

**REPORT**

ERP 02-41-525029

**NR 716 SITE INVESTIGATION**

**FORMER MOBILE BLASTING AND  
PAINTING PROPERTY  
1604 SOUTH 43RD STREET  
WEST MILWAUKEE, WISCONSIN**



*Prepared for*  
Mobile Blasting, LLC  
333 South 7th Street  
Suite 3060  
Minneapolis, MN 55402

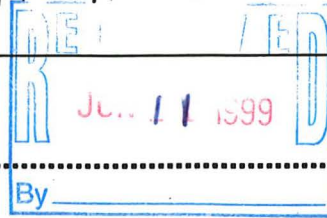
June 10, 1999

***URS Greiner Woodward Clyde***

2312 North Grandview Boulevard  
Suite 210  
Waukesha, WI 53188  
33-07E09675.00

# TABLE OF CONTENTS

02  
FID # 241975030



<b>Certifications</b> .....	<b>CT-1</b>
<b>Section 1 Introduction</b> .....	<b>1-1</b>
1.1 Objectives .....	1-1
1.2 Scope of Work .....	1-1
<b>Section 2 Description of Current Conditions</b> .....	<b>2-1</b>
2.1 General Facility Information .....	2-1
2.2 Site History .....	2-1
2.3 Proposed Development Plans .....	2-2
2.4 Previous Investigations .....	2-2
2.4.1 Phase I Environmental Site Assessment .....	2-2
2.4.2 Phase II Environmental Site Assessment .....	2-2
2.4.3 Updated Phase I Environmental Site Assessment .....	2-4
2.5 Other Potential Sources Near the Site .....	2-4
2.5.1 Mobil Oil Co. Bulk Facility .....	2-4
2.5.2 Harnischfeger .....	2-5
2.6 Potential Receptors and Migration Pathways .....	2-5
2.6.1 Private Wells Within 1,200 Feet .....	2-6
2.6.2 Basements and Sumps Within 250 Feet .....	2-6
2.6.3 Utility Lines and Trenches .....	2-6
2.7 Potentially Threatened Resources .....	2-7
2.7.1 Endangered Species .....	2-7
2.7.2 Species, Habitats, or Environments Sensitive to Petroleum .....	2-7
2.7.3 Outstanding or Exceptional Resource Waters .....	2-7
2.7.4 Wetlands .....	2-7
2.7.5 Areas of Archeological or Historical Significance .....	2-7
<b>Section 3 Field Investigation Methods</b> .....	<b>3-1</b>
3.1 Soil Sampling .....	3-1
3.1.1 Soil Borings .....	3-1
3.1.2 Backhoe Investigation .....	3-2
3.2 Groundwater Sampling .....	3-2
<b>Section 4 Site Investigation Results</b> .....	<b>4-1</b>
4.1 Soil Conditions .....	4-1
4.1.1 Topography .....	4-1
4.1.2 Geology .....	4-1
4.1.3 Soil Sample Screening .....	4-2
4.1.4 Soil Analytical Results .....	4-2
4.1.5 Backhoe Investigation Results .....	4-5
4.1.6 Biocharacterization Analyses .....	4-6

# TABLE OF CONTENTS

---

4.1.7	Blast Sand Analyses .....	4-6
4.2	Groundwater .....	4-6
4.2.1	Hydrogeology .....	4-6
4.2.2	Analytical Sampling .....	4-8
4.2.3	Biocharacterization Analyses .....	4-9
Section 5	Conclusions .....	5-1



## **List of Tables, Plates, Figures and Appendices**

---

### **Tables**

Table 1	Soil VOC Results
Table 2	Soil PAH Results
Table 3	Soil Metals Results
Table 4	Soil PCB Results
Table 5	Blast Sand VOC Results
Table 6	Blast Sand PAH Results
Table 7	Blast Sand Metals Results
Table 8	Groundwater Elevations
Table 9	Hydraulic Conductivity Data
Table 10	Groundwater VOC Data
Table 11	Groundwater PAH Data
Table 12	Groundwater Metals Data

### **Figures**

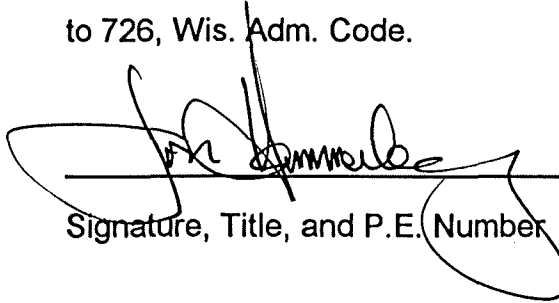
Figure 1	Site Vicinity Map
Figure 2	Proposed Development Plan
Figure 3	Adjacent Sites
Figure 4	Sample Location Plan
Figure 5	Groundwater Surface Map

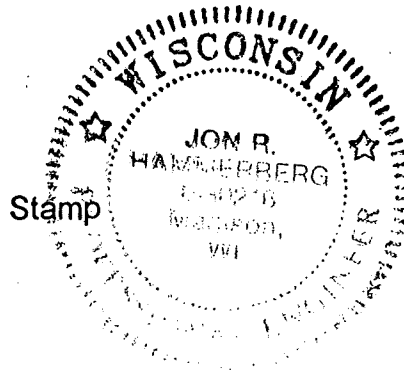
### **Appendices**

Appendix A	Soil Boring Logs
	Monitoring Well Construction Details
	Monitoring Well Development Forms
	Borehole Abandonment Forms
Appendix B	Soil Analytical Data
Appendix C	Soil Biocharacterization Data
Appendix D	Hydraulic Conductivity Data
Appendix E	Groundwater Analytical Data
Appendix F	Groundwater Biocharacterization Data


**Certifications**

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

  
Signature, Title, and P.E. Number



I, ROBERT A. CIGALE, hereby certify that I am a Hydrogeologist as that term is defined in s. NR712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in Chs. NR 700 to 726, Wis. Adm. Code.

  
Signature and Title

6/9/99  
Date

This report is being submitted by Mobile Blasting, LLC. (MB LLC) to document the results of the NR 716 Site Investigation completed at the Former Mobile Blasting and Painting Site located at 1604 South 43rd Street in the Village of West Milwaukee, Milwaukee County, Wisconsin (Figure 1). (Mobile Blasting LLC is a Minneapolis-based developer, and is unrelated to the former owner of the property, Mobile Blasting and Painting Company). This report has been prepared in accordance with the requirements of the NR 700 series and the Wisconsin Department of Commerce Brownfields Initiative.

## **1.1 OBJECTIVES**

As stated in the NR 716 Work Plan, dated November 17, 1998, and its amendments dated January 25 and March 10, 1999, the objectives of the site investigation were as follows:

- To determine the nature and extent of impacts to the soil and groundwater on the site.
- To determine the suitability of the site for natural attenuation.
- To provide sufficient data to develop an appropriate remedial action plan for the site.

## **1.2 SCOPE OF WORK**

The scope of work completed and included in this Site Investigation Report is as follows:

- Advancing numerous soil borings across the site to evaluate the horizontal and vertical extent of soil impacts on the site.
- Installation of 4 groundwater monitoring wells to supplement the data provided by 3 existing groundwater monitoring wells.
- Performance of hydraulic conductivity testing to determine the hydrogeologic characteristics of the site.
- Performance of a backhoe investigation to determine whether the underground storage tanks (USTs) referenced on the 1927 Sanborn Fire Insurance Map were still located on the site.



of approximately the northern 1/3 of the property, and was first developed between 1910 and 1927 as the Cream City Co. boiler works. The Cream City Co. operated until around 1970. In 1980, the property was utilized by a firm identified as Specialty Coating. The last known tenant for the former Mobile Blasting and Painting site is Mobile Blasting and Painting Co. between 1985 and 1988.

The Sivyer Steel Casting portion of the property was first developed as a small foundry operation near the turn of the century. The Sivyer Steel Casting operation grew to fully occupy the south 2/3 of the property until approximately 1985 when demolition of the Sivyer Steel Castings structures was underway.

### **2.3 PROPOSED DEVELOPMENT PLANS**

The proposed development plans for the site include the construction of a 42,000 sf single-story industrial office/warehouse structure. The development will also include a paved parking lot for 138 cars, and a 30 ft wide service drive. A sketch of the proposed development is included as Figure 2.

### **2.4 PREVIOUS INVESTIGATIONS**

#### **2.4.1 Phase I Environmental Site Assessment**

In 1996, the Wisconsin Department of Natural Resources (WDNR) performed a Phase I Environmental Assessment of the property. Results of the Phase I Environmental Assessment indicated the presence of suspected asbestos containing materials, a large pile of remnant sand blast abrasive inside the building, numerous paint cans scattered throughout the building, and piles of refuse and building materials dumped illegally on the property. WDNR recommended that a Phase II Investigation consist of the following tasks: 1) sample the blasting sand located inside and outside of the building; 2) sample soil at the surface and at depth, and; 3) install three shallow monitoring wells to sample the groundwater.

#### **2.4.2 Phase II Environmental Site Assessment**

In 1997, WDNR followed-up the Phase I Environmental Assessment with a Phase II Environmental Site Assessment based on the recommendations made in the Phase I Report. The Phase II Assessment focused on 2 specific areas of concern on the property. The first area of concern is located between the Mobile Blasting structure and



the train tracks to the east. Apparently stressed vegetation was observed in this area during the Phase I. The second area of concern encompassed the entire area of the property which was formerly occupied by Sivyer Steel Castings (approximately the southern 2/3 of the property). This area was targeted in the Phase II due to a general lack of knowledge in regards to the potential for contamination on this portion of the property.

A total of 19 soil samples were collected from 10 locations on the property. The Phase II Environmental Site Assessment Report states: *"There were semi-volatile compounds, pesticides, and one PCB compound detected in the soil samples. Most of the compounds were found on the northern portion of the site, concentrated on the part of the property formerly occupied by Mobil Blasting (samples S01, S02, and S04). Many of the highest concentrations were found in sample S04 on the Mobil Blasting property. The highest concentrations of the semi-volatile compounds were found in samples S04 and S03B. Though not all of the hazardous substances detected were found at depth (samples designated with a "B" suffix), those contaminants which were detected at depth were almost always at a greater concentration than that of the surficial sample at the same location. The PCB compound was only detected in sample S03 on the Sivyer Steel property and sample S02, which was collected from the soil pile inside the Mobil Blasting building during the second round of sampling."*

Three groundwater monitoring wells were installed on the property. Groundwater level measurements taken in the monitoring wells during the Phase II indicate that groundwater is present approximately 18 ft below the ground surface and has a general gradient from the south towards the north.

Results of the analyses performed on the groundwater samples collected from the monitoring wells indicate exceedances to NR 140 Preventative Action Limits (PAL) and Enforcement Standards (ES) were noted in several samples. Specifically, ES exceedances were noted for manganese in MW1, MW2, and MW3, and for naphthalene in MW2 and MW3. PAL exceedances were noted for benzene in MW-1, MW-2, and MW-3, naphthalene in MW-1, and for lead in MW2. In addition, the following VOCs were detected in the groundwater on the site: isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, and p-isopropyltoluene. Semi-volatile compounds detected include: 2-methylnaphthalene and 2,4-dinitrotoluene. The report indicates that no PCBs or pesticides were detected in any of the groundwater samples.

### **2.4.3 Updated Phase I Environmental Site Assessment**

In 1998, Woodward-Clyde Consultants performed a Phase I Environmental Site Assessment (ESA) of the property to update the findings of the Phase I Assessment completed by WDNR. A review of the site conditions and the available environmental databases did not reveal any significant changes to the property or the immediate vicinity since the WDNR Assessment was completed in 1996.

## **2.5 OTHER POTENTIAL SOURCES NEAR THE SITE**

The Phase I ESA completed in 1998 revealed numerous potential sources of environmental impacts near the site. According to the state and federal environmental database review performed by EDR a total of 11 high priority leaking underground storage tank (LUST) sites are located within 1/2-mile of the property. Other potential sites located within one mile of the property include 3 CORRACTS sites, 1 SWF/LF site, 20 UST sites, 9 RCRIS generators, 2 Wisconsin waste disposal sites, and 1 manufactured gas plant.

### **2.5.1 Mobil Oil Co. Bulk Facility**

A potential historical source of impacts to the property is the Wadhams / Mobil Oil Company Bulk Storage facility formerly located to the east and northeast of the property, at 1547 South 38th Street. The Wadhams / Mobil bulk storage facility was located between West Orchard Street and West Lapham Blvd., and between South 38th and 41st Streets. The bulk storage facility appears on the Sanborn Fire Insurance Maps produced in 1927, 1950 and 1968. Aerial photographs indicate that the above ground storage tanks were removed in the mid-1970s. According to the Sanborn Fire Insurance Maps, the bulk storage facility had an approximate above ground capacity of 6.5 million gallons consisting of oil, fuel oil, lubricating oil, naphtha, gasoline, coal oil, spirits, denatured alcohol, and sulfuric acid.

The LUST casefile for the site was reviewed at WDNR - Southeast District Headquarters. The file included documents from 1989 to 1992, and included soil and groundwater sampling results and WDNR comments. Several of the documents indicated groundwater contamination on the site with groundwater flowing onto the site from the west, south and east, and discharging from the site to the north.

The LUST casefile did not contain any documents dated later than 1992, and did not contain a copy of a WDNR Closure Letter. WDNR staff indicated that the last

document received was a Site Assessment Report in September 1997. However, WDNR staff were not able to locate the remainder of the casefile.

URSGWC contacted Ms. Pam Mylotta, WDNR Southeast District, in an attempt to locate the casefile. Ms. Mylotta was the last WDNR hydrogeologist listed in the portion of the casefile reviewed. Ms. Mylotta indicated that she has not been involved with the project for a few years now, and does not know where the remainder of the casefile may be. Since WDNR no longer assigns caseworkers to specific sites, but rather assigns reviews based on caseworker availability, there is no record of where the files may be.

Based on the Site Maps included in the documents reviewed, it does not appear that the investigations have extended to the west far enough, to include the portion of the site which previously contained the 2.5 million gallon above-ground oil tank.

### **2.5.2 Harnischfeger**

Another potential historical source of impacts to the site is the Harnischfeger LUST site at 4107 West Orchard Street. The Harnischfeger site is located northeast of the site. The WDNR casefile for the Harnischfeger site contained a black material in the soil which was believed to be "pitch", and several USTs. Site assessment reports included in the Harnischfeger casefile indicate that groundwater flows from the east to the west on the site. In March 1999, WDNR closed the site with a deed restriction.

The locations of the potential off-site sources relative to the Mobile Blasting and Painting site are depicted on Figure 3.

## **2.6 POTENTIAL RECEPTORS AND MIGRATION PATHWAYS**

Petroleum compounds typically migrate through the subsurface through the following pathways:

1. flowing laterally overland as free product,
2. flowing downward through the vadose zone as free product,
3. leaching downward through the vadose zone as dissolved product,
4. flowing laterally along subsurface conduits as free product,
5. migrating laterally through the vadose zone as vapors,
6. spreading laterally along the groundwater surface as a free product film, or

7. flowing within the water table surface as dissolved phase product.

Pathway 1 is unlikely to be significant because no major surface spills with the potential for overland flow are known to have occurred at this site.

Based on our limited knowledge of the history of the site, it is our opinion that the remainder of the potential pathways could be active at this site. Sanborn Fire Insurance Maps indicated the presence of a UST on the site in the past. Releases from the UST, if they occurred, would flow downward via gravity through the vadose zone as free product or in the dissolved phase due to precipitation infiltration. The presence of non-cohesive fill materials would allow for the volatilization of the product into the vadose zone soils. Numerous manholes were observed on the site, potentially providing preferential pathways for the migration of free product and vapors. Groundwater has been documented at approximately 18 ft below the ground surface, and laboratory analyses completed on groundwater samples from the monitoring wells indicate detectable concentrations of VOCs.

Natural receptors in the vicinity of the site include the Milwaukee River approximately 0.75 miles north of the site, and the Kinnickinnic River approximately 1 mile south of the site.

### **2.6.1 Private Wells within 1,200 Feet**

The property is located within the Village of West Milwaukee, and all structures are served by municipal water services for potable water. It is possible that industrial high capacity wells may be located within 1,200 feet of the site. However, these wells would be screened in a deep aquifer, and most likely would not be affected by the surficial contaminants present on the property.

### **2.6.2 Basements and Sumps within 250 Feet**

Two structures are located to the east and north of the property within 250 feet of the property. Without a visual inspection, it is not possible to speculate on the presence of basements of these structures. Both of the structures are industrial in nature.

### **2.6.3 Utility Lines and Trenches**

Several manholes and storm water inlets are observed on the property indicating the presence of numerous underground utility lines and trenches. Underground utilities will

be located by Diggers Hotline prior to the investigation and delineated on the site survey.

## **2.7 POTENTIALLY THREATENED RESOURCES**

### **2.7.1 Endangered Species**

The Wisconsin Endangered Resources Bureau will no longer review the statewide list of endangered species due to the excessive workload this causes. If such information is required by the WDNR, the WDNR will be required to contact the Endangered Resources Bureau directly. Given the urban setting of this site, endangered species are not expected to be present within the vicinity of the property.

### **2.7.2 Species, Habitats, or Environments Sensitive to Petroleum**

The site has been developed for industrial use for approximately 100 years. Undisturbed areas of natural habitat do not exist on or adjacent to the site. Given these conditions, species sensitive to petroleum are unlikely to be present at this site.

### **2.7.3 Outstanding or Exceptional Resource Waters**

No outstanding or exceptional resources waters are located in the vicinity of the site.

### **2.7.4 Wetlands**

A review of the Milwaukee, Wisconsin quadrangle did not reveal the presence of any wetlands in the vicinity of the site.

### **2.7.5 Areas of Archeological or Historical Significance**

The site and immediate surroundings have no historical significance.

This section describes the purpose and type of investigative methods used during this investigation. Detailed descriptions of the procedures used during the investigation are included as Standard Operating Procedures (SOPs) in the Work Plan. The result of the analyses conducted on the samples collected during this investigation are presented in Section 4.

### **3.1 SOIL SAMPLING**

#### **3.1.1 Soil Borings**

A total of 21 soil borings were advanced on the site between February 9 and March 29, 1999. The locations of the soil borings are depicted on the Sample Location Plan attached as Figure 4. Seventeen of the soil borings were advanced with a direct-push (GeoProbe) drill rig, and 4 of the soil borings were advanced with a truck-mounted CME-45 drill rig equipped with hollow-stem augers. Soil samples were collected continuously from the ground surface to the termination depth of the borings. The borings were advanced to depths ranging between 6 and 24 ft below the ground surface. Underground obstructions caused several of the GeoProbe borings to be terminated prior to reaching 20 ft below the ground surface.

Soil samples recovered during the drilling process were classified in the field by an experienced geologist. Copies of the Soil Boring Logs created are attached in Appendix A. Following classification, soil samples were split for use in headspace analysis, and potential laboratory analysis. The portions of the samples split for potential laboratory analysis were immediately placed in appropriate containers, preserved if necessary, and placed on ice while awaiting potential submission to the analytical laboratory. The portion of the samples split for headspace analysis were placed in ZipLoc bags and allowed to equilibrate for approximately 20 minutes. On occasions when the ambient temperature was below 40 degrees F, the headspace samples were placed inside a heated truck and allowed to equilibrate. Following equilibration, the headspace samples were vigorously agitated, and the probe of the photoionization detector (PID) equipped with a 10.6 eV lamp was used to pierce the ZipLoc bag. Peak readings measured with the PID are included on the Soil Boring Logs. Soil samples exhibiting the highest PID readings, and the soil sample immediately above the groundwater surface were submitted for laboratory analysis. Laboratory analyses included diesel range organics (DRO), gasoline range organics (GRO), volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH),

and 8 RCRA metals. One sample was also submitted for analysis for polychlorinated biphenyls (PCBs). More detail regarding the analytical testing program are included in Section 4.

Soil samples were also collected from the soil borings for nutrient analysis to determine the suitability of the site for natural attenuation. More details regarding the results of the nutrient analyses are included in Section 4.

### **3.1.2 Backhoe Investigation**

In order to further investigate the presence of impacts discovered during the soil borings, and to investigate the potential for underground storage tanks (USTs) on the site, a backhoe investigation was performed on March 16, 1999. Three specific areas of the site were investigated using the backhoe.

- the vicinity of borings GP99-9, GP99-10, and GP99-11
- the vicinity of boring GP99-8
- the area between GP99-2 and GP99-3

Details regarding the results of the backhoe investigation are presented in Section 4.

## **3.2 GROUNDWATER SAMPLING**

A total of 4 permanent and 2 temporary groundwater monitoring wells were installed as part of the Site Investigation. The wells were installed at locations intended to augment the existing monitoring wells previously installed by the Wisconsin Department of Natural Resources (WDNR). Generally, the permanent wells were on the bounds of the property both upgradient and downgradient. Each of the permanent wells were constructed with a 10 ft section of No. 10 factory cut slotted screen in accordance with the requirements of Wisconsin Administrative Code (WAC) Chapter NR 141. The temporary wells were constructed with a 5 ft section of No. 10 screen. Copies of the Well Construction Details for the permanent monitoring wells are attached in Appendix A.

Following installation of the permanent monitoring wells, the wells were developed by bailing. Copies of the Well Development Forms for the permanent monitoring wells are attached in Appendix A. Groundwater samples were collected from all of the existing monitoring wells, the newly installed permanent monitoring wells, and the temporary monitoring wells using a peristaltic pump. Samples were collected and submitted for

analyses for DRO, GRO, VOC, PAH, and dissolved metals. Physical parameters including: dissolved oxygen, temperature, pH, conductivity, and turbidity were measured in the field. Additional groundwater samples were submitted for microbiological testing. More details regarding the results of the groundwater investigation are included in Section 4.



## **4.1 SOIL CONDITIONS**

### **4.1.1 Topography**

Regional topography in the area is the result of glacial advances and retreats, and is characterized by the presence of drumlins and moraines. The ground surface in the vicinity of the site generally slopes towards the northeast, towards the Menomonee River Canal.

The ground surface on the property has been leveled through regrading and filling. Based on the ground surface elevations obtained at each of the soil boring locations, overall relief on the property is less than 2 ft.

### **4.1.2 Geology**

The thickness of the unconsolidated deposits reflects the presence of glacial drumlins and moraines, and bedrock irregularities. The bedrock surface at the site is assumed to be less than 100 ft below the ground surface. The overlying unconsolidated glacial till and outwash deposits belong to the Oak Creek Formation.

The uppermost bedrock in the vicinity consists of undifferentiated Silurian age Niagoran dolomite. The bedrock has a regional dip to the east and southeast, and the thickness of the Silurian dolomite pinches out in central Waukesha County where the underlying Maquoketa Shale becomes the bedrock surface.

The majority of the site is covered with concrete pavement. A layer of miscellaneous construction debris fill is concentrated in the southeast corner of the site, and along the eastern and southern property lines. The fill is composed primarily of concrete, bricks, sand and gravel, metal slag and soil. The fill layer is at its thickest at the southeast corner of the site where the thickness approaches 6.5 feet. Up to 2 feet of fill is observed in several other soil borings across the site. However, the fill in these areas is primarily granular soil, without any inclusions of rubble.

Organic silt and peat is present beneath the fill observed in the borings advanced along the eastern edge of the property. The organic soils extend to a depth of 4 feet below the ground surface at GP99-9 and to a depth of 14 feet below the ground surface at GP99-2.

The fill and organic soils are underlain by natural soils predominantly consisting of lean clay, clayey silt and poorly graded to well graded sands. The natural clay and silt

extend to approximately 15 feet below the ground surface. Poorly graded to well graded sand is present below the clay and silt and extends to the termination depth of the borings. Groundwater is present within the sand.

#### **4.1.3 Soil Sample Screening**

A Thermoenvironmental Model 580B Photoionization Detector (PID) equipped with a 10.6 eV lamp, and calibrated to 100 ppm isobutylene calibration gas was utilized to perform headspace screening on soil samples obtained during the investigation. Results of the headspace screening are included on the Soil Boring Logs.

Based on the results of the headspace screening, it appears that the majority of the soil impacts present on the site are located within the water bearing sand layer. In most areas of the site, the sand layer is present beneath a clay layer. Headspace screening results did not detect any impacts on the west side of the site, to the south of the Former Mobile Blasting facility.

#### **4.1.4 Soil Analytical Results**

Two soil samples from each soil boring location were submitted for laboratory analysis for diesel range organics (DRO), gasoline range organics (GRO), volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), and 8 RCRA metals (METALS). One additional sample from beneath 5 ft was also submitted for analysis for polychlorinated biphenyls (PCB). Typically, soil samples which exhibited the highest PID response, and the sample from immediately above the groundwater table were submitted for analysis.

##### **4.1.4.1 VOC Results**

The results of the analyses for DRO and GRO are included in this section discussing the results of the VOC analyses.

Analysis of the following samples did not result in the detection of any VOCs.

GP99-6	2-4 ft and 14-16 ft
GP99-12	0-2 ft and 8-10 ft
GP99-7	8-10 ft and 14-16 ft
GP99-5	2-4 ft
GP99-1	4-6 ft and 8-12 ft
GP99-4	16-18 ft

MW99-5	9-11 ft and 17-19 ft
MW99-6	11-13 ft and 13-15 ft
MW99-7	15-17 ft and 17-19 ft

The following samples exhibited concentrations of various VOCs. However, the concentrations did not exceed the Generic Residual Contaminant Levels (RCLs) outlined in WAC Chapter NR 720.

GP99-8	18-20 ft and 20-22 ft
GP99-13	16-20 ft
GP99-14	20-24 ft
GP99-9	14-16 ft
GP99-10	12-14 ft and 18-20 ft
GP99-5	4-6 ft
GP99-4	14-16 ft and 16-18 ft
GP99-3	14-16 ft
GP99-2	14-16 ft and 16-18 ft
MW99-4	15-17 ft and 17-19 ft

The remaining samples exhibited concentrations of ethylbenzene and xylenes in exceedance of the Generic RCLs outlined in NR 720.

GP99-9	16-18 ft
GP99-3	16-20 ft

Soil VOC results are summarized in Table 1. Copies of the analytical data are attached in Appendix B.

#### **4.1.4.2 PAH Results**

Results of the PAH analyses were compared to RCLs based on Groundwater Protection and Non-Industrial Direct Contact as outlined in *Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons Interim Guidance (Publication RR-519-97)*.

The following samples did not exhibit concentrations of PAHs in exceedance of either groundwater protection or non-industrial direct contact RCLs.

GP99-6	14-16 ft
GP99-12	0-2 ft
GP99-7	8-10 ft
GP99-4	14-16 ft and 16-18 ft

GP99-1	4-6 ft
MW99-5	9-11 ft and 17-19 ft
MW99-6	11-13 ft and 13-15 ft
MW99-7	15-17 ft and 17-19 ft

The following samples exhibited concentrations of various PAHs in exceedance of the non-industrial direct contact RCL.

GP99-8	18-20 ft
GP99-9	14-16 ft and 16-18 ft
GP99-10	12-14 ft and 18-20 ft
GP99-6	2-4 ft
GP99-12	8-10 ft
GP99-7	14-16 ft
GP99-5	2-4 ft and 4-6 ft
GP99-3	16-20 ft
GP99-1	8-12 ft

The following samples exhibited concentrations of various PAHs in exceedance of the groundwater protection RCL.

GP99-8	18-20 ft and 20-22 ft
GP99-9	14-16 ft and 16-18 ft
GP99-10	12-14 ft and 18-20 ft
GP99-3	14-16 ft and 16-20 ft
GP99-2	14-16 ft and 16-18 ft
MW99-4	15-17 ft and 17-19 ft

Soil PAH results are summarized in Table 2. Copies of the analytical data are attached in Appendix B.

#### **4.1.4.3 RCRA Metal Results**

With the exception of several samples with arsenic concentrations which ranged between 3.0 and 10 mg/kg, only the total lead in the sample collected between 2 and 4 ft in soil boring GP99-5 exceeded the non-industrial direct contact RCL as outlined in NR 720. The total lead concentration in sample GP99-5, S-1 was 2015 mg/kg. There was insufficient sample remaining to perform a toxicity characteristic leaching procedure (TCLP) on the above-mentioned sample. However, the soil sample from immediately below the above-mentioned sample (GP99-5, S-2A) was submitted for total

lead and TCLP-lead analysis. Results of the analyses indicate a total lead concentration of 180 mg/kg and a TCLP-Lead concentration of <0.12 mg/L.

A summary of the RCRA Metal Results is presented in Table 3. Copies of the analytical data are attached in Appendix B.

#### ***4.1.4.4 Polychlorinated Biphenyl Results***

One soil sample from 14 to 16 ft in soil boring GP99-4 was submitted for analysis for PCBs. No PCBs were detected in this sample. Results of the PCB analysis are summarized in Table 4. Copies of the analytical data are attached in Appendix B.

#### **4.1.5 Backhoe Investigation Results**

Several subsurface areas of the site were investigated with a backhoe to obtain additional information. Specifically, test pits were excavated in the vicinity of soil borings GP99-9, 10, and 11 to further investigate the potential for USTs in this area; the vicinity of GP99-8 to further investigate the potential for USTs in this area; and, the area between GP99-2 and 3 to further investigate the extent of impacts discovered in GP99-3.

Results of the backhoe investigation revealed the following:

- The subsurface in the vicinity of GP99-9, 10, and 11 is dominated by foundations for the former overhead crane. Fill soil in this area appears to be impacted.
- A multi-chambered, concrete subsurface structure was discovered immediately east of GP99-8. It is possible that this structure could either be the USTs depicted in the 1927 Sanborn Fire Insurance Map, or the concrete vault around the USTs depicted in the 1927 Sanborn Map. The concrete structures contained a concrete lid. A portion of the lid was broken to reveal the contents of one of the chambers. It appears that the chamber contains water with a film of petroleum product floating on the water surface. Fill soils surrounding the concrete structure appear to be impacted.
- An excavation was extended to a depth of approximately 17 ft below the ground surface (the ultimate reach of the backhoe) at a location approximately midway between GP99-2 and GP99-3. Beneath minor amounts of superficial fill, natural soils consisted of silty clay to the

termination depth of the excavation. No impacted soils were encountered within the excavation.

#### **4.1.6 Biocharacterization Analyses**

Three obviously impacted soil samples were submitted for biocharacterization analyses to determine the suitability of the site soils for bioremediation. The samples were analyzed using fuel oil as the carbon source for the degrader populations. Results of the analyses were compared to the guidelines outlined in *WDNR Naturally Occurring Biodegradation as a Remedial Action Option for Soil Contamination: Interim Guidance*.

Results of the analyses indicate that the soils on the site exceed the recommended minimums for microbial populations for active bioremediation. The pH, carbon to nitrogen ratio (C:N) and percentage of air-filled pore spaces meet the minimum guidelines. The percent total organic nitrogen to percent organic matter (%TON/%OM), the carbon to phosphorous ratio (C:P), and percent moisture fall below the minimum guidelines for bioremediation.

Copies of the biocharacterization results are attached in Appendix C.

#### **4.1.7 Blast Sand Analyses**

Four samples of the blast sand present within the Former Mobile Blasting facility were submitted for analysis for DRO, GRO, VOC, PAH, and RCRA metals. Results of the analyses are summarized on Tables 5, 6 and 7, and copies of the analytical data are attached in Appendix B.

Results of the analyses indicate elevated concentrations of DRO, n-butylbenzene, ethylbenzene, naphthalene, toluene, 1,2,4-trimethylbenzene, xylene, and total lead in the blast sand samples.

## **4.2 GROUNDWATER**

### **4.2.1 Hydrogeology**

Four new permanent groundwater monitoring wells were installed during the Site Investigation to augment the three monitoring wells installed previously during the Phase II Environmental Assessment conducted by the WDNR. An additional two temporary monitoring wells were also installed in GeoProbe boreholes.

**4.2.1.1 Groundwater Gradient**

Groundwater measurements were made in all of the permanent monitoring wells, except MW99-7, due to the presence of free product in the well. The measurements indicate that a groundwater mound is located in the vicinity of Monitoring Well No. 3, near the center of the site. The mound is most likely due to anthropogenic features in the subsurface that are causing the groundwater to pool in this location. Groundwater appears to flow away from the apparent mound in all directions, with an apparent regional flow direction from the east-southeast to the west-northwest. Groundwater on the southeast quadrant of the site appears to flow from the northwest towards the southeast. This flow direction could be caused by the former presence of the wetland to the east of the site, and the organic deposits present on the southeast quadrant of the site. The groundwater surface is approximated on Figure 5. A summary of the groundwater level measurements is provided on Table 8.

**4.2.1.2 Hydraulic Conductivity**

Hydraulic conductivity testing was performed in 6 of the 7 groundwater monitoring wells. Monitoring Well MW99-7 was not tested due to the presence of free product. Hydraulic conductivity testing was performed by lowering an acrylic slug into the monitoring wells, the groundwater was allowed to equilibrate, the slug was then removed, and the recovery of the groundwater in the well was recorded with a Solinst Levelogger.

The hydraulic conductivity testing data was analyzed using the Bouwer-Rice Method. Results of the analyses indicate that the hydraulic conductivity of the water-bearing sand layer on the site ranges between 1.09 E-3 cm/sec in Monitoring Well MW99-4 to 4.92 E-3 cm/sec in Monitoring Well MW99-6. A summary of the hydraulic conductivity data is provided on Table 9. Recovery curves and Bouwer-Rice analysis data are attached in Appendix D.

**4.2.1.3 Free Product**

Approximately 1 ft of free product collected in Monitoring Well MW99-7 following installation. A sample of the free product was collected and submitted to US Analytical Laboratory to perform a product identification. According to Mr. Michael Ricker, Laboratory Manager, the product appears to be diesel fuel with a small quantity of lighter lube oil. Gas chromatograms of the product sampled from MW99-7 and standard diesel fuel are attached in Appendix E. SoakEase<sup>®</sup> oil absorbent wicks have been placed in Monitoring Well MW99-7 to absorb as much free product as possible.

A series of 5 GeoProbe® soil borings were advanced in a radiating pattern from MW99-7 to delineate the extent of the free product. Results of the borings indicate that the plume of free product appears to be a limited sliver emanating southeast from MW99-7.

#### **4.2.2 Analytical Sampling**

The newly installed groundwater monitoring wells were developed by bailing following installation. Due to the presence of free product in Monitoring Well MW99-7, this well was not developed or sampled. The wells were developed until the turbidity cleared. Samples were collected from the newly installed monitoring wells, the existing monitoring wells, and the temporary GeoProbe® wells with a peristaltic pump and dedicated tubing. Samples were submitted for analysis for DRO, GRO, VOC, PAH, and dissolved metals. The dissolved metals samples were field filtered with disposable 40 micron filters.

##### **4.2.2.1 VOC Results**

Results of the VOC analyses performed on the samples collected from the permanent monitoring wells indicate relatively low concentrations of VOCs in the groundwater. In general concentrations of DRO ranged between non-detect and 16,000 ug/L, and concentrations of GRO ranged between non-detect and 1,700 ug/L.

One NR 140 Enforcement Standard (ES) exceedance was noted for naphthalene in the sample collected from Monitoring Well MW99-4. NR 140 Preventative Action Limit (PAL) exceedances were noted for benzene and methylene chloride in the sample collected from MW-1; chloromethane, methylene chloride, and vinyl chloride in the sample collected from MW-2; and, 1,1,2,2 tetrachloroethane in the sample collected from MW-3. No PAL or ES exceedances were noted in the samples collected from MW99-5 or MW99-6.

Groundwater samples were collected from 2 temporary wells installed in GeoProbe® borings GP99-10 and GP99-3. The VOC results from the 2 temporary wells indicated DRO concentrations of 10 to 1000 times higher than the highest concentration observed in any of the permanent monitoring wells. It is our opinion that the elevated concentrations observed in these 2 samples is due to matrix interference associated with silt in the water samples. The temporary wells were not developed prior to sampling.



A summary of the groundwater VOC data is provided on Table 10, and copies of the analytical data are attached in Appendix E.

#### **4.2.2.2 PAH Results**

Samples from each permanent monitoring well, with the exception of MW99-7, and the temporary wells were submitted for analysis for PAHs. As was the case with the VOC results, results of the PAH analyses are several orders of magnitude higher for the samples collected from the temporary wells as compared to the results of the analyses from the permanent groundwater wells. It is our opinion that the increase in concentrations is due to matrix interference by solids, and lack of development.

Results from the analyses performed on samples collected from the permanent monitoring wells indicate PAL exceedances for naphthalene in wells MW-1 and MW-2, and an ES exceedance for naphthalene in well MW99-4. No other exceedances were noted.

A summary of the groundwater PAH data is provided in Table 11. Copies of the analytical data are attached in Appendix E.

#### **4.2.2.3 Metals Results**

Samples from each of the permanent monitoring wells, with the exception of MW99-7, and the temporary wells were submitted for analysis for dissolved metals (As, Ba, Cd, Cr, Pb, Hg, Se, and Ag). Samples were field filtered through 40 micron filters prior to preservation. Results of the analyses indicated that none of the parameters were detected above PAL or ES concentrations. Results of the groundwater metals analyses are summarized in Table 12. Copies of the analytical data are attached in Appendix E.

#### **4.2.3 Biocharacterization Analyses**

Three samples of the groundwater were submitted for biocharacterization analysis and nutrient analysis to determine the suitability of the site for natural attenuation. The samples were analyzed using diesel fuel as the sole carbon source for enumerating the degrader microbial populations.

Results of the analyses indicate that the site is marginally acceptable for natural attenuation. However, existing populations are generally insufficient to attain adequate biotransformation without augmentation.

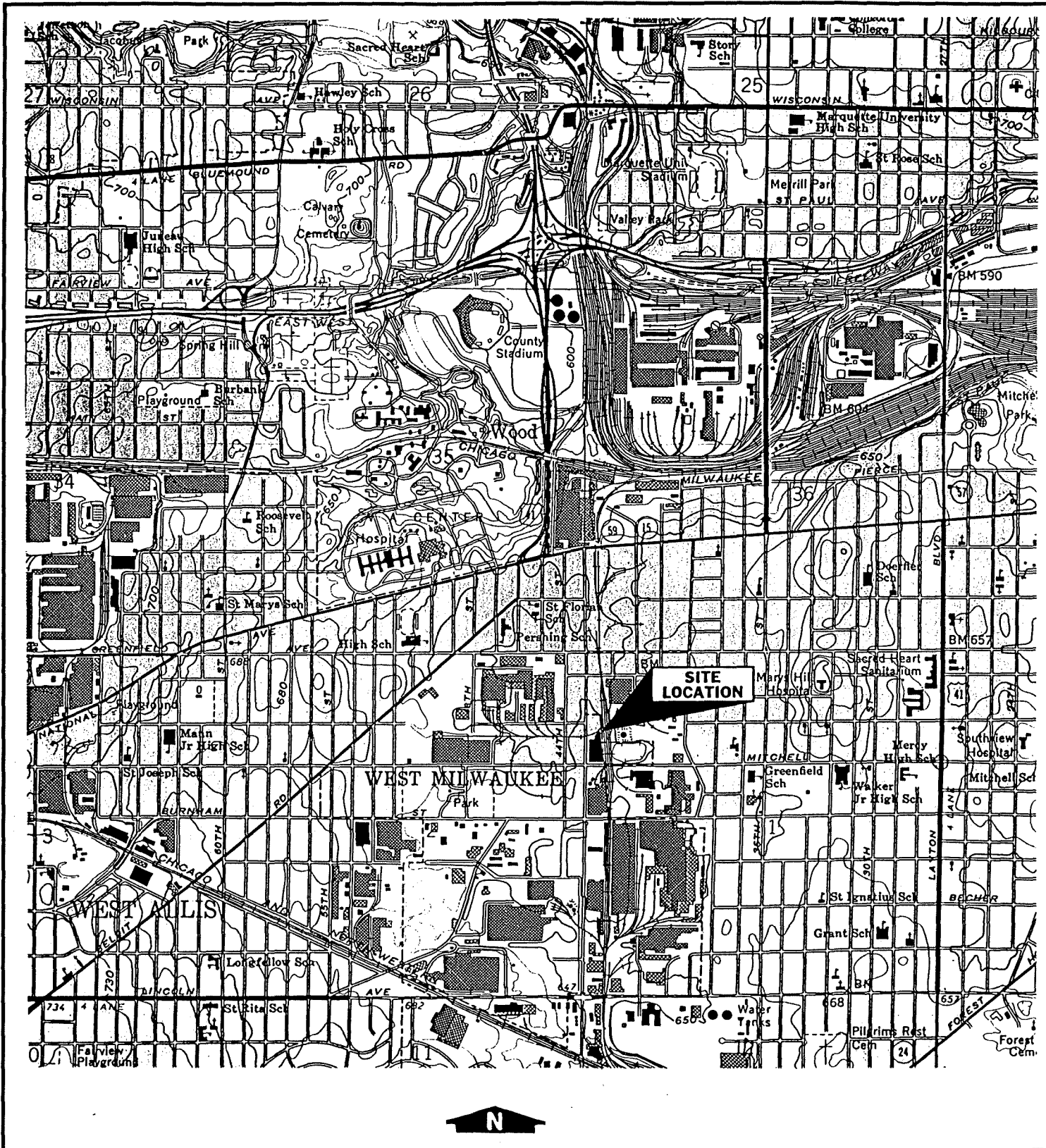
Results of the groundwater biocharacterization analyses are attached in Appendix F.

Based on the results of the investigation and laboratory analyses as described in previous sections of this report, we have developed the following conclusions regarding the impacts on the site:

- The site has a history of industrial uses dating back to the early 1900s.
- Adjacent properties with environmental impacts to the soil and groundwater have been identified. A petroleum bulk storage facility with 6.5 million gallons of above ground capacity was formerly located directly east of the Mobile Blasting site.
- A total of 21 soil borings were advanced on the site as part of the investigation.
- Four permanent and 2 temporary groundwater monitoring wells were installed on the site to augment the 3 existing groundwater monitoring wells.
- The site is mantled by a layer of fill of varying thickness immediately below the surficial wearing layer. Typically, a layer of lean to silty clay extends from the base of the fill to approximately 15 ft below the ground surface. Beneath the clay, a water bearing sand layer is present.
- Results of the soil analyses indicate elevated concentrations of several VOCs, PAHs and metals. However, only 2 samples exhibited concentrations of ethylbenzene and xylene in exceedance of the NR Generic 720 RCLs. Several PAHs were detected in exceedance of the non-industrial direct contact RCL and groundwater protection RCL. One sample contained a total lead concentration in exceedance of the N720 generic RCL. However, a TCLP analysis indicates that the lead present may not be highly leachable.
- A multi-chambered subsurface concrete structure was discovered east of the former Mobile Blasting facility.
- Biocharacterization analyses performed on the site soils indicate that the site is amenable to natural attenuation.
- Results of the analyses performed on the blast sand indicate that the sand is impacted with several VOCs, and total lead.
- Groundwater measurements indicate that groundwater generally flows from the east to the west across the site. However, the groundwater surface contains an apparent mound near the center of the site.

- Hydraulic conductivity testing indicates that the shallow aquifer on the site has a hydraulic conductivity which ranges between 1.09E-3 to 4.92E-3.
- Free product is observed in Monitoring Well MW99-7. The free product has been identified as diesel fuel with a minor amount of lube oil. Subsequent investigations indicated that the extent of the free product is limited to a small area.
- Results of the analyses performed on the groundwater indicate that only one NR 140 ES exceedance was noted for naphthalene in well MW99-4. Several NR 140 PAL exceedances were noted.
- No metals were detected above PAL or ES concentrations in the groundwater.
- Biocharacterization analyses indicate that the groundwater on the site is marginally acceptable for natural attenuation.

Potential remedial alternatives for the site will be discussed in the Remedial Action Report submitted under separate cover.



**FIGURE 1**

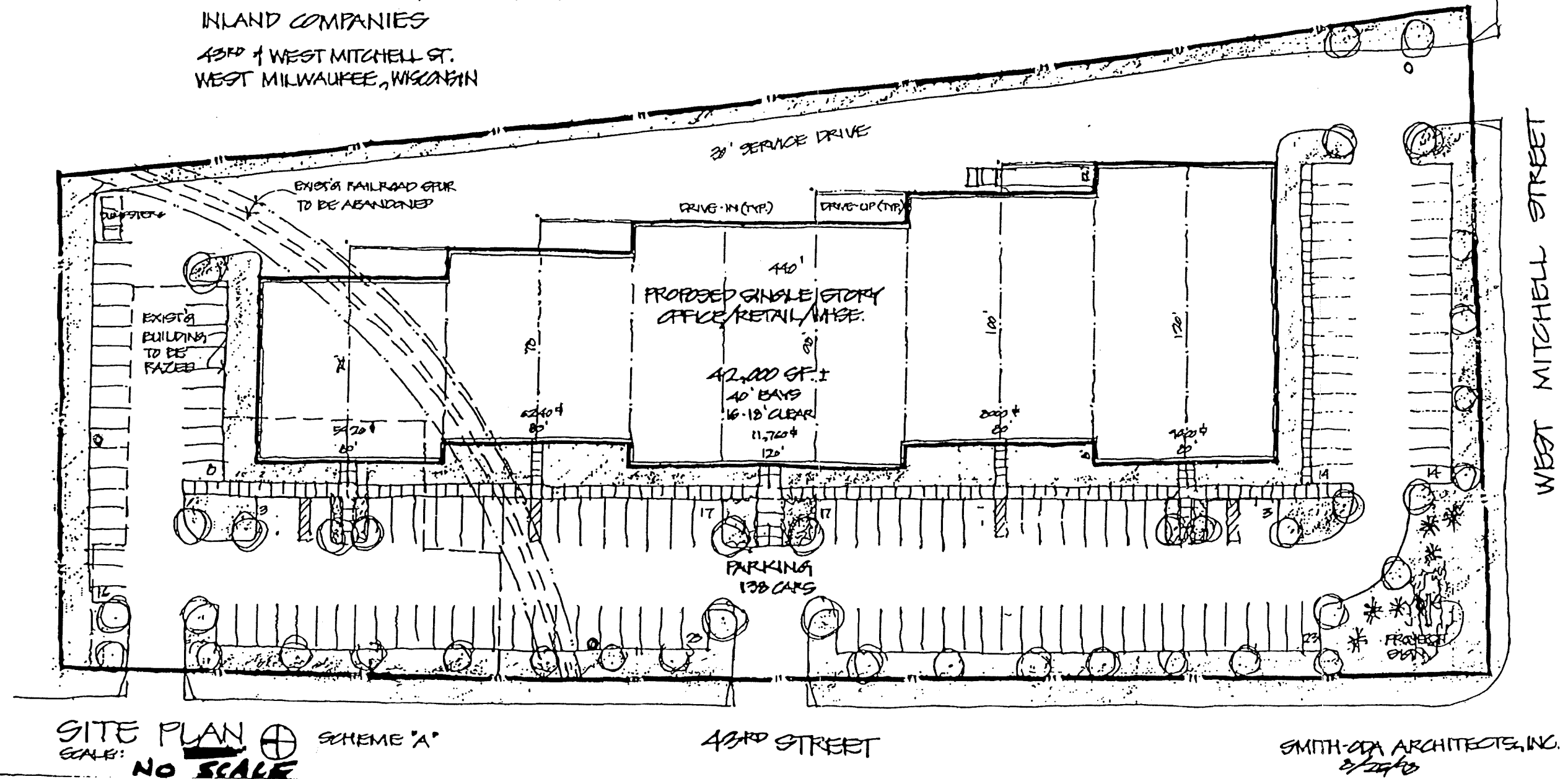
**SITE LOCATION PLAN  
MOBLE BLASTING  
1604 SOUTH 43RD STREET  
WEST MILWAUKEE, WISCONSIN**

**URS GREINER  
WOODWARD-CLYDE**

DRAWN BY: RAC	CHECKED BY: DFS	APPROVED BY:	DATE: Jul-98	PROJECT NO.: 7E09675
------------------	--------------------	--------------	-----------------	-------------------------

CONCEPTUAL DEVELOPMENT PLAN FOR  
REAL ESTATE RECYCLING CORPORATION

INLAND COMPANIES  
43RD & WEST MITCHELL ST.  
WEST MILWAUKEE, WISCONSIN



SITE PLAN ⊕ SCHEME 'A'  
SCALE: NO SCALE

43RD STREET

WEST MITCHELL STREET

Designed By: RAC	Drawn By: RAC	Checked By: DFS
Approved By: NTS	Scale: NTS	Date: May-99
Reference:		
Revisions:		
Proposed Development Plan		
Former Mobile Blasting Property 1604 South 43rd Street West Milwaukee, Wisconsin		
Sheet Number		
Figure 2		
Project Number 3307E0967500		
URSGWC		

URS Greiner Woodward Clyde



Table 2  
 Polycyclic Aromatic Hydrocarbon Results  
 Soil Investigation  
 Former Mobile Blasting Facility

Boring Number	Sample Number	Sample Depth	Headspace Result	Labcode	GP99-8		GP99-9		GP99-10		GP99-6		GP99-12		GP99-7		GP99-5		GP99-4		GP99-3		GP99-1		GP99-2		MW99-5		MW99-4		MW99-6		MW99-7		
					5B	6A	4B	DUP1	5A	4A	5B	1B	4B	1A	3A	3A	4B	1B	2A	4B	5A	4B	5	2A	3	4B	5A	5	9	7	8	6	7	8	9
Groundwater	Non-Industrial	18-20'	20-22'	14-16'	14-16'	16-18'	12-14'	18-20'	2-4'	14-16'	0-2'	8-10'	8-10'	14-16'	2-4'	4-6'	14-16'	16-18'	14-16'	16-20'	4-6'	8-12'	14-16'	16-18'	9-11'	17-19'	15-17'	17-19'	11-13'	13-15'	15-17'	17-19'			
Pathway	Contact	126	79	195	195	178	201	169	5	ND	ND	ND	ND	98	22	77	75	35	82	13	ND	11	13	6	3	53	41	ND	ND	20	33				
5024499A	5024499B	5024499C	5024499D	5024499E	5024499F	5024499G	5024499H	5024499I	5024499J	5024499K	5024499L	5024499M	5024499N	5024499O	5024499P	5024499Q	5024499R	5024516A	5024516B	5024516C	5024516D	5024516E	5024516F	5024516G	5024516H	5024516I	5024516J	5024544A	5024544B	5024544C	5024544D	5024558A	5024558B	5024558C	5024558D
Acenaphthene	ug/kg	38000	900000	< 110	< 420	< 110	720	< 2100	< 21	< 110	< 21	< 21	< 21	< 21	< 21	< 21	< 21	< 21	21 *J	38 *J	28000	< 21	38 *J	600	1900	< 21	< 21	< 21	530	< 21	< 21	< 21	< 21	< 21	
Acenaphthylene	ug/kg	700	18000	< 120	< 480	< 120	< 24	< 2400	< 24	< 120	< 24	< 24	< 24	< 24	< 24	< 24	< 24	< 24	< 24	< 24	< 24	9400	< 24	36 *J	230 *J	600 *J	< 24	< 24	< 24	270 *J	< 24	< 24	< 24	< 24	< 24
Anthracene	ug/kg	3000000	5000000	2700	1400 *J	3100	1600	18000	940	7800	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36	20000	< 36	200	360 *J	1000 *J	< 36	< 36	< 36	350 *J	< 36	< 36	< 36	< 36	< 36
Benzo(a)anthracene	ug/kg	17000	88	190 *J	< 460	670	380	< 2300	180	3400	77	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23000	< 23	190	< 120	< 230	< 23	< 23	< 23	< 120	< 230	< 23	< 23	< 23	< 23
Benzo(a)pyrene	ug/kg	48000	8.8	180 *J	< 680	680	310	< 3400	130	830	110 *J	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 34	< 3400	< 34	210	< 170	< 340	< 34	< 34	< 34	< 170	< 340	< 34	< 34	< 34	< 34
Benzo(b)fluoranthene	ug/kg	360000	88	< 230	< 920	< 230	< 46	< 4600	74 *J	< 230	170	< 46	< 46	< 46	< 46	< 46	< 46	< 46	< 46	< 46	< 4600	< 46	240	< 230	< 460	< 46	< 46	< 46	< 230	< 460	< 46	< 46	< 46	< 46	
Benzo(k)fluoranthene	ug/kg	6800000	1800	< 240	< 1000	< 240	100 *J	< 4800	60 *J	380 *J	91 *J	< 48	< 48	< 48	< 48	< 48	< 48	< 48	< 48	< 48	< 4800	< 48	220	< 240	< 480	< 29	< 29	< 29	< 150	< 480	< 29	< 29	< 29	< 29	
Benzo(g,h,i)perylene	ug/kg	870000	880	< 150	< 580	< 150	150	< 2900	36 *J	540	62 *J	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 29	< 2900	< 29	200	< 150	< 290	< 18	< 48	< 48	< 240	< 48	< 48	< 48	< 48	< 48	
Chrysene	ug/kg	37000	8800	620 *J	< 840	1200	740	< 4200	260	2300	140 *J	< 42	< 42	< 42	< 42	< 42	< 42	< 42	< 42	< 42	< 4200	< 42	300	< 210	< 420	< 42	< 42	< 42	< 210	< 420	< 42	< 42	< 42	< 42	
Dibenz(a,h)anthracene	ug/kg	38000	8.8	< 90	< 360	< 90	32 *J	< 1800	< 18	420	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 1800	< 18	72	< 90	< 180	< 18	< 18	< 18	< 90	< 180	< 18	< 18	< 18	< 18	
Fluoranthene	ug/kg	500000	600000	400 *J	< 760	550 *J	440	< 3800	150	< 190	150	< 38	< 38	< 38	< 38	< 38	< 38	< 38	< 38	< 38	< 3800	< 38	600	< 190	< 380	< 38	< 38	< 38	< 190	< 380	< 38	< 38	< 38	< 38	
Fluorene	ug/kg	100000	600000	6200	2400 *J	4900	1900	15000 *J	1700	7200	< 47	< 47	< 47	< 47	< 47	< 47	< 47	< 47	< 47	< 47	< 4700	< 47	53 *J	50000	< 47	53 *J	1100	3300	< 47	< 47	< 47	1000	< 47	< 47	
Indeno(1,2,3-cd)pyrene	ug/kg	680000	88	< 90	< 360	< 90	25 *J	< 1800	< 18	230 *J	46 *J	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 1800	< 18	130	< 90	< 180	< 18	< 18	< 18	< 90	< 180	< 18	< 18	< 18	< 18	
1-Methylnaphthalene	ug/kg	23000	1100000	52000	22000	40000	18000	140000	14000	59000	86 *J	67 *J	46 *J	32 *J	45 *J	< 31	36 *J	< 31	510	280	470	670000	40 *J	100	11000	38000	< 31	33 *J	460	12000	< 31	< 31	< 31	< 31	
2-Methylnaphthalene	ug/kg	20000	600000	120000	54000	85000	41000	330000	40000	130000	100	88	72	39 *J	51 *J	< 21	28 *J	< 21	920	370	910	1700000	49 *J	150	19000	100000	< 21	49 *J	1100	24000	< 21	< 21	< 21	< 21	
Naphthalene	ug/kg	400	20000	17000	8700	16000	9300	74000	5600	33000	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	370000	< 30	84 *J	2900	5700	< 30	< 30	480	3800	< 30	< 30	< 30	< 30	
Phenanthrene	ug/kg	1800	18000	16000	10000	15000	7700	51000	4100	19000	74 *J	< 35	89 *J	81 *J	74 *J	< 35	790	38 *J	< 35	< 35	< 35	130000	36 *J	540	2900	8700	< 35	72 *J	77 *J	2700	< 35	< 35	< 35		
Pyrene	ug/kg	8700000	500000	1100	< 900	3700	1700	8900 *J	900	9000	140 *J	< 45	< 45	< 45	< 45	< 45	< 45	< 45	< 45	< 45	5400 *J	< 45	530	< 230	< 450	< 45	< 45	< 45	< 230	< 45	< 45	< 45	< 45	< 45	

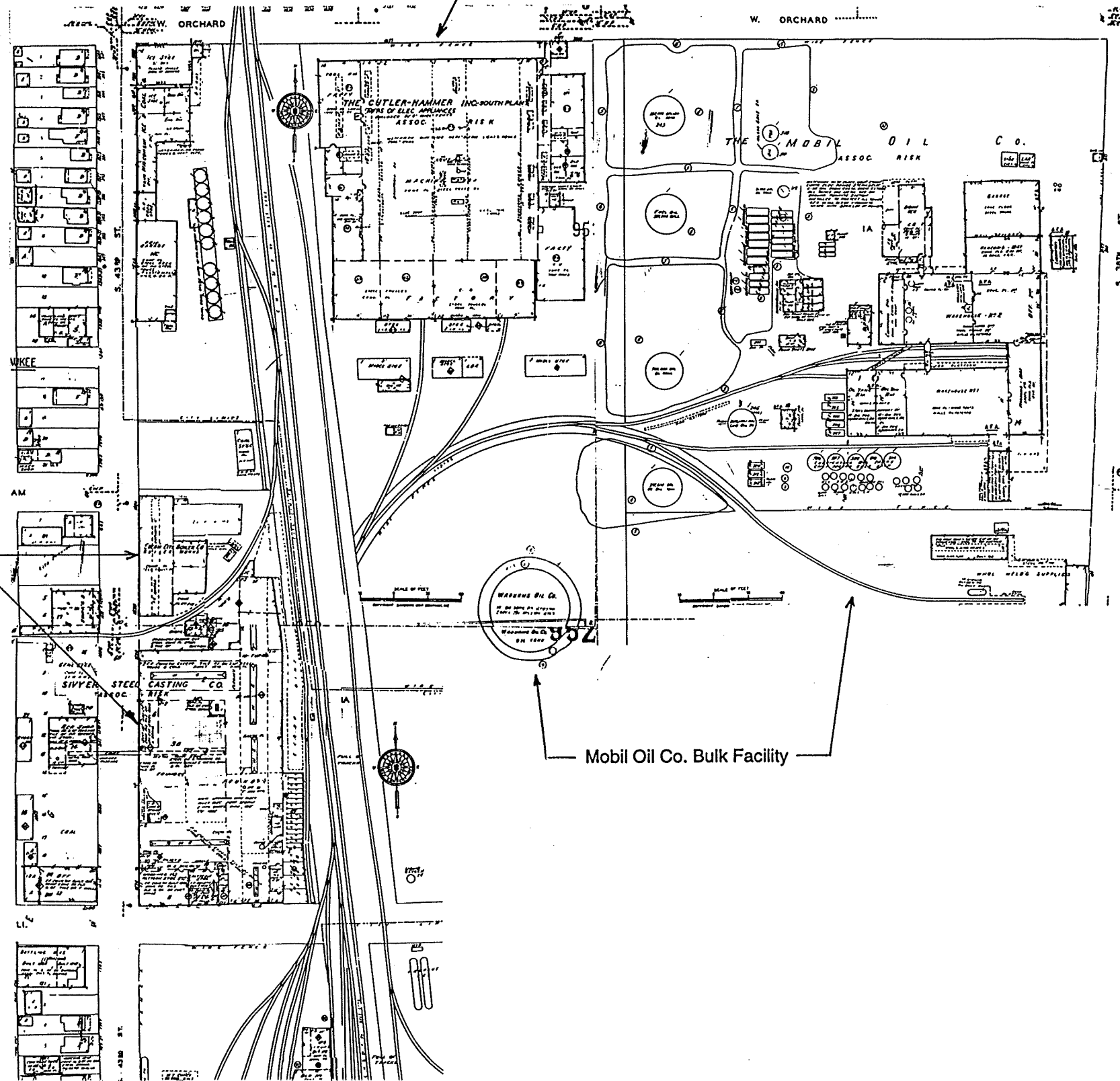




Former Mobile Blasting and Painting Site

Harnischfeger

Mobil Oil Co. Bulk Facility



Designed By:	RAC	Drawn By:	RAC	Checked By:	DFS
Approved By:				Date:	Jun-99
Scale:	Not to Scale				

**URS Greiner Woodward Clyde**

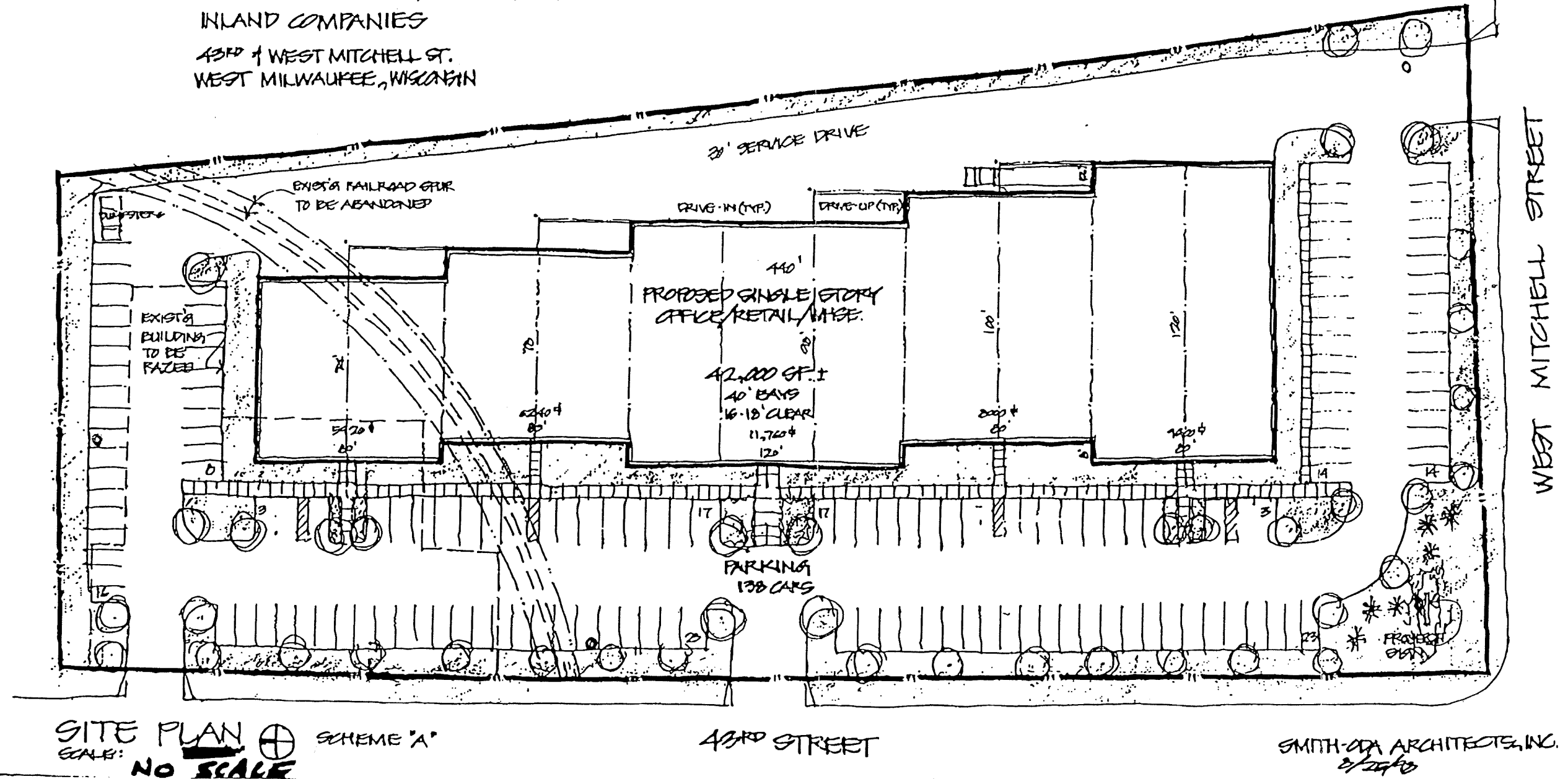
Adjacent Sites  
 Former Mobile Blasting Property  
 1604 South 43rd Street  
 West Milwaukee, Wisconsin

Sheet Number  
**Figure 3**  
 Project Number  
 3307E0967500

**URSGWC**

CONCEPTUAL DEVELOPMENT PLAN FOR  
REAL ESTATE RECYCLING CORPORATION

INLAND COMPANIES  
43RD & WEST MITCHELL ST.  
WEST MILWAUKEE, WISCONSIN



SITE PLAN ⊕ SCHEME 'A'  
SCALE: NO SCALE

43RD STREET

SMITH-ODA ARCHITECTS, INC.  
2/24/99

Designed By: RAC	Drawn By: RAC	Checked By: DFS
Approved By:	Scale: NTS	Date: May-99
Reference:		
Proposed Development Plan		
Former Mobile Blasting Property 1604 South 43rd Street West Milwaukee, Wisconsin		
Revisions		
Figure 2		
Project Number 3307E0967500		
URSGWC		
URS Greiner Woodward Clyde		

Table 4  
Polychlorinated Biphenyl Results  
Soil Investigation  
Former Mobile Blasting Facility

Boring Number	GP99-4
Sample Number	4B
Sample Depth	14-16'
Headspace Result	77
Labcode	5024516C

---

Arochlor 1016	ug/kg	<5
Arochlor 1221	ug/kg	<5
Arochlor 1232	ug/kg	<5
Arochlor 1242	ug/kg	<5
Arochlor 1248	ug/kg	<5
Arochlor 1254	ug/kg	<5
Arochlor 1260	ug/kg	<5

Table 5  
 Volatile Organic Compound Results  
 Blast Sand Samples  
 Former Mobile Blasting Facility

Sample Number			SAND 1	SAND 2	SAND 3	SAND 4	DUP 2
Headspace Result		Residual	ND	ND	ND	ND	ND
Labcode		Contaminant	5024499J	5024499K	5024499L	5024499M	5024499N
		Level					
DRO	mg/kg		72	1300	150	110	130
GRO	mg/kg		< 10	< 10	< 10	< 10	< 10
Benzene	ug/kg	5.5	< 25	< 25	< 25	< 25	< 25
Bromobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
Bromodichloromethane	ug/kg		< 25	< 25	< 25	< 25	< 25
n-Butylbenzene	ug/kg		53	49	100	< 25	< 25
sec-Butylbenzene	ug/kg		< 25	< 25	56	< 25	< 25
ter-Butylbenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
Carbon Tetrachloride	ug/kg		< 25	< 25	< 25	< 25	< 25
Chlorobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
Chloroethane	ug/kg		< 25	< 25	< 25	< 25	< 25
Chloroform	ug/kg		< 25	< 25	< 25	< 25	< 25
Chloromethane	ug/kg		< 25	< 25	< 25	< 25	< 25
2-Chlorotoluene	ug/kg		< 25	< 25	< 25	< 25	< 25
4-Chlorotoluene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,2-Dibromo-3-Chloropropane	ug/kg		< 25	< 25	< 25	< 25	< 25
Dibromochloromethane	ug/kg		< 25	< 25	< 25	< 25	< 25
1,2-Dichlorobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,3-Dichlorobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,4-Dichlorobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
Dichlorodifluoromethane	ug/kg		< 25	< 25	< 25	< 25	< 25
1,1-Dichloroethane	ug/kg		< 25	< 25	< 25	< 25	< 25
1,2-Dichloroethane	ug/kg	4.9	< 25	< 25	< 25	< 25	< 25
1,1-Dichloroethene	ug/kg		< 25	< 25	< 25	< 25	< 25
cis-1,2-Dichloroethene	ug/kg		< 25	< 25	< 25	< 25	< 25
trans-1,2-Dichloroethene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,2-Dichloropropane	ug/kg		< 25	< 25	< 25	< 25	< 25
1,3-Dichloropropane	ug/kg		< 25	< 25	< 25	< 25	< 25
2,2-DCP, cis-1,2-DCE	ug/kg		< 25	< 25	< 25	< 25	< 25
Di-Isopropyl Ether	ug/kg		< 25	< 25	< 25	< 25	< 25
Ethylbenzene	ug/kg	2900	57	< 25	< 25	< 25	< 25
EDB (1,2-Dibromoethane)	ug/kg		< 25	< 25	< 25	< 25	< 25
Hexachlorobutadiene	ug/kg		< 25	< 25	< 25	< 25	< 25
Isopropylbenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
p-Isopropyltoluene	ug/kg		< 25	< 25	< 25	< 25	< 25
Methylene Chloride	ug/kg		< 25	< 25	< 25	< 25	< 25
MTBE	ug/kg		< 25	< 25	< 25	< 25	< 25
Naphthalene	ug/kg		68	260	87	27	< 25
n-Propylbenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,1,2,2-Tetrachloroethane	ug/kg		< 25	< 25	< 25	< 25	< 25
Tetrachloroethene	ug/kg		< 25	< 25	< 25	< 25	< 25
Toluene	ug/kg	1500	< 25	410	< 25	100	200
1,2,3-Trichlorobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,2,4-Trichlorobenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
1,1,1-Trichloroethane	ug/kg		< 25	< 25	< 25	< 25	< 25
1,1,2-Trichloroethane	ug/kg		< 25	< 25	< 25	< 25	< 25
Trichloroethene	ug/kg		< 25	< 25	< 25	< 25	< 25
Trichlorfluormethane	ug/kg		< 25	< 25	< 25	< 25	< 25
1,2,4-Trimethylbenzene	ug/kg		< 25	< 25	31	< 25	< 25
1,3,5-Trimethylbenzene	ug/kg		< 25	< 25	< 25	< 25	< 25
Vinyl Chloride	ug/kg		< 25	< 25	< 25	< 25	< 25
Total Xylenes	ug/kg	4100	67	116	< 75	127	129

Table 6  
 Polycyclic Aromatic Hydrocarbon Results  
 Blast Sand Samples  
 Former Mobile Blasting Facility

Sample Number			SAND 1	SAND 2	SAND 3	SAND 4	DUP 2	
Headspace Result	Non-Industrial		ND	ND	ND	ND	ND	
Labcode	Groundwater	Direct	5024499J	5024499K	5024499L	5024499M	5024499N	
	Pathway	Contact						
Acenaphthene	ug/kg	38000	900000	< 21	< 210	< 21	< 21	< 21
Acenaphthylene	ug/kg	700	18000	< 24	< 240	< 24	< 24	< 24
Anthracene	ug/kg	3000000	5000000	< 36	< 360	< 36	< 36	< 36
Benz(a)anthracene	ug/kg	17000	88	25 "J"	< 230	< 23	< 23	36 "J"
Benzo(a)pyrene	ug/kg	48000	8.8	< 34	< 340	< 34	< 34	< 34
Benzo(b)fluoranthene	ug/kg	360000	88	54 "J"	< 460	< 46	< 46	< 46
Benzo(k)fluoranthene	ug/kg	6800000	1800	< 48	< 480	< 48	< 48	75 "J"
Benzo(g,h,l)perylene	ug/kg	870000	880	< 29	< 290	< 29	< 29	< 29
Chrysene	ug/kg	37000	8800	56 "J"	< 420	< 42	< 42	< 42
Dibenz(a,h)anthracene	ug/kg	38000	8.8	< 18	< 180	< 18	< 18	< 18
Fluoranthene	ug/kg	500000	600000	120 "J"	420 "J"	74 "J"	< 38	180
Fluorene	ug/kg	100000	600000	< 47	< 470	< 47	< 47	< 47
Indeno(1,2,3-cd)pyrene	ug/kg	680000	88	< 18	< 180	< 18	< 18	26 "J"
1-Methylnaphthalene	ug/kg	23000	1100000	67 "J"	1000 "J"	150	< 31	< 31
2-Methylnaphthalene	ug/kg	20000	600000	120	1700	270	< 21	27 "J"
Naphthalene	ug/kg	400	20000	< 30	< 300	50 "J"	< 30	< 30
Phenanthrene	ug/kg	1800	18000	150	1200	350	< 35	150
Pyrene	ug/kg	8700000	500000	77 "J"	< 450	64 "J"	< 45	100 "J"

Table 7  
 RCRA Metal Results  
 Blast Sand Samples  
 Former Mobile Blasting Facility

Sample Number			SAND 1	SAND 2	SAND 3	SAND 4	DUP 2
Headspace Result		Non-Industrial	ND	ND	ND	ND	ND
Labcode		Direct Contact	5024499J	5024499K	5024499L	5024499M	5024499N
Arsenic	mg/kg	0.039	<2.8	<2.8	<2.8	<2.8	<2.8
Barium	mg/kg		78	45	57	34	28
Cadmium	mg/kg	8	<1.2	<1.2	<1.2	<1.2	<1.2
Chromium	mg/kg		62	20	7.4	9.3	7.8
Lead	mg/kg	50	152	93	15 "J"	27	20
Mercury	mg/kg		0.015 "J"	<0.011	0.016 "J"	0.018 "J"	<0.011
Selenium	mg/kg		<4.9	<4.9	<4.9	<4.9	5.4 "J"
Silver	mg/kg		<3	<3	<3	<3	<3

Table 8  
Groundwater Elevation Measurements  
Former Mobile Blasting

	TOC	3/16/99		4/28/99	
		BTOC	ELEV	BTOC	ELEV
MW-1	70.93	18.76	52.17	17.88	53.05
MW-2	73.48	19.92	53.56	19.40	54.08
MW-3	71.23	15.84	55.39	13.56	57.67
MW99-4	71.20	20.86	50.34	19.83	51.37
MW99-5	72.88	20.16	52.72	19.29	53.59
MW99-6	70.12	20.44	49.68	18.46	51.66
MW99-7	73.38				

Table 9  
Hydraulic Conductivity Data  
Former Mobile Blasting

MW-1	2.68E-03
MW-2	3.28E-03
MW-3	1.20E-03
MW99-4	1.09E-03
MW99-5	4.37E-03
MW99-6	4.92E-03
MW99-7	

Average	2.92E-03
Mean	2.51E-03



Table 10  
 Volatile Organic Compound Results  
 Groundwater Samples  
 Former Mobile Blasting Facility

Sample Number Labcode			MW-1	MW-2	MW-3	MW99-4	MW99-5	MW99-6	DUP 1	GP99-10	GP99-3	
			5024598A	5024598B	5024598C	5024592B	5024592A	5024592D	5024592F	5024592E	5024592C	
	PAL	ES										
DRO	ug/L		3000	1100	16000	6000	<100	1400	100	26000000	260000	
GRO	ug/L		330	420	1200	1700	<100	<100	<100	3600	3300	
Benzene	ug/L	0.5	4.3	1 "J"	< 0.32	<0.32	<0.32	<0.32	<0.32	6.2	16	
Bromobenzene	ug/L		< 0.32	< 0.32	< 0.32	<3.2	<0.32	<0.32	<0.32	<1.6	<3.2	
Bromodichloromethane	ug/L	0.06		0.6		<3.8	<0.38	<0.38	<0.38	<1.9	<3.8	
tert-Butylbenzene	ug/L		2.5	9	15	<3.3	<0.33	<0.33	<0.33	<1.7	<3.3	
sec-Butylbenzene	ug/L		1.2	1.2	1.5	<3.4	<0.34	<0.34	<0.34	4.3 "J"	5.4 "J"	
n-Butylbenzene	ug/L		0.33 "J"	< 0.33	0.46 "J"	16	<0.23	<0.23	<0.23	14	100	
Carbon Tetrachloride	ug/L	0.5	< 0.47	< 0.47	< 0.47	<4.7	<0.47	<0.47	<0.47	<2.4	<4.7	
Chlorobenzene	ug/L		< 0.31	< 0.31	< 0.31	<3.1	<0.31	<0.31	<0.31	<1.6	<3.1	
Chloroethane	ug/L	80	< 0.13	< 0.13	< 0.13	<1.3	<0.13	<0.13	<0.13	<0.65	<1.3	
Chloroform	ug/L	0.6	< 0.4	< 0.4	< 0.4	<4	<0.4	<0.4	<0.4	<2	<4	
Chloromethane	ug/L	0.3	< 0.18	0.34 "J"	< 0.18	<1.8	<0.18	<0.18	<0.18	<0.9	<1.8	
2-Chlorotoluene	ug/L		< 0.31	< 0.31	< 0.31	<3.1	<0.31	<0.31	<0.31	<1.6	<3.1	
4-Chlorotoluene	ug/L		< 0.31	< 0.31	< 0.31	<3.1	<0.31	<0.31	<0.31	<1.6	<3.1	
1,2-Dibromo-3-Chloropropane	ug/L	0.02	< 0.22	< 0.22	< 0.22	<2.2	<0.22	<0.22	<0.22	<1.1	<2.2	
Dibromochloromethane	ug/L	6	< 0.37	< 0.37	< 0.37	<3.7	<0.37	<0.37	<0.37	<1.9	<3.7	
1,4-Dichlorobenzene	ug/L	15	< 0.29	< 0.29	< 0.29	<2.8	<0.28	<0.28	<0.28	<1.4	<2.8	
1,2-Dichlorobenzene	ug/L	60	< 0.29	< 0.29	< 0.29	<2.9	<0.29	<0.29	<0.29	<1.5	<2.9	
Dichlorodifluoromethane	ug/L	200	< 0.28	< 0.28	< 0.28	<2.8	<0.28	<0.28	<0.28	<1.4	<2.8	
1,2-Dichloroethane	ug/L	0.5	< 0.28	< 0.28	< 0.28	<3.6	<0.36	<0.36	<0.36	<1.8	<3.6	
1,1-Dichloroethane	ug/L	85	< 0.38	< 0.38	< 0.38	<3.4	<0.34	<0.34	<0.34	<1.7	<3.4	
1,1-Dichloroethene	ug/L	0.7	< 0.36	< 0.36	< 0.36	<3.9	<0.39	<0.39	<0.39	<2	<3.9	
cis-1,2-Dichloroethene	ug/L	7	< 0.39	< 0.39	< 0.39	<3.2	<0.32	1.6	1.5	<1.6	<3.2	
trans-1,2-Dichloroethene	ug/L	20	< 0.32	< 0.32	< 0.32	<3.8	<0.38	<0.38	<0.38	<1.9	<3.8	
1,2-Dichloropropane	ug/L	0.5	< 0.38	< 0.38	< 0.38	<3.8	<0.38	<0.38	<0.38	<1.9	<3.8	
2,2-DCP, cis-1,2-DCE	ug/L	7	< 0.38	< 0.38	< 0.38	<5.6	<0.56	<0.56	<0.56	<2.8	<5.6	
1,3-Dichloropropane	ug/L		< 0.28	< 0.28	< 0.28	<2.8	<0.28	<0.28	<0.28	<1.4	<2.8	
Di-isopropyl Ether	ug/L		< 0.56	< 0.56	< 0.56	<3.2	<0.32	<0.32	<0.32	<1.6	<3.2	
EDB (1,2-Dibromoethane)	ug/L	0.005	< 0.32	< 0.32	< 0.32	<3.5	<0.35	<0.35	<0.35	<1.8	<3.5	
Ethylbenzene	ug/L	140	< 0.34	7.3	7.5	20	<0.34	<0.364	<0.34	19	54	
Hexachlorobutadiene	ug/L		< 0.35	< 0.35	< 0.35	<2.7	<0.27	<0.27	<0.27	<1.4	<2.7	
Isopropylbenzene	ug/L		< 0.27	< 0.27	< 0.27	<3.4	<0.34	<0.34	<0.34	5.8	5.4 "J"	
p-Isopropyltoluene	ug/L		1.8	1.8	1.9	<3.1	<0.31	<0.31	<0.31	6	<3.1	
Methylene Chloride	ug/L	0.5	0.73 "J"	1.7	< 0.31	<2.9	<0.29	<0.29	<0.29	<1.5	<2.9	
MTBE	ug/L	12	< 0.29	< 0.29	< 0.29	<0.31	<0.31	<0.31	<0.31	<1.6	<3.1	
Naphthalene	ug/L	8	< 0.31	< 0.31	< 0.31	440	<0.88	<0.88	<0.88	910	1200	
n-Propylbenzene	ug/L		55	60	14	16	<0.3	<0.3	<0.3	12	20	
1,1,2,2-Tetrachloroethane	ug/L	7	3.9	2.8	13	<3.5	<0.35	<0.35	<0.35	<1.8	<3.5	
1,3DCP, Tetrachloroethene	ug/L		< 0.35	< 0.35	< 0.35	<7.5	<0.75	<0.75	<0.75	<3.8	<7.5	
Tetrachloroethene	ug/L	0.5	< 0.35	< 0.35	< 0.35	<3.5	<0.35	<0.35	<0.35	<1.8	<3.5	
Toluene	ug/L	68.6	0.5 "J"	4.5	< 0.35	0.70 "J"	<0.35	<0.35	<0.35	<1.8	29	
1,2,4-Trichlorobenzene	ug/L		< 0.45	< 0.45	< 0.45	<4.1	<0.41	<0.41	<0.41	<2.1	<4.1	
1,2,3-Trichlorobenzene	ug/L		< 0.41	< 0.41	< 0.41	<4.5	<0.45	<0.45	<0.45	<2.3	<4.5	
1,1,1-Trichloroethane	ug/L	40	< 0.45	< 0.45	< 0.45	<4.5	<0.45	<0.45	<0.45	<2.3	<4.5	
1,1,2-Trichloroethane	ug/L	0.5	< 0.37	< 0.37	< 0.37	<3.7	<0.37	<0.37	<0.37	<1.9	<3.7	
Trichloroethene	ug/L	0.5	< 0.48	< 0.48	< 0.48	<4.8	<0.48	<0.48	<0.48	<2.4	<4.8	
Trichlorofluoromethane	ug/L		< 0.15	< 0.15	< 0.15	<1.5	<0.15	<0.15	<0.15	<0.75	<1.5	
1,2,4-Trimethylbenzene	ug/L	96	0.74 "J"	16	< 0.35	10	<0.35	<0.35	<0.35	34	310	
1,3,5-Trimethylbenzene	ug/L		< 0.64	6.2	< 0.64	11	<0.64	<0.64	<0.64	<3.2	84	
Vinyl Chloride	ug/L	0.02	< 0.15	0.19 "J"	< 0.15	<1.5	<0.15	<0.15	<0.15	<0.75	<1.5	
m&p-Xylenes	ug/L	124	3.5	16.5	1.63	3.6	<0.66	<0.66	<0.66	14	210	
o-Xylenes	ug/L					1.2	<0.32	<0.32	<0.32	17	140	

**Soil Boring Logs**

**Monitoring Well Construction Details**

**Monitoring Well Development Forms**

**Borehole Abandonment Forms**

**URS Greiner  
Woodward Clyde**

**LOG OF BORING**

Project Mobile Blasting  
Location West Milwaukee, Wisconsin

Log No. GT-1  
Surface Elevation 68.7 MCD  
Job No. 7E09675  
Sheet 1 of 1

2312 N. Grandview Blvd, Suite 210 Waukesha, WI 53188 TEL.(414) 513-0577

Report: MILW-VLSRM; Project File: S:\GINT\PROJECTS\7E09675G.GPJ; Data Template: WC\_CORP1.GDT Printed: 4/15/99

SAMPLE						VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Type	Rec (in.)	Moist	N	Depth (ft)		qu qa (tsf)	WC	LL	PL	LI
						3 inches CONCRETE					
1		18	M	22		Fill: Poorly sorted, gray gravel and fine grained dark brown olive silty sand with cinders and metal slag					
2		18	W	6							
					5	Loose to very dense, gray to olive, fine to medium SAND; some fine gravel, little silt (weak kerosene odor)					
3		14	W	29							
4		12	W	63		Black with sheen and moderate odor					
					10	Becoming gray					
5		16	W	11							
6		18	W	24							
					15	End of boring at 15 feet					
					20						

**WATER LEVEL OBSERVATIONS**

**GENERAL NOTES**

While Drilling (ft)  $\nabla$  3.3 Upon Completion of Drilling \_\_\_\_\_  
 Time After Drilling (hrs) \_\_\_\_\_  
 Depth to Water (ft) \_\_\_\_\_  
 Depth to Cave in (ft) \_\_\_\_\_

Start 2/10/99 End 2/10/99  
 Driller GMS Chief TWG  
 Logger TWG Editor RAC  
 Drill Rig CME 45  
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

**URS Greiner  
Woodward Clyde**

**LOG OF BORING**

Project Mobile Blasting  
Location West Milwaukee, Wisconsin

Log No. GT-2  
Surface Elevation 68.9 MCD  
Job No. 7E09675  
Sheet 1 of 1

2312 N. Grandview Blvd, Suite 210 Waukesha, WI 53188 TEL.(414) 513-0577

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	Type	Rec (in.)	Moist	N		Depth (ft)	qu qa (tsf)	WC	LL	PL
					6 inches of CONCRETE					
1		18	M	15	FILL: Brown-red silty clay; with occasional gravel and sand, some cinders and debris					
2		18	M	21	Very stiff brown gray mottled lean CLAY (CL)	2.5				
3		18	M	15		3.0				
4		18	M	11		1.5				
5		18	M	11	Stiff to very stiff gray lean CLAY; occasional thin wet silt seams (CL)	2.5				
					End of boring at 15 feet					

Report: MILW-VL-SRM; Project File: S:\GINT\PROJECTS\7E09675G.GPJ; Data Template:WC\_CORP1.GDT Printed: 4/15/99

**WATER LEVEL OBSERVATIONS**

While Drilling (ft)  $\nabla$  NW Upon Completion of Drilling \_\_\_\_\_  
 Time After Drilling (hrs) \_\_\_\_\_  
 Depth to Water (ft) \_\_\_\_\_  
 Depth to Cave in (ft) \_\_\_\_\_

**GENERAL NOTES**

Start 2/10/99 End 2/10/99  
 Driller GMS Chief TWG  
 Logger TWG Editor RAC  
 Drill Rig CME 45  
 Drill Method 2 1/4" HSA

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

**URS Greiner  
Woodward Clyde**

**LOG OF BORING**

Project Mobile Blasting  
Location West Milwaukee, Wisconsin

Log No. GT-3  
Surface Elevation 68.7 MCD  
Job No. 7E09675  
Sheet 1 of 1

2312 N. Grandview Blvd, Suite 210 Waukesha, WI 53188 TEL.(414) 513-0577

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES					
No.	Type	Rec (in.)	Moist	N		Depth (ft)	qu qa (tsf)	WC	LL	PL	LI
					6 inches of CONCRETE						
1		8	M	10	FILL: Red, gray and olive medium sand; trace slag and cinders						
2		12	W	5							
3		14	M	11	Stiff black silty CLAY; slightly organic (CL)	1.0					
4		18	M	17	Stiff, brown-gray mottled lean CLAY	1.5					
5		14	W	13	Becoming gray						
					End of boring at 15 feet.						

Report: MILW-WL-SRM; Project File: S:\GINTW\PROJECTS\7E096756.GPJ; Data Template:WC\_CORP1.GDT Printed: 4/15/99

**WATER LEVEL OBSERVATIONS**

While Drilling (ft)  $\nabla$  NW Upon Completion of Drilling \_\_\_\_\_  
 Time After Drilling (hrs) \_\_\_\_\_  
 Depth to Water (ft) \_\_\_\_\_  
 Depth to Cave in (ft) \_\_\_\_\_




**GENERAL NOTES**

Start 2/10/99 End 2/10/99  
 Driller GMS Chief TWG  
 Logger TWG Editor RAC  
 Drill Rig CME 45  
 Drill Method 2 1/4" HSA

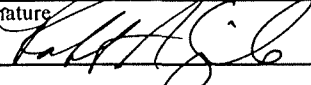
The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-1</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/10/1999</b>		Date Drilling Completed <b>2/10/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-1</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>68.9 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21		Lat. _____"		Long. _____"	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
		Civil Town/City/ or Village <b>Village of West Milwaukee</b>			

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 0		0	4 inches of CONCRETE											
			1	FILL: White to gray fine sand, saturated											
2	48 36	A	4					13							1040
		B	6	Black clayey fine SAND; some wood, some plastic, saturated, sheen	SC			8							
3	48 12	A	8	Drilled through 4 in. obstruction at 8 feet				ND							1100
			9	Refusal at 9 feet Offset 6 feet south refusal at 9 feet End of boring at 9 feet											

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


Signature  Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-2</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/10/1999</b>		Date Drilling Completed <b>2/10/1999</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name <b>GP99-2</b>	
		Final Static Water Level <b>50.9 Feet MCD</b>		Surface Elevation <b>68.9 Feet MCD</b>	
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Local Grid Location (If applicable) Lat. _____ " <input type="checkbox"/> N <input type="checkbox"/> E Long. _____ " <input type="checkbox"/> S <input type="checkbox"/> W			
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 24	A	1	2 inches gravel				ND							
			2	FILL: Brown fine to medium sand, moist											
2	48 36	A	4	FILL: Black fine to medium sand, moist				ND							
			5	Brown-gray mottled silty CLAY	CL										1155
3	48 40	A	6	Gray, clayey fine to course SAND; some gravel, (petroleum odor), saturated				22							
			8		SW			8						1200	
		B	10	Black sandy PEAT; some roots				ND							
		B	11		PT										
			12												

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

Signature  Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.





Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-3</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/10/1999</b>		Date Drilling Completed <b>2/10/1999</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name <b>GP99-3</b>	
Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>68.9 Feet MCD</b>		Borehole Diameter <b>2.0 Inches</b>	
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W		Lat. _____" Long. _____"	

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	48 12	A	0	6 inches CONCRETE				ND						950
			1	Black fine to medium SAND, moist	SP			ND						
2	48 48	A	4	Brown-gray mottled lean CLAY, moist	CL			ND					955	
			5					ND						
3	48 48	A	7	Gray SILT; trace fine sand	ML								1005	
			8	Brown gray mottled lean CLAY, moist				ND						
			9											
			10						ND					

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
---------------	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-4</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>			Date Drilling Started <b>2/10/1999</b>	Date Drilling Completed <b>2/10/1999</b>	Drilling Method <b>GeoProbe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name <b>GP99-4</b>	Final Static Water Level <b>52.8 Feet MCD</b>	Surface Elevation <b>68.8 Feet MCD</b>	Borehole Diameter <b>2.0 Inches</b>
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>			Local Grid Location (If applicable)		
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>			Lat. _____ "	<input type="checkbox"/> N <input type="checkbox"/> E	
			Long. _____ "	<input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 14	A	0-1	6 inches CONCRETE				ND						905	
			1-2	Brown to gray, fine to medium SAND; trace silt, moist				ND							
2	48 12	A	2-4		SP			17					910		
			4-6					10							
3	48 48	A	6-8	Black slightly ORGANIC CLAY	OL								915		
			8-9	Brown-gray, mottled silty CLAY; trace fine sand, moist	CL			12							
			9-10	Gray silty CLAY, trace fine sand, moist				35							

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
---------------	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-5</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>			Date Drilling Started <b>2/10/1999</b>	Date Drilling Completed <b>2/10/1999</b>	Drilling Method <b>GeoProbe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name <b>GP99-5</b>	Final Static Water Level <b>Feet MCD</b>	Surface Elevation <b>68.4 Feet MCD</b>	Borehole Diameter <b>2.0 Inches</b>
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>			Lat. _____"		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>			Long. _____"		

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 30	A	0	8 inches CONCRETE				ND							820
			1	FILL: Black fine to medium sand, moist				22							
2	48 24	A	2											830	
			3												
			4	Brown fine to medium SAND; some silt, (petroleum odor), moist	SW			98							
3	48 12	A	5										850		
			6	Refusal at 6 feet Moved 8 feet southwest				12							
			7												
			8												
			9	Refusal at 9.5 feet End of boring at 9.5 feet											

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
---------------	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-6</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/9/1999</b>		Date Drilling Completed <b>2/9/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		Borehole Diameter <b>2.0 Inches</b>	
DNR Well ID No.		Common Well Name <b>GP99-6</b>		Final Static Water Level <b>51.3 Feet MCD</b>	
Surface Elevation <b>68.8 Feet MCD</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable)	
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Lat. _____"		<input type="checkbox"/> N <input type="checkbox"/> E	
Long. _____"		Feet <input type="checkbox"/> S		Feet <input type="checkbox"/> W	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	48 30	A	0	2 inches ASPHALT				5						1310
			1	FILL: brown-black clayey sand, little organics, moist										
		B	2	Brown gray mottled sandy CLAY, moist	CL			5	ND					1315
			3											
2	48 48	A	4	Brown gray mottled lean CLAY, moist	CL			ND	ND					1320
			5											
		B	6					ND	ND					
			7											
3	48 48	A	8		CL			ND	ND					
			9											
		B	10					ND	ND					
			11											
			12											

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
---------------	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-7</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>			Date Drilling Started <b>2/9/1999</b>	Date Drilling Completed <b>2/9/1999</b>	Drilling Method <b>GeoProbe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name <b>GP99-7</b>	Final Static Water Level <b>53.5 Feet MCD</b>	Surface Elevation <b>68.5 Feet MCD</b>	Borehole Diameter <b>2.0 Inches</b>
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>			Local Grid Location (If applicable)		
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>			Lat. _____"	<input type="checkbox"/> N <input type="checkbox"/> E	
			Long. _____"	<input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 20	A	0-1	3 inches ASPHALT				ND							1535
			1-2	FILL: black fine to medium sand, moist Gray fine SAND, moist				ND							
2	48 28	A	2-4	Brown-gray mottled lean CLAY; little fine sand, trace silt, moist	SP			ND						1540	
			4-6					ND							
3	48 48	A	6-8		CL			ND					1545		
			8-10							ND					

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
---------------	---	--





This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



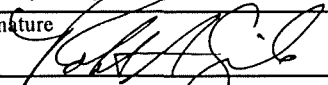


Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-8</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/9/1999</b>		Date Drilling Completed <b>2/9/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-8</b>		Final Static Water Level <b>48.8 Feet MCD</b>		Surface Elevation <b>69.8 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21		Lat. _____"		Long. _____"	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 12		1	3 inches CONCRETE				44							840
			2	Gray black sandy CLAY (Petroleum odor), moist	CL			60							850
2	48 48		3												
			4	8 inch black layer at 6 feet				48							900
3	48 48		5												
			6	Gray SILT; little fine sand (petroleum odor), moist	ML										
			7												
			8	Brown-gray mottled lean CLAY (petroleum odor), moist											
			9												
			10												
			11												
			12												

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

Signature  Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-9</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/9/1999</b>		Date Drilling Completed <b>2/9/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-9</b>		Final Static Water Level <b>48.3 Feet MCD</b>		Surface Elevation <b>66.3 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 24	A	0-1	3 inches CONCRETE				93							1005
			1-2	FILL: black fine to coarse sand and gravel (petroleum odor) saturated				53							
			2-3	Gray lean CLAY, (petroleum odor) moist	CL										
2	48 48	A	3-4	Black fibrous PEAT, moist	PT			46						1015	
			4-5												
			5-6	Gray ORGANIC SILTY CLAY; some fine sand, moist	OL-ML			62							
3	48 48	A	6-8	Gray fine to medium SAND, (petroleum odor) moist				173					1020		
			8-9												
			9-10												
		B	10-11					154							
			11-12												

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

Signature: Firm: **URS Greiner Woodward Clyde** 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Tel: 414/513-0577 Fax: 414/513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

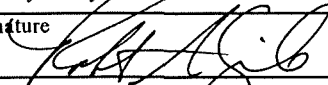


Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-10</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>			Date Drilling Started <b>2/9/1999</b>	Date Drilling Completed <b>2/9/1999</b>	Drilling Method <b>GeoProbe</b>
WI Unique Well No.	DNR Well ID No.	Common Well Name <b>GP99-10</b>	Final Static Water Level <b>50.3 Feet MCD</b>	Surface Elevation <b>66.3 Feet MCD</b>	Borehole Diameter <b>2.0 Inches</b>
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>			Local Grid Location (If applicable) Lat. _____ " <input type="checkbox"/> N <input type="checkbox"/> E Long. _____ " <input type="checkbox"/> S <input type="checkbox"/> W		
Facility ID		County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	48 36	A	0-4	4 inches CONCRETE				67						1120
			4-11	Gray silty CLAY; little fine to medium sand (petroleum odor) moist	ML			74						
2	48 48	A	4-5	Black fibrous PEAT, moist	PT			44					1125	
			5-7	Gray lean CLAY; occasional 3 inch layers of silty fine sand, (slight odor), moist	CL			37						
3	48 36	A	8-9	Gray fine to medium SAND, some silt, (petroleum odor), moist				48					1130	
			9-12					36						

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

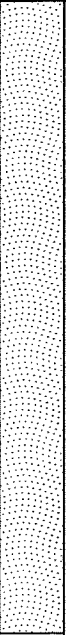
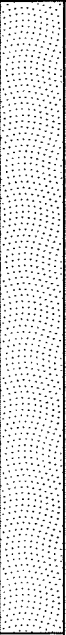
Signature  Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **GP99-10**


Use only as an attachment to Form 4400-122.

Page 2 of 2

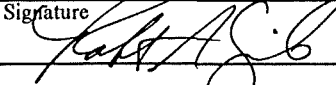
Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
4	48 30	A	13		SP			201						1140	
		B	14					147							
5	48 42	A	16				▼	86					1145		
		B	18					169							
			17												
			19												
			20	End of boring at 20 feet											

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-11</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/9/1999</b>		Date Drilling Completed <b>2/9/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-11</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>66.3 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Lat. _____"		Long. _____"	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
				6 inches CONCRETE											
				Obstruction at 12 inches Could not penetrate Did not offset due to information from GP99-9 and GP99-10											

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

Signature  Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-12</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/9/1999</b>		Date Drilling Completed <b>2/9/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-12</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Lat. _____"		Long. _____"	

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 48	A	0-1	8 inches CONCRETE				ND						1420	
			1-4	FILL: Brown blocky clay, moist				ND							
2	48 48	A	4-5	Brown lean CLAY, moist				ND					1430		
			5-8		CL			ND							
3	48	A	8-9					ND					1440		
			9-10	Refusal at 10 feet End of boring at 10 feet											

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
---------------	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-13</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>3/29/1999</b>		Date Drilling Completed <b>3/29/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-13</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>70.8 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Lat. _____ "		Long. _____ "	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 48		1	CONCRETE											
			2	Brown gray mottled silty CLAY; little fine to medium sand, trace fine gravel	CL										
			3												
2	48 48		4	1 inch saturated brown silt seam at 5.1 - no odor											
			5												
			6	Very stiff brown lean CLAY; trace fine sand, trace fine gravel	CL										
			7												
3	48 48		8	Gray silt, wet - no odor	ML										
			9												
			10												
			11												
			12												

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

Signature 	Firm <b>Woodward-Clyde International-Americas</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: (414)513-0577 Fax: (414)513-0575
---------------	--	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-14</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>3/29/1999</b>		Date Drilling Completed <b>3/29/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-14</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>70.8 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21		Lat. _____"		Long. _____"	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
		Civil Town/City/ or Village <b>Village of West Milwaukee</b>			

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	48 48		1	CONCRETE										
			2	Brown-gray mottled silty CLAY, moist, no odor	CL									
			3	Brown silty fine SAND, wet, no odor	SP									
2	48 48		4	Brown-gray mottled lean CLAY, some silt, trace fine sand, moist, no odor	CL									
			5											
3	48 48		8	Gray silty fine SAND, wet, no odor	SP									
			9											
			10	Gray silty CLAY, wet, no odor	CL									
			11	Gray fine to coarse SAND; some clay, little gravel, moist, no odor										
			12											

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

Signature:   
Firm: Woodward-Clyde International-Americas  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188  
Tel: (414)513-0577 Fax: (414)513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-15</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>3/29/1999</b>		Date Drilling Completed <b>3/29/1999</b>	
WI Unique Well No.		DNR Well ID No.		Common Well Name <b>GP99-15</b>	
		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>70.8 Feet MCD</b>	
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Lat. _____"		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Long. _____"					

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties						Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 48		1	CONCRETE											
			2	Brown-gray silty CLAY; little fine to medium sand, moist, no odor	CL										
2	48 48		4	Brown clayey SILT; moist, no odor	ML										
			5	Brown silty CLAY; trace fine sand, moist, no odor	CL										
3	48 48		8	Brown to gray clayey SILT; little fine sand, saturated, no odor	ML										
			10	Gray fine clayey SAND, moist, no odor	SW										

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

Signature 	Firm <b>Woodward-Clyde International-Americas</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: (414)513-0577 Fax: (414)513-0575
---------------	--	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-16</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>3/29/1999</b>		Date Drilling Completed <b>3/29/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-16</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>70.8 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Local Grid Location (If applicable) Lat. _____ ' _____ " _____" Long. _____ ' _____ " _____" <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	48 48		1	CONCRETE										
			2	Brown silty CLAY; little fine sand, moist, no odor										
2	48 48		4		CL									
			5											
			6											
			7											
3	48 48		8	Gray silty fine SAND, wet, no odor	SP									
			9											
			10	Gray fine to medium SAND, moist, no odor										
			11											
			12											

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

Signature 	Firm <b>Woodward-Clyde International-Americas</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: (414)513-0577 Fax: (414)513-0575
---------------	--	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Boring Number **GP99-16**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
4	48		13	Wet at 19.5 feet, slight odor  No free product  End of Boring at 24 feet	SW									
	48		14											
5	48		15											
	48		16											
6	48		17											
	48		18											
	48		19											
	48		20											
	48		21											
	48		22											
	48		23											
	48		24											

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>GP99-17</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>3/29/1999</b>		Date Drilling Completed <b>3/29/1999</b>	
Drilling Method <b>GeoProbe</b>		WI Unique Well No.		DNR Well ID No.	
Common Well Name <b>GP99-17</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>70.8 Feet MCD</b>	
Borehole Diameter <b>2.0 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>S/C/N</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21		Lat. _____ Long. _____		Feet _____	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	48 48		1	CONCRETE										
			2	Brown-gray silty CLAY; trace fine to medium sand, moist, no odor	CL									
2	48 48		4	Brown SILT; little fine sand, moist to wet, no odor	ML									
			6	Brown silty CLAY; trace fine sand, moist, no odor	CL									
3	48 48		9	Brown to gray SILT; trace fine sand, moist to wet, no odor	ML									
			12	Gray fine clayey SAND; little clay, moist,										

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

Signature: Firm: Woodward-Clyde International-Americas  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188  
Tel: (414)513-0577 Fax: (414)513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Boring Number **GP99-17**

Use only as an attachment to Form 4400-122.

Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
4	48		13	no odor										
	48		14	Wet layer 14 to 15 feet, no odor										
5	48		16		SW									
	42		17											
6	48		20	Product in tip										
	48		21	Obvious free product										
			22											
			23											
			24	End of boring at 24 feet										

Facility/Project Name <b>Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>MW1</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Miller Engineers &amp; Scientists, Chief Driller Arvin Broehm.</b>		Date Drilling Started <b>09/17/96</b>	Date Drilling Completed <b>09/17/96</b>	Drilling Method <b>HSA</b>	
DNR Facility Well No.	WI Unique Well No.	Common Well Name <b>MW1</b>		Final Static Water Level Feet MSL	Surface Elevation Feet MSL
Boring Location		Local Grid Location (If applicable)		Borehole Diameter <b>8.0 Inches</b>	
1/4 of      1/4 of Section      T      N,R		Lat      0' "	Long      0' "	<input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	

County <b>MILWAUKEE</b>	DNR County Code <b>41</b>	Civil Town/City/ or Village <b>MILWAUKEE</b>
----------------------------	------------------------------	---

Sample Number	Length (in) Recovered	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	
1			1-2	TOPSOIL: SILTY SAND - damp, loose, dark brown (10YR 2/2).	SM			15						
2	1	11	5-6	LEAN CLAY - damp, stiff, dark gray (10YR 3/1).	CL			150	11					
3	18	27	10-11	POORLY GRADED SAND WITH SILT - moist, dense, dark grayish brown (10YR 3/2).	SP SM			175	27					
4	18	32	15-16	POORLY GRADED SAND - moist to wet, dense, dark grayish brown (10YR 4/2), paint solvent odor.	SP			25	32					
5	15	15	20-21	...wet.	SP			450	15					
6	15		25-26		SP			200						
				NOTES: 1) End of boring at 26.5 feet. 2) Monitoring Well MW1 constructed at completion.										

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

Signature <i>Kristin K. Blumhagen</i>	Firm <b>Miller Engineers &amp; Scientists</b> 5308 South 12th Street, Sheboygan, WI 53081 Tel: (414)458-6164 Fax: (414)458-0369
--	--

Facility/Project Name <b>obile Blasting</b>			License/Permit/Monitoring Number		Boring Number <b>MW2</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Miller Engineers &amp; Scientists. Chief Driller Arvin Broehm.</b>			Date Drilling Started <b>09/17/96</b>		Date Drilling Completed <b>09/17/96</b>	
DNR Facility Well No.			WI Unique Well No. <b>MW1</b>		Common Well Name	
Final Static Water Level Feet MSL			Surface Elevation Feet MSL		Borehole Diameter <b>8.0 inches</b>	
Boring Location <b>1/4 of 1/4 of Section T N.R.</b>			Lat <b>0 0 "</b> Long <b>0 0 "</b>		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
County <b>MILWAUKEE</b>			DNR County Code <b>41</b>		Civil Town/City/ or Village <b>MILWAUKEE</b>	

Sample Number	Length (in) Recovered	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					ROD/ Comments	
									Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200		
1	18	19	1-4	LEAN CLAY - moist, stiff, yellowish brown (10YR 5/4).	CL			0	19						
2	18	15	5-10	SILTY CLAY - moist, stiff, grayish brown (10YR 5/2).	CL CL ML			0	15						
3	15	19	11-15	POORLY GRADED SAND - wet, dense, grayish brown (10YR 5/2).	SP			45	19						
	20	12	16-20	...strong paint solvent odor.	SP			220	12						
			21-23	SILTY CLAY - wet, stiff, grayish brown (10YR 5/2).	CL ML										
				NOTES: 1) End of boring at 23 feet. 2) Monitoring Well MW2 constructed at completion.											

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

Signature <i>Kristen K. Hallock</i>	Firm Miller Engineers & Scientists 5308 South 12th Street, Sheboygan, WI 53081 Tel: (414)458-6164 Fax: (414)458-0369
--	---

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.

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

Project Name <b>lasting</b>		License/Permit/Monitoring Number		Boring Number <b>MW3</b>	
Drilled By (Firm name and name of crew chief) <b>Miller Engineers &amp; Scientists. Chief Driller Arvin Broehm.</b>			Date Drilling Started <b>09/17/96</b>	Date Drilling Completed <b>09/17/96</b>	Drilling Method <b>HSA</b>
Facility Well No.	WI Unique Well No.	Common Well Name <b>MW1</b>	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter <b>8.0 Inches</b>
Location 1/4 of Section T N,R			Lat 0' "	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
<b>WAUKEE</b>			DNR County Code <b>41</b>	Civil Town/City/ or Village <b>MILWAUKEE</b>	

Length (in) Recovered	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					ROD/ Comments
								Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	
4		1-4	SILTY, CLAYEY SAND - moist, dense, dark brown (10YR 3/2).	SC SM	[Hatched]	[Solid]							
18	11	9-11	LEAN CLAY - moist, stiff, brown (10YR 5/3), very fractured, mottled.	CL	[Diagonal]	[Dotted]	200	11					
20	3	15-16	SILTY CLAY - wet, loose, grayish brown (10YR 4/2).	CL ML	[Hatched]	[Dotted]	140 175	3					
15	14	17-21	POORLY GRADED SAND - wet, loose, grayish brown (10YR 4/2), gasoline odor. SILTY SAND	SP SM	[Dotted]	[Dotted]	450	14					
			NOTES: 1) End of boring at 21.5 feet. 2) Monitoring Well MW3 constructed at completion.										

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

*Estine K. Halligler* Firm **Miller Engineers & Scientists**  
5308 South 12th Street, Sheboygan, WI 53081  
Tel: (414)458-6164 Fax: (414)458-0369


authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more 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 violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>MW99-4</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/11/1999</b>		Date Drilling Completed <b>2/11/1999</b>	
WI Unique Well No. <b>JS302</b>		DNR Well ID No.		Common Well Name <b>MW99-4</b>	
Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>69.8 Feet MCD</b>		Borehole Diameter <b>8.8 Inches</b>	
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Lat. _____"		Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Long. _____"		Feet		Feet	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1	2 feet rock, bricks, sand, concrete										
			2											
1	24 12	5 6 10 12	3	FILL: Brown-gray fine sand; little silt, some slag				10		M				1245
			4											
2	24 12	8 7 7 7	5					27		M				1255
			6											
3	24 18	1 1 2 2	7	Soft to stiff, brown - gray SANDY CLAY; little gravel	SC			3		M				1310
			8											
4	24 18	2 4 6 8	9	Black fibrous PEAT	PT			3		M				1315
			10											
5	24 20	4 4 4	11	Gray, fine to medium SAND; some roots interbedded with organic silt				3		M				1325
			12											

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
--	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.





Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>MW99-5</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/11/1999</b>		Date Drilling Completed <b>2/11/1999</b>	
Drilling Method <b>4' 1/4" HSA</b>		WI Unique Well No. <b>JS303</b>		DNR Well ID No.	
Common Well Name <b>MW99-5</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>69.8 Feet MCD</b>	
Borehole Diameter <b>8.8 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Local Grid Location (If applicable) Lat. _____ ' _____ " _____" Long. _____ ' _____ " _____" <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	

Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>
-------------	----------------------------	--------------------------	---

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
				<b>2 inches CONCRETE</b>											
1	24 12	5 6 10 7	1 2	<b>FILL: Gray-brown to black fine sand</b>				8		M					900
2	24 18	3 5 8 12	3 4	<b>Very stiff, brown-gray mottled lean CLAY; trace fine to medium sand, trace fine gravel</b>				8	2.5	M					910
3	24 24	5 10 10 12	5 6		CL			8	3.3	M					920
4	24 24	3 7 10 12	7 8					6	2.6	M					935
5	24 24	9 6 9 9	9 10	<b>Brown, clayey fine SAND; some silt</b>	SC			6	2.5	M					940
				<b>Very stiff gray lean CLAY; trace fine sand</b>											
6	24 24	4 5 6	11 12	<b>Occasional 1/8 inch gray silt seams</b>				6	2.5	M					950

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

Signature <i>Robert A. Gil</i>	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
-----------------------------------	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.




Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>		License/Permit/Monitoring Number		Boring Number <b>MW99-6</b>	
Boring Drilled By (Firm name and name of crew chief) <b>Groundwater Management</b>		Date Drilling Started <b>2/12/1999</b>		Date Drilling Completed <b>2/12/1999</b>	
Drilling Method <b>4' 1/4" HSA</b>		WI Unique Well No. <b>JS304</b>		DNR Well ID No.	
Common Well Name <b>MW99-6</b>		Final Static Water Level <b>Feet MCD</b>		Surface Elevation <b>68.7 Feet MCD</b>	
Borehole Diameter <b>8.8 Inches</b>		Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>		Local Grid Location (If applicable) Lat. _____ " <input type="checkbox"/> N <input type="checkbox"/> E Long. _____ " <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Village of West Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1	24 8	1 1 1 3	1 2	3 inches CONCRETE										
				FILL: Gravel and sand										
2	24 18	1 4 8 11	3 4	Soft brown sandy CLAY	CL			ND		M				830
				Very stiff to hard, brown-gray mottled lean CLAY; trace fine sand				ND	4.3	M			840	
3	24 18	4 9 13 16	5 6					ND	4.5	M				845
								CL		ND	4.2	M		855
5	24 16	3 5 8 11	9 10	Occasional 1/4 inch brown-gray silt seams				ND	3.5	M				905
				Saturated 3 inch silt layer				ND	2.7	M			915	
6	24 20	5 7 8	11 12	Very stiff gray lean CLAY										

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

Signature 	Firm <b>URS Greiner Woodward Clyde</b> 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188	Tel: 414/513-0577 Fax: 414/513-0575
--	---	--

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.




Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>			License/Permit/Monitoring Number		Boring Number <b>MW99-7</b>	
Boring Drilled By (Firm name and name of crew chief)			Date Drilling Started <b>2/12/1999</b>		Date Drilling Completed <b>2/12/1999</b>	
Groundwater Management					<b>4' 1/4" HSA</b>	
WI Unique Well No. <b>JS305</b>	DNR Well ID No.	Common Well Name <b>MW99-7</b>	Final Static Water Level <b>Feet MCD</b>	Surface Elevation <b>70.8 Feet MCD</b>		Borehole Diameter <b>8.8 Inches</b>
Boring Location or Local Grid Origin (Check if estimated: <input type="checkbox"/> ) State Plane <b>SW 1/4 of NW 1/4 of Section 1, T 7 N, R 21</b>			Local Grid Location (If applicable) Lat. _____ ' _____ " _____" Long. _____ ' _____ " _____" <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W			
Facility ID		County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Village of West Milwaukee</b>		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties					Time of Sampling	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
				12 inches CONCRETE and obstructions											
1	24 18	3 3 7 7	1 2	Very stiff to stiff, brown lean CLAY; little fine to medium sand, trace gravel	CL			ND	2.2	M					1120
2	24 18	2 10 15 16	3 4		CL			ND	2.3	M					1125
3	24 20	7 10 11 12	5 6	Dense brown sandy SILT; little clay	ML			ND	4.5	M					1135
4	24 24	4 6 8 12	7 8	Very stiff to hard brown lean CLAY; trace fine sand, occasional 1/8 inch silty fine sand seams	CL			ND	2.5	M					1150
5	24 18	2 5 8 10	9 10	Becomes gray				ND		M/W					1155
				Medium dense gray silty fine SAND	SM										
6	24 18	8 10 10	11 12	Medium dense gray fine to coarse SAND slight odor				ND		M					1205

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

Signature:  Firm: **URS Greiner Woodward Clyde**  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188  
Tel: 414/513-0577 Fax: 414/513-0575

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completions of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.



Agency/Project Name <u>Mobile Blasting</u>	Local Grid Location of Well ft. <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	Well Name <u>MW1</u>
Agency License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E.	West/Upstream Well Number(s) DNR Well Number(s)
Well Water Table Observation Well <input checked="" type="checkbox"/> II Piezometer <input type="checkbox"/> IZ	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ <input type="checkbox"/> E <input type="checkbox"/> W.	Date Well Installed <u>09/17/96</u> m m a a y y
Distance Well Is From Waste/Source Boundary ft. _____	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Arvin Erickson</u> <u>Miller Engineers</u>
Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Protective pipe, top elevation <u>69.59</u> ft. MSL <i>City Datum</i>	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Well casing, top elevation <u>69.39</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>4.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> _____ d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
Ground surface elevation <u>67.2</u> ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Soil Other <input checked="" type="checkbox"/> _____
Surface seal, bottom _____ ft. MSL or <u>0.5</u> ft.	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Annular space seal <input type="checkbox"/> _____ Other <input type="checkbox"/> _____
USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight . . . . Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03
Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. <u>7/8" 44 7611 - 43255</u> Other <input checked="" type="checkbox"/> _____
Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> _____	7. Fine sand material: Manufacturer, product name & mesh size a. <u>1/2 Bag</u> b. Volume added <u>0.24</u> ft <sup>3</sup>
Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size a. _____ b. Volume added <u>1.7</u> ft <sup>3</sup> <u>3/2 Bag</u>
Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No	9. Well casing: Finish threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Finish threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/> _____
Describe source of water (attach analysis): _____	10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> _____ b. Manufacturer _____ c. Slot size: <u>0.25</u> in. d. Slotted length: <u>12.0</u> ft.
Bentonite seal, top _____ ft. MSL or <u>0.5</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> 14 Other <input type="checkbox"/> _____
Gravel sand, top _____ ft. MSL or <u>9.0</u> ft.	
Gravel pack, top _____ ft. MSL or <u>10.0</u> ft.	
Screen joint, top _____ ft. MSL or <u>11.5</u> ft.	
Screen bottom _____ ft. MSL or <u>21.5</u> ft.	
Gravel pack, bottom _____ ft. MSL or <u>24.0</u> ft.	
Well hole, bottom _____ ft. MSL or <u>24.0</u> ft.	
Well hole diameter <u>1.0</u> in.	
Well casing <u>1.34</u> in.	
Well casing <u>2.00</u> in.	

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

Kristine K. Gallagher  Firm Miller Engineers & Scientists

Complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$100 each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each





Project Name <b>Mobile Blasting</b>	Local Grid Location of Well ft. <input type="checkbox"/> N <input type="checkbox"/> S ft. <input type="checkbox"/> E <input type="checkbox"/> W	Well Name <b>MW3</b>
License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E.	Well Number: DNR Well ID Number
Well Type: Water Table Observation Well <input checked="" type="checkbox"/> II Piezometer <input type="checkbox"/> II	Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____ T. _____ N. R. _____ E. W.	Date Well Installed <b>09/17/96</b> m m a a v v
Well is from Waste/Source Boundary ft. _____	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <b>Arvin Broehm Miller Engineers</b>
A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Protective pipe, top elevation <b>71.48</b> ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Casing, top elevation <b>71.54</b> ft. MSL		2. Protective cover pipe: a. Inside diameter: <b>4.0</b> in. b. Length: <b>7.0</b> ft. c. Material: <b>Steel</b> <input checked="" type="checkbox"/> 04 <b>Other</b> <input type="checkbox"/>
Surface elevation <b>69.1</b> ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
Well seal, bottom _____ ft. MSL or _____ ft.		3. Surface seal: <b>Bentonite</b> <input type="checkbox"/> 30 <b>Concrete</b> <input type="checkbox"/> 01 <b>Soil</b> <input type="checkbox"/> <b>Other</b> <input type="checkbox"/>
Soil classification of soil near screen: <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Rock <input type="checkbox"/>	4. Material between well casing and protective pipe: <b>Bentonite</b> <input checked="" type="checkbox"/> 30 <b>Annular space seal</b> <input type="checkbox"/> <b>Other</b> <input type="checkbox"/>	
Soil analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: a. <b>Granular Bentonite</b> <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... <b>Bentonite-sand slurry</b> <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... <b>Bentonite slurry</b> <input type="checkbox"/> 31 d. _____ % Bentonite ... <b>Bentonite-cement grout</b> <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above	
Drilling method used: <b>Rotary</b> <input type="checkbox"/> 50 <b>Hollow Stem Auger</b> <input checked="" type="checkbox"/> 41 <b>Other</b> <input type="checkbox"/>	f. How installed: <b>Tremie</b> <input type="checkbox"/> 01 <b>Tremie pumped</b> <input type="checkbox"/> 02 <b>Gravity</b> <input checked="" type="checkbox"/> 03	
Drilling fluid used: <b>Water</b> <input type="checkbox"/> 02 <b>Air</b> <input type="checkbox"/> 01 <b>Drilling Mud</b> <input type="checkbox"/> 03 <b>None</b> <input checked="" type="checkbox"/> 99	6. Bentonite seal: a. <b>Bentonite granules</b> <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. <b>Bentonite pellets</b> <input type="checkbox"/> 32 c. <b>3/4" Hole Plug 4 Bags</b> <input type="checkbox"/> <b>Other</b> <input type="checkbox"/>	
Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No	7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added <b>0.24</b> ft <sup>3</sup> <b>1/2 Bag</b>	
Quality of water (attach analysis):	8. Filter pack material: Manufacturer, product name and mesh size a. _____ b. Volume added <b>2.9</b> ft <sup>3</sup> <b>2 Bags</b>	
Well seal, top _____ ft. MSL or <b>0.5</b> ft.	9. Well casing: <b>Flush threaded PVC schedule 40</b> <input checked="" type="checkbox"/> 23 <b>Flush threaded PVC schedule 80</b> <input type="checkbox"/> 24 <b>Other</b> <input type="checkbox"/>	
Well seal, top _____ ft. MSL or <b>7.5</b> ft.	10. Screen material: <b>PVC</b> a. Screen type: <b>Factory cut</b> <input checked="" type="checkbox"/> 11 <b>Continuous slot</b> <input type="checkbox"/> 01 <b>Other</b> <input type="checkbox"/>	
Well seal, top _____ ft. MSL or <b>10.0</b> ft.	b. Manufacturer _____ c. Slot size: <b>0.010</b> in. d. Slotted length: <b>10.0</b> ft.	
Well seal, top _____ ft. MSL or <b>12.0</b> ft.	11. Backfill material (below filter pack): <b>None</b> <input checked="" type="checkbox"/> 14 <b>Other</b> <input type="checkbox"/>	
Well seal, top _____ ft. MSL or <b>22.0</b> ft.		
Well seal, top _____ ft. MSL or <b>22.5</b> ft.		
Well seal, top _____ ft. MSL or <b>22.5</b> ft.		
Well casing diameter <b>8.0</b> in.		
Well casing <b>2.34</b> in.		
Well casing <b>2.00</b> in.		

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

*Kristen Gallagher* Firm **Miller Engineers & Scientists**

Note both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$100 per day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each violation. NOTE: Check appropriate box for DNR use only.

Facility/Project Name <b>Former Mobile Blasting</b>	Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.	Well Name <b>MW99-4</b>
Facility License, Permit or Monitoring No.	Grid Origin Location (Check if estimated: <input type="checkbox"/> ) Lat. _____ " Long. _____ " or	Wis. Unique Well No. <b>JS302</b> DNR Well Number
Facility ID	St. Plane _____ ft. N. _____ ft. E. S/C/N	Date Well Installed <b>02/11/1999</b>
Type of Well <b>Well Code 11/mw</b>	Section Location of Waste/Source SW <u>1/4</u> of NW <u>1/4</u> of Sec. <u>1</u> , T. <u>7</u> N, R. <u>21</u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <b>Jim Grieger</b>
Distance Well Is From Waste/Source Boundary _____ ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	<b>Groundwater Management</b>

A. Protective pipe, top elevation \_\_\_\_\_ ft. MCD  1. Cap and lock?  Yes  No

B. Well casing, top elevation 71.20 ft. MCD  2. Protective cover pipe:  
a. Inside diameter: \_\_\_\_\_ in. 4.0 in.  
b. Length: \_\_\_\_\_ ft. 7.0 ft.  
c. Material: Steel  04  
Other

C. Land surface elevation 69.8 ft. MCD

D. Surface seal, bottom 68.8 ft. MCD or 1.0 ft.  d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

12. USC classification of soil near screen:  
GP  GM  GC  GW  SW  SP   
SM  SC  ML  MH  CL  CH   
Bedrock

13. Sieve analysis attached?  Yes  No

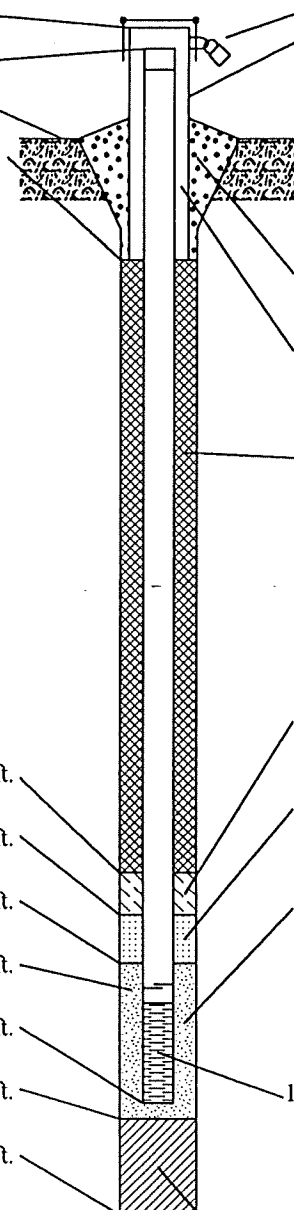
14. Drilling method used: Rotary  50  
Hollow Stem Auger  41  
Other

15. Drilling fluid used: Water  02 Air  01  
Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_



E. Bentonite seal, top 68.8 ft. MCD or 1.0 ft.

F. Fine sand, top 62.8 ft. MCD or 7.0 ft.

G. Filter pack, top 61.8 ft. MCD or 8.0 ft.

H. Screen joint, top 58.8 ft. MCD or 11.0 ft.

I. Well bottom 48.8 ft. MCD or 21.0 ft.

J. Filter pack, bottom 48.8 ft. MCD or 21.0 ft.

K. Borehole, bottom 48.8 ft. MCD or 21.0 ft.

L. Borehole, diameter 8.8 in.

M. O.D. well casing 2.37 in.

N. I.D. well casing 2.08 in.

3. Surface seal: Bentonite  30  
Concrete  01  
Other

4. Material between well casing and protective pipe: Bentonite  30  
Other

5. Annular space seal: a. Granular Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight . Bentonite-sand slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight . . . Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite . . . Bentonite-cement grout  50  
e. 2.4 Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08

6. Bentonite seal: a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
c. \_\_\_\_\_ Pure Gold Medium Chips \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name and mesh size:  
a. Badger Mining Sandblast Abrasive  
b. Volume added 0.4 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name and mesh size:  
a. Red Flint #30  
b. Volume added 4.6 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: SCH 40 PVC  
a. Screen Type: Factory cut  11  
Continuous slot  01  
Other

b. Manufacturer Timco  
c. Slot size: 0.010 in.  
d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None  14  
Other

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

Signature [Signature] Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

Facility/Project Name <b>Former Mobile Blasting</b>	Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.	Well Name <b>MW99-5</b>
Facility License, Permit or Monitoring No.	Grid Origin Location (Check if estimated: <input type="checkbox"/> ) Lat. _____ " Long. _____ " or	Wis. Unique Well No. / DNR Well Number <b>JS303</b>
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed <b>02/12/1999</b>
Type of Well <b>Well Code 11/mw</b>	Section Location of Waste/Source <b>SW 1/4 of NW 1/4 of Sec. 1, T. 7 N, R. 21</b> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <b>Jim Grieger</b>
Distance Well Is From Waste/Source Boundary _____ ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	<b>Groundwater Management</b>

A. Protective pipe, top elevation \_\_\_\_\_ ft. MCD  Yes  No

B. Well casing, top elevation 72.88 ft. MCD

C. Land surface elevation 69.8 ft. MCD

D. Surface seal, bottom 68.8 ft. MCD or 1.0 ft.

12. USC classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

13. Sieve analysis attached?  Yes  No

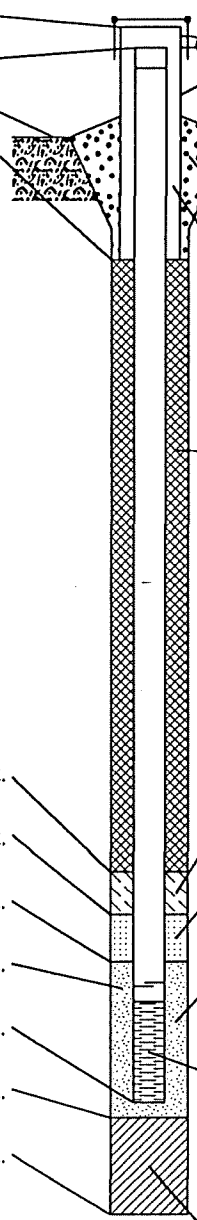
14. Drilling method used: Rotary  5 0  
 Hollow Stem Auger  4 1  
 \_\_\_\_\_ Other

15. Drilling fluid used: Water  0 2 Air  0 1  
 Drilling Mud  0 3 None  9 9

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis):  
 \_\_\_\_\_



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
 a. Inside diameter: 4.0 in.  
 b. Length: 7.0 ft.  
 c. Material: Steel  0 4  
 \_\_\_\_\_ Other

d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  3 0  
 Concrete  0 1  
 \_\_\_\_\_ Other

4. Material between well casing and protective pipe:  
 Bentonite  3 0  
 \_\_\_\_\_ Other

5. Annular space seal:  
 a. Granular Bentonite  3 3  
 b. \_\_\_\_\_ Lbs/gal mud weight . Bentonite-sand slurry  3 5  
 c. \_\_\_\_\_ Lbs/gal mud weight . . . Bentonite slurry  3 1  
 d. \_\_\_\_\_ % Bentonite . . . Bentonite-cement grout  5 0  
 e. 2.4 Ft<sup>3</sup> volume added for any of the above  
 f. How installed: Tremie  0 1  
 Tremie pumped  0 2  
 Gravity  0 8

6. Bentonite seal:  
 a. Bentonite granules  3 3  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  3 2  
 c. \_\_\_\_\_ Pure Gold Medium Chips \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name and mesh size:  
 a. Badger Mining Sandblast Abrasive  
 b. Volume added 0.4 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name and mesh size:  
 a. Red Flint #30  
 b. Volume added 4.61 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  2 3  
 Flush threaded PVC schedule 80  2 4  
 \_\_\_\_\_ Other

10. Screen material: SCH 40 PVC  
 a. Screen Type: Factory cut  1 1  
 Continuous slot  0 1  
 \_\_\_\_\_ Other

b. Manufacturer Timco  
 c. Slot size: 0.010 in.  
 d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None  1 4  
 \_\_\_\_\_ Formation \_\_\_\_\_ Other

E. Bentonite seal, top 68.8 ft. MCD or 1.0 ft.

F. Fine sand, top 62.8 ft. MCD or 7.0 ft.

G. Filter pack, top 61.8 ft. MCD or 8.0 ft.

H. Screen joint, top 59.3 ft. MCD or 10.5 ft.

I. Well bottom 49.3 ft. MCD or 20.5 ft.

J. Filter pack, bottom 49.3 ft. MCD or 20.5 ft.

K. Borehole, bottom 48.8 ft. MCD or 21.0 ft.

L. Borehole, diameter 8.8 in.

M. O.D. well casing 2.37 in.

N. I.D. well casing 2.08 in.

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

Signature [Signature] Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
 2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

Please complete both Forms 4400-113A and 4400-113B and return to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To:

Watershed/Wastewater   
Remediation/Redevelopment

Waste Management   
Other

Facility/Project Name <b>Former Mobile Blasting</b>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>MW99-6</b>
Facility License, Permit or Monitoring No.	Grid Origin Location (Check if estimated: <input type="checkbox"/> ) Lat. _____ " Long. _____ " or	Wis. Unique Well No./DNR Well Number <b>JS304</b>
Facility ID	St. Plane _____ ft. N. _____ ft. E. S/C/N	Date Well Installed <b>02/12/1999</b>
Type of Well <b>Well Code 11/mw</b>	Section Location of Waste/Source <b>SW 1/4 of NW 1/4 of Sec. 1, T. 7 N, R. 21</b> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <b>Jim Grieger</b>
Distance Well Is From Waste/Source Boundary ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	<b>Groundwater Management</b>

A. Protective pipe, top elevation _____ ft. MCD	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>70.12</u> ft. MCD	2. Protective cover pipe: a. Inside diameter: <u>4.0</u> in. b. Length: <u>7.0</u> ft. c. Material: <b>Steel</b> <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>68.7</u> ft. MCD	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom <u>67.7</u> ft. MCD or <u>1.0</u> ft.	3. Surface seal: <b>Bentonite</b> <input type="checkbox"/> 30 <b>Concrete</b> <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
<div style="border: 1px solid black; padding: 5px;"> <p>12. USC classification of soil near screen:                  GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>                  SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/>                  Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): _____</p> </div>	
E. Bentonite seal, top <u>67.7</u> ft. MCD or <u>1.0</u> ft.	4. Material between well casing and protective pipe: <b>Bentonite</b> <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
F. Fine sand, top <u>61.7</u> ft. MCD or <u>7.0</u> ft.	5. Annular space seal: a. Granular Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight . Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite . . . Bentonite-cement grout <input type="checkbox"/> 50 e. <u>2.4</u> Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
G. Filter pack, top <u>60.7</u> ft. MCD or <u>8.0</u> ft.	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. <u>Enviroplug medium chip</u> Other <input checked="" type="checkbox"/>
H. Screen joint, top <u>57.7</u> ft. MCD or <u>11.0</u> ft.	7. Fine sand material: Manufacturer, product name and mesh size a. <u>Badger Mining Sandblast Abrasive</u> b. Volume added <u>0.4</u> ft <sup>3</sup>
I. Well bottom <u>47.7</u> ft. MCD or <u>21.0</u> ft.	8. Filter pack material: Manufacturer, product name and mesh size a. <u>Red Flint #30</u> b. Volume added <u>4.6</u> ft <sup>3</sup>
J. Filter pack, bottom <u>47.7</u> ft. MCD or <u>21.0</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
K. Borehole, bottom <u>47.7</u> ft. MCD or <u>21.0</u> ft.	10. Screen material: <u>SCH 40 PVC</u> a. Screen Type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
L. Borehole, diameter <u>8.8</u> in.	b. Manufacturer <u>Timco</u> c. Slot size: <u>0.010</u> in. d. Slotted length: <u>10.0</u> ft.
M. O.D. well casing <u>2.37</u> in.	11. Backfill material (below filter pack): <b>None</b> <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
N. I.D. well casing <u>2.08</u> in.	

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

Signature [Signature] Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

Please complete both Forms 4400-113A and 4400-113B and return to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduit involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name <b>Former Mobile Blasting</b>	Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.	Well Name <b>MW99-7</b>
Facility License, Permit or Monitoring No.	Grid Origin Location (Check if estimated: <input type="checkbox"/> ) Lat. _____ " Long. _____ " or	Wis. Unique Well No. <b>JS305</b> DNR Well Number
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed <b>02/12/1999</b>
Type of Well <b>Well Code 11/mw</b>	Section Location of Waste/Source <b>SW 1/4 of NW 1/4 of Sec. 1, T. 7 N, R. 21</b> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <b>Jim Grieger</b>
Distance Well Is From Waste/Source Boundary ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	<b>Groundwater Management</b>

A. Protective pipe, top elevation _____ ft. MCD	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>73.38</u> ft. MCD	2. Protective cover pipe: a. Inside diameter: <u>4.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>70.8</u> ft. MCD	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom <u>69.8</u> ft. MCD or <u>1.0</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USC classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight . Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite . . . Bentonite-cement grout <input type="checkbox"/> 50 e. <u>2.6</u> Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. _____ Pure Gold Medium Chips Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size a. <u>Badger Mining Sandblast Abrasive</u> b. Volume added <u>0.4</u> ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size a. <u>Red Flint #30</u> b. Volume added <u>4.6</u> ft <sup>3</sup>
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): _____	10. Screen material: <u>SCH 40 PVC</u> a. Screen Type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> b. Manufacturer <u>Timco</u> c. Slot size: <u>0.010</u> in. d. Slotted length: <u>10.0</u> ft.
E. Bentonite seal, top <u>69.8</u> ft. MCD or <u>1.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
F. Fine sand, top <u>63.8</u> ft. MCD or <u>7.0</u> ft.	
G. Filter pack, top <u>62.8</u> ft. MCD or <u>8.0</u> ft.	
H. Screen joint, top <u>59.8</u> ft. MCD or <u>11.0</u> ft.	
I. Well bottom <u>49.8</u> ft. MCD or <u>21.0</u> ft.	
J. Filter pack, bottom <u>49.8</u> ft. MCD or <u>21.0</u> ft.	
K. Borehole, bottom <u>49.8</u> ft. MCD or <u>21.0</u> ft.	
L. Borehole, diameter <u>8.8</u> in.	
M. O.D. well casing <u>2.37</u> in.	
N. I.D. well casing <u>2.08</u> in.	

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

Signature [Signature] Firm **URS Greiner Woodward Clyde** Tel: 414/513-0577  
2312 North Grandview Blvd., Suite 210 Waukesha, WI 53188 Fax: 414/513-0575

Please complete both Forms 4400-113A and 4400-113B and return to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>	County <b>Milwaukee</b>	Well Name <b>MW99-4</b>	
Facility License, Permit or Monitoring Number	County Code <b>41</b>	Wis. Unique Well Number <b>JS302</b>	DNR Well Number

1. Can this well be purged dry?  Yes  No

2. Well development method:
- surged with bailer and bailed  4 1
  - surged with bailer and pumped  6 1
  - surged with block and bailed  4 2
  - surged with block and pumped  6 2
  - surged with block, bailed, and pumped  7 0
  - compressed air  2 0
  - bailed only  1 0
  - pumped only  5 1
  - pumped slowly  5 0
  - other

3. Time spent developing well **90.0 min.**

4. Depth of well (from top of well casing) **20.5 ft.**

5. Inside diameter of well **2.08 in.**

6. Volume of water in filter pack and well casing **gal.**

7. Volume of water removed from well **40.0 gal.**

8. Volume of water added (if any) **0.0 gal.**

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <b>16.40 ft.</b>	<b>16.80 ft.</b>
Date	b. <b>02/15/1999</b>	<b>02/15/1999</b>
Time	c. <b>09:00 am</b>	<b>10:30 am</b>
12. Sediment in well bottom	<b>0.0 inches</b>	<b>0.0 inches</b>
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids **mg/l** **mg/l**

15. COD **mg/l** **mg/l**

16. Well developed by: Person's Name and Firm

**Jim Grieger**  
**Groundwater Management**

Facility Address or Owner/Responsible Party Address

Name: Bob Cigale

Firm: URS Greiner Woodward Clyde

Street: 2312 N. Grandview Blvd, Suite 210

City/State/Zip: Waukesha, WI 53188

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

Signature:

Print Name: ROBERT CIGALE

Firm: URS Greiner Woodward Clyde

NOTE: See instructions for more information including a list of county codes and well type codes.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>	County <b>Milwaukee</b>	Well Name <b>MW99-5</b>	
Facility License, Permit or Monitoring Number	County Code <b>41</b>	Wis. Unique Well Number <b>JS303</b>	DNR Well Number

1. Can this well be purged dry?  Yes  No

2. Well development method:
- surged with bailer and bailed  4 1
  - surged with bailer and pumped  6 1
  - surged with block and bailed  4 2
  - surged with block and pumped  6 2
  - surged with block, bailed, and pumped  7 0
  - compressed air  2 0
  - bailed only  1 0
  - pumped only  5 1
  - pumped slowly  5 0
  - other \_\_\_\_\_

3. Time spent developing well **90.0 min.**

4. Depth of well (from top of well casing) **21.0 ft.**

5. Inside diameter of well **2.08 in.**

6. Volume of water in filter pack and well casing **gal.**

7. Volume of water removed from well **30.0 gal.**

8. Volume of water added (if any) **0.0 gal.**

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 15.60 ft.	18.00 ft.
Date	b. 02/15/1999	02/15/1999
Time	c. 09:00 am	10:30 am
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm

**Jim Grieger**  
**Groundwater Management**

Facility Address or Owner/Responsible Party Address

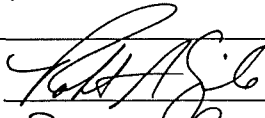
Name: Bob Cigale

Firm: URS Greiner Woodward Clyde

Street: 2312 N. Grandview Blvd, Suite 210

City/State/Zip: Waukesha, WI 53188

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


Signature: 

Print Name: BOB CIGALE

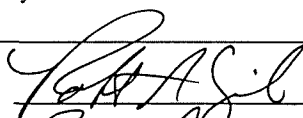
Firm: URS Greiner Woodward Clyde

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>	County <b>Milwaukee</b>	Well Name <b>MW99-6</b>	
Facility License, Permit or Monitoring Number	County Code <b>41</b>	Wis. Unique Well Number <b>JS304</b>	DNR Well Number

<p>1. Can this well be purged dry? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Well development method:</p> <p>surged with bailer and bailed <input type="checkbox"/> 4 1</p> <p>surged with bailer and pumped <input type="checkbox"/> 6 1</p> <p>surged with block and bailed <input type="checkbox"/> 4 2</p> <p>surged with block and pumped <input type="checkbox"/> 6 2</p> <p>surged with block, bailed, and pumped <input type="checkbox"/> 7 0</p> <p>compressed air <input type="checkbox"/> 2 0</p> <p>bailed only <input checked="" type="checkbox"/> 1 0</p> <p>pumped only <input type="checkbox"/> 5 1</p> <p>pumped slowly <input type="checkbox"/> 5 0</p> <p>other _____ <input type="checkbox"/> </p> <p>3. Time spent developing well <b>50.0 min.</b></p> <p>4. Depth of well (from top of well casing) <b>21.0 ft.</b></p> <p>5. Inside diameter of well <b>2.08 in.</b></p> <p>6. Volume of water in filter pack and well casing _____ gal.</p> <p>7. Volume of water removed from well <b>30.0 gal.</b></p> <p>8. Volume of water added (if any) <b>0.0 gal.</b></p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	<table border="1"> <thead> <tr> <th></th> <th>Before Development</th> <th>After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>a. <b>15.90 ft.</b></td> <td><b>18.00 ft.</b></td> </tr> <tr> <td>Date</td> <td>b. <b>02/15/1999</b></td> <td><b>02/15/1999</b></td> </tr> <tr> <td>Time</td> <td>c. <b>11:00 am</b></td> <td><b>12:00 pm</b></td> </tr> <tr> <td>12. Sediment in well bottom</td> <td><b>0.0 inches</b></td> <td><b>0.0 inches</b></td> </tr> <tr> <td>13. Water clarity</td> <td>Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)</td> <td>Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe)</td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td colspan="3">16. Well developed by: Person's Name and Firm <b>Jim Grieger</b> <b>Groundwater Management</b></td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	a. <b>15.90 ft.</b>	<b>18.00 ft.</b>	Date	b. <b>02/15/1999</b>	<b>02/15/1999</b>	Time	c. <b>11:00 am</b>	<b>12:00 pm</b>	12. Sediment in well bottom	<b>0.0 inches</b>	<b>0.0 inches</b>	13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe)	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l	16. Well developed by: Person's Name and Firm <b>Jim Grieger</b> <b>Groundwater Management</b>		
	Before Development	After Development																													
11. Depth to Water (from top of well casing)	a. <b>15.90 ft.</b>	<b>18.00 ft.</b>																													
Date	b. <b>02/15/1999</b>	<b>02/15/1999</b>																													
Time	c. <b>11:00 am</b>	<b>12:00 pm</b>																													
12. Sediment in well bottom	<b>0.0 inches</b>	<b>0.0 inches</b>																													
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe)	Clear <input checked="" type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe)																													
Fill in if drilling fluids were used and well is at solid waste facility:																															
14. Total suspended solids	_____ mg/l	_____ mg/l																													
15. COD	_____ mg/l	_____ mg/l																													
16. Well developed by: Person's Name and Firm <b>Jim Grieger</b> <b>Groundwater Management</b>																															

17. Additional comments on development:

Facility Address or Owner/Responsible Party Address	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>Bob Cigale</u>	Signature: 
Firm: <u>URS Greiner Woodward Clyde</u>	Print Name: <u>Robert Cigale</u>
Street: <u>2312 N. Grandview Blvd, Suite 210</u>	Firm: <u>URS Greiner Woodward Clyde</u>
City/State/Zip: <u>Waukesha, WI 53188</u>	

NOTE: See instructions for more information including a list of county codes and well type codes.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Mobile Blasting</b>	County <b>Milwaukee</b>	Well Name <b>MW99-7</b>	
Facility License, Permit or Monitoring Number	County Code <b>41</b>	Wis. Unique Well Number <b>JS305</b>	DNR Well Number

1. Can this well be purged dry?  Yes  No
2. Well development method:
- surged with bailer and bailed  41
  - surged with bailer and pumped  61
  - surged with block and bailed  42
  - surged with block and pumped  62
  - surged with block, bailed, and pumped  70
  - compressed air  20
  - bailed only  10
  - pumped only  51
  - pumped slowly  50
  - other
3. Time spent developing well **50.0 min.**
4. Depth of well (from top of well casing) **21.0 ft.**
5. Inside diameter of well **2.08 in.**
6. Volume of water in filter pack and well casing **gal.**
7. Volume of water removed from well **1.0 gal.**
8. Volume of water added (if any) **0.0 gal.**
9. Source of water added \_\_\_\_\_
10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 19.00 ft.	19.00 ft.
Date	b. 02/15/1999	02/15/1999
Time	c. 11:00 am	12:00 pm
12. Sediment in well bottom	0.0 inches	0.0 inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe)	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Person's Name and Firm  
**Jim Grieger**  
**Groundwater Management**

17. Additional comments on development:  
**Well contains pure product.**

Facility Address or Owner/Responsible Party Address

Name: Bob Cigale

Firm: URS Greiner Woodward Clyde

Street: 2312 N. Grandview Blvd, Suite 210

City/State/Zip: Waukesha, WI 53188

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

Signature:

Print Name: Bob Cigale

Firm: URS Greiner Woodward Clyde

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or NR 141, Wis. Adm. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> <u>Former MOBILE BLASTING</u>	
Well/Drillhole/Borehole Location	County <u>MILWAUKEE</u>	Original Well Owner (If Known) <u>REAL ESTATE RECYCLING</u>	
SW <u>1/4</u> of NW <u>1/4</u> of Sec. <u>1</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner <u>REAL ESTATE RECYCLING</u>	
(If applicable) Gov't Lot _____ Grid Number _____		Street or Route <u>60 SOUTH SIXTH STREET</u>	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code <u>MINNEAPOLIS, MN 55402</u>	
Civil Town Name <u>VILLAGE OF WEST MILWAUKEE</u>		Facility Well No. and/or Name (If Applicable) <u>GT-1</u>	WI Unique Well No. _____
Street Address of Well <u>1604 SOUTH 43<sup>RD</sup> STREET</u>		Reason For Abandonment <u>INVESTIGATION COMPLETE</u>	
City, Village <u>VILLAGE OF WEST MILWAUKEE</u>		Date of Abandonment <u>2/10/99</u>	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>		<b>(4) Depth to Water (Feet)</b> <u>14'</u>	
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>2/10/99</u>		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>INVESTIGATIVE BOREHOLE - NO CASINGS INSTALLED</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		<b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock Total Well Depth (ft.) <u>15</u> <sup>Borehole</sup> Casing Diameter (in.) <u>N/A</u> (From ground surface) Casing Depth (ft.) <u>N/A</u> Lower Drillhole Diameter (in.) <u>6</u>		<b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? <u>N/A</u> Feet			

(7) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight
<u>CHIPPED BENTONITE</u>	<u>Surface</u>	<u>15</u> <u>24</u>	<u>3 SACKS</u>		

(8) Comments: \_\_\_\_\_

(9) Name of Person or Firm Doing Sealing Work  
URS GREINER WOODWARD CYRE

Signature of Person Doing Work [Signature] Date Signed 4/19/99

Street or Route 2312 N. GRANDVIEW BLVD. Telephone Number (414) 573 0577

City, State, Zip Code WAUWATOSA, WI 53188

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or NR 141, Wis. Adm. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> <u>FORMER MOBILE BASTING</u>	
Well/Drillhole/Borehole Location	County <u>MILWAUKEE</u>	Original Well Owner (If Known) <u>REAL ESTATE RECYCLING</u>	
<u>SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner <u>REAL ESTATE RECYCLING</u>	
(If applicable) Gov't Lot _____ Grid Number _____		Street or Route <u>60 SOUTH SIXTH STREET</u>	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code <u>MINNEAPOLIS, MN 55402</u>	
Civil Town Name <u>VILLAGE OF WEST MILWAUKEE</u>		Facility Well No. and/or Name (If Applicable) <u>GT-2</u>	WI Unique Well No. _____
Street Address of Well <u>1604 SOUTH 43<sup>RD</sup> STREET</u>		Reason For Abandonment <u>INVESTIGATION COMPLETE</u>	
City, Village <u>VILLAGE OF WEST MILWAUKEE</u>		Date of Abandonment <u>2/10/99</u>	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>2/10/99</u>		<b>(4) Depth to Water (Feet)</b> <u>3'</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain <u>INVESTIGATIVE BOREHOLE - NO CASING INSTALLED</u>	
Construction Report Available? <input type="checkbox"/> Yes <input type="checkbox"/> No		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		<b>(5) Required Method of Placing Sealing Material</b>	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Total Well Depth (ft.) <u>15</u> Casing Diameter (in.) <u>N/A</u> (From ground surface) Casing Depth (ft.) <u>N/A</u>		<b>(6) Sealing Materials</b>	
Lower Drillhole Diameter (in.) <u>6</u>		For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? <u>N/A</u> Feet		<input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout	

(7) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight
<u>CHIPPED BENTONITE</u>	<u>Surface</u>	<u>15</u>	<u>3 SACKS</u>		

(8) Comments: \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS EYEMER WOODWARD CLARKE

Signature of Person Doing Work <u>[Signature]</u>	Date Signed <u>4/19/99</u>
Street or Route <u>2312 N. GRANVIEW BLVD</u>	Telephone Number <u>(414) 513 0577</u>
City, State, Zip Code <u>WAUKESHA, WI 53188</u>	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or NR 141, Wis. Adm. Code, whichever is applicable. Also, see instructions on back.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> <u>former mobile BLASTING</u>	
Well/Drillhole/Borehole Location	County <u>MILWAUKEE</u>	Original Well Owner (If Known) <u>REAL ESTATE RECYCLING</u>	
<u>SW</u> 1/4 of <u>NW</u> 1/4 of Sec. <u>1</u> ; T. <u>7</u> N.; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner <u>REAL ESTATE RECYCLING</u>	
(If applicable) Gov't Lot _____ Grid Number _____		Street or Route <u>60 SOUTH SIXTH STREET</u>	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code <u>MINNEAPOLIS, MN 55402</u>	
Civil/Town Name <u>VILLAGE OF WEST MILWAUKEE</u>		Facility Well No. and/or Name (If Applicable) <u>GT-3</u>	WI Unique Well No. _____
Street Address of Well <u>1604 SOUTH 43RD STREET</u>		Reason For Abandonment <u>INVESTIGATION COMPLETE</u>	
City, Village <u>VILLAGE OF WEST MILWAUKEE</u>		Date of Abandonment <u>2/10/99</u>	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>2/10/99</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input type="checkbox"/> Yes <input type="checkbox"/> No
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth (ft.) <u>15</u> Casing Diameter (in.) <u>N/A</u> (From ground surface) Casing Depth (ft.) <u>N/A</u>	
Lower Drillhole Diameter (in.) <u>6</u>	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? <u>N/A</u> Feet	
<b>(4) Depth to Water (Feet)</b> <u>4</u>	
Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>INVESTIGATIVE BOREHOLE - NO CASING INSTALLED</u>	
Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>(5) Required Method of Placing Sealing Material</b>	
<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
<b>(6) Sealing Materials</b>	
<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite	For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Cement Grout

(7) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume (Circle One)	Mix Ratio or Mud Weight
<u>CHIPPED BENTONITE</u>	<u>Surface</u>	<u>15</u>	<u>3 SACKS</u>	

(8) Comments: \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS GREINER WOODWARD Clyde  
 Signature of Person Doing Work \_\_\_\_\_ Date Signed 4/19/99  
 Street or Route \_\_\_\_\_ Telephone Number (414) 513 0577  
2312 N. GRANDVIEW RD  
 City, State, Zip Code WAUKESHA, WI 53188

<b>(10) FOR DNR OR COUNTY USE ONLY</b>	
Date Received/Inspected _____	District/County _____
Reviewer/Inspector _____	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary _____	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 E (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot _____ Grid Number _____		Street or Route 60 South Sixth Street	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-1	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/10/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/10/99  <input type="checkbox"/> Monitoring Well <input type="checkbox"/> Construction Report Available? <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole  Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____  Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock  Total Well Depth (ft) 9.0                      Casing Diameter (in.) _____ (From ground surface)                      Casing Depth (ft.) NA  Lower Drillhole Diameter (in.) 2.0  Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet		<b>(4) Depth to Water (Feet)</b> NW Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u>  Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
		<b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)	
		<b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout <input checked="" type="checkbox"/> Chipped Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Chipped Bentonite	Surface	9.0	1/8 sacks	

(8) Comments \_\_\_\_\_

<b>(9) Name of Person or Firm Doing Sealing Work</b> URS Greiner Woodward Clyde	
Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 E (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot	Grid Number	Street or Route 60 South Sixth Street	
Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S., ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-2	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/10/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/10/99	<b>(4) Depth to Water (Feet)</b> 18.0
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u>
Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	<b>(5) Required Method of Placing Sealing Material</b>
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	<input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____
Total Well Depth (ft) 20.0 Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) NA	<b>(6) Sealing Materials</b>
Lower Drillhole Diameter (in.) 2.0	For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout <input checked="" type="checkbox"/> Chipped Bentonite
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 W (If Applicable)		Present Well Owner Real Estate Recycling	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Street or Route 60 South Sixth Street	
Civil Town Name Village of West Milwaukee		City, State, Zip Code Minneapolis, MN 55402	
Street Address of Well 1604 South 43rd Street		Facility Well No. and/or Name (If Applicable) GP99-3	WI Unique Well No.
City, Village Village of West Milwaukee		Reason For Abandonment Investigation complete	
		Date of Abandonment 02/10/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/10/99	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth (ft) 20.0 Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) NA	
Lower Drillhole Diameter (in.) 2.0	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	
<b>(4) Depth to Water (Feet) NW</b>	
Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain Investigative borehole, no casing installed	
Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>(5) Required Method of Placing Sealing Material</b>	
<input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
<b>(6) Sealing Materials</b>	
<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite	For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

**(8) Comments** \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 E (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot	Grid Number	Street or Route 60 South Sixth Street	
Grid Location ft. N. S. ft. E. W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-4	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/10/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/10/99</p> <p><input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole</p> <p>Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify)</p> <p>Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock</p> <p>Total Well Depth (ft) 20.0 Casing Diameter (in.) (From ground surface) Casing Depth (ft.) NA</p> <p>Lower Drillhole Diameter (in.) 2.0</p> <p>Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? Feet</p>	<p><b>(4) Depth to Water (Feet)</b> 16.0</p> <p>Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain Investigative borehole, no casing installed</p> <p>Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)</p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p><input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite</p> <p><input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout</p>

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

(8) Comments

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work: *[Signature]* Date Signed: 4/19/99

Street or Route: 2312 North Grandview Blvd., Suite 210 Telephone Number: (414)513-0577

City, State, Zip Code: Waukesha, WI 53188

FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	



All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot	Grid Number	Street or Route 60 South Sixth Street	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-5	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/10/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/10/99</p> <p><input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole</p> <p>Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____</p> <p>Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock</p> <p>Total Well Depth (ft) 9.5 Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) NA</p> <p>Lower Drillhole Diameter (in.) 2.0</p> <p>Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet</p>	<p><b>(4) Depth to Water (Feet)</b> NW</p> <p>Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain Investigative borehole, no casing installed</p> <p>Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)</p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p><input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite</p> <p><input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout</p>

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	9.5	1/8 sacks

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

(1) GENERAL INFORMATION		(2) FACILITY NAME <u>Former Mobile Blasting</u>	
Well/Drillhole/Borehole Location	County <u>Milwaukee</u>	Original Well Owner (If Known) <u>Real Estate Recycling</u>	
<u>SW</u> 1/4 of <u>NW</u> 1/4 of Sec. <u>1</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner <u>Real Estate Recycling</u>	
Gov't Lot	Grid Number	Street or Route <u>60 South Sixth Street</u>	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code <u>Minneapolis, MN 55402</u>	
Civil Town Name <u>Village of West Milwaukee</u>		Facility Well No. and/or Name (If Applicable) <u>GP99-6</u>	WI Unique Well No.
Street Address of Well <u>1604 South 43rd Street</u>		Reason For Abandonment <u>Investigation complete</u>	
City, Village <u>Village of West Milwaukee</u>		Date of Abandonment <u>02/10/99</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION

(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>2/9/99</u>	<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(4) Depth to Water (Feet) <u>17.5</u>
			Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u>
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	(5) Required Method of Placing Sealing Material <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____		
Total Well Depth (ft) <u>20.0</u> Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) <u>NA</u>	(6) Sealing Materials For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout <input checked="" type="checkbox"/> Chipped Bentonite		
Lower Drillhole Diameter (in.) <u>2.0</u>	Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet		

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

(8) Comments \_\_\_\_\_

(9) Name of Person or Firm Doing Sealing Work  
URS Greiner Woodward Clyde

Signature of Person Doing Work 	Date Signed <u>4/19/99</u>
Street or Route <u>2312 North Grandview Blvd., Suite 210</u>	Telephone Number <u>(414)513-0577</u>
City, State, Zip Code <u>Waukesha, WI 53188</u>	

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot	Grid Number	Street or Route 60 South Sixth Street	
Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S., ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-7	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/09/99	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/9/99		<b>(4) Depth to Water (Feet)</b> 15.0	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole	Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u>	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify)		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		<b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)	
Total Well Depth (ft) 20.0 Casing Diameter (in.) (From ground surface) Casing Depth (ft.) NA		<b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout	
Lower Drillhole Diameter (in.) 2.0			
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? Feet			

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

(8) Comments

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde  
Signature of Person Doing Work: *[Signature]* Date Signed: 4/19/99  
Street or Route: 2312 North Grandview Blvd., Suite 210 Telephone Number: (414)513-0577  
City, State, Zip Code: Waukesha, WI 53188

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot _____ Grid Number _____		Street or Route 60 South Sixth Street	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-8	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/09/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/9/99</p> <p><input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole</p> <p>Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____</p> <p>Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock</p> <p>Total Well Depth (ft) 24.0 Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) NA</p> <p>Lower Drillhole Diameter (in.) 2.0</p> <p>Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet</p>	<p><b>(4) Depth to Water (Feet)</b> 21.0</p> <p>Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u></p> <p>Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain)</p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p><input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite</p> <p><input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout</p>

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	21.0	1/4 bag

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work 	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. <u>1</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot _____ Grid Number _____ Street or Route 60 South Sixth Street		City, State, Zip Code Minneapolis, MN 55402	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Facility Well No. and/or Name (If Applicable) GP99-9	
Civil Town Name Village of West Milwaukee		WI Unique Well No.	
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/09/99	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>2/9/99</u>		(4) Depth to Water (Feet) <u>18.0</u>	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u>	
Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____		(5) Required Method of Placing Sealing Material <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		(6) Sealing Materials For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout <input checked="" type="checkbox"/> Chipped Bentonite	
Total Well Depth (ft) <u>20.0</u> Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) <u>NA</u>			
Lower Drillhole Diameter (in.) <u>2.0</u>			
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet			

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

(8) Comments \_\_\_\_\_

(9) Name of Person or Firm Doing Sealing Work  
**URS Greiner Woodward Clyde**  
 Signature of Person Doing Work \_\_\_\_\_ Date Signed 4/19/99  
 Street or Route \_\_\_\_\_ Telephone Number \_\_\_\_\_  
2312 North Grandview Blvd., Suite 210  
 City, State, Zip Code \_\_\_\_\_  
Waukesha, WI 53188

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected _____	District/County _____
Reviewer/Inspector _____	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary _____	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 E (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot _____ Grid Number _____		Street or Route 60 South Sixth Street	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-10	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/09/99	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

**(3) Original Well/Drillhole/Borehole Construction Completed On**  
(Date) 2/9/99

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) 20.0 Casing Diameter (in.) \_\_\_\_\_  
(From ground surface) Casing Depth (ft.) NA

Lower Drillhole Diameter (in.) 2.0

Was Well Annular Space Grouted?  Yes  No  Unknown  
If Yes, To What Depth? \_\_\_\_\_ Feet

**(4) Depth to Water (Feet)** 16.0

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  
If No, Explain Investigative borehole, no casing installed

Was Casing Cut Off Below Surface?  Yes  No  
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.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	20.0	1/4 sacks

**(8) Comments** \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known)	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 E (If Applicable)		Present Well Owner	
Gov't Lot _____ Grid Number _____		Street or Route	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-11	WI Unique Well No.
Street Address of Well		Reason For Abandonment	
City, Village Village of West Milwaukee		Date of Abandonment	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>	
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) 2/9/99	<b>(4) Depth to Water (Feet)</b> _____
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input type="checkbox"/> Borehole	Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable Casing Left in Place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, Explain _____
Construction Report Available? <input type="checkbox"/> Yes <input type="checkbox"/> No	Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____	<b>(5) Required Method of Placing Sealing Material</b> <input type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____
Formation Type: <input type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	<b>(6) Sealing Materials</b> <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Chipped Bentonite
Total Well Depth (ft) 0.5 Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) _____	For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout
Lower Drillhole Diameter (in.) 2.0	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Surface			

(8) Comments \_\_\_\_\_

(9) Name of Person or Firm Doing Sealing Work  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. <u>1</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot _____ Grid Number _____ Street or Route 60 South Sixth Street		City, State, Zip Code Minneapolis, MN 55402	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Facility Well No. and/or Name (If Applicable) GP99-12	
Civil Town Name Village of West Milwaukee		WI Unique Well No.	
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 02/09/99	

<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>2/9/99</u></p> <p> <input type="checkbox"/> Monitoring Well  <input type="checkbox"/> Water Well  <input type="checkbox"/> Drillhole  <input checked="" type="checkbox"/> Borehole                 </p> <p>                 Construction Report Available?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No             </p> <p>                 Construction Type:  <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug  <input type="checkbox"/> Other (Specify) _____             </p> <p>                 Formation Type:  <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock             </p> <p>                 Total Well Depth (ft) <u>10.0</u> Casing Diameter (in.) _____                  (From ground surface) Casing Depth (ft.) <u>NA</u> </p> <p>                 Lower Drillhole Diameter (in.) <u>2.0</u> </p> <p>                 Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown                  If Yes, To What Depth? _____ Feet             </p>	<p><b>(4) Depth to Water (Feet)</b> <u>NW</u></p> <p>                 Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable                  Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable                  Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable                  Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  If No, Explain <u>Investigative borehole, no casing installed</u> </p> <p>                 Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                  Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No             </p> <p><b>(5) Required Method of Placing Sealing Material</b></p> <p> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped  <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____             </p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p> <input type="checkbox"/> Neat Cement Grout  <input type="checkbox"/> Sand-Cement (Concrete) Grout  <input type="checkbox"/> Concrete  <input type="checkbox"/> Clay-Sand Slurry  <input type="checkbox"/> Bentonite-Sand Slurry  <input checked="" type="checkbox"/> Chipped Bentonite                 </p> <p> <input type="checkbox"/> Bentonite Pellets  <input type="checkbox"/> Granular Bentonite  <input type="checkbox"/> Bentonite-Cement Grout             </p>
---	---

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	10.0	1/8 sacks

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	



All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 W <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Grid Location Gov't Lot _____ Grid Number _____		Street or Route 60 South Sixth Street	
_____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code Minneapolis, MN 55402	
Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-13	WI Unique Well No.
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 03/29/99	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>3/29/99</u></p> <p><input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole</p> <p>Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____</p> <p>Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock</p> <p>Total Well Depth (ft) <u>24.0</u> Casing Diameter (in.) _____ (From ground surface) Casing Depth (ft.) <u>NA</u></p> <p>Lower Drillhole Diameter (in.) <u>2.0</u></p> <p>Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet</p>	<p><b>(4) Depth to Water (Feet)</b> <u>19.0</u></p> <p>Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u></p> <p>Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____</p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p><input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout <input checked="" type="checkbox"/> Chipped Bentonite</p>
---	--

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	19.0	1/2 sacks

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. <u>1</u> ; T. <u>7</u> N.; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner Real Estate Recycling	
Gov't Lot _____ Grid Number _____ Street or Route 60 South Sixth Street		City, State, Zip Code Minneapolis, MN 55402	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W. Civil Town Name Village of West Milwaukee		Facility Well No. and/or Name (If Applicable) GP99-14	
Street Address of Well 1604 South 43rd Street		Reason For Abandonment Investigation complete	
City, Village Village of West Milwaukee		Date of Abandonment 03/29/99	

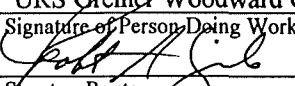
**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>3/29/99</u></p> <p> <input type="checkbox"/> Monitoring Well  <input type="checkbox"/> Water Well  <input type="checkbox"/> Drillhole  <input checked="" type="checkbox"/> Borehole                 </p> <p>                 Construction Report Available?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No             </p> <p>                 Construction Type:  <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug  <input type="checkbox"/> Other (Specify) _____             </p> <p>                 Formation Type:  <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock             </p> <p>                 Total Well Depth (ft) <u>24.0</u> Casing Diameter (in.) _____                  (From ground surface) Casing Depth (ft.) <u>NA</u> </p> <p>                 Lower Drillhole Diameter (in.) <u>2.0</u> </p> <p>                 Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown                  If Yes, To What Depth? _____ Feet             </p>	<p><b>(4) Depth to Water (Feet)</b> <u>20.5</u></p> <p>                 Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable                  Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable                  Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable                  Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  If No, Explain <u>Investigative borehole, no casing installed</u> </p> <p>                 Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                  Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                  If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No             </p> <p><b>(5) Required Method of Placing Sealing Material</b></p> <p> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped  <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____             </p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p> <input type="checkbox"/> Neat Cement Grout  <input type="checkbox"/> Sand-Cement (Concrete) Grout  <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets  <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite  <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout  <input checked="" type="checkbox"/> Chipped Bentonite             </p>
--	--

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	24.0	1/2 sacks

**(8) Comments** \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work 	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> <u>Former Mobile Blasting</u>	
Well/Drillhole/Borehole Location	County <u>Milwaukee</u>	Original Well Owner (If Known) <u>Real Estate Recycling</u>	
<u>SW</u> 1/4 of <u>NW</u> 1/4 of Sec. <u>1</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If Applicable)		Present Well Owner <u>Real Estate Recycling</u>	
Gov't Lot _____ Grid Number _____ Street or Route <u>60 South Sixth Street</u>		City, State, Zip Code <u>Minneapolis, MN 55402</u>	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Facility Well No. and/or Name (If Applicable) <u>GP99-15</u>	
Civil Town Name <u>Village of West Milwaukee</u>		WI Unique Well No.	
Street Address of Well <u>1604 South 43rd Street</u>		Reason For Abandonment <u>Investigation complete</u>	
City, Village <u>Village of West Milwaukee</u>		Date of Abandonment <u>03/29/99</u>	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>3/29/99</u></p> <p> <input type="checkbox"/> Monitoring Well  <input type="checkbox"/> Water Well  <input type="checkbox"/> Drillhole  <input checked="" type="checkbox"/> Borehole       </p> <p>Construction Report Available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Construction Type:  <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug  <input type="checkbox"/> Other (Specify) _____       </p> <p>Formation Type:  <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock       </p> <p>Total Well Depth (ft) <u>24.0</u> Casing Diameter (in.) _____          (From ground surface) Casing Depth (ft.) <u>NA</u></p> <p>Lower Drillhole Diameter (in.) <u>2.0</u></p> <p>Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown          If Yes, To What Depth? _____ Feet</p>	<p><b>(4) Depth to Water (Feet)</b> <u>18.0</u></p> <p> <input type="checkbox"/> Pump &amp; Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable  <input type="checkbox"/> Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable  <input type="checkbox"/> Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable  <input type="checkbox"/> Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No          If No, Explain <u>Investigative borehole, no casing installed</u> </p> <p> <input type="checkbox"/> Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input checked="" type="checkbox"/> Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No       </p> <p><b>(5) Required Method of Placing Sealing Material</b>  <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped  <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____       </p> <p><b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only</p> <p> <input type="checkbox"/> Neat Cement Grout  <input type="checkbox"/> Sand-Cement (Concrete) Grout  <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets  <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Granular Bentonite  <input type="checkbox"/> Bentonite-Sand Slurry <input type="checkbox"/> Bentonite-Cement Grout  <input checked="" type="checkbox"/> Chipped Bentonite       </p>
---	---

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight
Chipped Bentonite	Surface	24.0	1/2 sacks

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
URS Greiner Woodward Clyde

Signature of Person Doing Work: [Signature] Date Signed: 4/17/99

Street or Route: 2312 North Grandview Blvd., Suite 210 Telephone Number: (414)513-0577  
 City, State, Zip Code: Waukesha, WI 53188

**(10) FOR DNR OR COUNTY USE ONLY**

Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
SW 1/4 of NW 1/4 of Sec. 1 ; T. 7 N; R. 21 E (If Applicable)		Present Well Owner Real Estate Recycling	
Grid Location Gov't Lot _____ Grid Number _____		Street or Route 60 South Sixth Street	
City, State, Zip Code Minneapolis, MN 55402		Facility Well No. and/or Name (If Applicable) GP99-16	
Civil Town Name Village of West Milwaukee		Reason For Abandonment Investigation complete	
Street Address of Well 1604 South 43rd Street		Date of Abandonment 03/29/99	
City, Village Village of West Milwaukee		WI Unique Well No.	

<b>WELL/DRILLHOLE/BOREHOLE INFORMATION</b>			
<b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>3/29/99</u>  <input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole  Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (Specify) _____  Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock  Total Well Depth (ft) <u>24.0</u> Casing Diameter (in.) _____ (From ground surface)      Casing Depth (ft.) <u>NA</u>  Lower Drillhole Diameter (in.) <u>2.0</u>  Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, To What Depth? _____ Feet	<b>(4) Depth to Water (Feet)</b> <u>19.5</u> Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable Casing Left in Place? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, Explain <u>Investigative borehole, no casing installed</u>  Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Did Sealing Material Rise to Surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No		
		<b>(5) Required Method of Placing Sealing Material</b> <input checked="" type="checkbox"/> Conductor Pipe - Gravity <input type="checkbox"/> Conductor Pipe - Pumped <input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____  <b>(6) Sealing Materials</b> For monitoring wells and monitoring well boreholes only <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Clay-Sand Slurry <input type="checkbox"/> Bentonite-Sand Slurry <input checked="" type="checkbox"/> Chipped Bentonite <input type="checkbox"/> Bentonite Pellets <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite-Cement Grout	

(7) Sealing Material Used	From (Ft.)	To (Ft.)		Mix Ratio or Mud Weight
Chipped Bentonite	Surface	24.0	2 sacks	

(8) Comments \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
 URS Greiner Woodward Clyde  
 Signature of Person Doing Work \_\_\_\_\_ Date Signed 4/17/99  
 Street or Route \_\_\_\_\_ Telephone Number (414)513-0577  
2312 North Grandview Blvd., Suite 210  
 City, State, Zip Code \_\_\_\_\_  
Waukesha, WI 53188

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected _____	District/County _____
Reviewer/Inspector _____	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary _____	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 811, NR 812 or 141, Wis. Admin. Code, whichever is applicable.

<b>(1) GENERAL INFORMATION</b>		<b>(2) FACILITY NAME</b> Former Mobile Blasting	
Well/Drillhole/Borehole Location	County Milwaukee	Original Well Owner (If Known) Real Estate Recycling	
(If Applicable) <u>SW</u> 1/4 of <u>NW</u> 1/4 of Sec. <u>1</u> ; T. <u>7</u> N; R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W Gov't Lot _____ Grid Number _____		Present Well Owner Real Estate Recycling	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Street or Route 60 South Sixth Street	
Civil Town Name Village of West Milwaukee		City, State, Zip Code Minneapolis, MN 55402	
Street Address of Well 1604 South 43rd Street		Facility Well No. and/or Name (If Applicable) GP99-17	WI Unique Well No.
City, Village Village of West Milwaukee		Reason For Abandonment Investigation complete	
		Date of Abandonment 03/29/99	

**WELL/DRILLHOLE/BOREHOLE INFORMATION**

<p><b>(3) Original Well/Drillhole/Borehole Construction Completed On</b> (Date) <u>3/29/99</u></p> <p> <input type="checkbox"/> Monitoring Well      Construction Report Available?  <input type="checkbox"/> Water Well                      <input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No  <input type="checkbox"/> Drillhole  <input checked="" type="checkbox"/> Borehole             </p> <p>Construction Type:  <input checked="" type="checkbox"/> Drilled                      <input type="checkbox"/> Driven (Sandpoint)    <input type="checkbox"/> Dug  <input type="checkbox"/> Other (Specify) _____             </p> <p>Formation Type:  <input checked="" type="checkbox"/> Unconsolidated Formation                      <input type="checkbox"/> Bedrock             </p> <p>Total Well Depth (ft) <u>24.0</u>      Casing Diameter (in.) _____                  (From ground surface)                      Casing Depth (ft.) <u>NA</u></p> <p>Lower Drillhole Diameter (in.) <u>2.0</u></p> <p>Was Well Annular Space Grouted?    <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Unknown                  If Yes, To What Depth? _____ Feet</p>	<p><b>(4) Depth to Water (Feet)</b> <u>19.5</u></p> <p>                 Pump &amp; Piping Removed?    <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not Applicable                  Liner(s) Removed?            <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not Applicable                  Screen Removed?              <input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> Not Applicable                  Casing Left in Place?        <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No                  If No, Explain <u>Investigative borehole, no casing installed</u> </p> <hr/> <p>Was Casing Cut Off Below Surface?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No                  Did Sealing Material Rise to Surface?    <input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No                  Did Material Settle After 24 Hours?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No                  If Yes, Was Hole Retopped?            <input type="checkbox"/> Yes    <input type="checkbox"/> No</p>
<p><b>(5) Required Method of Placing Sealing Material</b>  <input checked="" type="checkbox"/> Conductor Pipe - Gravity    <input type="checkbox"/> Conductor Pipe - Pumped  <input type="checkbox"/> Dump Bailer                      <input type="checkbox"/> Other (Explain)</p>	<p><b>(6) Sealing Materials</b>                      For monitoring wells and monitoring well boreholes only</p> <p> <input type="checkbox"/> Neat Cement Grout  <input type="checkbox"/> Sand-Cement (Concrete) Grout  <input type="checkbox"/> Concrete                                      <input type="checkbox"/> Bentonite Pellets  <input type="checkbox"/> Clay-Sand Slurry                            <input type="checkbox"/> Granular Bentonite  <input type="checkbox"/> Bentonite-Sand Slurry                      <input type="checkbox"/> Bentonite-Cement Grout  <input checked="" type="checkbox"/> Chipped Bentonite             </p>

(7) Sealing Material Used	From (Ft.)	To (Ft.)	Mix Ratio or Mud Weight	
Chipped Bentonite	Surface	24.0	1/2 sack	

**(8) Comments** \_\_\_\_\_

**(9) Name of Person or Firm Doing Sealing Work**  
**URS Greiner Woodward Clyde**

Signature of Person Doing Work <i>[Signature]</i>	Date Signed 4/19/99
Street or Route 2312 North Grandview Blvd., Suite 210	Telephone Number (414)513-0577
City, State, Zip Code Waukesha, WI 53188	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	<input type="checkbox"/> Complying Work <input type="checkbox"/> Noncomplying Work
Follow-up Necessary	

**Appendix B**  
**Soil Analytical Data**

---

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499A						Sample Type	Soil	
Sample ID	GP99-8 5B						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	92.6	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	12	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	6.0	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.012 "J"	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	10000	mg/kg	2.2	7.3	10	2/12/99	DRO95	BNR	1
Gasoline Range Organics	1500	mg/kg	15	55	50	2/13/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	< 110	ug/kg	110	350	5	2/21/99	M8270	DJM	1
Acenaphthylene	< 120	ug/kg	120	400	5	2/21/99	M8270	DJM	1
Anthracene	2700	ug/kg	180	600	5	2/21/99	M8270	DJM	1
Benzo(a)anthracene	190 "J"	ug/kg	120	390	5	2/21/99	M8270	DJM	1
Benzo(a)pyrene	180 "J"	ug/kg	170	570	5	2/21/99	M8270	DJM	3
Benzo(b)fluoranthene	< 230	ug/kg	230	770	5	2/21/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 150	ug/kg	150	490	5	2/21/99	M8270	DJM	1
Benzo(k)fluoranthene	< 240	ug/kg	240	800	5	2/21/99	M8270	DJM	3
Chrysene	620 "J"	ug/kg	210	700	5	2/21/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 90	ug/kg	90	300	5	2/21/99	M8270	DJM	1
Fluoranthene	400 "J"	ug/kg	190	640	5	2/21/99	M8270	DJM	1
Fluorene	6200	ug/kg	240	790	5	2/21/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 90	ug/kg	90	300	5	2/21/99	M8270	DJM	1
1-Methyl naphthalene	52000	ug/kg	1600	5200	50	2/21/99	M8270	DJM	1
2-Methyl naphthalene	120000	ug/kg	1100	3500	50	2/21/99	M8270	DJM	1
Naphthalene	17000	ug/kg	150	500	5	2/21/99	M8270	DJM	1
Phenanthrene	16000	ug/kg	180	590	5	2/21/99	M8270	DJM	1
Pyrene	1100	ug/kg	230	750	5	2/21/99	M8270	DJM	1

## VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499A						Sample Type	Soil	
Sample ID	GP99-8 5B						Sample Date	2/9/99	
Benzene	< 250	ug/kg	59	200	10	2/16/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/16/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/16/99	8021A	CJR	1
tert-Butylbenzene	< 250	ug/kg	23	77	10	2/16/99	8021A	CJR	1
sec-Butylbenzene	1200	ug/kg	48	160	10	2/16/99	8021A	CJR	1
n-Butylbenzene	13000	ug/kg	25	84	10	2/16/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/16/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/16/99	8021A	CJR	1
Chloroform	< 250	ug/kg	28	92	10	2/16/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/16/99	8021A	CJR	2 3
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/16/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/16/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/16/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/16/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/16/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/16/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/16/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/16/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/16/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/16/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/16/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/16/99	8021A	CJR	3
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/16/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/16/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/16/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/16/99	8021A	CJR	1
Ethylbenzene	810	ug/kg	62	110	10	2/16/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/16/99	8021A	CJR	1
Isopropylbenzene	620	ug/kg	50	170	10	2/16/99	8021A	CJR	1
p-Isopropyltoluene	790	ug/kg	34	110	10	2/16/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/16/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/16/99	8021A	CJR	1
Naphthalene	36000	ug/kg	70	230	10	2/16/99	8021A	CJR	1
n-Propylbenzene	2700	ug/kg	28	92	10	2/16/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499A								<b>Sample Type</b>	<b>Soil</b>
<b>Sample ID</b> GP99-8 5B								<b>Sample Date</b>	<b>2/9/99</b>
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/16/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/16/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/16/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/16/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/16/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/16/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/16/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/16/99	8021A	CJR	23
Trichlorofluoromethane	< 250	ug/kg	190	650	10	2/16/99	8021A	CJR	23 4
1,2,4-Trimethylbenzene	2000	ug/kg	24	80	10	2/16/99	8021A	CJR	1
1,3,5-Trimethylbenzene	1400	ug/kg	38	130	10	2/16/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/16/99	8021A	CJR	34
m&p-Xylene	< 500	ug/kg	56	190	10	2/16/99	8021A	CJR	1
o-Xylene	1700	ug/kg	27	90	10	2/16/99	8021A	CJR	1

<b>Lab Code</b> 5024499B								<b>Sample Type</b>	<b>Soil</b>
<b>Sample ID</b> GP99-8 6A								<b>Sample Date</b>	<b>2/9/99</b>

## Inorganic

### General

Solids Percent 87.3 % 1 2/11/99 5021 RMB 1

### Metals

Arsenic < 2.8 mg/kg 2.8 9.2 1 2/15/99 6010A JLA 1  
 Barium 23 mg/kg 0.28 0.93 1 2/15/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/16/99 6010A JLA 1  
 Chromium 10 mg/kg 0.55 1.8 1 2/16/99 6010A JLA 1  
 Lead 6.7 "J" mg/kg 6 20 1 2/15/99 6010A JLA 1  
 Mercury 0.117 mg/kg 0.011 0.037 1 2/15/99 245.1 VLC 5  
 Selenium < 24.5 mg/kg 24.5 80 5 2/15/99 6010A JLA 31 50  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

## Organic

### General

Diesel Range Organics 13000 mg/kg 2.2 7.3 10 2/12/99 DRO95 BNR 1  
 Gasoline Range Organics 600 mg/kg 15 55 50 2/13/99 GRO95 CJR 146

### PAH's

Acenaphthene < 420 ug/kg 420 1400 20 2/22/99 M8270 DJM 1  
 Acenaphthylene < 480 ug/kg 480 1600 20 2/22/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-8 6A							<b>Sample Date</b>	2/9/99	
Anthracene	1400 "J"	ug/kg	720	2400	20	2/22/99	M8270	DJM	1
Benzo(a)anthracene	< 460	ug/kg	460	1500	20	2/22/99	M8270	DJM	1
Benzo(a)pyrene	< 680	ug/kg	680	2300	20	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 920	ug/kg	920	3100	20	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 580	ug/kg	580	1900	20	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 1000	ug/kg	1000	3200	20	2/22/99	M8270	DJM	3
Chrysene	< 840	ug/kg	840	2800	20	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 360	ug/kg	360	1200	20	2/22/99	M8270	DJM	1
Fluoranthene	< 760	ug/kg	760	2500	20	2/22/99	M8270	DJM	1
Fluorene	2400 "J"	ug/kg	940	3100	20	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 360	ug/kg	360	1200	20	2/22/99	M8270	DJM	1
1-Methyl naphthalene	22000	ug/kg	620	2100	20	2/22/99	M8270	DJM	1
2-Methyl naphthalene	54000	ug/kg	420	1400	20	2/22/99	M8270	DJM	1
Naphthalene	8700	ug/kg	600	2000	20	2/22/99	M8270	DJM	1
Phenanthrene	10000	ug/kg	700	2300	20	2/22/99	M8270	DJM	1
Pyrene	< 900	ug/kg	900	3000	20	2/22/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 250	ug/kg	59	200	10	2/12/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/12/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 250	ug/kg	23	77	10	2/12/99	8021A	CJR	1
sec-Butylbenzene	700	ug/kg	48	160	10	2/12/99	8021A	CJR	1
n-Butylbenzene	4300	ug/kg	25	84	10	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/12/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/12/99	8021A	CJR	3 4
Chloroform	< 250	ug/kg	28	92	10	2/12/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/12/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-8 6A							<b>Sample Date</b>	2/9/99	
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/12/99	8021A	CJR	1
Ethylbenzene	360	ug/kg	62	110	10	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/12/99	8021A	CJR	1
Isopropylbenzene	< 250	ug/kg	50	170	10	2/12/99	8021A	CJR	1
p-Isopropyltoluene	320	ug/kg	34	110	10	2/12/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/12/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/12/99	8021A	CJR	1
Naphthalene	11000	ug/kg	70	230	10	2/12/99	8021A	CJR	1
n-Propylbenzene	2000	ug/kg	28	92	10	2/12/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/12/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/12/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 250	ug/kg	190	650	10	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	390	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	670	ug/kg	38	130	10	2/12/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/12/99	8021A	CJR	4
m&p-Xylene	< 500	ug/kg	56	190	10	2/12/99	8021A	CJR	1
o-Xylene	< 250	ug/kg	27	90	10	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499C						Sample Type	Soil	
Sample ID	GP99-9 4B						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	95.1	%			1	2/11/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.0 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	14	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	7.1	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	6.6 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.085	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	6700	mg/kg	2.2	7.3	10	2/12/99	DRO95	BNR	1
Gasoline Range Organics	690	mg/kg	3	11	10	2/13/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	< 110	ug/kg	110	350	5	2/22/99	M8270	DJM	1
Acenaphthylene	< 120	ug/kg	120	400	5	2/22/99	M8270	DJM	1
Anthracene	3100	ug/kg	180	600	5	2/22/99	M8270	DJM	1
Benzo(a)anthracene	670	ug/kg	120	390	5	2/22/99	M8270	DJM	1
Benzo(a)pyrene	680	ug/kg	170	570	5	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 230	ug/kg	230	770	5	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 150	ug/kg	150	490	5	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 240	ug/kg	240	800	5	2/22/99	M8270	DJM	3
Chrysene	1200	ug/kg	210	700	5	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 90	ug/kg	90	300	5	2/22/99	M8270	DJM	1
Fluoranthene	550 "J"	ug/kg	190	640	5	2/22/99	M8270	DJM	1
Fluorene	4900	ug/kg	240	790	5	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 90	ug/kg	90	300	5	2/22/99	M8270	DJM	1
1-Methyl naphthalene	40000	ug/kg	1600	5200	50	2/22/99	M8270	DJM	1
2-Methyl naphthalene	85000	ug/kg	1100	3500	50	2/22/99	M8270	DJM	1
Naphthalene	16000	ug/kg	150	500	5	2/22/99	M8270	DJM	1
Phenanthrene	15000	ug/kg	180	590	5	2/22/99	M8270	DJM	1
Pyrene	3700	ug/kg	230	750	5	2/22/99	M8270	DJM	1

### VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499C						Sample Type	Soil	
Sample ID	GP99-9 4B						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	95.1	%			1	2/11/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.0 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	14	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	7.1	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	6.6 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.085	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	6700	mg/kg	2.2	7.3	10	2/12/99	DRO95	BNR	1
Gasoline Range Organics	690	mg/kg	3	11	10	2/13/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	< 110	ug/kg	110	350	5	2/22/99	M8270	DJM	1
Acenaphthylene	< 120	ug/kg	120	400	5	2/22/99	M8270	DJM	1
Anthracene	3100	ug/kg	180	600	5	2/22/99	M8270	DJM	1
Benzo(a)anthracene	670	ug/kg	120	390	5	2/22/99	M8270	DJM	1
Benzo(a)pyrene	680	ug/kg	170	570	5	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 230	ug/kg	230	770	5	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 150	ug/kg	150	490	5	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 240	ug/kg	240	800	5	2/22/99	M8270	DJM	3
Chrysene	1200	ug/kg	210	700	5	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 90	ug/kg	90	300	5	2/22/99	M8270	DJM	1
Fluoranthene	550 "J"	ug/kg	190	640	5	2/22/99	M8270	DJM	1
Fluorene	4900	ug/kg	240	790	5	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 90	ug/kg	90	300	5	2/22/99	M8270	DJM	1
1-Methyl naphthalene	40000	ug/kg	1600	5200	50	2/22/99	M8270	DJM	1
2-Methyl naphthalene	85000	ug/kg	1100	3500	50	2/22/99	M8270	DJM	1
Naphthalene	16000	ug/kg	150	500	5	2/22/99	M8270	DJM	1
Phenanthrene	15000	ug/kg	180	590	5	2/22/99	M8270	DJM	1
Pyrene	3700	ug/kg	230	750	5	2/22/99	M8270	DJM	1

## VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499C						Sample Type	Soil	
Sample ID	GP99-9 4B						Sample Date	2/9/99	
Benzene	< 250	ug/kg	59	200	10	2/12/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/12/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/12/99	8021A	CJR	1
tert-Butylbenzene	400	ug/kg	23	77	10	2/12/99	8021A	CJR	1
sec-Butylbenzene	2800	ug/kg	48	160	10	2/12/99	8021A	CJR	1
n-Butylbenzene	13000	ug/kg	25	84	10	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/12/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/12/99	8021A	CJR	3 4
Chloroform	< 250	ug/kg	28	92	10	2/12/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/12/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/12/99	8021A	CJR	1
Ethylbenzene	760	ug/kg	62	110	10	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/12/99	8021A	CJR	1
Isopropylbenzene	810	ug/kg	50	170	10	2/12/99	8021A	CJR	1
p-Isopropyltoluene	1600	ug/kg	34	110	10	2/12/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/12/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/12/99	8021A	CJR	1
Naphthalene	30000	ug/kg	70	230	10	2/12/99	8021A	CJR	1
n-Propylbenzene	3700	ug/kg	28	92	10	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499C							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-9 4B							<b>Sample Date</b>	2/9/99	
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/12/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/12/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 250	ug/kg	-190	650	10	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	2800	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	1500	ug/kg	38	130	10	2/12/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/12/99	8021A	CJR	4
m&p-Xylene	< 500	ug/kg	56	190	10	2/12/99	8021A	CJR	1
o-Xylene	1100	ug/kg	27	90	10	2/12/99	8021A	CJR	1

<b>Lab Code</b> 5024499D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> DUP 1							<b>Sample Date</b>	2/9/99	

## Inorganic

### General

Solids Percent	95.1	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.3 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	9.6	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	6.9	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	6.0 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.019 "J"	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	6000	mg/kg	2.2	7.3	10	2/12/99	DRO95	BNR	1
Gasoline Range Organics	840	mg/kg	3	11	10	2/13/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	720	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/22/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> DUP 1							<b>Sample Date</b>	2/9/99	
Anthracene	1600	ug/kg	36	120	1	2/22/99	M8270	DJM	1
Benzo(a)anthracene	380	ug/kg	23	77	1	2/22/99	M8270	DJM	1
Benzo(a)pyrene	310	ug/kg	34	110	1	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	150	ug/kg	29	100	1	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	100 "J"	ug/kg	48	160	1	2/22/99	M8270	DJM	3
Chrysene	740	ug/kg	42	140	1	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	32 "J"	ug/kg	18	60	1	2/22/99	M8270	DJM	1
Fluoranthene	440	ug/kg	38	130	1	2/22/99	M8270	DJM	1
Fluorene	1900	ug/kg	47	160	1	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	25 "J"	ug/kg	18	60	1	2/22/99	M8270	DJM	1
1-Methyl naphthalene	18000	ug/kg	310	1000	10	2/22/99	M8270	DJM	1
2-Methyl naphthalene	41000	ug/kg	420	1400	20	2/22/99	M8270	DJM	1
Naphthalene	9300	ug/kg	300	1000	10	2/22/99	M8270	DJM	1
Phenanthrene	7700	ug/kg	350	1200	10	2/22/99	M8270	DJM	1
Pyrene	1700	ug/kg	45	150	1	2/22/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 250	ug/kg	59	200	10	2/12/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/12/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 250	ug/kg	23	77	10	2/12/99	8021A	CJR	1
sec-Butylbenzene	3700	ug/kg	48	160	10	2/12/99	8021A	CJR	1
n-Butylbenzene	14000	ug/kg	25	84	10	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/12/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/12/99	8021A	CJR	3 4
Chloroform	< 250	ug/kg	28	92	10	2/12/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/12/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499D							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> DUP 1							<b>Sample Date</b>	2/9/99	
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/12/99	8021A	CJR	1
Ethylbenzene	940	ug/kg	62	110	10	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/12/99	8021A	CJR	1
Isopropylbenzene	2800	ug/kg	50	170	10	2/12/99	8021A	CJR	1
p-Isopropyltoluene	1900	ug/kg	34	110	10	2/12/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/12/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/12/99	8021A	CJR	1
Naphthalene	30000	ug/kg	70	230	10	2/12/99	8021A	CJR	1
n-Propylbenzene	5600	ug/kg	28	92	10	2/12/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/12/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/12/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 250	ug/kg	190	650	10	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	4400	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	1900	ug/kg	38	130	10	2/12/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/12/99	8021A	CJR	4
m&p-Xylene	610	ug/kg	56	190	10	2/12/99	8021A	CJR	1
o-Xylene	< 250	ug/kg	27	90	10	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499E						Sample Type	Soil	
Sample ID	GP99-9 5A						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	85.5	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	7.99	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	5.4	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	6.8 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.122	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	41000	mg/kg	2.2	7.3	10	2/12/99	DRO95	BNR	1
Gasoline Range Organics	2400	mg/kg	15	55	50	2/13/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	< 2100	ug/kg	2100	7000	100	2/22/99	M8270	DJM	1
Acenaphthylene	< 2400	ug/kg	2400	8000	100	2/22/99	M8270	DJM	1
Anthracene	18000	ug/kg	3600	12000	100	2/22/99	M8270	DJM	1
Benzo(a)anthracene	< 2300	ug/kg	2300	7700	100	2/22/99	M8270	DJM	1
Benzo(a)pyrene	< 3400	ug/kg	3400	11000	100	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 4600	ug/kg	4600	15000	100	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 2900	ug/kg	2900	10000	100	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 4800	ug/kg	4800	16000	100	2/22/99	M8270	DJM	3
Chrysene	< 4200	ug/kg	4200	14000	100	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 1800	ug/kg	1800	6000	100	2/22/99	M8270	DJM	1
Fluoranthene	< 3800	ug/kg	3800	13000	100	2/22/99	M8270	DJM	1
Fluorene	15000 "J"	ug/kg	4700	16000	100	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 1800	ug/kg	1800	6000	100	2/22/99	M8270	DJM	1
1-Methyl naphthalene	140000	ug/kg	3100	10000	100	2/22/99	M8270	DJM	1
2-Methyl naphthalene	330000	ug/kg	2100	7000	100	2/22/99	M8270	DJM	1
Naphthalene	74000	ug/kg	3000	10000	100	2/22/99	M8270	DJM	1
Phenanthrene	51000	ug/kg	3500	12000	100	2/22/99	M8270	DJM	1
Pyrene	8900 "J"	ug/kg	4500	15000	100	2/22/99	M8270	DJM	1

## VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499E							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-9 5A							<b>Sample Date</b>	2/9/99	
Benzene	< 500	ug/kg	120	400	20	2/12/99	8021A	CJR	1
Bromobenzene	< 500	ug/kg	62	200	20	2/12/99	8021A	CJR	1
Bromodichloromethane	< 500	ug/kg	54	180	20	2/12/99	8021A	CJR	1
tert-Butylbenzene	4100	ug/kg	46	150	20	2/12/99	8021A	CJR	1
sec-Butylbenzene	17000	ug/kg	100	320	20	2/12/99	8021A	CJR	1
n-Butylbenzene	71000	ug/kg	50	170	20	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 500	ug/kg	44	140	20	2/12/99	8021A	CJR	1
Chlorobenzene	< 500	ug/kg	50	160	20	2/12/99	8021A	CJR	1
Chloroethane	< 500	ug/kg	100	340	20	2/12/99	8021A	CJR	3 4
Chloroform	< 500	ug/kg	56	180	20	2/12/99	8021A	CJR	1
Chloromethane	< 500	ug/kg	150	480	20	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 500	ug/kg	48	160	20	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 500	ug/kg	46	160	20	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 500	ug/kg	82	280	20	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 500	ug/kg	42	140	20	2/12/99	8021A	CJR	1
Dibromochloromethane	< 500	ug/kg	40	130	20	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 500	ug/kg	44	140	20	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 500	ug/kg	44	150	20	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 500	ug/kg	44	140	20	2/12/99	8021A	CJR	1
Dichlorodifluoromethane	< 500	ug/kg	86	280	20	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 500	ug/kg	54	180	20	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 500	ug/kg	46	150	20	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 500	ug/kg	44	150	20	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 500	ug/kg	56	190	20	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 500	ug/kg	70	240	20	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 500	ug/kg	48	160	20	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 500	ug/kg	44	150	20	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 500	ug/kg	78	260	20	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 500	ug/kg	84	280	20	2/12/99	8021A	CJR	1
Ethylbenzene	6900	ug/kg	120	220	20	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 500	ug/kg	100	320	20	2/12/99	8021A	CJR	1
Isopropylbenzene	12000	ug/kg	100	340	20	2/12/99	8021A	CJR	1
p-Isopropyltoluene	12000	ug/kg	68	220	20	2/12/99	8021A	CJR	1
Methylene chloride	< 500	ug/kg	66	220	20	2/12/99	8021A	CJR	1
MTBE	< 500	ug/kg	140	460	20	2/12/99	8021A	CJR	1
Naphthalene	130000	ug/kg	140	460	20	2/12/99	8021A	CJR	1
n-Propylbenzene	15000	ug/kg	56	180	20	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499E							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-9 5A							<b>Sample Date</b>	2/9/99	
1,1,2,2-Tetrachloroethane	< 500	ug/kg	140	480	20	2/12/99	8021A	CJR	2
Tetrachloroethene	< 500	ug/kg	72	240	20	2/12/99	8021A	CJR	1
Toluene	< 500	ug/kg	100	340	20	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 500	ug/kg	100	340	20	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 500	ug/kg	110	360	20	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 500	ug/kg	46	150	20	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 500	ug/kg	40	130	20	2/12/99	8021A	CJR	1
Trichloroethene	< 500	ug/kg	92	300	20	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 500	ug/kg	-380	1300	20	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	17000	ug/kg	48	160	20	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	8100	ug/kg	76	260	20	2/12/99	8021A	CJR	1
Vinyl Chloride	< 500	ug/kg	94	320	20	2/12/99	8021A	CJR	4
m&p-Xylene	2900	ug/kg	110	380	20	2/12/99	8021A	CJR	1
o-Xylene	8700	ug/kg	54	180	20	2/12/99	8021A	CJR	1

<b>Lab Code</b> 5024499F							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-10 4A							<b>Sample Date</b>	2/9/99	

## Inorganic

### General

Solids Percent	95.9	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.3 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	7.7	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	4.9	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.013 "J"	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	3400	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1
Gasoline Range Organics	290	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/22/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499F							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-10 4A							<b>Sample Date</b>	2/9/99	
Anthracene	940	ug/kg	36	120	1	2/22/99	M8270	DJM	1
Benzo(a)anthracene	180	ug/kg	23	77	1	2/22/99	M8270	DJM	1
Benzo(a)pyrene	130	ug/kg	34	110	1	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	74 "J"	ug/kg	46	150	1	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	36 "J"	ug/kg	29	100	1	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	60 "J"	ug/kg	48	160	1	2/22/99	M8270	DJM	3
Chrysene	260	ug/kg	42	140	1	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
Fluoranthene	150	ug/kg	38	130	1	2/22/99	M8270	DJM	1
Fluorene	1700	ug/kg	47	160	1	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
1-Methyl naphthalene	14000	ug/kg	310	1000	10	2/22/99	M8270	DJM	1
2-Methyl naphthalene	40000	ug/kg	420	1400	20	2/22/99	M8270	DJM	1
Naphthalene	5600	ug/kg	300	1000	10	2/22/99	M8270	DJM	1
Phenanthrene	4100	ug/kg	35	120	1	2/22/99	M8270	DJM	1
Pyrene	900	ug/kg	45	150	1	2/22/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 250	ug/kg	59	200	10	2/12/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/12/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 250	ug/kg	23	77	10	2/12/99	8021A	CJR	1
sec-Butylbenzene	2500	ug/kg	48	160	10	2/12/99	8021A	CJR	1
n-Butylbenzene	7700	ug/kg	25	84	10	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/12/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/12/99	8021A	CJR	3 4
Chloroform	< 250	ug/kg	28	92	10	2/12/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/12/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499F							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-10 4A							<b>Sample Date</b>	2/9/99	
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/12/99	8021A	CJR	1
Ethylbenzene	430	ug/kg	62	110	10	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/12/99	8021A	CJR	1
Isopropylbenzene	4100	ug/kg	50	170	10	2/12/99	8021A	CJR	1
p-Isopropyltoluene	700	ug/kg	34	110	10	2/12/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/12/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/12/99	8021A	CJR	1
Naphthalene	17000	ug/kg	70	230	10	2/12/99	8021A	CJR	1
n-Propylbenzene	3400	ug/kg	28	92	10	2/12/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/12/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/12/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 250	ug/kg	190	650	10	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	2400	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	1400	ug/kg	38	130	10	2/12/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/12/99	8021A	CJR	4
m&p-Xylene	< 500	ug/kg	56	190	10	2/12/99	8021A	CJR	1
o-Xylene	< 250	ug/kg	27	90	10	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499G						Sample Type	Soil	
Sample ID	GP99-10 5B						Sample Date	2/9/99	

**Inorganic**

**General**

Solids Percent	85.1	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

**Metals**

Arsenic	3.7 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	82	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	1.5 "J"	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	26	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	8.4 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

**Organic**

**General**

Diesel Range Organics	6200	mg/kg	2.2	7.3	10	2/12/99	DRO95	BNR	1
Gasoline Range Organics	1500	mg/kg	6.1	22	20	2/13/99	GRO95	CJR	1 46

**PAH's**

Acenaphthene	< 110	ug/kg	110	350	5	2/22/99	M8270	DJM	1
Acenaphthylene	< 120	ug/kg	120	400	5	2/22/99	M8270	DJM	1
Anthracene	7800	ug/kg	180	600	5	2/22/99	M8270	DJM	1
Benzo(a)anthracene	3400	ug/kg	120	390	5	2/22/99	M8270	DJM	1
Benzo(a)pyrene	830	ug/kg	170	570	5	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 230	ug/kg	230	770	5	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	540	ug/kg	150	490	5	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	380 "J"	ug/kg	240	800	5	2/22/99	M8270	DJM	3
Chrysene	2300	ug/kg	210	700	5	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	420	ug/kg	90	300	5	2/22/99	M8270	DJM	1
Fluoranthene	< 190	ug/kg	190	640	5	2/22/99	M8270	DJM	1
Fluorene	7200	ug/kg	240	790	5	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	230 "J"	ug/kg	90	300	5	2/22/99	M8270	DJM	1
1-Methyl naphthalene	59000	ug/kg	1600	5200	50	2/22/99	M8270	DJM	1
2-Methyl naphthalene	130000	ug/kg	1100	3500	50	2/22/99	M8270	DJM	1
Naphthalene	33000	ug/kg	1500	5000	50	2/22/99	M8270	DJM	1
Phenanthrene	19000	ug/kg	180	590	5	2/22/99	M8270	DJM	1
Pyrene	9000	ug/kg	230	750	5	2/22/99	M8270	DJM	1

**VOC's**

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499G							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-10 5B							<b>Sample Date</b>	2/9/99	
Benzene	< 250	ug/kg	59	200	10	2/12/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/12/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 250	ug/kg	23	77	10	2/12/99	8021A	CJR	1
sec-Butylbenzene	7700	ug/kg	48	160	10	2/12/99	8021A	CJR	1
n-Butylbenzene	41000	ug/kg	25	84	10	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/12/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/12/99	8021A	CJR	3 4
Chloroform	< 250	ug/kg	28	92	10	2/12/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/12/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/12/99	8021A	CJR	1
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/12/99	8021A	CJR	1
Ethylbenzene	1800	ug/kg	62	110	10	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/12/99	8021A	CJR	1
Isopropylbenzene	1700	ug/kg	50	170	10	2/12/99	8021A	CJR	1
p-Isopropyltoluene	6800	ug/kg	34	110	10	2/12/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/12/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/12/99	8021A	CJR	1
Naphthalene	40000	ug/kg	70	230	10	2/12/99	8021A	CJR	1
n-Propylbenzene	10000	ug/kg	28	92	10	2/12/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499G							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-10 5B							<b>Sample Date</b>	2/9/99	
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/12/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/12/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/12/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 250	ug/kg	-190	650	10	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	10000	ug/kg	24	80	10	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	4400	ug/kg	38	130	10	2/12/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/12/99	8021A	CJR	4
m&p-Xylene	1000	ug/kg	56	190	10	2/12/99	8021A	CJR	1
o-Xylene	3000	ug/kg	27	90	10	2/12/99	8021A	CJR	1

<b>Lab Code</b> 5024499H							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-6 1B							<b>Sample Date</b>	2/9/99	

## Inorganic

### General

Solids Percent	83.1	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	4.4 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	57	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	2.0 "J"	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	19	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	15 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.04	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 4.9	mg/kg	4.9	16	1	2/15/99	6010A	JLA	31
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/22/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499H							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-6 1B							<b>Sample Date</b>	2/9/99	
Anthracene	< 36	ug/kg	36	120	1	2/22/99	M8270	DJM	1
Benzo(a)anthracene	77	ug/kg	23	77	1	2/22/99	M8270	DJM	1
Benzo(a)pyrene	110 "J"	ug/kg	34	110	1	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	170	ug/kg	46	150	1	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	62 "J"	ug/kg	29	100	1	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	91 "J"	ug/kg	48	160	1	2/22/99	M8270	DJM	3
Chrysene	140 "J"	ug/kg	42	140	1	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
Fluoranthene	150	ug/kg	38	130	1	2/22/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	46 "J"	ug/kg	18	60	1	2/22/99	M8270	DJM	1
1-Methyl naphthalene	86 "J"	ug/kg	31	100	1	2/22/99	M8270	DJM	1
2-Methyl naphthalene	100	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/22/99	M8270	DJM	1
Phenanthrene	74 "J"	ug/kg	35	120	1	2/22/99	M8270	DJM	1
Pyrene	140 "J"	ug/kg	45	150	1	2/22/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/11/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/11/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/11/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/11/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/11/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/11/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/11/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/11/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/11/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/11/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/11/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/11/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499H							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-6 1B							<b>Sample Date</b>	2/9/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/11/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/11/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/11/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/11/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/11/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/11/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	- 3.9	13	1	2/11/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/11/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/11/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/11/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/11/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/11/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/11/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/11/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/11/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/11/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/11/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/11/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/11/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499I						Sample Type	Soil	
Sample ID	GP99-6 4B						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	92.9	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	10	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	5.4	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.017 "J"	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	13	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1 44
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/22/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/22/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/22/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/22/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/22/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
1-Methyl naphthalene	67 "J"	ug/kg	31	100	1	2/22/99	M8270	DJM	1
2-Methyl naphthalene	88	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/22/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	2/22/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/22/99	M8270	DJM	1

## VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499I							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-6 4B							<b>Sample Date</b>	2/9/99	
Benzene	< 25	ug/kg	5.9	20	1	2/11/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/11/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/11/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/11/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/11/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/11/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/11/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/11/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/11/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/11/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/11/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/11/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/11/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/11/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/11/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/11/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/11/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/11/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/11/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/11/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/11/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/11/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/11/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499I						<b>Sample Type</b>		Soil	
<b>Sample ID</b> GP99-6 4B						<b>Sample Date</b>		2/9/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/11/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/11/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/11/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/11/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	- 19	65	1	2/11/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/11/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/11/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/11/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/11/99	8021A	CJR	1

<b>Lab Code</b> 5024499J						<b>Sample Type</b>		Soil	
<b>Sample ID</b> SAND-1						<b>Sample Date</b>		2/9/99	

## Inorganic

### General

Solids Percent 99.5 % 1 2/11/99 5021 RMB 1

### Metals

Arsenic < 2.8 mg/kg 2.8 9.2 1 2/15/99 6010A JLA 1  
 Barium 78 mg/kg 0.28 0.93 1 2/15/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/16/99 6010A JLA 1  
 Chromium 62 mg/kg 1.1 3.6 2 2/16/99 6010A JLA 1  
 Lead 152 mg/kg 6 20 1 2/15/99 6010A JLA 1  
 Mercury 0.015 "J" mg/kg 0.011 0.037 1 2/15/99 245.1 VLC 5  
 Selenium < 4.9 mg/kg 4.9 16 1 2/15/99 6010A JLA 31  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

## Organic

### General

Diesel Range Organics 72 mg/kg 0.22 0.73 1 2/12/99 DRO95 BNR 144  
 Gasoline Range Organics < 10 mg/kg 0.3 1.1 1 2/13/99 GRO95 CJR 1

### PAH's

Acenaphthene < 21 ug/kg 21 70 1 2/22/99 M8270 DJM 1  
 Acenaphthylene < 24 ug/kg 24 80 1 2/22/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499J							<b>Sample Type</b>	Soil	
<b>Sample ID</b> SAND-1							<b>Sample Date</b>	2/9/99	
Anthracene	< 36	ug/kg	36	120	1	2/22/99	M8270	DJM	1
Benzo(a)anthracene	25 "J"	ug/kg	23	77	1	2/22/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	54 "J"	ug/kg	46	150	1	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/22/99	M8270	DJM	3
Chrysene	56 "J"	ug/kg	42	140	1	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
Fluoranthene	120 "J"	ug/kg	38	130	1	2/22/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
1-Methyl naphthalene	67 "J"	ug/kg	31	100	1	2/22/99	M8270	DJM	1
2-Methyl naphthalene	120	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/22/99	M8270	DJM	1
Phenanthrene	150	ug/kg	35	120	1	2/22/99	M8270	DJM	1
Pyrene	77 "J"	ug/kg	45	150	1	2/22/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/11/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/11/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/11/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/11/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
n-Butylbenzene	53	ug/kg	2.5	8.4	1	2/11/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/11/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	3.4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/11/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/11/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/11/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/11/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/11/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/11/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499J						Sample Type	Soil	
Sample ID	SAND-1						Sample Date	2/9/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/11/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/11/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/11/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/11/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/11/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/11/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	-3.9	13	1	2/11/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/11/99	8021A	CJR	1
Ethylbenzene	57	ug/kg	6.2	11	1	2/11/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/11/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/11/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
Naphthalene	68	ug/kg	7	23	1	2/11/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/11/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/11/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/11/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/11/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/11/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/11/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/11/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/11/99	8021A	CJR	1
o-Xylene	67	ug/kg	2.7	9	1	2/11/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499K							Sample Type	Soil
Sample ID	SAND-2							Sample Date	2/9/99

## Inorganic

### General

Solids Percent	99.3	%			1	2/11/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	45	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	20	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	93	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 4.9	mg/kg	4.9	16	1	2/15/99	6010A	JLA	31
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	1300	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1 44
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/17/99	GRO95	CAH	1 46

### PAH's

Acenaphthene	< 210	ug/kg	210	700	10	2/23/99	M8270	DJM	1
Acenaphthylene	< 240	ug/kg	240	800	10	2/23/99	M8270	DJM	1
Anthracene	< 360	ug/kg	360	1200	10	2/23/99	M8270	DJM	1
Benzo(a)anthracene	< 230	ug/kg	230	770	10	2/23/99	M8270	DJM	1
Benzo(a)pyrene	< 340	ug/kg	340	1100	10	2/23/99	M8270	DJM	3
Benzo(b)fluoranthene	< 460	ug/kg	460	1500	10	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 290	ug/kg	290	1000	10	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	< 480	ug/kg	480	1600	10	2/23/99	M8270	DJM	3
Chrysene	< 420	ug/kg	420	1400	10	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 180	ug/kg	180	600	10	2/23/99	M8270	DJM	1
Fluoranthene	420 "J"	ug/kg	380	1300	10	2/23/99	M8270	DJM	1
Fluorene	< 470	ug/kg	470	1600	10	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 180	ug/kg	180	600	10	2/23/99	M8270	DJM	1
1-Methyl naphthalene	1000 "J"	ug/kg	310	1000	10	2/23/99	M8270	DJM	1
2-Methyl naphthalene	1700	ug/kg	210	700	10	2/23/99	M8270	DJM	1
Naphthalene	< 300	ug/kg	300	1000	10	2/23/99	M8270	DJM	1
Phenanthrene	1200	ug/kg	350	1200	10	2/23/99	M8270	DJM	1
Pyrene	< 450	ug/kg	450	1500	10	2/23/99	M8270	DJM	1

### VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499K						Sample Type	Soil	
Sample ID	SAND-2						Sample Date	2/9/99	
Benzene	< 25	ug/kg	5.9	20	1	2/11/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/11/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/11/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/11/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
n-Butylbenzene	49	ug/kg	2.5	8.4	1	2/11/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/11/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/11/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/11/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/11/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/11/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/11/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/11/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/11/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/11/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/11/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/11/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/11/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/11/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/11/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/11/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/11/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/11/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/11/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
Naphthalene	260	ug/kg	7	23	1	2/11/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code 5024499K</b>						<b>Sample Type</b>		<b>Soil</b>	
<b>Sample ID SAND-2</b>						<b>Sample Date</b>		<b>2/9/99</b>	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/11/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/11/99	8021A	CJR	1
Toluene	410	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/11/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/11/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/11/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/11/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/11/99	8021A	CJR	4
m&p-Xylene	81	ug/kg	5.6	19	1	2/11/99	8021A	CJR	1
o-Xylene	35	ug/kg	2.7	9	1	2/11/99	8021A	CJR	1

<b>Lab Code 5024499L</b>						<b>Sample Type</b>		<b>Soil</b>	
<b>Sample ID SAND-3</b>						<b>Sample Date</b>		<b>2/9/99</b>	

## Inorganic

### General

Solids Percent 99.7 % 1 2/11/99 5021 RMB 1

### Metals

Arsenic < 2.8 mg/kg 2.8 9.2 1 2/15/99 6010A JLA 1  
 Barium 57 mg/kg 0.28 0.93 1 2/15/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/16/99 6010A JLA 1  
 Chromium 7.4 mg/kg 0.55 1.8 1 2/16/99 6010A JLA 1  
 Lead 15 "J" mg/kg 6 20 1 2/15/99 6010A JLA 1  
 Mercury 0.016 "J" mg/kg 0.011 0.037 1 2/15/99 245.1 VLC 5  
 Selenium < 4.9 mg/kg 4.9 16 1 2/15/99 6010A JLA 31  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

## Organic

### General

Diesel Range Organics 150 mg/kg 0.22 0.73 1 2/12/99 DRO95 BNR 1 44  
 Gasoline Range Organics < 10 mg/kg 0.3 1.1 1 2/13/99 GRO95 CJR 1 46

### PAH's

Acenaphthene < 21 ug/kg 21 70 1 2/22/99 M8270 DJM 1  
 Acenaphthylene < 24 ug/kg 24 80 1 2/22/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499L							<b>Sample Type</b>	Soil	
<b>Sample ID</b> SAND-3							<b>Sample Date</b>	2/9/99	
Anthracene	< 36	ug/kg	36	120	1	2/22/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/22/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/22/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/22/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/22/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/22/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/22/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
Fluoranthene	74 "J"	ug/kg	38	130	1	2/22/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/22/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/22/99	M8270	DJM	1
1-Methyl naphthalene	150	ug/kg	31	100	1	2/22/99	M8270	DJM	1
2-Methyl naphthalene	270	ug/kg	21	70	1	2/22/99	M8270	DJM	1
Naphthalene	50 "J"	ug/kg	30	100	1	2/22/99	M8270	DJM	1
Phenanthrene	350	ug/kg	35	120	1	2/22/99	M8270	DJM	1
Pyrene	64 "J"	ug/kg	45	150	1	2/22/99	M8270	DJM	1
VOC's									
Benzene	< 25	ug/kg	5.9	20	1	2/11/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/11/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/11/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/11/99	8021A	CJR	1
sec-Butylbenzene	56	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
n-Butylbenzene	100	ug/kg	2.5	8.4	1	2/11/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/11/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/11/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/11/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/11/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/11/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/11/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/11/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499L							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> SAND-3							<b>Sample Date</b>	2/9/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/11/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/11/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/11/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/11/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/11/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/11/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/11/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/11/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/11/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/11/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/11/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/11/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/11/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/11/99	8021A	CJR	1
Naphthalene	87	ug/kg	7	23	1	2/11/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/11/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/11/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/11/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/11/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/11/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/11/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/11/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/11/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/11/99	8021A	CJR	2
1,2,4-Trimethylbenzene	31	ug/kg	2.4	8	1	2/11/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/11/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/11/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/11/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/11/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499M						Sample Type	Soil	
Sample ID	SAND-4						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	99.1	%			1	2/11/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	34	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	9.3	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	27	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.018 "J"	mg/kg	0.011	0.037	1	2/15/99	245.1	VLC	5
Selenium	< 4.9	mg/kg	4.9	16	1	2/15/99	6010A	JLA	31
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	110	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1 44
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/23/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/23/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/23/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/23/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/23/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/23/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	2/23/99	M8270	DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/23/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	2/23/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/23/99	M8270	DJM	1

### VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499M							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> SAND-4							<b>Sample Date</b>	2/9/99	
Benzene	< 25	ug/kg	5.9	20	1	2/12/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/12/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/12/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/12/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/12/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/12/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/12/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/12/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
Naphthalene	27	ug/kg	7	23	1	2/12/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499M						<b>Sample Type</b>		Soil	
<b>Sample ID</b> SAND-4						<b>Sample Date</b>		2/9/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/12/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/12/99	8021A	CJR	1
Toluene	100	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	- 19	65	1	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/12/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/12/99	8021A	CJR	4
m&p-Xylene	78	ug/kg	5.6	19	1	2/12/99	8021A	CJR	1
o-Xylene	49	ug/kg	2.7	9	1	2/12/99	8021A	CJR	1

<b>Lab Code</b> 5024499N						<b>Sample Type</b>		Soil	
<b>Sample ID</b> DUP 2						<b>Sample Date</b>		2/9/99	

**Inorganic**

**General**

Solids Percent 99.7 % 1 2/11/99 5021 RMB 1

**Metals**

Arsenic < 2.8 mg/kg 2.8 9.2 1 2/15/99 6010A JLA 1  
 Barium 28 mg/kg 0.28 0.93 1 2/15/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/16/99 6010A JLA 1  
 Chromium 7.8 mg/kg 0.55 1.8 1 2/16/99 6010A JLA 1  
 Lead 20 mg/kg 6 20 1 2/15/99 6010A JLA 1  
 Mercury < 0.011 mg/kg 0.011 0.037 1 2/17/99 245.1 VLC 5  
 Selenium 5.4 "J" mg/kg 4.9 16 1 2/15/99 6010A JLA 31  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

**Organic**

**General**

Diesel Range Organics 130 mg/kg 0.22 0.73 1 2/12/99 DRO95 BNR 144  
 Gasoline Range Organics < 10 mg/kg 0.3 1.1 1 2/13/99 GRO95 CJR 1

**PAH's**

Acenaphthene < 21 ug/kg 21 70 1 2/23/99 M8270 DJM 1  
 Acenaphthylene < 24 ug/kg 24 80 1 2/23/99 M8270 DJM 1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499N							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> DUP 2							<b>Sample Date</b>	2/9/99	
Anthracene	< 36	ug/kg	36	120	1	2/23/99	M8270	DJM	1
Benzo(a)anthracene	36 "J"	ug/kg	23	77	1	2/23/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/23/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	75 "J"	ug/kg	48	160	1	2/23/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
Fluoranthene	180	ug/kg	38	130	1	2/23/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	26 "J"	ug/kg	18	60	1	2/23/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	2/23/99	M8270	DJM	1
2-Methyl naphthalene	27 "J"	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/23/99	M8270	DJM	1
Phenanthrene	150	ug/kg	35	120	1	2/23/99	M8270	DJM	1
Pyrene	100 "J"	ug/kg	45	150	1	2/23/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/12/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/12/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/12/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/12/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/12/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499N							<b>Sample Type</b>	Soil	
<b>Sample ID</b> DUP 2							<b>Sample Date</b>	2/9/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/12/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/12/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/12/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/12/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/12/99	8021A	CJR	1
Toluene	200	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/12/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/12/99	8021A	CJR	4
m&p-Xylene	73	ug/kg	5.6	19	1	2/12/99	8021A	CJR	1
o-Xylene	56	ug/kg	2.7	9	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499O						Sample Type	Soil	
Sample ID	GP99-12 1A						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	84.6	%			1	2/11/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.4 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	59	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	1.7 "J"	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	24	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	6.6 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	0.014 "J"	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/23/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/23/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/23/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/23/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/23/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/23/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
1-Methyl naphthalene	46 "J"	ug/kg	31	100	1	2/23/99	M8270	DJM	1
2-Methyl naphthalene	72	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/23/99	M8270	DJM	1
Phenanthrene	89 "J"	ug/kg	35	120	1	2/23/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/23/99	M8270	DJM	1

## VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 50244990							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-12 1A							<b>Sample Date</b>	2/9/99	
Benzene	< 25	ug/kg	5.9	20	1	2/12/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/12/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/12/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/12/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/12/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/12/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/12/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/12/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 50244990							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-12 1A							<b>Sample Date</b>	2/9/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/12/99	8021A	CJR	2
Tetrachloroethane	< 25	ug/kg	3.6	12	1	2/12/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/12/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/12/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/12/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/12/99	8021A	CJR	1

<b>Lab Code</b> 5024499P							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-12 3A							<b>Sample Date</b>	2/9/99	

## Inorganic

### General

Solids Percent 84.8 % 1 2/11/99 5021 RMB 1

### Metals

Arsenic 4.0 "J" mg/kg 2.8 9.2 1 2/15/99 6010A JLA 1  
 Barium 26 mg/kg 0.28 0.93 1 2/15/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/16/99 6010A JLA 1  
 Chromium 11 mg/kg 0.55 1.8 1 2/16/99 6010A JLA 1  
 Lead 6.6 "J" mg/kg 6 20 1 2/15/99 6010A JLA 1  
 Mercury < 0.011 mg/kg 0.011 0.037 1 2/17/99 245.1 VLC 5  
 Selenium < 24.5 mg/kg 24.5 80 5 2/15/99 6010A JLA 31 50  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

## Organic

### General

Diesel Range Organics < 10 mg/kg 0.22 0.73 1 2/12/99 DRO95 BNR 1  
 Gasoline Range Organics < 10 mg/kg 0.3 1.1 1 2/13/99 GRO95 CJR 1

### PAH's

Acenaphthene < 21 ug/kg 21 70 1 2/23/99 M8270 DJM 1  
 Acenaphthylene < 24 ug/kg 24 80 1 2/23/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499P							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-12 3A							<b>Sample Date</b>	2/9/99	
Anthracene	< 36	ug/kg	36	120	1	2/23/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/23/99	M8270	DJM	1
Benzo(a)pyrene	36 "J"	ug/kg	34	110	1	2/23/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/23/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/23/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
1-Methyl naphthalene	32 "J"	ug/kg	31	100	1	2/23/99	M8270	DJM	1
2-Methyl naphthalene	39 "J"	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Naphthalene	32 "J"	ug/kg	30	100	1	2/23/99	M8270	DJM	1
Phenanthrene	81 "J"	ug/kg	35	120	1	2/23/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/23/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/12/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/12/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/12/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/12/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/12/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499P					Sample Type		Soil	
Sample ID	GP99-12 3A					Sample Date		2/9/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	-3.9	13	1	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/12/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/12/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/12/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/12/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/12/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/12/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/12/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/12/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024499Q						Sample Type	Soil	
Sample ID	GP99-7 3A						Sample Date	2/9/99	

## Inorganic

### General

Solids Percent	80.3	%				1	2/11/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.4 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	76	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	1.6 "J"	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	23	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	8.4 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/23/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/23/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/23/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/23/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/23/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/23/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
1-Methyl naphthalene	45 "J"	ug/kg	31	100	1	2/23/99	M8270	DJM	1
2-Methyl naphthalene	51 "J"	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/23/99	M8270	DJM	1
Phenanthrene	74 "J"	ug/kg	35	120	1	2/23/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/23/99	M8270	DJM	1

## VOC's



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499Q							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-7 3A							<b>Sample Date</b>	2/9/99	
Benzene	< 25	ug/kg	5.9	20	1	2/12/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/12/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/12/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/12/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/12/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/12/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/12/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/12/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499Q							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-7 3A							<b>Sample Date</b>	2/9/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/12/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/12/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/12/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/12/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/12/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/12/99	8021A	CJR	1

<b>Lab Code</b> 5024499R							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-7 4B							<b>Sample Date</b>	2/9/99	

## Inorganic

### General

Solids Percent	84.6	%			1	2/11/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	3.1 "J"	mg/kg	2.8	9.2	1	2/15/99	6010A	JLA	1
Barium	6.7	mg/kg	0.28	0.93	1	2/15/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/16/99	6010A	JLA	1
Chromium	5.0	mg/kg	0.55	1.8	1	2/16/99	6010A	JLA	1
Lead	7.5 "J"	mg/kg	6	20	1	2/15/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/15/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/12/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/13/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/21/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/21/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499R							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-7 4B							<b>Sample Date</b>	2/9/99	
Anthracene	< 36	ug/kg	36	120	1	2/21/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/21/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/21/99	M8270	DJM	3
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/21/99	M8270	DJM	1
Benzo(g,h,i)perylene	36 "J"	ug/kg	29	100	1	2/21/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/21/99	M8270	DJM	3
Chrysene	< 42	ug/kg	42	140	1	2/21/99	M8270	DJM	1
Dibenzo(a,h)anthracene	30 "J"	ug/kg	18	60	1	2/21/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/21/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/21/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	28 "J"	ug/kg	18	60	1	2/21/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	2/21/99	M8270	DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1	2/21/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/21/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	2/21/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/21/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/12/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/12/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/12/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/12/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/12/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/12/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/12/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/12/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/12/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/12/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/12/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/12/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024499R							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-7 4B							<b>Sample Date</b>	<b>2/9/99</b>	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/12/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/12/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/12/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/12/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/12/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/12/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/12/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/12/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/12/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/12/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/12/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/12/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/12/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/12/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/12/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/12/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/12/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/12/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/12/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/12/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/12/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/12/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/12/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/12/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/12/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/12/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/12/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/12/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
URS GREINER WOODWARD CLYDE  
2312 GRANDVIEW BLVD STE 210  
WAUKESHA WI 53188

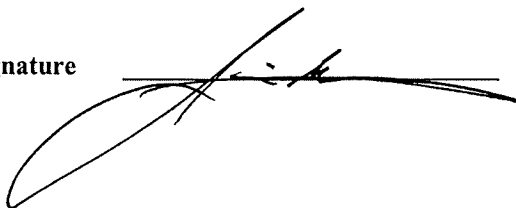
Project # 7EO9675  
Project Name MOBILE BLASTING  
Invoice # E24499

Report Date 01-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
LOD Limit of Detection	"J" Flag: Analyte detected between LOD and LOQ								LOQ Limit of Quantitation

Code	Comment
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
5	The blank failed to meet acceptable QC limits.
31	The interference check standard failed to meet acceptable QC limits.
44	Chromatogram indicates possible lube oil contamination.
46	Chromatogram indicates contamination outside of the specified window.
50	Sample diluted to compensate for matrix interference.

Authorized Signature



# CHAIN OF CUSTODY RECORD



**Analytical Lab**

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # No **15914**

Page 1 of 2

Lab I.D. # **5024499**

Account No.: \_\_\_\_\_ Quote No.: **93518**

Project #: **7E09675**

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Courier Temp. of Temp. Blank: \_\_\_\_\_ °C On Ice: X

Sampler: (signature) *Robert Cigale*

Cooler seal intact upon receipt: X Yes \_\_\_\_\_ No \_\_\_\_\_ Labcoded By: CCS

Project (Name / Location): **MOBILE BLASTING, WEST MILWAUKEE, WI**

### Analysis Requested

Reports To: **BOB CIGALE** Invoice To: \_\_\_\_\_

### Sample Handling Request

Company **URSGWC** Company \_\_\_\_\_

\_\_\_\_ Rush Analysis  
 \_\_\_\_ Date Required \_\_\_\_\_

Address **2312 N. GRANDVIEW BVD.** Address \_\_\_\_\_

X Normal Turn Around

City State Zip **WAUKESHA, WI 53188** City State Zip \_\_\_\_\_

Phone **414-513-0577** Phone \_\_\_\_\_

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	P VOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis		PID/FID
		Date	Time														% REPA METALS	% SOLIDS	
<b>5024499 A</b>	<b>6899-8 5B</b>	<b>2/19/99</b>	<b>920</b>				/	/		/	/	/	/	/		/	/		126
<b>B</b>	<b>6899-8 6A</b>		<b>930</b>				/	/		/	/	/	/	/		/	/		79
<b>C</b>	<b>6899-9 4B</b>		<b>1025</b>				/	/		/	/	/	/	/		/	/		195
<b>D</b>	<b>DUP 1</b>		<b>1025</b>				/	/		/	/	/	/	/		/	/		195
<b>E</b>	<b>6899-9 5A</b>		<b>1030</b>				/	/		/	/	/	/	/		/	/		178
<b>F</b>	<b>6899-10 4A</b>		<b>1140</b>				/	/		/	/	/	/	/		/	/		201
<b>G</b>	<b>6899-10 5B</b>		<b>1145</b>				/	/		/	/	/	/	/		/	/		169
<b>H</b>	<b>6899-6 1B</b>		<b>1310</b>				/	/		/	/	/	/	/		/	/		5
<b>I</b>	<b>6899-6 4B</b>		<b>1330</b>				/	/		/	/	/	/	/		/	/		ND

### Department Use Only

Split Samples: Offered? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

Accepted? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

Accepted By: \_\_\_\_\_

### Comments/ Special Instructions

\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

*E-mail DATA IN 'Excel' format to robert\_cigale@urscorp.com - per B.C. - c02*

### Department Use Optional for Soil Samples

Disposition of unused portion of sample

Lab Should:

\_\_\_\_ Dispose \_\_\_\_\_ Retain for \_\_\_\_\_ days

\_\_\_\_ Return \_\_\_\_\_ Other \_\_\_\_\_

Relinquished By: (sign) *Robert Cigale*

Time Date Received By: (sign) \_\_\_\_\_ Time Date

*Dev Huss 2/10/99 105 Dev Huss 1:05 2-10-99*

Received in Laboratory By: *Chinda Brudo*

Time: **4:10**

Date: **2/10/99**

# CHAIN OF CUSTODY RECORD



## Analytical Lab

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # No 15915

Page 2 of 2

Lab I.D. # 5024499

Account No. : \_\_\_\_\_ Quote No.: 93518

Project #: 7E09675

Sampler: (signature) [Signature]

Sample Integrity - To be completed by receiving lab.  
 Method of Shipment: Courier Temp. of Temp. Blank: \_\_\_\_\_ °C On Ice: X  
 Cooler seal intact upon receipt: X Yes \_\_\_\_\_ No \_\_\_\_\_ Labcoded By: CGS

Project (Name / Location): MOBILE BASTING, WEST MILWAUKEE

Reports To: BOB CIGALE Invoice To: \_\_\_\_\_

Company URS GW Company \_\_\_\_\_

Address 2312 N. GRANDVIEW BLVD Address \_\_\_\_\_

City State Zip WAUWATOSA 53188 City State Zip \_\_\_\_\_

Phone 414 513 0577 Phone \_\_\_\_\_

### Analysis Requested

#### Sample Handling Request

Rush Analysis  
 Date Required \_\_\_\_\_  
 Normal Turn Around

DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	8 EPA METALS *	% SOLIDS *	Other Analysis	PID/ FID
X	X			X			X			X	X		

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	8 EPA METALS *	% SOLIDS *	Other Analysis	PID/ FID
		Date	Time																	
<u>5024499 J</u>	<u>SAND -1</u>	<u>2/9/99</u>	<u>1430</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>K</u>	<u>SAND -2</u>		<u>1432</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>L</u>	<u>SAND -3</u>		<u>1435</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>M</u>	<u>SAND -4</u>		<u>1438</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>N</u>	<u>DUP 2</u>		<u>1438</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>O</u>	<u>GP99-12 1A</u>		<u>1420</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>P</u>	<u>GP99-12 3A</u>		<u>1440</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>Q</u>	<u>GP99-7 3A</u>		<u>1545</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>
<u>R</u>	<u>GP99-7 4B</u>		<u>1555</u>				/	/	/	/	/	/	/	/	/	/	/	/		<u>ND</u>

#### Department Use Only

Split Samples: Offered?  Yes  No  
 Accepted?  Yes  No

Accepted By: \_\_\_\_\_

#### Comments/ Special Instructions

\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

#### Department Use Optional for Soil Samples

Disposition of unused portion of sample

Lab Should:

Dispose  Retain for \_\_\_\_\_ days

Return  Other

Relinquished By: (sign) [Signature] Time 105 Date 2/10 Received By: (sign) [Signature] Time 1:05 Date 2-10-99

Received in Laboratory By: [Signature] Time: 4:10 Date: 2/10/99

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024516A						Sample Type	Soil	
Sample ID	GP99-5 2A						Sample Date	2/10/99	

## Inorganic

### General

Solids Percent	81.7	%				1	2/12/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	8.3 "J"	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	20	mg/kg	0.28	0.93	1	2/17/99	6010A	JLA	1
Cadmium	3.0 "J"	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	9.0	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	22	mg/kg	- 6	20	1	2/18/99	6010A	JLA	1
Mercury	0.038	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	< 4.9	mg/kg	4.9	16	1	2/17/99	6010A	JLA	31
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	560	mg/kg	0.22	0.73	1	2/14/99	DRO95	BNR	1 44
Gasoline Range Organics	33	mg/kg	0.3	1.1	1	2/16/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/20/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/20/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/20/99	M8270	DJM	1
Benzo(a)pyrene	72 "J"	ug/kg	34	110	1	2/20/99	M8270	DJM	1
Benzo(b)fluoranthene	93 "J"	ug/kg	46	150	1	2/20/99	M8270	DJM	1
Benzo(g,h,i)perylene	120	ug/kg	29	100	1	2/20/99	M8270	DJM	1
Benzo(k)fluoranthene	100 "J"	ug/kg	48	160	1	2/20/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	2/20/99	M8270	DJM	1
Dibenzo(a,h)anthracene	63	ug/kg	18	60	1	2/20/99	M8270	DJM	1
Fluoranthene	94 "J"	ug/kg	38	130	1	2/20/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/20/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	81	ug/kg	18	60	1	2/20/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	2/20/99	M8270	DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/20/99	M8270	DJM	1
Phenanthrene	38 "J"	ug/kg	35	120	1	2/20/99	M8270	DJM	1
Pyrene	83 "J"	ug/kg	45	150	1	2/20/99	M8270	DJM	1

### VOC's



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516A							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-5 2A							<b>Sample Date</b>	2/10/99	
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	35	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	660	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516A								<b>Sample Type</b> Soil	
<b>Sample ID</b> GP99-5 2A								<b>Sample Date</b> 2/10/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1

<b>Lab Code</b> 5024516B								<b>Sample Type</b> Soil	
<b>Sample ID</b> GP99-5 1B								<b>Sample Date</b> 2/10/99	

## Inorganic

### General

Solids Percent	90.7	%				1	2/12/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	10	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	18	mg/kg	0.28	0.93	1	2/17/99	6010A	JLA	1
Cadmium	1.9 "J"	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	9.1	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	2015	mg/kg	30	100	5	2/18/99	6010A	JLA	1
Mercury	0.017 "J"	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 4.9	mg/kg	4.9	16	1	2/17/99	6010A	JLA	31
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/14/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/16/99	GRO95	CJR	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/20/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-5 1B							<b>Sample Date</b>	2/10/99	
Anthracene	130	ug/kg	36	120	1	2/20/99	M8270	DJM	1
Benzo(a)anthracene	1900	ug/kg	23	77	1	2/20/99	M8270	DJM	1
Benzo(a)pyrene	3300	ug/kg	34	110	1	2/20/99	M8270	DJM	1
Benzo(b)fluoranthene	5400	ug/kg	46	150	1	2/20/99	M8270	DJM	1
Benzo(g,h,i)perylene	2900	ug/kg	29	100	1	2/20/99	M8270	DJM	1
Benzo(k)fluoranthene	2300	ug/kg	48	160	1	2/20/99	M8270	DJM	1
Chrysene	2800	ug/kg	42	140	1	2/20/99	M8270	DJM	1
Dibenzo(a,h)anthracene	1200	ug/kg	18	60	1	2/20/99	M8270	DJM	1
Fluoranthene	3000	ug/kg	38	130	1	2/20/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/20/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	2200	ug/kg	18	60	1	2/20/99	M8270	DJM	1
1-Methyl naphthalene	36 "J"	ug/kg	31	100	1	2/20/99	M8270	DJM	1
2-Methyl naphthalene	28 "J"	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/20/99	M8270	DJM	1
Phenanthrene	790	ug/kg	35	120	1	2/20/99	M8270	DJM	1
Pyrene	2500	ug/kg	45	150	1	2/20/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	34
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516B									
<b>Sample ID</b> GP99-5 1B									
							<b>Sample Type</b>	<b>Soil</b>	
							<b>Sample Date</b>	2/10/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024516C						Sample Type	Soil	
Sample ID	GP99-4 4B						Sample Date	2/10/99	

## Inorganic

### General

Solids Percent	87.5	%			1	2/12/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	5.4 "J"	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	10	mg/kg	0.28	0.93	1	2/17/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	6.3	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	6.7 "J"	mg/kg	- 6	20	1	2/18/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/17/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	50	mg/kg	0.22	0.73	1	2/14/99	DRO95	BNR	1
Gasoline Range Organics	34	mg/kg	0.3	1.1	1	2/16/99	GRO95	CJR	1 46

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/20/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/20/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/20/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/20/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/20/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/20/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/20/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	2/20/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/20/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/20/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/20/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/20/99	M8270	DJM	1
1-Methyl naphthalene	510	ug/kg	31	100	1	2/20/99	M8270	DJM	1
2-Methyl naphthalene	920	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/20/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	2/20/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/20/99	M8270	DJM	1

### PCB's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516C							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-4 4B							<b>Sample Date</b>	2/10/99	
Aroclor 1016	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
Aroclor 1221	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
Aroclor 1232	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
Aroclor 1242	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
Aroclor 1248	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
Aroclor 1254	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
Aroclor 1260	< 5	ug/kg	5	17	1	2/15/99	8081	BNR	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	35	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	110	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	490	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516C							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-4 4B							<b>Sample Date</b>	2/10/99	
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	190	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	120	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	33	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	78	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1

<b>Lab Code</b> 5024516D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-4 5A							<b>Sample Date</b>	2/10/99	

**Inorganic**

**General**

Solids Percent	82.3	%			1	2/12/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

**Metals**

Arsenic	5.4 "J"	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	32	mg/kg	0.28	0.93	1	2/17/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	15	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/18/99	6010A	JLA	1
Mercury	0.013 "J"	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516D								<b>Sample Type</b> Soil	
<b>Sample ID</b> GP99-4 5A							<b>Sample Date</b> 2/10/99		
Selenium	< 24.5	mg/kg	24.5	80	5	2/17/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1
<b>Organic</b>									
<b>General</b>									
Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/14/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/17/99	GRO95	CJR	1
<b>PAH's</b>									
Acenaphthene	21 "J"	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/20/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/20/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/20/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/20/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/20/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/20/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/20/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	2/20/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/20/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/20/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/20/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/20/99	M8270	DJM	1
1-Methyl naphthalene	280	ug/kg	31	100	1	2/20/99	M8270	DJM	1
2-Methyl naphthalene	370	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/20/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	2/20/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/20/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-4 5A							<b>Sample Date</b>	2/10/99	
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-4 5A							<b>Sample Date</b>	2/10/99	
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1
<b>Lab Code</b> 5024516E							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-3 4B							<b>Sample Date</b>	2/10/99	

## Inorganic

### General

Solids Percent	82.3	%				1	2/12/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	4.5 "J"	mg/kg	2.8	9.2	1	2/18/99	6010A	JLA	1
Barium	59	mg/kg	0.28	0.93	1	2/18/99	6010A	JLA	1
Cadmium	1.4 "J"	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	20	mg/kg	0.55	1.8	1	2/18/99	6010A	JLA	1
Lead	7.9 "J"	mg/kg	6	20	1	2/18/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/17/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/14/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/17/99	GRO95	CJR	1

### PAH's

Acenaphthene	38 "J"	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/20/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/20/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/20/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/20/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/20/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/20/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/20/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	2/20/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/20/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/20/99	M8270	DJM	1
Fluorene	53 "J"	ug/kg	47	160	1	2/20/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516E						<b>Sample Type</b>		Soil	
<b>Sample ID</b> GP99-3 4B						<b>Sample Date</b>		2/10/99	
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/20/99	M8270	DJM	1
1-Methyl naphthalene	470	ug/kg	31	100	1	2/20/99	M8270	DJM	1
2-Methyl naphthalene	910	ug/kg	21	70	1	2/20/99	M8270	DJM	1
Naphthalene	510	ug/kg	30	100	1	2/20/99	M8270	DJM	1
Phenanthrene	220	ug/kg	35	120	1	2/20/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/20/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	43	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516E						<b>Sample Type</b>		Soil	
<b>Sample ID</b> GP99-3 4B						<b>Sample Date</b>		2/10/99	
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	340	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1

<b>Lab Code</b> 5024516F						<b>Sample Type</b>		Soil	
<b>Sample ID</b> GP99-3 5						<b>Sample Date</b>		2/10/99	

## Inorganic

### General

Solids Percent	92.0	%			1	2/12/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	4.3 "J"	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	7.9	mg/kg	0.28	0.93	1	2/17/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	5.2	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/18/99	6010A	JLA	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/17/99	245.1	VLC	5
Selenium	< 24.5	mg/kg	24.5	80	5	2/19/99	6010A	JLA	31 50

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516F							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-3 5							<b>Sample Date</b>	2/10/99	
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1
<b>Organic</b>									
<b>General</b>									
Diesel Range Organics	24000	mg/kg	2.2	7.3	10	2/14/99	DRO95	BNR	1
Gasoline Range Organics	2800	mg/kg	6.1	22	20	2/18/99	GRO95	CAH	1
<b>PAH's</b>									
Acenaphthene	28000	ug/kg	2100	7000	100	2/21/99	M8270	DJM	6 47
Acenaphthylene	9400	ug/kg	2400	8000	100	2/21/99	M8270	DJM	6 47
Anthracene	20000	ug/kg	3600	12000	100	2/21/99	M8270	DJM	6 47
Benzo(a)anthracene	< 2300	ug/kg	2300	7700	100	2/21/99	M8270	DJM	6 47
Benzo(a)pyrene	< 3400	ug/kg	3400	11000	100	2/21/99	M8270	DJM	6 47
Benzo(b)fluoranthene	< 4600	ug/kg	4600	15000	100	2/21/99	M8270	DJM	6 47
Benzo(g,h,i)perylene	< 2900	ug/kg	2900	10000	100	2/21/99	M8270	DJM	6 47
Benzo(k)fluoranthene	< 4800	ug/kg	4800	16000	100	2/21/99	M8270	DJM	6 47
Chrysene	< 4200	ug/kg	4200	14000	100	2/21/99	M8270	DJM	6 47
Dibenzo(a,h)anthracene	< 1800	ug/kg	1800	6000	100	2/21/99	M8270	DJM	6 47
Fluoranthene	< 3800	ug/kg	3800	13000	100	2/21/99	M8270	DJM	6 47
Fluorene	50000	ug/kg	4700	16000	100	2/21/99	M8270	DJM	6 47
Indeno(1,2,3-cd)pyrene	< 1800	ug/kg	1800	6000	100	2/21/99	M8270	DJM	6 47
1-Methyl naphthalene	670000	ug/kg	3100	10000	100	2/21/99	M8270	DJM	6 47
2-Methyl naphthalene	1700000	ug/kg	2100	7000	100	2/21/99	M8270	DJM	6 47
Naphthalene	370000	ug/kg	3000	10000	100	2/21/99	M8270	DJM	6 47
Phenanthrene	130000	ug/kg	3500	12000	100	2/21/99	M8270	DJM	6 47
Pyrene	5400 "J"	ug/kg	4500	15000	100	2/21/99	M8270	DJM	6 47
<b>VOC's</b>									
Benzene	< 2500	ug/kg	590	2000	100	2/16/99	8021A	CJR	1
Bromobenzene	< 2500	ug/kg	310	1000	100	2/16/99	8021A	CJR	1
Bromodichloromethane	< 2500	ug/kg	270	890	100	2/16/99	8021A	CJR	1
tert-Butylbenzene	< 2500	ug/kg	230	770	100	2/16/99	8021A	CJR	1
sec-Butylbenzene	6100	ug/kg	480	1600	100	2/16/99	8021A	CJR	1
n-Butylbenzene	130000	ug/kg	250	840	100	2/16/99	8021A	CJR	1
Carbon Tetrachloride	< 2500	ug/kg	220	720	100	2/16/99	8021A	CJR	1
Chlorobenzene	< 2500	ug/kg	250	820	100	2/16/99	8021A	CJR	1
Chloroethane	< 2500	ug/kg	500	1700	100	2/16/99	8021A	CJR	1
Chloroform	< 2500	ug/kg	280	920	100	2/16/99	8021A	CJR	1
Chloromethane	< 2500	ug/kg	730	2400	100	2/16/99	8021A	CJR	2 3

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516F								<b>Sample Type</b>	Soil
<b>Sample ID</b> GP99-3 5							<b>Sample Date</b>		2/10/99
2-Chlorotoluene	< 2500	ug/kg	240	790	100	2/16/99	8021A	CJR	1
4-Chlorotoluene	< 2500	ug/kg	230	780	100	2/16/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 2500	ug/kg	410	1400	100	2/16/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 2500	ug/kg	210	710	100	2/16/99	8021A	CJR	1
Dibromochloromethane	< 2500	ug/kg	200	670	100	2/16/99	8021A	CJR	1
1,4-Dichlorobenzene	< 2500	ug/kg	220	720	100	2/16/99	8021A	CJR	1
1,3-Dichlorobenzene	< 2500	ug/kg	220	740	100	2/16/99	8021A	CJR	1
1,2-Dichlorobenzene	< 2500	ug/kg	220	720	100	2/16/99	8021A	CJR	1
Dichlorodifluoromethane	< 2500	ug/kg	430	1400	100	2/16/99	8021A	CJR	3 4
1,2-Dichloroethane	< 2500	ug/kg	270	910	100	2/16/99	8021A	CJR	1
1,1-Dichloroethane	< 2500	ug/kg	230	760	100	2/16/99	8021A	CJR	1
1,1-Dichloroethene	< 2500	ug/kg	220	750	100	2/16/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 2500	ug/kg	280	930	100	2/16/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 2500	ug/kg	350	1200	100	2/16/99	8021A	CJR	3
1,2-Dichloropropane	< 2500	ug/kg	240	800	100	2/16/99	8021A	CJR	1
1,3-Dichloropropane	< 2500	ug/kg	220	730	100	2/16/99	8021A	CJR	1
Di-isopropyl ether	< 2500	ug/kg	390	1300	100	2/16/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 2500	ug/kg	420	1400	100	2/16/99	8021A	CJR	1
Ethylbenzene	6000	ug/kg	620	1100	100	2/16/99	8021A	CJR	1
Hexachlorobutadiene	< 2500	ug/kg	480	1600	100	2/16/99	8021A	CJR	1
Isopropylbenzene	< 2500	ug/kg	500	1700	100	2/16/99	8021A	CJR	1
p-Isopropyltoluene	< 2500	ug/kg	340	1100	100	2/16/99	8021A	CJR	1
Methylene chloride	< 2500	ug/kg	330	1100	100	2/16/99	8021A	CJR	1
MTBE	< 2500	ug/kg	700	2300	100	2/16/99	8021A	CJR	1
Naphthalene	170000	ug/kg	700	2300	100	2/16/99	8021A	CJR	1
n-Propylbenzene	8000	ug/kg	280	920	100	2/16/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 2500	ug/kg	710	2400	100	2/16/99	8021A	CJR	2
Tetrachloroethene	< 2500	ug/kg	360	1200	100	2/16/99	8021A	CJR	1
Toluene	< 2500	ug/kg	510	1700	100	2/16/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 2500	ug/kg	510	1700	100	2/16/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 2500	ug/kg	540	1800	100	2/16/99	8021A	CJR	1
1,1,1-Trichloroethane	< 2500	ug/kg	230	760	100	2/16/99	8021A	CJR	1
1,1,2-Trichloroethane	< 2500	ug/kg	200	670	100	2/16/99	8021A	CJR	1
Trichloroethene	< 2500	ug/kg	460	1500	100	2/16/99	8021A	CJR	2 3
Trichlorofluoromethane	< 2500	ug/kg	1900	6500	100	2/16/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	78000	ug/kg	240	800	100	2/16/99	8021A	CJR	1
1,3,5-Trimethylbenzene	23000	ug/kg	380	1300	100	2/16/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516F							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-3 5							<b>Sample Date</b>	2/10/99	
Vinyl Chloride	< 2500	ug/kg	470	1600	100	2/16/99	8021A	CJR	3 4
m&p-Xylene	16000	ug/kg	560	1900	100	2/16/99	8021A	CJR	1
o-Xylene	16000	ug/kg	270	900	100	2/16/99	8021A	CJR	1
<b>Lab Code</b> 5024516G							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-1 2A							<b>Sample Date</b>	2/10/99	

**Inorganic**

**General**

Solids Percent 82.3 % 1 2/12/99 5021 RMB 1

**Metals**

Arsenic < 2.8 mg/kg 2.8 9.2 1 2/17/99 6010A JLA 1  
 Barium 1.6 mg/kg 0.28 0.93 1 2/17/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/18/99 6010A JLA 1  
 Chromium 2.1 mg/kg 0.55 1.8 1 2/17/99 6010A JLA 1  
 Lead < 6 mg/kg 6 20 1 2/18/99 6010A JLA 1  
 Mercury < 0.011 mg/kg 0.011 0.037 1 2/17/99 245.1 VLC 5  
 Selenium < 4.9 mg/kg 4.9 16 1 2/19/99 6010A JLA 31  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

**Organic**

**General**

Diesel Range Organics < 10 mg/kg 0.22 0.73 1 2/14/99 DRO95 BNR 1  
 Gasoline Range Organics < 10 mg/kg 0.3 1.1 1 2/17/99 GRO95 CAH 1

**PAH's**

Acenaphthene < 21 ug/kg 21 70 1 2/21/99 M8270 DJM 1  
 Acenaphthylene < 24 ug/kg 24 80 1 2/21/99 M8270 DJM 1  
 Anthracene < 36 ug/kg 36 120 1 2/21/99 M8270 DJM 1  
 Benzo(a)anthracene < 23 ug/kg 23 77 1 2/21/99 M8270 DJM 1  
 Benzo(a)pyrene < 34 ug/kg 34 110 1 2/21/99 M8270 DJM 1  
 Benzo(b)fluoranthene < 46 ug/kg 46 150 1 2/21/99 M8270 DJM 1  
 Benzo(g,h,i)perylene < 29 ug/kg 29 100 1 2/21/99 M8270 DJM 1  
 Benzo(k)fluoranthene < 48 ug/kg 48 160 1 2/21/99 M8270 DJM 1  
 Chrysene < 42 ug/kg 42 140 1 2/21/99 M8270 DJM 1  
 Dibenzo(a,h)anthracene < 18 ug/kg 18 60 1 2/21/99 M8270 DJM 1  
 Fluoranthene < 38 ug/kg 38 130 1 2/21/99 M8270 DJM 1  
 Fluorene < 47 ug/kg 47 160 1 2/21/99 M8270 DJM 1  
 Indeno(1,2,3-cd)pyrene < 18 ug/kg 18 60 1 2/21/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516G							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-1 2A							<b>Sample Date</b>	2/10/99	
1-Methyl naphthalene	40 "J"	ug/kg	31	100	1	2/21/99	M8270	DJM	1
2-Methyl naphthalene	49 "J"	ug/kg	21	70	1	2/21/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/21/99	M8270	DJM	1
Phenanthrene	36 "J"	ug/kg	35	120	1	2/21/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/21/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516G							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-1 2A							<b>Sample Date</b>	<b>2/10/99</b>	
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1

<b>Lab Code</b> 5024516H							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> GP99-1 3							<b>Sample Date</b>	<b>2/10/99</b>	

## Inorganic

### General

Solids Percent	84.5	%				1	2/12/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	5.2 "J"	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	99	mg/kg	1.4	4.65	5	2/17/99	6010A	JLA	1
Cadmium	4.7	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	29	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	90	mg/kg	6	20	1	2/18/99	6010A	JLA	1
Mercury	0.542	mg/kg	0.044	0.148	4	3/8/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5	2/19/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024516H						Sample Type	Soil	
Sample ID	GP99-1 3						Sample Date	2/10/99	

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/15/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/17/99	GRO95	CAH	1

### PAH's

Acenaphthene	38 "J"	ug/kg	21	70	1	2/21/99	M8270	DJM	1
Acenaphthylene	36 "J"	ug/kg	24	80	1	2/21/99	M8270	DJM	1
Anthracene	200	ug/kg	36	120	1	2/21/99	M8270	DJM	1
Benzo(a)anthracene	190	ug/kg	-23	77	1	2/21/99	M8270	DJM	1
Benzo(a)pyrene	210	ug/kg	34	110	1	2/21/99	M8270	DJM	1
Benzo(b)fluoranthene	240	ug/kg	46	150	1	2/21/99	M8270	DJM	1
Benzo(g,h,i)perylene	200	ug/kg	29	100	1	2/21/99	M8270	DJM	1
Benzo(k)fluoranthene	220	ug/kg	48	160	1	2/21/99	M8270	DJM	1
Chrysene	300	ug/kg	42	140	1	2/21/99	M8270	DJM	1
Dibenzo(a,h)anthracene	72	ug/kg	18	60	1	2/21/99	M8270	DJM	1
Fluoranthene	600	ug/kg	38	130	1	2/21/99	M8270	DJM	1
Fluorene	53 "J"	ug/kg	47	160	1	2/21/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	130	ug/kg	18	60	1	2/21/99	M8270	DJM	1
1-Methyl naphthalene	100	ug/kg	31	100	1	2/21/99	M8270	DJM	1
2-Methyl naphthalene	150	ug/kg	21	70	1	2/21/99	M8270	DJM	1
Naphthalene	84 "J"	ug/kg	30	100	1	2/21/99	M8270	DJM	1
Phenanthrene	540	ug/kg	35	120	1	2/21/99	M8270	DJM	1
Pyrene	530	ug/kg	45	150	1	2/21/99	M8270	DJM	1

### VOC's

Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5024516H						Sample Type		Soil	
Sample ID GP99-1 3						Sample Date		2/10/99	
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516H							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-1 3							<b>Sample Date</b>	2/10/99	
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1
<b>Lab Code</b> 5024516I							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-2 4B							<b>Sample Date</b>	2/10/99	

**Inorganic**

General

Solids Percent 84.9 % 1 2/12/99 5021 RMB 1

Metals

Arsenic 5.8 "J" mg/kg 2.8 9.2 1 2/17/99 6010A JLA 1  
 Barium 9.3 mg/kg 0.28 0.93 1 2/17/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 2/18/99 6010A JLA 1  
 Chromium 5.8 mg/kg 0.55 1.8 1 2/17/99 6010A JLA 1  
 Lead < 6 mg/kg 6 20 1 2/18/99 6010A JLA 1  
 Mercury 0.011 "J" mg/kg 0.011 0.037 1 2/23/99 245.1 VLC 1  
 Selenium < 24.5 mg/kg 24.5 80 5 2/19/99 6010A JLA 31 50  
 Silver < 3 mg/kg 3 10 1 2/17/99 6010A JLA 1

**Organic**

General

Diesel Range Organics 2400 mg/kg 0.22 0.73 1 2/15/99 DRO95 BNR 1  
 Gasoline Range Organics 220 mg/kg 0.3 1.1 1 2/18/99 GRO95 CAH 1 46

PAH's

Acenaphthene 600 ug/kg 110 350 5 2/21/99 M8270 DJM 1  
 Acenaphthylene 230 "J" ug/kg 120 400 5 2/21/99 M8270 DJM 1  
 Anthracene 360 "J" ug/kg 180 600 5 2/21/99 M8270 DJM 1  
 Benzo(a)anthracene < 120 ug/kg 120 390 5 2/21/99 M8270 DJM 1  
 Benzo(a)pyrene < 170 ug/kg 170 570 5 2/21/99 M8270 DJM 1  
 Benzo(b)fluoranthene < 230 ug/kg 230 770 5 2/21/99 M8270 DJM 1  
 Benzo(g,h,i)perylene < 150 ug/kg 150 490 5 2/21/99 M8270 DJM 1  
 Benzo(k)fluoranthene < 240 ug/kg 240 800 5 2/21/99 M8270 DJM 1  
 Chrysene < 210 ug/kg 210 700 5 2/21/99 M8270 DJM 1  
 Dibenzo(a,h)anthracene < 90 ug/kg 90 300 5 2/21/99 M8270 DJM 1  
 Fluoranthene < 190 ug/kg 190 640 5 2/21/99 M8270 DJM 1  
 Fluorene 1100 ug/kg 240 790 5 2/21/99 M8270 DJM 1  
 Indeno(1,2,3-cd)pyrene < 90 ug/kg 90 300 5 2/21/99 M8270 DJM 1  
 1-Methyl naphthalene 11000 ug/kg 160 520 5 2/21/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516I							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-2 4B							<b>Sample Date</b>	2/10/99	
2-Methyl naphthalene	19000	ug/kg	110	350	5	2/21/99	M8270	DJM	1
Naphthalene	2900	ug/kg	150	500	5	2/21/99	M8270	DJM	1
Phenanthrene	2900	ug/kg	180	590	5	2/21/99	M8270	DJM	1
Pyrene	< 230	ug/kg	230	750	5	2/21/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/13/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/13/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/13/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/13/99	8021A	CJR	1
sec-Butylbenzene	410	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1
n-Butylbenzene	7800	ug/kg	2.5	8.4	1	2/13/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/13/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/13/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/13/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/13/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/13/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/13/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/13/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/13/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/13/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/13/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/13/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/13/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/13/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/13/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/13/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/13/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/13/99	8021A	CJR	1
Ethylbenzene	300	ug/kg	6.2	11	1	2/13/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/13/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516I								<b>Sample Type</b> Soil	
<b>Sample ID</b> GP99-2 4B								<b>Sample Date</b> 2/10/99	
Isopropylbenzene	49	ug/kg	5	17	1	2/13/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/13/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/13/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/13/99	8021A	CJR	1
Naphthalene	7500	ug/kg	7	23	1	2/13/99	8021A	CJR	1
n-Propylbenzene	1300	ug/kg	2.8	9.2	1	2/13/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/13/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/13/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/13/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/13/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/13/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/13/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/13/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/13/99	8021A	CJR	2 3
1,2,4-Trimethylbenzene	2700	ug/kg	2.4	8	1	2/13/99	8021A	CJR	1
1,3,5-Trimethylbenzene	840	ug/kg	3.8	13	1	2/13/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/13/99	8021A	CJR	1
m&p-Xylene	300	ug/kg	5.6	19	1	2/13/99	8021A	CJR	1
o-Xylene	150	ug/kg	2.7	9	1	2/13/99	8021A	CJR	1

<b>Lab Code</b> 5024516J								<b>Sample Type</b> Soil	
<b>Sample ID</b> GP99-2 5A								<b>Sample Date</b> 2/10/99	

## Inorganic

### General

Solids Percent	87.5	%			1	2/12/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	6.1 "J"	mg/kg	2.8	9.2	1	2/17/99	6010A	JLA	1
Barium	14	mg/kg	0.28	0.93	1	2/17/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	2/18/99	6010A	JLA	1
Chromium	8.1	mg/kg	0.55	1.8	1	2/17/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/18/99	6010A	JLA	1
Mercury	0.015 "J"	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5	2/19/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/17/99	6010A	JLA	1

## Organic

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516J								<b>Sample Type</b> Soil	
<b>Sample ID</b> GP99-2 5A								<b>Sample Date</b> 2/10/99	
<b>General</b>									
Diesel Range Organics	5200	mg/kg	0.22	0.73	1	2/15/99	DRO95	BNR	1
Gasoline Range Organics	1000	mg/kg	3	11	10	2/18/99	GRO95	CAH	1 46
<b>PAH's</b>									
Acenaphthene	1900	ug/kg	210	700	10	2/21/99	M8270	DJM	1
Acenaphthylene	600 "J"	ug/kg	240	800	10	2/21/99	M8270	DJM	1
Anthracene	1000 "J"	ug/kg	360	1200	10	2/21/99	M8270	DJM	1
Benzo(a)anthracene	< 230	ug/kg	230	770	10	2/21/99	M8270	DJM	1
Benzo(a)pyrene	< 340	ug/kg	340	1100	10	2/21/99	M8270	DJM	1
Benzo(b)fluoranthene	< 460	ug/kg	460	1500	10	2/21/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 290	ug/kg	290	1000	10	2/21/99	M8270	DJM	1
Benzo(k)fluoranthene	< 480	ug/kg	480	1600	10	2/21/99	M8270	DJM	1
Chrysene	< 420	ug/kg	420	1400	10	2/21/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 180	ug/kg	180	600	10	2/21/99	M8270	DJM	1
Fluoranthene	< 380	ug/kg	380	1300	10	2/21/99	M8270	DJM	1
Fluorene	3300	ug/kg	470	1600	10	2/21/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 180	ug/kg	180	600	10	2/21/99	M8270	DJM	1
1-Methyl naphthalene	38000	ug/kg	310	1000	10	2/21/99	M8270	DJM	1
2-Methyl naphthalene	100000	ug/kg	210	700	10	2/21/99	M8270	DJM	1
Naphthalene	5700	ug/kg	300	1000	10	2/21/99	M8270	DJM	1
Phenanthrene	8700	ug/kg	350	1200	10	2/21/99	M8270	DJM	1
Pyrene	< 450	ug/kg	450	1500	10	2/21/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 250	ug/kg	59	200	10	2/16/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/16/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/16/99	8021A	CJR	1
tert-Butylbenzene	< 250	ug/kg	23	77	10	2/16/99	8021A	CJR	1
sec-Butylbenzene	1400	ug/kg	48	160	10	2/16/99	8021A	CJR	1
n-Butylbenzene	18000	ug/kg	25	84	10	2/16/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/16/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/16/99	8021A	CJR	1
Chloroform	< 250	ug/kg	28	92	10	2/16/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/16/99	8021A	CJR	2 3
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/16/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/16/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24516

Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024516J							<b>Sample Type</b>	Soil	
<b>Sample ID</b> GP99-2 5A							<b>Sample Date</b>	2/10/99	
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/16/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/16/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/16/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/16/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/16/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/16/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/16/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/16/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/16/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/16/99	8021A	CJR	3
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/16/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/16/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/16/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/16/99	8021A	CJR	1
Ethylbenzene	1800	ug/kg	62	110	10	2/16/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/16/99	8021A	CJR	1
Isopropylbenzene	420	ug/kg	50	170	10	2/16/99	8021A	CJR	1
p-Isopropyltoluene	< 250	ug/kg	34	110	10	2/16/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/16/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/16/99	8021A	CJR	1
Naphthalene	22000	ug/kg	70	230	10	2/16/99	8021A	CJR	1
n-Propylbenzene	2000	ug/kg	28	92	10	2/16/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/16/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/16/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/16/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/16/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/16/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/16/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/16/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/16/99	8021A	CJR	2 3
Trichlorofluoromethane	< 250	ug/kg	190	650	10	2/16/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	3900	ug/kg	24	80	10	2/16/99	8021A	CJR	1
1,3,5-Trimethylbenzene	1700	ug/kg	38	130	10	2/16/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/16/99	8021A	CJR	3 4
m&p-Xylene	580	ug/kg	56	190	10	2/16/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
URS GREINER WOODWARD CLYDE  
2312 GRANDVIEW BLVD STE 210  
WAUKESHA WI 53188

Project # 7EO9675  
Project Name MOBILE BLASTING  
Invoice # E24516

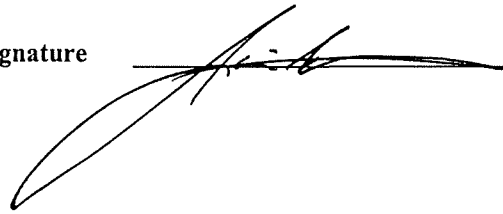
Report Date 11-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code	
o-Xylene	830	ug/kg	27	90	10	2/16/99	8021A	CJR	1	
LOD Limit of Detection			"J" Flag: Analyte detected between LOD and LOQ				LOQ Limit of Quantitation			

Lab Code	5024516J	Sample Type	Soil
Sample ID	GP99-2 5A	Sample Date	2/10/99

Code	Comment
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
5	The blank failed to meet acceptable QC limits.
6	The surrogate recovery failed to meet acceptable QC limits.
31	The interference check standard failed to meet acceptable QC limits.
44	Chromatogram indicates possible lube oil contamination.
46	Chromatogram indicates contamination outside of the specified window.
50	Sample diluted to compensate for matrix interference.

Authorized Signature



# CHAIN OF CUSTODY RECORD



## Analytical Lab

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # No 15916

Page 1 of 2

Lab I.D. # 5024516

Account No.: Quote No.: 93518

Project #: 7009675

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Courier Temp. of Temp. Blank: \_\_\_\_\_ °C On Ice: X

Sampler: (signature) [Signature]

Cooler seal intact upon receipt: X Yes \_\_\_\_\_ No

Labcoded By: [Signature]

Project (Name / Location): MOBILE BLASTING, WEST MILWAUKEE

### Analysis Requested

Reports To: Bob Cigale Invoice To:

### Sample Handling Request

Company URS CORP Company

Rush Analysis  
 Date Required \_\_\_\_\_

Address 2312 N. GRANDVIEW Address

Normal Turn Around

City State Zip WAUKESHA 53188 City State Zip

Phone 414 513 0577 Phone

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	P VOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis	
		Date	Time														8 METALS	SOLIDS
5024516 A	GP99-5 2A	2/10	830				/	/			/	/	/	/	/	/	/	98
	B	2/10	820				/	/			/	/	/	/	/	/	/	22
	C	2/10	925				/	/			/	/	/	/	/	/	/	77
	D	2/10	930				/	/			/	/	/	/	/	/	/	75
	E	2/10	1015				/	/			/	/	/	/	/	/	/	35
	F	2/10	1020				/	/			/	/	/	/	/	/	/	82
	G	2/10	1040				/	/			/	/	/	/	/	/	/	13
	H	2/10	1100				/	/			/	/	/	/	/	/	/	ND
	I	2/10	1205				/	/			/	/	/	/	/	/	/	11

### Department Use Only

Split Samples: Offered?  Yes  No

Accepted?  Yes  No

Accepted By: \_\_\_\_\_

### Comments/ Special Instructions

\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

E-mail Data in 'Excel' format to robert-cigale@urscorp.com - per B.C..

### Department Use Optional for Soil Samples

Disposition of unused portion of sample

Lab Should:

Dispose  Retain for \_\_\_\_\_ days

Return  Other

Relinquished By: (sign)

[Signature]  
[Signature]

Time Date Received By: (sign)

11:30 2-11-99 [Signature]  
 4:15 2-11-99

Time Date

11:30 2-11-99

Received in Laboratory By:

[Signature]

Time: 4:15

Date: 2/11/99

# CHAIN OF CUSTODY RECORD



**Analytical Lab**

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # No **15917**

Page 2 of 2

Lab I.D. # **5024516**

Account No. : Quote No.: **93518**

Project #: **7E09675**

Sampler: (signature) *[Signature]*

Sample Integrity - To be completed by receiving lab.  
 Method of Shipment: COURIER Temp. of Temp. Blank. \_\_\_\_\_ °C On Ice: X  
 Cooler seal intact upon receipt: X Yes \_\_\_ No Labcoded By: LG5

Project (Name / Location): **MOBILE BLASTING, WEST MILWAUKEE**

Reports To: **BOB CIGALE** Invoice To:  
 Company **URS & WC** Company  
 Address **232 N. GRANDVIEW** Address  
 City State Zip **WAUWATOSA 53188** City State Zip  
 Phone **414 513 0577** Phone

Sample Handling Request		Analysis Requested										
<input checked="" type="checkbox"/> Normal Turn Around		DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis
		X	X			X			X			BLEND METALS X % SOLIDS X

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis	PID/FID	
5024516 J	GP99-2 SA	2/10	1210				X	X			X			X					13

**Department Use Only**  
 Split Samples: Offered? \_\_\_ Yes \_\_\_ No  
 Accepted? \_\_\_ Yes \_\_\_ No  
 Accepted By: \_\_\_\_\_

**Comments/ Special Instructions**  
 \*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

**Department Use Optional for Soil Samples**  
 Disposition of unused portion of sample  
 Lab Should:  
 \_\_\_ Dispose \_\_\_ Retain for \_\_\_ days  
 \_\_\_ Return \_\_\_ Other

Relinquished By: (sign) Jeannette McShelley Time 11:30 Date 2-11-99  
 Received By: (sign) Leo Huss Time 4:15 Date 2-11-99  
 Received in Laboratory By: Jimbo Dmido Time: 4:15 Date: 2/11/99

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024544A						Sample Type	Soil	
Sample ID	MW99-5 5						Sample Date	2/11/99	

**Inorganic**

**General**

Solids Percent	79.0	%				1	2/15/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

**Metals**

Arsenic	< 2.8	mg/kg	2.8	9.2	1		2/26/99	6010A	KAB	1
Barium	58	mg/kg	0.28	0.93	1		3/11/99	6010A	JLA	1
Cadmium	1.3 "J"	mg/kg	1.2	4	1		3/12/99	6010A	JLA	1
Chromium	27	mg/kg	0.55	1.8	1		2/25/99	6010A	KAB	1
Lead	11	mg/kg	6	20	1		2/25/99	6010A	KAB	1
Mercury	0.028 "J"	mg/kg	0.011	0.037	1		2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5		3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1		2/19/99	6010A	JLA	1

**Organic**

**General**

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1		2/16/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1		2/18/99	GRO95	CAH	1

**PAH's**

Acenaphthene	< 21	ug/kg	21	70	1		2/24/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1		2/24/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1		2/24/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1		2/24/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1		2/24/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1		2/24/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1		2/24/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1		2/24/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1		2/24/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1		2/24/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1		2/24/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1		2/24/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1		2/24/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1		2/24/99	M8270	DJM	1
2-Methyl naphthalene	< 21	ug/kg	21	70	1		2/24/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1		2/24/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1		2/24/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1		2/24/99	M8270	DJM	1

**VOC's**

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024544A						Sample Type	Soil	
Sample ID	MW99-5 5						Sample Date	2/11/99	
Benzene	< 25	ug/kg	5.9	20	1	2/18/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/18/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/18/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/18/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/18/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/18/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/18/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/18/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/18/99	8021A	CJR	3 4
Chloroform	< 25	ug/kg	2.8	9.2	1	2/18/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/18/99	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/18/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/18/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/18/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/18/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/18/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/18/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/18/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/18/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/18/99	8021A	CJR	1
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/18/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/18/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/18/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/18/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/18/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/18/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/18/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/18/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/18/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/18/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/18/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/18/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/18/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/18/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/18/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/18/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/18/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024544A								<b>Sample Type</b> Soil	
<b>Sample ID</b> MW99-5 5								<b>Sample Date</b> 2/11/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/18/99	8021A	CJR	1
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/18/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/18/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/18/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/18/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/18/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/18/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/18/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	- 19	65	1	2/18/99	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/18/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/18/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/18/99	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/18/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/18/99	8021A	CJR	1

<b>Lab Code</b> 5024544B								<b>Sample Type</b> Soil	
<b>Sample ID</b> MW99-5 9								<b>Sample Date</b> 2/11/99	

## Inorganic

### General

Solids Percent	87.3	%				1	2/15/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/26/99	6010A	KAB	1
Barium	8.1	mg/kg	0.28	0.93	1	3/11/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	3/12/99	6010A	JLA	1
Chromium	9	mg/kg	0.55	1.8	1	2/25/99	6010A	KAB	1
Lead	6	mg/kg	6	20	1	2/25/99	6010A	KAB	1
Mercury	0.014 "J"	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5	3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/19/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/16/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/18/99	GRO95	CAH	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/23/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024544B						<b>Sample Type</b>		Soil	
<b>Sample ID</b> MW99-5 9						<b>Sample Date</b>		2/11/99	
Anthracene	< 36	ug/kg	36	120	1	2/23/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/23/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/23/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/23/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/23/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/23/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	2/23/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/23/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/23/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/23/99	M8270	DJM	1
1-Methyl naphthalene	33 "J"	ug/kg	31	100	1	2/23/99	M8270	DJM	1
2-Methyl naphthalene	49 "J"	ug/kg	21	70	1	2/23/99	M8270	DJM	1
Naphthalene	< 30	ug/kg	30	100	1	2/23/99	M8270	DJM	1
Phenanthrene	72 "J"	ug/kg	35	120	1	2/23/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/23/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/16/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/16/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/16/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/16/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/16/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/16/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/16/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/16/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/16/99	8021A	CJR	1
Chloroform	< 25	ug/kg	2.8	9.2	1	2/16/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/16/99	8021A	CJR	2 3
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/16/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/16/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/16/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/16/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/16/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/16/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/16/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/16/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024544B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-5 9							<b>Sample Date</b>	2/11/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/16/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/16/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/16/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/16/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/16/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/16/99	8021A	CJR	3
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/16/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/16/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	-3.9	13	1	2/16/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/16/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/16/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/16/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/16/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/16/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/16/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/16/99	8021A	CJR	1
Naphthalene	27	ug/kg	7	23	1	2/16/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/16/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/16/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/16/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/16/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/16/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/16/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/16/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/16/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/16/99	8021A	CJR	2 3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/16/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/16/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/16/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/16/99	8021A	CJR	3 4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/16/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/16/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024544C						Sample Type	Soil	
Sample ID	MW99-4 7						Sample Date	2/11/99	

**Inorganic**

**General**

Solids Percent	93.8	%				1	2/15/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

**Metals**

Arsenic	< 2.8	mg/kg	2.8	9.2	1		2/26/99	6010A	KAB	1
Barium	5.3	mg/kg	0.28	0.93	1		3/11/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1		3/12/99	6010A	JLA	1
Chromium	3	mg/kg	0.55	1.8	1		2/25/99	6010A	KAB	1
Lead	< 6	mg/kg	6	20	1		2/25/99	6010A	KAB	1
Mercury	< 0.011	mg/kg	0.011	0.037	1		2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5		3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1		2/19/99	6010A	JLA	1

**Organic**

**General**

Diesel Range Organics	11	mg/kg	0.22	0.73	1		2/16/99	DRO95	BNR	1
Gasoline Range Organics	14	mg/kg	0.3	1.1	1		2/18/99	GRO95	CAH	1 46

**PAH's**

Acenaphthene	< 21	ug/kg	21	70	1		2/24/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1		2/24/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1		2/24/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1		2/24/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1		2/24/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1		2/24/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1		2/24/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1		2/24/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1		2/24/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1		2/24/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1		2/24/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1		2/24/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1		2/24/99	M8270	DJM	1
1-Methyl naphthalene	460	ug/kg	31	100	1		2/24/99	M8270	DJM	1
2-Methyl naphthalene	1100	ug/kg	21	70	1		2/24/99	M8270	DJM	1
Naphthalene	480	ug/kg	30	100	1		2/24/99	M8270	DJM	1
Phenanthrene	77 "J"	ug/kg	35	120	1		2/24/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1		2/24/99	M8270	DJM	1

**VOC's**

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024544C						Sample Type	Soil	
Sample ID	MW99-4 7						Sample Date	2/11/99	
Benzene	< 25	ug/kg	5.9	20	1	2/16/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/16/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/16/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/16/99	8021A	CJR	1
sec-Butylbenzene	29	ug/kg	4.8	16	1	2/16/99	8021A	CJR	1
n-Butylbenzene	320	ug/kg	2.5	8.4	1	2/16/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/16/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/16/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/16/99	8021A	CJR	1
Chloroform	< 25	ug/kg	2.8	9.2	1	2/16/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/16/99	8021A	CJR	2 3
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/16/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/16/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/16/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/16/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/16/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/16/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/16/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/16/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/16/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/16/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/16/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/16/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/16/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/16/99	8021A	CJR	3
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/16/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/16/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/16/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/16/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/16/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/16/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/16/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/16/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/16/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/16/99	8021A	CJR	1
Naphthalene	690	ug/kg	7	23	1	2/16/99	8021A	CJR	1
n-Propylbenzene	160	ug/kg	2.8	9.2	1	2/16/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024544C								<b>Sample Type</b> Soil	
<b>Sample ID</b> MW99-4 7								<b>Sample Date</b> 2/11/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/16/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/16/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/16/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/16/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/16/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/16/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/16/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/16/99	8021A	CJR	2 3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/16/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/16/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/16/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/16/99	8021A	CJR	3 4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/16/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/16/99	8021A	CJR	1

<b>Lab Code</b> 5024544D								<b>Sample Type</b> Soil	
<b>Sample ID</b> MW99-4 8								<b>Sample Date</b> 2/11/99	

## Inorganic

### General

Solids Percent	83.6	%				1	2/15/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/26/99	6010A	KAB	1
Barium	8.3	mg/kg	0.28	0.93	1	3/11/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	3/12/99	6010A	JLA	1
Chromium	4	mg/kg	0.55	1.8	1	2/25/99	6010A	KAB	1
Lead	< 6	mg/kg	6	20	1	2/25/99	6010A	KAB	1
Mercury	0.016 "J"	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5	3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/19/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	1300	mg/kg	0.22	0.73	1	2/16/99	DRO95	BNR	1
Gasoline Range Organics	180	mg/kg	0.3	1.1	1	2/18/99	GRO95	CAH	1 46

### PAH's

Acenaphthene	530	ug/kg	110	350	5	2/24/99	M8270	DJM	1
Acenaphthylene	270 "J"	ug/kg	120	400	5	2/24/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024544D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-4 8							<b>Sample Date</b>	2/11/99	
Anthracene	350 "J"	ug/kg	180	600	5	2/24/99	M8270	DJM	1
Benzo(a)anthracene	< 120	ug/kg	120	390	5	2/24/99	M8270	DJM	1
Benzo(a)pyrene	< 170	ug/kg	170	570	5	2/24/99	M8270	DJM	1
Benzo(b)fluoranthene	< 230	ug/kg	230	770	5	2/24/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 150	ug/kg	150	490	5	2/24/99	M8270	DJM	1
Benzo(k)fluoranthene	< 240	ug/kg	240	800	5	2/24/99	M8270	DJM	1
Chrysene	< 210	ug/kg	210	700	5	2/24/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 90	ug/kg	90	300	5	2/24/99	M8270	DJM	1
Fluoranthene	< 190	ug/kg	190	640	5	2/24/99	M8270	DJM	1
Fluorene	1000	ug/kg	240	790	5	2/24/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 90	ug/kg	90	300	5	2/24/99	M8270	DJM	1
1-Methyl naphthalene	12000	ug/kg	160	520	5	2/24/99	M8270	DJM	1
2-Methyl naphthalene	24000	ug/kg	220	700	10	2/24/99	M8270	DJM	1
Naphthalene	3800	ug/kg	150	500	5	2/24/99	M8270	DJM	1
Phenanthrene	2700	ug/kg	180	590	5	2/24/99	M8270	DJM	1
Pyrene	< 230	ug/kg	230	750	5	2/24/99	M8270	DJM	1
VOC's									
Benzene	< 250	ug/kg	59	200	10	2/16/99	8021A	CJR	1
Bromobenzene	< 250	ug/kg	31	100	10	2/16/99	8021A	CJR	1
Bromodichloromethane	< 250	ug/kg	27	89	10	2/16/99	8021A	CJR	1
tert-Butylbenzene	360	ug/kg	23	77	10	2/16/99	8021A	CJR	1
sec-Butylbenzene	780	ug/kg	48	160	10	2/16/99	8021A	CJR	1
n-Butylbenzene	4300	ug/kg	25	84	10	2/16/99	8021A	CJR	1
Carbon Tetrachloride	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
Chlorobenzene	< 250	ug/kg	25	82	10	2/16/99	8021A	CJR	1
Chloroethane	< 250	ug/kg	50	170	10	2/16/99	8021A	CJR	1
Chloroform	< 250	ug/kg	28	92	10	2/16/99	8021A	CJR	1
Chloromethane	< 250	ug/kg	73	240	10	2/16/99	8021A	CJR	2 3
2-Chlorotoluene	< 250	ug/kg	24	79	10	2/16/99	8021A	CJR	1
4-Chlorotoluene	< 250	ug/kg	23	78	10	2/16/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 250	ug/kg	41	140	10	2/16/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 250	ug/kg	21	71	10	2/16/99	8021A	CJR	1
Dibromochloromethane	< 250	ug/kg	20	67	10	2/16/99	8021A	CJR	1
1,4-Dichlorobenzene	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1
1,3-Dichlorobenzene	< 250	ug/kg	22	74	10	2/16/99	8021A	CJR	1
1,2-Dichlorobenzene	< 250	ug/kg	22	72	10	2/16/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024544D								<b>Sample Type</b>	<b>Soil</b>
<b>Sample ID</b> MW99-4 8								<b>Sample Date</b>	<b>2/11/99</b>
Dichlorodifluoromethane	< 250	ug/kg	43	140	10	2/16/99	8021A	CJR	3 4
1,2-Dichloroethane	< 250	ug/kg	27	91	10	2/16/99	8021A	CJR	1
1,1-Dichloroethane	< 250	ug/kg	23	76	10	2/16/99	8021A	CJR	1
1,1-Dichloroethene	< 250	ug/kg	22	75	10	2/16/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 250	ug/kg	28	93	10	2/16/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 250	ug/kg	35	120	10	2/16/99	8021A	CJR	3
1,2-Dichloropropane	< 250	ug/kg	24	80	10	2/16/99	8021A	CJR	1
1,3-Dichloropropane	< 250	ug/kg	22	73	10	2/16/99	8021A	CJR	1
Di-isopropyl ether	< 250	ug/kg	39	130	10	2/16/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 250	ug/kg	42	140	10	2/16/99	8021A	CJR	1
Ethylbenzene	480	ug/kg	62	110	10	2/16/99	8021A	CJR	1
Hexachlorobutadiene	< 250	ug/kg	48	160	10	2/16/99	8021A	CJR	1
Isopropylbenzene	< 250	ug/kg	50	170	10	2/16/99	8021A	CJR	1
p-Isopropyltoluene	< 250	ug/kg	34	110	10	2/16/99	8021A	CJR	1
Methylene chloride	< 250	ug/kg	33	110	10	2/16/99	8021A	CJR	1
MTBE	< 250	ug/kg	70	230	10	2/16/99	8021A	CJR	1
Naphthalene	12000	ug/kg	70	230	10	2/16/99	8021A	CJR	1
n-Propylbenzene	1100	ug/kg	28	92	10	2/16/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 250	ug/kg	71	240	10	2/16/99	8021A	CJR	2
Tetrachloroethene	< 250	ug/kg	36	120	10	2/16/99	8021A	CJR	1
Toluene	< 250	ug/kg	51	170	10	2/16/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 250	ug/kg	51	170	10	2/16/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 250	ug/kg	54	180	10	2/16/99	8021A	CJR	1
1,1,1-Trichloroethane	< 250	ug/kg	23	76	10	2/16/99	8021A	CJR	1
1,1,2-Trichloroethane	< 250	ug/kg	20	67	10	2/16/99	8021A	CJR	1
Trichloroethene	< 250	ug/kg	46	150	10	2/16/99	8021A	CJR	2 3
Trichlorofluoromethane	< 250	ug/kg	190	650	10	2/16/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	520	ug/kg	24	80	10	2/16/99	8021A	CJR	1
1,3,5-Trimethylbenzene	630	ug/kg	38	130	10	2/16/99	8021A	CJR	1
Vinyl Chloride	< 250	ug/kg	47	160	10	2/16/99	8021A	CJR	3 4
m&p-Xylene	< 500	ug/kg	56	190	10	2/16/99	8021A	CJR	1
o-Xylene	< 250	ug/kg	27	90	10	2/16/99	8021A	CJR	1

# U.S. Analytical Lab

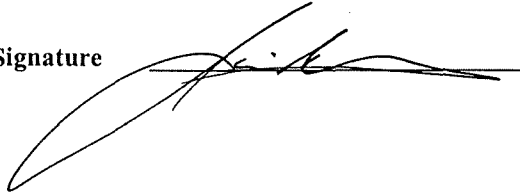
BOB CIGALE  
URS GREINER WOODWARD CLYDE  
2312 GRANDVIEW BLVD STE 210  
WAUKESHA WI 53188

Project # 7E09675  
Project Name MOBILE BLASTING  
Invoice # E24544

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
LOD Limit of Detection	"J" Flag: Analyte detected between LOD and LOQ								LOQ Limit of Quantitation
<i>Code</i>	<i>Comment</i>								
1	All laboratory QC requirements were met for this sample.								
2	The duplicate RPD failed to meet acceptable QC limits.								
3	The spike recovery failed to meet acceptable QC limits.								
4	The check standard failed to meet acceptable QC limits.								
31	The interference check standard failed to meet acceptable QC limits.								
46	Chromatogram indicates contamination outside of the specified window.								
50	Sample diluted to compensate for matrix interference.								

Authorized Signature



# CHAIN OF CUSTODY RECORD



**Analytical Lab**

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Lab I.D. # 5024544

Chain # No 15910

Account No.: \_\_\_\_\_ Quote No.: 93518

Page \_\_\_\_ of \_\_\_\_

Project #: 7E09675 Sample Integrity - To be completed by receiving lab.  
 Method of Shipment: Owner Temp. of Temp. Blank: \_\_\_\_ °C On Ice:   
 Sampler: (signature) [Signature] Cooler seal intact upon receipt:  Yes \_\_\_\_ No  
 Labcoded By: [Signature]

Project (Name / Location): MOBILE BLASTING, WEST MILWAUKEE

Reports To: <u>BOB CIGALE</u>	Invoice To:	<b>Analysis Requested</b> Sample Handling Request: <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X Rush Analysis Date Required: ____ <input checked="" type="checkbox"/> Normal Turn Around DRO (Mod/TPH) <input checked="" type="checkbox"/> X GRO (Mod/TPH) <input checked="" type="checkbox"/> X PVOC (EPA 8021) <input checked="" type="checkbox"/> X BTEX (EPA 8021) <input checked="" type="checkbox"/> X VOC (EPA 8021) <input checked="" type="checkbox"/> X VOC (EPA 8260) <input checked="" type="checkbox"/> X O&G (EPA 413.1) <input checked="" type="checkbox"/> X PAH (EPA 8310) <input checked="" type="checkbox"/> X Pb <input checked="" type="checkbox"/> X Flash Point <input checked="" type="checkbox"/> X 8 PEA METALS <input checked="" type="checkbox"/> X % SOLIDS <input checked="" type="checkbox"/> X
Company <u>URS6WC</u>	Company	
Address <u>2312 N. GRANDVIEW</u>	Address	
City State Zip <u>WAUKESHA WI 53188</u>	City State Zip	
Phone <u>414 513 0577</u>	Phone	

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	8 PEA METALS	% SOLIDS	PID/ FID
<u>5024544A</u>	<u>MW99-5 5</u>	<u>2/11</u>	<u>940</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>6</u>
<u>B</u>	<u>MW99-5 9</u>	<u>2/11</u>	<u>1015</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>3</u>
<u>C</u>	<u>MW99-4 7</u>	<u>2/11</u>	<u>1335</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>53</u>
<u>D</u>	<u>MW99-4 8</u>	<u>2/11</u>	<u>1345</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>41</u>

**Department Use Only**  
 Split Samples: Offered?  Yes  No  
 Accepted?  Yes  No  
 Accepted By: \_\_\_\_\_

Comments/ Special Instructions  
 \*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.  
Email data to robert\_cigale@urscorp.com in excel format per B.C. - CAT

**Department Use Optional for Soil Samples**  
 Disposition of unused portion of sample  
 Lab Should:  
 Dispose  Retain for \_\_\_\_ days  
 Return  Other

Relinquished By: (sign) [Signature] Time 12:40 Date 2-12-99  
 Received By: (sign) [Signature] Time 4:45 Date 2-12-99  
 Received in Laboratory By: [Signature] Time: 4:45 Date: 2/12/99

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024558A						Sample Type	Soil	
Sample ID	MW99-6 6						Sample Date	2/12/99	

## Inorganic

### General

Solids Percent	84.2	%				1	2/16/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/26/99	6010A	KAB	1
Barium	52	mg/kg	0.28	0.93	1	3/12/99	6010A	JLA	1
Cadmium	1.3 "J"	mg/kg	1.2	4	1	3/12/99	6010A	JLA	1
Chromium	18	mg/kg	0.55	1.8	1	3/12/99	6010A	JLA	1
Lead	8	mg/kg	6	20	1	2/26/99	6010A	KAB	1
Mercury	0.020 "J"	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	27 "J"	mg/kg	24.5	80	5	3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/19/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/17/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/18/99	GRO95	CAH	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	2/27/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	2/27/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	2/27/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	2/27/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	2/27/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	2/27/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	2/27/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	2/27/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	2/27/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	2/27/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	2/27/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	2/27/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	2/27/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	2/27/99	M8270	DJM	2 3 7
2-Methyl naphthalene	< 21	ug/kg	21	70	1	2/27/99	M8270	DJM	3 7
Naphthalene	< 30	ug/kg	30	100	1	2/27/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	2/27/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	2/27/99	M8270	DJM	1

### VOC's



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558A							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-6 6							<b>Sample Date</b>	2/12/99	
Benzene	< 25	ug/kg	5.9	20	1	2/17/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/17/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/17/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/17/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/17/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/17/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
Chloroform	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/17/99	8021A	CJR	2 3
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/17/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/17/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/17/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/17/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/17/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/17/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/17/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/17/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/17/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/17/99	8021A	CJR	3
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/17/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/17/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/17/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/17/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/17/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/17/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558A							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-6 6							<b>Sample Date</b>	2/12/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/17/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/17/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/17/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/17/99	8021A	CJR	2 3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/17/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/17/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/17/99	8021A	CJR	3 4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/17/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/17/99	8021A	CJR	1

<b>Lab Code</b> 5024558B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-6 7							<b>Sample Date</b>	2/12/99	

## Inorganic

### General

Solids Percent 84.8 % 1 2/16/99 5021 RMB 1

### Metals

Arsenic < 2.8 mg/kg 2.8 9.2 1 2/26/99 6010A KAB 1  
 Barium 28 mg/kg 0.28 0.93 1 3/12/99 6010A JLA 1  
 Cadmium < 1.2 mg/kg 1.2 4 1 3/12/99 6010A JLA 1  
 Chromium 12 mg/kg 0.55 1.8 1 3/12/99 6010A JLA 1  
 Lead 9 mg/kg 6 20 1 2/26/99 6010A KAB 1  
 Mercury 0.019 "J" mg/kg 0.011 0.037 1 2/23/99 245.1 VLC 1  
 Selenium < 24.5 mg/kg 24.5 80 5 3/1/99 6010A JLA 31 50  
 Silver < 3 mg/kg 3 10 1 2/19/99 6010A JLA 1

## Organic

### General

Diesel Range Organics < 10 mg/kg 0.22 0.73 1 2/17/99 DRO95 BNR 1  
 Gasoline Range Organics < 10 mg/kg 0.3 1.1 1 2/18/99 GRO95 CAH 1

### PAH's

Acenaphthene < 21 ug/kg 21 70 1 3/1/99 M8270 DJM 1  
 Acenaphthylene < 24 ug/kg 24 80 1 3/1/99 M8270 DJM 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-6 7							<b>Sample Date</b>	2/12/99	
Anthracene	< 36	ug/kg	36	120	1	3/1/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	3/1/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	3/1/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	3/1/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	3/1/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	3/1/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	3/1/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	3/1/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	3/1/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	3/1/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	3/1/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	3/1/99	M8270	DJM	2 3 7
2-Methyl naphthalene	< 21	ug/kg	21	70	1	3/1/99	M8270	DJM	3 7
Naphthalene	< 30	ug/kg	30	100	1	3/1/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	3/1/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	3/1/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/17/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/17/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/17/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/17/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/17/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/17/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
Chloroform	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/17/99	8021A	CJR	2 3
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/17/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/17/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/17/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/17/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/17/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558B							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-6 7							<b>Sample Date</b>	2/12/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/17/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/17/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/17/99	8021A	CJR	1
cis-1,2-Dichloroethene	40	ug/kg	2.8	9.3	1	2/17/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/17/99	8021A	CJR	3
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/17/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	-3.9	13	1	2/17/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/17/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/17/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/17/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/17/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/17/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/17/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/17/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/17/99	8021A	CJR	2 3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/17/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	50	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/17/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/17/99	8021A	CJR	3 4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/17/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/17/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024558C						Sample Type	Soil	
Sample ID	MW99-7 8						Sample Date	2/12/99	

## Inorganic

### General

Solids Percent	95.1	%				1	2/16/99	5021	RMB	1
----------------	------	---	--	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/26/99	6010A	KAB	1
Barium	13	mg/kg	0.28	0.93	1	3/12/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	3/12/99	6010A	JLA	1
Chromium	5.7	mg/kg	0.55	1.8	1	3/12/99	6010A	JLA	1
Lead	< 6	mg/kg	6	20	1	2/26/99	6010A	KAB	1
Mercury	0.015 "J"	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5	3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/19/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/17/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/18/99	GRO95	CAH	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	3/1/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	3/1/99	M8270	DJM	1
Anthracene	< 36	ug/kg	36	120	1	3/1/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	3/1/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	3/1/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	3/1/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	3/1/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	3/1/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	3/1/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	3/1/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	3/1/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	3/1/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	3/1/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	3/1/99	M8270	DJM	2 3 7
2-Methyl naphthalene	< 21	ug/kg	21	70	1	3/1/99	M8270	DJM	3 7
Naphthalene	< 30	ug/kg	30	100	1	3/1/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	3/1/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	3/1/99	M8270	DJM	1

### VOC's

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024558C						Sample Type	Soil	
Sample ID	MW99-7 8						Sample Date	2/12/99	
Benzene	< 25	ug/kg	5.9	20	1	2/17/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/17/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/17/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/17/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/17/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/17/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
Chloroform	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/17/99	8021A	CJR	2 3
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/17/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/17/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/17/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/17/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/17/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/17/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/17/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/17/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/17/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/17/99	8021A	CJR	3
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/17/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	2/17/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/17/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/17/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/17/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/17/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558C							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-7 8							<b>Sample Date</b>	2/12/99	
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/17/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/17/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/17/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/17/99	8021A	CJR	2 3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/17/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/17/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/17/99	8021A	CJR	3 4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/17/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/17/99	8021A	CJR	1

<b>Lab Code</b> 5024558D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-7 9							<b>Sample Date</b>	2/12/99	

## Inorganic

### General

Solids Percent	85.7	%			1	2/16/99	5021	RMB	1
----------------	------	---	--	--	---	---------	------	-----	---

### Metals

Arsenic	< 2.8	mg/kg	2.8	9.2	1	2/26/99	6010A	KAB	1
Barium	13	mg/kg	0.28	0.93	1	3/12/99	6010A	JLA	1
Cadmium	< 1.2	mg/kg	1.2	4	1	3/12/99	6010A	JLA	1
Chromium	6.2	mg/kg	0.55	1.8	1	3/12/99	6010A	JLA	1
Lead	7	mg/kg	6	20	1	2/26/99	6010A	KAB	1
Mercury	< 0.011	mg/kg	0.011	0.037	1	2/23/99	245.1	VLC	1
Selenium	< 24.5	mg/kg	24.5	80	5	3/1/99	6010A	JLA	31 50
Silver	< 3	mg/kg	3	10	1	2/19/99	6010A	JLA	1

## Organic

### General

Diesel Range Organics	< 10	mg/kg	0.22	0.73	1	2/17/99	DRO95	BNR	1
Gasoline Range Organics	< 10	mg/kg	0.3	1.1	1	2/18/99	GRO95	CAH	1

### PAH's

Acenaphthene	< 21	ug/kg	21	70	1	3/1/99	M8270	DJM	1
Acenaphthylene	< 24	ug/kg	24	80	1	3/1/99	M8270	DJM	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558D							<b>Sample Type</b>	Soil	
<b>Sample ID</b> MW99-7 9							<b>Sample Date</b>	2/12/99	
Anthracene	< 36	ug/kg	36	120	1	3/1/99	M8270	DJM	1
Benzo(a)anthracene	< 23	ug/kg	23	77	1	3/1/99	M8270	DJM	1
Benzo(a)pyrene	< 34	ug/kg	34	110	1	3/1/99	M8270	DJM	1
Benzo(b)fluoranthene	< 46	ug/kg	46	150	1	3/1/99	M8270	DJM	1
Benzo(g,h,i)perylene	< 29	ug/kg	29	100	1	3/1/99	M8270	DJM	1
Benzo(k)fluoranthene	< 48	ug/kg	48	160	1	3/1/99	M8270	DJM	1
Chrysene	< 42	ug/kg	42	140	1	3/1/99	M8270	DJM	1
Dibenzo(a,h)anthracene	< 18	ug/kg	18	60	1	3/1/99	M8270	DJM	1
Fluoranthene	< 38	ug/kg	38	130	1	3/1/99	M8270	DJM	1
Fluorene	< 47	ug/kg	47	160	1	3/1/99	M8270	DJM	1
Indeno(1,2,3-cd)pyrene	< 18	ug/kg	18	60	1	3/1/99	M8270	DJM	1
1-Methyl naphthalene	< 31	ug/kg	31	100	1	3/1/99	M8270	DJM	2 3 7
2-Methyl naphthalene	< 21	ug/kg	21	70	1	3/1/99	M8270	DJM	3 7
Naphthalene	< 30	ug/kg	30	100	1	3/1/99	M8270	DJM	1
Phenanthrene	< 35	ug/kg	35	120	1	3/1/99	M8270	DJM	1
Pyrene	< 45	ug/kg	45	150	1	3/1/99	M8270	DJM	1
<b>VOC's</b>									
Benzene	< 25	ug/kg	5.9	20	1	2/17/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	2/17/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	2/17/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	2/17/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	2.5	8.4	1	2/17/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	2/17/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
Chloroform	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	2/17/99	8021A	CJR	2 3
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	2/17/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	2/17/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	2/17/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	2/17/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	2/17/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	2/17/99	8021A	CJR	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7EO9675  
 Project Name MOBILE BLASTING  
 Invoice # E24558

Report Date 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024558D							<b>Sample Type</b>	<b>Soil</b>	
<b>Sample ID</b> MW99-7 9							<b>Sample Date</b>	2/12/99	
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	2/17/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	2/17/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	2/17/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	2/17/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	2/17/99	8021A	CJR	3
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	2/17/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	-3.9	13	1	2/17/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	2/17/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	2/17/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	2/17/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	2/17/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	2/17/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	2/17/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
Naphthalene	< 25	ug/kg	7	23	1	2/17/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	2/17/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	2/17/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	2/17/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	2/17/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	2/17/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	2/17/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	2/17/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	2/17/99	8021A	CJR	2 3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	2/17/99	8021A	CJR	2 3 4
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	2/17/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	2/17/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	2/17/99	8021A	CJR	3 4
m&p-Xylene	< 50	ug/kg	5.6	19	1	2/17/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	2/17/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
URS GREINER WOODWARD CLYDE  
2312 GRANDVIEW BLVD STE 210  
WAUKESHA WI 53188

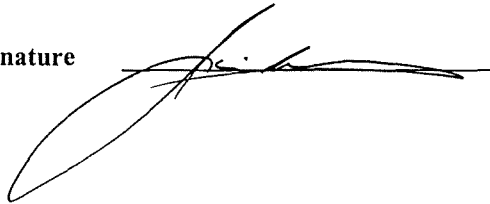
**Project #** 7EO9675  
**Project Name** MOBILE BLASTING  
**Invoice #** E24558

**Report Date** 15-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
LOD Limit of Detection	"J" Flag: Analyte detected between LOD and LOQ								LOQ Limit of Quantitation

<i>Code</i>	<i>Comment</i>
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
7	The LCS spike recovery failed to meet acceptable QC limits.
31	The interference check standard failed to meet acceptable QC limits.
50	Sample diluted to compensate for matrix interference.

Authorized Signature



**CHAIN OF CUSTODY RECORD**



**Analytical Lab**

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Lab I.D. # 5024558

Chain # No **15908**

Account No.: \_\_\_\_\_ Quote No.: 93518

Page \_\_\_ of \_\_\_

Project #: 7E09675

Sample Integrity - To be completed by receiving lab.

Sampler: (signature) Robert Cigare

Method of Shipment: Carrier Temp. of Temp. Blank: \_\_\_ °C On Ice:

Cooler seal intact upon receipt:  Yes \_\_\_ No

Labcoded By: RTE

Project (Name / Location): MOBILE BASTINGS, WEST MILWAUKEE

**Analysis Requested**

Reports To: BOB CIGARE Invoice To: \_\_\_\_\_  
 Company URS CORP Company \_\_\_\_\_  
 Address 2312 N. GRANDVIEW Address \_\_\_\_\_  
 City State Zip WAUKESHA 53188 City State Zip \_\_\_\_\_  
 Phone 414 513 0577 Phone \_\_\_\_\_

Sample Handling Request		Analysis Requested											
<input checked="" type="checkbox"/> Rush Analysis	<input type="checkbox"/> Date Required	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis	
<input checked="" type="checkbox"/> Normal Turn Around		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/> 8 PETA METALS	<input checked="" type="checkbox"/> 20 SOLIDS

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis		PID/ FID
		Date	Time																
<u>4558 A</u>	<u>MW99-6 6</u>	<u>2/12</u>	<u>915</u>		<u>Meth in Gnd/Vol</u>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>7</u>
<u>B</u>	<u>MW99-6 7</u>	<u>2/12</u>	<u>925</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>8</u>
<u>C</u>	<u>MW99-7 8</u>	<u>2/12</u>	<u>1220</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>20</u>
<u>D</u>	<u>MW99-7 9</u>	<u>2/12</u>	<u>1230</u>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>33</u>

**Department Use Only**  
 Split Samples: Offered? \_\_\_ Yes \_\_\_ No  
 Accepted? \_\_\_ Yes \_\_\_ No  
 Accepted By: \_\_\_\_\_

Comments/ Special Instructions  
 \*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.  
EMAIL data to robert\_cigare@urscorp.com in excel format per B.C. -CA 2  
Christine Robbins 11:02 2/15/99

**Department Use Optional for Soil Samples**  
 Disposition of unused portion of sample  
 Lab Should:  
 \_\_\_ Dispose \_\_\_ Retain for \_\_\_ days  
 \_\_\_ Return \_\_\_ Other

Relinquished By: (sign) [Signature] Time 3:35 Date 2-15-99  
 Received By: (sign) [Signature] Time 11:05 Date 2-15-99  
 Received in Laboratory By: [Signature] Time: 3:35 Date: 2/15/99

# U.S. Analytical Lab

BOB CIGALE  
URS GREINER WOODWARD CLYDE  
2312 GRANDVIEW BLVD STE 210  
WAUKESHA WI 53188

Project # 7EO9675  
Project Name MOBILE BLASTING  
Invoice # E25150

Report Date 20-Apr-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5025150A						Sample Type	Soil	
Sample ID	GP99-5 S-2A						Sample Date	2/10/99	

### Inorganic

#### General

Solids Percent 84.3 % 1 4/8/99 5021 RMB 1

#### Metals

Lead 180 mg/kg 6 20 1 4/12/99 6010B JLA 1

#### TCLP

TCLP Lead < 0.12 mg/l 0.12 0.4 1 4/15/99 6010B JLA 1

LOD Limit of Detection

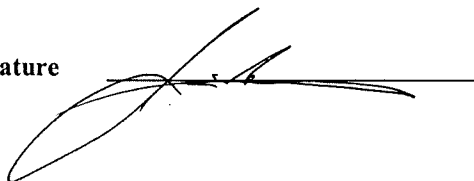
"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

### Code Comment

1 All laboratory QC requirements were met for this sample.

Authorized Signature



# CHAIN OF CUSTODY RECORD



## Analytical Lab

1090 Kennedy Ave. • Kimberly, WI 54136  
(414) 735-8295 • FAX 414-739-1738 • 800-490-4902  
USALAB@AOL.COM

Chain # N<sup>o</sup> 09568

Lab I.D. # 5025150

Account No.: \_\_\_\_\_ Quote No.: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

Project #: 7ED9675

Sample Integrity - To be completed by receiving lab.

Sampler: (signature) *[Signature]*

Method of Shipment: carrier Temp. of Temp. Blank. \_\_\_\_ °C On Ice: X

Cooler seal intact upon receipt: X Yes \_\_\_\_ No

Labcoded By: SAD

Project (Name / Location): MOBILE BASTING, WEST MILWAUKEE

### Analysis Requested

Reports To: BOB GALE

Invoice To: \_\_\_\_\_

### Sample Handling Request

### Other Analysis

Company URSGWC

Company \_\_\_\_\_

\_\_\_\_ Rush Analysis  
Date Required \_\_\_\_\_

Address 2312 N. GRANDVIEW BLVD  
SITE 210

Address \_\_\_\_\_

X Normal Turn Around

City State Zip WAUKESHA, WI 53188

City State Zip \_\_\_\_\_

Phone 414.513.0577

Phone \_\_\_\_\_

DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8020)	BTEX (EPA 8020)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb (Total)	Flash Point	TUP Pb
								<u>/</u>	<u>/</u>	<u>/</u>

PID/  
FID

Lab I.D.	Sample I.D.	Collection Date	Time	No. of Containers Size and Type	Description*	Preservation
5025150 A	GP99-5 S-2A	2/10	0830	1 PLASTIC	SOIL	NONE

### Department Use Only

Split Samples: Offered? \_\_\_\_ Yes \_\_\_\_ No  
Accepted? \_\_\_\_ Yes \_\_\_\_ No

Accepted By: \_\_\_\_\_

### Comments/ Special Instructions

\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

### Department Use Optional for Soil Samples

Disposition of unused portion of sample  
Lab Should:  
\_\_\_\_ Dispose \_\_\_\_ Retain for \_\_\_\_ days  
\_\_\_\_ Return \_\_\_\_ Other

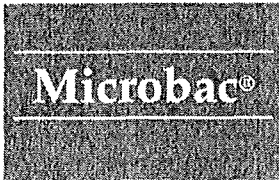
Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
<i>[Signature]</i>	2:00	4-7-99	<i>[Signature]</i>	11:02	4-7-99

Received in Laboratory By: Nandi Zander Date: 4.7.99 Time: 1:30

# Appendix C

## Soil Biocharacterization Data

---



Microbac Laboratories, Inc.

BioRenewal Division

2800 South Fish Hatchery Road Madison, Wisconsin 53711

608/ 276-8980 Fax: 608/ 273-6989

E-mail: info@biorenewal.com Web: www.biorenewal.com

Facsimile Transmission

To: Robert Cigale
Company: URSGWL
Phone: 414-513-0577
Fax: 414-513-0575

From: David J Hitchins
Company: Microbac Laboratories, Inc.
BioRenewal Division
Phone: 608/ 276-8980
Fax: 608/ 273-6989
e-mail: djhitch@biorenewal.com

NOTICE: This facsimile is intended only for the addressee shown below and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this transmission in error, please notify us immediately by telephone and return the original material to BioRenewal at the above address via U.S. Postal Service. Thank you for your cooperation.

If there is a problem with this transmission, please call (608) 276-8980

Date: 03/05/99
Pages (incl cover):

Comments:

re: Microbac/BioRenewal Job Code CFY

Dear Bob:

This report presents the results from Comparative Enumeration Assays and nutrient analyses performed on 3 soil samples we received on 2/10/99 in connection with the Mobile Basting site located in West Milwaukee, WI (project number 7EO9675). The invoice and chain-of-custody for this project will accompany a confirmation copy sent via mail.

The analytical results requested are presented in the following sections:

- Site suitability for passive bioremediation in relation to suggested guidelines
• Microbial data summary
• Nutrient results
• Soil physical analyses

These samples were analyzed by BioRenewal using fuel oil as the sole carbon source for enumerating the "degrader" microbial populations. Samples were received on ice.

Please give me a call if you have any questions or wish to discuss these results further. We look forward to working with you in the future.

Sincerely,

David J Hitchins
Laboratory Manager

Enclosures: Analytical results
Invoice
Chain-of-custody

**Site Information**

Site Name	Mobile Basting	Date received	10-Feb-99
Location		Date of this report	4-Mar-99
Consultant	Woodward-Clyde Consultants	BioRenewal Job Code	<b>CFY</b>
Proj. Contact	Robert Cigale		
Project Ref ID	7EO9675	Number of soil samples	3
Contaminant	fuel oil	Number of gw samples	0

**Section I - Summary of Bioremediation Data**

Nutrient/physical factors are as suggested by Wisconsin DNR guidelines for site characterization requirements for natural biodegradation. Microbial factors are shown according to bio-engineering norms.

Sample ID	Soil microbial populations:		pH	% TON /			% moisture / SWHC	% Air-filled pore space
	Exceeds norm for:			% OM	C:N	C:P		
	Passive	Active						
	>1E+06	>1E+03	5.5-8.5	>1.5%	<40	<120	25-85%	>10%
Guideline note reference:	1	2	3	4	5	6	7	8
GP99-10	x	✓	✓	x	✓	x	x	✓
GP99-8-5A	x	✓	✓	x	✓	x	x	✓
GP99-9 5A	x	✓	✓	x	✓	x	x	x

The nutrient/physical parameters summarized above for unsaturated zone soils, reflect suggested minimum Wisconsin DNR "site characterization requirements for natural biodegradation projects" as presented on pp. 6-10 in Naturally Occurring Biodegradation as a Remedial Action Option for Soil Contamination: *Interim Guidance (Revised)* dated August 26, 1994. BioRenewal stresses that these "suggested guidelines" are only intended to provide a working frame of reference for evaluation. Each site is unique and requires professional judgement in order to select an appropriate remedial design. We provide this information in recognition that our clients need to work within the guidelines suggested by the state. Further, we hope this will facilitate continued evolution of a working framework for evaluating sites as to the potential for bioremediation whether through site augmentation or natural attenuation.

- ✓ = Sample meets guideline.
- x = Sample does not meet guideline.
- Blank = Below detection limit, not applicable, or not available for that sample.

- NOTES:
- 1) Microbial population levels in soils generally accepted as potentially adequate to support natural biodegradation. These levels are based on bio-engineering norms and not WDNR guidelines.
  - 2) Microbial population levels in soils generally accepted as minimum to serve as an "inoculum" for implementing active bioremediation strategies.
  - 3) See page 7 and 10, WDNR.
  - 4) See pages 8 and 10, WDNR. Total Organic Nitrogen (calculated from TKN minus ammonium nitrogen) divided by % organic matter.
  - 5) See pages 8 and 10, WDNR.
  - 6) See pages 8 and 10, WDNR.
  - 7) See page 6 and 10, WDNR. The suggested optimum range is 50-80% (p. 6).
  - 8) See page 8 and 10, WDNR. WDNR suggests a minimum air-filled porosity in soil of 10% is necessary for adequate oxygen diffusion in the soil gas to support biodegradation.



**Section II - Microbial Data Summary**

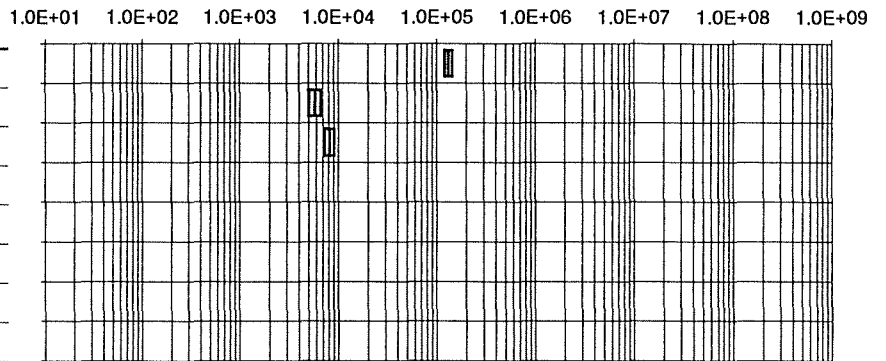
All values in cfu/gm (DSW<sup>\*\*</sup>)

**Soil Samples**

**Total populations**

Low and high indicate 95% confidence range

Sample ID	Mean	Low	High
GP99-10	1.3E+05	1.2E+05	1.5E+05
GP99-8-5A	5.8E+03	5.0E+03	6.7E+03
GP99-9 5A	8.2E+03	7.3E+03	9.2E+03

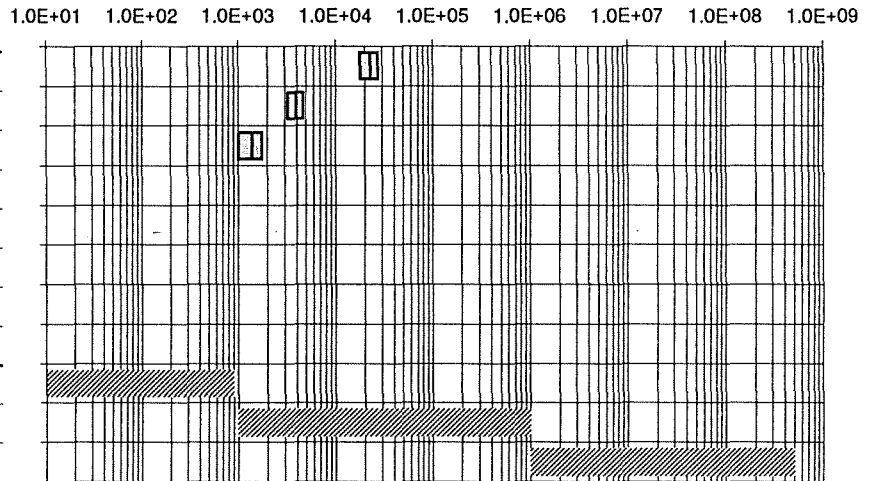


**Soil Samples**

**Degrader populations**

Low and high indicate 95% confidence range

Sample ID	Mean	Low	High
GP99-10	2.2E+04	1.8E+04	2.8E+04
GP99-8-5A	3.9E+03	3.2E+03	4.7E+03
GP99-9 5A	1.4E+03	1.0E+03	1.8E+03



Marginal inoculum

Inoculum levels

Active degradation levels

**Marginal inoculum** = Degrader populations below 1.0E+03 are indicative of severe limitations. Substantial augmentation of site conditions will likely be required to attain adequate cell mass to attain measurable biotransformation rates.

**Inoculum levels** = Degrader populations between 1.0E+03 and 1.0E+06 are amenable to site augmentation, but are generally insufficient to attain adequate biotransformation without site augmentation.

**Active degradation levels** = Degrader populations greater than 1.0E+06 are generally of sufficient magnitude to support measurable biotransformation without site augmentation. However, site augmentation may still be required to attain desirable rates of transformation due to specific site conditions.

**Assay conditons**

Sample ID	Degrader Media		Temp. (Celcius)	Growth Conditions	DOF **		Percent Degraders
	Carbon source	% Carbon (v/v)			Total	Degrader	
GP99-10	fuel oil	1.0	22	Aerobic	2	2	17%
GP99-8-5A	fuel oil	1.0	22	Aerobic	2	2	67%
GP99-9 5A	fuel oil	1.0	22	Aerobic	2	2	17%

\* cfu/gm (DSW) = colony forming units per gm of dry soil weight

\*\* DOF = Degrees of freedom is number of replicates minus one. This parameter is used in calculation of 95% confidence intervals.

**Section III - Nutrient Conditions**

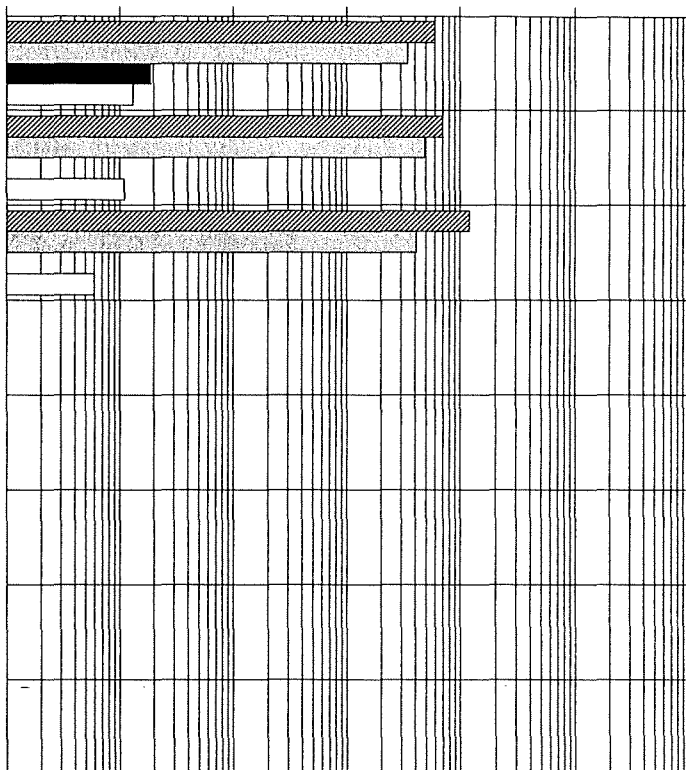
All results reported as parts per million (ppm) unless otherwise indicated.

**Standard Nutrient Panel**

Log ppm

0 1 10 100 1000 10000 100000

Sample ID	TOC*	TKN	NH3-N	Avail. P
GP99-10	600	344.4	1.9	1.3
GP99-8-5A	700	482.4	<0.1	1.1
GP99-9 5A	1200	411.9	<0.1	0.6



\* Total Organic Carbon

**Other Analyses and Calculations**



Guideline Published Thresholds*	C:N	C:P
Wis Dept. Natural Resources	Below: 40	120
Nat'l Academy of Sciences	Below: 6	30

Sample ID	% Organic* Matter	TON**	Calculated Ratios		pH	SO4-S	NO3-N	Dissolved/ Avail Mn	Dissolved/ Avail. Fe	CEC meq/100g
			C:N	C:P						
GP99-10	0.2%	342.5	2	462	7.6	NR	NR	NR	NR	NR
GP99-8-5A	0.2%	482.4	1	636	7.7	NR	NR	NR	NR	NR
GP99-9 5A	0.3%	411.9	3	2000	7.4	NR	NR	NR	NR	NR

Sources: Naturally Occurring Biodegradation as a Remedial Action Option for Soil Contamination: Interim Guidance (Revised), 1994.

In-situ Bioremediation: When Does it Work?, B. Rittman, Ed., National Academy of Sciences, 1993. p 117.

\* = Estimated % organic matter - See Methods.

\*\* = Total Organic Nitrogen (Calculated as Total Kjeldahl Nitrogen (TKN) minus ammonium nitrogen).

NR = Not requested.

n/a = Not applicable.

**Section IV - Soil Physical Analyses**

**Soil Moisture and Pore Space Analysis**

Sample ID	Percentages				% Moisture/ SWHC	Bulk Density	
	Moisture H2O wt/total	Solids dry wt/total	AFPS* vol/tot vol	SWHC** H2O wt/total		Dry (dry g/cc)	Field (wet g/cc)
GP99-10	4.9%	95.1%	39.9%	20.5%	21.9	1.7	1.8
GP99-8-5A	3.7%	96.3%	37.5%	19.2%	19.0	1.8	1.8
GP99-9 5A	16.1%	83.9%	8.4%	16.7%	90.2	1.7	2.1

\* = Air-filled pore space

NR = Not requested

\*\* = 100% Soil Water Holding Capacity (Field Capacity)

n/a = Not applicable

Contact person BOB CIGALE Sampler BOB CIGALE  
 Project name MOBILE BASTING Project # 7ED9675  
 Project location WEST MILWAUKEE, WI  
(City) (state)

Site contaminant \* FUEL OIL  
(Used in test for degrader microbial populations, give ratios if applicable, e.g. 50:50, gasoline:diesel)

\* If available, a sample of free product is preferred for use as the carbon source for enumerating the degrader microbial populations. Free product included?  yes  No

Requested analyses (✓)																		
Sample ID	Lab use only	Date	Time	(✓)		Sample depth	(#)			Additional comments	CEA* (soil/gw) see note <input checked="" type="checkbox"/> Aerobic, <input type="checkbox"/> Anaerobic, <input checked="" type="checkbox"/> Microaerophilic	Standard nutrient panel (soil/gw) X - incl. TKN, ammonium nitrogen, available P, pH, total organic carbon, % moisture (s)	Particle size analysis (soil) <input type="checkbox"/> sieve and hydrometer, <input type="checkbox"/> sieve only	% air-filled pore space (soil) X (includes bulk density)	Intact core		Soil moisture at field capacity	Bulk density (soil)
				Soil	GW		Jars	Vials	Core									
GP99-8 SA	CFY 01	2/1/99	920	/		16-20	2		1		/	/	/					
GP99-9 SA	CFY 02	2/1/99	1030	/		16-20	2		1		/	/	/					
GP99-10 AB	CFY 03	2/1/99	1140	/		12-16	2		1		/	/	/					

Relinquished by: [Signature] Date/time: 7:40 2/10/99 Comments: SEE QUOTE A90204 Sample condition upon arrival:  
 Received by: [Signature] Date/time: 7:40 AM 2/10/99 On ice?  Yes,  No



**BioRenewal**  
 Div. - Microbac Labs  
 2800 S. Fish Hatchery Rd.  
 Madison, WI 53711  
 (608)276-8980  
 Fax (608)273-6989  
 info@biorenewal.com

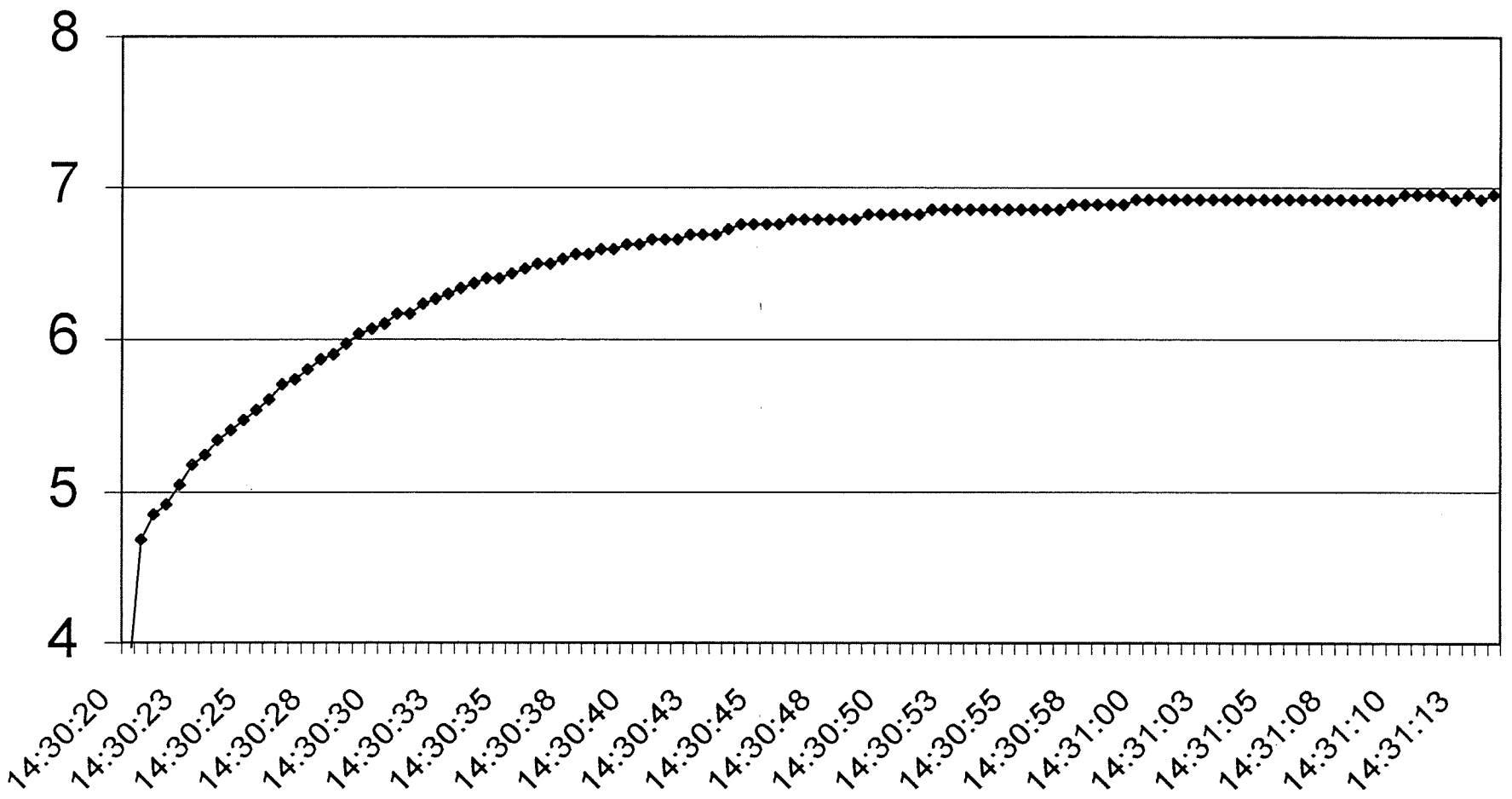
Send results to:  
 Name BOB CIGALE  
 Company URS GW  
 Address 2312 N. GRANDVIEW, SUITE 240  
 City WAUKESHA State WI Zip 53188  
 Phone 414 513 0577 Fax 414 513 0575

Send invoice to:  Same as results  
 Name \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone \_\_\_\_\_ Fax \_\_\_\_\_

**Appendix D**  
**Hydraulic Conductivity Data**

---

# MW-1



## Slug Test Results

Title: Mobile Blasting  
Client:  
Job Number:  
Well Number: MW-1

### Hydraulic Conductivity

-----  
Bower-Rice: 2.68E-3 (cm/sec), 2.32E+0 (m/day)

### Well Geometry (cm)

H: 300.0  
Le: 365.0  
Lw: 144.0  
rc: 2.54  
rw: 11.18

drainable filter pack porosity: 0.3  
effective radius: 6.48E+0 (cm)

### Bower Rice Coefficients

Le/rw: 32.648  
A: 2.494  
B: 0.363  
C: 2.083  
ln(Re/rw): 1.865

### Least Squares Fit

slope: 2.50E-2  
intercept: 4.99E+0

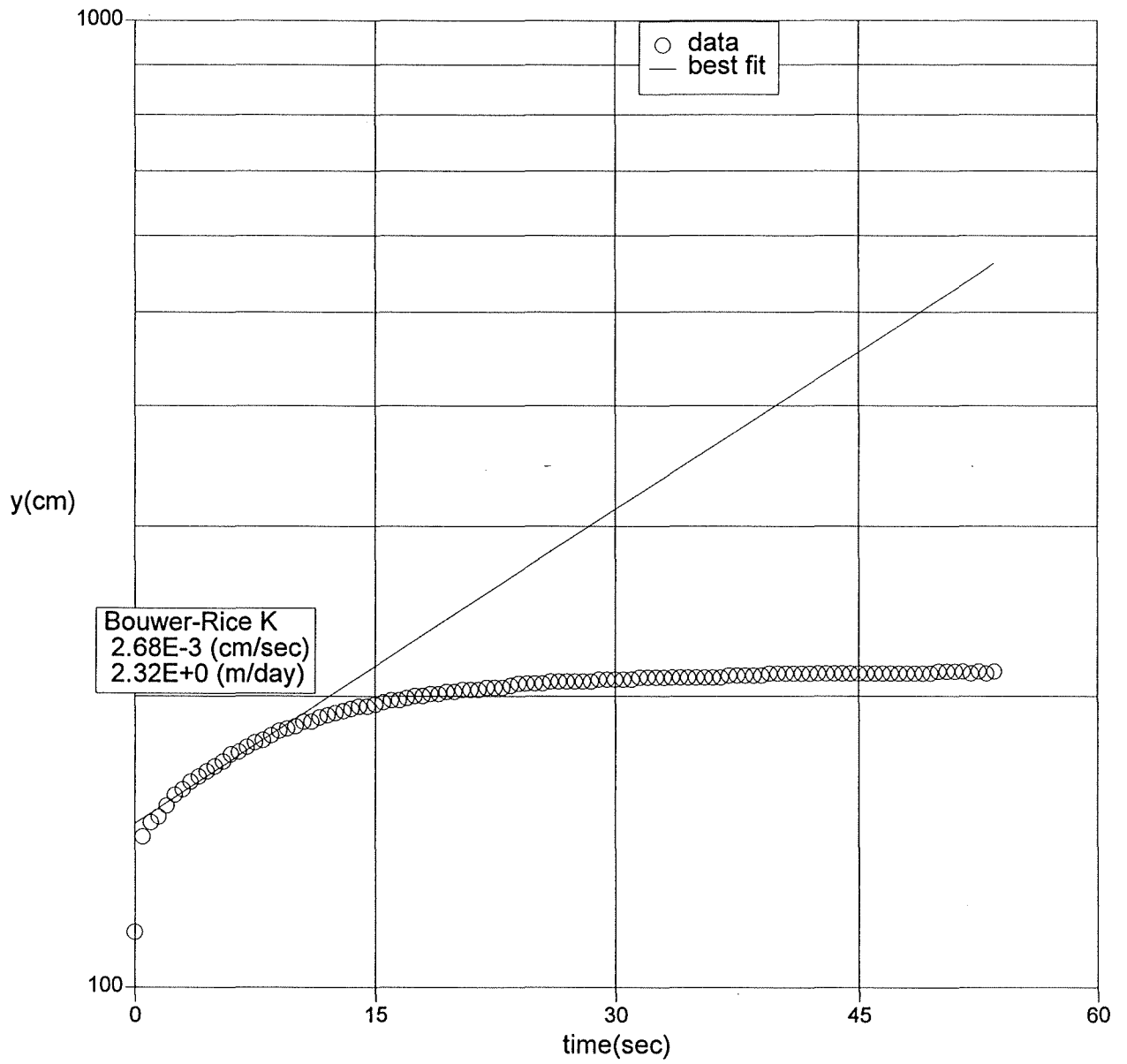
### Recovery Data and Fit

time(sec)	y(cm)	weight	fit(cm)
0.0	113.971	0.0	147.631
0.5	142.963	0.0	149.488
1.0	147.962	1.0	151.368
1.5	149.962	1.0	153.273
2.0	153.961	1.0	155.201
2.5	157.960	1.0	157.153
3.0	159.959	1.0	159.130
3.5	162.958	1.0	161.132
4.0	164.958	1.0	163.159
4.5	166.957	1.0	165.211
5.0	168.957	1.0	167.290
5.5	170.956	1.0	169.394
6.0	173.955	1.0	171.525
6.5	174.955	1.0	173.683
7.0	176.955	1.0	175.868
7.5	178.954	1.0	178.080
8.0	179.954	1.0	180.320
8.5	181.953	1.0	182.589
9.0	183.953	1.0	184.886
9.5	184.953	1.0	187.211
10.0	185.952	1.0	189.566

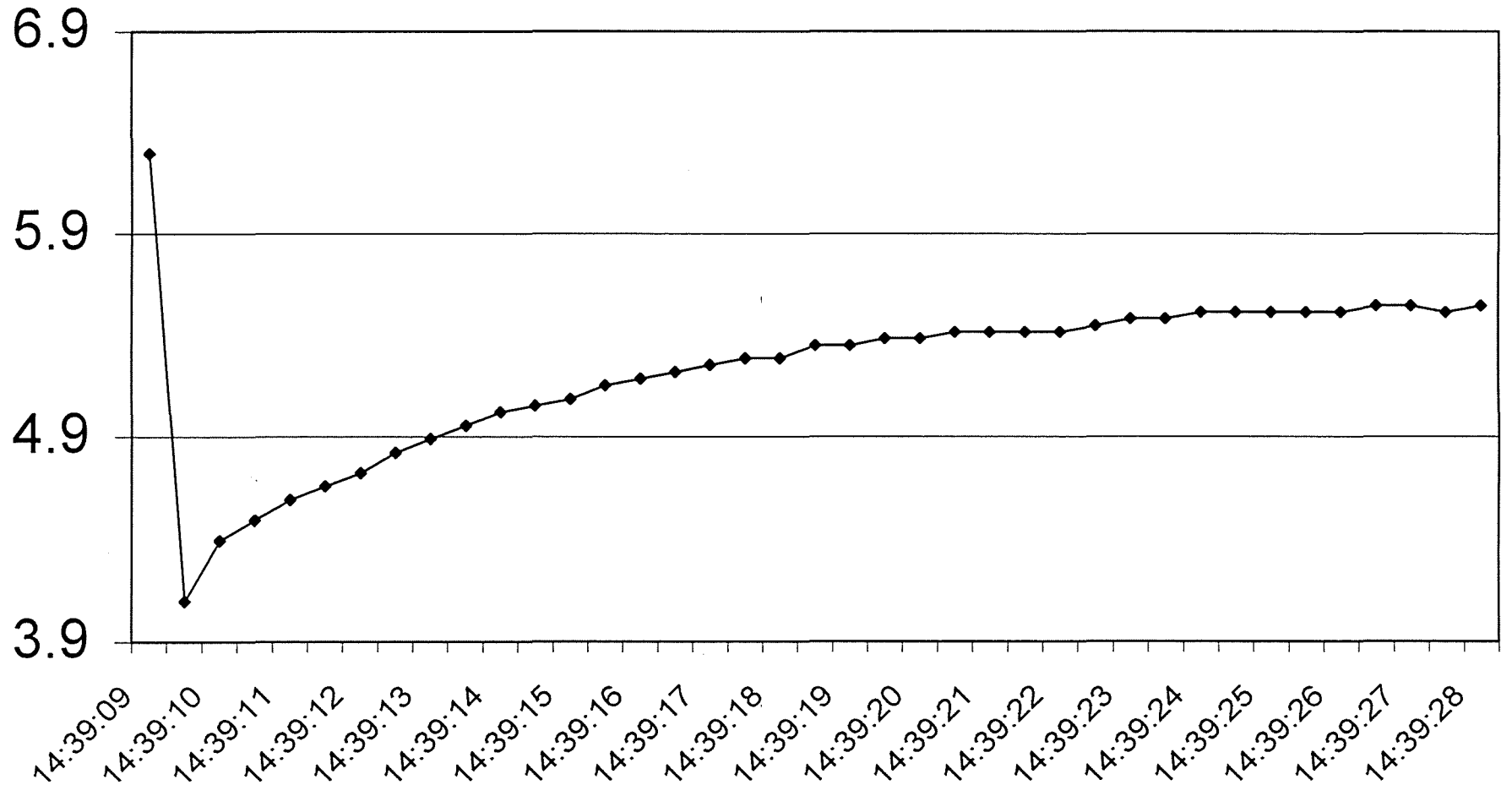
10.5	187.952	0.0	191.951
11.0	187.952	0.0	194.366
11.5	189.951	0.0	196.811
12.0	190.951	0.0	199.287
12.5	191.951	0.0	201.794
13.0	192.951	0.0	204.332
13.5	193.950	0.0	206.903
14.0	194.950	0.0	209.506
14.5	194.950	0.0	212.141
15.0	195.950	0.0	214.810
15.5	196.950	0.0	217.512
16.0	197.949	0.0	220.248
16.5	197.949	0.0	223.019
17.0	198.949	0.0	225.824
17.5	199.949	0.0	228.665
18.0	199.949	0.0	231.542
18.5	200.949	0.0	234.455
19.0	200.949	0.0	237.404
19.5	201.948	0.0	240.390
20.0	201.948	0.0	243.414
20.5	202.948	0.0	246.477
21.0	202.948	0.0	249.577
21.5	202.948	0.0	252.717
22.0	203.948	0.0	255.896
22.5	203.948	0.0	259.115
23.0	203.948	0.0	262.375
23.5	204.948	0.0	265.675
24.0	205.947	0.0	269.017
24.5	205.947	0.0	272.402
25.0	205.947	0.0	275.828
25.5	205.947	0.0	279.298
26.0	206.947	0.0	282.812
26.5	206.947	0.0	286.369
27.0	206.947	0.0	289.972
27.5	206.947	0.0	293.620
28.0	206.947	0.0	297.313
28.5	206.947	0.0	301.053
29.0	207.947	0.0	304.841
29.5	207.947	0.0	308.675
30.0	207.947	0.0	312.558
30.5	207.947	0.0	316.490
31.0	207.947	0.0	320.472
31.5	208.946	0.0	324.503
32.0	208.946	0.0	328.585
32.5	208.946	0.0	332.719
33.0	208.946	0.0	336.904
33.5	208.946	0.0	341.143
34.0	208.946	0.0	345.434
34.5	208.946	0.0	349.780
35.0	208.946	0.0	354.180
35.5	208.946	0.0	358.635
36.0	208.946	0.0	363.147
36.5	208.946	0.0	367.715
37.0	209.946	0.0	372.341
37.5	209.946	0.0	377.025
38.0	209.946	0.0	381.768
38.5	209.946	0.0	386.570



39.0	209.946	0.0	391.433
39.5	210.946	0.0	396.357
40.0	210.946	0.0	401.343
40.5	210.946	0.0	406.392
41.0	210.946	0.0	411.505
41.5	210.946	0.0	416.681
42.0	210.946	0.0	421.923
42.5	210.946	0.0	427.231
43.0	210.946	0.0	432.605
43.5	210.946	0.0	438.047
44.0	210.946	0.0	443.558
44.5	210.946	0.0	449.137
45.0	210.946	0.0	454.788
45.5	210.946	0.0	460.509
46.0	210.946	0.0	466.302
46.5	210.946	0.0	472.168
47.0	210.946	0.0	478.107
47.5	210.946	0.0	484.122
48.0	210.946	0.0	490.212
48.5	210.946	0.0	496.379
49.0	210.946	0.0	502.623
49.5	210.946	0.0	508.946
50.0	211.946	0.0	515.348
50.5	211.946	0.0	521.831
51.0	211.946	0.0	528.396
51.5	211.946	0.0	535.043
52.0	210.946	0.0	541.774
52.5	211.946	0.0	548.589
53.0	210.946	0.0	555.490
53.5	211.946	0.0	562.478



# MW-2



## Slug Test Results

Title: Mobile Blasting  
Client:  
Job Number:  
Well Number: MW-2

### Hydraulic Conductivity

-----  
Bouwer-Rice:  $3.28E-3$  (cm/sec),  $2.83E+0$  (m/day)

### Well Geometry (cm)

H: 300.0  
Le: 365.0  
Lw: 118.0  
rc: 2.54  
rw: 11.18

drainable filter pack porosity: 0.3  
effective radius:  $6.48E+0$  (cm)

### Bouwer Rice Coefficients

Le/rw: 32.648  
A: 2.494  
B: 0.363  
C: 2.083  
ln(Re/rw): 1.741

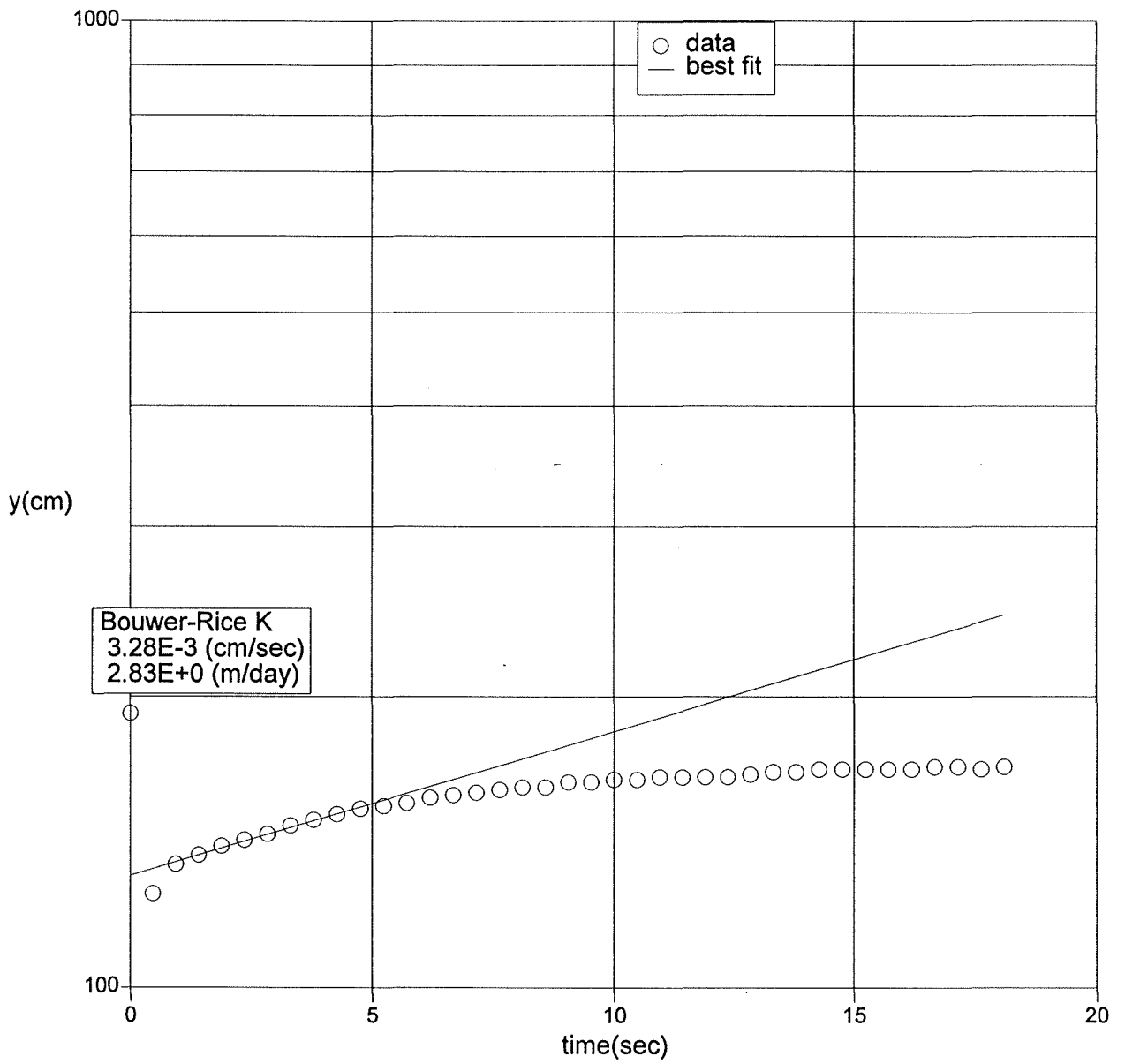
### Least Squares Fit

slope:  $3.27E-2$   
intercept:  $4.87E+0$

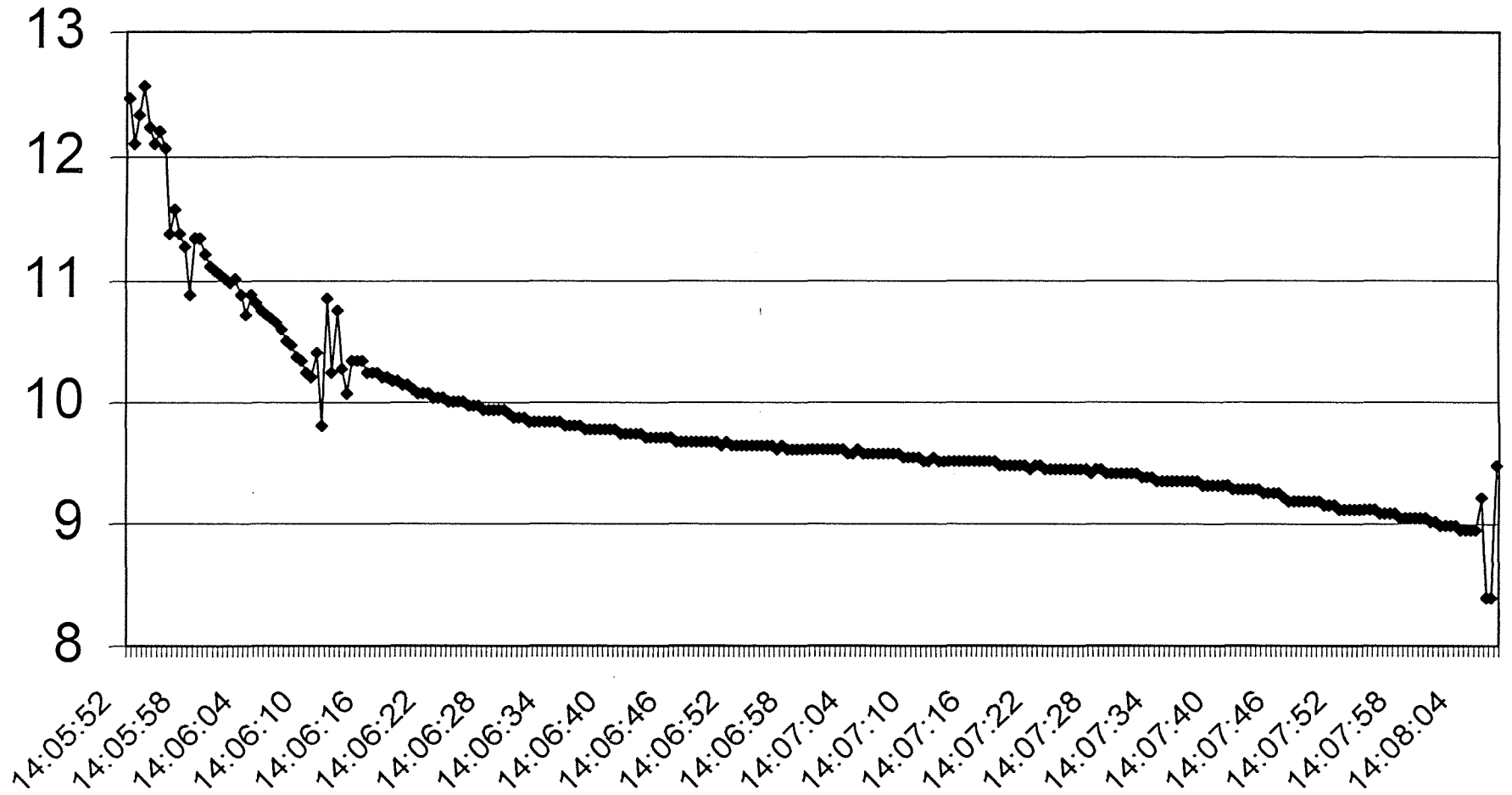
### Recovery Data and Fit

time(sec)	y(cm)	weight	fit(cm)
0.0	191.951	0.0	130.488
0.5	124.968	0.0	132.640
1.0	133.966	1.0	134.828
1.5	136.965	1.0	137.052
2.0	139.964	1.0	139.312
2.5	141.964	1.0	141.610
3.0	143.963	1.0	143.945
3.5	146.962	1.0	146.319
4.0	148.962	1.0	148.733
4.5	150.961	1.0	151.186
5.0	152.961	1.0	153.679
5.5	153.961	0.0	156.214
6.0	154.960	0.0	158.790
6.5	156.960	0.0	161.409
7.0	157.960	0.0	164.071
7.5	158.959	0.0	166.777
8.0	159.959	0.0	169.528
8.5	160.959	0.0	172.324
9.0	160.959	0.0	175.166
9.5	162.958	0.0	178.055
10.0	162.958	0.0	180.992

10.5	163.958	0.0	183.977
11.0	163.958	0.0	187.011
11.5	164.958	0.0	190.095
12.0	164.958	0.0	193.230
12.5	164.958	0.0	196.417
13.0	164.958	0.0	199.657
13.5	165.958	0.0	202.950
14.0	166.957	0.0	206.297
14.5	166.957	0.0	209.699
15.0	167.957	0.0	213.158
15.5	167.957	0.0	216.674
16.0	167.957	0.0	220.247
16.5	167.957	0.0	223.880
17.0	167.957	0.0	227.572
17.5	168.957	0.0	231.325
18.0	168.957	0.0	235.141
18.5	167.957	0.0	239.019
19.0	168.957	0.0	242.961



# MW-3



## Slug Test Results

Title: Mobile Blasting  
Client:  
Job Number:  
Well Number: MW-3

### Hydraulic Conductivity

-----  
Bouwer-Rice: 1.20E-3 (cm/sec), 1.04E+0 (m/day)

### Well Geometry (cm)

H: 300.0  
Le: 365.0  
Lw: 181.0  
rc: 2.54  
rw: 11.18

drainable filter pack porosity: 0.3  
effective radius: 6.48E+0 (cm)

### Bouwer Rice Coefficients

Le/rw: 32.648  
A: 2.494  
B: 0.363  
C: 2.083  
ln(Re/rw): 2.009

### Least Squares Fit

slope: -1.04E-2  
intercept: 7.31E+0

### Recovery Data and Fit

time(sec)	y(cm)	weight	fit(cm)
0.0	1527.339	1.0	1501.368
0.5	1483.126	1.0	1493.609
1.0	1511.261	1.0	1485.891
1.5	1539.396	1.0	1478.212
2.0	1499.203	1.0	1470.573
2.5	1483.126	1.0	1462.974
3.0	1495.184	1.0	1455.414
3.5	1479.107	1.0	1447.892
4.0	1394.701	1.0	1440.410
4.5	1418.817	1.0	1432.967
5.0	1394.701	1.0	1425.562
5.5	1382.643	1.0	1418.195
6.0	1334.412	1.0	1410.866
6.5	1390.682	1.0	1403.575
7.0	1390.682	1.0	1396.322
7.5	1374.605	1.0	1389.106
8.0	1362.547	1.0	1381.928
8.5	1358.527	1.0	1374.786
9.0	1354.508	1.0	1367.682
9.5	1350.489	1.0	1360.614
10.0	1346.470	1.0	1353.583



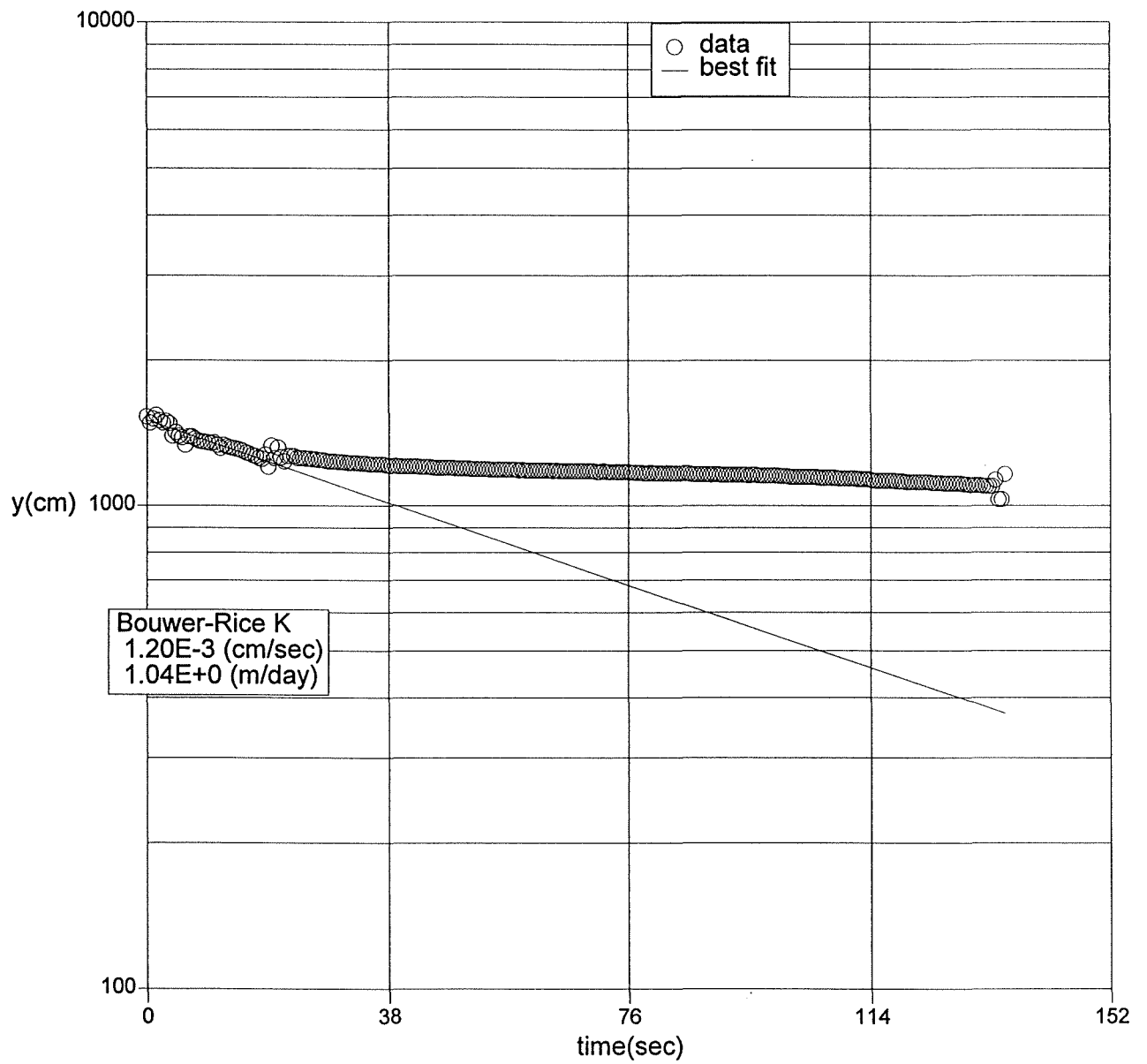
10.5	1350.489	1.0	1346.588
11.0	1334.412	1.0	1339.629
11.5	1314.315	1.0	1332.707
12.0	1334.412	1.0	1325.820
12.5	1326.373	1.0	1318.968
13.0	1318.334	1.0	1312.152
13.5	1314.315	1.0	1305.371
14.0	1310.296	1.0	1298.626
14.5	1306.276	1.0	1291.915
15.0	1298.238	1.0	1285.239
15.5	1286.180	1.0	1278.597
16.0	1282.161	1.0	1271.990
16.5	1270.103	1.0	1265.416
17.0	1266.083	1.0	1258.877
17.5	1254.025	1.0	1252.372
18.0	1250.006	1.0	1245.900
18.5	1274.122	1.0	1239.461
19.0	1201.774	1.0	1233.056
19.5	1330.392	0.0	1226.684
20.0	1254.025	0.0	1220.345
20.5	1318.334	0.0	1214.039
21.0	1258.045	0.0	1207.765
21.5	1233.929	0.0	1201.524
22.0	1266.083	0.0	1195.315
22.5	1266.083	0.0	1189.138
23.0	1266.083	0.0	1182.992
23.5	1254.025	0.0	1176.879
24.0	1254.025	0.0	1170.797
24.5	1254.025	0.0	1164.747
25.0	1250.006	0.0	1158.728
25.5	1250.006	0.0	1152.740
26.0	1245.987	0.0	1146.783
26.5	1245.987	0.0	1140.857
27.0	1241.967	0.0	1134.961
27.5	1241.967	0.0	1129.096
28.0	1237.948	0.0	1123.262
28.5	1233.929	0.0	1117.457
29.0	1233.929	0.0	1111.682
29.5	1233.929	0.0	1105.937
30.0	1229.909	0.0	1100.222
30.5	1229.909	0.0	1094.537
31.0	1229.909	0.0	1088.880
31.5	1225.890	0.0	1083.254
32.0	1225.890	0.0	1077.656
32.5	1225.890	0.0	1072.087
33.0	1225.890	0.0	1066.546
33.5	1221.871	0.0	1061.035
34.0	1221.871	0.0	1055.552
34.5	1221.871	0.0	1050.097
35.0	1217.852	0.0	1044.670
35.5	1217.852	0.0	1039.272
36.0	1217.852	0.0	1033.901
36.5	1217.852	0.0	1028.558
37.0	1217.852	0.0	1023.243
37.5	1213.832	0.0	1017.955
38.0	1209.813	0.0	1012.695
38.5	1209.813	0.0	1007.462

39.0	1209.813	0.0	1002.255
39.5	1205.794	0.0	997.076
40.0	1205.794	0.0	991.924
40.5	1205.794	0.0	986.798
41.0	1205.794	0.0	981.698
41.5	1205.794	0.0	976.625
42.0	1205.794	0.0	971.578
42.5	1205.794	0.0	966.557
43.0	1201.774	0.0	961.563
43.5	1201.774	0.0	956.594
44.0	1201.774	0.0	951.650
44.5	1201.774	0.0	946.732
45.0	1197.755	0.0	941.840
45.5	1197.755	0.0	936.973
46.0	1197.755	0.0	932.131
46.5	1197.755	0.0	927.314
47.0	1197.755	0.0	922.522
47.5	1197.755	0.0	917.755
48.0	1197.755	0.0	913.012
48.5	1193.736	0.0	908.294
49.0	1193.736	0.0	903.600
49.5	1193.736	0.0	898.930
50.0	1193.736	0.0	894.285
50.5	1193.736	0.0	889.664
51.0	1189.716	0.0	885.066
51.5	1189.716	0.0	880.493
52.0	1189.716	0.0	875.942
52.5	1189.716	0.0	871.416
53.0	1189.716	0.0	866.913
53.5	1189.716	0.0	862.433
54.0	1185.697	0.0	857.976
54.5	1185.697	0.0	853.542
55.0	1185.697	0.0	849.131
55.5	1185.697	0.0	844.743
56.0	1185.697	0.0	840.378
56.5	1185.697	0.0	836.035
57.0	1185.697	0.0	831.715
57.5	1185.697	0.0	827.417
58.0	1185.697	0.0	823.141
58.5	1181.678	0.0	818.887
59.0	1185.697	0.0	814.656
59.5	1181.678	0.0	810.446
60.0	1181.678	0.0	806.258
60.5	1181.678	0.0	802.091
61.0	1181.678	0.0	797.946
61.5	1181.678	0.0	793.823
62.0	1181.678	0.0	789.720
62.5	1181.678	0.0	785.639
63.0	1181.678	0.0	781.579
63.5	1181.678	0.0	777.540
64.0	1177.658	0.0	773.522
64.5	1181.678	0.0	769.525
65.0	1177.658	0.0	765.548
65.5	1177.658	0.0	761.592
66.0	1177.658	0.0	757.657
66.5	1177.658	0.0	753.741
67.0	1177.658	0.0	749.846

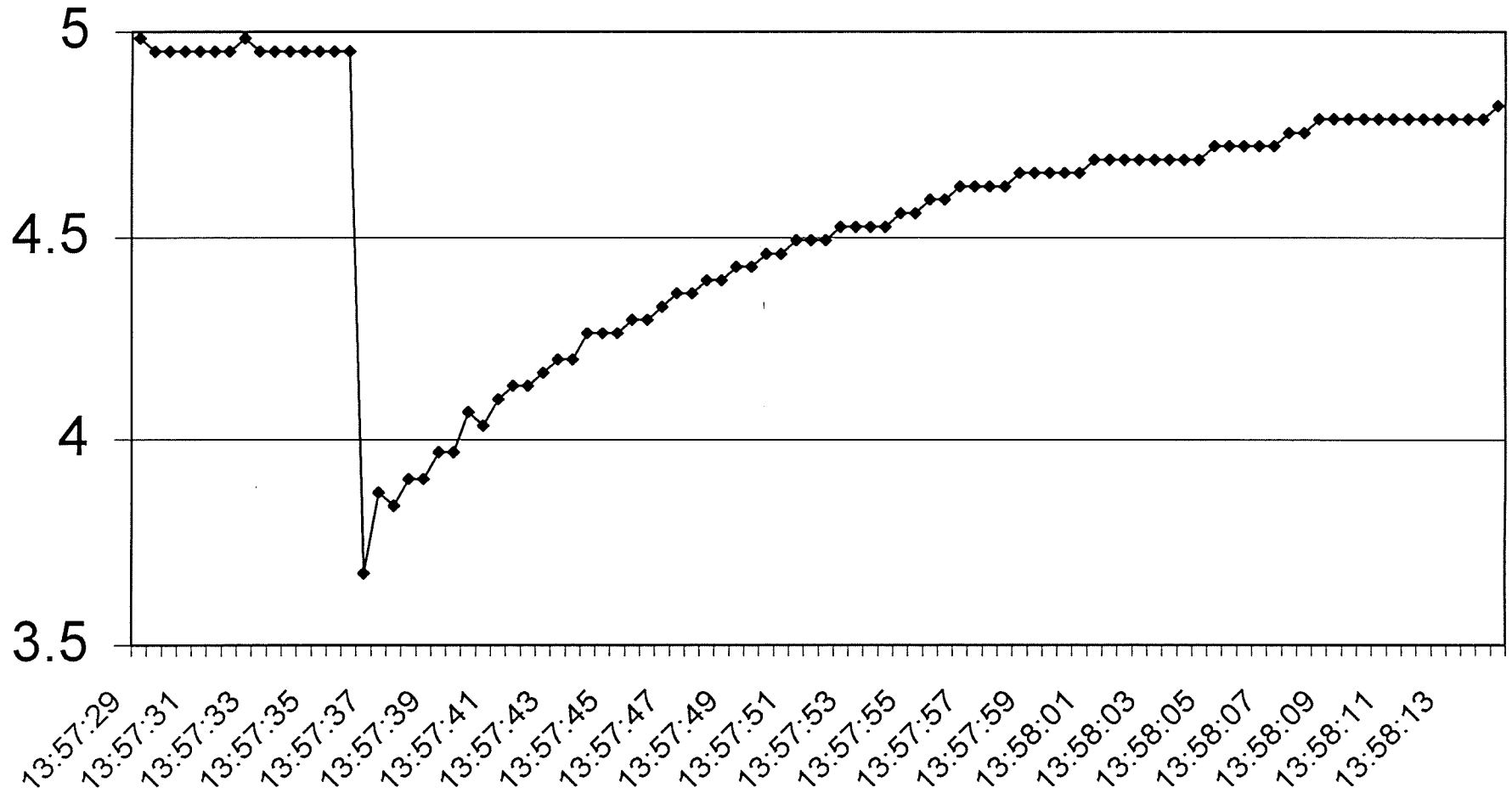
67.5	1177.658	0.0	745.971
68.0	1177.658	0.0	742.116
68.5	1177.658	0.0	738.281
69.0	1177.658	0.0	734.466
69.5	1177.658	0.0	730.671
70.0	1177.658	0.0	726.895
70.5	1177.658	0.0	723.138
71.0	1173.639	0.0	719.402
71.5	1173.639	0.0	715.684
72.0	1177.658	0.0	711.985
72.5	1173.639	0.0	708.306
73.0	1173.639	0.0	704.646
73.5	1173.639	0.0	701.004
74.0	1173.639	0.0	697.382
74.5	1173.639	0.0	693.778
75.0	1173.639	0.0	690.193
75.5	1173.639	0.0	686.626
76.0	1173.639	0.0	683.078
76.5	1169.620	0.0	679.548
77.0	1169.620	0.0	676.036
77.5	1169.620	0.0	672.543
78.0	1169.620	0.0	669.067
78.5	1165.600	0.0	665.610
79.0	1165.600	0.0	662.170
79.5	1169.620	0.0	658.748
80.0	1165.600	0.0	655.344
80.5	1165.600	0.0	651.957
81.0	1165.600	0.0	648.588
81.5	1165.600	0.0	645.237
82.0	1165.600	0.0	641.902
82.5	1165.600	0.0	638.585
83.0	1165.600	0.0	635.285
83.5	1165.600	0.0	632.002
84.0	1165.600	0.0	628.736
84.5	1165.600	0.0	625.487
85.0	1165.600	0.0	622.255
85.5	1165.600	0.0	619.039
86.0	1161.581	0.0	615.840
86.5	1161.581	0.0	612.658
87.0	1161.581	0.0	609.492
87.5	1161.581	0.0	606.342
88.0	1161.581	0.0	603.209
88.5	1161.581	0.0	600.091
89.0	1157.562	0.0	596.990
89.5	1161.581	0.0	593.905
90.0	1161.581	0.0	590.836
90.5	1157.562	0.0	587.783
91.0	1157.562	0.0	584.746
91.5	1157.562	0.0	581.724
92.0	1157.562	0.0	578.718
92.5	1157.562	0.0	575.727
93.0	1157.562	0.0	572.752
93.5	1157.562	0.0	569.792
94.0	1157.562	0.0	566.848
94.5	1157.562	0.0	563.918
95.0	1153.543	0.0	561.004
95.5	1157.562	0.0	558.105

96.0	1157.562	0.0	555.221
96.5	1153.543	0.0	552.352
97.0	1153.543	0.0	549.497
97.5	1153.543	0.0	546.658
98.0	1153.543	0.0	543.833
98.5	1153.543	0.0	541.022
99.0	1153.543	0.0	538.227
99.5	1153.543	0.0	535.445
100.0	1149.523	0.0	532.678
100.5	1149.523	0.0	529.925
101.0	1149.523	0.0	527.187
101.5	1145.504	0.0	524.463
102.0	1145.504	0.0	521.752
102.5	1145.504	0.0	519.056
103.0	1145.504	0.0	516.374
103.5	1145.504	0.0	513.705
104.0	1145.504	0.0	511.051
104.5	1145.504	0.0	508.410
105.0	1145.504	0.0	505.782
105.5	1145.504	0.0	503.169
106.0	1141.485	0.0	500.569
106.5	1141.485	0.0	497.982
107.0	1141.485	0.0	495.408
107.5	1141.485	0.0	492.848
108.0	1141.485	0.0	490.301
108.5	1141.485	0.0	487.768
109.0	1137.465	0.0	485.247
109.5	1137.465	0.0	482.739
110.0	1137.465	0.0	480.245
110.5	1137.465	0.0	477.763
111.0	1137.465	0.0	475.294
111.5	1137.465	0.0	472.838
112.0	1133.446	0.0	470.395
112.5	1133.446	0.0	467.964
113.0	1133.446	0.0	465.545
113.5	1133.446	0.0	463.140
114.0	1129.427	0.0	460.746
114.5	1125.407	0.0	458.365
115.0	1125.407	0.0	455.997
115.5	1125.407	0.0	453.640
116.0	1125.407	0.0	451.296
116.5	1125.407	0.0	448.964
117.0	1125.407	0.0	446.644
117.5	1125.407	0.0	444.336
118.0	1121.388	0.0	442.039
118.5	1121.388	0.0	439.755
119.0	1121.388	0.0	437.483
119.5	1117.369	0.0	435.222
120.0	1117.369	0.0	432.973
120.5	1117.369	0.0	430.735
121.0	1117.369	0.0	428.509
121.5	1117.369	0.0	426.295
122.0	1117.369	0.0	424.092
122.5	1117.369	0.0	421.900
123.0	1117.369	0.0	419.720
123.5	1113.349	0.0	417.551
124.0	1113.349	0.0	415.393

124.5	1113.349	0.0	413.247
125.0	1113.349	0.0	411.111
125.5	1109.330	0.0	408.987
126.0	1109.330	0.0	406.873
126.5	1109.330	0.0	404.771
127.0	1109.330	0.0	402.679
127.5	1109.330	0.0	400.598
128.0	1109.330	0.0	398.528
128.5	1105.311	0.0	396.468
129.0	1105.311	0.0	394.420
129.5	1101.291	0.0	392.381
130.0	1101.291	0.0	390.354
130.5	1101.291	0.0	388.336
131.0	1101.291	0.0	386.330
131.5	1097.272	0.0	384.333
132.0	1097.272	0.0	382.347
132.5	1097.272	0.0	380.371
133.0	1097.272	0.0	378.406
133.5	1129.427	0.0	376.450
134.0	1028.944	0.0	374.505
134.5	1028.944	0.0	372.569
135.0	1161.581	0.0	370.644



# MW99-4



## Slug Test Results

Title: Mobile Blasting  
Client:  
Job Number:  
Well Number: MW99-4

### Hydraulic Conductivity

-----  
Bower-Rice: 1.09E-3 (cm/sec), 9.39E-1 (m/day)

### Well Geometry (cm)

H: 300.0  
Le: 365.0  
Lw: 81.0  
rc: 2.54  
rw: 11.18

drainable filter pack porosity: 0.3  
effective radius: 6.48E+0 (cm)

### Bower Rice Coefficients

Le/rw: 32.648  
A: 2.494  
B: 0.363  
C: 2.083  
ln(Re/rw): 1.504

### Least Squares Fit

slope: 1.26E-2  
intercept: 4.67E+0

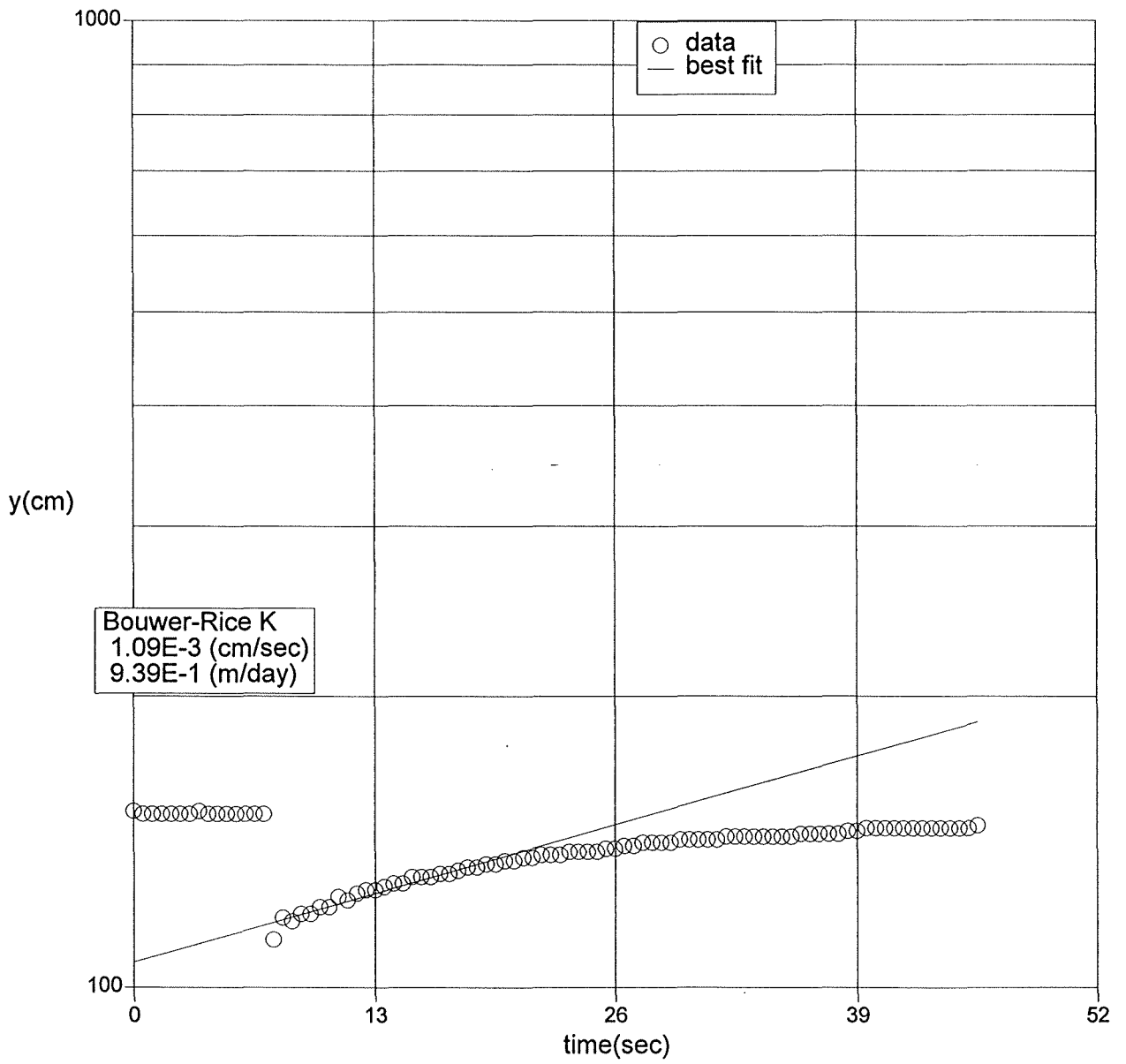
### Recovery Data and Fit

time(sec)	y(cm)	weight	fit(cm)
0.0	151.961	0.0	106.217
0.5	150.961	0.0	106.886
1.0	150.961	0.0	107.559
1.5	150.961	0.0	108.237
2.0	150.961	0.0	108.919
2.5	150.961	0.0	109.605
3.0	150.961	0.0	110.296
3.5	151.961	0.0	110.991
4.0	150.961	0.0	111.690
4.5	150.961	0.0	112.394
5.0	150.961	0.0	113.102
5.5	150.961	0.0	113.815
6.0	150.961	0.0	114.532
6.5	150.961	0.0	115.254
7.0	150.961	0.0	115.980
7.5	111.971	1.0	116.711
8.0	117.970	1.0	117.446
8.5	116.970	1.0	118.186
9.0	118.970	1.0	118.931
9.5	118.970	1.0	119.680
10.0	120.969	1.0	120.434

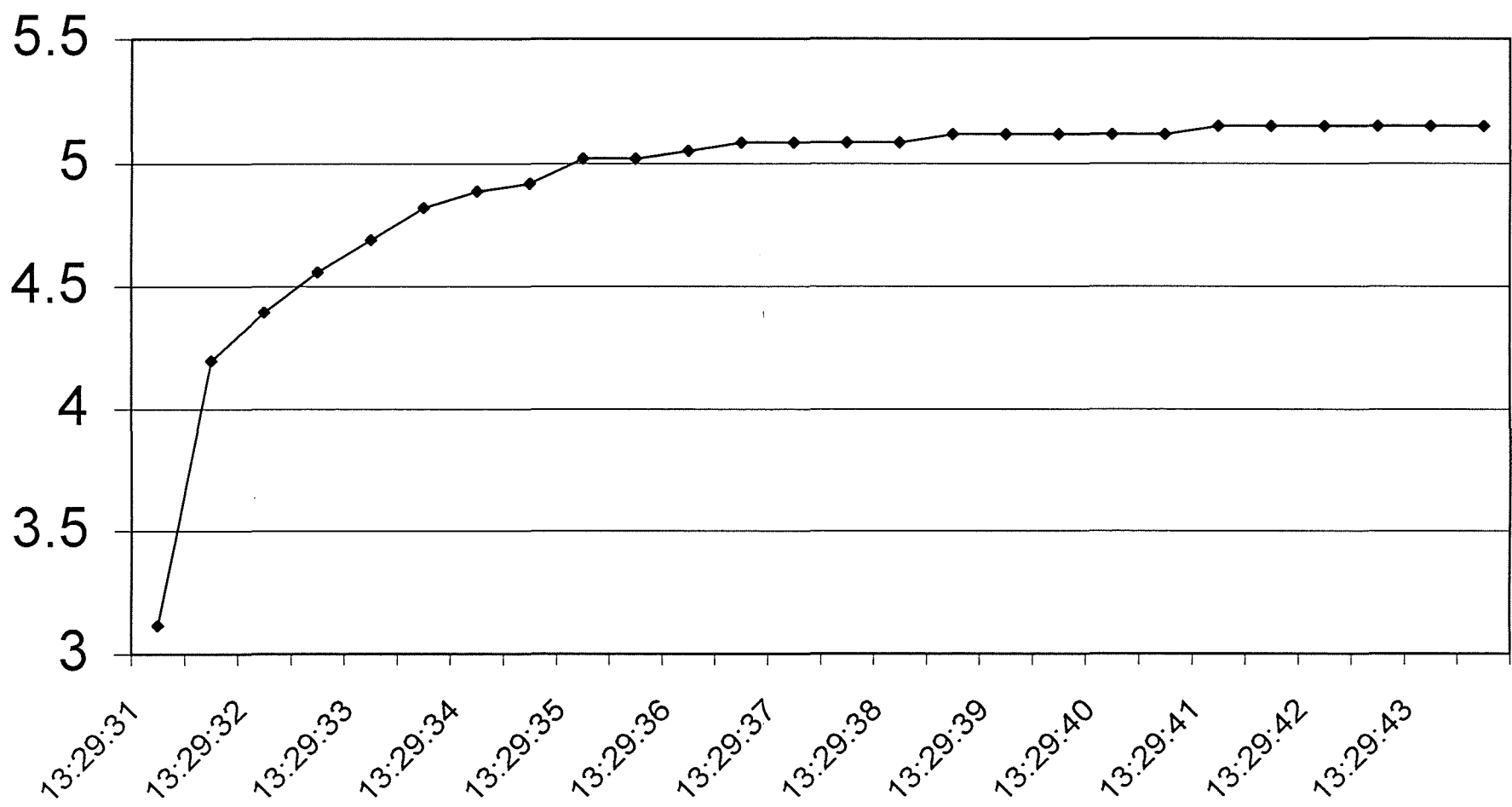


10.5	120.969	1.0	121.193
11.0	123.968	1.0	121.957
11.5	122.969	1.0	122.725
12.0	124.968	1.0	123.499
12.5	125.968	1.0	124.277
13.0	125.968	1.0	125.060
13.5	126.967	1.0	125.848
14.0	127.967	1.0	126.641
14.5	127.967	1.0	127.439
15.0	129.967	1.0	128.242
15.5	129.967	1.0	129.050
16.0	129.967	1.0	129.863
16.5	130.966	1.0	130.681
17.0	130.966	1.0	131.505
17.5	131.966	1.0	132.333
18.0	132.966	1.0	133.167
18.5	132.966	1.0	134.006
19.0	133.966	1.0	134.851
19.5	133.966	1.0	135.700
20.0	134.965	1.0	136.555
20.5	134.965	0.0	137.416
21.0	135.965	0.0	138.282
21.5	135.965	0.0	139.153
22.0	136.965	0.0	140.030
22.5	136.965	0.0	140.912
23.0	136.965	0.0	141.800
23.5	137.965	0.0	142.693
24.0	137.965	0.0	143.593
24.5	137.965	0.0	144.497
25.0	137.965	0.0	145.408
25.5	138.964	0.0	146.324
26.0	138.964	0.0	147.246
26.5	139.964	0.0	148.174
27.0	139.964	0.0	149.107
27.5	140.964	0.0	150.047
28.0	140.964	0.0	150.992
28.5	140.964	0.0	151.944
29.0	140.964	0.0	152.901
29.5	141.964	0.0	153.865
30.0	141.964	0.0	154.834
30.5	141.964	0.0	155.810
31.0	141.964	0.0	156.792
31.5	141.964	0.0	157.780
32.0	142.963	0.0	158.774
32.5	142.963	0.0	159.774
33.0	142.963	0.0	160.781
33.5	142.963	0.0	161.794
34.0	142.963	0.0	162.813
34.5	142.963	0.0	163.839
35.0	142.963	0.0	164.872
35.5	142.963	0.0	165.911
36.0	143.963	0.0	166.956
36.5	143.963	0.0	168.008
37.0	143.963	0.0	169.067
37.5	143.963	0.0	170.132
38.0	143.963	0.0	171.204
38.5	144.963	0.0	172.283

39.0	144.963	0.0	173.368
39.5	145.963	0.0	174.461
40.0	145.963	0.0	175.560
40.5	145.963	0.0	176.666
41.0	145.963	0.0	177.779
41.5	145.963	0.0	178.899
42.0	145.963	0.0	180.027
42.5	145.963	0.0	181.161
43.0	145.963	0.0	182.302
43.5	145.963	0.0	183.451
44.0	145.963	0.0	184.607
44.5	145.963	0.0	185.770
45.0	145.963	0.0	186.941
45.5	146.962	0.0	188.119



# MW99-5



## Slug Test Results

Title: Mobile Blasting  
Client:  
Job Number:  
Well Number: MW99-5

### Hydraulic Conductivity

-----

Bower-Rice:  $4.37E-3$  (cm/sec),  $3.78E+0$  (m/day)

### Well Geometry (cm)

H: 300.0  
Le: 365.0  
Lw: 88.0  
rc: 2.54  
rw: 11.18

drainable filter pack porosity: 0.3  
effective radius:  $6.48E+0$  (cm)

### Bower Rice Coefficients

Le/rw: 32.648  
A: 2.494  
B: 0.363  
C: 2.083  
 $\ln(Re/rw)$ : 1.557

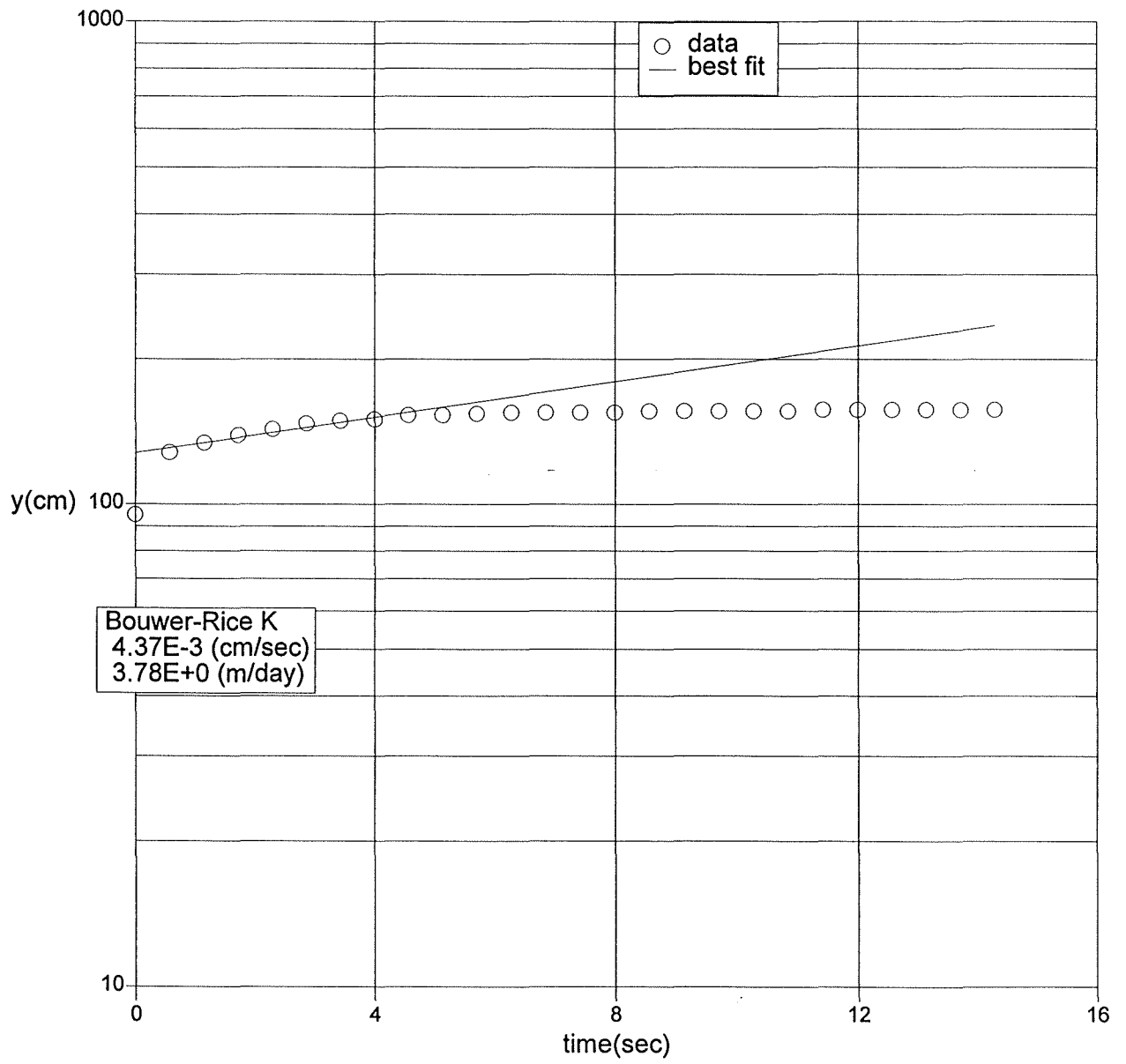
### Least Squares Fit

slope:  $4.88E-2$   
intercept:  $4.85E+0$

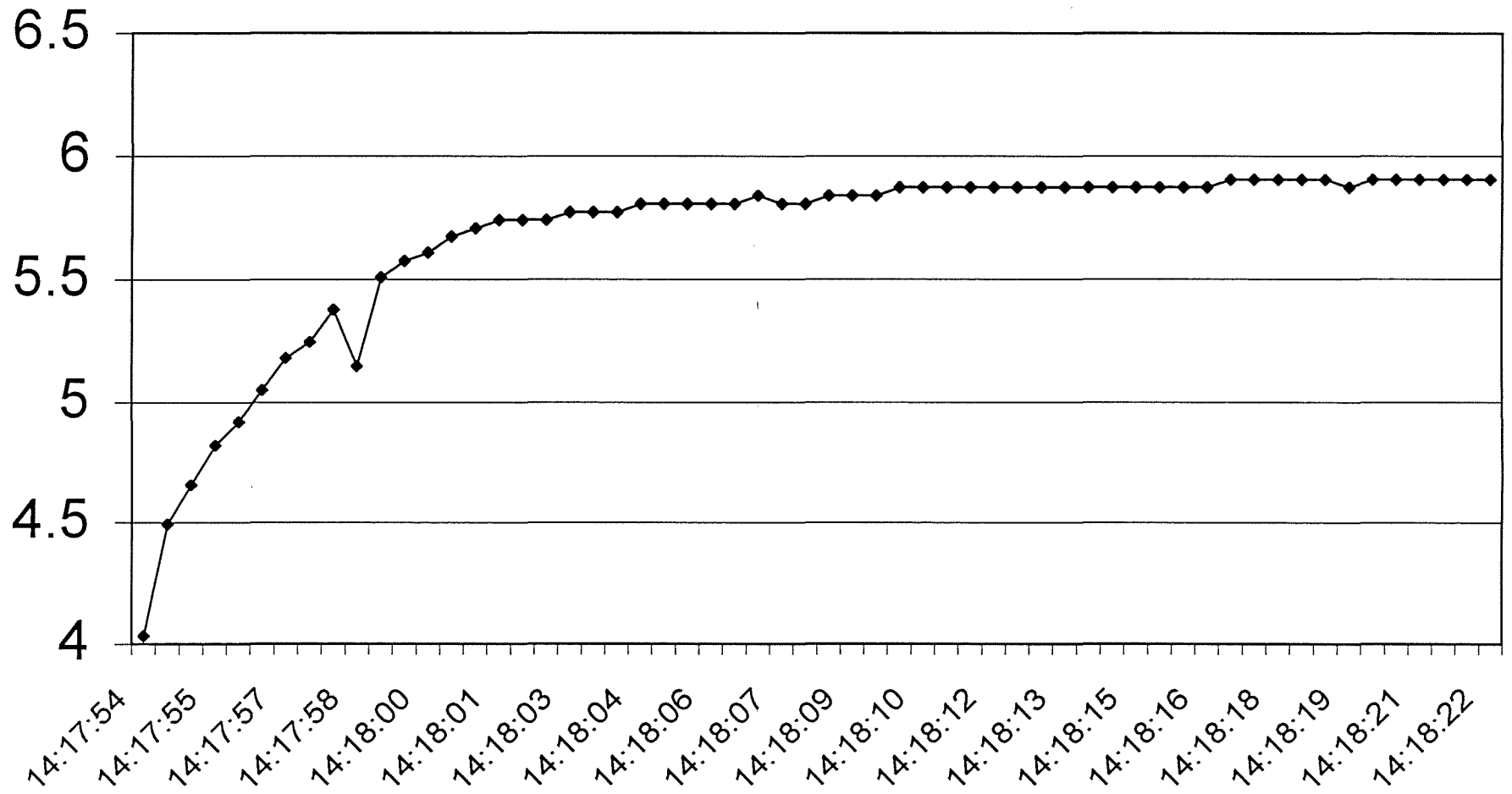
### Recovery Data and Fit

time(sec)	y(cm)	weight	fit(cm)
0.0	94.976	0.0	127.781
0.5	127.967	1.0	130.936
1.0	133.966	1.0	134.169
1.5	138.964	1.0	137.481
2.0	142.963	1.0	140.876
2.5	146.962	1.0	144.354
3.0	148.962	1.0	147.918
3.5	149.962	1.0	151.571
4.0	152.961	1.0	155.313
4.5	152.961	0.0	159.148
5.0	153.961	0.0	163.077
5.5	154.960	0.0	167.104
6.0	154.960	0.0	171.230
6.5	154.960	0.0	175.457
7.0	154.960	0.0	179.790
7.5	155.960	0.0	184.229
8.0	155.960	0.0	188.778
8.5	155.960	0.0	193.439
9.0	155.960	0.0	198.215
9.5	155.960	0.0	203.109
10.0	156.960	0.0	208.124

10.5	156.960	0.0	213.263
11.0	156.960	0.0	218.528
11.5	156.960	0.0	223.924
12.0	156.960	0.0	229.453
12.5	156.960	0.0	235.118



# MW99-6





## Slug Test Results

Title: Mobile Blasting  
Client:  
Job Number:  
Well Number: MW99-6

### Hydraulic Conductivity

-----  
Bouwer-Rice: 4.92E-3 (cm/sec), 4.25E+0 (m/day)

### Well Geometry (cm)

H: 300.0  
Le: 365.0  
Lw: 111.0  
rc: 2.54  
rw: 11.18

drainable filter pack porosity: 0.3  
effective radius: 6.48E+0 (cm)

### Bouwer Rice Coefficients

Le/rw: 32.648  
A: 2.494  
B: 0.363  
C: 2.083  
ln(Re/rw): 1.703

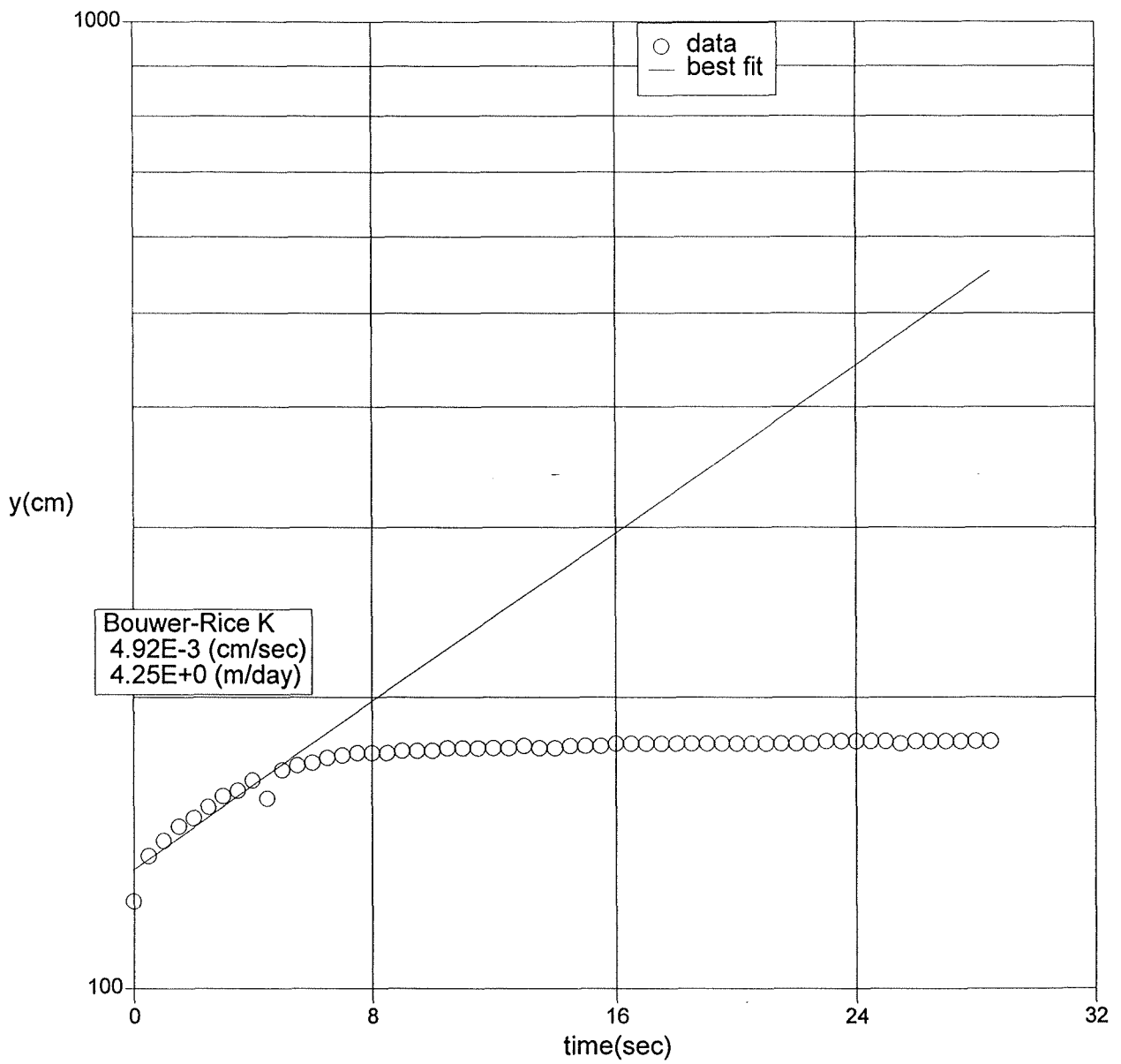
### Least Squares Fit

slope: 5.01E-2  
intercept: 4.89E+0

### Recovery Data and Fit

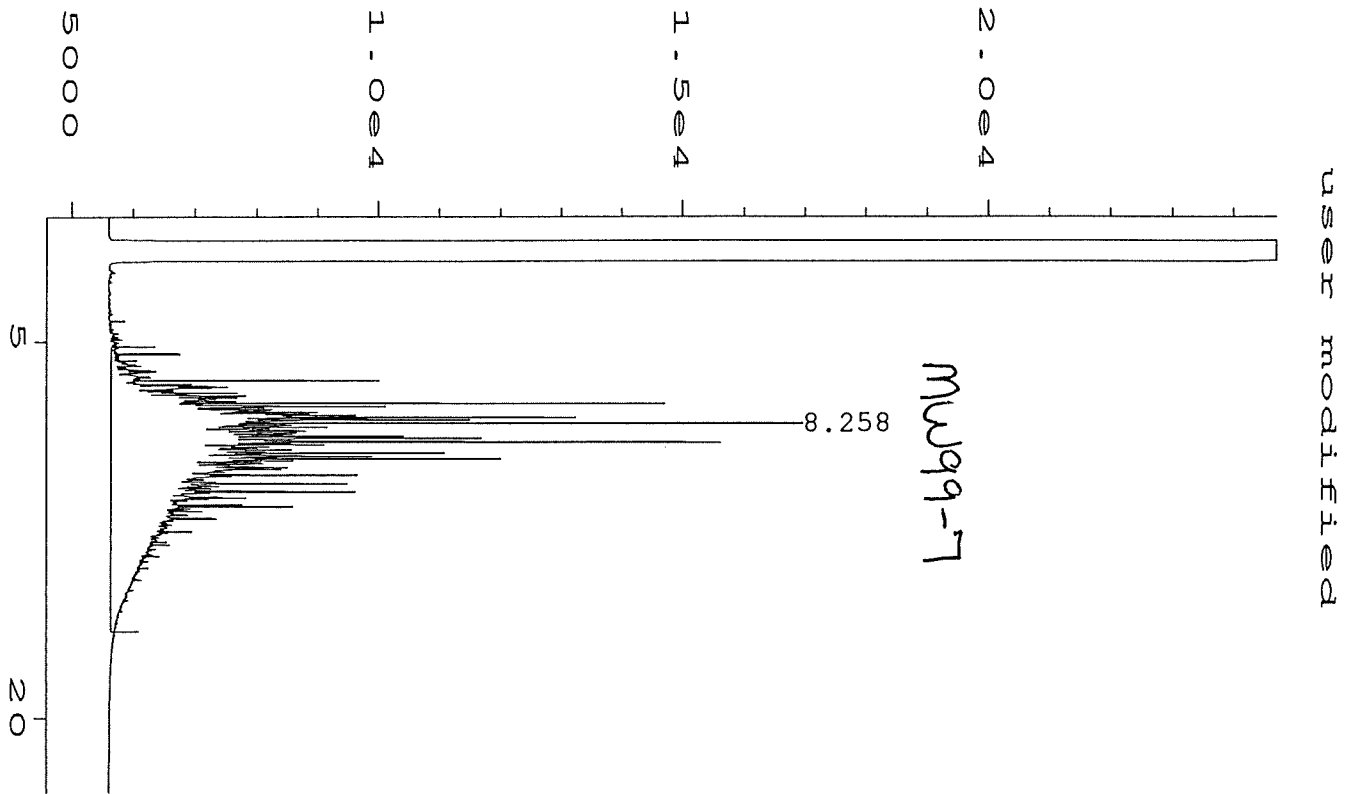
time(sec)	y(cm)	weight	fit(cm)
0.0	122.969	1.0	132.619
0.5	136.965	1.0	135.986
1.0	141.964	1.0	139.438
1.5	146.962	1.0	142.977
2.0	149.962	1.0	146.607
2.5	153.961	1.0	150.328
3.0	157.960	1.0	154.144
3.5	159.959	1.0	158.057
4.0	163.958	1.0	162.070
4.5	156.960	1.0	166.184
5.0	167.957	1.0	170.403
5.5	169.956	0.0	174.728
6.0	170.956	0.0	179.164
6.5	172.956	0.0	183.712
7.0	173.955	0.0	188.375
7.5	174.955	0.0	193.157
8.0	174.955	0.0	198.061
8.5	174.955	0.0	203.089
9.0	175.955	0.0	208.244
9.5	175.955	0.0	213.530
10.0	175.955	0.0	218.951

10.5	176.955	0.0	224.509
11.0	176.955	0.0	230.208
11.5	176.955	0.0	236.052
12.0	176.955	0.0	242.044
12.5	176.955	0.0	248.189
13.0	177.954	0.0	254.489
13.5	176.955	0.0	260.949
14.0	176.955	0.0	267.573
14.5	177.954	0.0	274.366
15.0	177.954	0.0	281.331
15.5	177.954	0.0	288.472
16.0	178.954	0.0	295.795
16.5	178.954	0.0	303.304
17.0	178.954	0.0	311.003
17.5	178.954	0.0	318.898
18.0	178.954	0.0	326.994
18.5	178.954	0.0	335.294
19.0	178.954	0.0	343.806
19.5	178.954	0.0	352.534
20.0	178.954	0.0	361.483
20.5	178.954	0.0	370.659
21.0	178.954	0.0	380.068
21.5	178.954	0.0	389.716
22.0	178.954	0.0	399.609
22.5	178.954	0.0	409.753
23.0	179.954	0.0	420.155
23.5	179.954	0.0	430.821
24.0	179.954	0.0	441.757
24.5	179.954	0.0	452.971
25.0	179.954	0.0	464.470
25.5	178.954	0.0	476.261
26.0	179.954	0.0	488.351
26.5	179.954	0.0	500.748
27.0	179.954	0.0	513.459
27.5	179.954	0.0	526.494
28.0	179.954	0.0	539.859
28.5	179.954	0.0	553.563



**Appendix E**  
**Groundwater Analytical Data**

---



External Standard Report

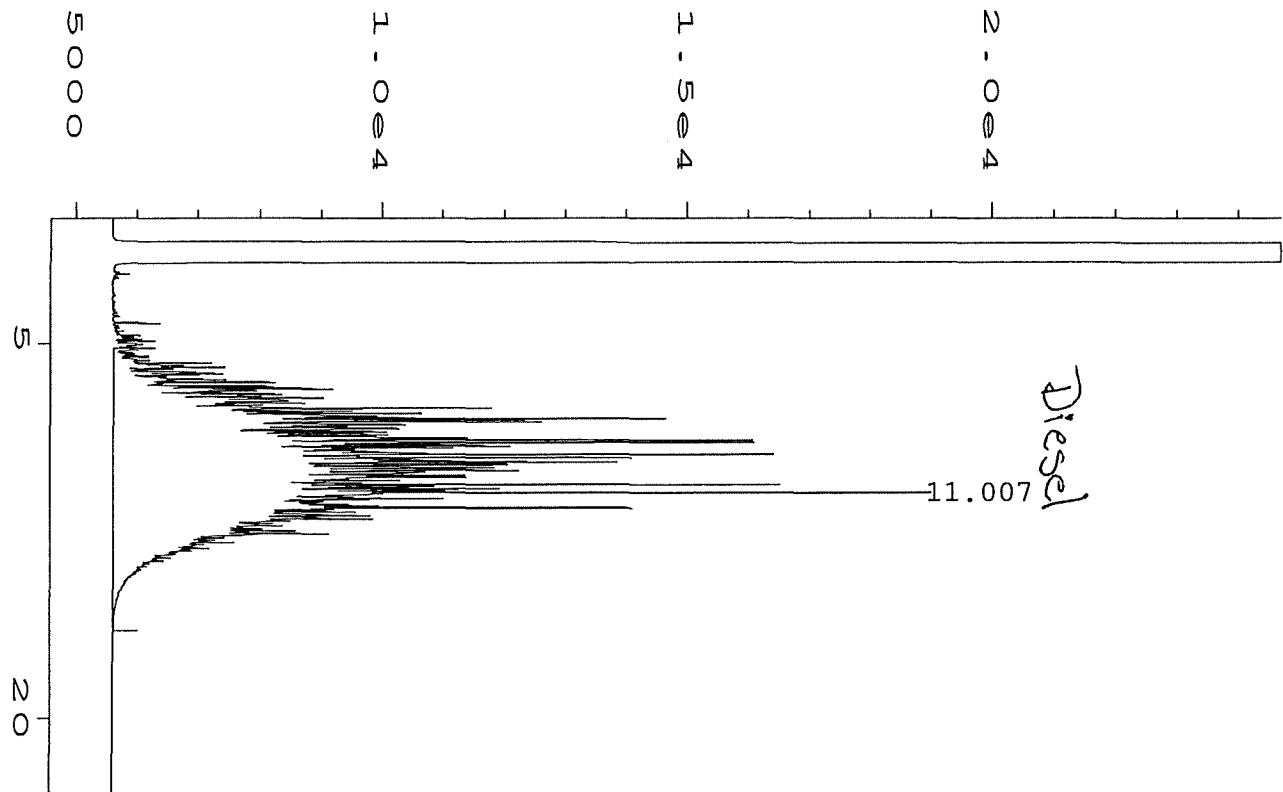
```

Data File Name   : C:\HPCHEM\1\DATA\390219\034F0101.D
Operator        : BRAD RETTLER
Instrument       : GC #3
Sample Name     : 5024598D PROD ID
Run Time Bar Code:
Acquired on    : 20 Feb 99 06:37 AM
Report Created on: 22 Feb 99 12:04 PM
Last Recalib on : 23 DEC 98 09:19 AM
Multiplier     : 1
Page Number    : 1
Vial Number    : 34
Injection Number : 1
Sequence Line  : 1
Instrument Method: DRORUN3.MTH
Analysis Method : DRO3HI8.MTH
Sample Amount  : 0
ISTD Amount    :
  
```

Sig. 1 in C:\HPCHEM\1\DATA\390219\034F0101.D

Ret Time	Area	Type	Width	Ref#	mg/l	Name
8.258	798196	MM	1.170	1	7963.273	

User Modified



user modified

External Standard Report

```

Data File Name   : C:\HPCHEM\1\DATA\ARCHIVE\390301\009F0101.D
Operator        : BRAD RETTLER
Instrument       : GC #3
Sample Name     : 5024683E 10.1
Run Time Bar Code:
Acquired on    : 01 Mar 99 03:11 PM
Report Created on: 19 Mar 99 03:36 PM
Last Recalib on : 23 DEC 98 09:19 AM
Multiplier    : 1
Page Number    : 1
Vial Number    : 9
Injection Number : 1
Sequence Line  : 1
Instrument Method: DRORUN3.MTH
Analysis Method : DRO3HI8.MTH
Sample Amount  : 0
ISTD Amount    :
  
```

Sig. 1 in C:\HPCHEM\1\DATA\ARCHIVE\390301\009F0101.D

Ret Time	Area	Type	Width	Ref#	mg/l	Name
11.007	1475329	MM	1.804	1	14854.15	

User Modified

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592A							<b>Sample Type</b>	Water	
<b>Sample ID</b> MW99-5							<b>Sample Date</b>	2/16/99	
<b>Inorganic</b>									
<b>Metals</b>									
Arsenic	3.2	ug/l	1	3.2	1	3/4/99	7060A	VLC	1
Barium	0.20	mg/l	0.006	0.019	1	2/19/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5
Chromium	1.8 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/1/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	2/19/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1 50
Silver	3.0	ug/l	0.17	0.57	1	2/18/99	7761	JLA	1
<b>Organic</b>									
<b>General</b>									
Diesel Range Organics	< 100	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	< 100	ug/l	9.3	31	1	2/23/99	GRO95	MSV	1
<b>PAH's</b>									
Acenaphthene	< 0.042	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.8	ug/l	1.8	6.1	1	2/24/99	8310	TJW	1
Anthracene	< 0.037	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	< 0.043	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2 3
Fluoranthene	< 0.25	ug/l	0.25	0.84	1	2/24/99	8310	TJW	1
Fluorene	< 0.14	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	0.17	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
2-Methyl naphthalene	< 0.063	ug/l	0.063	0.21	1	2/24/99	8310	TJW	5
Naphthalene	< 0.046	ug/l	0.046	0.15	1	2/24/99	8310	TJW	5
Phenanthrene	< 0.054	ug/l	0.054	0.18	1	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1
<b>VOC's</b>									
Benzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5024592A						Sample Type		Water	
Sample ID MW99-5						Sample Date		2/16/99	
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
tert-Butylbenzene	< 0.33	ug/l	0.33	1.1	1	2/25/99	8021A	DRL	1
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
n-Butylbenzene	< 0.23	ug/l	0.23	0.78	1	2/25/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/25/99	8021A	DRL	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/25/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/25/99	8021A	DRL	1
Chloromethane	< 0.18	ug/l	0.18	0.59	1	2/25/99	8021A	DRL	3
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/25/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	4
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/25/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/25/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/25/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/25/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/25/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/25/99	8021A	DRL	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Naphthalene	< 0.88	ug/l	0.88	2.9	1	2/25/99	8021A	DRL	1
n-Propylbenzene	< 0.3	ug/l	0.3	1	1	2/25/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	3 4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/25/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592A								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> MW99-5								<b>Sample Date</b>	<b>2/16/99</b>
Toluene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/25/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/25/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/25/99	8021A	DRL	3
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/25/99	8021A	DRL	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/25/99	8021A	DRL	1
m&p-Xylene	< 0.66	ug/l	0.66	2.2	1	2/25/99	8021A	DRL	1
o-Xylene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
<b>Lab Code</b> 5024592B								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> MW99-4								<b>Sample Date</b>	<b>2/16/99</b>

**Inorganic**

**Metals**

Arsenic	3.5	ug/l	1	3.2	1	3/4/99	7060A	VLC	1
Barium	0.13	mg/l	0.006	0.019	1	2/19/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5
Chromium	0.86 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/1/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	2/19/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1 50
Silver	0.26 "J"	ug/l	0.17	0.57	1	2/18/99	7761	JLA	1

**Organic**

**General**

Diesel Range Organics	6000	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	1700	ug/l	9.3	31	1	2/25/99	GRO95	MSV	1

**PAH's**

Acenaphthene	12	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.8	ug/l	1.8	6.1	1	2/24/99	8310	TJW	1
Anthracene	0.79	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592B								<b>Sample Type</b>	Water
<b>Sample ID</b> MW99-4								<b>Sample Date</b>	2/16/99
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	< 0.043	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2 3
Fluoranthene	23	ug/l	0.25	0.84	1	2/24/99	8310	TJW	1
Fluorene	8.3	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	240	ug/l	0.47	1.6	10	2/24/99	8310	TJW	1
2-Methyl naphthalene	400	ug/l	0.63	2.1	10	2/24/99	8310	TJW	5
Naphthalene	210	ug/l	0.46	1.5	10	2/24/99	8310	TJW	5
Phenanthrene	6.9	ug/l	0.054	0.18	1	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1
<b>VOC's</b>									
Benzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	GRO95	MSV	1
Bromobenzene	< 3.2	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
Bromochloromethane	< 3.8	ug/l	3.8	13	10	2/26/99	8021A	DRL	1
tert-Butylbenzene	< 3.3	ug/l	3.3	11	10	2/26/99	8021A	DRL	1
sec-Butylbenzene	< 3.4	ug/l	3.4	11	10	2/26/99	8021A	DRL	1
n-Butylbenzene	16	ug/l	2.3	7.8	10	2/26/99	8021A	DRL	1
Carbon Tetrachloride	< 4.7	ug/l	4.7	16	10	2/26/99	8021A	DRL	1
Chlorobenzene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
Chloroethane	< 1.3	ug/l	1.3	4.2	10	2/26/99	8021A	DRL	1
Chloroform	< 4	ug/l	4	13	10	2/26/99	8021A	DRL	1
Chloromethane	< 1.8	ug/l	1.8	5.9	10	2/26/99	8021A	DRL	1
2-Chlorotoluene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
4-Chlorotoluene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 2.2	ug/l	2.2	7.3	10	2/26/99	8021A	DRL	1
Dibromochloromethane	< 3.7	ug/l	3.7	12	10	2/26/99	8021A	DRL	1
1,4-Dichlorobenzene	< 2.8	ug/l	2.8	9.2	10	2/26/99	8021A	DRL	1
1,2-Dichlorobenzene	< 2.9	ug/l	2.9	10	10	2/26/99	8021A	DRL	1
Dichlorodifluoromethane	< 2.8	ug/l	2.8	9.2	10	2/26/99	8021A	DRL	4
1,2-Dichloroethane	< 3.6	ug/l	3.6	12	10	2/26/99	8021A	DRL	1
1,1-Dichloroethane	< 3.4	ug/l	3.4	13	10	2/26/99	8021A	DRL	1
1,1-Dichloroethene	< 3.9	ug/l	3.9	13	10	2/26/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 3.2	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 3.8	ug/l	3.8	13	10	2/26/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592B							<b>Sample Type</b>	Water	
<b>Sample ID</b> MW99-4							<b>Sample Date</b>	2/16/99	
1,2-Dichloropropane	< 3.8	ug/l	3.8	13	10	2/26/99	8021A	DRL	1
2,2-Dichloropropane	< 5.6	ug/l	5.6	19	10	2/26/99	8021A	DRL	4
1,3-Dichloropropane	< 2.8	ug/l	2.8	9.4	10	2/26/99	8021A	DRL	1
Di-isopropyl ether	< 3.2	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 3.5	ug/l	3.5	12	10	2/26/99	8021A	DRL	1
Ethylbenzene	20	ug/l	0.34	1.1	1	2/25/99	GRO95	MSV	1
Hexachlorobutadiene	< 2.7	ug/l	2.7	9.1	10	2/26/99	8021A	DRL	1
Isopropylbenzene	< 3.4	ug/l	3.4	11	10	2/26/99	8021A	DRL	1
p-Isopropyltoluene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
Methylene chloride	< 2.9	ug/l	2.9	10	10	2/26/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/25/99	GRO95	MSV	1
Naphthalene	440	ug/l	8.8	29	10	2/26/99	8021A	DRL	1
n-Propylbenzene	16	ug/l	3	10	10	2/26/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 3.5	ug/l	3.5	12	10	2/26/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 7.5	ug/l	7.5	25	10	2/26/99	8021A	DRL	1
Tetrachloroethene	< 3.5	ug/l	3.5	12	10	2/26/99	8021A	DRL	1
Toluene	0.70 "J"	ug/l	0.35	1.2	1	2/25/99	GRO95	MSV	1
1,2,4-Trichlorobenzene	< 4.1	ug/l	4.1	14	10	2/26/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 4.5	ug/l	4.5	15	10	2/26/99	8021A	DRL	1
1,1,1-Trichloroethane	< 4.5	ug/l	4.5	15	10	2/26/99	8021A	DRL	1
1,1,2-Trichloroethane	< 3.7	ug/l	3.7	12	10	2/26/99	8021A	DRL	1
Trichloroethene	< 4.8	ug/l	4.8	16	10	2/26/99	8021A	DRL	1
Trichlorofluoromethane	< 1.5	ug/l	1.5	5	10	2/26/99	8021A	DRL	4
1,2,4-Trimethylbenzene	10	ug/l	0.35	1.2	1	2/25/99	GRO95	MSV	1
1,3,5-Trimethylbenzene	11	ug/l	0.64	2.1	1	2/25/99	GRO95	MSV	1
Vinyl Chloride	< 1.5	ug/l	1.5	4.9	10	2/26/99	8021A	DRL	1
m&p-Xylene	3.6	ug/l	0.66	2.2	1	2/25/99	GRO95	MSV	1
o-Xylene	1.2	ug/l	0.32	1.1	1	2/25/99	GRO95	MSV	1

<b>Lab Code</b> 5024592C							<b>Sample Type</b>	Water	
<b>Sample ID</b> GP99-3							<b>Sample Date</b>	2/16/99	

Inorganic

Metals

Arsenic	1.6 "J"	ug/l	1	3.2	1	3/4/99	7060A	VLC	1
Barium	0.084	mg/l	0.006	0.019	1	2/19/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592C									
<b>Sample ID</b> GP99-3									
						<b>Sample Type</b>		<b>Water</b>	
						<b>Sample Date</b>		2/16/99	
Chromium	1.2 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/1/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	2/19/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1 50
Silver	< 0.17	ug/l	0.17	0.57	1	2/18/99	7761	JLA	1
<b>Organic</b>									
<b>General</b>									
Diesel Range Organics	260000	ug/l	55	180	10	2/22/99	DRO95	BNR	29
Gasoline Range Organics	3300	ug/l	93	310	10	2/24/99	GRO95	MSV	1
<b>PAH's</b>									
Acenaphthene	17	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.8	ug/l	1.8	6.1	1	2/24/99	8310	TJW	1
Anthracene	2.5	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	0.38	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	0.095 "J"	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2 3
Fluoranthene	98	ug/l	2.5	8.4	10	2/24/99	8310	TJW	1
Fluorene	10	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	340	ug/l	0.47	1.6	10	2/24/99	8310	TJW	1
2-Methyl naphthalene	620	ug/l	0.63	2.1	10	2/24/99	8310	TJW	5
Naphthalene	590	ug/l	0.46	1.5	10	2/24/99	8310	TJW	5
Phenanthrene	25	ug/l	0.54	1.8	10	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1
<b>VOC's</b>									
Benzene	16	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
Bromobenzene	< 3.2	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
Bromochloromethane	< 3.8	ug/l	3.8	13	10	2/26/99	8021A	DRL	1
tert-Butylbenzene	< 3.3	ug/l	3.3	11	10	2/26/99	8021A	DRL	1
sec-Butylbenzene	5.4 "J"	ug/l	3.4	11	10	2/26/99	8021A	DRL	1
n-Butylbenzene	100	ug/l	2.3	7.8	10	2/26/99	8021A	DRL	1
Carbon Tetrachloride	< 4.7	ug/l	4.7	16	10	2/26/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592C							<b>Sample Type</b>		<b>Water</b>
<b>Sample ID</b> GP99-3							<b>Sample Date</b>		<b>2/16/99</b>
Chlorobenzene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
Chloroethane	< 1.3	ug/l	1.3	4.2	10	2/26/99	8021A	DRL	1
Chloroform	< 4	ug/l	4	13	10	2/26/99	8021A	DRL	1
Chloromethane	< 1.8	ug/l	1.8	5.9	10	2/26/99	8021A	DRI	1
2-Chlorotoluene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRI	1
4-Chlorotoluene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRI	1
1,2-Dibromo-3-chloropropane	< 2.2	ug/l	2.2	7.3	10	2/26/99	8021A	DRI	1
Dibromochloromethane	< 3.7	ug/l	3.7	12	10	2/26/99	8021A	DRL	1
1,4-Dichlorobenzene	< 2.8	ug/l	2.8	9.2	10	2/26/99	8021A	DRL	1
1,2-Dichlorobenzene	< 2.9	ug/l	2.9	10	10	2/26/99	8021A	DRL	1
Dichlorodifluoromethane	< 2.8	ug/l	2.8	9.2	10	2/26/99	8021A	DRL	4
1,2-Dichloroethane	< 3.6	ug/l	3.6	12	10	2/26/99	8021A	DRL	1
1,1-Dichloroethane	< 3.4	ug/l	3.4	13	10	2/26/99	8021A	DRL	1
1,1-Dichloroethene	< 3.9	ug/l	3.9	13	10	2/26/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 3.2	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 3.8	ug/l	3.8	13	10	2/26/99	8021A	DRL	1
1,2-Dichloropropane	< 3.8	ug/l	3.8	13	10	2/26/99	8021A	DRL	1
2,2-Dichloropropane	< 5.6	ug/l	5.6	19	10	2/26/99	8021A	DRL	4
1,3-Dichloropropane	< 2.8	ug/l	2.8	9.4	10	2/26/99	8021A	DRL	1
Di-isopropyl ether	< 3.2	ug/l	3.2	11	10	2/26/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 3.5	ug/l	3.5	12	10	2/26/99	8021A	DRL	1
Ethylbenzene	54	ug/l	3.4	11	10	2/26/99	8021A	DRL	1
Hexachlorobutadiene	< 2.7	ug/l	2.7	9.1	10	2/26/99	8021A	DRL	1
Isopropylbenzene	5.4 "J"	ug/l	3.4	11	10	2/26/99	8021A	DRL	1
p-Isopropyltoluene	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
Methylene chloride	< 2.9	ug/l	2.9	10	10	2/26/99	8021A	DRL	1
MTBE	< 3.1	ug/l	3.1	10	10	2/26/99	8021A	DRL	1
Naphthalene	1200	ug/l	8.8	29	10	2/26/99	8021A	DRL	1
n-Propylbenzene	20	ug/l	3	10	10	2/26/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 3.5	ug/l	3.5	12	10	2/26/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 7.5	ug/l	7.5	25	10	2/26/99	8021A	DRL	1
Tetrachloroethene	< 3.5	ug/l	3.5	12	10	2/26/99	8021A	DRL	1
Toluene	29	ug/l	3.5	12	10	2/26/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 4.1	ug/l	4.1	14	10	2/26/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 4.5	ug/l	4.5	15	10	2/26/99	8021A	DRL	1
1,1,1-Trichloroethane	< 4.5	ug/l	4.5	15	10	2/26/99	8021A	DRL	1
1,1,2-Trichloroethane	< 3.7	ug/l	3.7	12	10	2/26/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592C								<b>Sample Type</b> Water	
<b>Sample ID</b> GP99-3								<b>Sample Date</b> 2/16/99	
Trichloroethene	< 4.8	ug/l	4.8	16	10	2/26/99	8021A	DRL	1
Trichlorofluoromethane	< 1.5	ug/l	1.5	5	10	2/26/99	8021A	DRL	4
1,2,4-Trimethylbenzene	310	ug/l	3.5	12	10	2/26/99	8021A	DRL	1
1,3,5-Trimethylbenzene	84	ug/l	6.4	21	10	2/26/99	8021A	DRL	1
Vinyl Chloride	< 1.5	ug/l	1.5	4.9	10	2/26/99	8021A	DRL	1
m&p-Xylene	210	ug/l	6.6	22	10	2/26/99	8021A	DRL	1
o-Xylene	140	ug/l	3.2	11	10	2/26/99	8021A	DRL	1

<b>Lab Code</b> 5024592D								<b>Sample Type</b> Water	
<b>Sample ID</b> MW99-6								<b>Sample Date</b> 2/16/99	

## Inorganic

### Metals

Arsenic	1.4 "J"	ug/l	1	3.2	1	3/4/99	7060A	VLC	1
Barium	0.17	mg/l	0.006	0.019	1	2/19/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5
Chromium	1.1 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/1/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	2/19/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1 50
Silver	0.22 "J"	ug/l	0.17	0.57	1	2/18/99	7761	JLA	1

## Organic

### General

Diesel Range Organics	1400	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	< 100	ug/l	9.3	31	1	2/24/99	GRO95	MSV	1

### PAH's

Acenaphthene	0.82	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.82	ug/l	1.82	6.07	1	2/24/99	8310	TJW	1
Anthracene	0.13	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	< 0.043	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2 3
Fluoranthene	< 0.25	ug/l	0.25	0.84	1	2/24/99	8310	TJW	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592D									
<b>Sample ID</b> MW99-6									
							<b>Sample Type</b>		<b>Water</b>
							<b>Sample Date</b>		<b>2/16/99</b>
Fluorene	< 0.14	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	1.9	ug/l	0.52	1.7	1	2/24/99	8310	TJW	1
2-Methyl naphthalene	4.1	ug/l	0.66	2.2	1	2/24/99	8310	TJW	5
Naphthalene	2.1	ug/l	0.59	2	1	2/24/99	8310	TJW	5
Phenanthrene	.30	ug/l	0.058	0.2	1	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1
<b>VOC's</b>									
Benzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
tert-Butylbenzene	< 0.33	ug/l	0.33	1.1	1	2/25/99	8021A	DRL	1
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
n-Butylbenzene	< 0.23	ug/l	0.23	0.78	1	2/25/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/25/99	8021A	DRL	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/25/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/25/99	8021A	DRL	1
Chloromethane	< 0.18	ug/l	0.18	0.59	1	2/25/99	8021A	DRL	3
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/25/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	4
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/25/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/25/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/25/99	8021A	DRL	1
cis-1,2-Dichloroethene	1.6	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/25/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/25/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592D							<b>Sample Type</b>	Water	
<b>Sample ID</b> MW99-6							<b>Sample Date</b>	2/16/99	
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/25/99	8021A	DRL	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Naphthalene	< 0.88	ug/l	0.88	2.9	1	2/25/99	8021A	DRL	1
n-Propylbenzene	< 0.3	ug/l	0.3	1	1	2/25/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	3.4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/25/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
Toluene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/25/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/25/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/25/99	8021A	DRL	3
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/25/99	8021A	DRL	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/25/99	8021A	DRL	1
m&p-Xylene	< 0.66	ug/l	0.66	2.2	1	2/25/99	8021A	DRL	1
o-Xylene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1

<b>Lab Code</b> 5024592E							<b>Sample Type</b>	Water	
<b>Sample ID</b> GP99-10							<b>Sample Date</b>	2/16/99	

Inorganic

Metals

Arsenic	< 0.055	mg/l	0.055	0.18	1	3/3/99	6010A	JLA	1.59
Barium	.211	mg/l	0.006	0.019	1	2/25/99	6010A	KAB	1.59
Cadmium	< 0.024	mg/l	0.024	0.08	1	3/3/99	6010A	JLA	1.59
Chromium	< 0.011	mg/l	0.011	0.037	1	2/25/99	6010A	KAB	1.59
Lead	< 0.12	mg/l	0.12	0.4	1	2/25/99	6010A	KAB	1.59
Mercury	< 0.2	ug/l	0.2	0.67	1	3/2/99	245.1	VLC	1
Selenium	< 0.098	mg/l	0.098	0.33	1	3/3/99	6010A	JLA	1.59
Silver	< 0.06	mg/l	0.06	0.2	1	3/5/99	6010A	JLA	2.3.59



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024592E							Sample Type	Water
Sample ID	GP99-10							Sample Date	2/16/99

Organic

General

Diesel Range Organics	26000000	ug/l	1E+05	4E+05	20000	2/22/99	DRO95	BNR	29
Gasoline Range Organics	3600	ug/l	93	310	10	2/27/99	GRO95	MSV	146

PAH's

Acenaphthene	280	ug/l	0.42	1.4	10	2/24/99	8310	TJW	1
Acenaphthylene	< 18.2	ug/l	18.2	60.7	10	2/24/99	8310	TJW	1
Anthracene	110	ug/l	0.37	1.2	10	2/24/99	8310	TJW	1
Benzo(a)anthracene	18	ug/l	0.47	1.6	10	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.7	ug/l	0.7	2.3	10	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	12	ug/l	1	3.3	10	2/24/99	8310	TJW	3
Benzo(g,h,i)perylene	9.7	ug/l	2.2	7.3	10	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	0.91 "J"	ug/l	0.43	1.4	10	2/24/99	8310	TJW	1
Chrysene	< 1.4	ug/l	1.4	4.6	10	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 2	ug/l	2	6.5	10	2/24/99	8310	TJW	23
Fluoranthene	2100	ug/l	25	84	100	2/24/99	8310	TJW	1
Fluorene	140	ug/l	1.4	4.7	10	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 1.7	ug/l	1.7	5.7	10	2/24/99	8310	TJW	1
1-Methyl naphthalene	4400	ug/l	52	170	100	2/24/99	8310	TJW	1
2-Methyl naphthalene	7700	ug/l	66	220	100	2/24/99	8310	TJW	5
Naphthalene	2400	ug/l	59	200	100	2/24/99	8310	TJW	5
Phenanthrene	710	ug/l	5.8	20	100	2/24/99	8310	TJW	5
Pyrene	87	ug/l	0.74	2.5	10	2/24/99	8310	TJW	1

VOC's

Benzene	6.2	ug/l	1.6	5.5	5	3/2/99	8021A	DRL	1
Bromobenzene	< 1.6	ug/l	1.6	5.5	5	3/2/99	8021A	DRL	1
Bromochloromethane	< 1.9	ug/l	1.9	6.5	5	3/2/99	8021A	DRL	1
tert-Butylbenzene	< 1.7	ug/l	1.7	5.5	5	3/2/99	8021A	DRL	1
sec-Butylbenzene	4.3 "J"	ug/l	1.7	5.5	5	3/2/99	8021A	DRL	1
n-Butylbenzene	14	ug/l	1.2	3.9	5	3/2/99	8021A	DRL	1
Carbon Tetrachloride	< 2.4	ug/l	2.4	8	5	3/2/99	8021A	DRL	1
Chlorobenzene	< 1.6	ug/l	1.6	5.1	5	3/2/99	8021A	DRL	1
Chloroethane	< 0.65	ug/l	0.65	2.1	5	3/2/99	8021A	DRL	1
Chloroform	< 2	ug/l	2	6.5	5	3/2/99	8021A	DRL	1
Chloromethane	< 0.9	ug/l	0.9	3	5	3/2/99	8021A	DRL	4
2-Chlorotoluene	< 1.6	ug/l	1.6	5.2	5	3/2/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5024592E							Sample Type	Water	
Sample ID GP99-10							Sample Date	2/16/99	
4-Chlorotoluene	< 1.6	ug/l	1.6	5.2	5	3/2/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 1.1	ug/l	1.1	3.7	5	3/2/99	8021A	DRL	1
Dibromochloromethane	< 1.9	ug/l	1.9	6	5	3/2/99	8021A	DRL	1
1,4-Dichlorobenzene	< 1.4	ug/l	1.4	4.6	5	3/2/99	8021A	DRL	1
1,2-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	5	3/2/99	8021A	DRL	1
Dichlorodifluoromethane	< 1.4	ug/l	1.4	4.6	5	3/2/99	8021A	DRL	4
1,2-Dichloroethane	< 1.8	ug/l	1.8	6	5	3/2/99	8021A	DRL	1
1,1-Dichloroethane	< 1.7	ug/l	1.7	6.5	5	3/2/99	8021A	DRL	1
1,1-Dichloroethene	< 2	ug/l	2	6.5	5	3/2/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 1.6	ug/l	1.6	5.5	5	3/2/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 1.9	ug/l	1.9	6.5	5	3/2/99	8021A	DRL	1
1,2-Dichloropropane	< 1.9	ug/l	1.9	6.5	5	3/2/99	8021A	DRL	1
2,2-Dichloropropane	< 2.8	ug/l	2.8	10	5	3/2/99	8021A	DRL	4
1,3-Dichloropropane	< 1.4	ug/l	1.4	4.7	5	3/2/99	8021A	DRL	1
Di-isopropyl ether	< 1.6	ug/l	1.6	5.3	5	3/2/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 1.8	ug/l	1.8	6	5	3/2/99	8021A	DRL	1
Ethylbenzene	19	ug/l	1.7	5.5	5	3/2/99	8021A	DRL	1
Hexachlorobutadiene	< 1.4	ug/l	1.4	4.6	5	3/2/99	8021A	DRL	1
Isopropylbenzene	5.8	ug/l	1.7	5.5	5	3/2/99	8021A	DRL	1
p-Isopropyltoluene	6	ug/l	1.6	5.2	5	3/2/99	8021A	DRL	1
Methylene chloride	< 1.5	ug/l	1.5	4.9	5	3/2/99	8021A	DRL	1
MTBE	< 1.6	ug/l	1.6	5.2	5	3/2/99	8021A	DRL	1
Naphthalene	910	ug/l	4.4	15	5	3/2/99	8021A	DRL	1
n-Propylbenzene	12	ug/l	1.5	5.1	5	3/2/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 1.8	ug/l	1.8	6	5	3/2/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 3.8	ug/l	3.8	13	5	3/2/99	8021A	DRL	1
Tetrachloroethene	< 1.8	ug/l	1.8	6	5	3/2/99	8021A	DRL	1
Toluene	< 1.8	ug/l	1.8	6	5	3/2/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 2.1	ug/l	2.1	7	5	3/2/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 2.3	ug/l	2.3	7.5	5	3/2/99	8021A	DRL	1
1,1,1-Trichloroethane	< 2.3	ug/l	2.3	7.5	5	3/2/99	8021A	DRL	1
1,1,2-Trichloroethane	< 1.9	ug/l	1.9	6	5	3/2/99	8021A	DRL	1
Trichloroethene	< 2.4	ug/l	2.4	8	5	3/2/99	8021A	DRL	4
Trichlorofluoromethane	< 0.75	ug/l	0.75	2.5	5	3/2/99	8021A	DRL	1
1,2,4-Trimethylbenzene	34	ug/l	1.8	6	5	3/2/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 3.2	ug/l	3.2	11	5	3/2/99	8021A	DRL	1
Vinyl Chloride	< 0.75	ug/l	0.75	2.5	5	3/2/99	8021A	DRL	4

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592E								<b>Sample Type</b> Water	
<b>Sample ID</b> GP99-10								<b>Sample Date</b> 2/16/99	

m&p-Xylene	14	ug/l	3.3	11	5	3/2/99	8021A	DRL	1
o-Xylene	17	ug/l	1.6	5.5	5	3/2/99	8021A	DRL	1

<b>Lab Code</b> 5024592F								<b>Sample Type</b> Water	
<b>Sample ID</b> DUP 1								<b>Sample Date</b> 2/16/99	

## Inorganic

### Metals

Arsenic	1.1 "J"	ug/l	1	3.2	1	3/4/99	7060A	VLC	1
Barium	0.17	mg/l	0.006	0.019	1	2/19/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5
Chromium	1.1 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/1/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	2/19/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	150
Silver	0.62	ug/l	0.17	0.57	1	2/18/99	7761	JLA	1

## Organic

### General

Diesel Range Organics	100	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	< 100	ug/l	9.3	31	1	2/24/99	GRO95	MSV	1

### PAH's

Acenaphthene	0.67	ug/l	0.042	0.14	1	2/23/99	8310	TJW	1
Acenaphthylene	< 1.8	ug/l	1.8	6.1	1	2/23/99	8310	TJW	1
Anthracene	0.11 "J"	ug/l	0.037	0.12	1	2/23/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/23/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/23/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/23/99	8310	TJW	3
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/23/99	8310	TJW	2
Benzo(k)fluoranthene	< 0.043	ug/l	0.043	0.14	1	2/23/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/23/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/23/99	8310	TJW	2.3
Fluoranthene	0.52 "J"	ug/l	0.25	0.84	1	2/23/99	8310	TJW	1
Fluorene	< 0.14	ug/l	0.14	0.47	1	2/23/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/23/99	8310	TJW	1
1-Methyl naphthalene	1.4	ug/l	0.047	0.16	1	2/23/99	8310	TJW	1
2-Methyl naphthalene	2.7	ug/l	0.063	0.21	1	2/23/99	8310	TJW	5
Naphthalene	0.77	ug/l	0.046	0.15	1	2/23/99	8310	TJW	5

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592F								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> DUP 1								<b>Sample Date</b>	2/16/99
Phenanthrene	0.40	ug/l	0.054	0.18	1	2/23/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/23/99	8310	TJW	1
<b>VOC's</b>									
Benzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
tert-Butylbenzene	< 0.33	ug/l	0.33	1.1	1	2/25/99	8021A	DRL	1
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
n-Butylbenzene	< 0.23	ug/l	0.23	0.78	1	2/25/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/25/99	8021A	DRL	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/25/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/25/99	8021A	DRL	1
Chloromethane	< 0.18	ug/l	0.18	0.59	1	2/25/99	8021A	DRL	3
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/25/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	4
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/25/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/25/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/25/99	8021A	DRL	1
cis-1,2-Dichloroethene	1.5	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/25/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/25/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/25/99	8021A	DRL	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024592F								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> DUP 1								<b>Sample Date</b>	<b>2/16/99</b>
MTBE	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Naphthalene	< 0.88	ug/l	0.88	2.9	1	2/25/99	8021A	DRL	1
n-Propylbenzene	< 0.3	ug/l	0.3	1	1	2/25/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	3 4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/25/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
Toluene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/25/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/25/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/25/99	8021A	DRL	3
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/25/99	8021A	DRL	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/25/99	8021A	DRL	1
m&p-Xylene	< 0.66	ug/l	0.66	2.2	1	2/25/99	8021A	DRL	1
o-Xylene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
<b>Lab Code</b> 5024592G								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> TRIP BLANK								<b>Sample Date</b>	<b>2/16/99</b>

Organic

General

Gasoline Range Organics < 100 ug/l 9.3 31 1 2/23/99 GRO95 MSV 1

VOC's

Benzene < 0.32 ug/l 0.32 1.1 1 2/24/99 8021A DRL 1  
 Bromobenzene < 0.32 ug/l 0.32 1.1 1 2/24/99 8021A DRL 1  
 Bromochloromethane < 0.38 ug/l 0.38 1.3 1 2/24/99 8021A DRL 1  
 tert-Butylbenzene < 0.33 ug/l 0.33 1.1 1 2/24/99 8021A DRL 1  
 sec-Butylbenzene < 0.34 ug/l 0.34 1.1 1 2/24/99 8021A DRL 1  
 n-Butylbenzene < 0.23 ug/l 0.23 0.78 1 2/24/99 8021A DRL 1  
 Carbon Tetrachloride < 0.47 ug/l 0.47 1.6 1 2/24/99 8021A DRL 1  
 Chlorobenzene < 0.31 ug/l 0.31 1 1 2/24/99 8021A DRL 1  
 Chloroethane < 0.13 ug/l 0.13 0.42 1 2/24/99 8021A DRL 1  
 Chloroform < 0.4 ug/l 0.4 1.3 1 2/24/99 8021A DRL 1  
 Chloromethane < 0.18 ug/l 0.18 0.59 1 2/24/99 8021A DRL 3

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5024592G								Sample Type	Water
Sample ID TRIP BLANK								Sample Date	2/16/99
2-Chlorotoluene	< 0.31	ug/l	0.31		1 1	2/24/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31		1 1	2/24/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/24/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/24/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/24/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29		1 1	2/24/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/24/99	8021A	DRL	4
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/24/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/24/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/24/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/24/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/24/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/24/99	8021A	DRL	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
p-Isopropyltoluene	< 0.31	ug/l	0.31		1 1	2/24/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29		1 1	2/24/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31		1 1	2/24/99	8021A	DRL	1
Naphthalene	< 0.88	ug/l	0.88	2.9	1	2/24/99	8021A	DRL	1
n-Propylbenzene	< 0.3	ug/l	0.3		1 1	2/24/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	3 4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/24/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
Toluene	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/24/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/24/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/24/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/24/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/24/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/24/99	8021A	DRL	3
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/24/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24592

Report Date 10-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code	
Lab Code	5024592G		Sample Type				Water			
Sample ID	TRIP BLANK		Sample Date				2/16/99			
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/24/99	8021A	DRL	1	
m&p-Xylene	< 0.66	ug/l	0.66	2.2	1	2/24/99	8021A	DRL	1	
o-Xylene	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1	

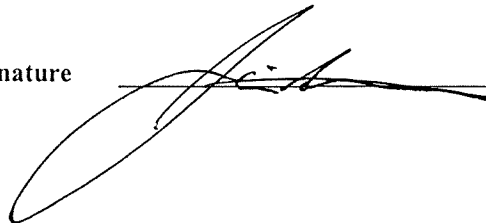
LOD Limit of Detection

"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

Code	Comment
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
5	The blank failed to meet acceptable QC limits.
29	Sample pH adjusted by lab to the method specified level.
46	Chromatogram indicates contamination outside of the specified window.
50	Sample diluted to compensate for matrix interference.
59	Sample turbidity greater than 1.0 NTU.

Authorized Signature



# WOODWARD-CLYDE CONSULTANTS

## CHAIN OF CUSTODY RECORD

2312 N. GRANDVIEW  
 Suite 210  
 WAUKESHA, WI 53188  
 414 513 0577

8383 Greenway Boulevard  
 Middleton, Wisconsin 53562  
 (818) 836-5040  
 Fax (608) 836-4450

PROJ. NO. 3307E0967500		PROJECT NAME MOBILE BASTING				NO. OF CON- TAINERS	Bottle/ Test Inventory GRO/ VOC (40ml) PAH (AMBER) DRO (AMBER w/ HCl) 8 REPA METALS (PLASTIC)					5024592	
LOCATION WEST MILWAUKEE		SAMPLERS: (Signature) <i>[Signature]</i>											
REMARKS LGS													
LAB NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION								
3024592 A	2/16	1045		/	MW99-5	10	5	2	1	2			
B	2/16	1120		/	MW99-4	10	5	2	1	2			
C	2/16	1210		/	GP99-3	10	5	2	1	2			
D	2/16	1315		/	MW99-6	10	5	2	1	2			
E	2/16	1415		/	GP99-10	10	5	2	1	2		FREE PRODUCT	
F	2/16	-		/	DUP 1	10	5	2	1	2			
G					TRIP BLANK	2	2						
Relinquished by: (Signature) <i>Jeanie McIlroy</i>		Date / Time 2/17 11:25	Received by: (Signature) <i>Rene Otto</i>		11:25	Relinquished by: (Signature) <i>Rene Otto</i>		Date / Time 2-17-99 5:45	Received by: (Signature)				
Relinquished by: (Signature)		Date / Time	Received by: (Signature)			Relinquished by: (Signature)		Date / Time	Received by: (Signature)				
Relinquished by: (Signature)		Date / Time	Received for Laboratory by: (Signature) <i>Dinda Smith</i>				Date / Time 2/17/99 5:45	Rec on ice good cond					
Remarks / Shipping Information GP99-3 - Product ID - Don't need to analyze for metals, PAH, GRO/VOC. KAS 2/18/99.						PROJECT MANAGER: Bob CIGALE							



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5024598A							Sample Type	Water
Sample ID	MW-1							Sample Date	2/17/99

## Inorganic

### Metals

Arsenic	< 1	ug/l	1	3.2	1	3/15/99	7060A	JLA	1
Barium	0.25	mg/l	0.006	0.019	1	3/3/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5
Chromium	0.80 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/2/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	3/2/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1.50
Silver	< 0.34	ug/l	0.34	1.14	2	3/21/99	7761	JLA	1.50

## Organic

### General

Diesel Range Organics	3000	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	330	ug/l	9.3	31	1	2/25/99	GRO95	MSV	1

### PAH's

Acenaphthene	1.6	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.82	ug/l	1.82	6.07	1	2/24/99	8310	TJW	1
Anthracene	0.13	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	< 0.043	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2.3
Fluoranthene	< 0.25	ug/l	0.25	0.84	1	2/24/99	8310	TJW	1
Fluorene	< 0.14	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	34	ug/l	0.52	1.7	1	2/24/99	8310	TJW	1
2-Methyl naphthalene	26	ug/l	0.66	2.2	1	2/24/99	8310	TJW	5
Naphthalene	12	ug/l	0.59	2	1	2/24/99	8310	TJW	5
Phenanthrene	0.29	ug/l	0.058	0.2	1	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1

### VOC's

Benzene	4.3	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598A									
<b>Sample ID</b> MW-1									
						<b>Sample Type</b>		<b>Water</b>	
						<b>Sample Date</b>		<b>2/17/99</b>	
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
tert-Butylbenzene	0.33 "J"	ug/l	0.33	1.1	1	2/24/99	8021A	DRL	1
sec-Butylbenzene	1.2	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
n-Butylbenzene	2.5	ug/l	0.23	0.78	1	2/24/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/24/99	8021A	DRL	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/24/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/24/99	8021A	DRL	1
Chloromethane	< 0.18	ug/l	-0.18	0.59	1	2/24/99	8021A	DRL	1
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/24/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/24/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/24/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/24/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/24/99	8021A	DRL	1
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/24/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/24/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/24/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/24/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/24/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/24/99	8021A	DRL	1
Isopropylbenzene	1.8	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
p-Isopropyltoluene	0.73 "J"	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/24/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
Naphthalene	55	ug/l	0.88	2.9	1	2/24/99	8021A	DRL	1
n-Propylbenzene	3.9	ug/l	0.3	1	1	2/24/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/24/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598A								<b>Sample Type</b> Water	
<b>Sample ID</b> MW-1								<b>Sample Date</b> 2/17/99	
Toluene	0.5 "J"	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/24/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/24/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/24/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/24/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/24/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/24/99	8021A	DRL	1
1,2,4-Trimethylbenzene	0.74 "J"	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/24/99	8021A	DRL	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/24/99	8021A	DRL	1
m&p-Xylene	1.7 "J"	ug/l	0.66	2.2	1	2/24/99	8021A	DRL	1
o-Xylene	1.8	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1

<b>Lab Code</b> 5024598B								<b>Sample Type</b> Water	
<b>Sample ID</b> MW-2								<b>Sample Date</b> 2/17/99	

## Inorganic

### Metals

Arsenic	< 1	ug/l	1	3.2	1	3/15/99	7060A	JLA	1
Barium	0.18	mg/l	0.006	0.019	1	3/3/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5
Chromium	1.0 "J"	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/2/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	3/2/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1.50
Silver	< 0.34	ug/l	0.34	1.14	2	3/21/99	7761	JLA	1.50

## Organic

### General

Diesel Range Organics	1100	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	420	ug/l	9.3	31	1	2/25/99	GRO95	MSV	1

### PAH's

Acenaphthene	2.2	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.82	ug/l	1.82	6.07	1	2/24/99	8310	TJW	1
Anthracene	0.19	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598B							<b>Sample Type</b>		<b>Water</b>
<b>Sample ID</b> MW-2						<b>Sample Date</b>			<b>2/17/99</b>
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	< 0.043	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2.3
Fluoranthene	1.3	ug/l	0.25	0.84	1	2/24/99	8310	TJW	1
Fluorene	1.6	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	53	ug/l	0.52	1.7	1	2/24/99	8310	TJW	1
2-Methyl naphthalene	27	ug/l	-0.66	2.2	1	2/24/99	8310	TJW	5
Naphthalene	32	ug/l	0.59	2	1	2/24/99	8310	TJW	5
Phenanthrene	1.9	ug/l	0.058	0.2	1	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1
<b>VOC's</b>									
Benzene	1 "J"	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
tert-Butylbenzene	< 0.33	ug/l	0.33	1.1	1	2/24/99	8021A	DRL	1
sec-Butylbenzene	1.2	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
n-Butylbenzene	9	ug/l	0.23	0.78	1	2/24/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/24/99	8021A	DRL	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/24/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/24/99	8021A	DRL	1
Chloromethane	0.34 "J"	ug/l	0.18	0.59	1	2/24/99	8021A	DRL	1
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/24/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/24/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/24/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/24/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/24/99	8021A	DRL	1
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/24/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/24/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/24/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598B								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> MW-2								<b>Sample Date</b>	<b>2/17/99</b>
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/24/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/24/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/24/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
Ethylbenzene	7.3	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/24/99	8021A	DRL	1
Isopropylbenzene	1.8	ug/l	0.34	1.1	1	2/24/99	8021A	DRL	1
p-Isopropyltoluene	1.7	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/24/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/24/99	8021A	DRL	1
Naphthalene	60	ug/l	0.88	2.9	1	2/24/99	8021A	DRL	1
n-Propylbenzene	2.8	ug/l	0.3	1	1	2/24/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/24/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
Toluene	4.5	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/24/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/24/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/24/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/24/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/24/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/24/99	8021A	DRL	1
1,2,4-Trimethylbenzene	16	ug/l	0.35	1.2	1	2/24/99	8021A	DRL	1
1,3,5-Trimethylbenzene	6.2	ug/l	0.64	2.1	1	2/24/99	8021A	DRL	1
Vinyl Chloride	0.19 "J"	ug/l	0.15	0.49	1	2/24/99	8021A	DRL	1
m&p-Xylene	10	ug/l	0.66	2.2	1	2/24/99	8021A	DRL	1
o-Xylene	6.5	ug/l	0.32	1.1	1	2/24/99	8021A	DRL	1

<b>Lab Code</b> 5024598C								<b>Sample Type</b>	<b>Water</b>
<b>Sample ID</b> MW-3								<b>Sample Date</b>	<b>2/17/99</b>

Inorganic

Metals

Arsenic	1.6 "J"	ug/l	1	3.2	1	3/15/99	7060A	JLA	1
Barium	0.064	mg/l	0.006	0.019	1	3/3/99	6010A	JLA	1
Cadmium	< 0.08	ug/l	0.08	0.3	1	2/22/99	7131A	VLC	5

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598C							<b>Sample Type</b>		<b>Water</b>
<b>Sample ID</b> MW-3							<b>Sample Date</b>		<b>2/17/99</b>
Chromium	< 0.7	ug/l	0.7	2.5	1	2/24/99	7191	VLC	1
Lead	< 1	ug/l	1	3.3	1	3/2/99	7421	JLA	1
Mercury	< 0.2	ug/l	0.2	0.67	1	3/2/99	245.1	VLC	1
Selenium	< 8	ug/l	8	26.5	5	3/8/99	7740	JLA	1.50
Silver	< 0.34	ug/l	0.34	1.14	2	3/21/99	7761	JLA	1.50
<b>Organic</b>									
<b>General</b>									
Diesel Range Organics	16000	ug/l	5.5	18	1	2/22/99	DRO95	BNR	1
Gasoline Range Organics	1200	ug/l	9.3	31	1	2/25/99	GRO95	MSV	1
<b>PAH's</b>									
Acenaphthene	10	ug/l	0.042	0.14	1	2/24/99	8310	TJW	1
Acenaphthylene	< 1.82	ug/l	1.82	6.07	1	2/24/99	8310	TJW	1
Anthracene	2	ug/l	0.037	0.12	1	2/24/99	8310	TJW	1
Benzo(a)anthracene	< 0.047	ug/l	0.047	0.16	1	2/24/99	8310	TJW	1
Benzo(a)pyrene	< 0.07	ug/l	0.07	0.23	1	2/24/99	8310	TJW	1
Benzo(b)fluoranthene	< 0.1	ug/l	0.1	0.33	1	2/24/99	8310	TJW	3
Benzo(g,h,i)perylene	< 0.22	ug/l	0.22	0.73	1	2/24/99	8310	TJW	2
Benzo(k)fluoranthene	0.09 "J"	ug/l	0.043	0.14	1	2/24/99	8310	TJW	1
Chrysene	< 0.14	ug/l	0.14	0.46	1	2/24/99	8310	TJW	2
Dibenzo(a,h)anthracene	< 0.2	ug/l	0.2	0.65	1	2/24/99	8310	TJW	2.3
Fluoranthene	78	ug/l	2.5	8.4	10	2/24/99	8310	TJW	1
Fluorene	6.4	ug/l	0.14	0.47	1	2/24/99	8310	TJW	1
Indeno(1,2,3-cd)pyrene	< 0.17	ug/l	0.17	0.57	1	2/24/99	8310	TJW	1
1-Methyl naphthalene	160	ug/l	5.2	17	10	2/24/99	8310	TJW	1
2-Methyl naphthalene	79	ug/l	0.66	2.2	1	2/24/99	8310	TJW	5
Naphthalene	7.7	ug/l	0.59	2	1	2/24/99	8310	TJW	5
Phenanthrene	14	ug/l	0.058	0.2	1	2/24/99	8310	TJW	5
Pyrene	< 0.074	ug/l	0.074	0.25	1	2/24/99	8310	TJW	1
<b>VOC's</b>									
Benzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
tert-Butylbenzene	0.46 "J"	ug/l	0.33	1.1	1	2/25/99	8021A	DRL	1
sec-Butylbenzene	1.5	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
n-Butylbenzene	15	ug/l	0.23	0.78	1	2/25/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/25/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598C							<b>Sample Type</b>	Water	
<b>Sample ID</b> MW-3							<b>Sample Date</b>	2/17/99	
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/25/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/25/99	8021A	DRL	1
Chloromethane	< 0.18	ug/l	0.18	0.59	1	2/25/99	8021A	DRL	1
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/25/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	-0.28	0.92	1	2/25/99	8021A	DRL	1
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/25/99	8021A	DRL	4
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/25/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/25/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/25/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/25/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/25/99	8021A	DRL	4
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/25/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
Ethylbenzene	7.5	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/25/99	8021A	DRL	1
Isopropylbenzene	1.9	ug/l	0.34	1.1	1	2/25/99	8021A	DRL	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/25/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/25/99	8021A	DRL	1
Naphthalene	14	ug/l	0.88	2.9	1	2/25/99	8021A	DRL	1
n-Propylbenzene	13	ug/l	0.3	1	1	2/25/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/25/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
Toluene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/25/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/25/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/25/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5024598C							<b>Sample Type</b> Water		
<b>Sample ID</b> MW-3							<b>Sample Date</b> 2/17/99		
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/25/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/25/99	8021A	DRL	4
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	2/25/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/25/99	8021A	DRL	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/25/99	8021A	DRL	1
m&p-Xylene	1 "J"	ug/l	0.66	2.2	1	2/25/99	8021A	DRL	1
o-Xylene	0.63 "J"	ug/l	0.32	1.1	1	2/25/99	8021A	DRL	1

<b>Lab Code</b> 5024598D							<b>Sample Type</b> Oil		
<b>Sample ID</b> MW99-7							<b>Sample Date</b> 2/17/99		

Organic

General

Product ID DIESEL 1 2/20/99 US 442 BNR 1 53

<b>Lab Code</b> 5024598E							<b>Sample Type</b> Water		
<b>Sample ID</b> TRIP BLANK							<b>Sample Date</b> 2/17/99		

Organic

General

Gasoline Range Organics < 100 ug/l 9.3 31 1 2/24/99 GRO95 MSV 1

VOC's

Benzene	< 0.32	ug/l	0.32	1.1	1	2/23/99	8021A	DRL	1
Bromobenzene	< 0.32	ug/l	0.32	1.1	1	2/23/99	8021A	DRL	1
Bromochloromethane	< 0.38	ug/l	0.38	1.3	1	2/23/99	8021A	DRL	1
tert-Butylbenzene	< 0.33	ug/l	0.33	1.1	1	2/23/99	8021A	DRL	1
sec-Butylbenzene	< 0.34	ug/l	0.34	1.1	1	2/23/99	8021A	DRL	1
n-Butylbenzene	< 0.23	ug/l	0.23	0.78	1	2/23/99	8021A	DRL	1
Carbon Tetrachloride	< 0.47	ug/l	0.47	1.6	1	2/23/99	8021A	DRL	1
Chlorobenzene	< 0.31	ug/l	0.31	1	1	2/23/99	8021A	DRL	1
Chloroethane	< 0.13	ug/l	0.13	0.42	1	2/23/99	8021A	DRL	1
Chloroform	< 0.4	ug/l	0.4	1.3	1	2/23/99	8021A	DRL	1
Chloromethane	< 0.18	ug/l	0.18	0.59	1	2/23/99	8021A	DRL	1
2-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/23/99	8021A	DRL	1
4-Chlorotoluene	< 0.31	ug/l	0.31	1	1	2/23/99	8021A	DRL	1
1,2-Dibromo-3-chloropropane	< 0.22	ug/l	0.22	0.73	1	2/23/99	8021A	DRL	1
Dibromochloromethane	< 0.37	ug/l	0.37	1.2	1	2/23/99	8021A	DRL	1
1,4-Dichlorobenzene	< 0.28	ug/l	0.28	0.92	1	2/23/99	8021A	DRL	1



# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 3307E0967500  
 Project Name MOBILE BLASTING  
 Invoice # E24598

Report Date 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5024598E							Sample Type	Water	
Sample ID TRIP BLANK							Sample Date	2/17/99	
1,2-Dichlorobenzene	< 0.29	ug/l	0.29	1	1	2/23/99	8021A	DRL	1
Dichlorodifluoromethane	< 0.28	ug/l	0.28	0.92	1	2/23/99	8021A	DRL	1
1,2-Dichloroethane	< 0.36	ug/l	0.36	1.2	1	2/23/99	8021A	DRL	1
1,1-Dichloroethane	< 0.34	ug/l	0.34	1.3	1	2/23/99	8021A	DRL	1
1,1-Dichloroethene	< 0.39	ug/l	0.39	1.3	1	2/23/99	8021A	DRL	1
cis-1,2-Dichloroethene	< 0.32	ug/l	0.32	1.1	1	2/23/99	8021A	DRL	1
trans-1,2-Dichloroethene	< 0.38	ug/l	0.38	1.3	1	2/23/99	8021A	DRL	1
1,2-Dichloropropane	< 0.38	ug/l	0.38	1.3	1	2/23/99	8021A	DRL	1
2,2-Dichloropropane	< 0.56	ug/l	0.56	1.9	1	2/23/99	8021A	DRL	1
1,3-Dichloropropane	< 0.28	ug/l	0.28	0.94	1	2/23/99	8021A	DRL	1
Di-isopropyl ether	< 0.32	ug/l	0.32	1.1	1	2/23/99	8021A	DRL	1
EDB (1,2-Dibromoethane)	< 0.35	ug/l	0.35	1.2	1	2/23/99	8021A	DRL	1
Ethylbenzene	< 0.34	ug/l	0.34	1.1	1	2/23/99	8021A	DRL	1
Hexachlorobutadiene	< 0.27	ug/l	0.27	0.91	1	2/23/99	8021A	DRL	1
Isopropylbenzene	< 0.34	ug/l	0.34	1.1	1	2/23/99	8021A	DRL	1
p-Isopropyltoluene	< 0.31	ug/l	0.31	1	1	2/23/99	8021A	DRL	1
Methylene chloride	< 0.29	ug/l	0.29	1	1	2/23/99	8021A	DRL	1
MTBE	< 0.31	ug/l	0.31	1	1	2/23/99	8021A	DRL	1
Naphthalene	< 0.88	ug/l	0.88	2.9	1	2/23/99	8021A	DRL	1
n-Propylbenzene	< 0.3	ug/l	0.3	1	1	2/23/99	8021A	DRL	1
1,1,2,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.2	1	2/23/99	8021A	DRL	4
1,3-DCP, Tetrachloroethene	< 0.75	ug/l	0.75	2.5	1	2/23/99	8021A	DRL	1
Tetrachloroethene	< 0.35	ug/l	0.35	1.2	1	2/23/99	8021A	DRL	1
Toluene	< 0.35	ug/l	0.35	1.2	1	2/23/99	8021A	DRL	1
1,2,4-Trichlorobenzene	< 0.41	ug/l	0.41	1.4	1	2/23/99	8021A	DRL	1
1,2,3-Trichlorobenzene	< 0.45	ug/l	0.45	1.5	1	2/23/99	8021A	DRL	1
1,1,1-Trichloroethane	< 0.45	ug/l	0.45	1.5	1	2/23/99	8021A	DRL	1
1,1,2-Trichloroethane	< 0.37	ug/l	0.37	1.2	1	2/23/99	8021A	DRL	1
Trichloroethene	< 0.48	ug/l	0.48	1.6	1	2/23/99	8021A	DRL	1
Trichlorofluoromethane	< 0.15	ug/l	0.15	0.5	1	2/23/99	8021A	DRL	1
1,2,4-Trimethylbenzene	< 0.35	ug/l	0.35	1.2	1	2/23/99	8021A	DRL	1
1,3,5-Trimethylbenzene	< 0.64	ug/l	0.64	2.1	1	2/23/99	8021A	DRL	1
Vinyl Chloride	< 0.15	ug/l	0.15	0.49	1	2/23/99	8021A	DRL	1
m&p-Xylene	< 0.66	ug/l	0.66	2.2	1	2/23/99	8021A	DRL	1
o-Xylene	< 0.32	ug/l	0.32	1.1	1	2/23/99	8021A	DRL	1

# U.S. Analytical Lab

BOB CIGALE  
URS GREINER WOODWARD CLYDE  
2312 GRANDVIEW BLVD STE 210  
WAUKESHA WI 53188

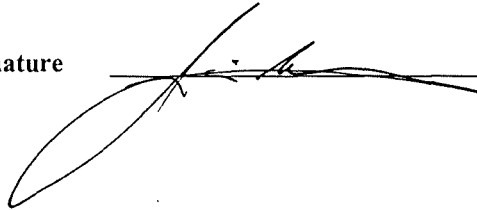
**Project #** 3307E0967500  
**Project Name** MOBILE BLASTING  
**Invoice #** E24598

**Report Date** 22-Mar-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
LOD Limit of Detection	"J" Flag: Analyte detected between LOD and LOQ								LOQ Limit of Quantitation

<i>Code</i>	<i>Comment</i>
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
5	The blank failed to meet acceptable QC limits.
50	Sample diluted to compensate for matrix interference.
53	Reference value only. This is not a WDNR certified method.

Authorized Signature



# WO DWARD-CLYDE CONSULTANTS

CHAIN OF CUSTODY RECORD

2312 N. GRANDVIEW  
SUITE 210  
WAUWATOSA 53188  
414-513-0577

836-...  
Middleton, Wisconsin 53562  
(608) 836-5040  
Fax (608) 836-4450

5024598

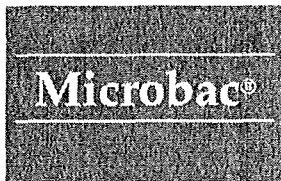
PROJ. NO. 3307ED967500		PROJECT NAME MOBILE BLASTING				NO. OF CON- TAINERS	Boottle/Test Inventory					REMARKS
LOCATION WEST MILWAUKEE		SAMPLERS: (Signature) <i>Kath Gil</i>					GAS/VOL	PAH (TOX)	PAH (AMBER)	8 PAH (AMBER/HCl)	8 PAH METALS (AMBER)	
LAB NO.	DATE	TIME	COMP	GRAB	STATION LOCATION		PRODUCT ID					
5024598A	2/17	845		/	MW-1	10	5	2	1	2		
B	2/17	930		/	MW-2	10	5	2	1	2		
C	2/17	1020		/	MW-3	10	5	2	1	2		
D	2/17	1120		/	MW99-7	2					2	SEE KATHY - CALL W/QUOTE
E					TRIP BLANK	2						

Relinquished by: (Signature) <i>Jeanne McKelvey</i>	Date / Time 2/18/99 11:30	Received by: (Signature) <i>Geo Huss</i>	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature) <i>Geo Huss</i>	Date / Time 2-18-99 3:40	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <i>[Signature]</i>	Date / Time 2-18-99 3:40		

Remarks / Shipping Information  
 PLEASE EMAIL RESULTS IN EXCEL FORMAT TO:  
 robert\_cigale@urscorp.com  
 PROJECT MANAGER: BOB CIGALE  
 ON file / good copy  
~~#MW99-7 Missing Client Contacted 2/19/99 (V-Mail) Found SPO SPO 2/19/99~~

**Appendix F**  
**Groundwater Biocharacterization Data**

---



Microbac Laboratories, Inc.

BioRenewal Division

2800 South Fish Hatchery Road Madison, Wisconsin 53711

608/ 276-8980 Fax: 608/ 273-6989

E-mail: info@biorenewal.com Web: www.biorenewal.com

Facsimile Transmission

To: **Bob Cigale**  
Company: **URSGWL**  
Phone: **414-513-0577**  
Fax: **414-413-0575**

From: **David J Hitchins**  
Company: **Microbac Laboratories, Inc.**  
**BioRenewal Division**  
Phone: **608/ 276-8980**  
Fax: **608/ 273-6989**  
e-mail: **djhitch@biorenewal.com**

NOTICE: This facsimile is intended only for the addressee shown below and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this transmission in error, please notify us immediately by telephone and return the original material to BioRenewal at the above address via U.S. Postal Service. Thank you for your cooperation.

If there is a problem with this transmission, please call (608) 276-8980

Date: **03/11/99**  
Pages (incl cover):

*Comments:*

re: Microbac/BioRenewal Job Code CGF

Dear Bob:

This report presents the results from Comparative Enumeration Assays and nutrient analyses performed on 3 groundwater samples we received on 2/18/99 in connection with the Mobile Bastine site located in West Milwaukee, WI (project number 7E09675). The invoice and chain-of-custody for this project will accompany a confirmation copy sent via mail.

The analytical results requested are presented in the following sections:

- Site suitability for passive bioremediation in relation to suggested guidelines
- Microbial data summary
- Nutrient results

These samples were analyzed by BioRenewal using diesel fuel as the sole carbon source for enumerating the "degrader" microbial populations. Samples were received on ice.

Please give me a call if you have any questions or wish to discuss these results further. We look forward to working with you in the future.

Sincerely,

David J Hitchins  
Laboratory Manager

Enclosures: Analytical results  
Invoice  
Chain-of-custody

**BioRenewal Division - Microbac Laboratories**  
**Bio-Analytical Summary Report**

Job Code:CGF

**Site Information**

Site Name	Mobile Bastine	Date received	18-Feb-99
Location	West Milwaukee, WI	Date of this report	11-Mar-99
Consultant	URSGWL	BioRenewal Job Code	<b>CGF</b>
Proj. Contact	Robert Cigale		
Project Ref ID	7E09675	Number of soil samples	0
Contaminant	Diesel	Number of gw samples	3

**Section I - Summary of Bioremediation Data**

Nutrient/physical factors are as suggested by Wisconsin DNR guidelines for site characterization requirements for natural biodegradation. Microbial factors are shown according to bio-engineering norms.

Sample ID	Soil microbial populations:								
	Exceeds norm for:		pH	% TON /		C:N	C:P	% moisture / SWHC	% Air-filled pore space
	Passive	Active		% OM					
	>1E+06	>1E+03	5.5-8.5	>1.5%	<40	<120	25-85%	>10%	
Guideline note reference:	1	2	3	4	5	6	7	8	
MW-1	Summary table not applicable for groundwater.								
MW-3	Summary table not applicable for groundwater.								
MW-4	Summary table not applicable for groundwater.								

The nutrient/physical parameters summarized above for unsaturated zone soils, reflect suggested minimum Wisconsin DNR "site characterization requirements for natural biodegradation projects" as presented on pp. 6-10 in Naturally Occurring Biodegradation as a Remedial Action Option for *Soil Contamination: Interim Guidance (Revised)* dated August 26, 1994. **BioRenewal stresses that these "suggested guidelines" are only intended to provide a working frame of reference for evaluation.** Each site is unique and requires professional judgement in order to select an appropriate remedial design. We provide this information in recognition that our clients need to work within the guidelines suggested by the state. Further, we hope this will facilitate continued evolution of a working framework for evaluating sites as to the potential for bioremediation whether through site augmentation or natural attenuation.

- ✓ = Sample meets guideline.
- ✗ = Sample does not meet guideline.
- Blank = Below detection limit, not applicable, or not available for that sample.

- NOTES:
- 1) Microbial population levels in soils generally accepted as potentially adequate to support natural biodegradation. These levels are based on bio-engineering norms and not WDNR guidelines.
  - 2) Microbial population levels in soils generally accepted as minimum to serve as an "inoculum" for implementing active bioremediation strategies.
  - 3) See page 7 and 10, WDNR.
  - 4) See pages 8 and 10, WDNR. Total Organic Nitrogen (calculated from TKN minus ammonium nitrogen) divided by % organic matter.
  - 5) See pages 8 and 10, WDNR.
  - 6) See pages 8 and 10, WDNR.
  - 7) See page 6 and 10, WDNR. The suggested optimum range is 50-80% (p. 6).
  - 8) See page 8 and 10, WDNR. WDNR suggests a minimum air-filled porosity in soil of 10% is necessary for adequate oxygen diffusion in the soil gas to support biodegradation.

**Section II - Microbial Data Summary continued**

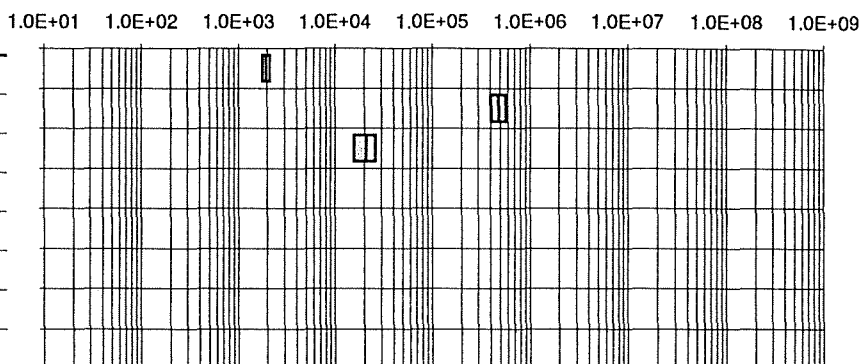
All values in cfu/ml\*

**Groundwater Samples**

**Total populations**

Sample ID	Mean	Low	High
MW-1	2.0E+03	1.8E+03	2.1E+03
MW-3	4.8E+05	4.0E+05	5.7E+05
MW-4	2.1E+04	1.6E+04	2.6E+04

Low and high indicate 95% confidence range

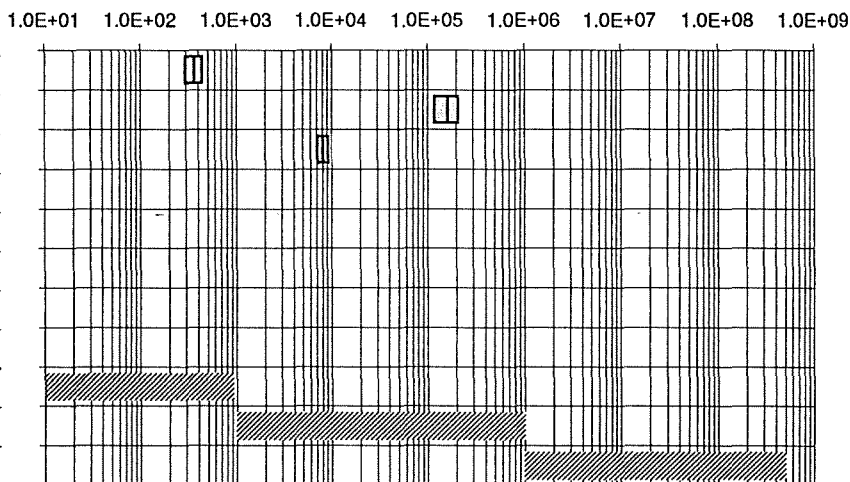


**Groundwater Samples**

**Degrader populations**

Sample ID	Mean	Low	High
MW-1	3.6E+02	3.0E+02	4.4E+02
MW-3	1.6E+05	1.2E+05	2.1E+05
MW-4	8.1E+03	7.1E+03	9.3E+03

Low and high indicate 95% confidence range



Marginal inoculum

Inoculum levels

Active degradation levels

**Marginal inoculum** = Degrader populations below 1.0E+03 are indicative of severe limitations. Substantial augmentation of site conditions will likely be required to attain adequate cell mass to attain measurable biotransformation rates.

**Inoculum levels** = Degrader populations between 1.0E+03 and 1.0E+06 are amenable to site augmentation, but are generally insufficient to attain adequate biotransformation without site augmentation.

**Active degradation levels** = Degrader populations greater than 1.0E+06 are generally of sufficient magnitude to support measurable biotransformation without site augmentation. However, site augmentation may still be required to attain desirable rates of transformation due to specific site conditions.

**Assay conditions**

Sample ID	Degrader Media		Temp. (Celcius)	Growth Conditions	DOF **		Percent Degraders
	Carbon source	% Carbon (v/v)			Total	Degrader	
MW-1	diesel	1.0	22	Aerobic	2	2	18%
MW-3	diesel	1.0	22	Aerobic	2	2	33%
MW-4	diesel	1.0	22	Aerobic	2	2	39%

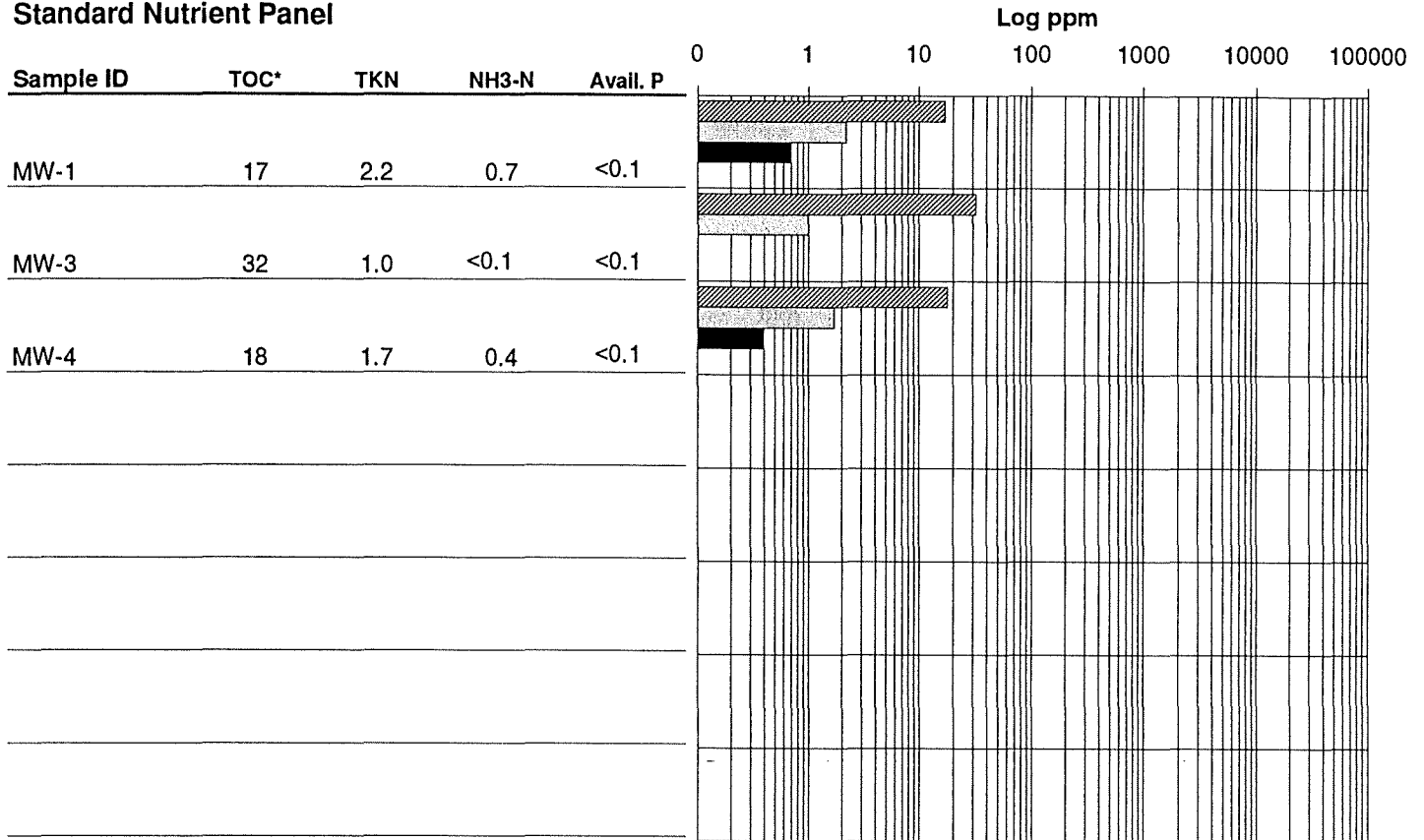
\* cfu/ml = colony forming units per ml of groundwater

\*\* DOF = Degrees of freedom is number of replicates minus one. This parameter is used in calculation of 95% confidence intervals.

**Section III - Nutrient Conditions**

All results reported as parts per million (ppm) unless otherwise indicated.

**Standard Nutrient Panel**



\* Total Organic Carbon

**Other Analyses and Calculations**



Guideline Published Thresholds*	C:N	C:P
Wis Dept. Natural Resources	Below: 40	120
Nat'l Academy of Sciences	Below: 6	30

Sample ID	% Organic*		Calculated Ratios		pH	SO4-S	NO3-N	Dissolved/	Dissolved/	CEC
	Matter	TON**	C:N	C:P				Avail Mn	Avail. Fe	
MW-1	0.0%	1.5	11	#DIV/0!	6.9	4.8	<0.1	NR	NR	NR
MW-3	0.0%	1.0	32	#DIV/0!	7.2	21.7	0.2	NR	NR	NR
MW-4	0.0%	1.3	14	#DIV/0!	7.1	5.5	<0.1	NR	NR	NR

Sources: Naturally Occurring Biodegradation as a Remedial Action Option for Soil Contamination: Interim Guidance (Revised), 1994.

In-situ Bioremediation: When Does it Work?, B. Rittman, Ed., National Academy of Sciences, 1993. p 117.

\* = Estimated % organic matter - See Methods.

\*\* = Total Organic Nitrogen (Calculated as Total Kjeldahl Nitrogen (TKN) minus ammonium nitrogen).

NR = Not requested.

n/a = Not applicable.



---

**Section V - Additional Analyses (continued)**

All results reported as parts per million (ppm) unless otherwise indicated.

	<b>Hardness*</b> <b>(mg/L)</b>	<b>Alkalinity</b> <b>(mg/L CaCO<sub>3</sub>)</b>
MW-1	NR	576
MW-3	NR	332
MW-4	NR	448

\* Hardness Range (CaCO<sub>3</sub> by calculation in mg/L CaCO<sub>3</sub>)

0-60	Soft
61-120	Moderately hard
121-180	Hard
>180	Very hard

Contact person BOB CIGALE Sampler BOB CIGALE  
 Project name MOBILE BLASTING Project # 7E09675  
 Project location WEST MILWAUKEE WI  
 (City) (state)

Site contaminant \* DIESEL  
 (Used in test for degrader microbial populations, give ratios if applicable, e.g. 50:50, gasoline:diesel)

\* If available, a sample of free product is preferred for use as the carbon source for enumerating the degrader microbial populations. Free product included?  yes  No

Requested analyses (✓)

Comparative Enumeration Assay <small>(Total heterotroph and degrader microbial populations)</small> <input checked="" type="checkbox"/> Aerobic, <input type="checkbox"/> Microaerophilic (s/gw)	Standard nutrient panel (soil/gw) <small>- incl. TKN, ammonium nitrogen, available P, pH, total organic carbon, % moisture (s)</small>	Particle size analysis (soil) <input type="checkbox"/> sieve and hydrometer, <input type="checkbox"/> sieve only	% air-filled pore space (soil) <small>(includes bulk density)</small>	Soil moisture at field capacity	Bulk density (soil)	Intact core													

Sample ID	Lab use only	Date	Time	(✓)		Sample depth	(#)			Additional comments
				Soil	GW		Jars	Vials	Core	
MW-1	CGF01	2/17	845		X		1	1		
MW-3	CGF02	2/17	1020		X		1	1		
MW99-4	CGF03	2/17	1045		X		1	1		

Relinquished by: <u>[Signature]</u> <u>SHIPPED VIA FEREX</u>	Date/time: <u>2/17/99 1310</u>	Comments: <u>SEE QUOTE A90204</u>	Sample condition upon arrival:
Received by: <u>[Signature]</u>	Date/time: <u>2/18/99 9:50 AM</u>		On ice? <input checked="" type="checkbox"/> Yes, <input type="checkbox"/> No



**BioRenewal**  
 Technologies, Inc.  
 The Faraday Center  
 2800 S. Fish Hatchery Rd.  
 Madison, WI 53711  
 (608)276-8980  
 Fax (608)273-6989

Send results to:  
 Name BOB CIGALE  
 Company URS GROUP  
 Address 2312 N. GRANDVIEW, SUITE 210  
 City WAUKESHA State WI Zip 53188  
 Phone 414 513 0577 Fax 414 513 0575

Send invoice to:  Same as results  
 Name \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone \_\_\_\_\_ Fax \_\_\_\_\_

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name FORMER MOBILE BLASTI  
 Invoice # E25053.

Report Date 30-Apr-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5025053A					Sample Type	Soil		
Sample ID	GP99-13 S-5					Sample Date	3/29/99		

## Inorganic

### General

Solids Percent	86.9	%			1	3/31/99	5021	BNR	1
----------------	------	---	--	--	---	---------	------	-----	---

## Organic

### General

Diesel Range Organics	270	mg/kg	0.22	0.73	1	3/31/99	DRO95	BNR	1 44
Gasoline Range Organics	60	mg/kg	0.3	1.1	1	4/7/99	GRO95	CAH	1 46

### VOC's

Benzene	< 25	ug/kg	5.9	20	1	4/8/99	8021A	CJR	1
Bromobenzene	< 25	ug/kg	3.1	10	1	4/8/99	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	4/8/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	4/8/99	8021A	CJR	1
sec-Butylbenzene	110	ug/kg	4.8	16	1	4/8/99	8021A	CJR	1
n-Butylbenzene	860	ug/kg	2.5	8.4	1	4/8/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	4/8/99	8021A	CJR	1
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	4/8/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	4/8/99	8021A	CJR	2
Chloroform	< 25	ug/kg	2.8	9.2	1	4/8/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	4/8/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	4/8/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	4/8/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	4/8/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	4/8/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	4/8/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	4/8/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	4/8/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	4/8/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	4/8/99	8021A	CJR	1
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	4/8/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	4/8/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	4/8/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	4/8/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	4/8/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	4/8/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	4/8/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	4/8/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name FORMER MOBILE BLASTI  
 Invoice # E25053

Report Date 30-Apr-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5025053A									
<b>Sample ID</b> GP99-13 S-5									
						<b>Sample Type</b> Soil			
						<b>Sample Date</b> 3/29/99			
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	4/8/99	8021A	CJR	1
Ethylbenzene	140	ug/kg	6.2	11	1	4/8/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	4/8/99	8021A	CJR	1
Isopropylbenzene	59	ug/kg	5	17	1	4/8/99	8021A	CJR	1
p-Isopropyltoluene	95	ug/kg	3.4	11	1	4/8/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	4/8/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	4/8/99	8021A	CJR	2
Naphthalene	2000	ug/kg	7	23	1	4/8/99	8021A	CJR	1
n-Propylbenzene	270	ug/kg	2.8	9.2	1	4/8/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	4/8/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	4/8/99	8021A	CJR	1
Toluene	< 25	ug/kg	5.1	17	1	4/8/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	4/8/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	4/8/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	4/8/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	4/8/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	4/8/99	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	19	65	1	4/8/99	8021A	CJR	3 4
1,2,4-Trimethylbenzene	590	ug/kg	2.4	8	1	4/8/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	4/8/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	4/8/99	8021A	CJR	1
m&p-Xylene	140	ug/kg	5.6	19	1	4/8/99	8021A	CJR	1
o-Xylene	120	ug/kg	2.7	9	1	4/8/99	8021A	CJR	1

<b>Lab Code</b> 5025053B									
<b>Sample ID</b> GP99-14 S-6									
						<b>Sample Type</b> Soil			
						<b>Sample Date</b> 3/29/99			

**Inorganic**

**General**

Solids Percent 85.4 % 1 3/31/99 5021 BNR 1

**Organic**

**General**

Diesel Range Organics 24 mg/kg 0.22 0.73 1 4/1/99 DRO95 BNR 1 44

Gasoline Range Organics 10 mg/kg 0.3 1.1 1 4/8/99 GRO95 CAH 1 46

**VOC's**

Benzene < 25 ug/kg 5.9 20 1 4/1/99 8021A CJR 1

Bromobenzene < 25 ug/kg 3.1 10 1 4/1/99 8021A CJR 1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name FORMER MOBILE BLASTI  
 Invoice # E25053

Report Date 30-Apr-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5025053B						<b>Sample Type</b> Soil			
<b>Sample ID</b> GP99-14 S-6						<b>Sample Date</b> 3/29/99			
Bromodichloromethane	< 25	ug/kg	2.7	8.9	1	4/1/99	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	2.3	7.7	1	4/1/99	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	4.8	16	1	4/1/99	8021A	CJR	1
n-Butylbenzene	150	ug/kg	2.5	8.4	1	4/1/99	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	2.2	7.2	1	4/1/99	8021A	CJR	3 4
Chlorobenzene	< 25	ug/kg	2.5	8.2	1	4/1/99	8021A	CJR	1
Chloroethane	< 25	ug/kg	5	17	1	4/1/99	8021A	CJR	4
Chloroform	< 25	ug/kg	2.8	9.2	1	4/1/99	8021A	CJR	1
Chloromethane	< 25	ug/kg	7.3	24	1	4/1/99	8021A	CJR	4
2-Chlorotoluene	< 25	ug/kg	2.4	7.9	1	4/1/99	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	7.8	1	4/1/99	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 25	ug/kg	4.1	14	1	4/1/99	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	2.1	7.1	1	4/1/99	8021A	CJR	1
Dibromochloromethane	< 25	ug/kg	2	6.7	1	4/1/99	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	4/1/99	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	2.2	7.4	1	4/1/99	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	2.2	7.2	1	4/1/99	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	4.3	14	1	4/1/99	8021A	CJR	3 4
1,2-Dichloroethane	< 25	ug/kg	2.7	9.1	1	4/1/99	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	2.3	7.6	1	4/1/99	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	2.2	7.5	1	4/1/99	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	2.8	9.3	1	4/1/99	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	3.5	12	1	4/1/99	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	2.4	8	1	4/1/99	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	2.2	7.3	1	4/1/99	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	3.9	13	1	4/1/99	8021A	CJR	1
EDB (1,2-Dibromoethane)	< 25	ug/kg	4.2	14	1	4/1/99	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	6.2	11	1	4/1/99	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	4.8	16	1	4/1/99	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	5	17	1	4/1/99	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	3.4	11	1	4/1/99	8021A	CJR	1
Methylene chloride	< 25	ug/kg	3.3	11	1	4/1/99	8021A	CJR	1
MTBE	< 25	ug/kg	7	23	1	4/1/99	8021A	CJR	1
Naphthalene	280	ug/kg	7	23	1	4/1/99	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	2.8	9.2	1	4/1/99	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	7.1	24	1	4/1/99	8021A	CJR	2
Tetrachloroethene	< 25	ug/kg	3.6	12	1	4/1/99	8021A	CJR	1

# U.S. Analytical Lab

BOB CIGALE  
 URS GREINER WOODWARD CLYDE  
 2312 GRANDVIEW BLVD STE 210  
 WAUKESHA WI 53188

Project # 7E09675  
 Project Name FORMER MOBILE BLASTI  
 Invoice # E25053

Report Date 30-Apr-99

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5025053B						Sample Type Soil			
Sample ID GP99-14 S-6						Sample Date 3/29/99			
Toluene	< 25	ug/kg	5.1	17	1	4/1/99	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	5.1	17	1	4/1/99	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	5.4	18	1	4/1/99	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	2.3	7.6	1	4/1/99	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	2	6.7	1	4/1/99	8021A	CJR	1
Trichloroethene	< 25	ug/kg	4.6	15	1	4/1/99	8021A	CJR	3
Trichlorofluoromethane	< 25	ug/kg	19	65	1	4/1/99	8021A	CJR	1
1,2,4-Trimethylbenzene	< 25	ug/kg	2.4	8	1	4/1/99	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	3.8	13	1	4/1/99	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	4.7	16	1	4/1/99	8021A	CJR	4
m&p-Xylene	< 50	ug/kg	5.6	19	1	4/1/99	8021A	CJR	1
o-Xylene	< 25	ug/kg	2.7	9	1	4/1/99	8021A	CJR	1

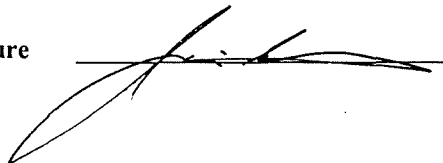
LOD Limit of Detection

"J" Flag: Analyte detected between LOD and LOQ

LOQ Limit of Quantitation

Code	Comment
1	All laboratory QC requirements were met for this sample.
2	The duplicate RPD failed to meet acceptable QC limits.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
44	Chromatogram indicates possible lube oil contamination.
46	Chromatogram indicates contamination outside of the specified window.

Authorized Signature



# CHAIN OF CUSTODY RECORD



**Analytical Lab**

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Rev. Date: 12-17-98

Chain # **N<sup>o</sup> 15244**

Lab I.D. # **5025053**

Account No.: \_\_\_\_\_ Quote No.: \_\_\_\_\_

Page \_\_\_ of \_\_\_

Project #: **7E09675** Sample Integrity - To be completed by receiving lab.  
 Method of Shipment: **COOLERS** Temp. of Temp. Blank: \_\_\_\_\_ °C On Ice:   
 Sampler: (signature) *[Signature]* Cooler seal intact upon receipt:  Yes  No Labcoded By: **SAD**

Project (Name / Location): **Former MOBILE BLASTING, WEST MILWAUKEE, WI**

Reports To: <b>BOB CIGALE</b>	Invoice To:	<b>Sample Handling Request</b> <input type="checkbox"/> Rush Analysis Date Required _____ <input type="checkbox"/> Normal Turn Around	<b>Analysis Requested</b> DRO (Mod/TPH) <input type="checkbox"/> GRO (Mod/TPH) <input type="checkbox"/> PVOC (EPA 8021) <input type="checkbox"/> BTEX (EPA 8021) <input type="checkbox"/> VOC (EPA 8021) <input type="checkbox"/> VOC (EPA 8260) <input type="checkbox"/> O&G (EPA 413.1) <input type="checkbox"/> PAH (EPA 8310) <input type="checkbox"/> Pb <input type="checkbox"/> Flash Point <input type="checkbox"/> Other Analysis <input type="checkbox"/>
Company <b>URSGWC</b>	Company		
Address <b>2312 N. GRANDVIEW SUITE 210</b>	Address		
City State Zip <b>WATKESHA, WI 53188</b>	City State Zip		
Phone <b>414 513 0577</b>	Phone		

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	PID/ FID
		Date	Time														
<b>5025053 A</b>	<b>GP99-13 S-5</b>	<b>3/29/99</b>	<b>1000</b>	<b>2 40ml VOA</b>	<b>SOIL</b>	<b>NONE</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>↓ B</b>	<b>GP99-14 S-6</b>	<b>↓</b>	<b>1120</b>	<b>↓</b>	<b>↓</b>	<b>↓</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**Department Use Only**  
 Split Samples: Offered?  Yes  No  
 Accepted?  Yes  No  
 Accepted By: \_\_\_\_\_

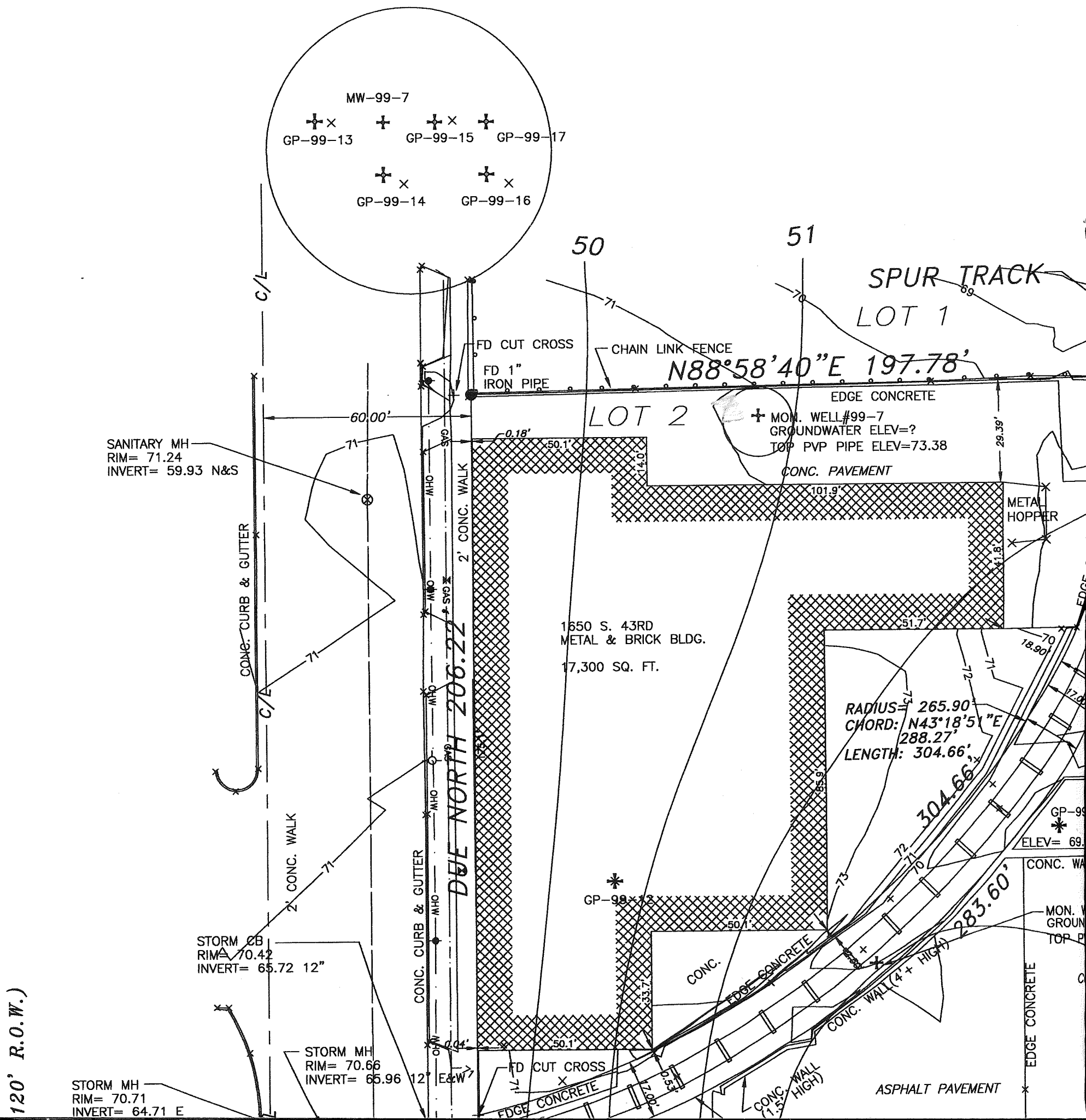
Comments/ Special Instructions  
 \*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

**Department Use Optional for Soil Samples**  
 Disposition of unused portion of sample  
 Lab Should:  
 Dispose  Retain for \_\_\_\_\_ days  
 Return  Other

Relinquished By: (sign) *[Signature]* Time **4:15** Date **3-30-99**  
 Received By: (sign) *[Signature]* Time **11:25** Date **3-30-99**  
 Received in Laboratory By: *[Signature]* Time: **16:15** Date: **3/30/99**

# FIGURE GROUNDWATER

THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.



120' R.O.W.)

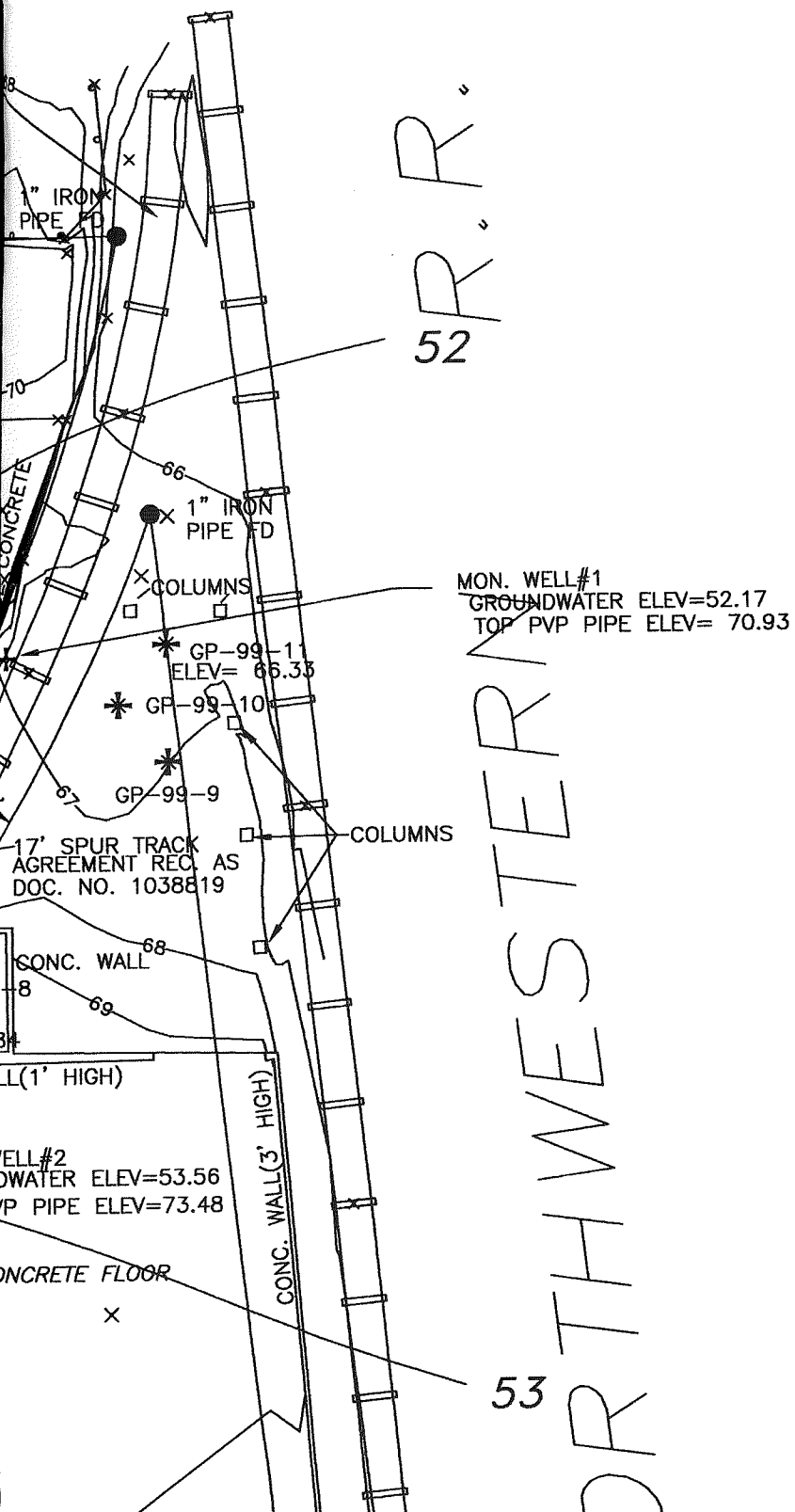


# SURFACE MAP

**NOTES**

1. Elevations are referenced to Milwaukee City Datum (MCD). 0.0 MCD = 580.79 NGVD.

2. Soil borings were performed by Groundwater Management Services under subcontract to URS Greiner Woodward Clyde between February 9 and March 29, 1999.



## LEGEND

	SANITARY MH
	STORM MH
	INLET
	WATER MH
	HYDRANT
	WATER VALVE
	GAS VALVE
	TELEPHONE MH
	TELEPHONE PEDESTAL
	MARKED FIBER OPTIC
	ELECTRIC MH
	ELECTRIC PEDESTAL
	ELECTRIC METER
	GAS METER
	CABLE PEDESTAL
	LIGHT POLE
	UTILITY POLE
	GUY
	TRAFFIC LIGHT
	CONTROL BOX
	RR CROSSING SIGN
	BOLLARD
	WELL
	EDGE OF WATER
	EDGE OF MARSH
	FLAGPOLE
	SIGN
	MAILBOX
	MONITORING WELL / BORING
	POLICE AND FIRE MANHOLE
	DECIDUOUS TREE

SOUTH 43rd. STREET (PUBLIC STREET)

INVERT= 62.41 S

RADIUS= 282.90  
CHORD: N48°16'08" 271.87'  
LENGTH: 283.60'

SANITARY MH  
RIM= 70.43  
INVERT= 59.19 N&S

STORM MH  
RIM= 70.49  
INVERT= 62.33 N&S  
INVERT= 65.84 12" E

STORM MH  
RIM= 70.05  
INVERT= 62.15 N&S

SANITARY MH  
RIM= 69.58  
INVERT= 58.32 N&S

STORM MH  
RIM= 69.58  
INVERT= 60.52 N&S

STORM CB  
RIM= 68.60  
INVERT= 12" NW

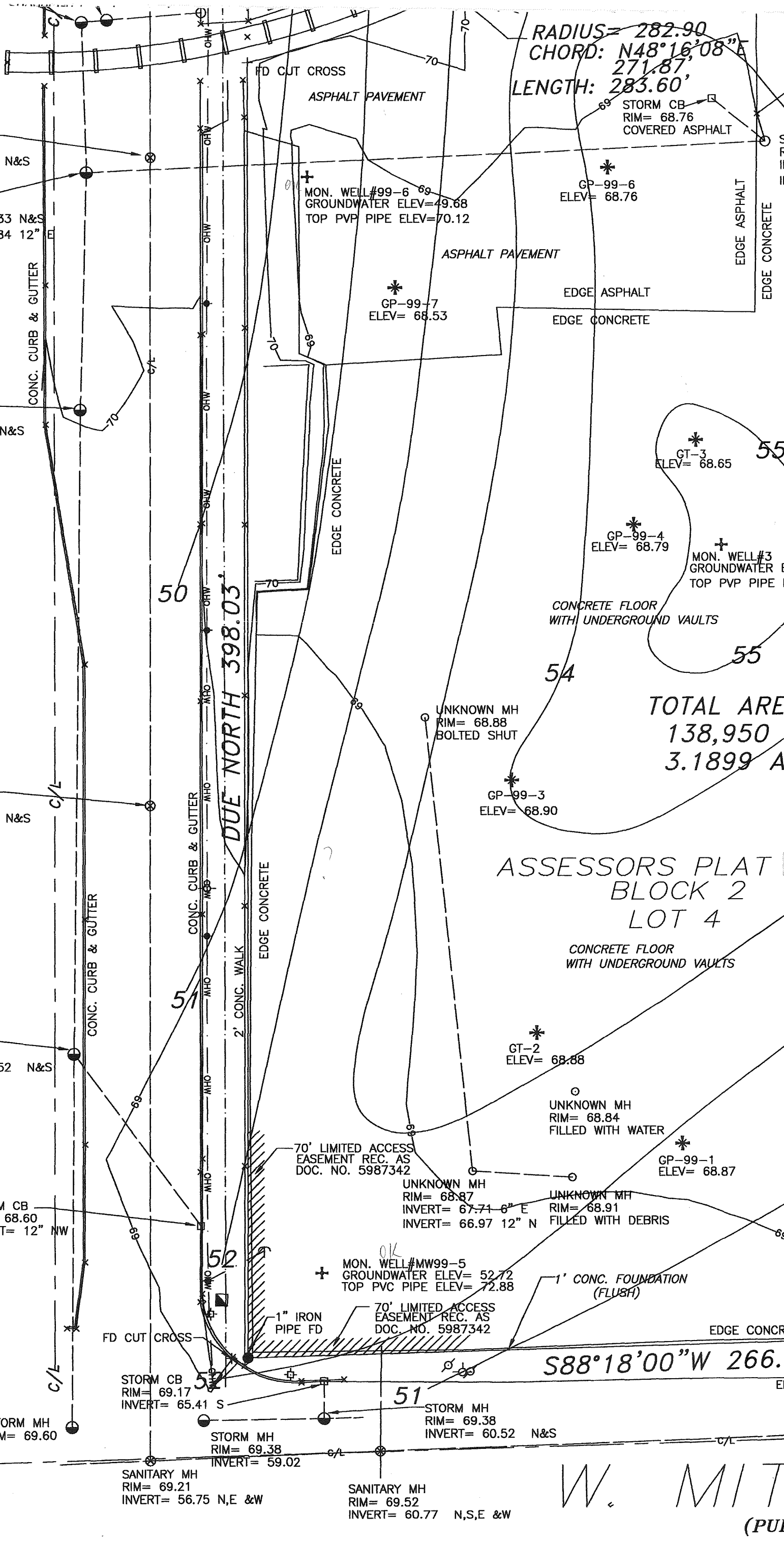
STORM MH  
RIM= 69.60

STORM CB  
RIM= 69.17  
INVERT= 65.41 S

STORM MH  
RIM= 69.38  
INVERT= 59.02

SANITARY MH  
RIM= 69.21  
INVERT= 56.75 N,E &W

SANITARY MH  
RIM= 69.52  
INVERT= 60.77 N,S,E &W



DUE NORTH 398.03'

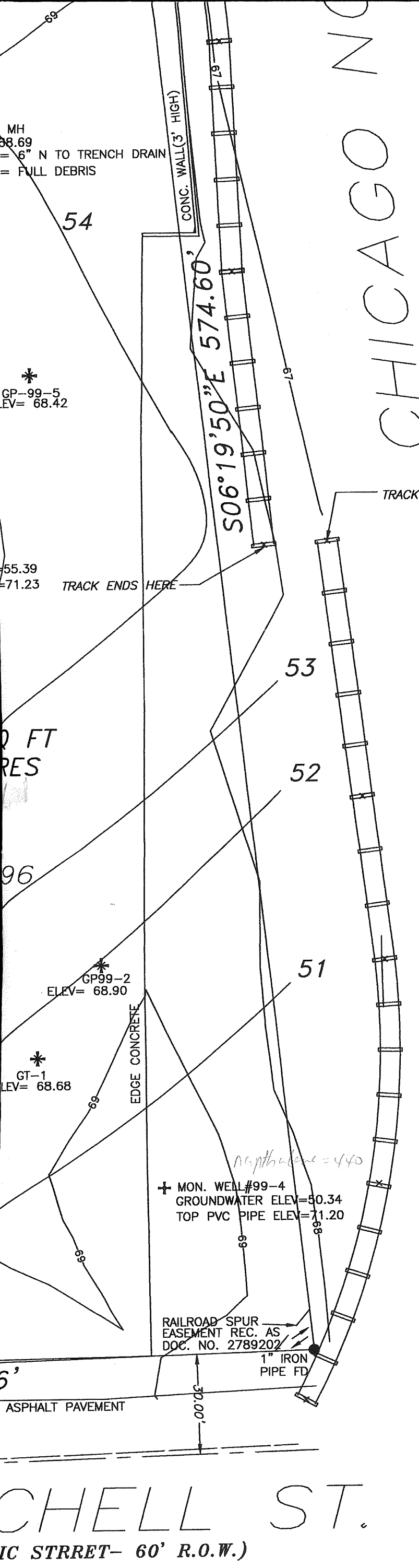
ASSESSORS PLAT  
BLOCK 2  
LOT 4

CONCRETE FLOOR  
WITH UNDERGROUND VAULTS

TOTAL AREA  
138,950 S  
3.1899 AC

S88°18'00"W 266.3'

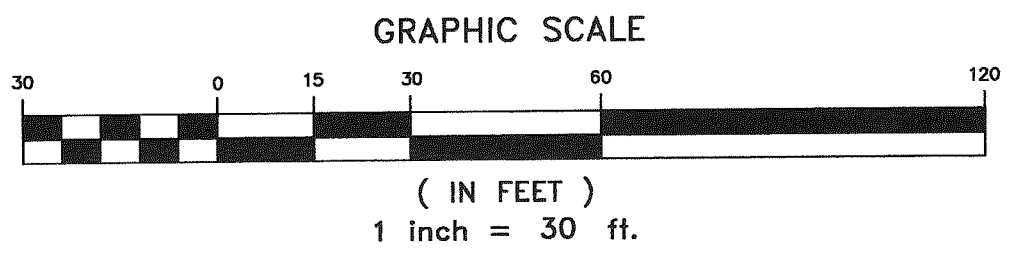
W. MITT  
(PUBL



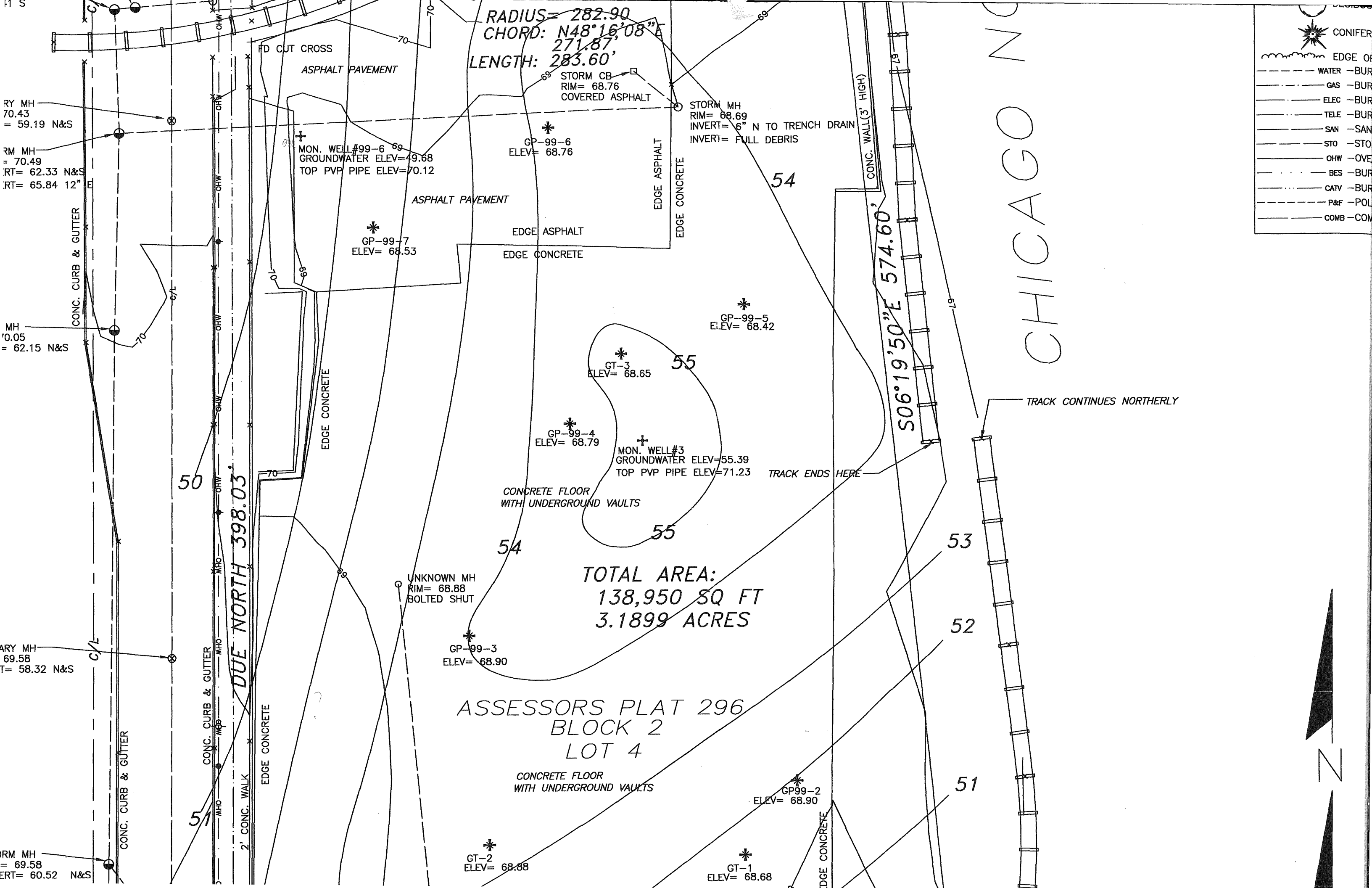
	CONIFEROUS TREE
	EDGE OF TREES
	WATER -BURIED WATERMAIN
	GAS -BURIED GAS MAIN
	ELEC -BURIED ELECTRIC
	TELE -BURIED TELEPHONE
	SAN -SANITARY SEWER
	STO -STORM SEWER
	OHW -OVERHEAD WIRES
	BES -BUREAU ELEC. SERV.
	CATV -BURIED CABLE TV LINE
	P&F -POLICE & FIRE COMM.
	COMB -COMBINATION SEWER

TRACK CONTINUES NORTHERLY

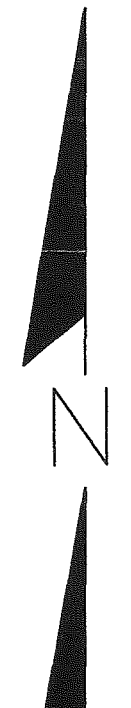
TRACK ENDS HERE



CHELL ST.  
(60' R.O.W.)

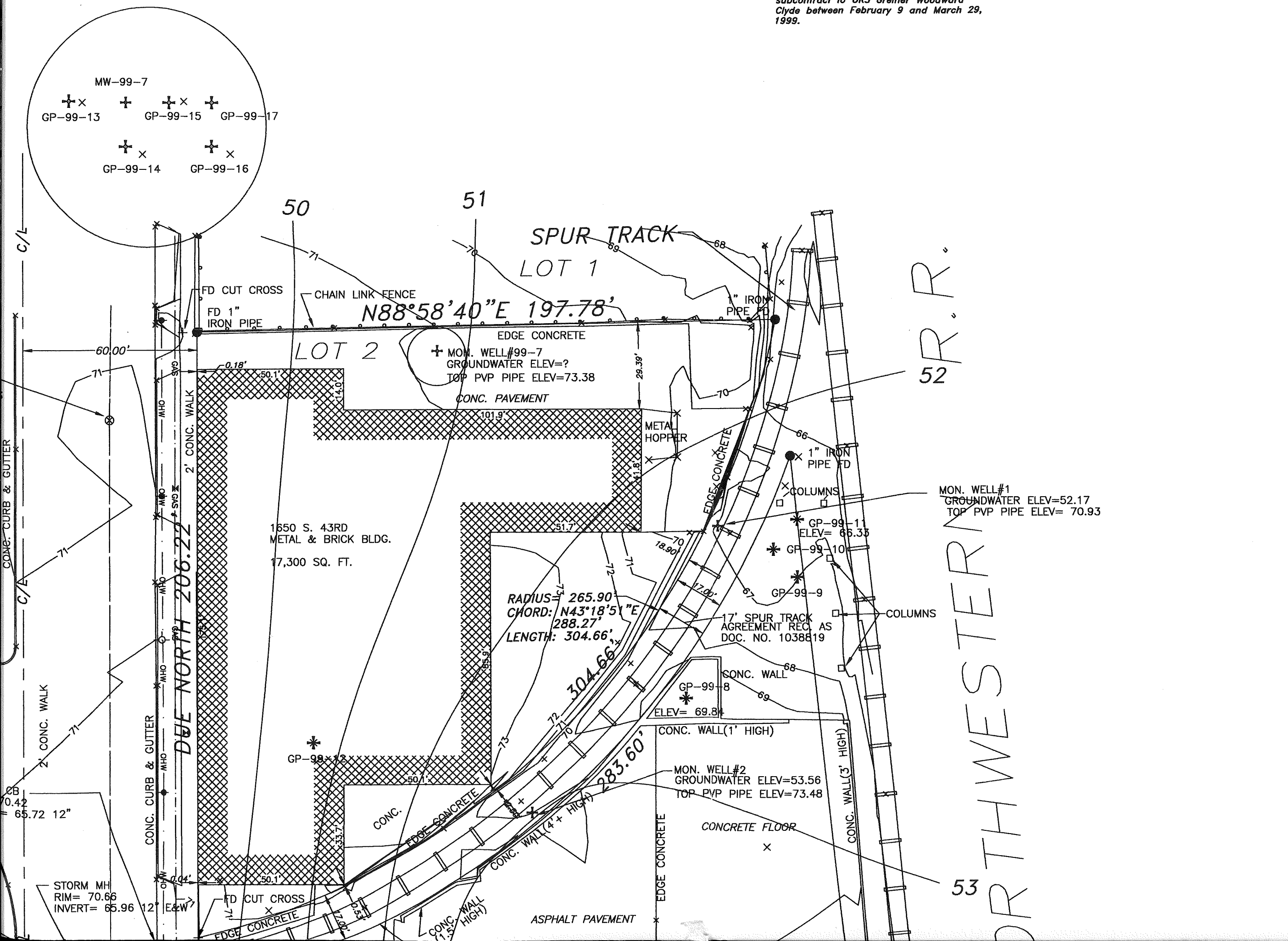


	CONIFER
	EDGE OF WATER - BUR
	GAS - BUR
	ELEC - BUR
	TELE - BUR
	SAN - SAN
	STO - STO
	OHW - OVE
	BES - BUR
	CATV - BUR
	P&F - POL
	COMB - COM



COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

2. Soil borings were performed by Groundwater Management Services under subcontract to URS Greiner Woodward Clyde between February 9 and March 29, 1999.



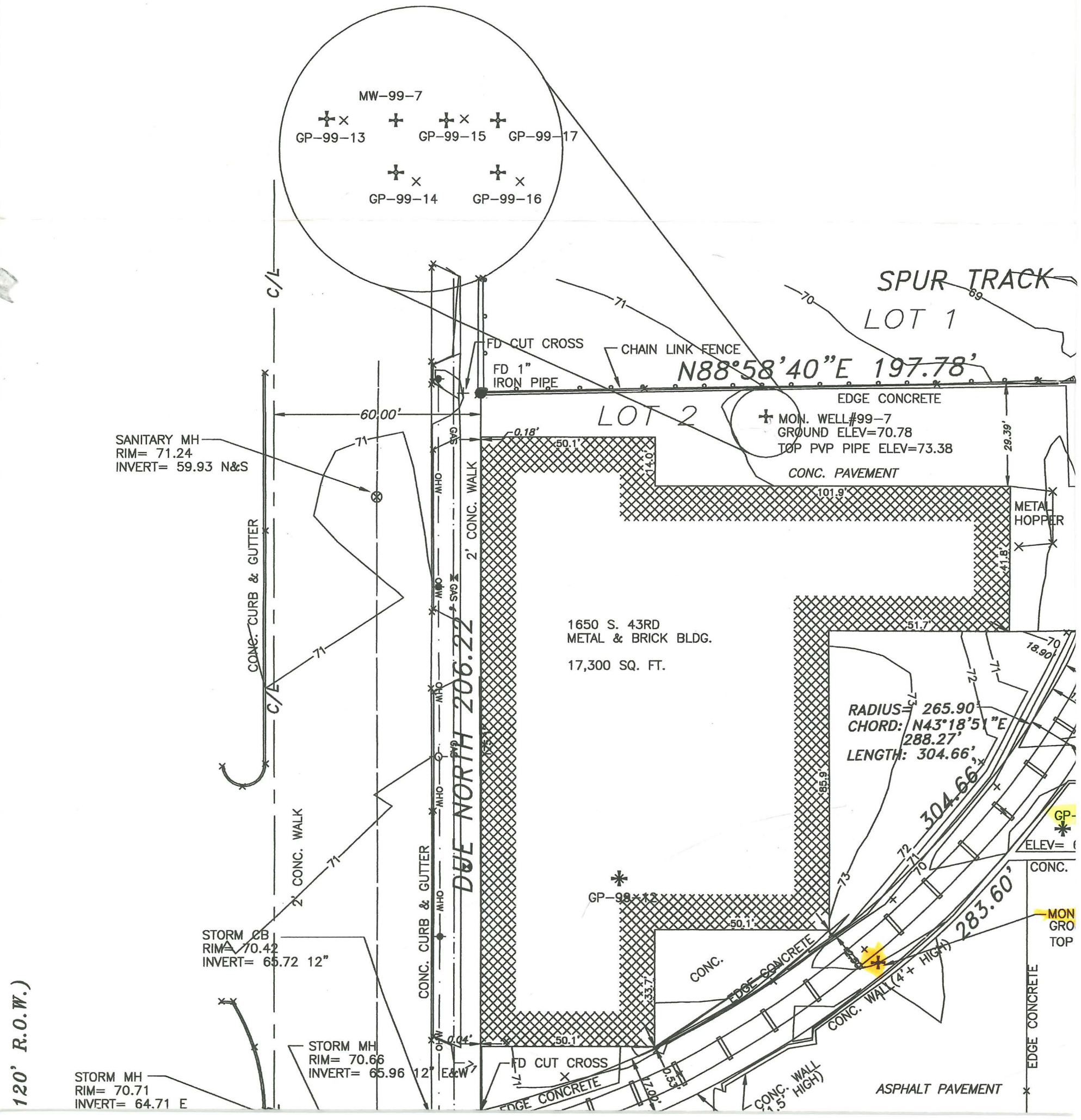
# LEGEND

- ⊗ SANITARY MH
- ⊙ STORM MH
- INLET
- ⊕ WATER MH
- ⊙ HYDRANT
- ⊕ WATER VALVE
- ⊕ GAS VALVE
- ⊕ TELEPHONE MH
- ⊕ TELEPHONE PEDESTAL
- ⊕ MARKED FIBER OPTIC
- ⊕ ELECTRIC MH
- ⊕ ELECTRIC PEDESTAL
- ⊕ ELECTRIC METER
- ⊕ GAS METER
- ⊕ CABLE PEDESTAL
- ⊕ LIGHT POLE
- ⊕ UTILITY POLE
- ⊕ GUY
- ⊕ TRAFFIC LIGHT
- ⊕ CONTROL BOX
- ⊕ RR CROSSING SIGN
- ⊕ BOLLARD
- ⊕ WELL
- ⊕ EDGE OF WATER
- ⊕ EDGE OF MARSH
- ⊕ FLAGPOLE
- ⊕ SIGN
- ⊕ MAILBOX
- ⊕ MONITORING WELL / I
- ⊕ POLICE AND FIRE MAN



# FIGURE SAMPLE LOCATI

THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.



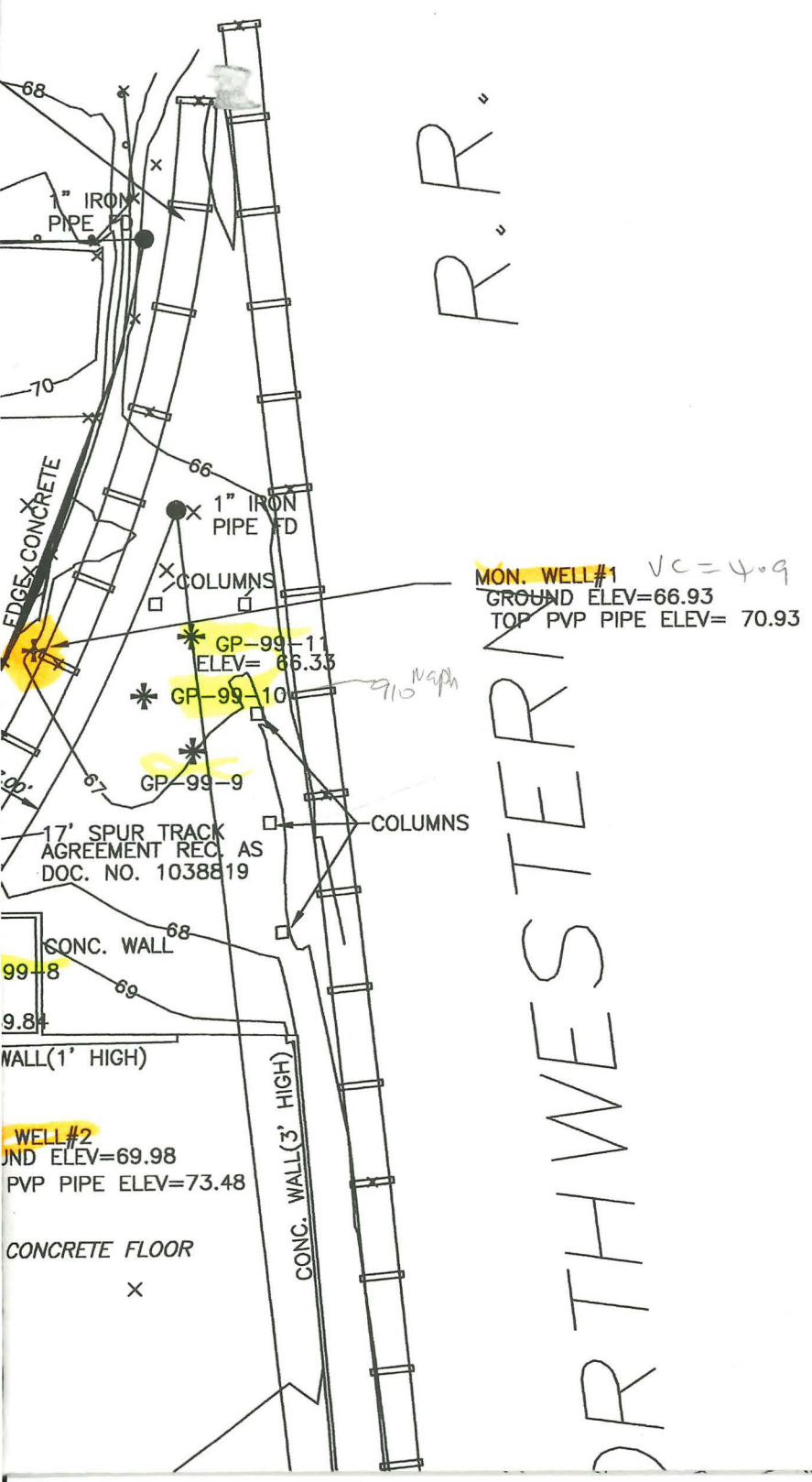
120' R.O.W.)

# ON PLAN

### NOTES

1. Elevations are referenced to Milwaukee City Datum (MCD). 0.0 MCD = 580.79 NGVD.

2. Soil borings were performed by Groundwater Management Services under subcontract to URS Greiner Woodward Clyde between February 9 and March 29, 1999.



R.R.

ORTHWESTERN

## LEGEND

⊗	SANITARY MH
●	STORM MH
□	INLET
⊕	WATER MH
⊙	HYDRANT
⊗	WATER VALVE
⊗	GAS VALVE
⊕	TELEPHONE MH
⊕	TELEPHONE PEDESTAL
FO	MARKED FIBER OPTIC
⊕	ELECTRIC MH
⊕	ELECTRIC PEDESTAL
⊕	ELECTRIC METER
⊕	GAS METER
⊕	CABLE PEDESTAL
⊕	LIGHT POLE
⊕	UTILITY POLE
⊕	GUY
⊕	TRAFFIC LIGHT
⊕	CONTROL BOX
⊕	RR CROSSING SIGN
⊕	BOLLARD
⊕	WELL
⊕	EDGE OF WATER
⊕	EDGE OF MARSH
⊕	FLAGPOLE
⊕	SIGN
⊕	MAILBOX
⊕	MONITORING WELL / BORING
●	POLICE AND FIRE MANHOLE



SOUTH 43rd. STREET (PUBLIC STREET-

INVERT= 62.41 S

RADIUS= 282.90  
CHORD: N48°16'08" E  
271.87'  
LENGTH: 283.60'

SANITARY MH  
RIM= 70.43  
INVERT= 59.19 N&S

STORM MH  
RIM= 70.49  
INVERT= 62.33 N&S  
INVERT= 65.84 12" E

STORM MH  
RIM= 70.05  
INVERT= 62.15 N&S

SANITARY MH  
RIM= 69.58  
INVERT= 58.32 N&S

STORM MH  
RIM= 69.58  
INVERT= 60.52 N&S

STORM CB  
RIM= 68.60  
INVERT= 12" NW

STORM MH  
RIM= 69.60

STORM CB  
RIM= 69.17  
INVERT= 65.41 S

STORM MH  
RIM= 69.38  
INVERT= 59.02

SANITARY MH  
RIM= 69.21  
INVERT= 56.75 N,E &W

SANITARY MH  
RIM= 69.52  
INVERT= 60.77 N,S,E &W

MON. WELL #99-6  
GROUND ELEV=68.72  
TOP PVP PIPE ELEV=70.12  
VC=5.2

GP-99-6  
ELEV= 68.76

GP-99-7  
ELEV= 68.53

GT-3  
ELEV= 68.65

GP-99-4  
ELEV= 68.79

MON. WELL #3  
GROUND ELEV=68.8  
TOP PVP PIPE ELEV=70.12

CONCRETE FLOOR  
WITH UNDERGROUND VAULTS

UNKNOWN MH  
RIM= 68.88  
BOLTED SHUT

GP-99-3  
ELEV= 68.90

TOTAL AREA  
138,950 S  
3.1899 A0

ASSESSORS PLAT 2  
BLOCK 2  
LOT 4

CONCRETE FLOOR  
WITH UNDERGROUND VAULTS

GT-2  
ELEV= 68.88

UNKNOWN MH  
RIM= 68.84  
FILLED WITH WATER

GP-99-1  
ELEV= 68.87

UNKNOWN MH  
RIM= 68.87  
INVERT= 67.71 6" E  
INVERT= 66.97 12" N

UNKNOWN MH  
RIM= 68.91  
FILLED WITH DEBRIS

MON. WELL #MW99-5  
GROUND ELEV= 69.78  
TOP PVC PIPE ELEV= 72.88

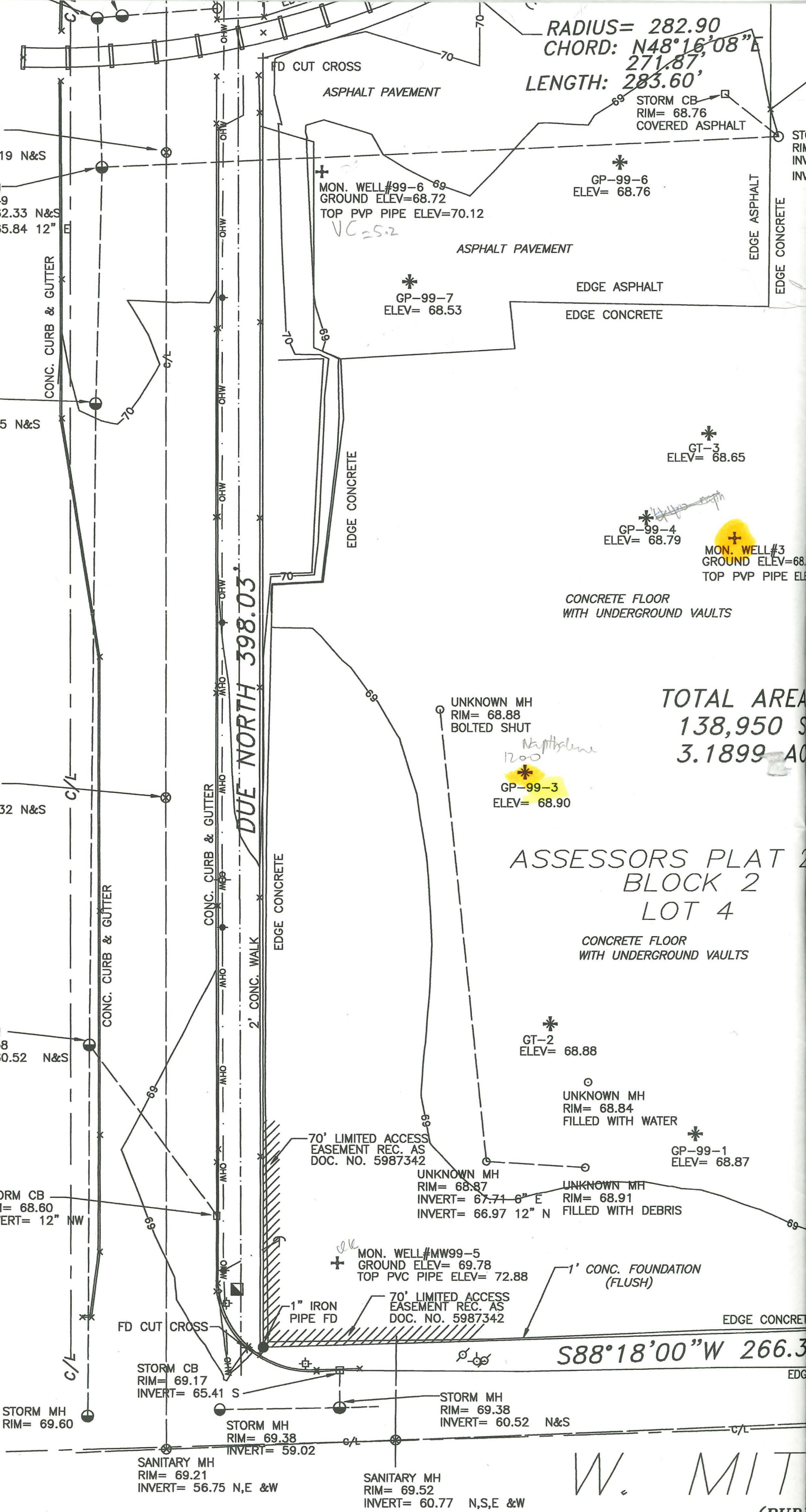
70' LIMITED ACCESS  
EASEMENT REC. AS  
DOC. NO. 5987342

70' LIMITED ACCESS  
EASEMENT REC. AS  
DOC. NO. 5987342

1' CONC. FOUNDATION  
(FLUSH)

S88°18'00" W 266.3

W. MIT  
(PUB)



RM MH  
 = 68.69  
 RT= 6" N TO TRENCH DRAIN  
 RT= FULL DEBRIS

\*  
 GP-99-5  
 ELEV= 68.42

3  
 N=71.23 TRACK ENDS HERE

FT  
 RES

96

\*  
 GP99-2  
 ELEV= 68.90

\*  
 GT-1  
 ELEV= 68.68

*Naphtalen 440  
 370*

+ MON. WELL #99-4  
 GROUND ELEV=69.80  
 TOP PVC PIPE ELEV=71.20

RAILROAD SPUR  
 EASEMENT REC. AS  
 DOC. NO. 2789202

1" IRON  
 PIPE FD

ASPHALT PAVEMENT

CHELL ST.  
 (60' R.O.W.)

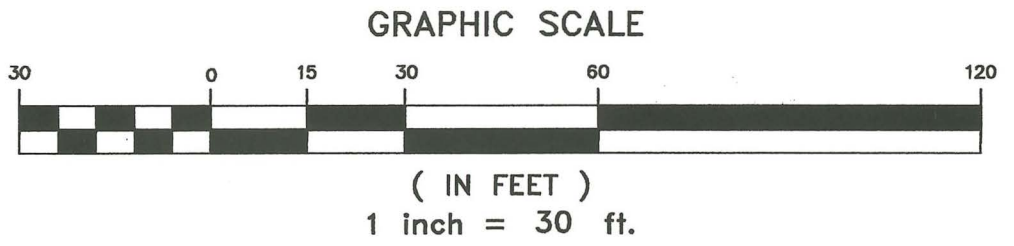
CONC. WALL (3' HIGH)

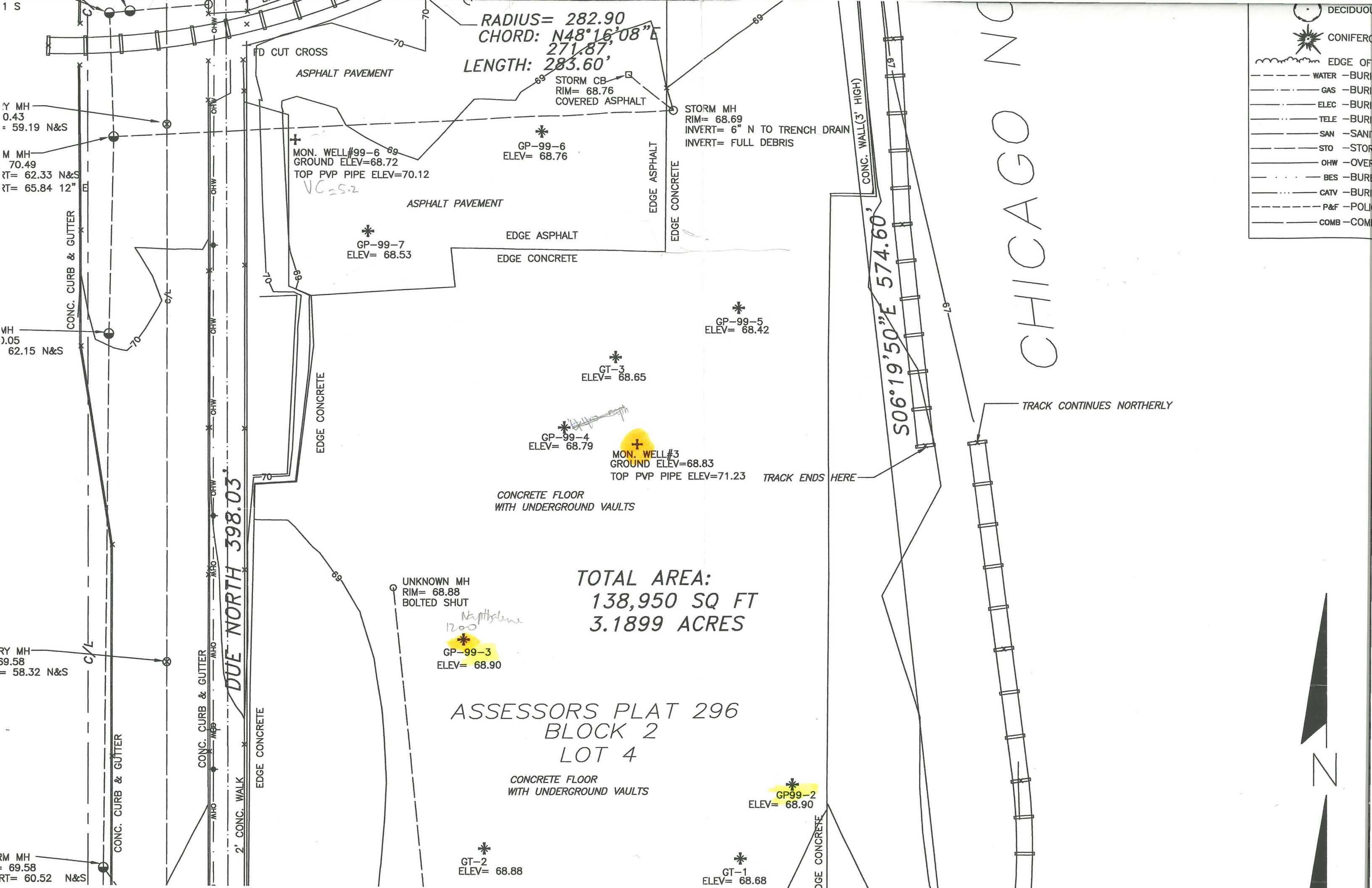
S06°19'50"E 574.60'

TRACK CONTINUES NORTHERLY

CHICAGO NC

	DECIDUOUS TREE
	CONIFEROUS TREE
	EDGE OF TREES
	WATER -BURIED WATERMAIN
	GAS -BURIED GAS MAIN
	ELEC -BURIED ELECTRIC
	TELE -BURIED TELEPHONE
	SAN -SANITARY SEWER
	STO -STORM SEWER
	OHW -OVERHEAD WIRES
	BES -BUREAU ELEC. SERV.
	CATV -BURIED CABLE TV LINE
	P&F -POLICE & FIRE COMM.
	COMB -COMBINATION SEWER





RADIUS = 282.90  
 CHORD: N48°16'08"E  
 271.87'  
 LENGTH: 283.60'

Y MH  
 0.43  
 = 59.19 N&S

M MH  
 70.49  
 RT = 62.33 N&S  
 RT = 65.84 12"

MH  
 0.05  
 62.15 N&S

RY MH  
 69.58  
 = 58.32 N&S

RM MH  
 69.58  
 RT = 60.52 N&S

MON. WELL #99-6  
 GROUND ELEV = 68.72  
 TOP PVP PIPE ELEV = 70.12  
 VC = 5.2

GP-99-6  
 ELEV = 68.76

GP-99-7  
 ELEV = 68.53

STORM MH  
 RIM = 68.69  
 INVERT = 6" N TO TRENCH DRAIN  
 INVERT = FULL DEBRIS

GP-99-5  
 ELEV = 68.42

GT-3  
 ELEV = 68.65

GP-99-4  
 ELEV = 68.79

MON. WELL #3  
 GROUND ELEV = 68.83  
 TOP PVP PIPE ELEV = 71.23

CONCRETE FLOOR  
 WITH UNDERGROUND VAULTS

UNKNOWN MH  
 RIM = 68.88  
 BOLTED SHUT

GP-99-3  
 ELEV = 68.90

TOTAL AREA:  
 138,950 SQ FT  
 3.1899 ACRES

ASSESSORS PLAT 296  
 BLOCK 2  
 LOT 4

CONCRETE FLOOR  
 WITH UNDERGROUND VAULTS

GT-2  
 ELEV = 68.88

GP99-2  
 ELEV = 68.90

GT-1  
 ELEV = 68.68

	DECIDUOUS
	CONIFEROUS
	EDGE OF WATER
	WATER - BURIED
	GAS - BURIED
	ELEC - BURIED
	TELE - BURIED
	SAN - BURIED
	STO - BURIED
	OHW - OVERHEAD
	BES - BURIED
	CATV - BURIED
	P&F - POLYMER FLOOR
	COMB - COMBUSTIBLE

CHICAGO NORTON

S06°19'50"E 574.60'

TRACK CONTINUES NORTHERLY

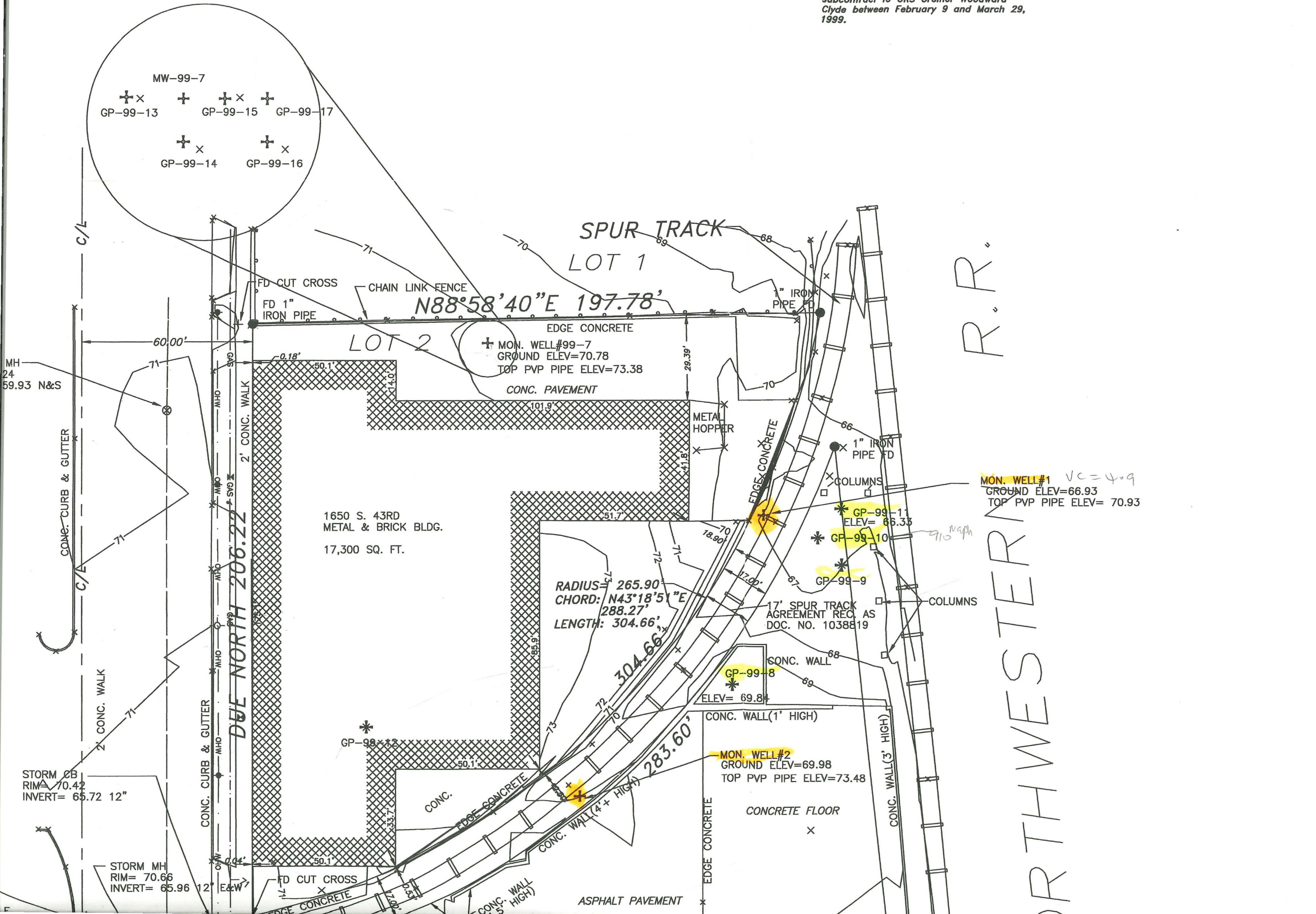
TRACK ENDS HERE

DUE NORTH 398.03'



COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

2. Soil borings were performed by Groundwater Management Services under subcontract to URS Greiner Woodward Clyde between February 9 and March 29, 1999.



LEGEND

- ⊗ SANITARY M
- STORM MH
- INLET
- ⊙ WATER MH
- ⊕ HYDRANT
- ⊖ WATER VAL
- ⊗ GAS VALVE
- ⊕ TELEPHONE
- ⊖ TELEPHONE
- ⊙ MARKED FI
- ⊕ ELECTRIC I
- ⊖ ELECTRIC I
- ⊗ ELECTRIC I
- ⊕ GAS METEF
- ⊖ CABLE PEI
- ⊙ LIGHT POLI
- ⊕ UTILITY PO
- ⊖ GUY
- ⊗ TRAFFIC LI
- ⊕ CONTROL I
- ⊖ RR CROSS
- ⊙ BOLLARD
- ⊕ WELL
- ⊖ EDGE OF I
- ⊗ FLAGPOLE
- ⊕ SIGN
- ⊖ MAILBOX
- ⊙ MONITORIN
- ⊕ POLICE AN

SPUR TRACK

LOT 1

N88°58'40"E 197.78'

LOT 2

MON. WELL #99-7  
GROUND ELEV=70.78  
TOP PVP PIPE ELEV=73.38

CONC. PAVEMENT

1650 S. 43RD  
METAL & BRICK BLDG.  
17,300 SQ. FT.

RADIUS= 265.90'  
CHORD: N43°18'51"E  
288.27'  
LENGTH: 304.66'

17' SPUR TRACK  
AGREEMENT REC. AS  
DOC. NO. 1038819

CONC. WALL

GP-99-8  
ELEV= 69.84

CONC. WALL(1' HIGH)

MON. WELL #2  
GROUND ELEV=69.98  
TOP PVP PIPE ELEV=73.48

CONCRETE FLOOR

STORM MH  
RIM= 70.66  
INVERT= 65.96

FD CUT CROSS

ASPHALT PAVEMENT

RADIUS= 282.90'  
CHORD: N48°16'08"E  
271.87'  
LENGTH: 283.60'

STORM CB  
RIM= 68.76  
COVERED ASPHALT

STORM MH  
RIM= 68.69  
INVERT= 6" N TO TRENCH DRAIN  
INVERT= FULL DEBRIS

MON. WELL #99-6  
GROUND ELEV=68.72  
TOP PVP PIPE ELEV=70.12  
VC=5.2

GP-99-6  
ELEV= 68.76

ASPHALT PAVEMENT

EDGE ASPHALT

EDGE CONCRETE

GP-99-7  
ELEV= 68.53

GP-99-5  
ELEV= 68.42

GT-3  
ELEV= 68.65

GP-99-4  
ELEV= 68.79

MON. WELL #3  
GROUND ELEV=68.83  
TOP PVP PIPE ELEV=71.23

TRACK ENDS HERE

CONCRETE FLOOR  
WITH UNDERGROUND VAULTS

UNKNOWN MH  
RIM= 68.88  
BOLTED SHUT

TOTAL AREA:  
138,950 SQ FT  
3.1899 ACRES

GP-99-3  
ELEV= 68.90

DUE NORTH 206.22'

DUE NORTH 398.03'

S06°19'50"E 574.60'

R.R.

MON. W  
GROUN  
TOP P

CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE

EDGE ASPHALT

EDGE CONCRETE