Sec 22 T 7 R 19 — Name of street and number of premise or Section, Town and Range Number

3. Owner ☐ or Agent ☐ Pettijohn Locke — Name of individual, partnership or firm

4. Mail Address Waukesha — Complete address required

RECEIVED FEB 21 1950 ENVIRON... SANITA...

5. From well to nearest: Building 6 ft; sewer [illegible] ft; drain 20 ft; septic tank [illegible] ft; dry well or filter bed 25 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Trailer Court

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	38			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std Steel	0	35
3/4	Drive Screen	32	38

9. GROUT:

Kind	From (ft.)	To (ft.)

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Drift	0	38

Construction of the well was completed on: Oct ____ 19 47

The well is terminated 24 inches ☐ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 12 Hrs. at 30 GPM.

Depth from surface to water-level: 8 ft.

Water-level when pumping: 11 ft.

Water sample was sent to the state laboratory at: Madison City on ____ 19____

Signature ____ Registered Well Driller

Complete Mail Address

Please do not write in space below

Rec'd ____ No. ____

Ans'd ____

Interpretation ____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner ____

NW, NW, NW, Sec. 35

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

(33)

RECEIVED APR 17 1950 WIS. STATE BD. OF HEALTH

1. County Waukesha — Town ☒ / Village ☐ / City ☐ Pewaukee — Check one and give name

2. Location Corner of county trunks F + FT. N. 37 R19 E
Name of street and number of premise or Sec. Tn. and R. numbers

3. Owner ☑ or Agent ☐ Walter Hauk
Name of individual, partnership or firm

4. Mail Address R 5 Box 587 Waukesha
Complete address required

5. From well to nearest: Building 7 ft; sewer 25 ft; drain ~~26~~ ft; septic tank 35 ft; dry well or filter bed 80 ft; abandoned well 30 ft.

6. Well is intended to supply water for: Private Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)
10	0	20
6	20	129

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Standard Steel		

9. GROUT:

Kind	From (ft.)	To (ft.)
puddled clay	0	103

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
clay	0	6
hard pan	6	95
sand + gravel	95	103
Lime Stone	103	129

11. MISCELLANEOUS DATA:

Yield test: 2 Hrs. at 24 GPM.

Depth from surface to water: 80 ft.

Water-level when pumping: 82 ft.

Water sample sent to laboratory at Kenosha on March 15 1950

Construction of the well was completed on March 1 1950

The well is terminated 6 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No

Was the well sealed watertight upon completion? Yes ✓ No

Signature Fred Kruck
Registered Well Driller

3.14.50 #4279

Brookfield Wis
Complete Mail Address

Plot

(Owner's Copy)

34

783436

(34)

SW, SW, SW, T7N R19E SEC 26

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

RECEIVED MAR 25 19

We: approx. WK location only.

1. County Waukesha — Town ☒ / Village ☐ / City ☐ Pewaukee (Check one and give name)

2. Location W.239-N.218 Pewaukee Rd "F" (Name of street and number of premise or Section, Town and Range numbers)

SANITARY ENGINEERING

3. Owner ☒ or Agent ☐ Hydraulic Unit Specialties Inc. (Name of individual, partnership or firm)

4. Mail Address N.218 Pewaukee Rd. Waukesha Wis. (Complete address required)

5. From well to nearest: Building 15 ft; sewer ____ ft; drain ____ ft; septic tank 70 ft; dry well or filter bed 70 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Industry- Sanitary

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	40			
6	0	298			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Blk.WD 19.45	0	77-2

9. GROUT:

Kind	From (ft.)	To (ft.)
drill mud	0	40

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay	0	20
sand gravel	20	40
clay gravel	40	72
Lime shell	72	77
Limestone Vertical cre,	77	150
Limestone brown	150	220
Limestone white	220	268
Limestone black	268	278
limestone shale stks	278	298

11. MISCELLANEOUS DATA:

Yield test: 6 Hrs. at 25 GPM.

Depth from surface to water-level: 111 ft.

Water-level when pumping: 126 ft.

Water sample was sent to the state laboratory at: Madison (City) on March 23 19 64

Construction of the well was completed on: March 23 19 64

The well is terminated 8 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

Signature Garber & Son B.J. Garber (Registered Well Driller) 22386 W. Green Rd Waukesha Wis. 53186 (Complete Mail Address)

Please do not write in space below

Rec'd ____ No ____

Ans'd ____

Interpretation ____

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner ____

35

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

SEP 19 1977

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S RE
Form 3300-15 Rev

(34a)

1. COUNTY: Waukesha

CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name: Pewaukee

2. LOCATION: ¼ Section: | Section: 35 | Township: 7N | Range: 19E

OR – Grid or Street No.: W239 N218 | Street Name: Pewaukee Rd.

AND – If available subdivision name, lot & block No.: SW, S W, SW, sec. 20

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: HUSCO

ADDRESS: W239 N218 Pewaukee Rd.

POST OFFICE: Waukesha, Wisconsin

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm Bldg. Sewer C.I.	Storm Bldg. Sewer Other
13										

Street Sewer San.	Street Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewer	Sewage Sump	Clearwater Dr.	Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit
											58		Seepage Pit; Seepage Bed 89; Seepage Trench

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well; Pump; Tank								

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: Industry

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8 3/4	Surface	89			
6	89	846			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6 new	18.97 lbs. per ft. steel plain end ASTM A-53 U.S. Steel	Surface	89

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Clay slurry & drilling mud	Surface	89

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Gravel and clay	Surface	6
Sand and gravel	6	37
Clay	37	78
Gravel and clay	78	89
Limestone	89	237
Limestone and shale	237	463
Limestone	463	704
Sandstone	704	846

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air ☐ Water
☐ Rotary-w/drilling mud ☐ Reverse Rotary

Well construction completed on September 7 19 77

11. MISCELLANEOUS DATA

Yield Test: 5 Hrs. at 35 GPM

Depth from surface to normal water level 181 Ft.

Depth of water level when pumping 605 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 8 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on September 8 19 77

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side. plot

Signature: Herr Well Drilling, Inc.
Registered Well Driller

Complete Mail Address: 783368
295 Marsh Rd., Dousman, Wisconsin 53118

36

PAYNE & DOLAN QUARRY WELLS
T07N R19E SEC 26 SW1/4

Located north and just over 1 mile from
the Navistar Facility
Waukesha, Wisconsin

W. O. #2822

(35)

WELL CONSTRUCTOR'S REPORT
FORM 3300-15

OCT 22 1973

NOTE
WHITE COPY – DIVISION'S COPY
GREEN COPY – DRILLER'S COPY
YELLOW COPY – OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

1. COUNTY: Waukesha

CHECK ONE: [X] Town [ ] Village [ ] City

NAME: Pewaukee

2. LOCATION – ¼ Section: SW¼ | Section: 26 | Township: 7N | Range: 19E

OR – Grid or street no. | Street name: Badinger Drive

AND – If available subdivision name, lot & block no.

3. OWNER AT TIME OF DRILLING: Payne & Dolan

ADDRESS: 1226 W. Wisconsin Avenue

POST OFFICE: Milwaukee, WI 53233

4. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	WASTE WATER DRAIN TILE
15	–	–	–	–	–	15	–	–

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
–	–	90	–	180	–	–	–	200	–

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)
(– above indicates NONE)

5. Well is intended to supply water for:
OFFICE BUILDING

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	Surface	85	6	85	248

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	New Std. Steel Black P.E. 18.97 lbs. per foot	Surface	85

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Stony Red Clay	Surface	18
Blue Stony Clay	18	68
Limerock	68	248

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Neat Cement Grout	Surface	85

10. TYPE OF DRILLING MACHINE USED
[ ] Cable Tool [ ] Direct Rotary [ ] Reverse Rotary
[X] Rotary – air w/drilling mud [ ] Rotary – hammer with drilling mud & air [ ] Jetting with [ ] Air [ ] Water

Well construction completed on October 11, 1973

11. MISCELLANEOUS DATA
Yield test: 2 Hrs. at 20 GPM

Well is terminated 8 inches [X] above [ ] below final grade

Depth from surface to normal water level 150 ft.

Well disinfected upon completion [X] Yes [ ] No

Depth to water level when pumping 158 ft.

Well sealed watertight upon completion [X] Yes [ ] No

Water sample sent to Madison laboratory on: October 11, 1973

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE
Richard Berkholtz, Pres. Registered Well Driller

COMPLETE MAIL ADDRESS
BERKHOLTZ DRILLING CO., INC.
2120 W. Clybourn St., Milwaukee, WI 53233

Please do not write in space below 10/17/73 gk

COLIFORM TEST RESULT	GAS – 24 HRS.	GAS – 48 HRS.	CONFIRMED	REMARKS
See letter driller's file 10/3/73				

REV. 3-71

39

(36)

First Water Quality Test For WISCONSIN UNIQUE WELL NUMBER FJ 894

State of Wisconsin
Private Water Supply - WS/2
Department of Natural Resources
Box 7921
Madison, WI 53707

OCT 5 1992

(Please type or print using a black pen.)

Property Owner	Payne and Dolan, Inc.
Telephone Number	(414) 524-1700
Mailing Address	N3 W23650 Badinger Rd.
City	Waukesha,
State	WI
Zip Code	53186
County of Well Location	Waukesha
Co. Well Permit No.	W_____
Well Completion Date (mm-dd-yy)	09-14-92

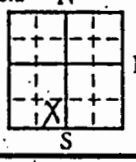
68 Well Constructor (Business Name): Herr Well Drilling, Inc. License # WD672

Address: W295 Herr Rd.

City: Dousman, State: WI Zip Code: 53118

N

2. Mark well location with a dot in correct 40-acre parcel of section.



1. Well Location — Please use decimals instead of fractions.

[x] Town [ ] City [ ] Village of Pewaukee — Fire # (If avail.)

Grid or Street Address or Road Name and Number (If avail.): N3 W23650 Badinger Road

Subdivision Name | Lot # | Block #

Gov't Lot #_____ or SE 1/4 of SW 1/4 of Section 26, T 7 N; R 19 [X] E [ ] W

3. Well Type [ ] New [ ] Replacement [x] Reconstruction

of previous unique well # none constructed in 19____

Reason for new, replaced or reconstructed well? Insufficient water & drill cuttings in old well.

4. Well serves 1 # of ~~homes~~ or office building (Ex: barn, restaurant, church, school, industry, etc.)

High Capacity: Well? [ ] Yes [x] No Property? [ ] Yes [x] No

[x] Drilled [ ] Driven Point [ ] Jetted [ ] Other

5. Well located on highest point of property, consistent with the general layout and surroundings? [x] Yes [ ] No If no, explain on back side.

Well located in floodplain? [ ] Yes [x] No

Distance in Feet From Well To Nearest:

____ 1. Landfill	____ 9. Downspout/Yard Hydrant	____ 17. Wastewater Sump
15 2. Building Overhang	____ 10. Privy	____ 18. Paved Animal Barn Pen
____ 3. Septic or Holding Tank (circle one)	____ 11. Foundation Drain to Clearwater	____ 19. Animal Yard or Shelter
____ 4. Sewage Absorption Unit	____ 12. Foundation Drain to Sewer	____ 20. Silo - Type _____
____ 5. Nonconforming Pit	____ 13. Building Drain [ ] Cast Iron or Plastic [ ] Other	____ 21. Barn Gutter
____ 6. Buried Home Heating Oil Tank	____ 14. Building Sewer [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other	____ 22. Manure Pipe [ ] Gravity [ ] Pressure [ ] Cast Iron or Plastic [ ] Other
____ 7. Buried Petroleum Tank	____ 15. Collector or Street Sewer	____ 23. Other Manure Storage _____ Other NR 112 Waste Source
____ 8. Shoreline/Swimming Pool	____ 16. Clearwater Sump	____ 24. _____

6. Drillhole Dimensions

Dia. (in.)	From (ft.)	To (ft.)
6	246 surface	362

Method of constructing upper enlarged drillhole only.

[ ] 1. Rotary - Mud Circulation
[ ] 2. Rotary - Air
[ ] 3. Rotary - Foam
[ ] 4. Reverse Rotary
[ ] 5. Cable-tool Bit _____ in. dia.
[ ] 6. Temp. Outer Casing _____ in. dia. Removed? [ ] Yes [ ] No If no, explain _____
[ ] 7. Other _____

9. Geology

DNR USE ONLY	Type, Caving/Noncaving, Color, Hardness, Etc.	From (ft.)	To (ft.)
L	Limestone	Surface 246	262
HL	Shale & limestone	262	285
H	Shale	285	362

7. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
	existing	surface	10

Dia. (in.)	screen type, material & slot size	From	To

8. Grout or Other Sealing Material

Method / Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
	surface		

10. Static Water Level
_____ ft. above ground surface
200 ft. below ground surface

11. Pump Test
Pumping Level 260 ft. below surface
Pumping at 23 GPM for 5 hours

12. Well Is:

			Grade
	[x] Above [ ] Below	12 in.	
Developed?	[x] Yes	[ ] No	
Disinfected?	[x] Yes	[ ] No	
Capped?	[x] Yes	[ ] No	

13. Did you permanently seal all unused, noncomplying, or unsafe wells? [ ] Yes [ ] No If no, explain none

14. Signature of Point Driver or Licensed Supervisory Driller — Date Signed: John Herr SI 10-1-92

Signature of Drill Rig Operator (Mandatory unless same as above) — Date Signed: Scott Keppen SI 10-1-92

Make additional comments on reverse side about geology, additional screens, water quality, etc.
Comments on reverse side ____ (Check √, if yes)

DNR

WELL CONSTRUCTION REPORT
Form 3300-77A Rev. 1-92

WGNHS ORIGINAL

40

(37)

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15 Rev. 2-79

JAN 5 1984

1. COUNTY: Waukesha
CHECK (✓) ONE: ☒ Town ☐ Village ☐ City
Name: Pewaukee

2. LOCATION: ¼ Section or Gov't. Lot: SW, SW, | Section: 26 | Township: 7N | Range: 19E
OR – Grid or Street No.: N179 W238 | Street or Road Name: Badinger Rd.
AND – If available subdivision name, lot & block No.:

3. NAME ☐ OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE
Waukesha Lime & Stone, Inc.
ADDRESS: P.O. Box 708
POST OFFICE: Waukesha, Wisconsin 53186 ZIP CODE:

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm Bldg. Sewer C.I.	Storm Bldg. Sewer Other
4										

Street Sewer San.	Street Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewer	Sewage Sump	Clearwater Dr.	Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pnuematic Tank
											59		Seepage Pit Seepage Bed 80 Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well Pump Tank									

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls	Other (Describe)

5. Well is intended to supply water for:
Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	178 ~~Surface~~	302			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification

Dia. (in.)	Mfg. & Method of Assembly	From (ft.)	To (ft.)
		Surface	
We only deepened this well		from 178	to 302 ft.
	L.S encountered at		
	70 80' depth in area.		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
None	Surface	

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Limestone	178 ~~Surface~~	302

10. TYPE OF DRILLING MACHINE USED
☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air
☐ Rotary-w/drilling mud ☐ Reverse Rotary ☐ Water

Well construction completed on: September 7 1983

11. MISCELLANEOUS DATA
Yield Test: 5 Hrs. at 20 GPM
Depth from surface to normal water level: 179 Ft.
Depth of water level when pumping: 245 Ft. Stabilized ☒ Yes ☐ No

Well is terminated: 8 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to: Madison laboratory on: September 8 1983

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: [signature] Registered Well Driller

Business Name and Complete Mailing Address:
Herr Well Drilling, Inc.
295 Marsh Rd., Dousman, Wis. 53118

41

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 2-79

(38)

JAN 5 1984

1. COUNTY: Waukesha
CHECK (✓) ONE: ☒ Town ☐ Village ☐ City
Name: Pewaukee

2. LOCATION: ¼ Section or Gov't. Lot: SW, SW | Section: 26 | Township: 7N | Range: 19E
OR – Grid or Street No.: W238 N166 | Street or Road Name: Badinger Rd.
AND – If available subdivision name, lot & block No.:

3. NAME ☐ OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE
Waukesha Lime and Stone Owner: Chris Palme
ADDRESS: P.O. Box 708
POST OFFICE: Waukesha, Wisconsin 53186 ZIP CODE:

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
14										

Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pnuematic Tank
San.	Storm	C.I.	Other	Sewer	Sewage Sump	C.I.	Other				Seepage Pit	
				Clearwater Dr.	Clearwater Sump				82		Seepage Bed 116	
											Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well	Nonconforming Existing								
		Pump									
		Tank									

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin	Other (Describe)
					Concrete Floor Only	
					Concrete Floor and Partial Concrete Walls	

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	180 ~~Surface~~	322			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification Mfg. & Method of Assembly

Dia. (in.)	From (ft.)	To (ft.)
	Surface	
LS. encountered at 70-80' depth in area.		
We only deepened this well from 180 ft. to 322 ft.		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
none	Surface	

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Limestone	180 ~~Surface~~	322

10. TYPE OF DRILLING MACHINE USED
☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air ☐ Water
☐ Rotary-w/drilling mud ☐ Reverse Rotary

Well construction completed on November 16 19 83

11. MISCELLANEOUS DATA
Yield Test: 5 Hrs. at 20 GPM
Depth from surface to normal water level 205 Ft.
Depth of water level when pumping 240 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 8 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on November 17 19 83

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: [signature] Registered Well Driller

Business Name and Complete Mailing Address
Herr Well Drilling, Inc.
295 Marsh Rd., Dousman, Wisconsin 53118

42

(39)

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 2-79

MAR 25 1983

1. COUNTY: Waukesha

CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name: Pewaukee

2. LOCATION: ¼ Section or Gov't. Lot: SW,SW ✓ | Section: 26 | Township: 7N | Range: 19E

OR – Grid or Street No.: N198 W238 | Street or Road Name: Badinger Rd.

AND – If available subdivision name, lot & block No.:

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: Waukesha Lime & Stone Co., Inc.

ADDRESS: P.O. Box 708

POST OFFICE: Waukesha, Wisconsin | ZIP CODE: 53187-0708

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
6										

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pnuematic Tank
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other				Seepage Pit	
				Clearwater Dr.		Clearwater Sump					26		Seepage Bed 57	
													Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well										
		Pump										
		Tank										

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls	Other (Describe)
						quarrey 500 ft.

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	367			
6	367	482			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification Mfg. & Method of Assembly	From (ft.)	To (ft.)
6	18.97 lbs. per ft.	Surface	367
new	steel plain end ASTM A53 NKK		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Neat cement grout	Surface	367

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Gravel and clay	Surface	32
Sand and gravel	32	34
Clay	34	81
Limestone	81	326
Limestone and shale	326	482

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air ☐ Water
☐ Rotary-w/drilling mud ☐ Reverse Rotary

Well construction completed on: January 18 19 83

11. MISCELLANEOUS DATA

Yield Test: 5 Hrs. at 15 GPM

Depth from surface to normal water level: 219 Ft.

Depth of water level when pumping: 265 Ft. Stabilized ☒ Yes ☐ No

Well is terminated: 8 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to: Madison laboratory on: January 19 1983

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: John Herr Registered Well Driller

Business Name and Complete Mailing Address:
Herr Well Drilling, Inc.
295 Marsh Rd., Dousman, Wis. 53118

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(40)

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15 Rev. 2-79

OCT 14 1981

1. COUNTY: Waukesha
CHECK (✓) ONE: ☒ Town ☐ Village ☐ City
Name: Pewaukee

2. LOCATION: ¼ Section or Gov't. Lot ✓: S½ SW | Section: 26 | Township: 7N | Range: 19E
OR – Grid or Street No.: W237 N212 | Street or Road Name: Badinger Rd.
AND – If available subdivision name, lot & block No.:

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE
Waukesha Lime & Stone Co.
ADDRESS: P.O. Box 708
POST OFFICE: Waukesha, Wisconsin
ZIP CODE: 53187

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm Bldg. Sewer C.I.	Storm Bldg. Sewer Other
40										

Street Sewer San.	Street Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewer	Foundation Drain Connected to: Sewage Sump	Foundation Drain Connected to: Clearwater Dr.	Foundation Drain Connected to: Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pnuematic Tank
											70		Seepage Pit Seepage Bed 90 Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well Pump Tank	Nonconforming Existing								

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls	Other (Describe)

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	180 ~~Surface~~	342			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification Mfg. & Method of Assembly

Dia. (in.)	From (ft.)	To (ft.)
	Surface	

redrilled 20 yrs ago – well is at least 38 yrs old
no idea how much casing -10-28-81

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
	Surface	

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Limestone	180 ~~Surface~~	318
Limestone and shale	318	342
We just deepened this well		

10. TYPE OF DRILLING MACHINE USED
☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air ☐ Water
☐ Rotary-w/drilling mud ☐ Reverse Rotary

Well construction completed on September 23 1981

11. MISCELLANEOUS DATA
Yield Test: 5 Hrs. at 15 GPM
Depth from surface to normal water level 187 Ft.
Depth of water level when pumping 245 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 8 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on September 24 19 81

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: [signature] Registered Well Driller

Business Name and Complete Mailing Address
Herr Well Drilling, Inc.
295 Marsh Rd., Dousman, Wis. 53118

44

(41)

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300–15 Rev. 2-79

1. COUNTY: Waukesha

CHECK (✓) ONE: ☒ Town ☐ Village ☐ City

Name: Pewaukee DEC 15 1982

2. LOCATION: ¼ Section or Gov't. Lot: S½ SW ✓ | Section: 26 | Township: 7N | Range: 19E

OR – Grid or Street No.: N218 W237 | Street or Road Name: Badinger Rd.

AND – If available subdivision name, lot & block No.:

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: Waukesha Lime & Stone

ADDRESS: P.O. Box 708

POST OFFICE: Waukesha, Wisconsin | ZIP CODE: 53186

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
2'9"										

Street Sewer		Other Sewers		Foundation Drain Connected to:				Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pneumatic Tank
San.	Storm	C.I.	Other	Sewer		Sewage Sump		C.I.	Other				Seepage Pit	
				Clearwater Dr.		Clearwater Sump					28		Seepage Bed 56	
													Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well		Nonconforming Existing								
		Pump										
		Tank										

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls	Other (Describe)

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	211 ~~Surface~~	382			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification

Dia. (in.)	Mfg. & Method of Assembly	From (ft.)	To (ft.)
6	as measured by Nancy Payne, Environmental specialist. This well was just deepened by us from 211 to 382	Surface	84

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
none	Surface	

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Limestone	211 ~~Surface~~	313
Limestone and shale	313	382

See variance letter in W.D. file. Liner pipe was only recommended.

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air
☐ Rotary-w/drilling mud ☐ Reverse Rotary ☐ Water

11. MISCELLANEOUS DATA

Yield Test: 5 Hrs. at 15 GPM

Depth from surface to normal water level 193 Ft.

Depth of water level when pumping 285 Ft. Stabilized ☒ Yes ☐ No

Well construction completed on October 13 19 82

Well is terminated 8 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on October 14 19 82

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: John Herr Pres. Registered Well Driller

Business Name and Complete Mailing Address:
Herr Well Drilling, Inc.
295 Marsh Rd., Dousman, Wis. 53118

45

CITY OF WAUKESHA PUBLIC WATER SUPPLY
WELL INFORMATION

High Capacity Well Summary Report

Wells not located on map include:

City of Waukesha Water Utility

PWELLNUM 88151	T6N R19E S02 NW,NW	1816 ft deep
88160	T6N R19E S03 NW,NE	1907 ft deep
88162	T6N R19E S03 NW,SW	1918 ft deep

Barstow Ass.

PWELLNUM 88080	T6N R19E S03 NE,NE	unknown depth

Table 3-1

Existing Well & Pump Data
Waukesha Water Utility
City of Waukesha, Wisconsin

	SUPPLY WELLS		
	Well 1	Well 2	Well 3
Well Construction			abandoned BWR 01/98
Well Name	North	Baxter	Moreland
Year Constructed	1935	1927	1930
Constructed By	Milaeger	Gray–Milaeger	Milaeger
Constructed Depth (ft.)			
Well	1907	1835	1995
Casing	401	395	480
Original Conditions:			
Static Water Level	132	122	301
Specific Capacity	11.6	*Not Available*	*Not Available*
1990 Conditions (average)			
Static Water Level	414	420	*Not Available*
Specific Capacity	7.9	5.2	*Not Available*
Formations Encountered*	Drift	Drift	Drift
	Niagara (D)	Niagara (D)	Niagara (D)
	Maquoketa (S)	Maquoketa (S)	Maquoketa (S)
	Galena–Platteville (D)	Galena–Platteville (D)	Galena–Platteville (D)
	St. Peter (SS)	St. Peter (SS)	St. Peter (SS)
	Eau Claire (SS)	Eau Claire (SS)	Eau Claire (SS)
	Mt. Simon (SS)	Mt. Simon (SS)	Mt. Simon (SS)
Pump Data			
Type	Vertical Turbine	~~Vertical Turbine~~ SUBMERSIBLE	Vertical Turbine
Manufacturer	Peerless	~~American~~	Peerless
Serial Number	*Not Available*	~~7091~~	*Not Available*
No. of Stages	9	~~9~~	9
Impeller Number	12LB	~~12M100~~	12LB
Year Installed	1977	~~1989~~ 1993	1975
Pump Setting (ft)	560	~~650~~	560
Rated Conditions:			
Flow Rate (gpm)	800	~~950~~	860
TDH (ft.)	560	~~650~~	*Not Available*
Pump Motor Data			
Manufacturer	General Electric	General Electric	General Electric
Serial Number	YMJ1122011	066092034	TMJ629073
Horsepower	150	250	150
RPM	1770	1790	1770
Standby Power	None	None	None

* (D)=Dolomite; (S)=Shale; (SS)=Sandstone

Table 3-1 (Continued)

Existing Well & Pump Data
Waukesha Water Utility
City of Waukesha, Wisconsin

	SUPPLY WELLS		
	Well 4	Well 5	Well 6
Well Construction	abandoned BWR over		
Well Name	Newhall	East	Sunset
Year Constructed	1945	1953	1959
Constructed By	Milaeger	Miller	Miller
Constructed Depth (ft.)			
Well	1995	2120	2075
Casing	410	507	502
Original Conditions:			
Static Water Level	212	295	227
Specific Capacity	7.4	8.0	16.1
1990 Conditions (average)			
Static Water Level	425	469	389
Specific Capacity	3.0	11.5	22.0
Formations Encountered*	Drift Niagara (D) Maquoketa (S) Galena-Platteville (D) St. Peter (SS) Eau Claire (SS) Mt. Simon (SS)	Drift Niagara (D) Maquoketa (S) Galena-Platteville (D) St. Peter (SS) Eau Claire (SS) Mt. Simon (SS)	Drift Niagara (D) Maquoketa (S) Galena-Platteville (St. Peter (SS) Eau Claire (SS) Mt. Simon (SS)
Pump Data			
Type	Vertical Turbine	Vertical Turbine	Vertical Turbine
Manufacturer	Peerless	American	Peerless
Serial Number	*Not Available*	6687	262606791E
Stages	15	9	6
Impeller	10MA	12M100	14MC
Year Installed	1973	1991	1983
Pump Setting	550	610	520
Rated Conditions:			
Flow Rate (gpm)	*Not Available*	950	1700
TDH (ft.)	*Not Available*	585	480
Pump Motor Data			
Manufacturer	General Electric	General Electric	U.S. Motors
Serial Number	6276224	SET205057	C9538-01-960
Horsepower	150	250	400
RPM	1775	1790	1770
Standby Power	None	None	None

* (D)=Dolomite; (S)=Shale; (SS)=Sandstone

Table 3-1 (Continued)

Existing Well & Pump Data
Waukesha Water Utility
City of Waukesha, Wisconsin

	SUPPLY WELLS	
	Well 7	Well 8
Well Construction		
Well Name	Merrill	Saylesville
Year Constructed	1963	1968
Constructed By	Miller	Miller
Constructed Depth (ft.)		
Well	2141	2024
Casing	510	500
Original Conditions:		
Static Water Level	335	297
Specific Capacity	13.5	12.9
1990 Conditions (average)		
Static Water Level	448	409
Specific Capacity	13.0	18.0
Formations Encountered*	Drift Niagara (D) Maquoketa (S) Galena-Platteville (D) St. Peter (SS) Eau Claire (SS) Mt. Simon (SS)	Drift Niagara (D) Maquoketa (S) Galena-Platteville (D) St. Peter (SS) Tunnel City (SS) Eau Claire (SS) Mt. Simon (SS)
Pump Data		
Type	Vertical Turbine	Vertical Turbine
Manufacturer	American	Peerless
Serial Number	6243	F-23624
Stages	11	6
Impeller	12H150	14LD
Year Installed	1988	1983
Pump Setting (ft)	650	530
Rated Conditions:		
Flow Rate (gpm)	1350	1500
TDH (ft.)	720	530
Pump Motor Data		
Manufacturer	Ideal Electric	Ideal Electric
Serial Number	314779	287103
Horsepower	450	350
RPM	1764	1760
Standby Power	None	None

* (D)=Dolomite; (S)=Shale; (SS)=Sandstone

Table 3-1 (Continued)

Existing Well & Pump Data
Waukesha Water Utility
City of Waukesha, Wisconsin

	SUPPLY WELLS	
	Well 9	Well 10
Well Construction		
Well Name	Crestwood	Wolf Road
Year Constructed	1973	1980
Constructed By	Miller	Miller
Constructed Depth (ft.)		
Well	2266	2145
Casing	500	550
Original Conditions:		
Static Water Level	400	458
Specific Capacity	21.3	15.6
1990 Conditions (average)		
Static Water Level	*Not Available*	507
Specific Capacity	*Not Available*	19.7
Formations Encountered*	Drift Niagara (D) Maquoketa (S) Galena-Platteville (D) St. Peter (SS) Tunnel City (SS) Eau Claire (SS) Mt. Simon (SS)	*No Formation Log Available for Well 10*
Pump Data		
Type	Vertical Turbine	Vertical Turbine
Manufacturer	Peerless	American
Serial Number		7201
Stages	7	10
Impeller	15MA	14M270
Year Installed	1972	1990
Pump Setting (ft)	610	720
Rated Conditions:		
Flow Rate (gpm)	2200	2400
TDH (ft.)	580	850
Pump Motor Data		
Manufacturer	Ideal Electric	Ideal Electric
Serial Number	287399	310226
Horsepower	500	700
RPM	1770	1773
Standby Power	None	None

* (D)=Dolomite; (S)=Shale; (SS)=Sandstone

Table 3-3

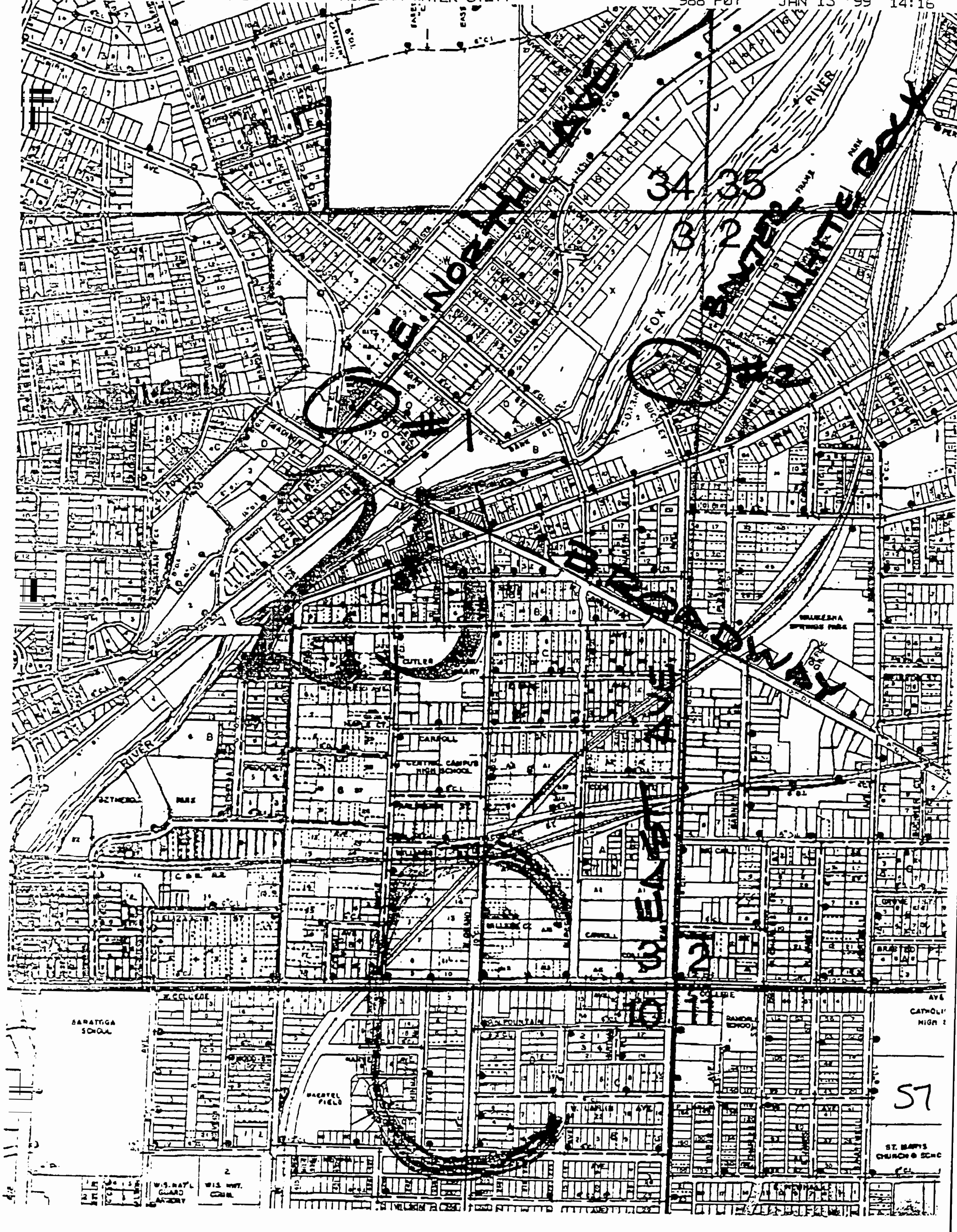
Historical Well Performance
1956-1991
Waukesha Water Utility
City of Waukesha, Wisconsin

Abandoned Bwr 6/98

	Supply Well									
	Well 1	Well 2	Well 3	Well 4	Well 5	Well 6	Well 7	Well 8	Well 9	Well 10
Year Well Placed into Service	1935	1927	1930	1945	1953	1961	1964	1968	1974	1980
1956 Data[1]:										
Static Water Level (ft)	257	259	271	266	326	231	348	321	418	455
Pumping Water Level (ft)	380	318	333	450	404	310	425	391	507	618
Drawdown (ft)	123	59	62	184	78	79	77	70	89	163
Pump Setting (ft)	480	450	480	480	550	470	530	480	550	700
Pump Submergence (ft)	100	132	147	30	146	160	105	89	43	82
Pumping Rate (gpm)	568	777	1194	848	1342	1608	1525	1116	2302	2545
Specific Capacity (gpm/ft)	4.6	13.2	19.3	4.6	17.2	20.4	19.8	15.9	25.9	15.6
1991 Data[2]:										
Static Water Level (ft)	412	417	379	416	464	392	483	402	474	503
Pumping Water Level (ft)	501	613	487	521	537	461	586	471	570	633
Drawdown (ft)	89	196	108	105	73	69	103	69	96	130
Pump Setting (ft)	560	650	560	550	610	520	650	530	610	720
Pump Submergence (ft)	59	37	73	29	73	59	64	59	40	87
Pumping Rate (gpm)	721	810	697	342	948	1549	1312	1233	1910	2298
Specific Capacity (gpm/ft)	8.1	4.1	6.5	3.3	13.0	22.4	12.7	17.9	19.9	17.7
Static Water Level Decline 1956[3]-1991 (ft)	155	158	1985 108	150	138	161	135	81	1988 56	48
Average Pump Capacity Increase following Pump Maintenance (%)	52%	34%	9%	30%	40%	19%	43%	39%	N/A	41%
Average Pumping Rate Decline Between Pump Maintenance Cycles (gpm/year)	33	30	28	25	45	35	50	33	29	70
Average Pump Maintenance Interval (years)	11.3	8.3	7.4	11.7	8.0	5.3	8.0	7.7	18.0	9.0

Footnotes:
[1] All data presented is from the first month of service in 1956 or the year the well was placed into service.
[2] Data presented for Wells 3 and 9 are from the last month of recorded data (August 1985 and June 1988, respectively).
[3] First month of service in 1956 or first month of service the year the well was placed in operation.

414-521-5265 WAUKESHA WATER UTLTY 988 P06 JAN 13 '99 14:14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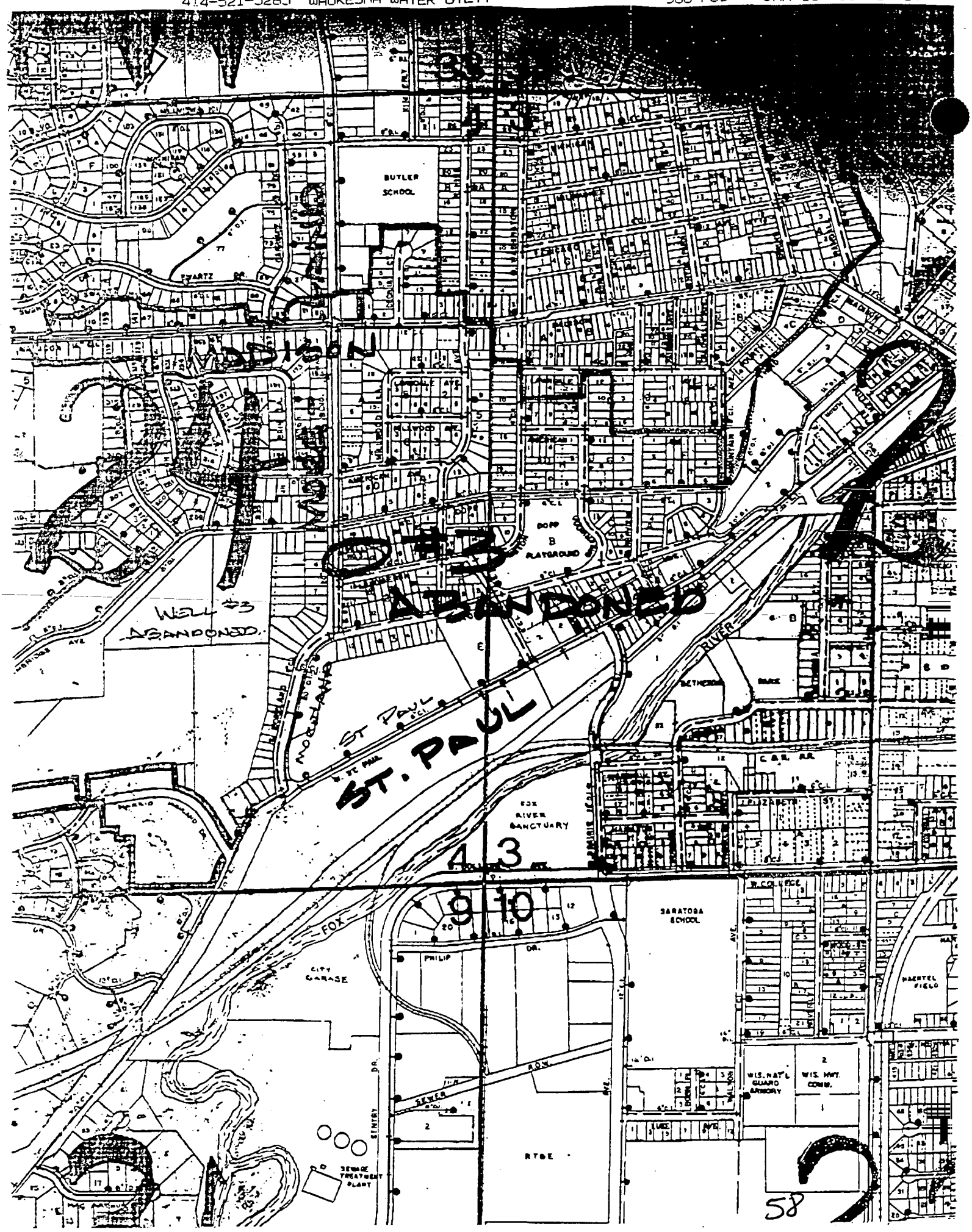
BARSTOW
WHITE ROCK
BROADWAY
EAST AVE
#1
#2
34 35
3 2
3 2
10 11
FOX
RIVER
RIVER
MADISON
CUTLER
CARROLL
CENTRAL CAMPUS HIGH SCHOOL
WAUKESHA SPRINGS PARK
SARATOGA SCHOOL
CATHOLIC HIGH
ST. MARYS CHURCH & SCHC
COLLEGE
BACHTEL FIELD
RANDALL SCHOOL
57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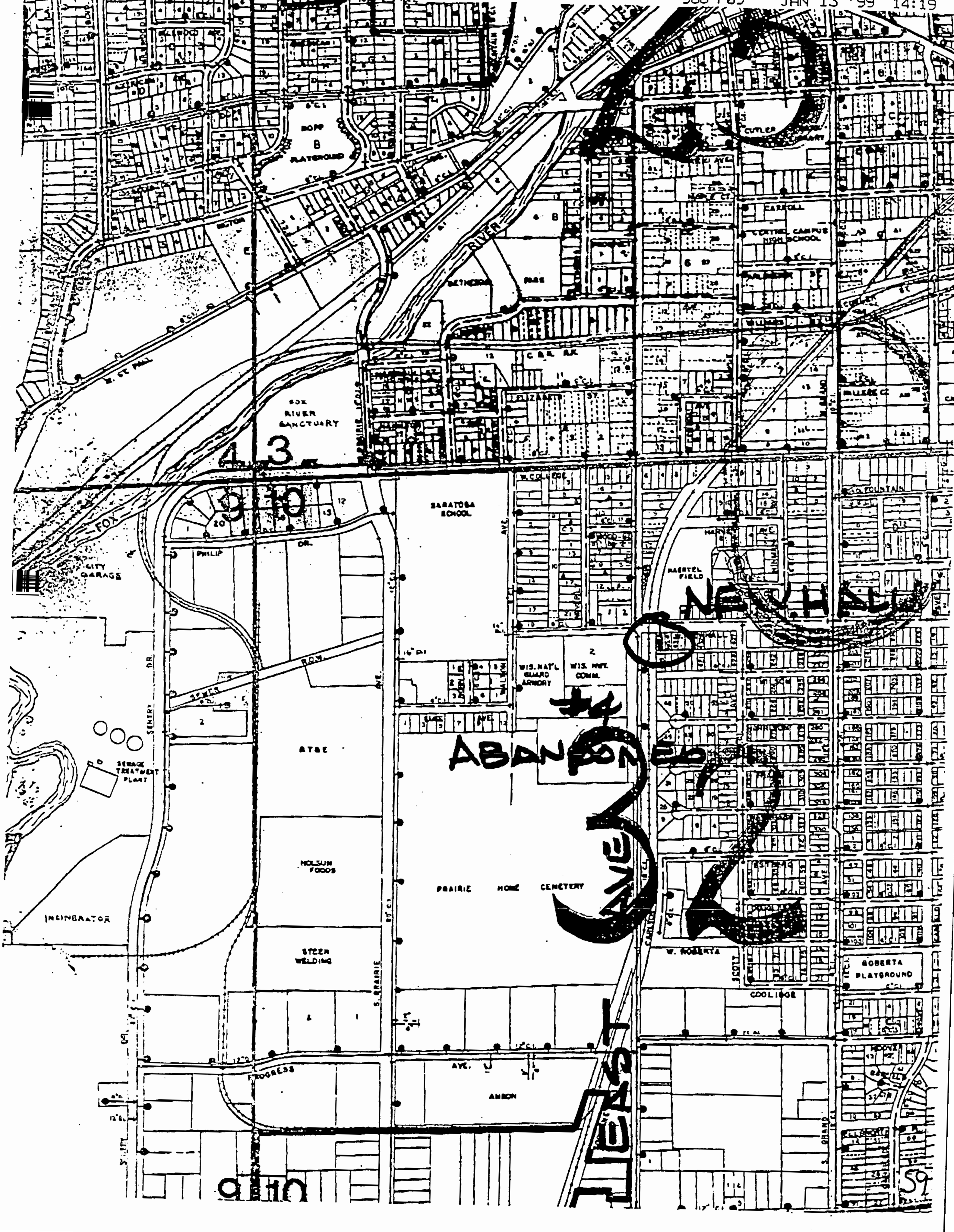
ABANDONED
WELL #3
ABANDONED
WELL #2
ABANDONED
ST. PAUL
4
3
9
10
BUTLER SCHOOL
FOX RIVER SANCTUARY
SARATOGA SCHOOL
CITY GARAGE
SEWAGE TREATMENT PLANT
WIS. NAT'L GUARD ARMORY
WIS. HWY. COMM.
RTOE
58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SARATOGA SCHOOL
CITY GARAGE
SEWAGE TREATMENT PLANT
INCINERATOR
HOLSUM FOODS
STEEN WELDING
PRAIRIE HOME CEMETERY
WIS. NAT'L GUARD ARMORY
CENTRAL CAMPUS HIGH SCHOOL
W. ROBERTA
ROBERTA PLAYGROUND
COOLIDGE
PROGRESS
C & N. W. RY.
C.B.L. RR
ELIZABETH ST.
FOX
RIVER
PHILIP DR.
SENTRY DR.
S. PRAIRIE AVE.
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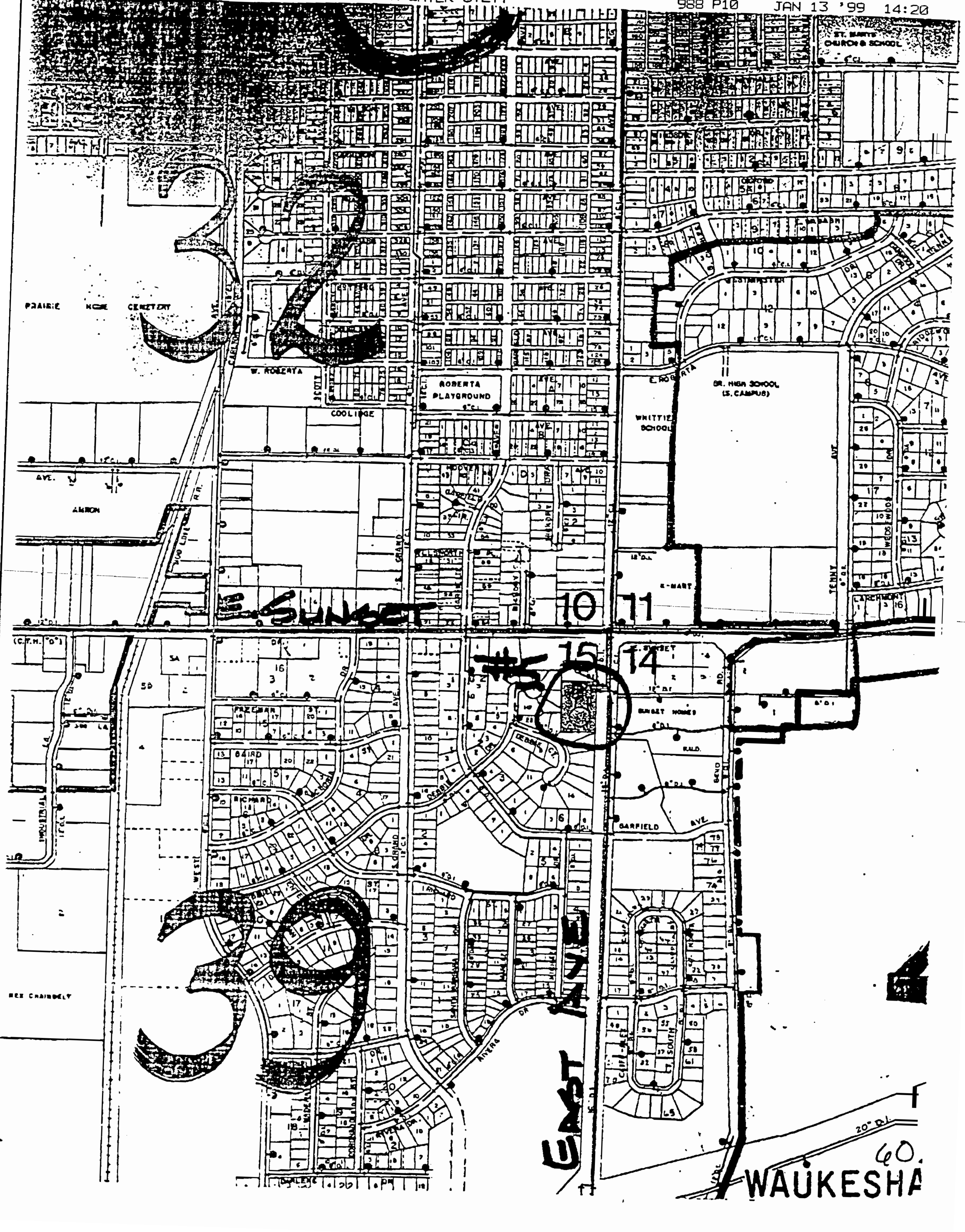
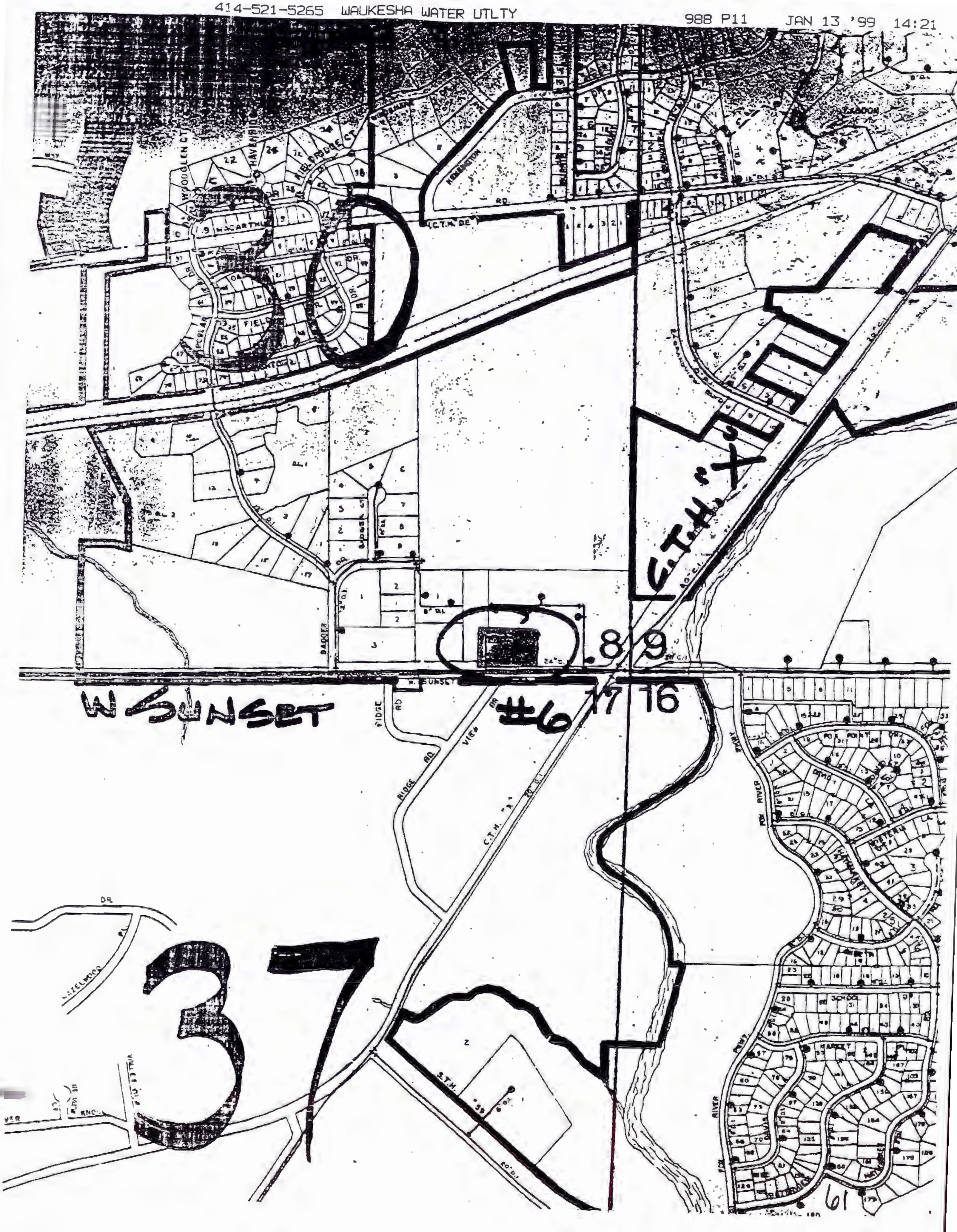
9 10
NEWHALL
#4
ABANDONED
WEST AVE
9 10
59


32
PRAIRIE HOME CEMETERY
W. ROBERTA
ROBERTA PLAYGROUND
COOLIDGE
AMRON
WESTMINSTER
E. ROBERTA
SR. HIGH SCHOOL (S. CAMPUS)
WHITTIER SCHOOL
K-MART
HOOVER
TENNY
LARCHMONT
E. SUNSET
10
11
15
14
#5
SUNSET HOMES
FREEMAN
BAIRD
RICHARD
GARFIELD AVE.
RIVERA DR
39
EAST AVE
REX CHAINBELT
40.
WAUKESHA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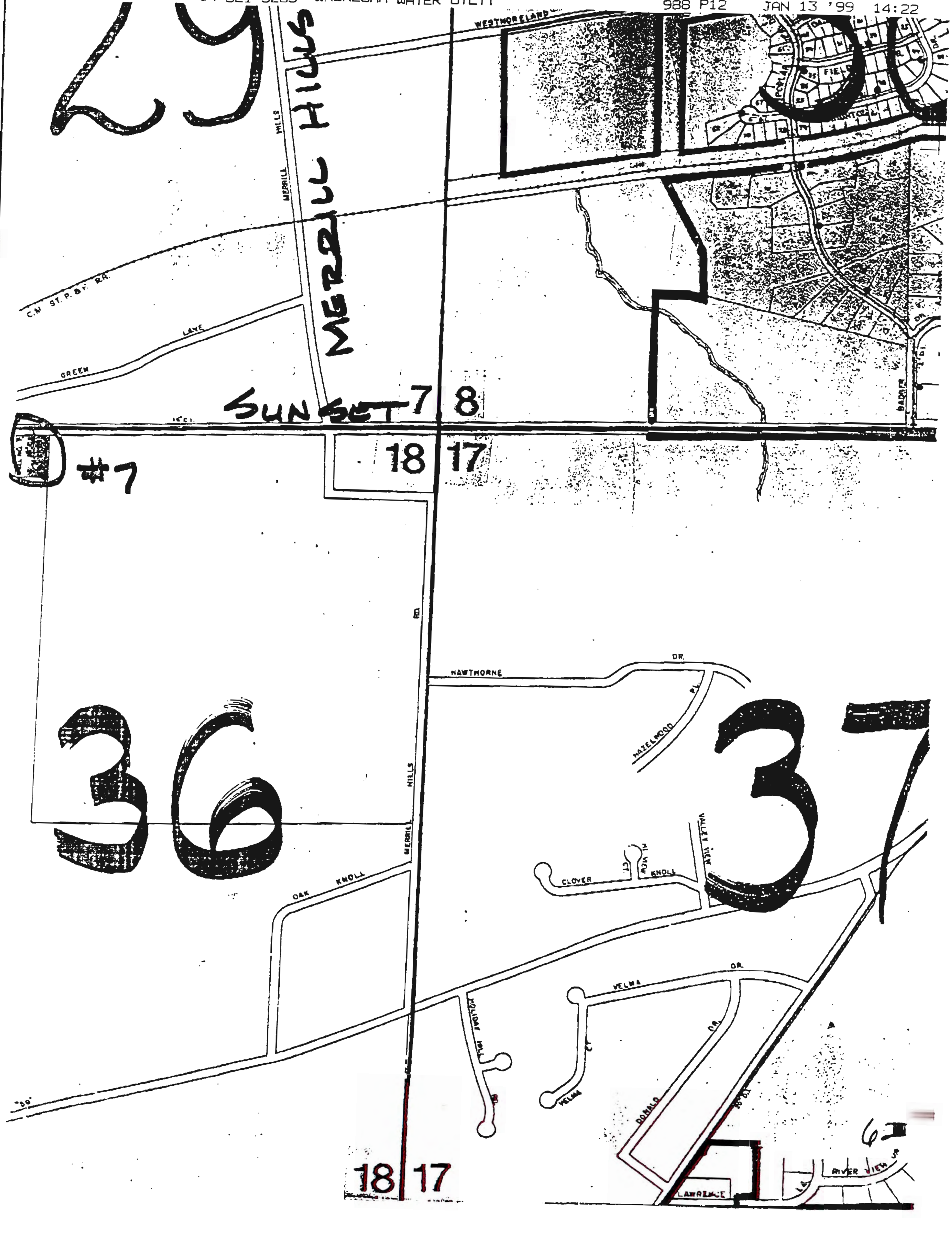
C.T.H. "X"
8 9
17 16
W SUNSET
#6
37
61
BADGER
RIDGE RD
C.T.M. "X"
S.T.H. "59"
FOX RIVER
SCHOOL
HARVEST
RIVER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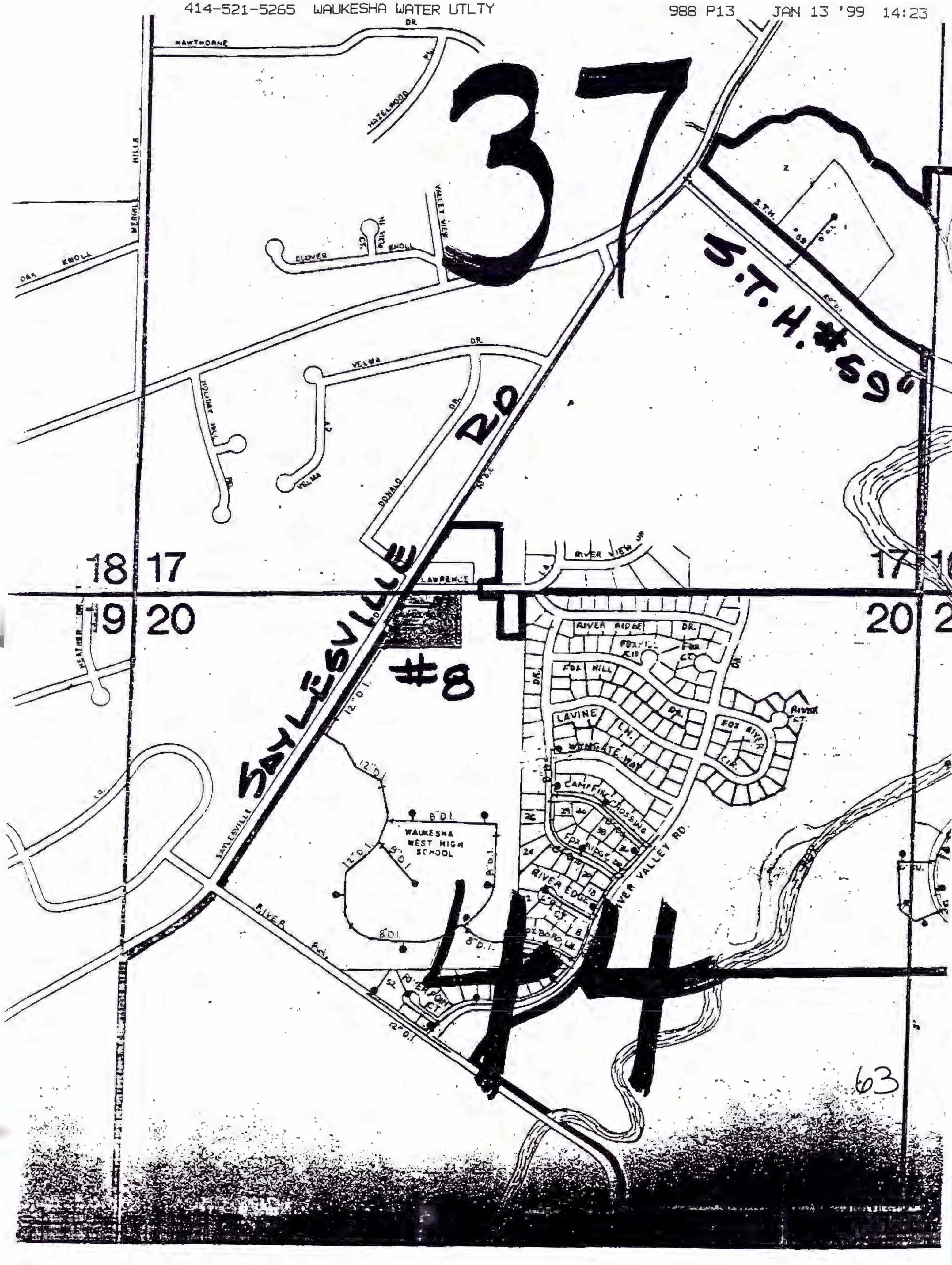
MERRILL HILLS
MERRILL HILLS
C.M. ST. P. & P. RR.
GREEN LANE
SUNSET
7
8
18
17
#7
36
37
HAWTHORNE
DR.
HAZELWOOD PL.
VALLEY VIEW
CLOVER
KNOLL
OAK KNOLL
MERRILL HILLS RD.
VELMA
DR.
DONALD DR.
LAWRENCE
RIVER VIEW
18
17



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S.T.H. #59"
SAYLESVILLE RD
#8
44
18 17
19 20
17
20
HAWTHORNE
DR.
HAZELWOOD
CLOVER CT.
VALLEY VIEW
OAK KNOLL
VELMA
DR.
DONALD DR.
LAWRENCE
RIVER VIEW
RIVER RIDGE DR.
FOX HILL
LAVINE LN.
WYNGATE WAY
CAMPFIRE CROSSING
FOX RIDGE DR.
RIVER EDGE
FOX RIVER CIR.
RIVER CT.
RIVER VALLEY RD.
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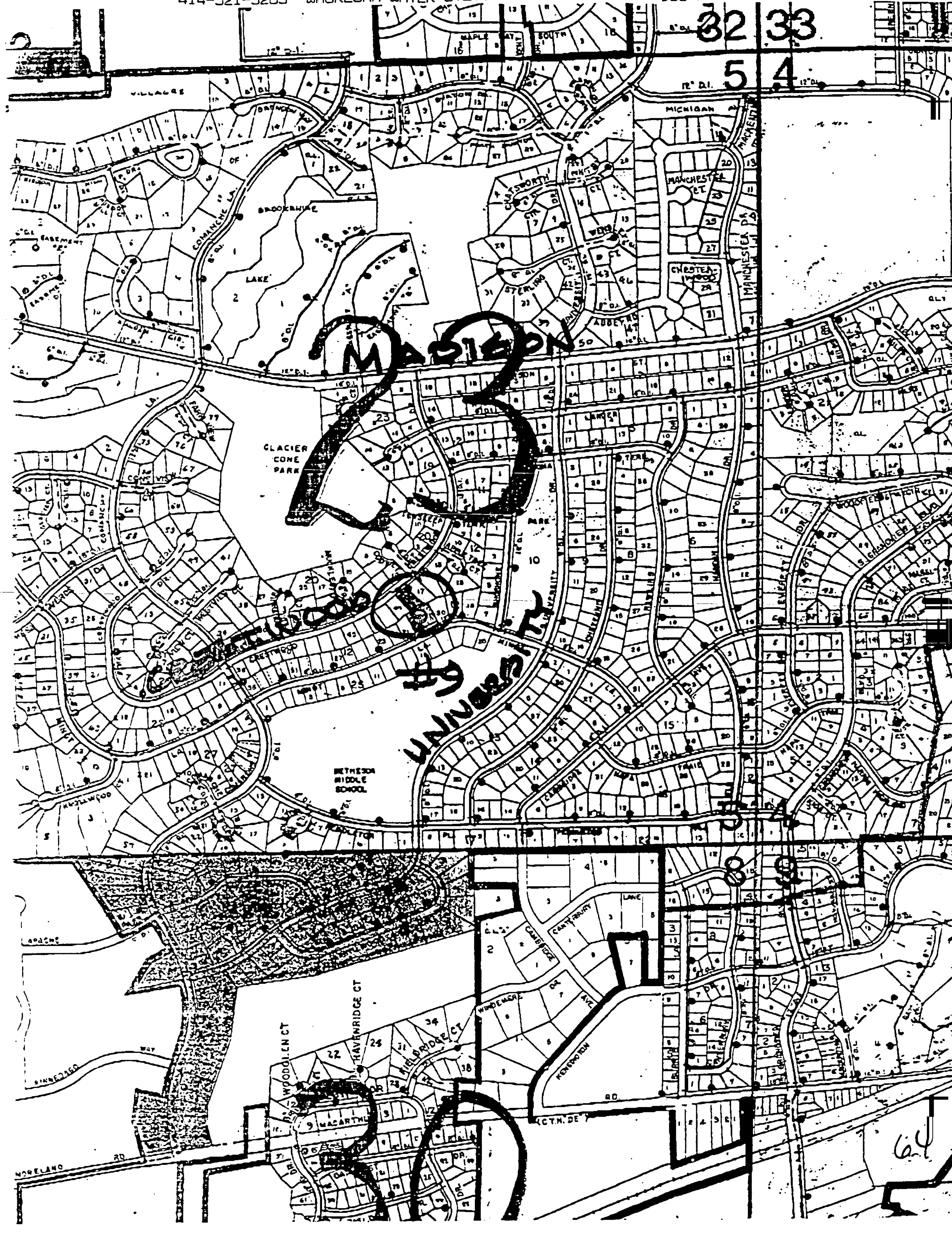
SAYLESVILLE
WAUKESHA WEST HIGH SCHOOL
12" D.I.
8" D.I.
63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33
5
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MICHIGAN
MANCHESTER CT
CHESTERWOOD
MANCHESTER DR.
BROOKSHIRE
LAKE
COMANCHE LA.
STERLING
ABBEY RD.
MADISON
GLACIER CONE PARK
23
#9
UNIVERSITY
CRESTWOOD
BETHESDA MIDDLE SCHOOL
CANTERBURY
LANE
CAMBRIDGE
WINDEMERE
HAVENRIDGE CT
FIELDRIDGE CT
WOODGLEN CT
MACARTHUR
KENSINGTON
RD.
MORELAND
RD.
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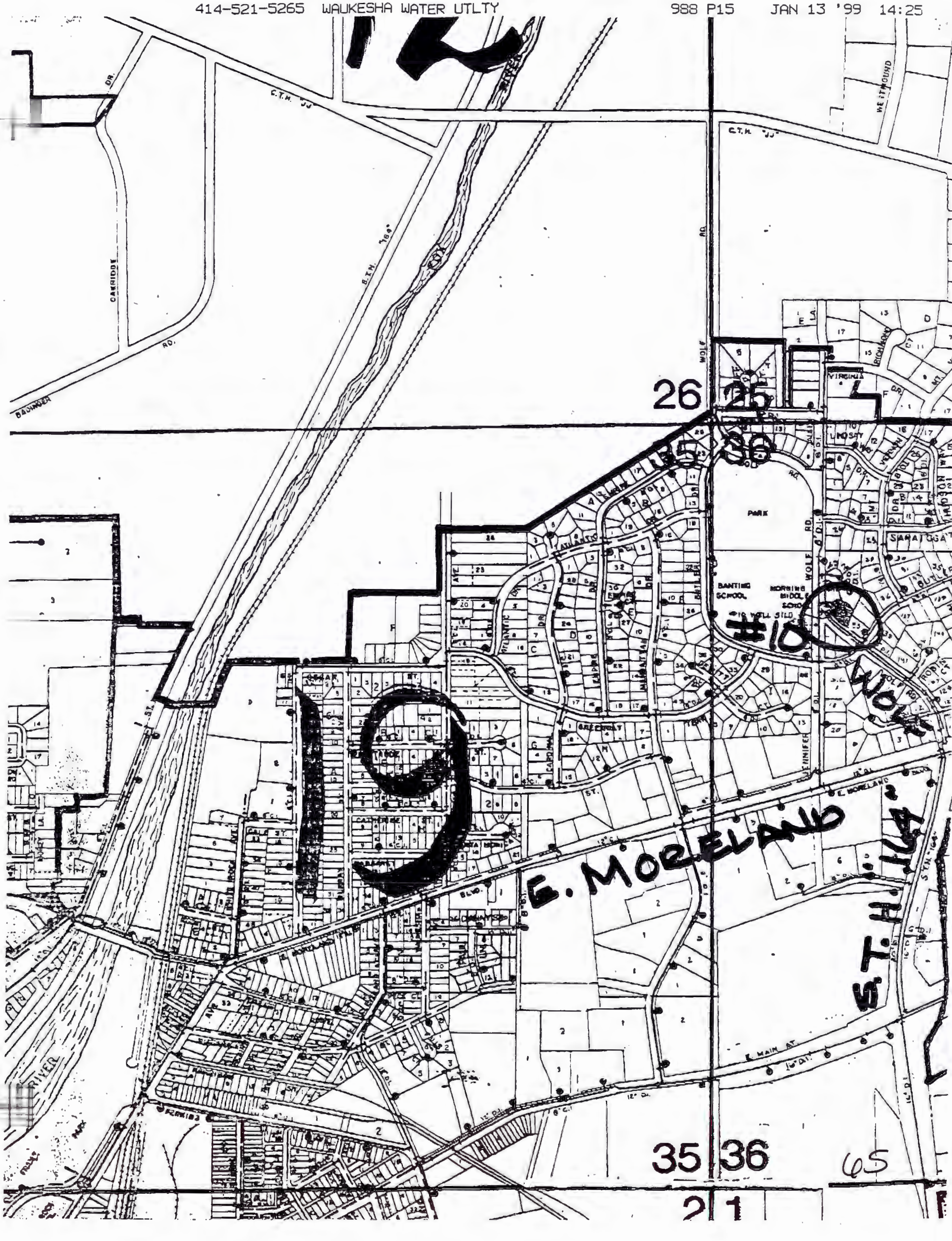
9
64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C.T.H. "JJ"
26
25
35
36
PARK
SARATOGA
VIRGINIA
WOLF
RD.
BANTING SCHOOL
#10
19
WOLF
E. MORELAND
E. MORELAND
S.T.H. 164
E. MAIN ST.
RIVER
35
36
2
1
65

WDNR HIGH CAPACITY WELL INFORMATION SUMMARY

07/11/96 THU 09:01 FAX 608 831 3334 RMT INC/MADISON →→→ RMT/MILW ☑003

WAUKESHA

TWP	RGE	SEC	1/4 1/4	1/4	G L	AQF	WELL DEPTH	OPERATOR NAME	OPERATOR ADDRESS	CITY	ZIP	PWELLNUM
06N	18E	04	NE	SW		05	.0	KETTLE MORAINE HIGH SCHOOL	BOX 39-DON SORENSON	WALES	53183	90119
06N	18E	04	NE	SW		02	795.0	WALES ELEMENTARY SCHOOL	PO BOX 130	WALES	53183	90299
06N	18E	04	SE	NW			.0	KETTLE MORAINE SCHOOL DISTRICT	247 W MAIN, PO BOX 901	WALES	53183	90349
06N	18E	05	SW	NE		02	685.0	STONERIDGE APTS	S14 W33611 HWY 18	DELAFIELD	53018	00725
06N	18E	14	SW	NE		05	.0	WILLIAMS CHESTER	RT 1	WAUKESHA	53186	65603
06N	18E	21	NW	NE		02	.0	MAGEE ELEMENTARY SCHOOL	S4134 W313, HWY83 BOX37	GENESSEE DEPOT	53127	90172
06N	18E	21	NW	NE		02	815.0	MAGEE ELEMENTARY SCHODL	S4134 W313, HWY83 BOX37	GENESSEE DEPOT	53127	90403
06N	18E	27	SE	NW		02	.0	HILLSIDE ELEMENTARY		NORTH PRAIRIE	53153	90129
06N	18E	28		SE			.0	CENTURY SPRINGS-S. MESSINGER	P.O. BOX 275	GENESEE DEPOT	53127	88097
06N	18E	32		NE			.0	WRECIK RALPH P	200 HARRISON STREET	NORTH PRAIRIE	53153	65610
06N	18E	32	NW	SE		02	165.0	PRAIRIE VILLAGESUBDIVISION	BOX 994-C/O WM CUMMENS	WAUKESHA	53187	88048
06N	18E	32	NW	SE		05	865.0	PRAIRIE VILLAGESUBDIVISION	BOX 994-C/D WM CUMMENS	WAUKESHA	53187	88049
06N	18E	32	NW	SE		05	1,240 0	ETHAN ALLEN SCHOOL FOR BOYS	BOYS SCHOOL ROAD	WALES	53183	88091
06N	18E	32	NW	SE		05	1,140 0	ETHAN ALLEN SCHOOL FOR BOYS	BOYS SCHOOL ROAD	WALES	53183	88092
06N	18E	33	SW	NW		02	225 0	PRAIRIE VILLAGESUBDIVISION	BOX 994 C/O WM CUMMENS	WAUKESHA	53187	88050
06N	19E	02	NW	NW		05	1,876 0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88161
06N	19E	03	NE	SW		05	1,285.0	GREDE FOUNDRY	WEST ST. PAUL AVENUE	WAUKESHA	53186	65630
06N	19E	03	NE	SW		05	1,868.0	GREDE FOUNDRY	WEST ST. PAUL AVENUE	WAUKESHA	53186	65631
06N	19E	03		SW			.0	PURITY BOTTLING-DIV OF ARTESIA	574 ELIZABETH STREET	WAUKESHA	53186	74028
06N	19E	03	NE	NE			.0	BARSTOW ASS ATTN JEZWINSKI	301 N BROOM STR.	MADISON	53703	88080
06N	19E	03	NW	NE		05	1,907.0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88160
06N	19E	03	NW	SW		05	1,918.0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88162
06N	19E	05	NW	SE		05	2,266.0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88168
06N	19E	08	SE	SE		05	2,075.0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88165
06N	19E	10	NW	NE		05	1,995 0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88163
06N	19E	15	NE	NE		05	2,120 0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88164
06N	19E	18	NE	NE		02	0	MERRILL HILLS COUNTRY CLUB	W270S3425 MERRILL HILLS	WAUKESHA	53188	34328
06N	19E	18	SW	NE		02	0	MERRILL HILLS COUNTRY CLUB	W270S3425 MERRILL HILLS	WAUKESHA	53188	34329
06N	19E	18	SW	NE		02	.0	MERRILL HILLS COUNTRY CLUB	W270S3425 MERRILL HILLS	WAUKESHA	53188	34330
06N	19E	18	NE	NW		05	2,141.0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88166
06N	19E	18		SE		02	245.0	ROSE GLEN ELEMENTARY SCHOOL	W273 S3845 BROOKHILL DR	WAUKESHA	53186	90302
06N	19E	19	SW	SW		02	245.0	AT&T COMMUNICATIONS-SPVR-FACIL	W277 S4747 SAYLESVILLE	WAUKESHA	53188	65618
06N	19E	20	NE	NW		05	2,028 0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88167
06N	19E	28	NW	SW		02	.0	CARMICHAEL DONALD & SONS	RT 2-W256 S5211 OARDALE	WAUKESHA	53186	34307
06N	19E	30		NW		02	235.0	AT&T COMMUNICATIONS-SPVR-FACIL	W277 S4747 SAYLESVILLE	WAUKESHA	53188	65619
06N	20E	01	SW	SE			.0	NEW BERLIN PARKS & REC. DEPT.	3805 SOUTH CASPER DR.	NEW BERLIN	53151	00820
06N	20E	01	SW	SW		05	1,500.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	88142
06N	20E	03	NE	SE		05	1,800.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	88144
06N	20E	04	NW	NE		06	403.0	REGENCY DEVELOPMENT	245 REGENCY CT.	WAUKESHA	53186	01082
06N	20E	04	SE	NE		02	.0	GLEN PARK MIDDLE	3500 S GLEN PK RD	NEW BERLIN	53151	90135
06N	20E	09	SW	SW		02	300.0	NEW BERLIN H S-H A SCHLOESSER	18695 W CLEVELAND AVE	NEW BERLIN	53151	90016
06N	20E	09	NE	SE		02	.0	CLEVELAND HEIGHTS ELEM C JONES	17401 W CLEVELAND	NEW BERLIN	53151	90187
06N	20E	12	NE	NE		05	1,005.0	NEW BERLIN PARKS & REC. DEPT.	3805 SOUTH CASPER DR.	NEW BERLIN	53151	01336
06N	20E	13	NW	NW		02	.0	NEW BERLIN MEMORIAL HOSPITAL	13750 W NATIONAL-GROMAL	NEW BERLIN	53151	88017
06N	20E	13	NW	NW		02	.0	NEW BERLIN MEMORIAL HOSPITAL	13750 W NATIONAL-GROMAL	NEW BERLIN	53151	88018
06N	20E	13	NE	SE		05	1,650.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	88145
06N	20E	13	NE	NE			.0	HERBERT HOOVER ELEMENTARY	12705 WEST EUCLID AVE	NEW BERLIN	53151	90145
06N	20E	14	SE	SE		02	335.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	88143
06N	20E	19		SE			.0	NEW BERLIN REDI-MIX INC	20500 W LAWNSDALE RD.	NEW BERLIN	53151	88019
06N	20E	22	SW	NW		05	2,018.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	88148
06N	20E	23	NW	NW		02	1,700.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	[illegible]
06N	20E	23	SE	NW		02	325.0	NEW BERLIN(CITY OF)-UTILITY	16450 W NATIONAL AVE	NEW BERLIN	53151	88147

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WAUKESHA

TWP	RGE	SEC	1/4	1/4 1/4	G	L	AQF	WELL DEPTH	OPERATOR NAME	OPERATOR ADDRESS	CITY	ZIP	PWELLNUM
07N	19E	31	NE	SW			02	350.0	FAITH BAPTIST CHURCH	P.O. BOX 31	WAUKESHA	53187	90039
07N	19E	31	NE	SE			05	505.0	FAITH BAPTIST CHURCH	P.O. BOX 31	WAUKESHA	53187	90495
07N	19E	34	NW	SE			02	160.0	MOOR DOWNS GOLF COURSE	500 RIVERVIEW AVE	WAUKESHA	53186	34334
07N	19E	34	NW	SE			02	280.0	MOOR DOWNS GOLF COURSE	500 RIVERVIEW AVE	WAUKESHA	53186	34348
07N	19E	36	NE	NW			05	2,145.0	WAUKESHA(CITY OF)-UTILITY	115 DELAFIELD ST	WAUKESHA	53186	88169
07N	20E	01	NW	SE			02	395.0	MILWAUKEE ELECTRIC TOOL CO	13135 W LISBON-H. FICK	BROOKFIELD	53005	65614
07N	20E	01	NW	SE			05	390.0	MILWAUKEE ELECTRIC TOOL CO	13135 W LISBON-H. FICK	BROOKFIELD	53005	65615
07N	20E	01	NW	NE			02	.0	BUTLER ELEMENTARY	4747 N 127TH ST	BUTLER	53007	90105
07N	20E	03	SE	SE			02	300.0	CENTURY MANAGEMENT GROUP	240 ALGOMA BLVD,BOX2348	OSKOSH	54903	74022
07N	20E	03	SW	SW			02	400.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88118
07N	20E	04	NE	SE			05	1,740.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88102
07N	20E	04	SE	NE			02	350.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88103
07N	20E	05	SW	SW				.0	MASTER DISPOSAL PRP TRUST III	411 E WISCONSIN AVE	MILWAUKEE	53202	01254
07N	20E	09	SE	NW			05	1,635.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88108
07N	20E	09	NE	NW			02	359.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88109
07N	20E	09		NE				431.0	FAIRVIEW SOUTH ELEMENTARY	3525 BERMUDA BLD-FRICKE	BROOKFIELD	53005	90050
07N	20E	09	NW	SW			02	.0	ACADAMY OF BASIC EDUCATION	3460 N BROOKFIELD RD	BROOKFIELD	53005	90162
07N	20E	09	SW	SW				.0	BROOKFIELD ACADEMY-LIBERTY HAL	3240 N. BROOKFIELD ROAD	BROOKFIELD	53045	90476
07N	20E	10	SE	NW			02	400.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88115
07N	20E	10	SW	NE			02	376.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88119
07N	20E	10	SW	SE			02	.0	BURLEIGH ELEMENTARY SCHOOL	16185 W BURLEIGH PL	BROOKFIELD	53005	90143
07N	20E	11	NE	NE			02	.0	BROOKFIELD, CITY OF	FIRE STATION #2	BROOKFIELD	53005	88016
07N	20E	11	NE	SE			02	350.0	BROOKFIELD EAST HIGH SCHOOL	3305 N LILLY RD-BOESELK	BROOKFIELD	53005	90031
07N	20E	12	NE	NE			02	400.0	RICHTER REALTY & INVESTMENT	2600 N MAYFAIR RD # 490	MILWAUKEE	53226	74021
07N	20E	12	NW	NE			02	.0	WISCONSIN MEMORIAL PARK CO	13235 CAPITOL DR	BROOKFIELD	53005	88025
07N	20E	12	SW	SW			02	.0	CONGREGATIONAL HOME INC	13900 W BURLEIGH RD	BROOKFIELD	53005	88031
07N	20E	12	SE	NW			02	.0	WISCONSIN MEMORIAL PARK CO	13235 CAPITOL DR	BROOKFIELD	53005	88088
07N	20E	12	SW	NE			02	232.0	WISCONSIN MEMORIAL PARK CO	13235 CAPITOL DR	BROOKFIELD	53005	88089
07N	20E	12	NW	NE			02	.0	WISCONSIN MEMORIAL PARK CO	13235 CAPITOL DR	BROOKFIELD	53005	88090
07N	20E	12	SE	SW			02	380.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88116
07N	20E	13	NE	NE				375.0	MILAEGER WELL & PUMP, INC.	20950 ENTERPRISE RD	BROOKFIELD	53005	74036
07N	20E	13	NE	NE				.0	MILAEGER WELL & PUMP, INC.	20950 ENTERPRISE RD	BROOKFIELD	53005	74037
07N	20E	13	NE	NW				.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88172
07N	20E	14	SE	SE				300.0	THE GROVE-GROVEINN CORPORATION	311 E. WISCONSIN AVE.	OCONOMOWOC	53066	00485
07N	20E	14	SW	SE			02	300.0	MOUND ZION CEMETERY	14400 W NORTH AVE	BROOKFIELD	53005	34304
07N	20E	14	NW	NW			02	360.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88110
07N	20E	14	NE	NW			02	350.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88111
07N	20E	14	NE	NE				.0	MILW CHRISTIAN SCHOOL SOCIETY	BURLEIGH RD & LILLY	BROOKFIELD	53005	90108
07N	20E	15	NW	SE			02	350.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88112
07N	20E	16	SE	NW				.0	TEAL RIDGE DEVELOPMENT CORP.	2600 N. MAYFAIR ROAD	WAUWATOSA	53226	00492
07N	20E	18	SW	NE			02	252.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	00896
07N	20E	18	SW	NE			05	1,555.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	01219
07N	20E	18	SW	SW			02	250.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88104
07N	20E	18	NE	SW			02	250.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88105
07N	20E	19	NE	SW			02	200.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88117
07N	20E	19	SW	SE			02	220.0	MILAEGER WELL & PUMP, INC.	20950 ENTERPRISE RD	BROOKFIELD	53005	88122
07N	20E	19	SW	SE			02	202.0	MILAEGER WELL & PUMP, INC.	20950 ENTERPRISE RD	BROOKFIELD	53005	88123
07N	20E	20	NE	NE			03	.0	ELMBROOK MEMORIAL HOSPITAL	C/O RONALD E. MOE	BROOKFIELD	53005	88026
07N	20E	21	SW	NW			02	354.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88106
07N	20E	21	SW	NW			05	1,800.0	BROOKFIELD(CITY OF)-UTILITY	2000 N CALHOUN RD	BROOKFIELD	53005	88107
07N	20E	22	NE	SE			02	.0	GEBHARDT GREEN SUBD-DINROW CRP	3312 N SUMMIT-R.CARLSON	MILWAUKEE	53211	74030
07N	20E	22	SW	NW			05	910.0	BROOKFIELD CENTRAL H S	16900 W GEBHARDT RD	BROOKFIELD	53005	90000

07/11/96 THU 09:03 FAX 608 831 3334 RMT INC/MADISON →→→ RMT/MILW 006