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**July 30, 2013**

**Mr. Andrew Malsom  
Wisconsin Department of Transportation  
141 NW Barstow Street  
Waukesha, WI 53187-0798**

**Subject: Phase 2.5 Investigation, BP Station and One Hour Martinizing Sites, STH 38 (aka Northwestern Ave), Golf Ave to Memorial Dr, Racine, Wisconsin  
WisDOT Project ID #2290-17-00  
TRC Project No. 204154.0000.0000**

**Dear Andrew:**

Attached find 2 copies of the Phase 2.5 Investigation report for the BP Station and One Hour Martinizing Sites, STH 38, Racine, Wisconsin.

You may contact me at 262-901-2145 or kyass@trcsolutions.com with any questions.

Sincerely,

TRC Environmental Corporation

  
**Ken W. Yass, P.E., CHMM  
Project Manager**

**cc: Paul Grittner – WDNR (hard copy and pdf on CD)  
Shar TeBeest – WisDOT (hard copy and pdf on CD)  
Jim Morse – TRC**



## Phase 2.5 Investigation

BP Station and One Hour Martinizing Sites  
STH 38 (aka Northwestern Avenue), Golf Avenue to Memorial Drive  
Racine, Wisconsin

WisDOT Project ID #2290-17-00

July 2013



## Phase 2.5 Investigation

BP Station and One Hour Martinizing Sites  
STH 38 (aka Northwestern Avenue), Golf Avenue to Memorial Drive  
Racine, Wisconsin

WisDOT Project ID #2290-17-00

**July 2013**

Ken Yass  
Andrew Heeter  
Project Geologist

Ken Yass  
Ken W. Yass, P.E., CHMM  
Project Manager

James E. Morse  
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Senior Client Service Manager

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# Commonly Used Abbreviations and Acronyms

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AST	aboveground storage tank
bgs	below ground surface
BRRTS	Bureau for Remediation and Redevelopment Tracking System
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CTH	County Trunk Highway
CY	cubic yards
DRO	diesel range organics
FDM	Facilities Development Manual
EMP	Excavation Management Plan
ERP	Environmental Repair Program
ES	Enforcement Standards
ESA	Environmental Site Assessment
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
GIS Registry	WDNR Geographic Information System (GIS) Registry of Closed Remediation Sites
GRO	gasoline range organics
HAZWOPER	Code of Federal Registry Chapter 29 (29 CFR) Part 1910.120 Hazardous Waste Operations and Emergency Response
HMA	Hazardous Materials Assessment
IH	Interstate Highway
LQG	large quantity generator
LUST	leaking underground storage tank
NPL	National Priorities List
NR ###	Wisconsin Administrative Code (WAC) Natural Resources (NR) Chapter ###
PAHs	polynuclear aromatic hydrocarbons
PAL	Preventive Action Limits
PCBs	polychlorinated biphenyls
PCE	perchloroethylene/tetrachloroethylene
PID	photoionization detector
PVOCs	petroleum volatile organic compounds
RCLs	Residual Contaminant Levels in NR 720
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
R/W or ROW	right-of-way
sf	square feet
STH	State Trunk Highway
TCE	trichloroethylene
TRIS	Toxic Chemical Release Inventory System
USGS	United States Geological Survey
USH	United States Highway
UST	underground storage tank
VOCs	volatile organic compounds
WDSPS	Wisconsin Department of Safety and Professional Services
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation
WGNHS	Wisconsin Geological and Natural History Survey
WI ERP	Wisconsin Environmental Repair Program database

# **Executive Summary**

---

The WisDOT is preparing to reconstruct STH 38 (aka Northwestern Avenue) from Golf Avenue to Memorial Drive in Racine, Wisconsin. Excavations for storm sewers and trees are planned adjacent to the following documented release sites:

- BP Gas Station, 1975 State Street, LUST Site (BRRTS #03-52-002262) closed in 2005 with residual soil and groundwater contamination. Four USTs are listed as having been closed/removed (used oil and unleaded gasoline), and two unleaded gasoline USTs are registered as in use at this property.
- One-Hour Martinizing, 1730-1732 State Street, open ERP Site, BRRTS #02-52-549890 [No tanks are registered for this property].

EMCS, Inc. completed a Phase 1 HMA in August 2012 and recommended Phase 2.5 investigations at the above sites. TRC completed a Phase 2.5 investigation at both sites in July 2013. The Phase 2.5 Investigation revealed that petroleum-contaminated soil is present at the following location within the project limits, which, once excavated, will require bioremediation:

- Station 129+15 to 130+15, from reference line to project limits right, from approximately 6 to at least 11 feet bgs. Soil here is contaminated with benzene. An open ERP site (One Hour Martinizing) is present here.

If contamination (*e.g.*, staining, petroleum odors) is noted at these locations or elsewhere during construction, excavations will be suspended and the engineer notified.

Special Provisions should be included in the construction documents advising the contractor of these findings, and of the requirement to manage contaminated soil removed by the project. The plans for contamination management should be submitted to the WDNR for their review and concurrence. The WisDOT's environmental consultant should be present during excavations in the above areas to field screen and document the excavation activities.

# Section 1 Background

---

The WisDOT is preparing to reconstruct STH 38 (aka Northwestern Avenue) from Golf Avenue to Memorial Drive in Racine, Wisconsin. Excavations for storm sewers and trees are planned at the following two locations at which releases had previously been reported:

- BP Gas Station, 1975 State Street, LUST Site (BRRTS #03-52-002262) closed in 2005 with residual soil and groundwater contamination. Four USTs are listed as having been closed/removed (used oil, unleaded gasoline and unknown), and two unleaded gasoline USTs are registered as in use at this property.
- One-Hour Martinizing, 1730-1732 State Street, ERP Site opened in 2007, BRRTS #02-52-549890. No tanks are registered for this property.

EMCS Inc. completed a Phase 1 HMA for the project, and its findings are documented in an August 2012 Report. The WisDOT requested that a Phase 2.5 investigation be conducted within the planned STH 38 construction limits adjacent to the above sites.

Background environmental information for the above site is included in Appendix A.

## Section 2

# Sampling Activities

---

On July 18 and 25, 2013 a total of 6 soil probes (GP-1 through GP-6) were advanced to depths of 10 feet bgs by Probe Technologies, Inc. as directed by TRC. Phase 2.5 soil probe boring locations are shown on Figures 3 and 4.

Soils encountered during the Phase 2.5 investigation were generally native clayey silt. PID readings for all soil sample intervals ranged from 0.0 to 17.6 instrument units. No staining or odors were observed during the soil sampling. See the boring logs in Appendix B for more details, including the PID results and soil descriptions.

Two soil samples were collected from each soil probe boring for laboratory analysis. Collected soil samples were submitted for laboratory analysis of full VOCs at the One-Hour Martinizing site and DRO, GRO, PVOCs, naphthalene, and total lead at the BP Gas Station Site.

Groundwater was observed during the Phase 2.5 soil probe activities in GP-3 at a depth of approximately 8 or 9 feet bgs. A temporary monitoring well was installed in GP-3.

Groundwater was sampled as part of this Phase 2.5 investigation for VOCs and RCRA Metals.

Upon completion, all soil borings were abandoned with bentonite. Abandonment forms for the soil borings are provided in Appendix B.

Photographs taken during the Phase 2.5 investigation are included as Appendix C.

# Section 3

## Soil Sample Laboratory Results and Evaluation

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### 3.1 Soil Sampling Results

Soil sampling results for GP-1 through GP-6 are summarized in Table 1. GP-3 (8'-10') (advanced near the One Hour Martinizing site at State Street) had a benzene concentration of 234 µg/kg, which exceeded the NR 720 RCL of 5.5 µg/kg. No significant concentrations of GRO, DRO, VOCs, or lead were found in the remaining soil borings.

Once excavated by the project, soil containing petroleum (benzene)-contaminated soil will require disposal (bioremediation) at a WDNR-licensed landfill.

See Appendix D for the Phase 2.5 laboratory analytical report.

### 3.2 Groundwater Sampling Results

Groundwater sampling results for GP-3 indicated that benzene, chromium, and lead concentrations exceeded the respective NR 140 PALs and were below the NR 140 ESSs. Since groundwater in GP-3 was observed at ~8 or 9 feet bgs, and the anticipated depth of excavation is ~6 feet bgs, dewatering is not anticipated. Groundwater sampling results are summarized in Table 2.

See Appendix D for the Phase 2.5 laboratory analytical reports.

## Section 4

# Findings, Conclusions, and Recommendations

---

The Phase 2.5 Investigation revealed that petroleum-contaminated soil is present at the following location within the project limits and once excavated will require landfill disposal (bioremediation):

- Station 129+15 to 130+15, from reference line to project limits right, from approximately 6 to at least 11 feet bgs. Soil here is contaminated with benzene. An open ERP site (One Hour Martinizing) is present here.

If contamination (*e.g.*, staining, petroleum odors) is noted at this location or elsewhere during construction, excavations will be suspended and the engineer notified.

Special Provisions should be included in the construction documents advising the contractor of these findings, and of the requirement to manage contaminated soil removed by the project. The plans for contamination management should be submitted to the WDNR for their review and concurrence. The WisDOT's environmental consultant should be present during excavations in the above areas to field screen and document the excavation activities. Special provisions are provided in Attachment E.

**Table 1**  
**Soil Sampling Results Summary - Phase 2.5 Investigation**  
**STH 38 (aka Northwestern Avenue)**  
**Milwaukee County**  
**WisDOT Project ID 2290-17-00; TRC Project ID 204154.0000.0000**

	NR 720 RCL	SOIL SAMPLE ID AND DEPTH (feet bgs)												TYPICAL LANDFILL ACCEPTANCE CRITERIA	
		GP-1		GP-2		GP-3		GP-4		GP-5		GP-6			
		(2'-4')	(4'-6')	(2'-4')	(4'-6')	(4'-6')	(8'-10')	(2'-4')	(4'-6')	(2'-4')	(6'-8')	(2'-4')	(4'-6')		
		SAMPLES COLLECTED JUNE 18, 2013						SAMPLES COLLECTED JUNE 25, 2013							
PID Readings	-	0.4	0.7	0.4	0.6	17.6	0.7	0.2	0.7	0.1	0.2	0.3	0.2	-	
GRO (mg/kg)	100	--	--	--	--	--	--	<3.0	<3.0	<2.9	<2.8	<2.9	<2.9	2,000 mg/kg	
DRO (mg/kg)	100	--	--	--	--	--	--	0.95 J	<0.91	3.4	1.6 J	<0.90	<0.88	2,000 mg/kg	
<b>VOCs/PVOCs (<math>\mu\text{g}/\text{kg}</math>)</b>															
Benzene	5.5	<25.0	<25.0	<25.0	<25.0	<25.0	234	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	10,000 $\mu\text{g}/\text{kg}$	
Remaining VOCs	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
<b>Metals (mg/kg)</b>															
Lead	50	--	--	--	--	--	--	12.6	15.5	12.8	13.9	7.7	5.9	100 mg/kg	

Notes:

1. PID = Photoionization Detector
2. GRO = Gasoline Range Organics analyzed using the Wisconsin Modified Method
3. mg/kg = milligrams per kilogram (ppm)
4. DRO = Diesel Range Organics analyzed using Wisconsin Modified Method
5. VOCs = Volatile Organic Compounds analyzed using EPA Method 8260
6. PVOCs = Petroleum Volatile Organic Compounds analyzed using the Wisconsin Modified GRO Method
7.  $\mu\text{g}/\text{kg}$  = micrograms per kilogram (ppb)
8. Lead analyzed using EPA Method 6010
10. -- = not analyzed
11. Samples were collected by TRC and analyzed by Pace Analytical (WDNR Cert. #405132750)
12. NR 720 RCL = Residual Contaminant Level from NR 720, WAC. RCL listed for DRO and GRO are the more stringent of the two NR 720.09 values. RCLs for the PVOCs listed above are the NR720 generic RCLs for the protection of groundwater. RCLs for metals are the NR 720 Table 2 non-industrial values
13. - = Standard not established.
14. J = Result is an estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
15. ND = Not Detected in laboratory analysis

Created by: D. Heeter 7/9/13

Checked by: B. Bergmann 7/16/13

Table 2  
 Groundwater Sampling Results Summary - Phase 2.5 Investigation  
 STH 38 (aka Northwestern Avenue)  
 Racine County  
 WisDOT Project ID 2290-17-00; TRC Project ID 204154.0000.0000

	NR 140 STANDARD		GP-3	TRIP BLANK
	ES	PAL	6/25/13	6/25/13
<b>VOCs (<math>\mu\text{g/l}</math>)</b>				
Benzene	5	0.5	4.7	<0.50
p-Isopropyltoluene	-	-	0.41 J	<0.40
Remaining VOCs	-	-	ND	ND
<b>Metals, Dissolved (<math>\mu\text{g/l}</math>)</b>				
Barium	2,000	400	98.0	--
Chromium	100	10	4.4 J	--
Lead	15	1.5	1.5 J	--

Notes:

1. VOCs = Volatile Organic Compounds analyzed using EPA Method 8260; only the VOCs detected are listed above.
2.  $\mu\text{g/l}$  = micrograms per liter (ppb).
3. Metals analyzed using EPA Method 6010, except for mercury which was analyzed using EPA Method 7470.
4. -- = Not analyzed
5. NR 140 ES = Wisconsin Administrative Code Chapter NR 140 Enforcement Standard.
6. NR 140 PAL = Wisconsin Administrative Code Chapter NR 140 Preventive Action Limit.
7. - = Standard not established
8. J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
9. ND = Not detected in laboratory analysis
10. *Italics* = Exceedence (or potential exceedence if J-flagged) of the NR 140, WAC PAL.

Created by: D. Heeter 7/9/13

Checked by: B. Bergmann 7/16/13

## ORDER OF SHEETS

Section No. 1 Title  
 Section No. 2 Typical Sections, Details, and Erosion Control  
 Section No. 3 Miscellaneous Quantities  
 Section No. 4 Right of Way Plat  
 Section No. 5 Plan and Profile  
 Section No. 6 Standard Detail Drawings  
 Section No. 7 Sign Plates  
 Section No. 8 Structure Plans  
 Section No. 9 Computer Earthwork Data  
 Section No. 9 Cross Sections

**STATE OF WISCONSIN**  
**DEPARTMENT OF TRANSPORTATION**  
**PLAN OF PROPOSED IMPROVEMENT**

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2290-17-70		

**NORTHWESTERN AVENUE, CITY OF RACINE**  
**(GOLF AVENUE TO MEMORIAL DRIVE)**

**STH 38**  
**RACINE COUNTY**

TOTAL SHEETS =

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 Attached Images:  
 Layout:

Dwg Size: 0.43 Mb  
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 Plot Time: 8:27 AM

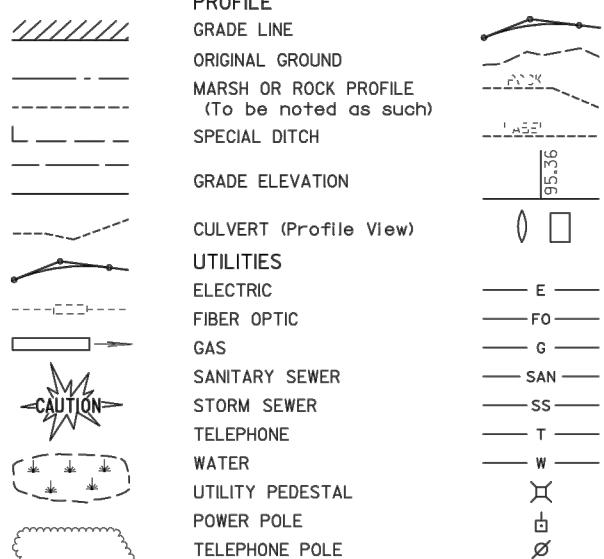


N

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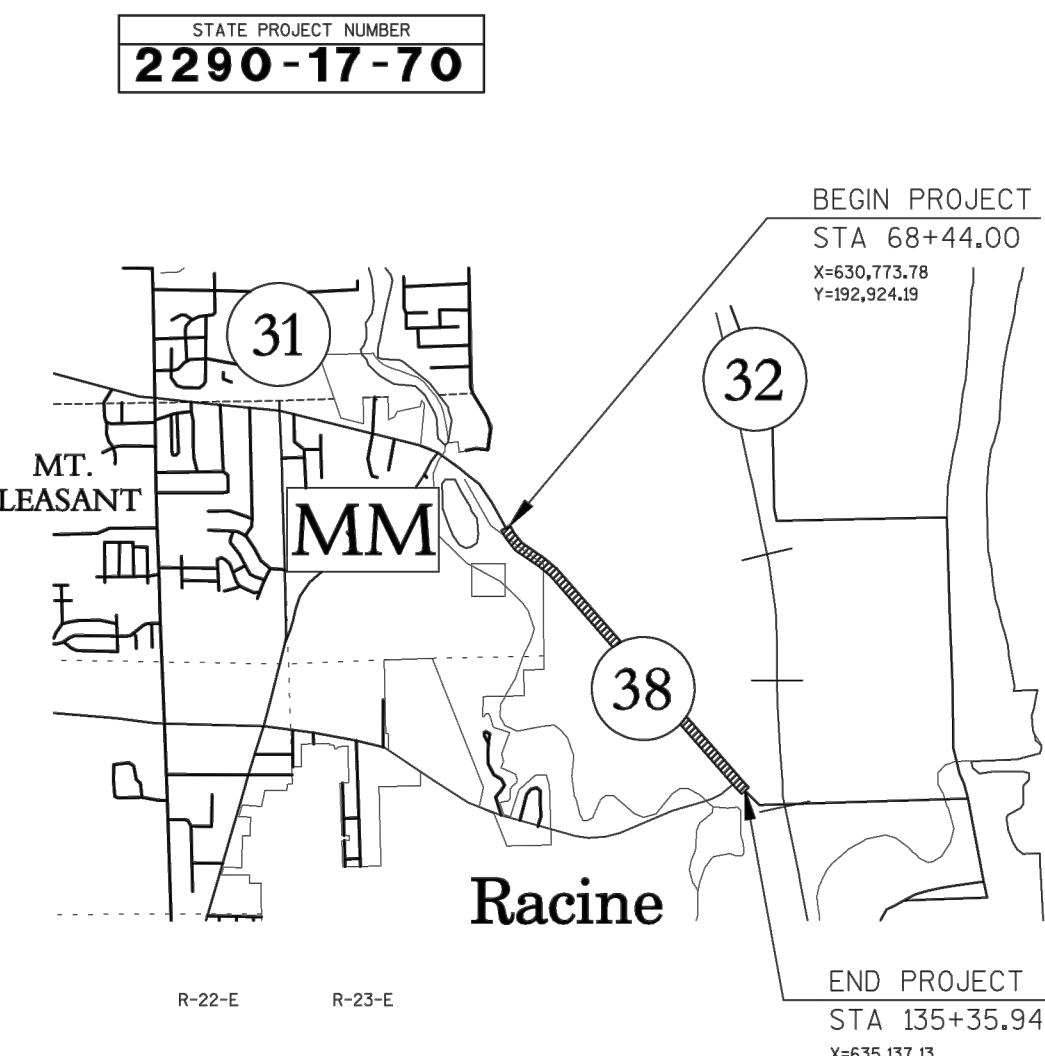
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 A.A.D.T. (2034) = 16,300  
 D.H.V. (2034) = 11.5%  
 D.D. (2034) = 58-42  
 T. = 5.5%  
 DESIGN SPEED = 35 MPH  
 ESALS = 2,912,700

## CONVENTIONAL SYMBOLS



J.WisDOT204154/204154-01.dwg  
 DRAWING NAME: KONIAR, JOHN  
 Operator Name: 0386863

PLOT DATA  
 Drawing Name: 150 North Patrick Blvd.  
 Drawing Plot Scale: Suite 180  
 Brookfield, WI 53045  
 Phone: 262.879.1212



PROJECT:  
**STH 38 (aka NORTHWESTERN AVENUE)  
 RACINE, WI - WisDOT ID 2290-17-00**

SHEET TITLE:  
**PROJECT LOCATION AND LIMITS**

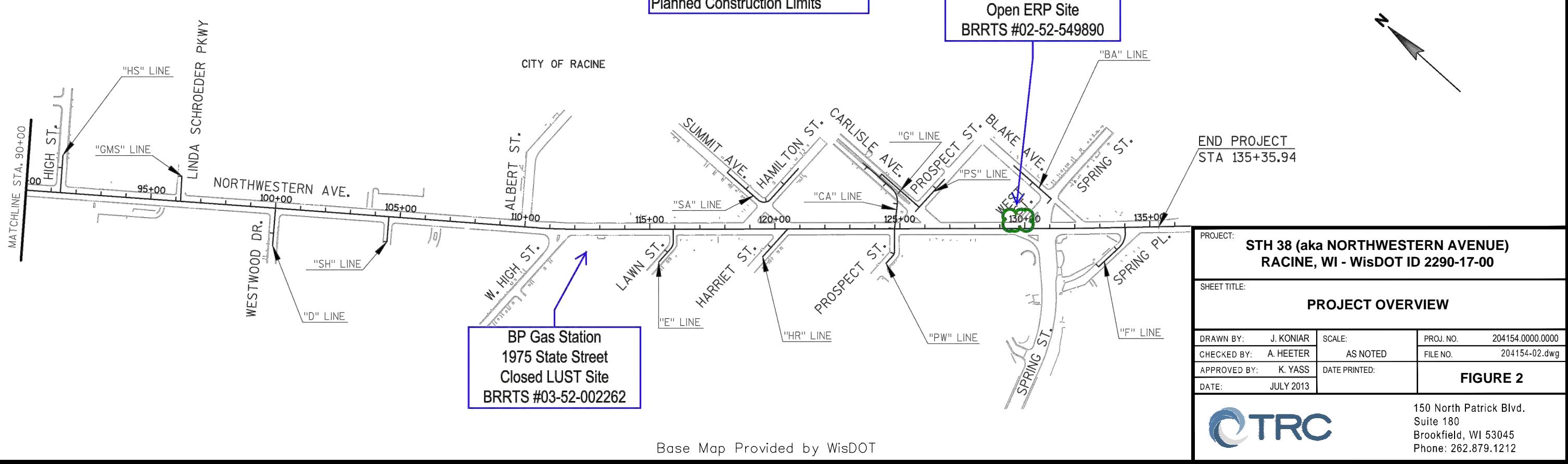
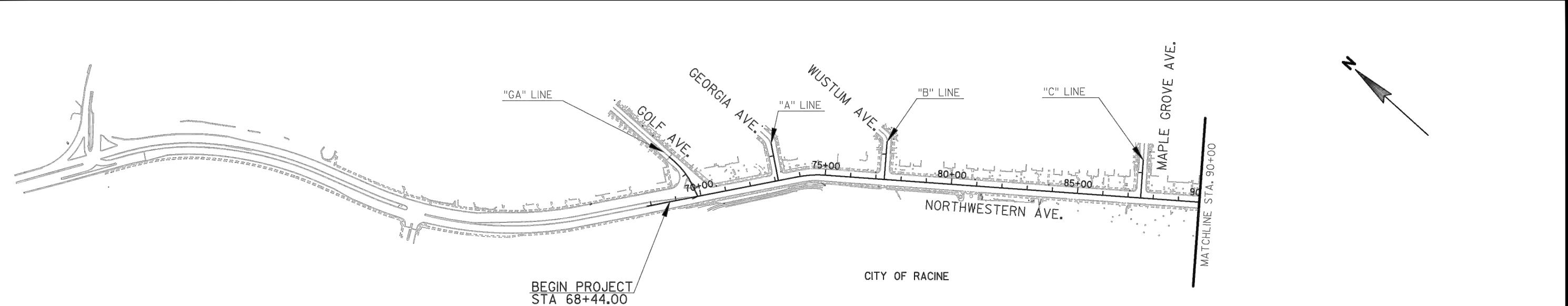
DRAWN BY:	J. KONIAR	SCALE:	PROJ. NO.
CHECKED BY:	A. HEETER	AS NOTED	204154.0000.0000
APPROVED BY:	K. YASS	DATE PRINTED:	FILE NO.
DATE:	JULY 2013		204154-01.dwg

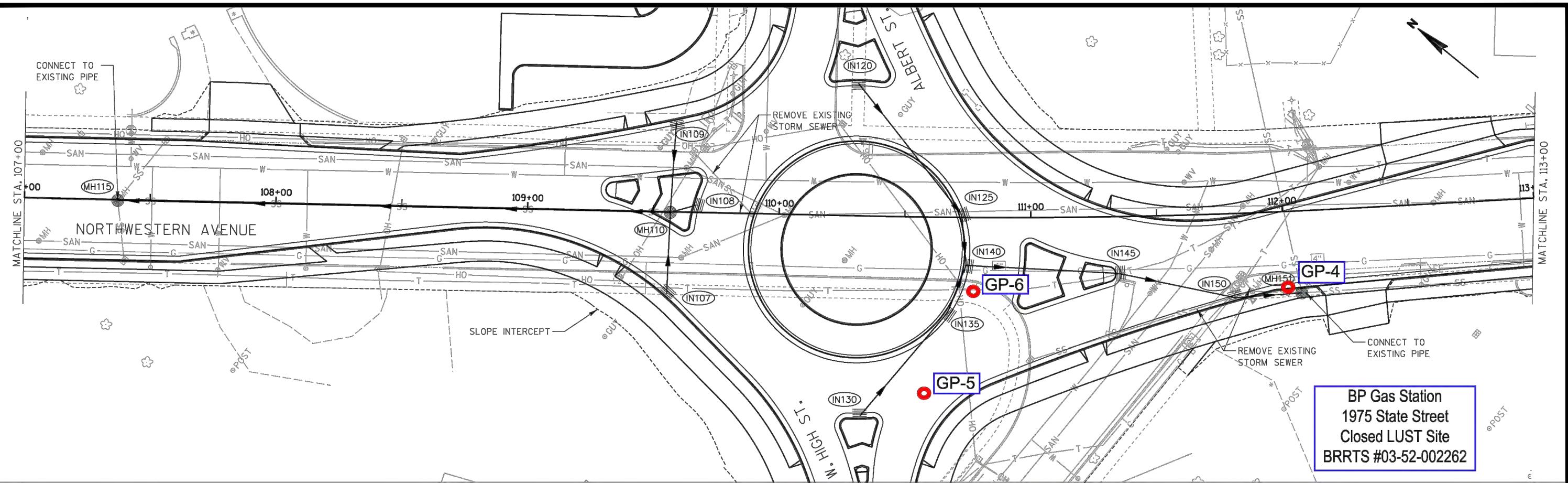
**FIGURE 1**

Coordinates on this plan are referenced to +  
 Coordinate System (WCCS), Racine County,  
 Elevation shown on this plan are referenced  
 American Vertical Datum of 1988 NAVD

Base Map Provided by WisDOT







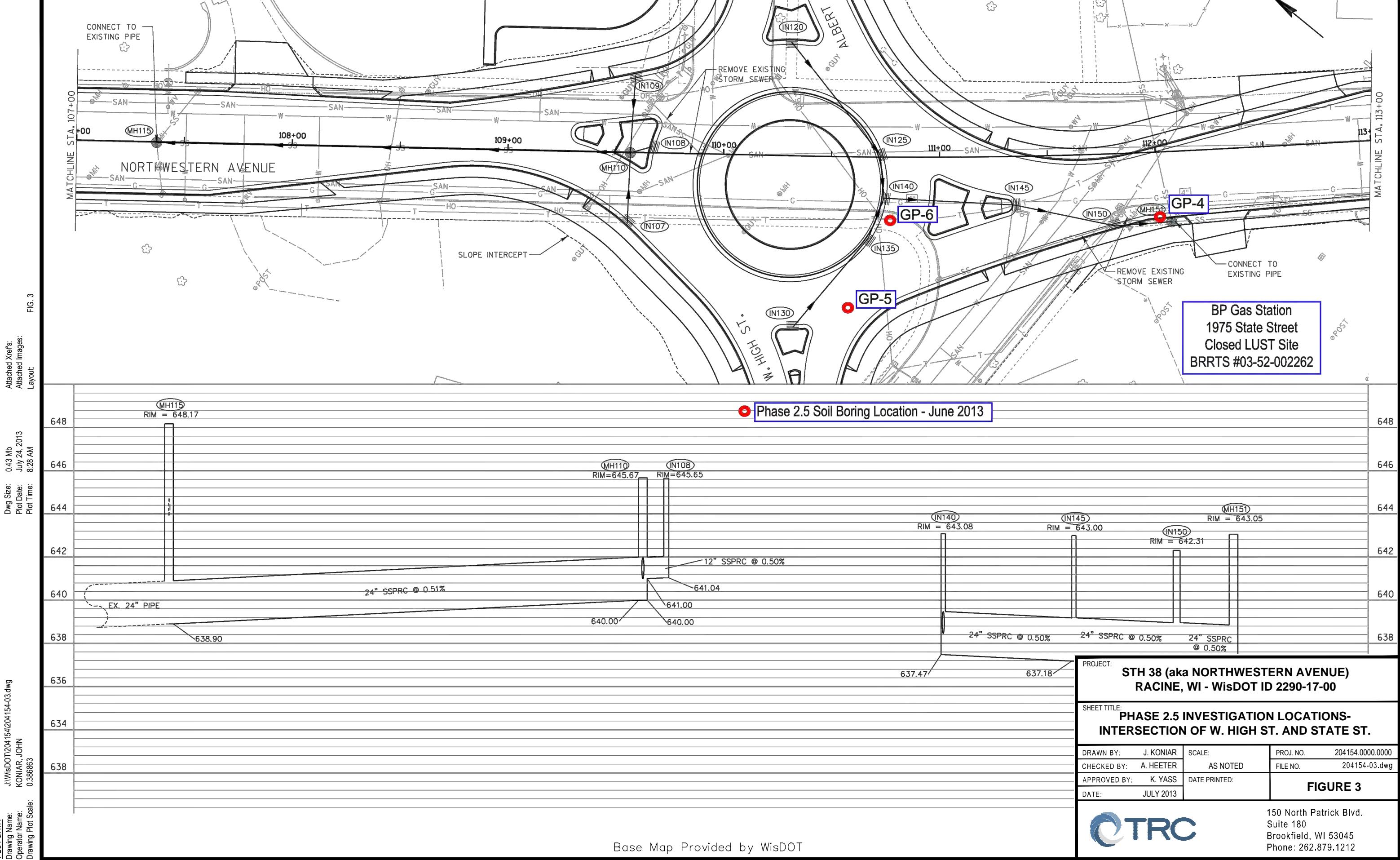
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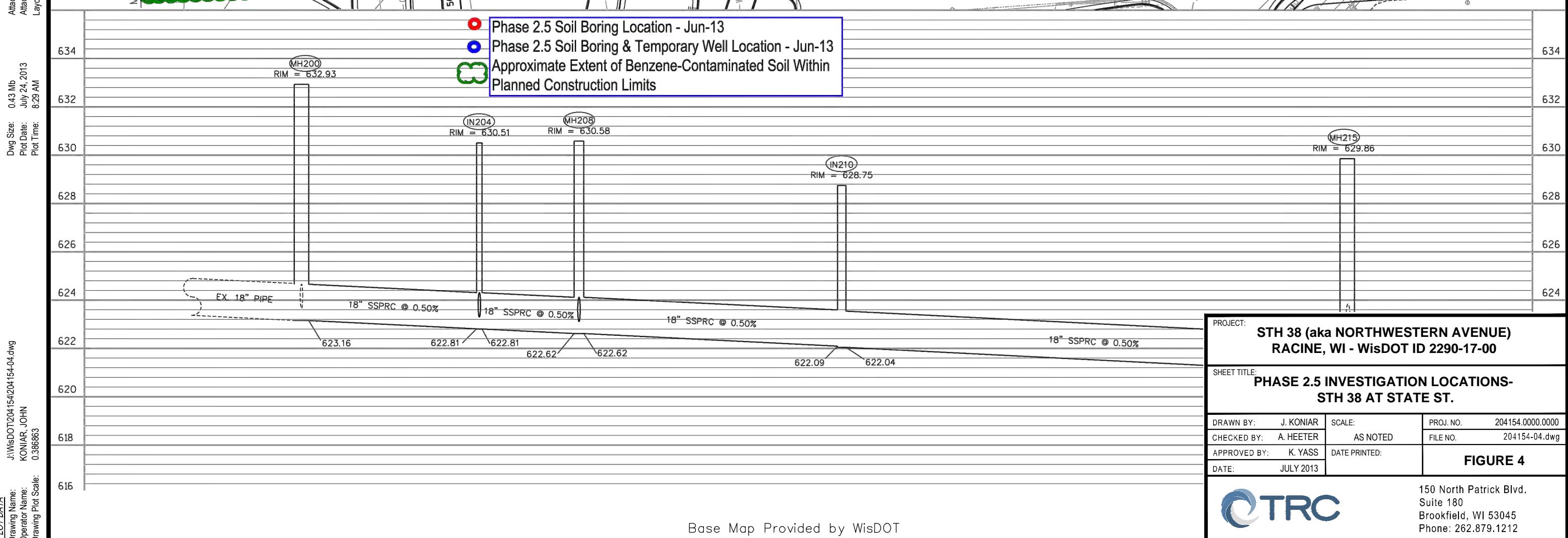
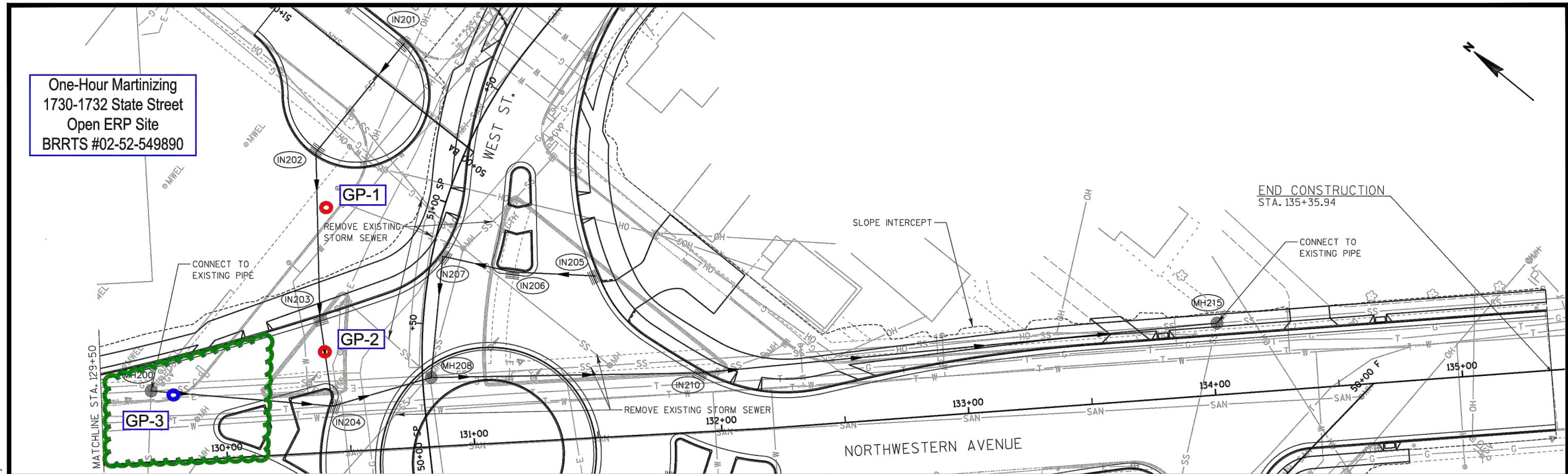
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Plot Time:

PLOT DATA  
Drawing Name:  
Operator Name:  
Drawing Plot Scale:

FIG. 3

Phase 2.5 Soil Boring Location - June 2013





# **Appendix A**

## **Historical Release Information**

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**Wisconsin Department of Natural Resources**  
**Environmental Cleanup & Brownfields Redevelopment**

## BRRTS on the Web

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web is a searchable database containing information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin.

Navigation: [BOTW Home](#) >> [Basic Search](#) >> [Search Results](#) >> 02-52-549890 Activity Details

### 02-52-549890 MARTINIZING DRYCLEANING

ERP - OPEN

Location Name (Click name to view details and other activities)		County	WDNR Region
<b>MARTINIZING DRYCLEANING</b>		RACINE	SOUTHEAST
Address		Municipality	
1730 STATE ST		RACINE	
Public Land Survey System		Latitude	Google Maps <a href="#">CLICK TO VIEW</a> RR Sites Map <a href="#">CLICK TO VIEW</a>
SW 1/4 of the NE 1/4 of Sec 08, T03N, R23E		42.7334885	
Additional Location Description		Longitude	Facility ID <a href="#">Size (Acres)</a>
NONE		-87.8022111	252251010    UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date    End Date    Last Action
DNR RR			2007-06-01    2012-03-30

#### Characteristics

EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination?	On GIS Registry? 
No	No	No	No	Yes	No	No

#### Actions

Place Cursor Over Code to View Description

Date	Code	Name	Comment
2007-06-01	1	Notification	-
2007-08-02	2	RP Letter Sent	-
2007-08-21	99	Miscellaneous	REC'D DERF PCN FORM 4400-210 RECEIVED
2007-09-28	110	Date Potential Claim Form Approved - DERF	-
2007-10-24	99	Miscellaneous/2	DERF BID PROP NORTHERN
2007-11-07	99	Miscellaneous/2	DERF BID PROP GILES
2007-11-09	99	Miscellaneous/2	DERF BID PROP SIGMA
2009-07-28	113	Receipt of Bid Review Requests - DERF	CONSULTANT SELCTION FORM
2009-09-11	300	Informal Review Performed for a Non-Fee Related Submittal	APPROVED CONSULTANT SELECTION AND COST ESTIMATE \$15,835 FOR SI
2010-03-05	35	Site Investigation Workplan Received (w/out Fee)	DERF
2010-04-22	81	Site Investigation Workplan Not Approved	NEEDED COSTS FOR ADDTL SI WORK
2010-05-11	99	Miscellaneous/5	WELL CONST FORMS FOR GROUND WATER MONITOR
2010-06-04	30	Site Investigation Workplan Go Ahead (notice to proceed)	WITH ADDTL COSTS OF \$13375, FOR TOTAL TO DATE OF \$29,210
2010-06-04	99	Miscellaneous/6	COST BREAKDOWN FOR CHANGE ORDER FOR ADDTL SI
2011-02-09	37	SI Report Received (w/out Fee)	-
2011-04-01	216	Request for Review of "Contained-in Rulings" - DERF	4/18/2011 APPROVED
2011-04-18	140	Site Investigation Report Not Approved	SOME CONCERNS NEED TO BE ADDRESSED
2011-05-19	217	Application for Cost Reimbursement Received - DERF	-
2011-08-22	112	Receipt of Change Orders - DERF	APPROVED 10/14/11 REQ, \$6215, TOTAL \$35425
2011-09-07	130	DNR Regulatory Reminder Sent	Vapor Intrusion (VI) Assessment Notification Ltr Sent
2011-11-21	99	Miscellaneous/7	SENT TO MADISON FOR APPROVAL
2011-12-06	218	Application for Cost Reimbursement Approved - DERF	DC-452 APPROVED; CHECK BEING PROCESSED; COMPLETE CLAIM RECEIVED IN SER ON 9/12/11
2012-02-13	37	SI Report Received (w/out Fee)/2	-
2012-03-30	140	Site Investigation Report Not Approved/2	MORE INF NECESSARY TO COMPLETE SI

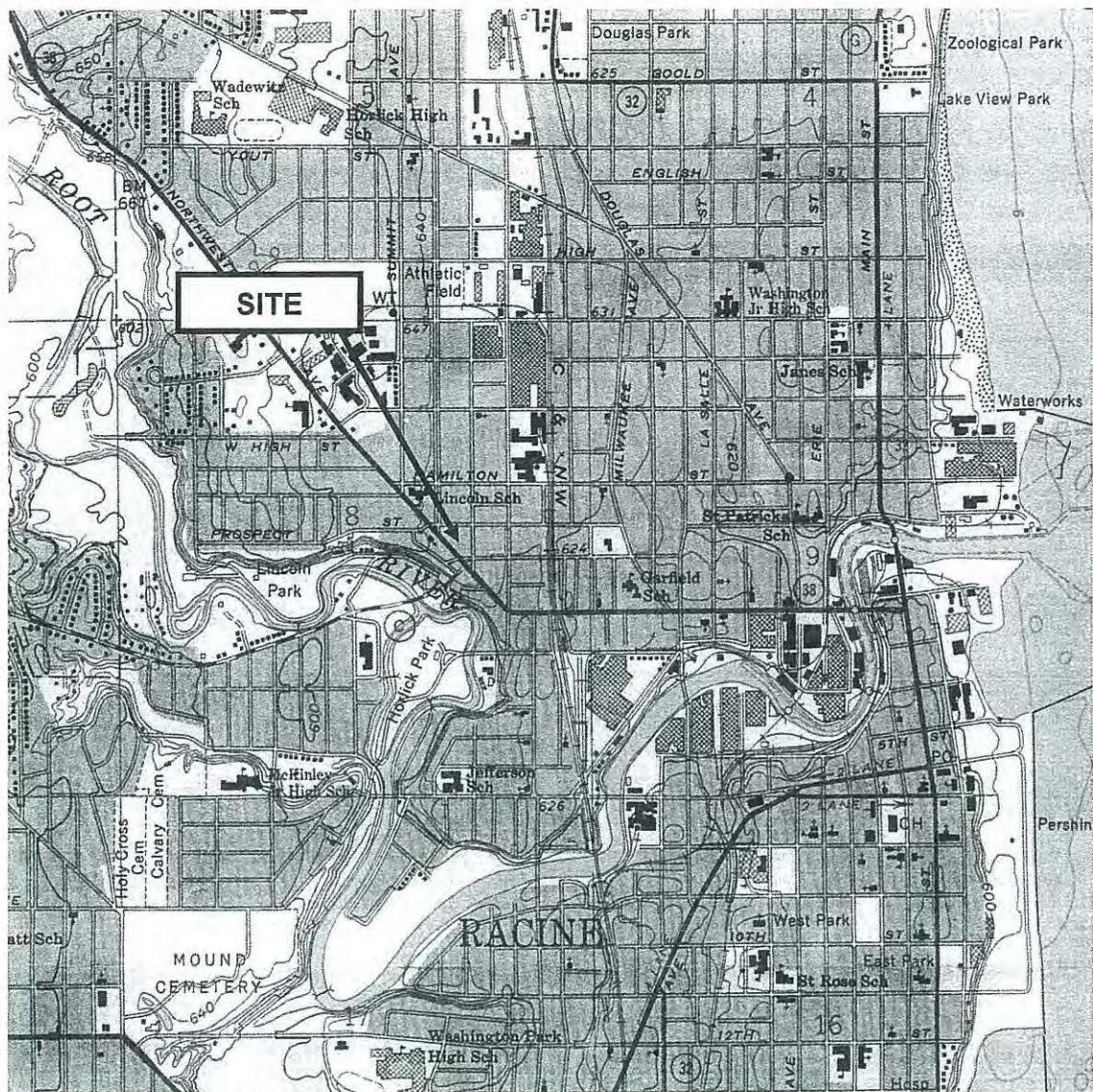
Financial 				
Grants, Loans, DERF Expenditures, State-Funded and Spill Response				
Category	Fiscal Year	Amount		
DERF Reimbursements : Grant	2012	\$20,454		
Impacts				
Type	Comment			
Groundwater Contamination	-			
Off-Site Contamination (Potential)	-			
Soil Contamination	-			
Substances				
Substance	Type	Amount Released		
Perchloroethylene	VOC			
Who				
Click Project Manager Name to Compose Email				
Role	Name/Address			
Project Manager	<a href="#">SHANNA LAUBE-ANDERSON</a> 9531 RAYNE ROAD STURTEVANT, WI 53177			
Responsible Party	DOUG BERRY 3319 NOBBHILL DR RACINE, WI			
Consultant	STANTEC CONSULTING SERVICES 12075 CORPORATE PKWY MEQUON, WI 53092			
Quick Response Codes 				
Scan to Transfer Information to Your Wireless Device				
				
	Page URL	Google Maps		

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.

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The Official Internet site for the Wisconsin Department of Natural Resources  
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Release 2.12.5 | 08/01/2012



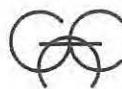
Source: USGS Racine South, Wisconsin 7.5-Minute Series (topographic) Quadrangle Map (1958; photorevised in 1971 and 1976)

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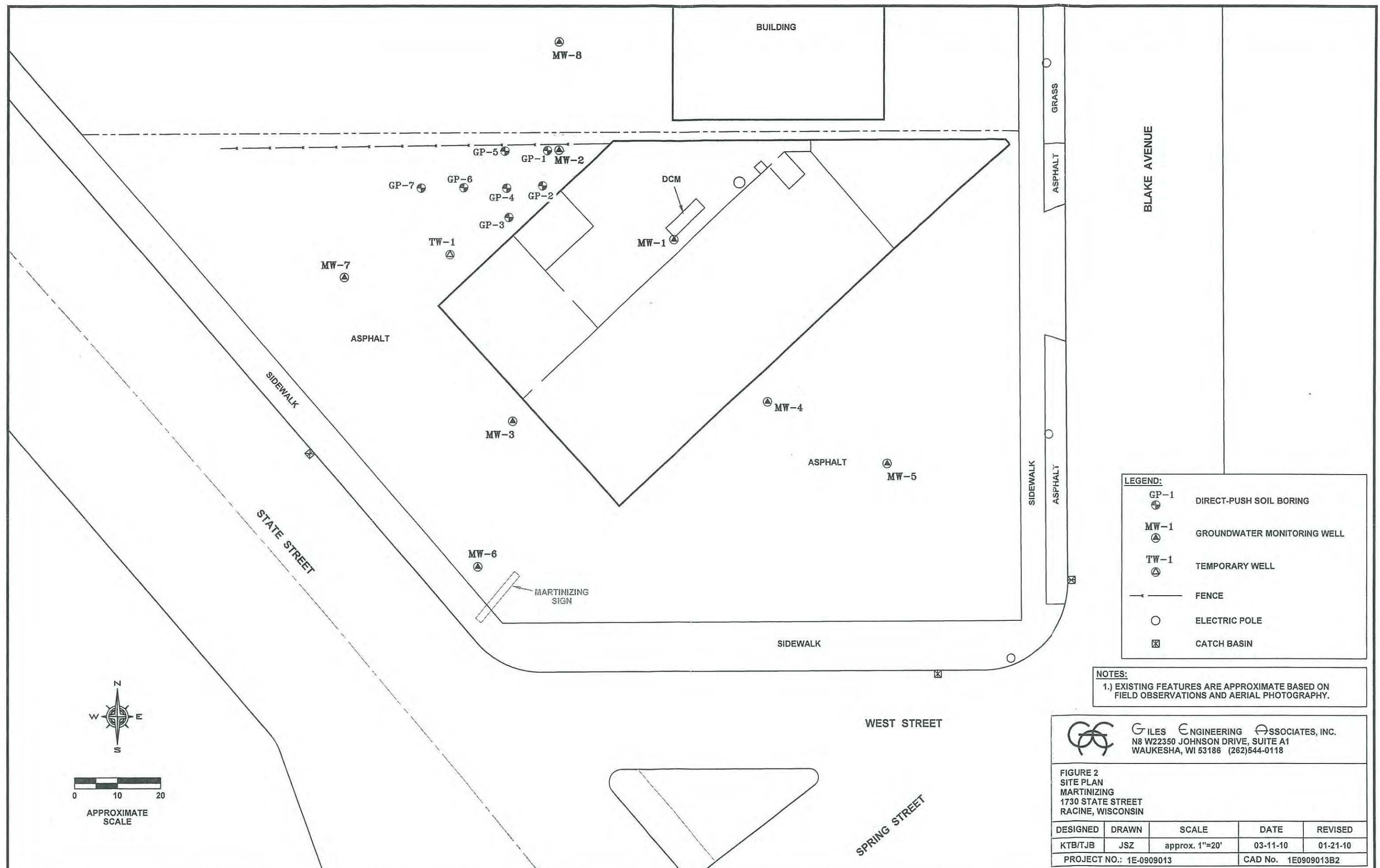


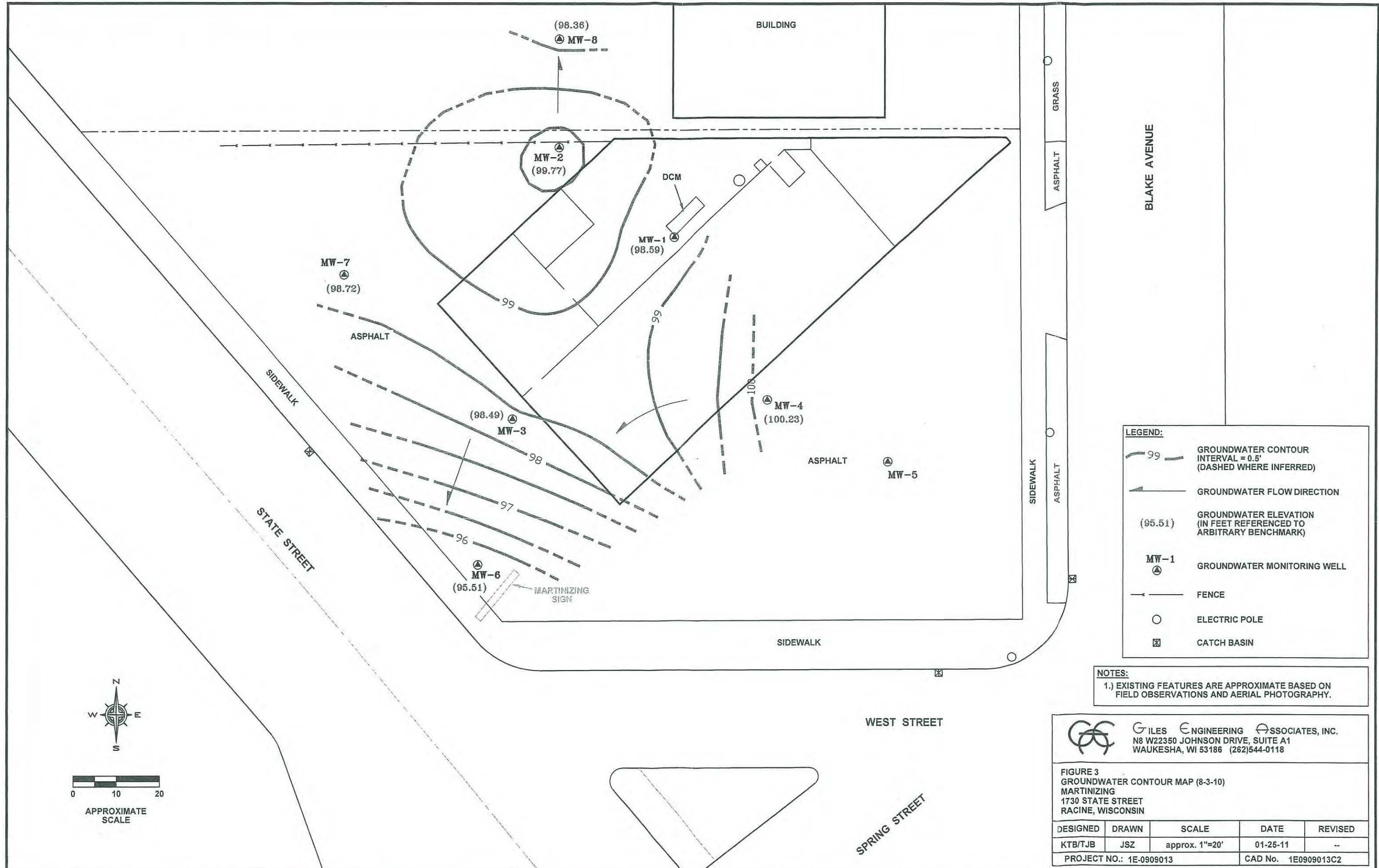
## **FIGURE 1 SITE LOCATION MAP**

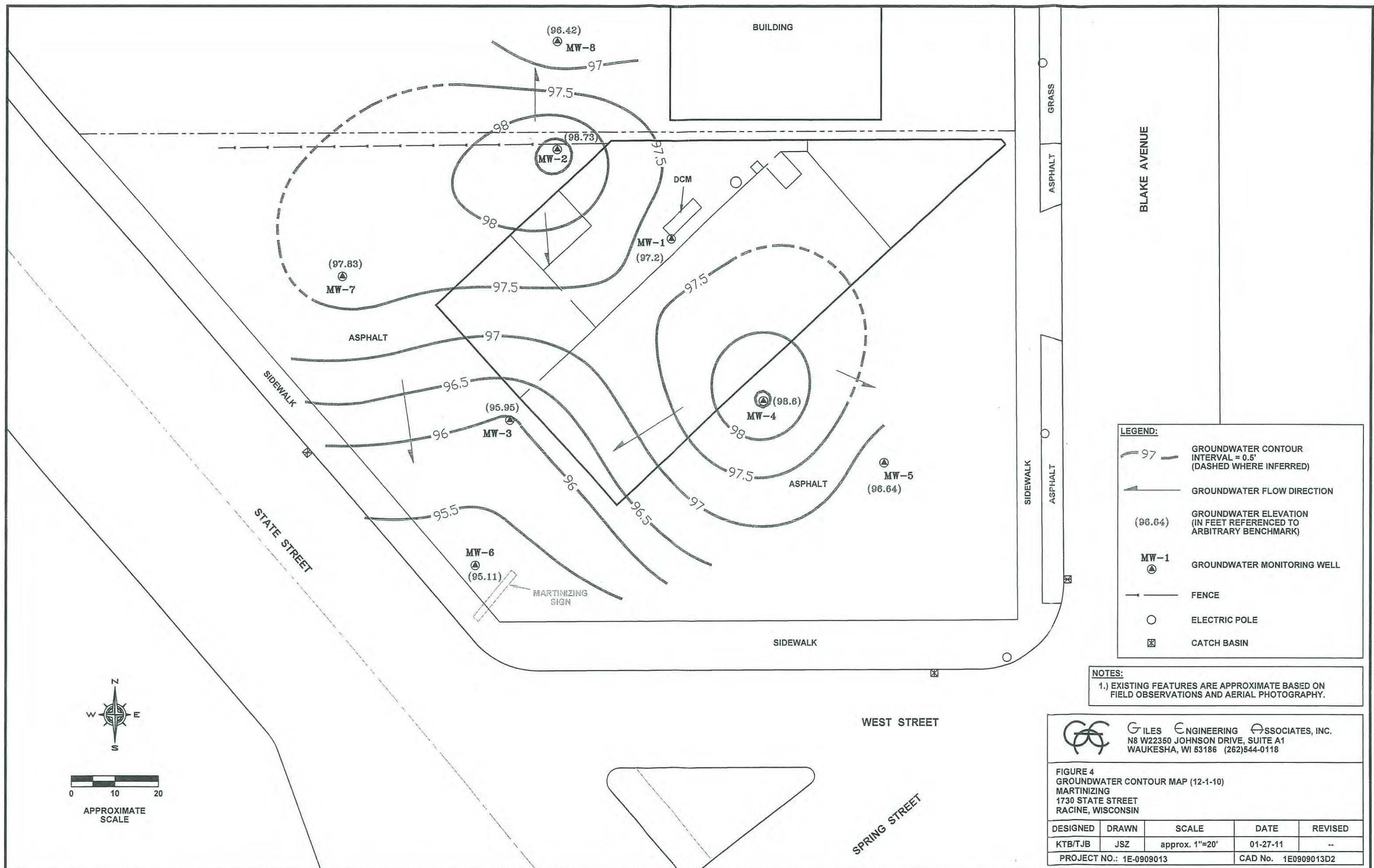
Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
Project No. 1E-0909013



**GILES**  
ENGINEERING ASSOCIATES, INC.







## **TABLES**

TABLE 1  
SOIL ANALYTICAL RESULTS (VOCs)

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
1E-0909013

Analyte	Sample Location																				NR 720.09 RCLs	NR 746.06 Table 1 (Product Indicator)	Calculated EPA SSL	WDNR Landfill Disposal Limit Contaminated-Out Non-Hazardous						
	TW-1	MW-1		MW-2		MW-3	MW-4		MW-5	MW-6	MW-7	MW-8	GP-1		GP-2		GP-3		GP-4		GP-5		GP-6	GP-7						
Sample Depth (feet)	6 - 8	0 - 2	10 - 12	0 - 2	6 - 8	2 - 4	2 - 4	10 - 12	2 - 4	2 - 4	2 - 4	2 - 3	4 - 6	8 - 10	12 - 14	4 - 6	8 - 10	2 - 4	6 - 8	4 - 6	6 - 8	4 - 6	6 - 8	NR 720.09 RCLs	NR 746.06 Table 1 (Product Indicator)	Calculated EPA SSL	WDNR Landfill Disposal Limit Contaminated-Out Non-Hazardous			
Sample Date	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	1/21/10	7/23/10	7/23/10	7/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10	6/23/10							
PID	14	11	12	420	42	BDL	BDL	BDL	BDL	16	7	BDL	86	188	152	498	228	BDL	BDL	246	28	13	9	71	50					
Detected VOCs ( $\mu\text{g}/\text{kg}$ )																														
n-Butylbenzene	<29	<28	<58	<14000	<300	<27	<31	<29	<31	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	780	<29	<31	<29	<28	290	NS	NS	NC	NS	
sec-Butylbenzene	130	29	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	860	43	<31	<29	<28	170	6,000	8,500	NC	NS		
cis-1,2-Dichloroethene	<29	7300	1900	19000	<300	<27	<31	34	<31	<31	<34	<290	<2900	770	5500	2300	<31	<29	58	220	220	<28	<31	NS	NS	156,000	NS	NS		
trans-1,2-Dichloroethene	<29	45	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS	NS			
Ethylbenzene	<29	41	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<28	<31	2,900	4,600	NC	NS	NS			
Isopropylbenzene	110	<28	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	94	<29	<31	<29	<28	290	NS	NS	NC	NS		
p-Isopropyltoluene	<29	61	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS	NS			
Naphthalene	<58	340	<120	<28000	<610	230	<63	<57	<62	<61	<62	80	<590	<5800	<570	<1200	<2900	<62	<58	<61	<58	<63	<58	<57	140	NS	2,700	NC	NS	
n-Propylbenzene	62	41	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	45	<29	<31	<29	<28	390	NS	NS	NC	NS		
Tetrachloroethylene	41	570	10000	{5200000}	{59000}	33	73	82	<31	<31	530	<34	{62000}	{510000}	{47000}	{97000}	{250000}	<31	<29	32	<29	78	<29	150	<31	NS	1,230	33,000	NS	NS
Toluene	<29	32	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<28	<31	1,500	36,000	NC	NS	NS			
Trichloroethylene	<29	83	2700	{420000}	2200	<27	<31	<29	<31	<31	44	<34	1200	9300	380	5300	5500	<31	<29	<31	41	<29	<28	<31	NS	NS	850	14,000	NS	
1,2,4-Trimethylbenzene	<29	320	<58	<14000	<300	<27	<31	<29	<31	<31	55	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS	NS			
1,3,5-Trimethylbenzene	<29	110	<58	<14000	<300	<27	<31	<29	<31	<31	<34	<290	<2900	<290	<580	<1400	<31	<29	<31	<29	<28	<31	NS	NS	NC	NS	NS			
Vinyl chloride	<41	210	<82	<20000	<420	<38	<44	<40	<44	<43	<47	<410	<4100	<400	<810	<2000	<43	<41	<43	41	<44	<40	<43	NS	NS	NC	NS	NS		
total Xylenes	<99	220	<200	<47000	<1000	<93	<110	<98	<110	<100	<110	<1000	<9900	<980	<2000	<4900	<110	<99	<100	<99	<110	<98	<97	<100	4,100	42,000	NC	NS	NS	

NOTES:

PID: Photoionization Detector

BDL: Below Detection Limit

TPH: Total Petroleum Hydrocarbons (TX 1005 Method)

VOCs: Volatile organic compounds

ODEQ: Oklahoma Department of Environmental Quality

mg/kg: Milligrams per kilogram; equivalent to parts per million (ppm)

$\mu\text{g}/\text{kg}$ : Micrograms per kilogram; equivalent to parts per billion (ppb)

J: Result is below the method quantitation limit (MQL)

Results indicated in red/underlined exceed the Tier 1 Generic Cleanup Level (Residential)

Results indicated in purple/{...} exceed the WDNR landfill standard for Contaminated-Out, Non-Hazardous Material

Results indicated in brown/#...# exceed the Calculated Soil Screening Level Using the US EPA Web-based Calculator

TABLE 2  
GROUNDWATER ANALYTICAL RESULTS  
(Detected VOCs)

Martinizing Racine  
1730 State Street  
Racine, Wisconsin  
Project No. 1E-0909013

Analyte	Sampling Dates																		NR140 ES	NR 140 PAL					
	MW-1			MW-2			MW-3			MW-4			MW-5		MW-6		MW-7		MW-8		TW-1				
Sample Date	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	02/08/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	08/03/10	12/01/10	02/08/10				
Benzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<u>16.0</u>	(3.4)	(1.8)j	(0.97)j	<0.40	<1.0	(1.6)	5	0.5			
n-Butylbenzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<1.0	1.1	NS	NS	
sec-Butylbenzene	<4.0	<10	<13	<2.5	<50	<63	<0.50	<0.25	<0.25	<1.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.50	<1.3	1.2	NS	NS		
chloroethane	<16	<40	<50	<10	<200	<250	<2.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8j	<2.0	<5.0	<1.0	400	80	
1,1-Dichloroethene	<8.0	<20	<25	11j	<100	<130	<1.0	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3j	<2.5	<0.5	850	85		
cis-1,2-Dichloroethene	1000	3,800	2,000	2,600	2,300	2,700	(20)	(1.0)j	(5.5)	(13)	(27)	(21)	0.58j	4.6	<0.50	<0.50	<0.50	<0.50	410	570	(17)	70	7		
trans-1,2-Dichloroethene	(12)j	(40)j	(25)j	(20)j	<100	<130	<1.0	<0.50	<0.50	<2.5	2.8	1.2j	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0j	4.9j	0.61j	100	20		
isopropyl ether	<8.0	<20	<25	<5.0	<100	<130	<1.0	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	0.71j	<0.50	<0.50	<0.50	<1.0	<2.5	<0.50	NS	NS		
Isopropylbenzene	<3.2	<8.0	<10	<2.0	<40	<50	<0.40	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	0.57j	0.47j	<0.20	<0.20	<0.40	<1.0	3.7	NS	NS			
Naphthalene	<4.0	<10	<13	<2.5	<50	<63	<0.50	<0.25	<0.25	<1.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.50	<1.3	0.72j	40	8			
n-Propylbenzene	<8.0	<20	<25	<5.0	<100	<130	<1.0	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	0.52j	<0.50	<0.50	<0.50	<0.50	<1.0	<2.5	4.1	NS	NS		
Tetrachloroethene	280	1,700	730	11,000	21,000	22,000	210	(0.60)j	(0.80)j	130	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	170	150	(3.0)	5	0.5		
Trichloroethene	260	1,900	860	4,200	8,300	7,000	61	<0.20	(0.22)j	27	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	110	100	<0.2	5	0.5		
Vinyl chloride	71	340	210	110	54j	<50j	0.84j	<0.20	<0.20	<1.0	0.36j	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.4	2.1	24	45	7.0	0.2	0.02

NOTES:

VOCs: Volatile Organic Compounds

NS: No published NR 140 ES or PAL

Results presented in micrograms per liter ( $\mu\text{g/L}$ ); equivalent to parts per billion (ppb)

j: Result detected between laboratory method detection limit and quantitation limit

NR: Natural Resources

ES: Enforcement Standard

PAL: Preventive Action Limit

Results indicated in red/underline exceed the Wisconsin Administrative Code NR 140 Enforcement Standard (ES)

Results indicated in blue/parenthesis are above the Wisconsin Administrative Code NR 140 Preventive Action Limits (PAL)

**Table 3**  
**Groundwater Elevation Summary**

Martinizing Cleaners  
1730 State Street  
Racine, Wisconsin  
Giles Project No. 1E-0909013

Well ID	Elevation (TOC)*	Elevation Ground Surface	Well Depth	Screen Length	Groundwater Depth (TOC)	Calculated Groundwater Elevation	Change in Elevation	Feet Water in Well	Date
MW-1	101.73	101.81	16.00	10.00	4.39	97.34		11.61	02/08/2010
					4.09	97.64	0.30	11.91	02/26/2010
					2.91	98.82	1.18	13.09	06/23/2010
					3.41	98.32	-0.50	12.59	07/23/2010
					3.14	98.59	0.27	12.86	08/03/2010
					4.53	97.20	-1.39	11.47	12/01/2010
MW-2	101.54	101.85	16.00	10.00	4.25	97.29		11.75	02/08/2010
					3.06	98.48	1.19	12.94	02/26/2010
					1.36	100.18	1.70	14.64	06/23/2010
					1.80	99.74	-0.44	14.20	07/23/2010
					1.77	99.77	0.03	14.23	08/03/2010
					2.81	98.73	-1.04	13.19	12/01/2010
MW-3	101.33	101.56	13.00	10.00	4.45	96.88		8.55	02/08/2010
					4.14	97.19	0.31	8.86	02/26/2010
					2.40	98.93	1.74	10.60	06/23/2010
					3.16	98.17	-0.76	9.84	07/23/2010
					2.84	98.49	0.32	10.16	08/03/2010
					5.38	95.95	-2.54	7.62	12/01/2010
MW-4	102.53	102.82	16.00	10.00	4.61	97.92		11.39	02/08/2010
					3.46	99.07	1.15	12.54	02/26/2010
					3.02	99.51	0.44	12.98	06/23/2010
					3.02	99.51	0.00	12.98	07/23/2010
					2.30	100.23	0.72	13.70	08/03/2010
					3.93	98.60	-1.63	12.07	12/01/2010
MW-5	99.61	100.34	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					9.03	90.58		3.97	08/03/2010
					2.97	96.64	6.06	10.03	12/01/2010
MW-6	99.47	100.76	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					3.96	95.51		9.04	08/03/2010
					4.36	95.11	-0.40	8.64	12/01/2010
MW-7	101.08	101.51	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					2.36	98.72		10.64	08/03/2010
					3.25	97.83	-0.89	9.75	12/01/2010
MW-8	100.78	101.16	13.00	10.00	NW				02/08/2010
					NW				02/26/2010
					NW				06/23/2010
					NW				07/23/2010
					2.42	98.36		10.58	08/03/2010
					4.36	96.42	-1.94	8.64	12/01/2010

**Wisconsin Department of Natural Resources**  
**Environmental Cleanup & Brownfields Redevelopment**

## BRRTS on the Web

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web is a searchable database containing information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin.

Navigation: [BOTW Home](#) >> [Basic Search](#) >> [Search Results](#) >> 03-52-002262 Activity Details

### 03-52-002262 MIKES U S STORES

**LUST - CLOSED**

	Cleanup has been approved at this location but some contamination remains. Due to this remaining residual contamination, one or more continuing obligations are applicable to this location (e.g., an asphalt cap or other barrier covering the contamination). For information specific to the continuing obligations at this location, read the Closure Letter within the GIS Registry Packet in the Documents section below. For general information on managing continuing obligations and residual contamination <a href="#">click here</a> . <b>You must contact DNR before constructing a well. Remaining contamination must be properly handled if disturbed.</b>				
Location Name (Click name to view details and other activities)			County	WDNR Region	
<b>MIKES US STORE</b>			RACINE	SOUTHEAST	
Address			Municipality		
1975 STATE ST			RACINE		
Public Land Survey System			Latitude	Google Maps	RR Sites Map
SE 1/4 of the NW 1/4 of Sec 08, T03N, R23E			42.73642	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>
Additional Location Description			Longitude	Facility ID	Size (Acres)
1975 STATE ST			-87.8066885	252057410	UNKNOWN
Jurisdiction	PECFA No.	EPA Cerclis ID	Start Date	End Date	Last Action
DNR RR	<a href="#">53404252475</a>		1992-03-30	2005-06-20	2006-02-15
<b>Characteristics</b>					
EPA NPL Site?	DSPS Tracked?	Eligible for PECFA Funds?	Above Ground Storage Tank?	Drycleaner?	Co-Contamination? 
No	Yes	Yes	No	No	No Yes
<b>Actions</b>					
Place Cursor Over Code to View Description					
Date	Code	Name	Comment		
1992-03-30	1	Notification	-		
1992-04-07	2	RP Letter Sent	-		
1992-05-08	35	Site Investigation Workplan Received (w/out Fee)	SI WORK PLAN RECV'D		
1993-06-08	37	SI Report Received (w/out Fee)	SI REPORT RECV'D		
1993-11-05	37	SI Report Received (w/out Fee)/2	SI REPORT RECV'D		
1994-01-24	45	Form 4 Approved	FORM 4 APPROVED		
1994-04-22	33	Tank Closure Environmental Site Assessment Rpt Received	TNK CLS/SA REPT RECV'D		
1994-09-22	41	Remedial Action Report Received	RA REPORT RECV'D		
1994-11-22	45	Form 4 Approved/2	FORM 4 APPROVED		
1995-01-14	99	Miscellaneous	RE-RANK TO HIGH PRIORITY/SCORE OF 16.00		
1995-02-08	37	SI Report Received (w/out Fee)/3	SI REPORT RECV'D		
1996-06-17	45	Form 4 Approved/3	-		
1996-07-03	41	Remedial Action Report Received/2	-		
1996-07-11	37	SI Report Received (w/out Fee)/4	-		
1996-07-11	39	Remedial Action Options Report received (w/out Fee)	-		
1996-11-12	43	Status Report Received	-		
1997-06-16	41	Remedial Action Report Received/3	-		
1997-06-16	179	Closure Review Req Received (no fee required)	-		
1997-06-24	50	GIS Registry Site	-		

1997-06-24	84	Conditional Closure	-
2002-07-24	99	Miscellaneous/2	BLUELIGHT LETTER SENT
2003-08-06	14	Notice of Violation (NOV)	-
2003-08-06	50	GIS Registry Site	-
2005-05-10	700	Date Groundwater Registry Fee Received	REC'D CK# 4915 \$250.00
2005-05-10	710	Date Soil Registry Fee Paid	REC'D CK# 4914 \$200.00
2005-06-03	90	Start FIFO Review	GIS PACKET COMPLETE, REVIEW FOR CLOSURE
2005-06-20	11	Activity Closed	-
2005-06-20	59	Enforcement Action Completed	SUBMITTED GIS PACKET IN PLACE OF GW USE RESTRICTION, MET NOV REQUIREMENTS
2005-06-20	232	Continuing Obligation - Residual Soil Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 710 ACTION ***
2005-06-20	236	Continuing Obligation - Residual GW Contamination	*** AUTO POPULATED AT FINAL CLOSURE DUE TO 700 ACTION ***
2006-02-15	100	GIS Registry QAQC Completed	AB

**Documents**

Click Document Name or URL to Open

Please note: not all files listed are available to be viewed on-line.

Category : Name	File Type
GIS Registry Packets : <a href="#">GIS Registry Packet</a>	

**Impacts**

Type	Comment
Soil Contamination	-

**Substances**

Substance	Type	Amount Released	Units
Gasoline - Unleaded and Leaded	Petroleum		

**Who**

Click Project Manager Name to Compose Email

Role	Name/Address
Responsible Party	MIKE'S U.S. STORES 1975 STATE ST RACINE, WI 53402
Project Manager	<a href="#">SHANNA LAUBE-ANDERSON</a> 9531 RAYNE ROAD STURTEVANT, WI 53177
Owner	MICHAEL ERICKSON 1975 STATE ST. RACINE, WI 53402

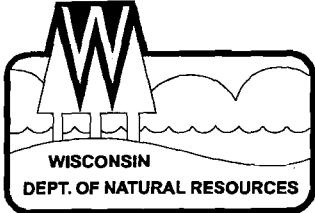
**Quick Response Codes** 

Scan to Transfer Information to Your Wireless Device

				
	Page URL	Google Maps	GIS Registry PDF	

BRRTS data comes from various sources, both internal and external to DNR. There may be omissions and errors in the data and delays in updating new information. Please see the [disclaimers page](#) for more information.

The Official Internet site for the Wisconsin Department of Natural Resources  
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

James Doyle, Governor  
Scott Hassett, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region  
Sturtevant Service Center  
9531 Rayne Road, Suite IV  
Sturtevant, Wisconsin 53177  
Telephone 262-884-2300  
FAX 262-884-2307  
TDD 262-884-2304

June 28, 2005

Mr. Satish Bhardwaj  
Vishal Investments LLC  
1975 State St.  
Racine, WI 5344

Subject: Case Closure for Mike's US Stores, 1975 State St., Racine, WI FID 252057410, BRRTS  
03-52-002262

Dear Mr. Bhardwaj:

The Department has received and reviewed the information submitted to complete the closure at this site. At this time your site will be noted as being closed with Soil and Groundwater GIS on the Department's database.

State Statute 101.143 requires that PECFA claimants seeking reimbursement of interest costs, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement.

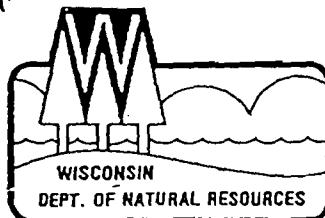
Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

Thank you for your efforts in remediating your site. If you have any questions regarding this letter please contact me at 262-884-2341.

Sincerely,

Shanna L Laube-Anderson, P.G.  
Hydrogeologist  
Southeast Region, Sturtevant Service Center

Cc: Mukesh Jain, K. Singh and Associates, 1135 Legion Drive, Elm Grove, WI 53122



# State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor  
George E. Meyer, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Annex  
4041 N. Richards Street, Box 12436  
Milwaukee, WI 53212-0436  
TELEPHONE 414-229-0800  
FAX 414-229-0810

June 24, 1997

2097  
FID#: 252057410  
County of Racine

Mr. Mike Erickson  
Mike's U.S. Store  
1975 State Street  
Racine, WI 53402

SUBJECT: Flexible Case Closure - Mike's U.S. Stores  
1975 State Street, Racine, Wisconsin BRRTs #: 03-52-002262

Dear Mr. Erickson:

Based on the information submitted by K. Singh & Associates, (K. Singh), the Wisconsin Department of Natural Resources (WDNR) concurs with K. Singh that no further action is necessary at the site at this time. The WDNR reserves the right to reopen this case pursuant to s. NR726.09, Wisconsin Administrative Code (WAC), should additional information regarding site conditions indicate contamination on or from the site poses a threat to public health, safety or welfare or the environment.

To complete the closure of this site, you must place a groundwater use restriction on the property deed at the county register of deeds office which specifies the legal description of the property, the location, type, and concentration of the contaminant(s) and includes the following language:

Natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch. NR 140 groundwater standards within the boundaries of this property. Construction of wells where water quality exceeds the drinking water standards in ch. NR809 is restricted by chs. NR811 and NR812. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply. Anyone who proposes to construct or reconstruct a well on this property is required to contact the Department of Natural Resources' Bureau of Drinking Water and Groundwater to determine what specific requirements are applicable prior to constructing or reconstructing a well on this property.

Within 60 days, the WDNR requests that all of the groundwater monitoring and recovery wells at the site be abandoned in accordance with NR 141 WAC. When the WDNR receives a copy of the groundwater use restriction and the abandonment forms, this case will be tracked as closed on our computer tracking system.

Thank you for your cooperation in the remediation of the petroleum impacts at this site. If you have any questions about this letter, please contact me at 414-229-0832.

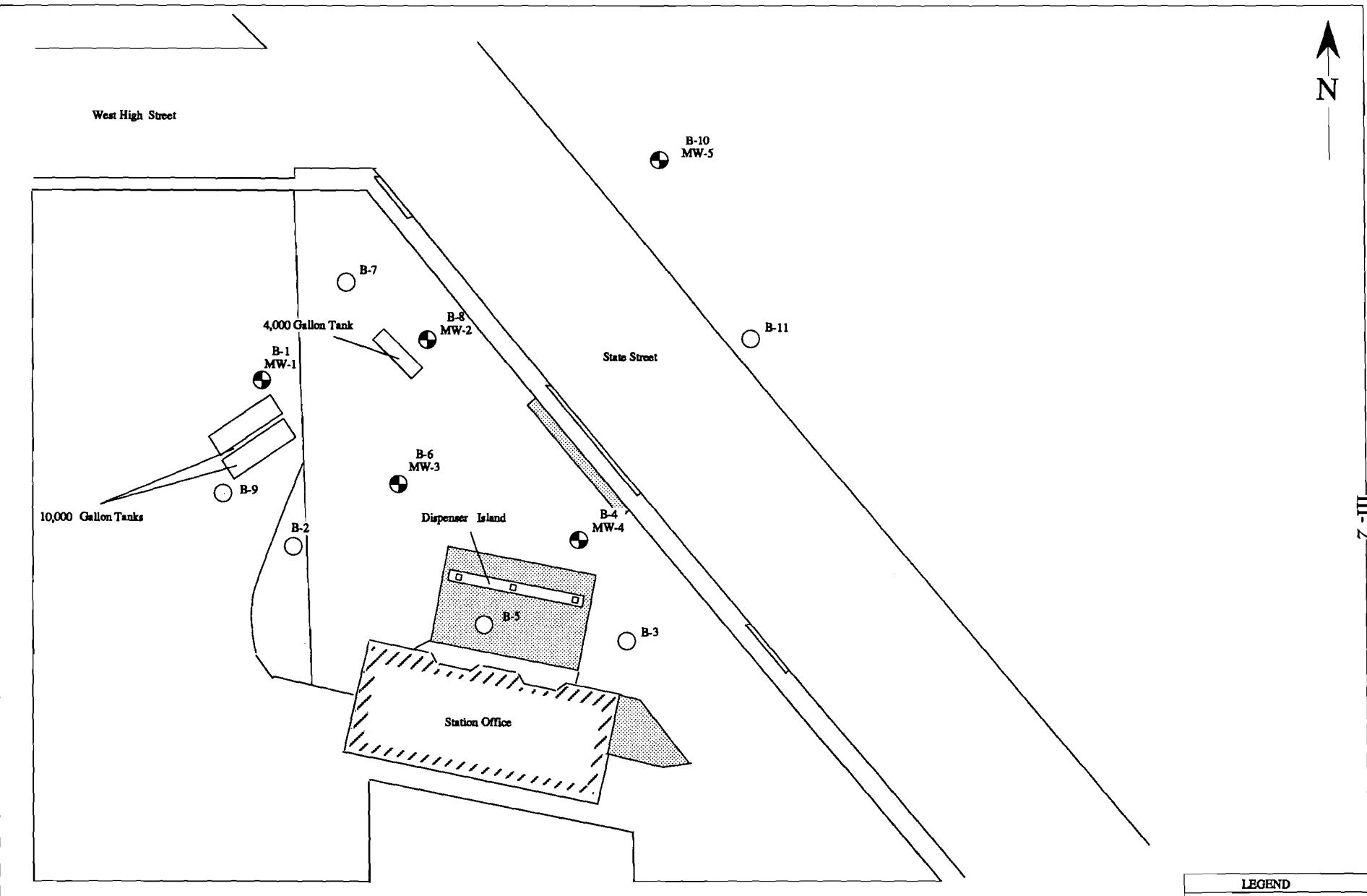
Sincerely,

*Eric Amadi*  
Eric Amadi  
Hydrogeologist

cc: Dhruba Vangipuram - K. Singh & Associates, Inc.  
SER - case file # 03-52-002262

Quality Natural Resources Management  
Through Excellent Customer Service





LEGEND	
○	Test Boring Location
●	Monitoring Well Location

Owner  
**MIKE'S U.S. STORES**  
1975 State Street  
Racine, Wisconsin

Engineer  
**K. SINGH & ASSOCIATES, INC.**  
Engineers & Environmental Management Consultants  
1135 Legion Drive, Elm Grove, Wisconsin 53122, (414) 821-1171

Figure 2: Soil Boring and Monitoring Well Location Map

DATE	DRAWN BY	REVISIONS BY	DATE	PROJECT NO.
January 7, 1993	C.S.S.			2097
SCALE	CHECKED BY	C.S.S.	1/7/93	SHEET NO.
0 25 50	P.N.S.	C.S.S.	1/7/93	ONE

**Table 2**  
**Summary of Groundwater Quality Test Result**  
**Mike's U. S. Stores, 1975 State Street, Racine, WI**

Parameter	Date	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE	GRO	Dissolved Lead
Well I.D./Units		ppb	ppb	ppb	ppb	ppb	ppm	ppb
MW-1(*)	12/3/92	<0.4	<0.2	<0.2	<0.2	<0.2	<0.1	NT
	1/6/93	0.4	0.4	<0.2	1.7	<0.4	<0.1	<0.05
MW-2(*)	12/3/92	7,716	1,271	395	2,771	329.4	14.1	NT
	1/6/93	4,517	576.9	104.4	1158.2	4,972	19.2	<0.05
	10/15/93	6,700	1,900	200	7,100	<230	36	<2
MW-3(*)	12/3/92	<0.4	<0.2	<0.2	<0.2	<0.2	<0.1	NT
	1/6/93	14.7	16	1.8	50.1	17	0.62	<0.05
	10/15/93	4	2	1.2	4.6	6	<0.1	<2
MW-4(*)	12/3/92	<0.4	<0.2	<0.2	<0.2	<0.2	<0.1	NT
	1/6/93	28.9	<0.2	1.8	1.9	<0.4	<0.1	NT
	10/15/93	14	6	1.2	9	7	<0.1	<2
MW-5	2/9/93	<1	<1	<1	<1	<1	<0.1	<2
	10/15/93	<0.7	<0.9	<1	<2.4	<4.6	<0.1	<2
	4/18/94	<1	<1	<1	<3	<1	<0.05	<3
	7/31/95	<1	<1	<1	<3	<1	<0.05	NT
	5/30/96	<0.5	<1.0	<1.0	<3.0	<1.0	<0.05	NT
	9/19/96	<0.5	<0.5	<0.5	<0.5	<5	<0.05	NT
	3/11/97	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	NT
MW-2'(**)	4/18/94	<1	<1	<1	<3	<1	<0.1	<3
	7/31/95	<1	<1	<1	<3	<1	<0.1	NT
	5/30/96	<0.5	<1	<1	<3	<1	<0.05	NT
	9/19/96	<0.5	<0.5	<0.5	<0.5	<5	<0.05	NT
	3/11/97	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	NT
MW-4'(**)	4/18/94	D	D	D	D	D	D	D
	7/31/95	<1	<1	<1	<3	<1	<0.1	NT
	5/30/96	<0.5	<1	<1	<3	<1	<0.05	NT
	9/19/96	<0.5	<0.5	<0.5	<0.5	<5	<0.05	NT
	3/11/97	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	NT

**Table 2**  
**Summary of Groundwater Quality Test Result**  
**Mike's U. S. Stores, 1975 State Street, Racine, WI**

Parameter	Date	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE	GRO	Dissolved Lead
Well I.D./Units		ppb	ppb	ppb	ppb	ppb	ppm	ppb
RW-1(**)	4/18/94	26	4.8	66	39	39	0.29	<3
(Recovery	5/15/95	68	27	6.4	32	1,600	4.9	NT
sump)	5/16/95	54	23	8.9	21	3,000	2.8	<5
	5/17/95	32	14	10	16	4,900	3	<5
	5/18/95	75	<20	98	<60	4,700	3.7	<5
	7/31/95	<1.0	<1.0	<1.0	<3.0	<1.0	<0.05	NT
	8/11/95	9.4	5.5	<5.0	<15	1,100	0.9	NT
	5/30/96	<0.5	<1.0	<1.0	<3.0	250	0.14	NT
	10/11/96	<0.5	<0.5	<0.5	<0.5	150	0.063	NT
	10/23/96	12	<0.5	<0.5	0.87	47	0.053	NT
	3/11/97	0.57	<0.5	<0.5	<0.5	120	<0.05	NT
PAL		0.5	272	68.6	124	12	--	5
ES		5	1,360	343	620	60	--	50

\*\*: Replacement Well installed following soil remediation

D - Dry well

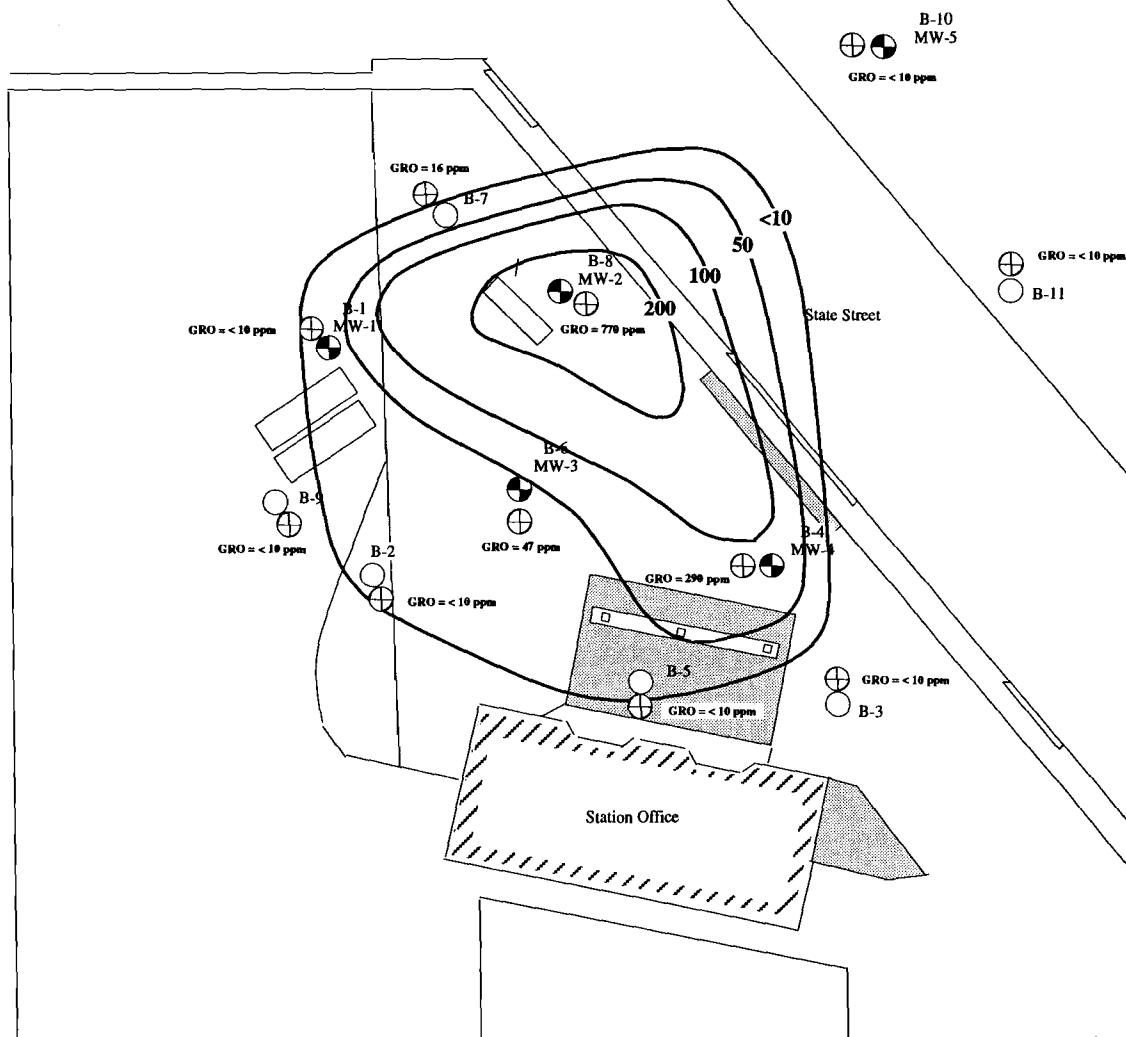
\*: Well abandoned during soil remediation

NT - Not tested

West High Street



I-1



Note:

Confirmatory soil borings were performed on October 15, 1993.

GRO concentration written near soil borings indicate the concentration determined on October 15, 1993 sampling.

GRO Plume of Contamination is taken from the Remedial Investigation Report submitted in May 1993.

LEGEND					
	Confirmatory Soil Boring		Test Boring Location		Monitoring Well Location
-10- GRO Concentration in Soil					

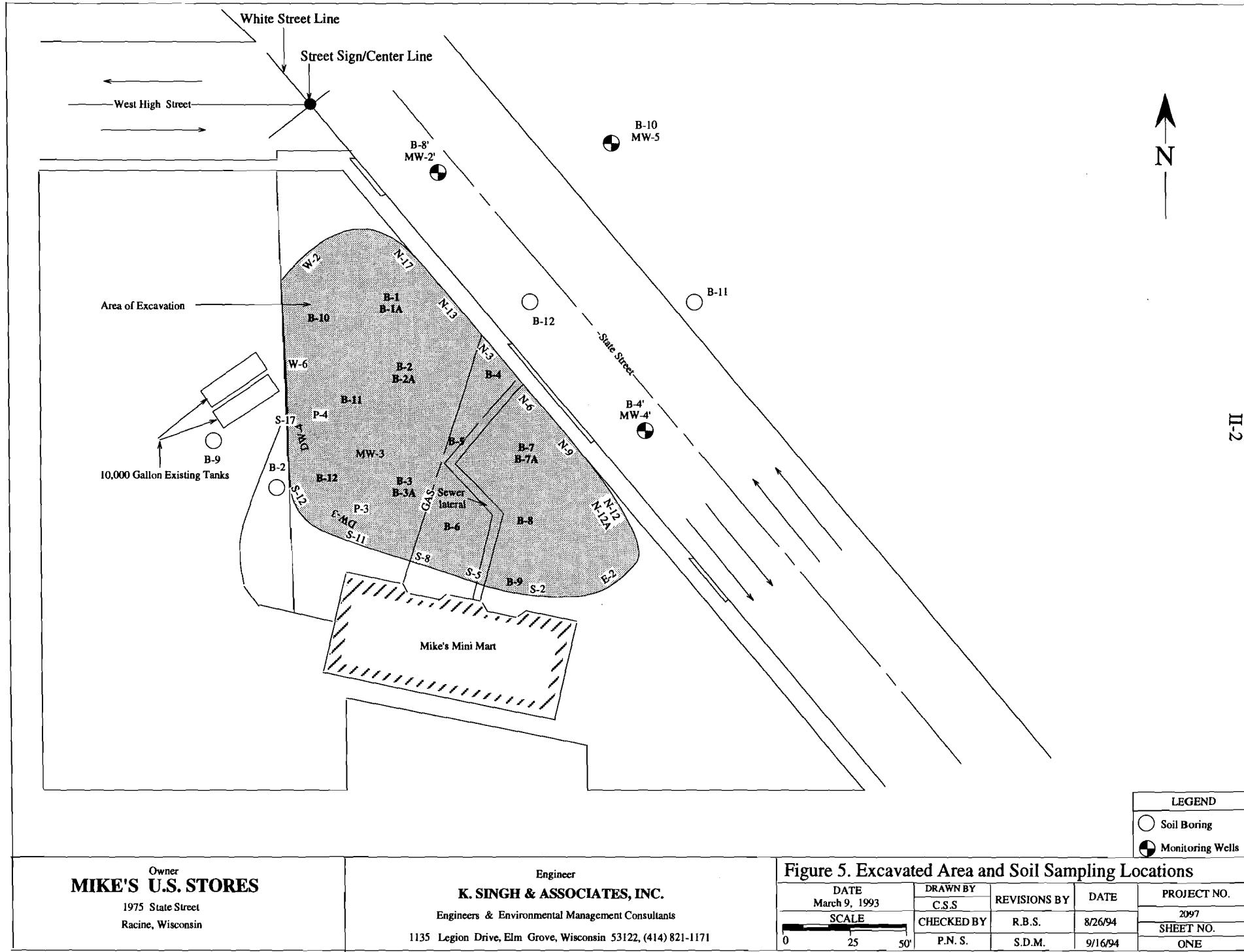
Owner <b>MIKE'S U.S. STORES</b> 1975 State Street Racine, Wisconsin
--

Engineer <b>K. SINGH &amp; ASSOCIATES, INC.</b> Engineers & Environmental Management Consultants 1135 Legion Drive, Elm Grove, Wisconsin 53122, (414) 821-1171
---

Figure 3. GRO Plume of Contamination

DATE March 9, 1993	DRAWN BY C.S.S.	REVISIONS BY	DATE	PROJECT NO.
SCALE	CHECKED BY C.S.S.		3/9/93	2097
0 25 50'	P.N.S.	C.S.S.	3/9/93	SHEET NO. ONE

II-2

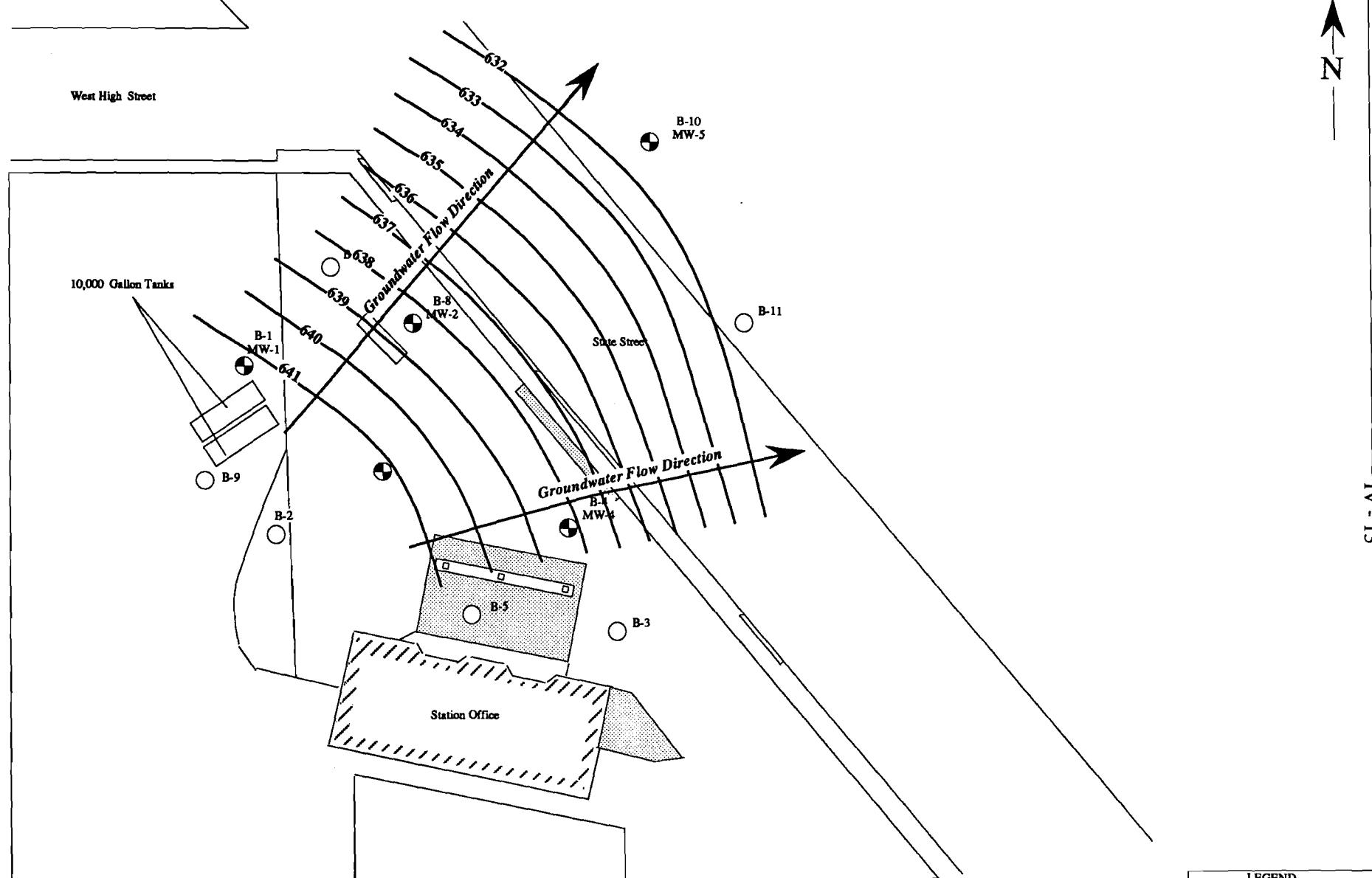


**IV-12**

**Table 5**  
**Summary of Groundwater Elevation Data**

<b>Monitoring Well Designation</b>	<b>PVC Elevation</b>	<b>Groundwater Elevation 12 / 3 / 92</b>	<b>Groundwater Elevation 1 / 6 /93</b>	<b>Groundwater Elevation 2 / 9 /93</b>
MW-1	647.18	636.23	641.80	641.24
MW-2	643.15	638.66	638.65	638.39
MW-3	644.10	641.28	641.10	640.95
MW-4	642.76	635.71	638.46	638.26
MW-5	641.85	NS	NS	631.11

Note: All elevations are given in feet, MSL.



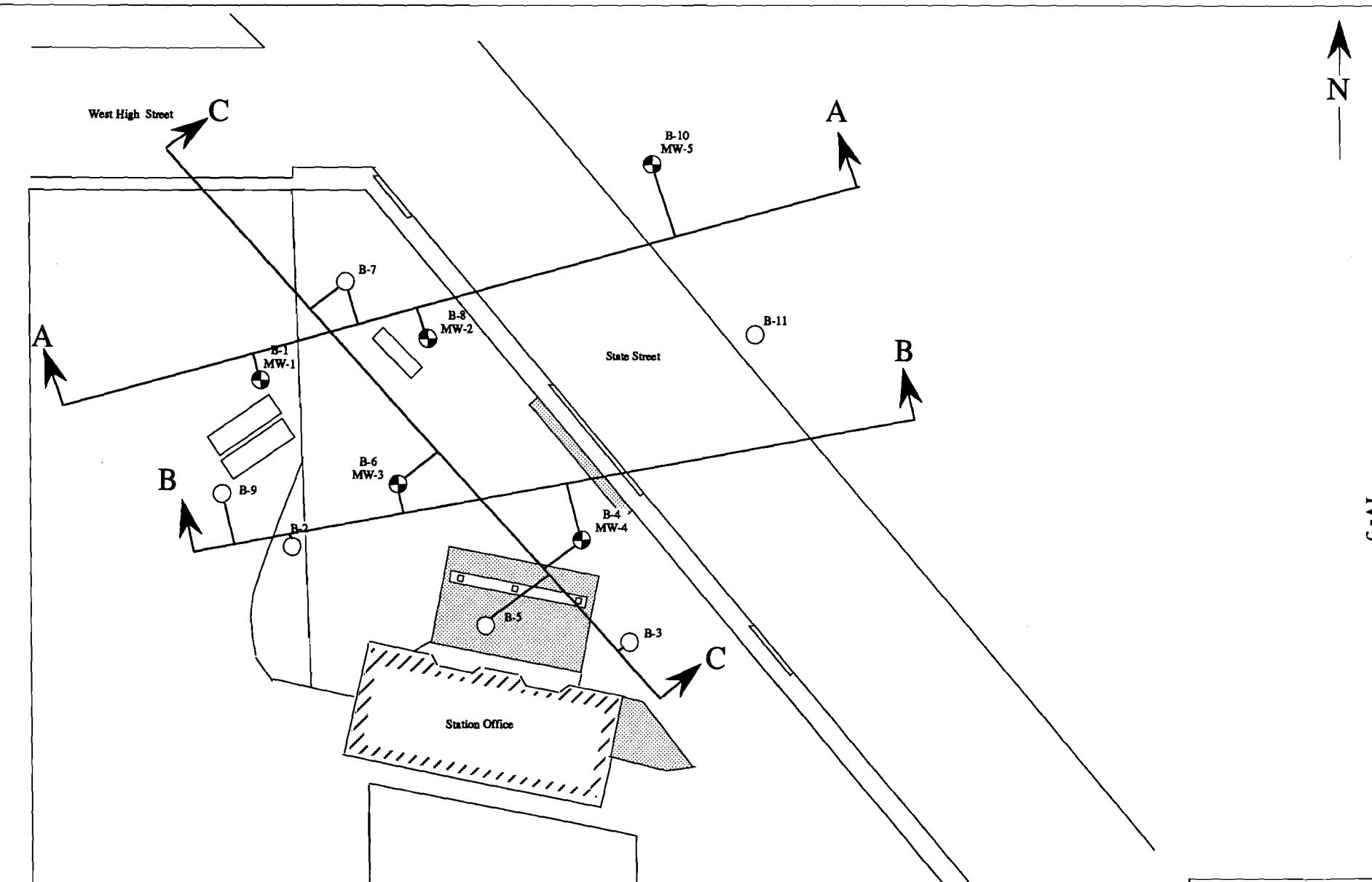
Note: Groundwater Elevations Measured on 2/9/93

Owner <b>MIKE'S U.S. STORES</b> 1975 State Street Racine, Wisconsin
--

Engineer  
**K. SINGH & ASSOCIATES, INC.**  
Engineers & Environmental Management Consultants  
1135 Legion Drive, Elm Grove, Wisconsin 53122, (414) 821-1171

Figure 7: Groundwater Elevation Contour map (Feet, MSL)

DATE March 9, 1993	DRAWN BY C.S.S.	REVISIONS BY	DATE 3/9/93	PROJECT NO. 2097
SCALE [Scale Bar]	CHECKED BY P.N.S.	C.S.S.	DATE 3/9/93	PROJECT NO. ONE
0      25      50'				



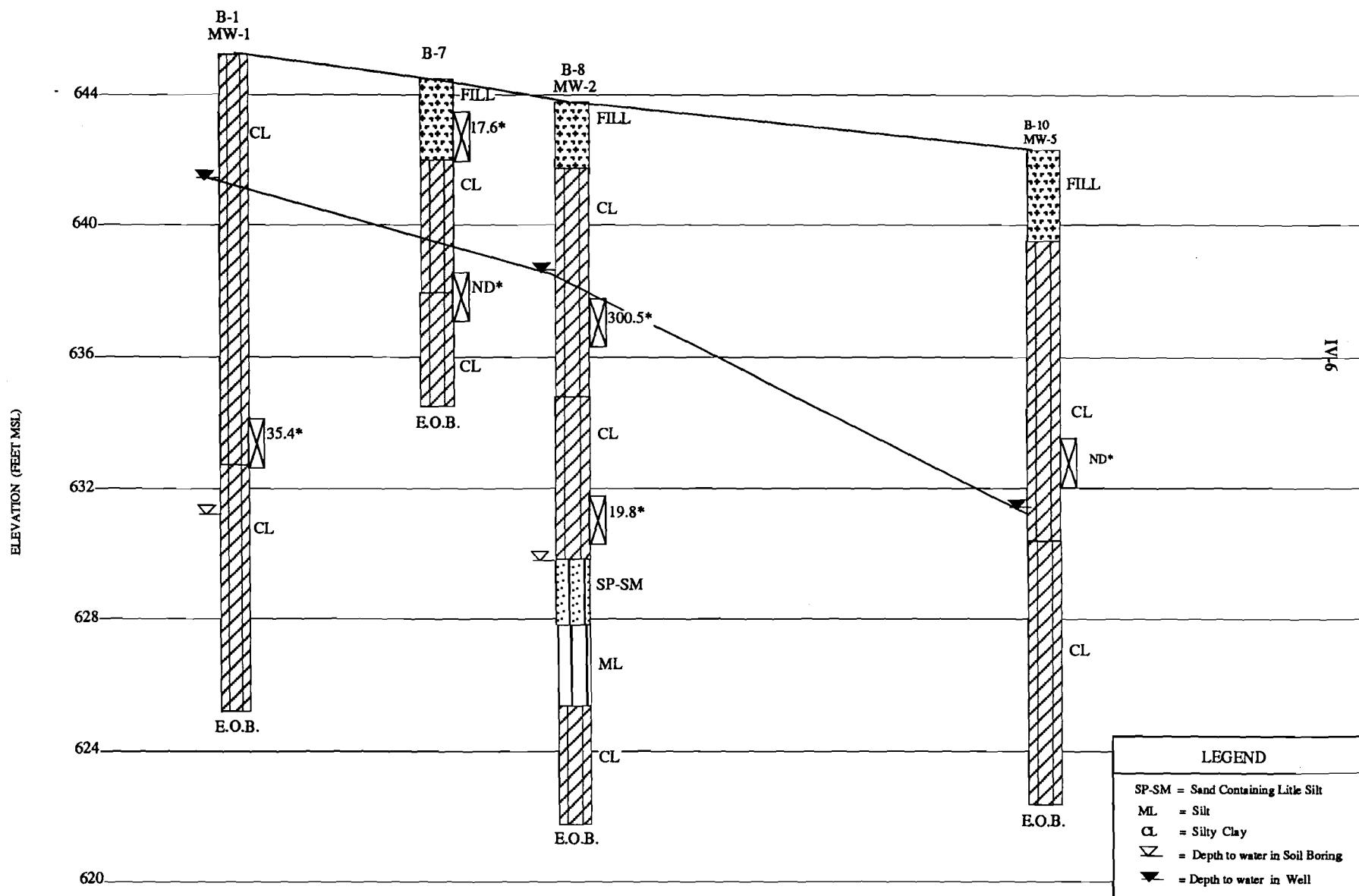
LEGEND					
○	Test Boring Location				
●	Monitoring Well Location				

<b>Owner</b> <b>MIKE'S U.S. STORES</b> 1975 State Street Racine, Wisconsin
---

**Engineer**  
**K. SINGH & ASSOCIATES, INC.**  
Engineers & Environmental Management Consultants  
1135 Legion Drive, Elm Grove, Wisconsin 53122, (414) 821-1171

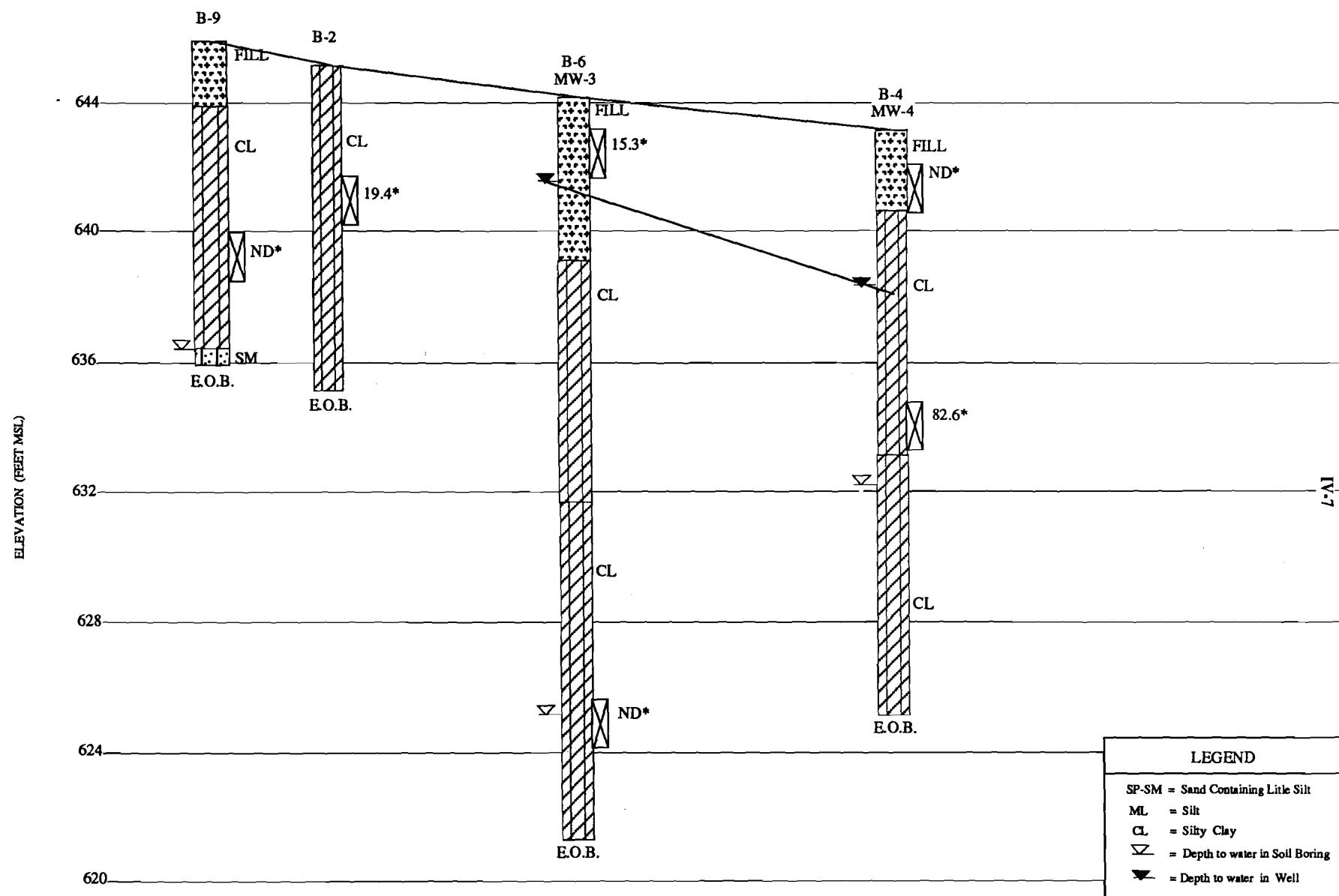
Figure 3: Map Showing Location of Geosections

DATE	DRAWN BY	REVISIONS BY	DATE	PROJECT NO.
January 11, 1993	C.S.S.			2097
SCALE	CHECKED BY	C.S.S.	1/11/93	SHEET NO.
0 25 50'	P.N.S.	C.S.S.	1/11/93	ONE



Note : Groundwater Elevations Measured on 2/9/93

OWNER	ENGINEER	FIGURE 4. Geologic Section "A-A"				
MIKE'S U.S. STORES 1975 State Street Racine, Wisconsin	K. SINGH & ASSOCIATES, INC., ENGINEERS & ENVIRONMENTAL MANAGEMENT CONSULTANTS 1135 LEGION DRIVE, ELM GROVE, WISCONSIN 53122, (414) 821-1171	March 9, 1993	DRAWN BY C.S.S.	REVISIONS BY	DATE	PROJECT NO.
	HORIZONTAL SCALE	12.5' 25'	CHECKED BY K.S..	V.L.S.	3/9/93	2097
				K.S.	3/9/93	SHEET NO. ONE



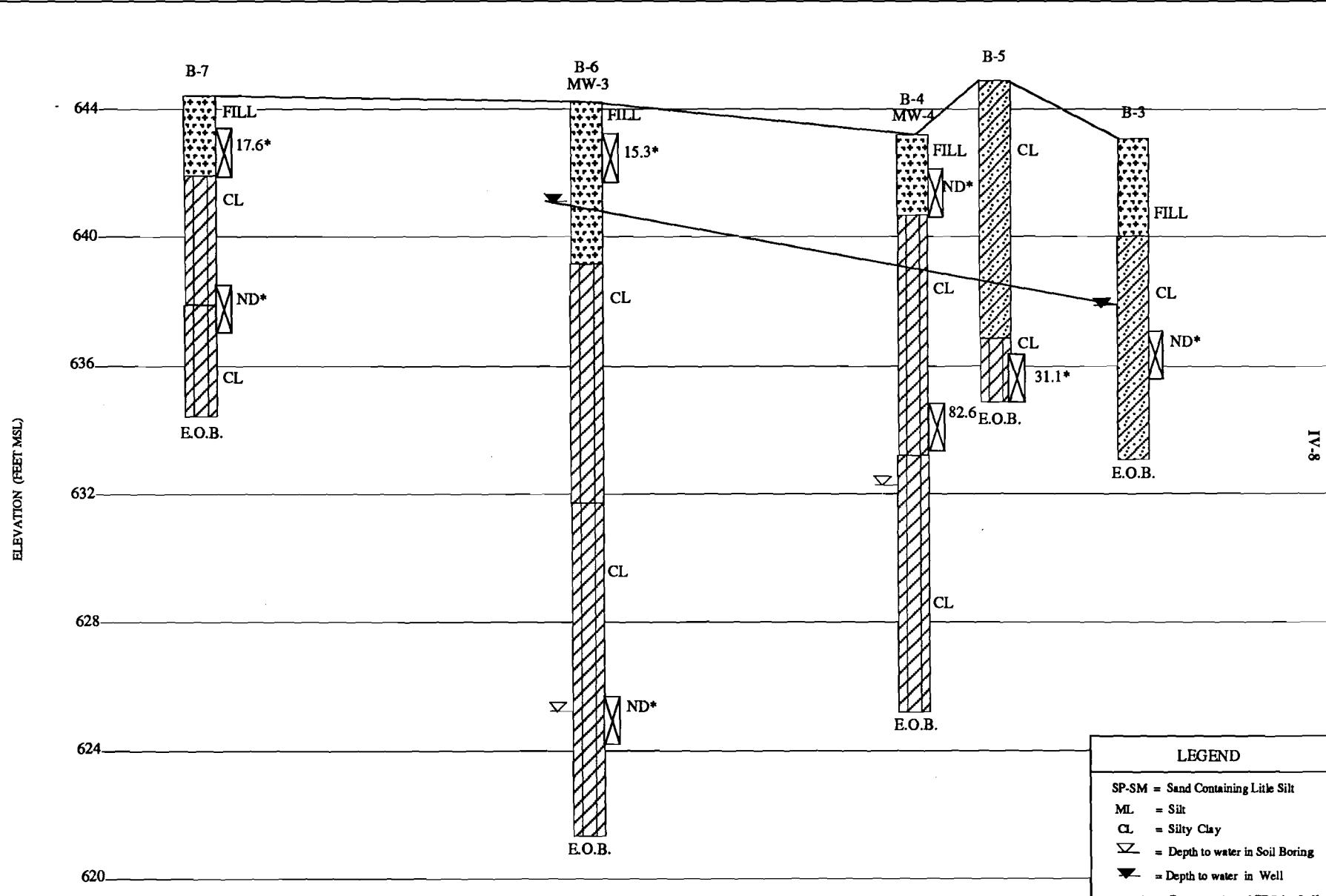
Note : Groundwater Elevations Measured on 2/9/93

OWNER MIKE'S U.S. STORES 1975 State Street Racine, Wisconsin
---

ENGINEER  
K. SINGH & ASSOCIATES, INC.,  
ENGINEERS & ENVIRONMENTAL MANAGEMENT CONSULTANTS  
1135 LEGION DRIVE, ELM GROVE, WISCONSIN 53122, (414) 821-1171

FIGURE 5. Geologic Section "B-B"

January 11, 1993	DRAWN BY C.S.S.	REVISIONS BY	DATE	PROJECT NO.
HORIZONTAL SCALE 1' 12.5' 25'	CHECKED BY V. L. S.	K. S.	1/11/93	2097
		K. S.	1/11/93	SHEET NO. ONE



Note : Groundwater Elevations Measured on 2/9/93

OWNER <b>MIKE'S U.S. STORES</b> 1975 State Street Racine, Wisconsin	ENGINEER <b>K. SINGH &amp; ASSOCIATES, INC.,</b> ENGINEERS & ENVIRONMENTAL MANAGEMENT CONSULTANTS 1135 LEGION DRIVE, ELM GROVE, WISCONSIN 53122, (414) 821-1171	FIGURE 6. Geologic Section " C-C "				
		March 9, 1993	DRAWN BY C.S.S.	REVISIONS BY	DATE 3/9/93	PROJECT NO. 2097
HORIZONTAL SCALE		CHECKED BY V. L. S.	K. S.	3/9/93	SHEET NO. ONE	
0' 12.5' 25'						



# K. SINGH & ASSOCIATES, INC.

*Engineers, Scientists and Environmental Management Consultants*

May 4, 2005

Ms. Roxanne Kaminski  
Engineering Department  
City of Racine  
730 Washington Avenue, Room 304  
Racine, WI 53403

**Project #2097**

**Subject: Notification of Residual Contamination within Right-of Way of State Street along  
Mike's U. S. Stores, 1975 State Street, Racine, WI  
(BRRTS #03-52-002262)**

Dear Ms. Kaminski:

The purpose of this letter is to notify City of Racine regarding potential residual petroleum contamination in soil within the right-of-way of State Street along Mike's U. S. Stores, 1975 State Street, Racine, WI.

Elevated benzene concentration was noted in soil samples N-13, N-3, N-9, and N-12 at a depth varying from 3 to 12 feet below ground surface from northeast wall of the area excavated during soil remediation (refer to Figure 1). Soil quality test results are included in Table 1. Elevated level of petroleum contamination in these soil samples indicates that there is a potential for residual contamination within right-of-way of State Street.

We notify the above details for your information and records. It is our understanding that the residual contamination will be remediated by natural attenuation. Please call us if you have any questions regarding this submittal.

Sincerely,

K. SINGH & ASSOCIATES, INC.

*Mukesh Kumar Jain*  
Mukesh K. Jain, Ph.D.  
Project Engineer

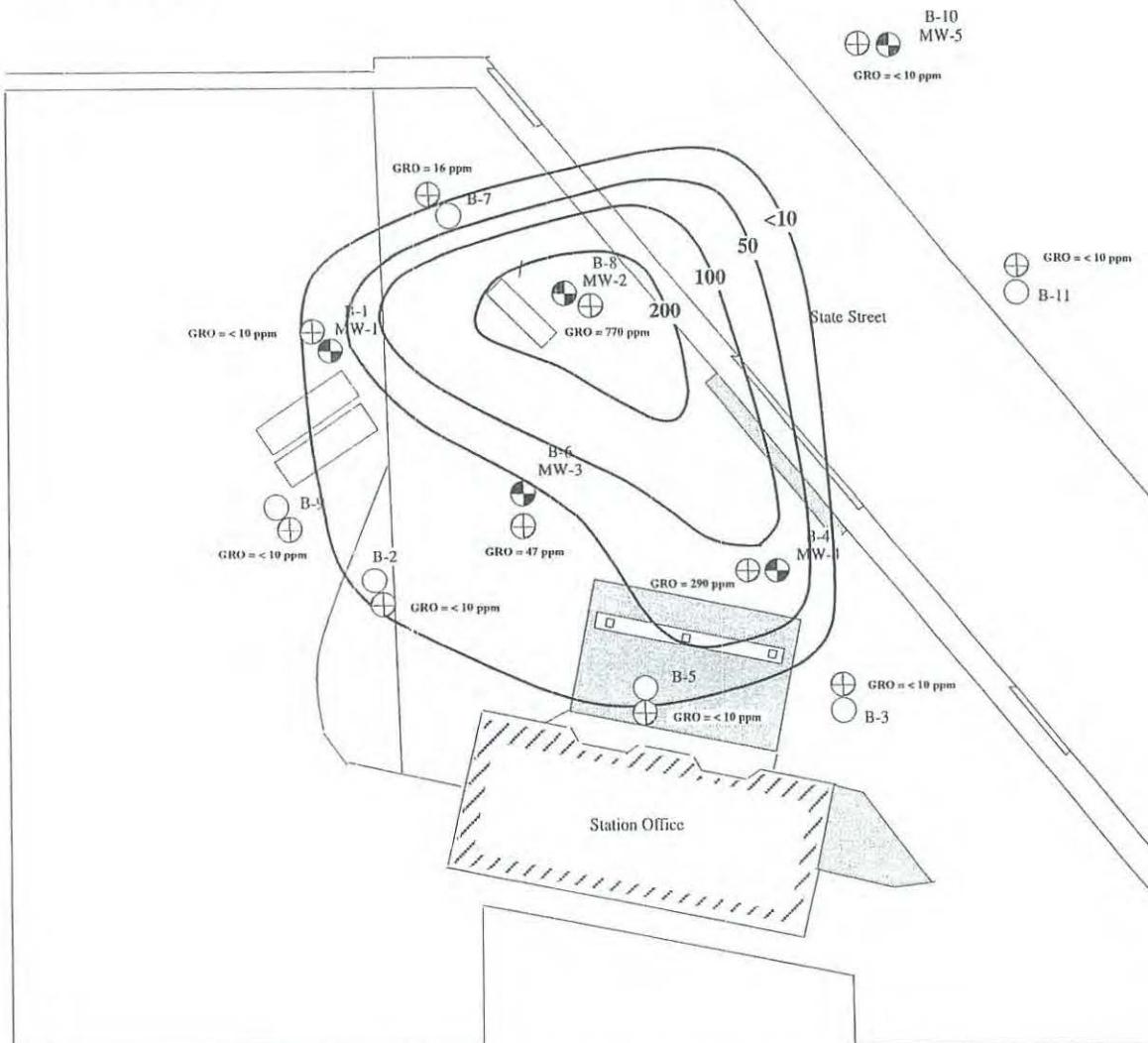
*Pratap N. Singh*  
Pratap N. Singh, Ph.D., P.E.  
Project Manager

cc: Mr. Satish Bhardwaj / Vishal Investments LLC, 1975 State Street, Racine, WI

N

I-5

West High Street



Note:

Confirmatory soil borings were performed on October 15, 1993.

GRO concentration written near soil borings indicate the concentration determined on October 15, 1993 sampling.

GRO Plume of Contamination is taken from the Remedial Investigation Report submitted in May 1993.

LEGEND		
	Confirmatory Soil Boring	
	Test Boring Location	
	Monitoring Well Location	

-10— GRO Concentration in Soil

Owner <b>MIKE'S U.S. STORES</b> 1975 State Street Racine, Wisconsin	Engineer <b>K. SINGH &amp; ASSOCIATES, INC.</b> Engineers & Environmental Management Consultants 1135 Legion Drive, Elm Grove, Wisconsin 53122, (414) 821-1171	Figure 3. GRO Plume of Contamination					
		DATE March 9, 1993	DRAWN BY C.S.S.	REVISIONS BY	DATE	PROJECT NO.	
		SCALE	CHECKED BY C.S.S.	3/9/93		2097	SHEET NO.
		0 25 50'	P.N.S.	C.S.S.	3/9/93	ONE	

<a href="#">Petroleum Programs Home</a>	<a href="#">Search Instructions</a>	<a href="#">Search by Tank ID</a>	<a href="#">Search by Site, Owner, or Tank Characteristics</a>
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## Tank List

Searching for:

Street address = 1975  
 County Code = 51

**Number of matching records: 6**

Type	ID	Facility ID	Address	Status	Contents	Size (gals)	Cust ID	Owner
<b>County: RACINE, FDID: 5101 - Racine, Municipality: CITY OF RACINE</b>								
1. UST	<a href="#">329913 111453</a>	1975 STATE ST		Closed/Removed	Empty	550	<a href="#">344888</a>	MIKE ERICKSON
2. UST	<a href="#">329914 111453</a>	1975 STATE ST		Closed/Removed	Waste/Used Motor Oil	550	<a href="#">344888</a>	MIKE ERICKSON
3. UST	<a href="#">329915 111453</a>	1975 STATE ST		Closed Filled With Inert Material	Sand/Gravel/Slurry	14000	<a href="#">344888</a>	MIKE ERICKSON
4. UST	<a href="#">329436 111432</a>	1975 STATE ST		In Use	Unleaded Gasoline	10000	<a href="#">377531</a>	VISHAL ROAD RUNNER EXPRESS
5. UST	<a href="#">329437 111432</a>	1975 STATE ST		In Use	Unleaded Gasoline	10000	<a href="#">377531</a>	VISHAL ROAD RUNNER EXPRESS
6. UST	<a href="#">329438 133658</a>	1975 STATE ST		Closed/Removed	Unleaded Gasoline	4000	<a href="#">344134</a>	MICHAEL ERICKSON

[Download](#)

[Close this response window](#)

# **Appendix B**

## **Phase 2.5 Soil Boring Logs and Borehole Abandonment Forms**

---

TRC Project No: 204154.0000.0000		Route To: Remediation/Redevelopment		Page 1 of 1												
Facility/Project Name STH 38 (aka Northwestern Ave.)		License/Permit/Monitoring Number		Boring Number GP - 1												
Boring Drilled By: Name of crew chief (first, Last) and Firm First Name: Dan Last Name: Bendorf Firm: Probe Technologies		Date Started 6/18/2013	Date Completed 6/18/2013	Drilling Method Direct Push												
WI Unique Well No.		Well Name	Final Static Water Level	Surface Elevation - Borehole Diameter 2"												
Local Grid Origin (Estimated: ) or Boring Location State Plane: SW 1/4 of NE 1/4 of Section 8, T 3 N, R 23		Lat o ' " W Long o ' " E	Local Grid Location N S Feet E W													
Facility ID		County Racine	County Code	Civil Town/City/ or Village Racine												
Sample Number	Length (In) Recovered	Blow Counts	Depth in Feet [Below Ground Surface]	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID Reading	Soil Properties				RQD/ Comments		
1	24		2	Concrete, gravel fill					0.3							
				Silt Till, subangular 0.25" diameter clasts, some clay <15%, no stains/odors, semi-cohesive, moist, yellowish brown												
2	24		4	Clayey Silt Till, subrounded 0.25" diameter clasts no stains/odors, semi-moist, cohesive, semi-plastic, grayish brown					0.7						Soils Sampled For Laboratory Analysis	
3	24		6						0.1							Soils Sampled For Laboratory Analysis
EOB @ 10' bgs																
Borehole abandoned on 6/18/13																
I hereby certify that the information on this form is true and correct to the best of my knowledge.																
Signature 		Firm TRC Environmental Corporation Brookfield, WI														

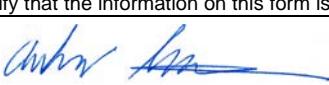
Created by: D. Heeter 7/3/13  
Checked by: B. Bergmann 7/5/13

TRC Project No: 204154.0000.0000		Route To: Remediation/Redevelopment		Page 1 of 1											
Facility/Project Name STH 38 (aka Northwestern Ave.)		License/Permit/Monitoring Number		Boring Number GP - 2											
Boring Drilled By: Name of crew chief (first, Last) and Firm First Name: Dan Last Name: Bendorf Firm: Probe Technologies		Date Started 6/18/2013	Date Completed 6/18/2013	Drilling Method Direct Push											
WI Unique Well No.		Well Name	Final Static Water Level	Surface Elevation -											
Local Grid Origin (Estimated: ) or Boring Location State Plane: SW 1/4 of NE 1/4 of Section 8, T 3 N, R 23		Lat o ' " W Long o ' " E	Local Grid Location N Feet S Feet E W												
Facility ID		County Racine	County Code	Civil Town/City/ or Village Racine											
Sample Number	Length (In) Recovered	Blow Counts	Depth in Feet [Below Ground Surface]	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID Reading	Soil Properties				RQD/ Comments	
1	20		2	Topsoil, organic material					0.1						
				Clayey Silt Till, semi-cohesive, semi-plastic, no stains/odors, subrounded 0.25" diameter clasts, stiff, dry, yellowish brown											
2	20		4						0.4						
3	24		6						0.6						
3	24		8						0.2						
3	24		10						0.3						
EOB @ 10' bgs															
Borehole abandoned on 6/18/13															
I hereby certify that the information on this form is true and correct to the best of my knowledge.															
Signature 		Firm TRC Environmental Corporation Brookfield, WI													

Created by: D. Heeter 7/3/13  
Checked by: B. Bergmann 7/5/13

TRC Project No:		204154.0000.0000	Route To:	Remediation/Redevelopment		Page	1	of 1						
Facility/Project Name STH 38 (aka Northwestern Ave.)			License/Permit/Monitoring Number			Boring Number GP - 3								
Boring Drilled By: Name of crew chief (first, Last) and Firm First Name: Dan Last Name: Bendorf Firm: Probe Technologies			Date Started 6/18/2013		Date Completed 6/18/2013		Drilling Method Direct Push							
WI Unique Well No.			Well Name	Final Static Water Level		Surface Elevation	Borehole Diameter 2"							
Local Grid Origin (Estimated: ) or Boring Location State Plane: SW 1/4 of NE 1/4 of Section 8, T 3 N, R 23			W Lat _____ N, _____ o _____ ' _____ " E Long _____ o _____ ' _____ " S	Local Grid Location N _____ Feet S _____ Feet W										
Facility ID		County Racine		County Code		Civil Town/City/ or Village Racine								
Sample Number	Length (in) Recovered	Blow Counts	Depth in Feet [Below Ground Surface]	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID Reading	Soil Properties				RQD/ Comments
1	24		2	Concrete, gravel fill					0.7					
				Clayey Silt Till, hard, no stains/odors, subrounded clasts up to 0.5" diameter, cohesive, dry, yellowish brown										
2	24		4	no staining or odors					0.9					
3	24		6	wet ~8' or 9' bgs					17.6					
EOB @ 10' bgs														
Temporary well installed, screened from 5'-10' bgs														
Groundwater was sampled for laboratory analysis on 6/25/13 and the temporary well and borehole were abandoned on 6/25/13														
I hereby certify that the information on this form is true and correct to the best of my knowledge.														
Signature 				Firm TRC Environmental Corporation Brookfield, WI										

Created by: D. Heeter 7/3/13  
Checked by: B. Bergmann 7/5/13

TRC Project No: 204154.0000.0000		Route To: Remediation/Redevelopment		Page 1 of 1											
Facility/Project Name STH 38 (aka Northwestern Ave.)		License/Permit/Monitoring Number		Boring Number GP - 4											
Boring Drilled By: Name of crew chief (first, Last) and Firm First Name: Dan Last Name: Bendorf Firm: Probe Technologies		Date Started 6/25/2013	Date Completed 6/25/2013	Drilling Method Direct Push											
WI Unique Well No.		Well Name	Final Static Water Level	Surface Elevation -											
Local Grid Origin (Estimated: ) or Boring Location State Plane: SE 1/4 of NW 1/4 of Section 8, T 3 N, R 23		Lat o ' " W Long o ' " E	Local Grid Location N Feet S Feet E W												
Facility ID		County Racine	County Code	Civil Town/City/ or Village Racine											
Sample Number	Length (In) Recovered	Blow Counts	Depth in Feet [Below Ground Surface]	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID Reading	Soil Properties				RQD/ Comments	
1	20		2	Topsoil					0.0						
				Sandy Clayey Silt, some gravel (<10% by volume), no stains/odors, cohesive, firm, dry, yellowish brown											
2	20		4						0.2						
3	24		6						0.7						
3	24		8						0.1						
3	24		10						0.1						
EOB @ 10' bgs															
Temporary well installed, screened 5'-10' bgs															
Temporary well installed and screened from 5'-10', but no water was sampled, temporary well and borehole were abandoned on 6/25/13															
I hereby certify that the information on this form is true and correct to the best of my knowledge.															
Signature 		Firm TRC Environmental Corporation Brookfield, WI													

Created by: D. Heeter 7/3/13  
Checked by: B. Bergmann 7/5/13

TRC Project No:	204154.0000.0000	Route To:	Remediation/Redevelopment	Page	1 of 1											
Facility/Project Name STH 38 (aka Northwestern Ave.)		License/Permit/Monitoring Number		Boring Number GP - 5												
Boring Drilled By: Name of crew chief (first, Last) and Firm First Name: Dan Last Name: Bendorf Firm: Probe Technologies		Date Started 6/25/2013		Date Completed 6/25/2013												
WI Unique Well No.		Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter 2"											
Local Grid Origin (Estimated: ) or Boring Location State Plane: _____ N, _____ W Lat _____ o _____ ' _____ " _____ E SE 1/4 of NW 1/4 of Section 8, T 3 N, R 23 Long _____ o _____ ' _____ " _____ S Feet _____ N Feet _____ W																
Facility ID		County	County Code	Civil Town/City/ or Village Racine												
Sample Number	Length (In) Recovered	Blow Counts	Depth in Feet [Below Ground Surface]	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID Reading	Soil Properties				RQD/ Comments		
1	20		2	Topsoil					0.0							
				Clayey Sandy Silt, some gravel (<10% by volume), no stains/odors, cohesive, firm, dry, yellowish brown												
2	20		4						0.1							
3	24		6						0.0							
				Clayey Silt Till, subrounded 0.25" diameter clasts, stiff, cohesive, semi-plastic, no stains/odors, rust-colored mottling, yellowish brown												
EOB @ 10' bgs																
Borehole abandoned on 6/25/13																
I hereby certify that the information on this form is true and correct to the best of my knowledge.																
Signature 				Firm TRC Environmental Corporation Brookfield, WI												

Created by: D. Heeter 7/3/13  
Checked by: B. Bergmann 7/5/13

TRC Project No: 204154.0000.0000		Route To: Remediation/Redevelopment		Page 1 of 1											
Facility/Project Name STH 38 (aka Northwestern Ave.)		License/Permit/Monitoring Number		Boring Number GP - 6											
Boring Drilled By: Name of crew chief (first, Last) and Firm First Name: Dan Last Name: Bendorf Firm: Probe Technologies		Date Started 6/25/2013	Date Completed 6/25/2013	Drilling Method Direct Push											
WI Unique Well No.		Well Name	Final Static Water Level	Surface Elevation -											
Local Grid Origin (Estimated: ) or Boring Location State Plane: SE 1/4 of NW 1/4 of Section 8, T 3 N, R 23		Lat o ' " W Long o ' " E	Local Grid Location N Feet S Feet E W												
Facility ID		County Racine	County Code	Civil Town/City/ or Village Racine											
Sample Number	Length (In) Recovered	Blow Counts	Depth in Feet [Below Ground Surface]	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID Reading	Soil Properties				RQD/ Comments	
1	20		2	Topsoil					0.0						
				Clayey Sandy Silt, some gravel fragments (<10% by volume), no stains/odors, semi-moist, cohesive, firm, yellowish brown, silt increasing with depth											
2	20		4						0.3						
3	24		6						0.2						
3	24		8						0.0						
3	24		10						0.0						
EOB @ 10' bgs															
Borehole abandoned on 6/25/13															
I hereby certify that the information on this form is true and correct to the best of my knowledge.															
Signature 		Firm TRC Environmental Corporation Brookfield, WI													

Created by: D. Heeter 7/3/13  
Checked by: B. Bergmann 7/5/13

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Route to:

Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other:

**1. General Information**

WI Unique Well No.	DNR Well ID No.	County	RACINE				
Common Well Name		Gov't Lot # (if applicable)					
1/4 1/4 SW	1/4 NE	Section	Township	Range	E W	Street Address of Well	
Well Location		(Local Grid <input type="checkbox"/>	Datum			1732 STATE ST.	
		N / S	E / W		Zone	City Village or Town	
WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude- <input type="checkbox"/>		State Plane- <input type="checkbox"/>		S C N	Present Well Owner	Original Well Owner	
Local Grid Origin		(ft. / M)		Datum	Street Address or Route of Present Owner		
					City	State ZIP Code	
Reason For Abandonment		WI Unique Well No. of Replacement Well		4. Pump, Liner, Screen, Casing & Sealing Material			
<i>Soil Boring</i>		— — — —		Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Monitoring Well		Original Construction Date		Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well		6-18-13		Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Borehole / Drillhole		If a Well Construction Report is available, please attach.		Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Construction Type:		<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Other (specify): <i>Direct Push</i>				Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Formation Type:		<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Total Well Depth From Groundsurface (ft.)		Casing Diameter (in.)		If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
10		2.25		If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Lower Drillhole Diameter (in.)		Casing Depth (ft.)		Required Method of Placing Sealing Material			
				<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped		
				<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____		
Was well annular space grouted?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)		
If yes, to what depth (feet)?		Depth to Water (feet)		<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry "		
				<input type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Bentonite Chips		
For Monitoring Wells and Monitoring Well Boreholes Only:							
<input type="checkbox"/> Bentonite Chips		<input type="checkbox"/> Bentonite - Cement Grout					
<input type="checkbox"/> Granular Bentonite		<input type="checkbox"/> Bentonite - Sand Slurry					

**5. Material Used To Fill Well / Drillhole**

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (Circle one)	Mix Ratio or Mud Weight
Surface	10	15	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Sealing Work	Date of Abandonment	Date Received	Noted By
<i>PROSE TECHNOLOGIES, INC.</i>	6/18/13		
Street or Route	Telephone Number	Comments	
<i>11225 SOUTH 66TH DR.</i>	(262) 495-2319		
City	State	ZIP Code	Signature of Person Doing Work
<i>PALMYRA</i>	<i>WI</i>	<i>53156</i>	<i>June S. My</i>
			Date Signed
			<i>7/16/13</i>

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Route to:

Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other:

**1. General Information**

WI Unique Well No.	DNR Well ID No.	County	2. Facility / Owner Information				
		RACINE					
Common Well Name		Gov't Lot # (if applicable)		Facility Name		WIS DOT - PHASE 2.5 57+38	
GP-2							
1/4 1/4 SW	1/4 NE	Section 8	Township 3	Range N 23	E <input checked="" type="checkbox"/>	Street Address of Well 1732 STATE ST.	
Well Location ft. / M	(Local Grid <input type="checkbox"/> )	Datum			City/Village or Town RACINE		
N / S		E / W	Zone			Present Well Owner	
WTM- <input type="checkbox"/>	UTM- <input type="checkbox"/>	Latitude/Longitude- <input type="checkbox"/>	State Plane- <input type="checkbox"/>	S C N	Original Well Owner		
Local Grid Origin ft. / M		Datum			Street Address or Route of Present Owner		
N.		E / W	Zone			City	
WTM- <input type="checkbox"/>	UTM- <input type="checkbox"/>	Latitude/Longitude- <input type="checkbox"/>	State Plane- <input type="checkbox"/>	S C N	State ZIP Code		
Reason For Abandonment Soil Boiling		WI Unique Well No. of Replacement Well					

**3. Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole	Original Construction Date 6-18-13	
	If a Well Construction Report is available, please attach.	
	Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): DIRECT PUSH	

Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Total Well Depth From Groundsurface (ft.) 10	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Lower Drillhole Diameter (in.)	Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If yes, to what depth (feet)?	Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
	Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
	If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Required Method of Placing Sealing Material
<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____

Sealing Materials	
<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)	
<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry "	
<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips	
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout	
<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used To Fill Well / Drillhole BENTONITE CHIPS	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (Circle one)	Mix Ratio or Mud Weight
	Surface	10	1/2	

**6. Comments**

7. Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Sealing Work PROSE TECHNOLOGIES, INC.	Date of Abandonment 6/18/13	Date Received	Noted By		
Street or Route W1225 SOUTH 6th DR.	Telephone Number (262) 495-2319	Comments			
City PALMYRA	State WI	ZIP Code 53156	Signature of Person Doing Work Drew Zull	Date Signed 7/16/13	

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**Verification Only of Fill and Seal**

**Route to:**

- Drinking Water  
 Watershed/Wastewater  
 Waste Management  
 Other:

**1. Well Location Information**

County **Racine** WI Unique Well # of Removed Well **G P - 3**

Hicap #

Latitude / Longitude (Degrees and Minutes) Method Code (see instructions)  
\_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. N  
\_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. \_\_\_\_\_. W

**1/4 SW 1/4 NE** Section **8** Township **3 N** Range **E**  
or Gov't Lot # **23**  W

Well Street Address

Well City, Village or Town

Well ZIP Code

Subdivision Name

Lot #

Reason For Removal From Service

**Soil Boring**

WI Unique Well # of Replacement Well

**3. Well / Drillhole / Borehole Information**

- Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
**06 / 18 / 2013**

If a Well Construction Report is available, please attach.

Construction Type:

- Drilled  Driven (Sandpoint)  Dug  
 Other (specify): **Direct Push**

Formation Type:

- Unconsolidated Formation  Bedrock

Total Well Depth From Ground Surface (ft.) **10** Casing Diameter (in.) **2.25**

Lower Drillhole Diameter (in.) Casing Depth (ft.)

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? Depth to Water (feet)

**5. Material Used To Fill Well / Drillhole**

**Bentonite Chips**

**2. Facility / Owner Information**

Facility Name

**WisDOT - Phase 2 S 5TH 38**

Facility ID (FID or PWS)

License/Permit/Monitoring #

Original Well Owner

Present Well Owner

Mailing Address of Present Owner

City of Present Owner

State

ZIP Code

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?  Yes  No  N/A

Liner(s) removed?  Yes  No  N/A

Screen removed?  Yes  No  N/A

Casing left in place?  Yes  No  N/A

Was casing cut off below surface?  Yes  No  N/A

Did sealing material rise to surface?  Yes  No  N/A

Did material settle after 24 hours?  Yes  No  N/A

If yes, was hole retopped?

If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material

- Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): \_\_\_\_\_

Sealing Materials

- Neat Cement Grout  Clay-Sand Slurry (11 lb./gal. wt.)  
 Sand-Cement (Concrete) Grout  Bentonite-Sand Slurry " "  
 Concrete  Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

- Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	10	52	

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	10	52	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)	Date Received	Noted By
<b>TRC Environmental Corp.</b>		<b>06 / 25 / 2013</b>		

Street or Route	Telephone Number	Comments
<b>150 N. Patrick Blvd., Suite 180</b>	<b>(262) 879-1212</b>	

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
<b>Brookfield</b>	<b>WI</b>	<b>53045</b>	<b><i>[Signature]</i></b>	

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**Route to:**

Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other: \_\_\_\_\_

**1. General Information**

WI Unique Well No.	DNR Well ID No.	County	RACINE		
Common Well Name		Gov't Lot # (if applicable)			Facility Name
1/4 1/4 SE	1/4 NW	Section 8	Township 3	Range N 23	E
Well Location ft. / M (Local Grid <input type="checkbox"/> )			Datum		
N / S			E / W		
Zone					
WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude- <input type="checkbox"/> State Plane- <input type="checkbox"/> S C N					
Local Grid Origin ft. / M		Datum			
N, _____		E / W			
Zone					
WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude- <input type="checkbox"/> State Plane- <input type="checkbox"/> S C N					
Reason For Abandonment		WI Unique Well No. of Replacement Well			
Soil Boiling		_____			

**3. Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date		
<input type="checkbox"/> Water Well	6-25-13		
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.		
Construction Type:			
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug	
<input checked="" type="checkbox"/> Other (specify): Direct Push			

Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Groundsurface (ft.)	Casing Diameter (in.)
10	2.25
Lower Drillhole Diameter (in.)	Casing Depth (ft.)
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet)

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Required Method of Placing Sealing Material

<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____

Sealing Materials

<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry " "
<input type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

<input type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**

BENTONITE CHIPS	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
	Surface	10	'6	

**6. Comments**

<b>7. Supervision of Work</b>			<b>DNR Use Only</b>	
Name of Person or Firm Doing Sealing Work	Date of Abandonment	Date Received	Noted By	
PROBE TECHNOLOGIES, INC.	6/25/13			
Street or Route	Telephone Number	Comments		
W1225 SOUTH STORE DR.	(262) 495-2319			
City	State	ZIP Code	Signature of Person Doing Work	Date Signed
PALMERYA	WI	53156	<i>John Zell</i>	7/16/13

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Route to:

Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other: \_\_\_\_\_

**1. General Information**

WI Unique Well No.	DNR Well ID No.	County	RACINE			
Common Well Name		Gov't Lot # (if applicable)				
<i>GP-5</i>						
1/4 1/4 <i>SE</i>	1/4 <i>NW</i>	Section <i>8</i>	Township <i>3</i>	Range <i>N 23</i>	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	Street Address of Well <i>NORTHWESTERN AVE + W. HIGH ST.</i>
Well Location <i>ft. / M</i>	(Local Grid <input type="checkbox"/>	Datum			City/Village or Town <i>RACINE</i>	
<i>N / S</i>		<i>E / W</i>			Present Well Owner	Original Well Owner
WTM- <input type="checkbox"/>	UTM- <input type="checkbox"/>	Latitude/Longitude- <input type="checkbox"/>	State Plane- <input type="checkbox"/>	<input type="checkbox"/> S <input type="checkbox"/> C <input type="checkbox"/> N	Street Address or Route of Present Owner	
Local Grid Origin <i>ft. / M</i>	Datum			City		State
<i>N.</i>		<i>E / W</i>			ZIP Code	
WTM- <input type="checkbox"/>	UTM- <input type="checkbox"/>	Latitude/Longitude- <input type="checkbox"/>	State Plane- <input type="checkbox"/>	<input type="checkbox"/> S <input type="checkbox"/> C <input type="checkbox"/> N		
Reason For Abandonment <i>SOL BORING</i>	WI Unique Well No. of Replacement Well					

**3. Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date <i>6-18-13</i>		
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.		
<input checked="" type="checkbox"/> Borehole / Drillhole			
Construction Type:	<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug
<input checked="" type="checkbox"/> Other (specify):	<i>Direct Push</i>		
Formation Type:	<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock	
Total Well Depth From Groundsurface (ft.)	Casing Diameter (in.) <i>10</i> <i>2.25</i>		
Lower Drillhole Diameter (in.)	Casing Depth (ft.)		
Was well annular space grouted?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
If yes, to what depth (feet)?	Depth to Water (feet)		

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry "
<input type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**

BENTONITE CHIPS	From (ft.)	To (ft.)	No. Yards, Pails Sealant or Volume (Circle one)	Mix Ratio or Mud Weight
	Surface	<i>10</i>	<i>15</i>	

**6. Comments**

<b>7. Supervision of Work</b>			<b>DNR Use Only</b>	
Name of Person or Firm Doing Sealing Work <i>PROSE TECHNOLOGIES, INC.</i>	Date of Abandonment <i>6/18/13</i>	Date Received	Noted By	
Street or Route <i>11225 SOUTH 66TH DR.</i>	Telephone Number <i>(262) 495-2319</i>	Comments		
City <i>PALMYRA</i>	State <i>WI</i>	ZIP Code <i>53156</i>	Signature of Person Doing Work <i>John Smith</i>	Date Signed <i>7/16/13</i>

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, 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. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:

Drinking Water  Watershed/Wastewater  Waste Management  Remediation/Redevelopment  Other: \_\_\_\_\_

**1. General Information**

WI Unique Well No.	DNR Well ID No.	County	RACINE			
Common Well Name GP-6		Gov't Lot # (if applicable)				
1/4 NW	1/4 SE	Section	Township	Range	E	W
Well Location ft. / M		(Local Grid <input type="checkbox"/> )	Datum N / S E / W			
WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude- <input type="checkbox"/>		State Plane- <input type="checkbox"/> G C N				
Local Grid Origin ft. / M		Datum N, E / W Zone				
WTM- <input type="checkbox"/> UTM- <input type="checkbox"/> Latitude/Longitude- <input type="checkbox"/>		State Plane- <input type="checkbox"/> S C N				
Reason For Abandonment Soil Booring		WI Unique Well No. of Replacement Well				

**3. Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole	Original Construction Date 6-18-13
	If a Well Construction Report is available, please attach.

Construction Type:

Drilled  Driven (Sandpoint)  Dug  
 Other (specify): Direct Push

Formation Type:

Unconsolidated Formation  Bedrock

Total Well Depth From Groundsurface (ft.)  
10

Required Method of Placing Sealing Material

Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): \_\_\_\_\_

Lower Drillhole Diameter (in.)  
Casing Diameter (in.)  
2.25

Sealing Materials

Neat Cement Grout  Clay-Sand Slurry (11 lb./gal. wt.)  
 Sand-Cement (Concrete) Grout  Bentonite-Sand Slurry " "  
 Concrete  Bentonite Chips

Was well annular space grouted?  Yes  No  Unknown

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**

BENTONITE CHIPS	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (Circle one)	Mix Ratio or Mud Weight
	Surface	10	16	

**6. Comments**

<b>7. Supervision of Work</b>		<b>DNR Use Only</b>	
Name of Person or Firm Doing Sealing Work PROBE TECHNOLOGIES, INC.	Date of Abandonment 6-18-13	Date Received	Noted By
Street or Route 11225 SOUTH 66TH DR.	Telephone Number (262) 495-2319	Comments	

City PAC-MYR21	State WI	ZIP Code 53156	Signature of Person Doing Work John Schell	Date Signed 7/16/13
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# Appendix C

## Photographs

## Photographic Log

Client Name:		Site Location:	Project No.:	
Wisconsin Department of Transportation (WisDOT)		STH 38 (aka Northwestern Avenue), Golf Avenue to Memorial Drive Racine, WI	WisDOT: 2290-17-00 TRC: 204154.0000.0000	
Photo No.	Date			
1	6/18/13			
<b>Description</b>				
Looking north at the location of GP-1.				

Photo No.	Date	
2	6/18/13	
<b>Description</b>		
Looking northeast at the location of GP-2.		

## Photographic Log

Client Name:		Site Location:	Project No.:	
Wisconsin Department of Transportation (WisDOT)		STH 38 (aka Northwestern Avenue), Golf Avenue to Memorial Drive Racine, WI	WisDOT: 2290-17-00 TRC: 204154.0000.0000	
Photo No.	Date			
3	6/18/13			
<b>Description</b> Looking northeast at the location of GP-3.				

Photo No.	Date	
4	6/25/13	
<b>Description</b> Looking southwest at the location of GP-4.		

## Photographic Log

Client Name:		Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)		STH 38 (aka Northwestern Avenue), Golf Avenue to Memorial Drive Racine, WI	WisDOT: 2290-17-00 TRC: 204154.0000.0000
Photo No.	Date		
5	6/25/13		
<b>Description</b> Looking south at the location of GP-5.			
Photo No.	Date		
6	6/25/13		
<b>Description</b> Looking south at the location of GP-6.			

# **Appendix D**

## **Laboratory Analytical Report**

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July 09, 2013

Ken Yass  
TRC - Madison  
150 North Patrick Blvd.  
Suite 180  
Brookfield, WI 53045

RE: Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Dear Ken Yass:

Enclosed are the analytical results for sample(s) received by the laboratory on June 27, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tod Noltemeyer

tod.noltemeyer@pacelabs.com  
Project Manager

Enclosures

cc: Bryan Bergmann, TRC Brookfield  
Drew Heeter, TRC Brookfield



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302  
Florida/NELAP Certification #: E87948  
Illinois Certification #: 200050  
Kentucky Certification #: 82  
Louisiana Certification #: 04168  
Minnesota Certification #: 055-999-334

New York Certification #: 11888  
North Dakota Certification #: R-150  
South Carolina Certification #: 83006001  
US Dept of Agriculture #: S-76505  
Wisconsin Certification #: 405132750

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4080283001	TRIP BLANK	Water	06/25/13 00:00	06/27/13 10:00
4080283002	GP-1 (2-4)	Solid	06/18/13 00:00	06/27/13 10:00
4080283003	GP-1 (4-6)	Solid	06/18/13 00:00	06/27/13 10:00
4080283004	GP-2 (2-4)	Solid	06/18/13 00:00	06/27/13 10:00
4080283005	GP-2 (4-6)	Solid	06/18/13 00:00	06/27/13 10:00
4080283006	GP-3 (4-6)	Solid	06/18/13 00:00	06/27/13 10:00
4080283007	GP-3 (8-10)	Solid	06/18/13 00:00	06/27/13 10:00
4080283008	GP-4 (2-4)	Solid	06/25/13 00:00	06/27/13 10:00
4080283009	GP-4 (4-6)	Solid	06/25/13 00:00	06/27/13 10:00
4080283010	GP-5 (2-4)	Solid	06/25/13 00:00	06/27/13 10:00
4080283011	GP-5 (6-8)	Solid	06/25/13 00:00	06/27/13 10:00
4080283012	GP-6 (2-4)	Solid	06/25/13 00:00	06/27/13 10:00
4080283013	GP-6 (4-6)	Solid	06/25/13 00:00	06/27/13 10:00
4080283014	GP-3	Water	06/25/13 00:00	06/27/13 10:00

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4080283001	TRIP BLANK	EPA 8260	LAP	64	PASI-G
4080283002	GP-1 (2-4)	EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283003	GP-1 (4-6)	EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283004	GP-2 (2-4)	EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283005	GP-2 (4-6)	EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283006	GP-3 (4-6)	EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283007	GP-3 (8-10)	EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283008	GP-4 (2-4)	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	11	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283009	GP-4 (4-6)	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	11	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283010	GP-5 (2-4)	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	11	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283011	GP-5 (6-8)	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	11	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283012	GP-6 (2-4)	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	11	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BLF	1	PASI-G
4080283013	GP-6 (4-6)	WI MOD DRO	CAC	1	PASI-G
		WI MOD GRO	LCF	11	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BLF	1	PASI-G

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4080283014	GP-3	EPA 6010	DLB	7	PASI-G
		EPA 7470	CMS	1	PASI-G
		EPA 8260	LAP	64	PASI-G

## REPORT OF LABORATORY ANALYSIS

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**HITS ONLY**

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>4080283002</b>	<b>GP-1 (2-4)</b>					
ASTM D2974-87	Percent Moisture	16.4 %		0.10	07/01/13 17:03	
<b>4080283003</b>	<b>GP-1 (4-6)</b>					
ASTM D2974-87	Percent Moisture	13.7 %		0.10	07/01/13 17:04	
<b>4080283004</b>	<b>GP-2 (2-4)</b>					
ASTM D2974-87	Percent Moisture	17.7 %		0.10	07/01/13 17:04	
<b>4080283005</b>	<b>GP-2 (4-6)</b>					
ASTM D2974-87	Percent Moisture	13.3 %		0.10	07/01/13 17:04	
<b>4080283006</b>	<b>GP-3 (4-6)</b>					
ASTM D2974-87	Percent Moisture	12.9 %		0.10	07/01/13 17:04	
<b>4080283007</b>	<b>GP-3 (8-10)</b>					
EPA 8260	Benzene	234 ug/kg		68.8	06/28/13 16:36	
ASTM D2974-87	Percent Moisture	12.8 %		0.10	07/01/13 17:04	
<b>4080283008</b>	<b>GP-4 (2-4)</b>					
WI MOD DRO	Diesel Range Organics	0.95J mg/kg		2.2	07/01/13 10:41	
EPA 6010	Lead	12.6 mg/kg		1.1	06/28/13 17:52	
ASTM D2974-87	Percent Moisture	17.0 %		0.10	07/01/13 17:04	
<b>4080283009</b>	<b>GP-4 (4-6)</b>					
EPA 6010	Lead	15.5 mg/kg		1.0	06/28/13 17:58	
ASTM D2974-87	Percent Moisture	17.2 %		0.10	07/01/13 17:04	
<b>4080283010</b>	<b>GP-5 (2-4)</b>					
WI MOD DRO	Diesel Range Organics	3.4 mg/kg		2.3	07/01/13 10:53	
EPA 6010	Lead	12.8 mg/kg		1.0	06/28/13 18:01	
ASTM D2974-87	Percent Moisture	12.9 %		0.10	07/01/13 17:04	
<b>4080283011</b>	<b>GP-5 (6-8)</b>					
WI MOD DRO	Diesel Range Organics	1.6J mg/kg		2.1	07/02/13 15:51	L2
EPA 6010	Lead	13.9 mg/kg		1.1	06/28/13 18:03	
ASTM D2974-87	Percent Moisture	12.2 %		0.10	07/01/13 17:04	
<b>4080283012</b>	<b>GP-6 (2-4)</b>					
EPA 6010	Lead	7.7 mg/kg		1.0	06/28/13 18:05	
ASTM D2974-87	Percent Moisture	13.1 %		0.10	07/01/13 17:04	
<b>4080283013</b>	<b>GP-6 (4-6)</b>					
EPA 6010	Lead	5.9 mg/kg		1.1	06/28/13 18:08	
ASTM D2974-87	Percent Moisture	15.0 %		0.10	07/01/13 17:04	
<b>4080283014</b>	<b>GP-3</b>					
EPA 6010	Barium, Dissolved	98.0 ug/L		5.0	07/02/13 14:08	
EPA 6010	Chromium, Dissolved	4.4J ug/L		5.0	07/02/13 14:08	
EPA 6010	Lead, Dissolved	1.5J ug/L		7.5	07/02/13 14:08	
EPA 8260	Benzene	4.7 ug/L		1.0	06/29/13 15:23	
EPA 8260	p-Isopropyltoluene	0.41J ug/L		1.0	06/29/13 15:23	

**REPORT OF LABORATORY ANALYSIS**

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** WI MOD DRO

**Description:** WIDRO GCS

**Client:** TRC - MILWAUKEE

**Date:** July 09, 2013

### General Information:

6 samples were analyzed for WI MOD DRO. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/18830

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 816378)
- Diesel Range Organics

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** WI MOD GRO

**Description:** WIGRO GCV

**Client:** TRC - MILWAUKEE

**Date:** July 09, 2013

### **General Information:**

6 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Sample Preparation:**

The samples were prepared in accordance with TPH GRO/PVOC WI ext. with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

### **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

### **Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

### **Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### **Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### **Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** EPA 6010  
**Description:** 6010 MET ICP  
**Client:** TRC - MILWAUKEE  
**Date:** July 09, 2013

### **General Information:**

6 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Sample Preparation:**

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

### **Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### **Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### **Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** **EPA 6010**  
**Description:** 6010 MET ICP, Dissolved  
**Client:** TRC - MILWAUKEE  
**Date:** July 09, 2013

**General Information:**

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** **EPA 7470**  
**Description:** 7470 Mercury, Dissolved  
**Client:** TRC - MILWAUKEE  
**Date:** July 09, 2013

### **General Information:**

1 sample was analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Sample Preparation:**

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

### **Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### **Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### **Additional Comments:**

Analyte Comments:

QC Batch: MERP/3726

1q: Filter Blank for samples 4080081001-005.

- BLANK (Lab ID: 815742)
- Mercury, Dissolved

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** **EPA 8260**

**Description:** 8260 MSV Med Level Normal List

**Client:** TRC - MILWAUKEE

**Date:** July 09, 2013

**General Information:**

6 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/20280

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

**Additional Comments:**

Sample Comments:

Dry weight cup had meltwater in it upon receipt. Water was drained prior to moisture analysis.

- GP-1 (2-4) (Lab ID: 4080283002)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

---

**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** TRC - MILWAUKEE  
**Date:** July 09, 2013

### **General Information:**

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

### **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

### **Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

### **Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### **Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### **Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

Sample: TRIP BLANK	Lab ID: 4080283001	Collected: 06/25/13 00:00	Received: 06/27/13 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:00	71-43-2	
Bromobenzene	<0.48 ug/L		1.0	0.48	1		06/29/13 15:00	108-86-1	
Bromochloromethane	<0.49 ug/L		1.0	0.49	1		06/29/13 15:00	74-97-5	
Bromodichloromethane	<0.45 ug/L		1.0	0.45	1		06/29/13 15:00	75-27-4	
Bromoform	<0.23 ug/L		1.0	0.23	1		06/29/13 15:00	75-25-2	
Bromomethane	<0.43 ug/L		5.0	0.43	1		06/29/13 15:00	74-83-9	
n-Butylbenzene	<0.40 ug/L		1.0	0.40	1		06/29/13 15:00	104-51-8	
sec-Butylbenzene	<0.60 ug/L		5.0	0.60	1		06/29/13 15:00	135-98-8	
tert-Butylbenzene	<0.42 ug/L		1.0	0.42	1		06/29/13 15:00	98-06-6	
Carbon tetrachloride	<0.37 ug/L		1.0	0.37	1		06/29/13 15:00	56-23-5	
Chlorobenzene	<0.36 ug/L		1.0	0.36	1		06/29/13 15:00	108-90-7	
Chloroethane	<0.44 ug/L		1.0	0.44	1		06/29/13 15:00	75-00-3	
Chloroform	<0.69 ug/L		5.0	0.69	1		06/29/13 15:00	67-66-3	
Chloromethane	<0.39 ug/L		1.0	0.39	1		06/29/13 15:00	74-87-3	
2-Chlorotoluene	<0.48 ug/L		1.0	0.48	1		06/29/13 15:00	95-49-8	
4-Chlorotoluene	<0.48 ug/L		1.0	0.48	1		06/29/13 15:00	106-43-4	
1,2-Dibromo-3-chloropropane	<1.5 ug/L		5.0	1.5	1		06/29/13 15:00	96-12-8	
Dibromochloromethane	<1.9 ug/L		5.0	1.9	1		06/29/13 15:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.38 ug/L		1.0	0.38	1		06/29/13 15:00	106-93-4	
Dibromomethane	<0.48 ug/L		1.0	0.48	1		06/29/13 15:00	74-95-3	
1,2-Dichlorobenzene	<0.44 ug/L		1.0	0.44	1		06/29/13 15:00	95-50-1	
1,3-Dichlorobenzene	<0.45 ug/L		1.0	0.45	1		06/29/13 15:00	541-73-1	
1,4-Dichlorobenzene	<0.43 ug/L		1.0	0.43	1		06/29/13 15:00	106-46-7	
Dichlorodifluoromethane	<0.40 ug/L		1.0	0.40	1		06/29/13 15:00	75-71-8	
1,1-Dichloroethane	<0.28 ug/L		1.0	0.28	1		06/29/13 15:00	75-34-3	
1,2-Dichloroethane	<0.48 ug/L		1.0	0.48	1		06/29/13 15:00	107-06-2	
1,1-Dichloroethene	<0.43 ug/L		1.0	0.43	1		06/29/13 15:00	75-35-4	
cis-1,2-Dichloroethene	<0.42 ug/L		1.0	0.42	1		06/29/13 15:00	156-59-2	
trans-1,2-Dichloroethene	<0.37 ug/L		1.0	0.37	1		06/29/13 15:00	156-60-5	
1,2-Dichloropropane	<0.50 ug/L		1.0	0.50	1		06/29/13 15:00	78-87-5	
1,3-Dichloropropane	<0.46 ug/L		1.0	0.46	1		06/29/13 15:00	142-28-9	
2,2-Dichloropropane	<0.37 ug/L		1.0	0.37	1		06/29/13 15:00	594-20-7	
1,1-Dichloropropene	<0.51 ug/L		1.0	0.51	1		06/29/13 15:00	563-58-6	
cis-1,3-Dichloropropene	<0.29 ug/L		1.0	0.29	1		06/29/13 15:00	10061-01-5	
trans-1,3-Dichloropropene	<0.26 ug/L		1.0	0.26	1		06/29/13 15:00	10061-02-6	
Diisopropyl ether	<0.50 ug/L		1.0	0.50	1		06/29/13 15:00	108-20-3	
Ethylbenzene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:00	100-41-4	
Hexachloro-1,3-butadiene	<1.3 ug/L		5.0	1.3	1		06/29/13 15:00	87-68-3	
Isopropylbenzene (Cumene)	<0.34 ug/L		1.0	0.34	1		06/29/13 15:00	98-82-8	
p-Isopropyltoluene	<0.40 ug/L		1.0	0.40	1		06/29/13 15:00	99-87-6	
Methylene Chloride	<0.36 ug/L		1.0	0.36	1		06/29/13 15:00	75-09-2	
Methyl-tert-butyl ether	<0.49 ug/L		1.0	0.49	1		06/29/13 15:00	1634-04-4	
Naphthalene	<2.5 ug/L		5.0	2.5	1		06/29/13 15:00	91-20-3	
n-Propylbenzene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:00	103-65-1	
Styrene	<0.35 ug/L		1.0	0.35	1		06/29/13 15:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.45 ug/L		1.0	0.45	1		06/29/13 15:00	630-20-6	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: TRIP BLANK	Lab ID: 4080283001	Collected: 06/25/13 00:00	Received: 06/27/13 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	<0.38 ug/L		1.0	0.38	1		06/29/13 15:00	79-34-5	
Tetrachloroethene	<0.47 ug/L		1.0	0.47	1		06/29/13 15:00	127-18-4	
Toluene	<0.44 ug/L		1.0	0.44	1		06/29/13 15:00	108-88-3	
1,2,3-Trichlorobenzene	<0.77 ug/L		5.0	0.77	1		06/29/13 15:00	87-61-6	
1,2,4-Trichlorobenzene	<2.5 ug/L		5.0	2.5	1		06/29/13 15:00	120-82-1	
1,1,1-Trichloroethane	<0.44 ug/L		1.0	0.44	1		06/29/13 15:00	71-55-6	
1,1,2-Trichloroethane	<0.39 ug/L		1.0	0.39	1		06/29/13 15:00	79-00-5	
Trichloroethene	<0.43 ug/L		1.0	0.43	1		06/29/13 15:00	79-01-6	
Trichlorofluoromethane	<0.48 ug/L		1.0	0.48	1		06/29/13 15:00	75-69-4	
1,2,3-Trichloropropane	<0.47 ug/L		1.0	0.47	1		06/29/13 15:00	96-18-4	
1,2,4-Trimethylbenzene	<0.57 ug/L		5.0	0.57	1		06/29/13 15:00	95-63-6	
1,3,5-Trimethylbenzene	<2.5 ug/L		5.0	2.5	1		06/29/13 15:00	108-67-8	
Vinyl chloride	<0.18 ug/L		1.0	0.18	1		06/29/13 15:00	75-01-4	
m&p-Xylene	<0.82 ug/L		2.0	0.82	1		06/29/13 15:00	179601-23-1	
o-Xylene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:00	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98 %		43-137		1		06/29/13 15:00	460-00-4	
Dibromofluoromethane (S)	96 %		70-130		1		06/29/13 15:00	1868-53-7	
Toluene-d8 (S)	101 %		55-137		1		06/29/13 15:00	2037-26-5	

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

Sample: GP-1 (2-4) Lab ID: 4080283002 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	630-20-6	W	
1,1,1-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	71-55-6	W	
1,1,2,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	79-34-5	W	
1,1,2-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	79-00-5	W	
1,1-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-34-3	W	
1,1-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-35-4	W	
1,1-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	563-58-6	W	
1,2,3-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	87-61-6	W	
1,2,3-Trichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	96-18-4	W	
1,2,4-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	120-82-1	W	
1,2,4-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	95-63-6	W	
1,2-Dibromo-3-chloropropane	<49.8 ug/kg	250	49.8	1	06/28/13 11:36	06/28/13 15:04	96-12-8	W	
1,2-Dibromoethane (EDB)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	106-93-4	W	
1,2-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	95-50-1	W	
1,2-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	107-06-2	W	
1,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	78-87-5	W	
1,3,5-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	108-67-8	W	
1,3-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	541-73-1	W	
1,3-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	142-28-9	W	
1,4-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	106-46-7	W	
2,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	594-20-7	W	
2-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	95-49-8	W	
4-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	106-43-4	W	
Benzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	71-43-2	W	
Bromobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	108-86-1	W	
Bromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	74-97-5	W	
Bromodichloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-27-4	W	
Bromoform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-25-2	W	
Bromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	74-83-9	W	
Carbon tetrachloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	56-23-5	W	
Chlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	108-90-7	W	
Chloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-00-3	W	
Chloroform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	67-66-3	W	
Chloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	74-87-3	W	
Dibromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	124-48-1	W	
Dibromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	74-95-3	W	
Dichlorodifluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-71-8	W	
Diisopropyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	108-20-3	W	
Ethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	100-41-4	W	
Hexachloro-1,3-butadiene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	87-68-3	W	
Isopropylbenzene (Cumene)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	98-82-8	W	
Methyl-tert-butyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	1634-04-4	W	
Methylene Chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-09-2	W	
Naphthalene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	91-20-3	W	
Styrene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	100-42-5	W	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-1 (2-4) Lab ID: 4080283002 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	127-18-4	W	
Toluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	108-88-3	W	
Trichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	79-01-6	W	
Trichlorofluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-69-4	W	
Vinyl chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	75-01-4	W	
cis-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	156-59-2	W	
cis-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	10061-01-5	W	
m&p-Xylene	<50.0 ug/kg	120	50.0	1	06/28/13 11:36	06/28/13 15:04	179601-23-1	W	
n-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	104-51-8	W	
n-Propylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	103-65-1	W	
o-Xylene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	95-47-6	W	
p-Isopropyltoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	99-87-6	W	
sec-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	135-98-8	W	
tert-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	98-06-6	W	
trans-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	156-60-5	W	
trans-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:04	10061-02-6	W	
<b>Surrogates</b>									
Dibromofluoromethane (S)	106 %	57-130		1	06/28/13 11:36	06/28/13 15:04	1868-53-7		
Toluene-d8 (S)	101 %	54-133		1	06/28/13 11:36	06/28/13 15:04	2037-26-5		
4-Bromofluorobenzene (S)	107 %	49-130		1	06/28/13 11:36	06/28/13 15:04	460-00-4		
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.4 %	0.10	0.10	1			07/01/13 17:03		

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

Sample: GP-1 (4-6) Lab ID: 4080283003 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	630-20-6	W	
1,1,1-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	71-55-6	W	
1,1,2,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	79-34-5	W	
1,1,2-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	79-00-5	W	
1,1-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-34-3	W	
1,1-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-35-4	W	
1,1-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	563-58-6	W	
1,2,3-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	87-61-6	W	
1,2,3-Trichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	96-18-4	W	
1,2,4-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	120-82-1	W	
1,2,4-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	95-63-6	W	
1,2-Dibromo-3-chloropropane	<49.8 ug/kg	250	49.8	1	06/28/13 11:36	06/28/13 15:27	96-12-8	W	
1,2-Dibromoethane (EDB)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	106-93-4	W	
1,2-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	95-50-1	W	
1,2-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	107-06-2	W	
1,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	78-87-5	W	
1,3,5-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	108-67-8	W	
1,3-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	541-73-1	W	
1,3-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	142-28-9	W	
1,4-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	106-46-7	W	
2,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	594-20-7	W	
2-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	95-49-8	W	
4-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	106-43-4	W	
Benzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	71-43-2	W	
Bromobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	108-86-1	W	
Bromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	74-97-5	W	
Bromodichloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-27-4	W	
Bromoform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-25-2	W	
Bromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	74-83-9	W	
Carbon tetrachloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	56-23-5	W	
Chlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	108-90-7	W	
Chloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-00-3	W	
Chloroform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	67-66-3	W	
Chloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	74-87-3	W	
Dibromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	124-48-1	W	
Dibromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	74-95-3	W	
Dichlorodifluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-71-8	W	
Diisopropyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	108-20-3	W	
Ethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	100-41-4	W	
Hexachloro-1,3-butadiene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	87-68-3	W	
Isopropylbenzene (Cumene)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	98-82-8	W	
Methyl-tert-butyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	1634-04-4	W	
Methylene Chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-09-2	W	
Naphthalene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	91-20-3	W	
Styrene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	100-42-5	W	

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-1 (4-6) Lab ID: 4080283003 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	127-18-4	W	
Toluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	108-88-3	W	
Trichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	79-01-6	W	
Trichlorofluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-69-4	W	
Vinyl chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	75-01-4	W	
cis-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	156-59-2	W	
cis-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	10061-01-5	W	
m&p-Xylene	<50.0 ug/kg	120	50.0	1	06/28/13 11:36	06/28/13 15:27	179601-23-1	W	
n-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	104-51-8	W	
n-Propylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	103-65-1	W	
o-Xylene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	95-47-6	W	
p-Isopropyltoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	99-87-6	W	
sec-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	135-98-8	W	
tert-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	98-06-6	W	
trans-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	156-60-5	W	
trans-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:27	10061-02-6	W	
<b>Surrogates</b>									
Dibromofluoromethane (S)	113 %	57-130		1	06/28/13 11:36	06/28/13 15:27	1868-53-7		
Toluene-d8 (S)	113 %	54-133		1	06/28/13 11:36	06/28/13 15:27	2037-26-5		
4-Bromofluorobenzene (S)	118 %	49-130		1	06/28/13 11:36	06/28/13 15:27	460-00-4		
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.7 %	0.10	0.10	1			07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

Sample: GP-2 (2-4) Lab ID: 4080283004 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	630-20-6	W	
1,1,1-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	71-55-6	W	
1,1,2,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	79-34-5	W	
1,1,2-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	79-00-5	W	
1,1-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-34-3	W	
1,1-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-35-4	W	
1,1-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	563-58-6	W	
1,2,3-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	87-61-6	W	
1,2,3-Trichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	96-18-4	W	
1,2,4-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	120-82-1	W	
1,2,4-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	95-63-6	W	
1,2-Dibromo-3-chloropropane	<49.8 ug/kg	250	49.8	1	06/28/13 11:36	06/28/13 15:50	96-12-8	W	
1,2-Dibromoethane (EDB)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	106-93-4	W	
1,2-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	95-50-1	W	
1,2-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	107-06-2	W	
1,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	78-87-5	W	
1,3,5-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	108-67-8	W	
1,3-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	541-73-1	W	
1,3-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	142-28-9	W	
1,4-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	106-46-7	W	
2,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	594-20-7	W	
2-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	95-49-8	W	
4-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	106-43-4	W	
Benzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	71-43-2	W	
Bromobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	108-86-1	W	
Bromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	74-97-5	W	
Bromodichloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-27-4	W	
Bromoform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-25-2	W	
Bromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	74-83-9	W	
Carbon tetrachloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	56-23-5	W	
Chlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	108-90-7	W	
Chloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-00-3	W	
Chloroform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	67-66-3	W	
Chloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	74-87-3	W	
Dibromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	124-48-1	W	
Dibromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	74-95-3	W	
Dichlorodifluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-71-8	W	
Diisopropyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	108-20-3	W	
Ethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	100-41-4	W	
Hexachloro-1,3-butadiene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	87-68-3	W	
Isopropylbenzene (Cumene)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	98-82-8	W	
Methyl-tert-butyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	1634-04-4	W	
Methylene Chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-09-2	W	
Naphthalene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	91-20-3	W	
Styrene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	100-42-5	W	

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-2 (2-4) Lab ID: 4080283004 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	127-18-4	W	
Toluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	108-88-3	W	
Trichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	79-01-6	W	
Trichlorofluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-69-4	W	
Vinyl chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	75-01-4	W	
cis-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	156-59-2	W	
cis-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	10061-01-5	W	
m&p-Xylene	<50.0 ug/kg	120	50.0	1	06/28/13 11:36	06/28/13 15:50	179601-23-1	W	
n-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	104-51-8	W	
n-Propylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	103-65-1	W	
o-Xylene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	95-47-6	W	
p-Isopropyltoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	99-87-6	W	
sec-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	135-98-8	W	
tert-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	98-06-6	W	
trans-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	156-60-5	W	
trans-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 15:50	10061-02-6	W	
<b>Surrogates</b>									
Dibromofluoromethane (S)	105 %	57-130		1	06/28/13 11:36	06/28/13 15:50	1868-53-7		
Toluene-d8 (S)	99 %	54-133		1	06/28/13 11:36	06/28/13 15:50	2037-26-5		
4-Bromofluorobenzene (S)	104 %	49-130		1	06/28/13 11:36	06/28/13 15:50	460-00-4		
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	17.7 %	0.10	0.10	1			07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

Sample: GP-2 (4-6) Lab ID: 4080283005 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	630-20-6	W	
1,1,1-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	71-55-6	W	
1,1,2,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	79-34-5	W	
1,1,2-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	79-00-5	W	
1,1-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-34-3	W	
1,1-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-35-4	W	
1,1-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	563-58-6	W	
1,2,3-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	87-61-6	W	
1,2,3-Trichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	96-18-4	W	
1,2,4-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	120-82-1	W	
1,2,4-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	95-63-6	W	
1,2-Dibromo-3-chloropropane	<49.8 ug/kg	250	49.8	1	06/28/13 11:36	06/28/13 16:13	96-12-8	W	
1,2-Dibromoethane (EDB)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	106-93-4	W	
1,2-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	95-50-1	W	
1,2-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	107-06-2	W	
1,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	78-87-5	W	
1,3,5-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	108-67-8	W	
1,3-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	541-73-1	W	
1,3-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	142-28-9	W	
1,4-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	106-46-7	W	
2,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	594-20-7	W	
2-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	95-49-8	W	
4-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	106-43-4	W	
Benzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	71-43-2	W	
Bromobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	108-86-1	W	
Bromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	74-97-5	W	
Bromodichloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-27-4	W	
Bromoform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-25-2	W	
Bromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	74-83-9	W	
Carbon tetrachloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	56-23-5	W	
Chlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	108-90-7	W	
Chloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-00-3	W	
Chloroform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	67-66-3	W	
Chloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	74-87-3	W	
Dibromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	124-48-1	W	
Dibromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	74-95-3	W	
Dichlorodifluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-71-8	W	
Diisopropyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	108-20-3	W	
Ethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	100-41-4	W	
Hexachloro-1,3-butadiene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	87-68-3	W	
Isopropylbenzene (Cumene)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	98-82-8	W	
Methyl-tert-butyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	1634-04-4	W	
Methylene Chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-09-2	W	
Naphthalene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	91-20-3	W	
Styrene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	100-42-5	W	

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-2 (4-6) Lab ID: 4080283005 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	127-18-4	W	
Toluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	108-88-3	W	
Trichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	79-01-6	W	
Trichlorofluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-69-4	W	
Vinyl chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	75-01-4	W	
cis-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	156-59-2	W	
cis-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	10061-01-5	W	
m&p-Xylene	<50.0 ug/kg	120	50.0	1	06/28/13 11:36	06/28/13 16:13	179601-23-1	W	
n-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	104-51-8	W	
n-Propylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	103-65-1	W	
o-Xylene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	95-47-6	W	
p-Isopropyltoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	99-87-6	W	
sec-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	135-98-8	W	
tert-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	98-06-6	W	
trans-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	156-60-5	W	
trans-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:13	10061-02-6	W	
<b>Surrogates</b>									
Dibromofluoromethane (S)	110 %	57-130		1	06/28/13 11:36	06/28/13 16:13	1868-53-7		
Toluene-d8 (S)	103 %	54-133		1	06/28/13 11:36	06/28/13 16:13	2037-26-5		
4-Bromofluorobenzene (S)	106 %	49-130		1	06/28/13 11:36	06/28/13 16:13	460-00-4		
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	13.3 %	0.10	0.10	1			07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

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Sample: GP-3 (4-6) Lab ID: 4080283006 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	630-20-6	W	
1,1,1-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	71-55-6	W	
1,1,2,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	79-34-5	W	
1,1,2-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	79-00-5	W	
1,1-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-34-3	W	
1,1-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-35-4	W	
1,1-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	563-58-6	W	
1,2,3-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	87-61-6	W	
1,2,3-Trichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	96-18-4	W	
1,2,4-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	120-82-1	W	
1,2,4-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	95-63-6	W	
1,2-Dibromo-3-chloropropane	<49.8 ug/kg	250	49.8	1	06/28/13 11:36	07/01/13 11:30	96-12-8	W	
1,2-Dibromoethane (EDB)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	106-93-4	W	
1,2-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	95-50-1	W	
1,2-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	107-06-2	W	
1,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	78-87-5	W	
1,3,5-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	108-67-8	W	
1,3-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	541-73-1	W	
1,3-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	142-28-9	W	
1,4-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	106-46-7	W	
2,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	594-20-7	W	
2-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	95-49-8	W	
4-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	106-43-4	W	
Benzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	71-43-2	W	
Bromobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	108-86-1	W	
Bromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	74-97-5	W	
Bromodichloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-27-4	W	
Bromoform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-25-2	W	
Bromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	74-83-9	W	
Carbon tetrachloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	56-23-5	W	
Chlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	108-90-7	W	
Chloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-00-3	W	
Chloroform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	67-66-3	W	
Chloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	74-87-3	W	
Dibromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	124-48-1	W	
Dibromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	74-95-3	W	
Dichlorodifluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-71-8	W	
Diisopropyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	108-20-3	W	
Ethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	100-41-4	W	
Hexachloro-1,3-butadiene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	87-68-3	W	
Isopropylbenzene (Cumene)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	98-82-8	W	
Methyl-tert-butyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	1634-04-4	W	
Methylene Chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-09-2	W	
Naphthalene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	91-20-3	W	
Styrene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	100-42-5	W	

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-3 (4-6) Lab ID: 4080283006 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	127-18-4	W	
Toluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	108-88-3	W	
Trichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	79-01-6	W	
Trichlorofluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-69-4	W	
Vinyl chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	75-01-4	W	
cis-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	156-59-2	W	
cis-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	10061-01-5	W	
m&p-Xylene	<50.0 ug/kg	120	50.0	1	06/28/13 11:36	07/01/13 11:30	179601-23-1	W	
n-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	104-51-8	W	
n-Propylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	103-65-1	W	
o-Xylene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	95-47-6	W	
p-Isopropyltoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	99-87-6	W	
sec-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	135-98-8	W	
tert-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	98-06-6	W	
trans-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	156-60-5	W	
trans-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	07/01/13 11:30	10061-02-6	W	
<b>Surrogates</b>									
Dibromofluoromethane (S)	101 %	57-130		1	06/28/13 11:36	07/01/13 11:30	1868-53-7		
Toluene-d8 (S)	96 %	54-133		1	06/28/13 11:36	07/01/13 11:30	2037-26-5		
4-Bromofluorobenzene (S)	93 %	49-130		1	06/28/13 11:36	07/01/13 11:30	460-00-4		
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.9 %	0.10	0.10	1			07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

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Sample: GP-3 (8-10) Lab ID: 4080283007 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

*Results reported on a "dry-weight" basis*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	630-20-6	W	
1,1,1-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	71-55-6	W	
1,1,2,2-Tetrachloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	79-34-5	W	
1,1,2-Trichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	79-00-5	W	
1,1-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-34-3	W	
1,1-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-35-4	W	
1,1-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	563-58-6	W	
1,2,3-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	87-61-6	W	
1,2,3-Trichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	96-18-4	W	
1,2,4-Trichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	120-82-1	W	
1,2,4-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	95-63-6	W	
1,2-Dibromo-3-chloropropane	<49.8 ug/kg	250	49.8	1	06/28/13 11:36	06/28/13 16:36	96-12-8	W	
1,2-Dibromoethane (EDB)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	106-93-4	W	
1,2-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	95-50-1	W	
1,2-Dichloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	107-06-2	W	
1,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	78-87-5	W	
1,3,5-Trimethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	108-67-8	W	
1,3-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	541-73-1	W	
1,3-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	142-28-9	W	
1,4-Dichlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	106-46-7	W	
2,2-Dichloropropane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	594-20-7	W	
2-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	95-49-8	W	
4-Chlorotoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	106-43-4	W	
Benzene	234 ug/kg	68.8	28.7	1	06/28/13 11:36	06/28/13 16:36	71-43-2		
Bromobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	108-86-1	W	
Bromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	74-97-5	W	
Bromodichloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-27-4	W	
Bromoform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-25-2	W	
Bromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	74-83-9	W	
Carbon tetrachloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	56-23-5	W	
Chlorobenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	108-90-7	W	
Chloroethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-00-3	W	
Chloroform	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	67-66-3	W	
Chloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	74-87-3	W	
Dibromochloromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	124-48-1	W	
Dibromomethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	74-95-3	W	
Dichlorodifluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-71-8	W	
Diisopropyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	108-20-3	W	
Ethylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	100-41-4	W	
Hexachloro-1,3-butadiene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	87-68-3	W	
Isopropylbenzene (Cumene)	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	98-82-8	W	
Methyl-tert-butyl ether	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	1634-04-4	W	
Methylene Chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-09-2	W	
Naphthalene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	91-20-3	W	
Styrene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	100-42-5	W	

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-3 (8-10) Lab ID: 4080283007 Collected: 06/18/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Tetrachloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	127-18-4	W	
Toluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	108-88-3	W	
Trichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	79-01-6	W	
Trichlorofluoromethane	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-69-4	W	
Vinyl chloride	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	75-01-4	W	
cis-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	156-59-2	W	
cis-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	10061-01-5	W	
m&p-Xylene	<50.0 ug/kg	120	50.0	1	06/28/13 11:36	06/28/13 16:36	179601-23-1	W	
n-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	104-51-8	W	
n-Propylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	103-65-1	W	
o-Xylene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	95-47-6	W	
p-Isopropyltoluene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	99-87-6	W	
sec-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	135-98-8	W	
tert-Butylbenzene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	98-06-6	W	
trans-1,2-Dichloroethene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	156-60-5	W	
trans-1,3-Dichloropropene	<25.0 ug/kg	60.0	25.0	1	06/28/13 11:36	06/28/13 16:36	10061-02-6	W	
<b>Surrogates</b>									
Dibromofluoromethane (S)	99 %	57-130		1	06/28/13 11:36	06/28/13 16:36	1868-53-7		
Toluene-d8 (S)	101 %	54-133		1	06/28/13 11:36	06/28/13 16:36	2037-26-5		
4-Bromofluorobenzene (S)	103 %	49-130		1	06/28/13 11:36	06/28/13 16:36	460-00-4		
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	12.8 %	0.10	0.10	1			07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-4 (2-4) Lab ID: 4080283008 Collected: 06/25/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIDRO GCS</b>	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	<b>0.95J</b> mg/kg		2.2	0.89	1	06/28/13 07:41	07/01/13 10:41		
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	71-43-2	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	100-41-4	W
Gasoline Range Organics	<3.0 mg/kg		3.0	3.0	1	06/28/13 10:58	06/28/13 11:16		
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	1634-04-4	W
Naphthalene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	91-20-3	W
Toluene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	108-67-8	W
m&p-Xylene	<50.0 ug/kg		120	50.0	1	06/28/13 10:58	06/28/13 11:16	179601-23-1	W
o-Xylene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:16	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101 %		80-120		1	06/28/13 10:58	06/28/13 11:16	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	<b>12.6</b> mg/kg		1.1	0.31	1	06/28/13 11:10	06/28/13 17:52	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	<b>17.0</b> %		0.10	0.10	1		07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-4 (4-6) Lab ID: 4080283009 Collected: 06/25/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIDRO GCS</b>	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	<0.91 mg/kg		2.3	0.91	1	06/28/13 07:41	07/01/13 10:47		
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	71-43-2	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	100-41-4	W
Gasoline Range Organics	<3.0 mg/kg		3.0	3.0	1	06/28/13 10:58	06/28/13 11:42		
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	1634-04-4	W
Naphthalene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	91-20-3	W
Toluene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	108-67-8	W
m&p-Xylene	<50.0 ug/kg		120	50.0	1	06/28/13 10:58	06/28/13 11:42	179601-23-1	W
o-Xylene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 11:42	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101 %		80-120		1	06/28/13 10:58	06/28/13 11:42	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	15.5 mg/kg		1.0	0.30	1	06/28/13 11:10	06/28/13 17:58	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	17.2 %		0.10	0.10	1		07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-5 (2-4) Lab ID: 4080283010 Collected: 06/25/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIDRO GCS</b>	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	3.4 mg/kg		2.3	0.92	1	06/28/13 07:41	07/01/13 10:53		
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	71-43-2	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	100-41-4	W
Gasoline Range Organics	<2.9 mg/kg		2.9	2.9	1	06/28/13 10:58	06/28/13 12:07		
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	1634-04-4	W
Naphthalene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	91-20-3	W
Toluene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	108-67-8	W
m&p-Xylene	<50.0 ug/kg		120	50.0	1	06/28/13 10:58	06/28/13 12:07	179601-23-1	W
o-Xylene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:07	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101 %		80-120		1	06/28/13 10:58	06/28/13 12:07	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	12.8 mg/kg		1.0	0.30	1	06/28/13 11:10	06/28/13 18:01	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	12.9 %		0.10	0.10	1		07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-5 (6-8) Lab ID: 4080283011 Collected: 06/25/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIDRO GCS</b>	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	1.6J mg/kg		2.1	0.87	1	07/01/13 08:29	07/02/13 15:51		L2
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	71-43-2	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	100-41-4	W
Gasoline Range Organics	<2.8 mg/kg		2.8	2.8	1	06/28/13 10:58	06/28/13 12:33		
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	1634-04-4	W
Naphthalene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	91-20-3	W
Toluene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	108-67-8	W
m&p-Xylene	<50.0 ug/kg		120	50.0	1	06/28/13 10:58	06/28/13 12:33	179601-23-1	W
o-Xylene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:33	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102 %		80-120		1	06/28/13 10:58	06/28/13 12:33	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	13.9 mg/kg		1.1	0.33	1	06/28/13 11:10	06/28/13 18:03	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	12.2 %		0.10	0.10	1		07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-6 (2-4) Lab ID: 4080283012 Collected: 06/25/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIDRO GCS</b>	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	<0.90 mg/kg		2.2	0.90	1	07/01/13 08:29	07/02/13 16:27		L2
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	71-43-2	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	100-41-4	W
Gasoline Range Organics	<2.9 mg/kg		2.9	2.9	1	06/28/13 10:58	06/28/13 12:59		
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	1634-04-4	W
Naphthalene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	91-20-3	W
Toluene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	108-67-8	W
m&p-Xylene	<50.0 ug/kg		120	50.0	1	06/28/13 10:58	06/28/13 12:59	179601-23-1	W
o-Xylene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 12:59	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102 %		80-120		1	06/28/13 10:58	06/28/13 12:59	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	7.7 mg/kg		1.0	0.30	1	06/28/13 11:10	06/28/13 18:05	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	13.1 %		0.10	0.10	1		07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-6 (4-6) Lab ID: 4080283013 Collected: 06/25/13 00:00 Received: 06/27/13 10:00 Matrix: Solid

**Results reported on a "dry-weight" basis**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIDRO GCS</b>	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	<0.88 mg/kg		2.2	0.88	1	07/01/13 08:29	07/02/13 16:36		L2
<b>WIGRO GCV</b>	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	71-43-2	W
Ethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	100-41-4	W
Gasoline Range Organics	<2.9 mg/kg		2.9	2.9	1	06/28/13 10:58	06/28/13 13:25		
Methyl-tert-butyl ether	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	1634-04-4	W
Naphthalene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	91-20-3	W
Toluene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	108-67-8	W
m&p-Xylene	<50.0 ug/kg		120	50.0	1	06/28/13 10:58	06/28/13 13:25	179601-23-1	W
o-Xylene	<25.0 ug/kg		60.0	25.0	1	06/28/13 10:58	06/28/13 13:25	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	103 %		80-120		1	06/28/13 10:58	06/28/13 13:25	98-08-8	
<b>6010 MET ICP</b>	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	5.9 mg/kg		1.1	0.32	1	06/28/13 11:10	06/28/13 18:08	7439-92-1	
<b>Percent Moisture</b>	Analytical Method: ASTM D2974-87								
Percent Moisture	15.0 %		0.10	0.10	1		07/01/13 17:04		

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-3	Lab ID: 4080283014	Collected: 06/25/13 00:00	Received: 06/27/13 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>	Analytical Method: EPA 6010								
Arsenic, Dissolved	<4.4 ug/L		20.0	4.4	1		07/02/13 14:08	7440-38-2	
Barium, Dissolved	98.0 ug/L		5.0	1.1	1		07/02/13 14:08	7440-39-3	
Cadmium, Dissolved	<0.38 ug/L		5.0	0.38	1		07/02/13 14:08	7440-43-9	
Chromium, Dissolved	4.4J ug/L		5.0	1.2	1		07/02/13 14:08	7440-47-3	
Lead, Dissolved	1.5J ug/L		7.5	1.2	1		07/02/13 14:08	7439-92-1	
Selenium, Dissolved	<6.6 ug/L		20.0	6.6	1		07/02/13 14:08	7782-49-2	
Silver, Dissolved	<1.4 ug/L		10.0	1.4	1		07/02/13 14:08	7440-22-4	
<b>7470 Mercury, Dissolved</b>	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury, Dissolved	<0.10 ug/L		0.20	0.10	1	06/28/13 10:52	06/28/13 14:52	7439-97-6	
<b>8260 MSV</b>	Analytical Method: EPA 8260								
Benzene	4.7 ug/L		1.0	0.50	1		06/29/13 15:23	71-43-2	
Bromobenzene	<0.48 ug/L		1.0	0.48	1		06/29/13 15:23	108-86-1	
Bromoform	<0.49 ug/L		1.0	0.49	1		06/29/13 15:23	74-97-5	
Bromochloromethane	<0.45 ug/L		1.0	0.45	1		06/29/13 15:23	75-27-4	
Bromodichloromethane	<0.23 ug/L		1.0	0.23	1		06/29/13 15:23	75-25-2	
Bromoform	<0.43 ug/L		5.0	0.43	1		06/29/13 15:23	74-83-9	
Bromomethane	<0.40 ug/L		1.0	0.40	1		06/29/13 15:23	104-51-8	
n-Butylbenzene	<0.60 ug/L		5.0	0.60	1		06/29/13 15:23	135-98-8	
sec-Butylbenzene	<0.42 ug/L		1.0	0.42	1		06/29/13 15:23	98-06-6	
Carbon tetrachloride	<0.37 ug/L		1.0	0.37	1		06/29/13 15:23	56-23-5	
Chlorobenzene	<0.36 ug/L		1.0	0.36	1		06/29/13 15:23	108-90-7	
Chloroethane	<0.44 ug/L		1.0	0.44	1		06/29/13 15:23	75-00-3	
Chloroform	<0.69 ug/L		5.0	0.69	1		06/29/13 15:23	67-66-3	
Chloromethane	<0.39 ug/L		1.0	0.39	1		06/29/13 15:23	74-87-3	
2-Chlorotoluene	<0.48 ug/L		1.0	0.48	1		06/29/13 15:23	95-49-8	
4-Chlorotoluene	<0.48 ug/L		1.0	0.48	1		06/29/13 15:23	106-43-4	
1,2-Dibromo-3-chloropropane	<1.5 ug/L		5.0	1.5	1		06/29/13 15:23	96-12-8	
Dibromochloromethane	<1.9 ug/L		5.0	1.9	1		06/29/13 15:23	124-48-1	
1,2-Dibromoethane (EDB)	<0.38 ug/L		1.0	0.38	1		06/29/13 15:23	106-93-4	
Dibromomethane	<0.48 ug/L		1.0	0.48	1		06/29/13 15:23	74-95-3	
1,2-Dichlorobenzene	<0.44 ug/L		1.0	0.44	1		06/29/13 15:23	95-50-1	
1,3-Dichlorobenzene	<0.45 ug/L		1.0	0.45	1		06/29/13 15:23	541-73-1	
1,4-Dichlorobenzene	<0.43 ug/L		1.0	0.43	1		06/29/13 15:23	106-46-7	
Dichlorodifluoromethane	<0.40 ug/L		1.0	0.40	1		06/29/13 15:23	75-71-8	
1,1-Dichloroethane	<0.28 ug/L		1.0	0.28	1		06/29/13 15:23	75-34-3	
1,2-Dichloroethane	<0.48 ug/L		1.0	0.48	1		06/29/13 15:23	107-06-2	
1,1-Dichloroethene	<0.43 ug/L		1.0	0.43	1		06/29/13 15:23	75-35-4	
cis-1,2-Dichloroethene	<0.42 ug/L		1.0	0.42	1		06/29/13 15:23	156-59-2	
trans-1,2-Dichloroethene	<0.37 ug/L		1.0	0.37	1		06/29/13 15:23	156-60-5	
1,2-Dichloropropane	<0.50 ug/L		1.0	0.50	1		06/29/13 15:23	78-87-5	
1,3-Dichloropropane	<0.46 ug/L		1.0	0.46	1		06/29/13 15:23	142-28-9	
2,2-Dichloropropane	<0.37 ug/L		1.0	0.37	1		06/29/13 15:23	594-20-7	
1,1-Dichloropropene	<0.51 ug/L		1.0	0.51	1		06/29/13 15:23	563-58-6	
cis-1,3-Dichloropropene	<0.29 ug/L		1.0	0.29	1		06/29/13 15:23	10061-01-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Sample: GP-3	Lab ID: 4080283014	Collected: 06/25/13 00:00	Received: 06/27/13 10:00	Matrix: Water					
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	<0.26 ug/L		1.0	0.26	1		06/29/13 15:23	10061-02-6	
Diisopropyl ether	<0.50 ug/L		1.0	0.50	1		06/29/13 15:23	108-20-3	
Ethylbenzene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:23	100-41-4	
Hexachloro-1,3-butadiene	<1.3 ug/L		5.0	1.3	1		06/29/13 15:23	87-68-3	
Isopropylbenzene (Cumene)	<0.34 ug/L		1.0	0.34	1		06/29/13 15:23	98-82-8	
p-Isopropyltoluene	0.41J ug/L		1.0	0.40	1		06/29/13 15:23	99-87-6	
Methylene Chloride	<0.36 ug/L		1.0	0.36	1		06/29/13 15:23	75-09-2	
Methyl-tert-butyl ether	<0.49 ug/L		1.0	0.49	1		06/29/13 15:23	1634-04-4	
Naphthalene	<2.5 ug/L		5.0	2.5	1		06/29/13 15:23	91-20-3	
n-Propylbenzene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:23	103-65-1	
Styrene	<0.35 ug/L		1.0	0.35	1		06/29/13 15:23	100-42-5	
1,1,1,2-Tetrachloroethane	<0.45 ug/L		1.0	0.45	1		06/29/13 15:23	630-20-6	
1,1,2,2-Tetrachloroethane	<0.38 ug/L		1.0	0.38	1		06/29/13 15:23	79-34-5	
Tetrachloroethene	<0.47 ug/L		1.0	0.47	1		06/29/13 15:23	127-18-4	
Toluene	<0.44 ug/L		1.0	0.44	1		06/29/13 15:23	108-88-3	
1,2,3-Trichlorobenzene	<0.77 ug/L		5.0	0.77	1		06/29/13 15:23	87-61-6	
1,2,4-Trichlorobenzene	<2.5 ug/L		5.0	2.5	1		06/29/13 15:23	120-82-1	
1,1,1-Trichloroethane	<0.44 ug/L		1.0	0.44	1		06/29/13 15:23	71-55-6	
1,1,2-Trichloroethane	<0.39 ug/L		1.0	0.39	1		06/29/13 15:23	79-00-5	
Trichloroethene	<0.43 ug/L		1.0	0.43	1		06/29/13 15:23	79-01-6	
Trichlorofluoromethane	<0.48 ug/L		1.0	0.48	1		06/29/13 15:23	75-69-4	
1,2,3-Trichloropropane	<0.47 ug/L		1.0	0.47	1		06/29/13 15:23	96-18-4	
1,2,4-Trimethylbenzene	<0.57 ug/L		5.0	0.57	1		06/29/13 15:23	95-63-6	
1,3,5-Trimethylbenzene	<2.5 ug/L		5.0	2.5	1		06/29/13 15:23	108-67-8	
Vinyl chloride	<0.18 ug/L		1.0	0.18	1		06/29/13 15:23	75-01-4	
m&p-Xylene	<0.82 ug/L		2.0	0.82	1		06/29/13 15:23	179601-23-1	
o-Xylene	<0.50 ug/L		1.0	0.50	1		06/29/13 15:23	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	96 %		43-137		1		06/29/13 15:23	460-00-4	
Dibromofluoromethane (S)	93 %		70-130		1		06/29/13 15:23	1868-53-7	
Toluene-d8 (S)	100 %		55-137		1		06/29/13 15:23	2037-26-5	

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## QUALITY CONTROL DATA

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

QC Batch: GCV/10522 Analysis Method: WI MOD GRO  
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV  
Associated Lab Samples: 4080283008, 4080283009, 4080283010, 4080283011, 4080283012, 4080283013

METHOD BLANK: 815404 Matrix: Solid

Associated Lab Samples: 4080283008, 4080283009, 4080283010, 4080283011, 4080283012, 4080283013

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	06/28/13 08:35	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	06/28/13 08:35	
Benzene	ug/kg	<25.0	60.0	06/28/13 08:35	
Ethylbenzene	ug/kg	<25.0	60.0	06/28/13 08:35	
Gasoline Range Organics	mg/kg	<2.5	2.5	06/28/13 08:35	
m&p-Xylene	ug/kg	<50.0	120	06/28/13 08:35	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	06/28/13 08:35	
Naphthalene	ug/kg	<25.0	60.0	06/28/13 08:35	
o-Xylene	ug/kg	<25.0	60.0	06/28/13 08:35	
Toluene	ug/kg	<25.0	60.0	06/28/13 08:35	
a,a,a-Trifluorotoluene (S)	%	100	80-120	06/28/13 08:35	

LABORATORY CONTROL SAMPLE & LCSD: 815405 815406

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1120	1100	112	110	80-120	2	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1110	1090	111	109	80-120	2	20	
Benzene	ug/kg	1000	1120	1080	112	108	80-120	4	20	
Ethylbenzene	ug/kg	1000	1120	1100	112	110	80-120	2	20	
Gasoline Range Organics	mg/kg	10	10.8	10.6	108	106	80-120	2	20	
m&p-Xylene	ug/kg	2000	2220	2180	111	109	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	1110	1070	111	107	80-120	3	20	
Naphthalene	ug/kg	1000	1110	1090	111	109	80-120	2	20	
o-Xylene	ug/kg	1000	1100	1080	110	108	80-120	2	20	
Toluene	ug/kg	1000	1100	1080	110	108	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%				100	102	80-120			

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch:	ICP/7745	Analysis Method:	EPA 6010
QC Batch Method:	EPA 6010	Analysis Description:	ICP Metals, Trace, Dissolved
Associated Lab Samples:	4080283014		

METHOD BLANK: 816989                                  Matrix: Water

Associated Lab Samples: 4080283014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<4.4	20.0	07/02/13 13:40	
Barium, Dissolved	ug/L	<1.1	5.0	07/02/13 13:40	
Cadmium, Dissolved	ug/L	<0.38	5.0	07/02/13 13:40	
Chromium, Dissolved	ug/L	<1.2	5.0	07/02/13 13:40	
Lead, Dissolved	ug/L	<1.2	7.5	07/02/13 13:40	
Selenium, Dissolved	ug/L	<6.6	20.0	07/02/13 13:40	
Silver, Dissolved	ug/L	<1.4	10.0	07/02/13 13:40	

LABORATORY CONTROL SAMPLE: 816990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	442	88	80-120	
Barium, Dissolved	ug/L	500	456	91	80-120	
Cadmium, Dissolved	ug/L	500	446	89	80-120	
Chromium, Dissolved	ug/L	500	451	90	80-120	
Lead, Dissolved	ug/L	500	446	89	80-120	
Selenium, Dissolved	ug/L	500	454	91	80-120	
Silver, Dissolved	ug/L	250	226	90	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 816991                                  816992

Parameter	Units	MS Spike		MSD Spike		MS Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		4080419004	Result	Conc.	Conc.							
Arsenic, Dissolved	ug/L	<4.4	500	500	515	515	103	103	75-125	0	20	
Barium, Dissolved	ug/L	72.6	500	500	579	581	101	102	75-125	0	20	
Cadmium, Dissolved	ug/L	<0.38	500	500	516	519	103	104	75-125	1	20	
Chromium, Dissolved	ug/L	<1.2	500	500	510	510	102	102	75-125	0	20	
Lead, Dissolved	ug/L	2.5J	500	500	493	498	98	99	75-125	1	20	
Selenium, Dissolved	ug/L	<6.6	500	500	476	495	94	98	75-125	4	20	
Silver, Dissolved	ug/L	<1.4	250	250	252	253	101	101	75-125	0	20	

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch:	MERP/3726	Analysis Method:	EPA 7470
QC Batch Method:	EPA 7470	Analysis Description:	7470 Mercury Dissolved
Associated Lab Samples:	4080283014		

METHOD BLANK: 815715 Matrix: Water

Associated Lab Samples: 4080283014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	06/28/13 14:13	

METHOD BLANK: 815742 Matrix: Water

Associated Lab Samples: 4080283014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	<0.10	0.20	06/28/13 14:43	1q

LABORATORY CONTROL SAMPLE: 815716

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.0	100	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 815717 815718

Parameter	Units	4079775001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	<0.10	5	5	5.5	5.4	110	108	85-115	1	20	

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## QUALITY CONTROL DATA

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

QC Batch:	MPRP/8720	Analysis Method:	EPA 6010
QC Batch Method:	EPA 3050	Analysis Description:	6010 MET
Associated Lab Samples: 4080283008, 4080283009, 4080283010, 4080283011, 4080283012, 4080283013			

METHOD BLANK: 815475 Matrix: Solid

Associated Lab Samples: 4080283008, 4080283009, 4080283010, 4080283011, 4080283012, 4080283013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	<0.29	1.0	06/30/13 16:00	

LABORATORY CONTROL SAMPLE: 815476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	48.4	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 815477 815478

Parameter	Units	4080301001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Lead	mg/kg	3.0	53.9	53.9	49.9	50.2	87	88	75-125	1	20	

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch:	MSV/20274	Analysis Method:	EPA 8260
QC Batch Method:	EPA 5035/5030B	Analysis Description:	8260 MSV Med Level Normal List
Associated Lab Samples:	4080283002, 4080283003, 4080283004, 4080283005, 4080283006, 4080283007		

METHOD BLANK: 815535                                   Matrix: Solid

Associated Lab Samples: 4080283002, 4080283003, 4080283004, 4080283005, 4080283006, 4080283007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,1,1-Trichloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,1,2-Trichloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,1-Dichloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,1-Dichloroethene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,1-Dichloropropene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2,3-Trichlorobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2,3-Trichloropropane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2,4-Trichlorobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2-Dibromo-3-chloropropane	ug/kg	<49.8	250	06/28/13 11:30	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2-Dichlorobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2-Dichloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,2-Dichloropropane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,3-Dichlorobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
1,3-Dichloropropane	ug/kg	<25.0	60.0	06/28/13 11:30	
1,4-Dichlorobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
2,2-Dichloropropane	ug/kg	<25.0	60.0	06/28/13 11:30	
2-Chlorotoluene	ug/kg	<25.0	60.0	06/28/13 11:30	
4-Chlorotoluene	ug/kg	<25.0	60.0	06/28/13 11:30	
Benzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Bromobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Bromoform	ug/kg	<25.0	60.0	06/28/13 11:30	
Bromomethane	ug/kg	<25.0	60.0	06/28/13 11:30	
Carbon tetrachloride	ug/kg	<25.0	60.0	06/28/13 11:30	
Chlorobenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Chloroethane	ug/kg	<25.0	60.0	06/28/13 11:30	
Chloroform	ug/kg	<25.0	60.0	06/28/13 11:30	
Chloromethane	ug/kg	<25.0	60.0	06/28/13 11:30	
cis-1,2-Dichloroethene	ug/kg	<25.0	60.0	06/28/13 11:30	
cis-1,3-Dichloropropene	ug/kg	<25.0	60.0	06/28/13 11:30	
Dibromochloromethane	ug/kg	<25.0	60.0	06/28/13 11:30	
Dibromomethane	ug/kg	<25.0	60.0	06/28/13 11:30	
Dichlorodifluoromethane	ug/kg	<25.0	60.0	06/28/13 11:30	
Diisopropyl ether	ug/kg	<25.0	60.0	06/28/13 11:30	
Ethylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Hexachloro-1,3-butadiene	ug/kg	<25.0	60.0	06/28/13 11:30	
Isopropylbenzene (Cumene)	ug/kg	<25.0	60.0	06/28/13 11:30	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

METHOD BLANK: 815535

Matrix: Solid

Associated Lab Samples: 4080283002, 4080283003, 4080283004, 4080283005, 4080283006, 4080283007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/kg	<50.0	120	06/28/13 11:30	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	06/28/13 11:30	
Methylene Chloride	ug/kg	<25.0	60.0	06/28/13 11:30	
n-Butylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
n-Propylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Naphthalene	ug/kg	<25.0	60.0	06/28/13 11:30	
o-Xylene	ug/kg	<25.0	60.0	06/28/13 11:30	
p-Isopropyltoluene	ug/kg	<25.0	60.0	06/28/13 11:30	
sec-Butylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Styrene	ug/kg	<25.0	60.0	06/28/13 11:30	
tert-Butylbenzene	ug/kg	<25.0	60.0	06/28/13 11:30	
Tetrachloroethene	ug/kg	<25.0	60.0	06/28/13 11:30	
Toluene	ug/kg	<25.0	60.0	06/28/13 11:30	
trans-1,2-Dichloroethene	ug/kg	<25.0	60.0	06/28/13 11:30	
trans-1,3-Dichloropropene	ug/kg	<25.0	60.0	06/28/13 11:30	
Trichloroethene	ug/kg	<25.0	60.0	06/28/13 11:30	
Trichlorofluoromethane	ug/kg	<25.0	60.0	06/28/13 11:30	
Vinyl chloride	ug/kg	<25.0	60.0	06/28/13 11:30	
4-Bromofluorobenzene (S)	%	109	49-130	06/28/13 11:30	
Dibromofluoromethane (S)	%	106	57-130	06/28/13 11:30	
Toluene-d8 (S)	%	104	54-133	06/28/13 11:30	

LABORATORY CONTROL SAMPLE &amp; LCSD: 815536

815537

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2740	2850	110	114	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/kg	2500	1940	1930	78	77	70-130	1	20	
1,1,2-Trichloroethane	ug/kg	2500	2460	2400	98	96	70-130	2	20	
1,1-Dichloroethane	ug/kg	2500	2360	2500	94	100	70-130	6	20	
1,1-Dichloroethene	ug/kg	2500	1880	1970	75	79	64-130	5	20	
1,2,4-Trichlorobenzene	ug/kg	2500	2430	2470	97	99	68-130	2	20	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2150	2430	86	97	50-150	12	20	
1,2-Dibromoethane (EDB)	ug/kg	2500	2590	2580	104	103	70-130	1	20	
1,2-Dichlorobenzene	ug/kg	2500	2430	2520	97	101	70-130	4	20	
1,2-Dichloroethane	ug/kg	2500	2990	3140	119	126	70-130	5	20	
1,2-Dichloropropane	ug/kg	2500	2330	2230	93	89	70-130	4	20	
1,3-Dichlorobenzene	ug/kg	2500	2360	2400	94	96	70-130	2	20	
1,4-Dichlorobenzene	ug/kg	2500	2390	2440	95	98	70-130	2	20	
Benzene	ug/kg	2500	2110	2150	84	86	70-130	2	20	
Bromodichloromethane	ug/kg	2500	2820	2820	113	113	70-130	0	20	
Bromoform	ug/kg	2500	2070	2080	83	83	63-130	0	20	
Bromomethane	ug/kg	2500	2570	2620	103	105	41-142	2	20	
Carbon tetrachloride	ug/kg	2500	2820	2960	113	118	70-130	5	20	
Chlorobenzene	ug/kg	2500	2410	2390	96	96	70-130	1	20	
Chloroethane	ug/kg	2500	3070	3200	123	128	57-130	4	20	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

LABORATORY CONTROL SAMPLE & LCSD:		815537								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chloroform	ug/kg	2500	2590	2630	103	105	70-130	2	20	
Chloromethane	ug/kg	2500	1720	1750	69	70	57-130	2	20	
cis-1,2-Dichloroethene	ug/kg	2500	2240	2260	90	90	70-130	1	20	
cis-1,3-Dichloropropene	ug/kg	2500	2320	2340	93	94	70-130	1	20	
Dibromochloromethane	ug/kg	2500	2480	2500	99	100	70-130	0	20	
Dichlorodifluoromethane	ug/kg	2500	1400	1430	56	57	31-150	2	20	
Ethylbenzene	ug/kg	2500	2500	2520	100	101	65-137	1	20	
Isopropylbenzene (Cumene)	ug/kg	2500	2570	2540	103	102	70-130	1	20	
m&p-Xylene	ug/kg	5000	4750	4830	95	97	64-139	2	20	
Methyl-tert-butyl ether	ug/kg	2500	2500	2570	100	103	69-130	3	20	
Methylene Chloride	ug/kg	2500	1970	2050	79	82	70-130	4	20	
o-Xylene	ug/kg	2500	2410	2420	96	97	63-135	1	20	
Styrene	ug/kg	2500	2430	2440	97	97	69-130	0	20	
Tetrachloroethene	ug/kg	2500	2550	2530	102	101	70-130	1	20	
Toluene	ug/kg	2500	2360	2330	94	93	70-130	1	20	
trans-1,2-Dichloroethene	ug/kg	2500	2280	2280	91	91	70-130	0	20	
trans-1,3-Dichloropropene	ug/kg	2500	2720	2710	109	108	70-130	1	20	
Trichloroethene	ug/kg	2500	2500	2540	100	102	70-130	1	20	
Trichlorofluoromethane	ug/kg	2500	2690	2790	108	111	50-150	3	20	
Vinyl chloride	ug/kg	2500	1660	1710	66	68	57-130	3	20	
4-Bromofluorobenzene (S)	%				111	109	49-130			
Dibromofluoromethane (S)	%				107	115	57-130			
Toluene-d8 (S)	%				106	103	54-133			

## REPORT OF LABORATORY ANALYSIS

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## **QUALITY CONTROL DATA**

Project: 204154 STH38 & NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch: MSV/20284 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 4080283001, 4080283014

METHOD BLANK: 816096 Matrix: Water

Associated Lab Samples: 4080283001, 4080283014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.45	1.0	06/29/13 10:49	
1,1,1-Trichloroethane	ug/L	<0.44	1.0	06/29/13 10:49	
1,1,2,2-Tetrachloroethane	ug/L	<0.38	1.0	06/29/13 10:49	
1,1,2-Trichloroethane	ug/L	<0.39	1.0	06/29/13 10:49	
1,1-Dichloroethane	ug/L	<0.28	1.0	06/29/13 10:49	
1,1-Dichloroethene	ug/L	<0.43	1.0	06/29/13 10:49	
1,1-Dichloropropene	ug/L	<0.51	1.0	06/29/13 10:49	
1,2,3-Trichlorobenzene	ug/L	<0.77	5.0	06/29/13 10:49	
1,2,3-Trichloropropane	ug/L	<0.47	1.0	06/29/13 10:49	
1,2,4-Trichlorobenzene	ug/L	<2.5	5.0	06/29/13 10:49	
1,2,4-Trimethylbenzene	ug/L	<0.57	5.0	06/29/13 10:49	
1,2-Dibromo-3-chloropropane	ug/L	<1.5	5.0	06/29/13 10:49	
1,2-Dibromoethane (EDB)	ug/L	<0.38	1.0	06/29/13 10:49	
1,2-Dichlorobenzene	ug/L	<0.44	1.0	06/29/13 10:49	
1,2-Dichloroethane	ug/L	<0.48	1.0	06/29/13 10:49	
1,2-Dichloropropane	ug/L	<0.50	1.0	06/29/13 10:49	
1,3,5-Trimethylbenzene	ug/L	<2.5	5.0	06/29/13 10:49	
1,3-Dichlorobenzene	ug/L	<0.45	1.0	06/29/13 10:49	
1,3-Dichloropropane	ug/L	<0.46	1.0	06/29/13 10:49	
1,4-Dichlorobenzene	ug/L	<0.43	1.0	06/29/13 10:49	
2,2-Dichloropropane	ug/L	<0.37	1.0	06/29/13 10:49	
2-Chlorotoluene	ug/L	<0.48	1.0	06/29/13 10:49	
4-Chlorotoluene	ug/L	<0.48	1.0	06/29/13 10:49	
Benzene	ug/L	<0.50	1.0	06/29/13 10:49	
Bromobenzene	ug/L	<0.48	1.0	06/29/13 10:49	
Bromochloromethane	ug/L	<0.49	1.0	06/29/13 10:49	
Bromodichloromethane	ug/L	<0.45	1.0	06/29/13 10:49	
Bromoform	ug/L	<0.23	1.0	06/29/13 10:49	
Bromomethane	ug/L	<0.43	5.0	06/29/13 10:49	
Carbon tetrachloride	ug/L	<0.37	1.0	06/29/13 10:49	
Chlorobenzene	ug/L	<0.36	1.0	06/29/13 10:49	
Chloroethane	ug/L	<0.44	1.0	06/29/13 10:49	
Chloroform	ug/L	<0.69	5.0	06/29/13 10:49	
Chloromethane	ug/L	<0.39	1.0	06/29/13 10:49	
cis-1,2-Dichloroethene	ug/L	<0.42	1.0	06/29/13 10:49	
cis-1,3-Dichloropropene	ug/L	<0.29	1.0	06/29/13 10:49	
Dibromochloromethane	ug/L	<1.9	5.0	06/29/13 10:49	
Dibromomethane	ug/L	<0.48	1.0	06/29/13 10:49	
Dichlorodifluoromethane	ug/L	<0.40	1.0	06/29/13 10:49	
Diisopropyl ether	ug/L	<0.50	1.0	06/29/13 10:49	
Ethylbenzene	ug/L	<0.50	1.0	06/29/13 10:49	
Hexachloro-1,3-butadiene	ug/L	<1.3	5.0	06/29/13 10:49	
Isopropylbenzene (Cumene)	ug/L	<0.34	1.0	06/29/13 10:49	

## **REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

METHOD BLANK: 816096

Matrix: Water

Associated Lab Samples: 4080283001, 4080283014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/L	<0.82	2.0	06/29/13 10:49	
Methyl-tert-butyl ether	ug/L	<0.49	1.0	06/29/13 10:49	
Methylene Chloride	ug/L	<0.36	1.0	06/29/13 10:49	
n-Butylbenzene	ug/L	<0.40	1.0	06/29/13 10:49	
n-Propylbenzene	ug/L	<0.50	1.0	06/29/13 10:49	
Naphthalene	ug/L	<2.5	5.0	06/29/13 10:49	
o-Xylene	ug/L	<0.50	1.0	06/29/13 10:49	
p-Isopropyltoluene	ug/L	<0.40	1.0	06/29/13 10:49	
sec-Butylbenzene	ug/L	<0.60	5.0	06/29/13 10:49	
Styrene	ug/L	<0.35	1.0	06/29/13 10:49	
tert-Butylbenzene	ug/L	<0.42	1.0	06/29/13 10:49	
Tetrachloroethene	ug/L	<0.47	1.0	06/29/13 10:49	
Toluene	ug/L	<0.44	1.0	06/29/13 10:49	
trans-1,2-Dichloroethene	ug/L	<0.37	1.0	06/29/13 10:49	
trans-1,3-Dichloropropene	ug/L	<0.26	1.0	06/29/13 10:49	
Trichloroethene	ug/L	<0.43	1.0	06/29/13 10:49	
Trichlorofluoromethane	ug/L	<0.48	1.0	06/29/13 10:49	
Vinyl chloride	ug/L	<0.18	1.0	06/29/13 10:49	
4-Bromofluorobenzene (S)	%	96	43-137	06/29/13 10:49	
Dibromofluoromethane (S)	%	97	70-130	06/29/13 10:49	
Toluene-d8 (S)	%	101	55-137	06/29/13 10:49	

LABORATORY CONTROL SAMPLE &amp; LCSD: 816097

816098

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	47.6	49.2	95	98	70-136	3	20	
1,1,2,2-Tetrachloroethane	ug/L	50	54.7	56.8	109	114	70-130	4	20	
1,1,2-Trichloroethane	ug/L	50	52.6	54.1	105	108	70-130	3	20	
1,1-Dichloroethane	ug/L	50	62.7	64.2	125	128	70-146	2	20	
1,1-Dichloroethene	ug/L	50	55.1	56.2	110	112	70-130	2	20	
1,2,4-Trichlorobenzene	ug/L	50	49.2	51.8	98	104	70-130	5	20	
1,2-Dibromo-3-chloropropane	ug/L	50	43.3	46.8	87	94	46-150	8	20	
1,2-Dibromoethane (EDB)	ug/L	50	49.4	52.0	99	104	70-130	5	20	
1,2-Dichlorobenzene	ug/L	50	51.3	52.7	103	105	70-130	3	20	
1,2-Dichloroethane	ug/L	50	54.4	56.1	109	112	70-144	3	20	
1,2-Dichloropropane	ug/L	50	54.4	55.3	109	111	70-136	2	20	
1,3-Dichlorobenzene	ug/L	50	52.3	52.9	105	106	70-130	1	20	
1,4-Dichlorobenzene	ug/L	50	50.8	52.7	102	105	70-130	4	20	
Benzene	ug/L	50	54.6	56.2	109	112	70-137	3	20	
Bromodichloromethane	ug/L	50	46.7	47.8	93	96	70-133	2	20	
Bromoform	ug/L	50	41.1	42.6	82	85	59-130	4	20	
Bromomethane	ug/L	50	46.8	49.7	94	99	41-148	6	20	
Carbon tetrachloride	ug/L	50	46.3	48.1	93	96	70-154	4	20	
Chlorobenzene	ug/L	50	50.2	51.6	100	103	70-130	3	20	
Chloroethane	ug/L	50	54.9	56.1	110	112	70-139	2	20	

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

LABORATORY CONTROL SAMPLE & LCSD:		816097									
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
Chloroform	ug/L	50	51.8	52.8	104	106	70-130	2	20		
Chloromethane	ug/L	50	49.3	50.2	99	100	45-154	2	20		
cis-1,2-Dichloroethene	ug/L	50	50.7	52.8	101	106	70-130	4	20		
cis-1,3-Dichloropropene	ug/L	50	44.9	46.1	90	92	70-136	3	20		
Dibromochloromethane	ug/L	50	44.7	45.9	89	92	70-130	3	20		
Dichlorodifluoromethane	ug/L	50	43.0	44.4	86	89	20-157	3	20		
Ethylbenzene	ug/L	50	53.5	54.7	107	109	70-130	2	20		
Isopropylbenzene (Cumene)	ug/L	50	53.9	55.2	108	110	70-130	2	20		
m&p-Xylene	ug/L	100	105	108	105	108	70-130	2	20		
Methyl-tert-butyl ether	ug/L	50	49.8	52.1	100	104	59-141	5	20		
Methylene Chloride	ug/L	50	54.7	56.1	109	112	70-130	3	20		
o-Xylene	ug/L	50	50.6	52.0	101	104	70-130	3	20		
Styrene	ug/L	50	53.0	53.6	106	107	70-130	1	20		
Tetrachloroethene	ug/L	50	47.8	49.5	96	99	70-130	4	20		
Toluene	ug/L	50	51.6	52.7	103	105	70-130	2	20		
trans-1,2-Dichloroethene	ug/L	50	54.9	56.4	110	113	70-130	3	20		
trans-1,3-Dichloropropene	ug/L	50	43.7	45.3	87	91	55-135	4	20		
Trichloroethene	ug/L	50	52.4	53.9	105	108	70-130	3	20		
Trichlorofluoromethane	ug/L	50	54.9	56.2	110	112	50-150	2	20		
Vinyl chloride	ug/L	50	53.1	54.4	106	109	61-143	2	20		
4-Bromofluorobenzene (S)	%				102	102	43-137				
Dibromofluoromethane (S)	%				102	103	70-130				
Toluene-d8 (S)	%				102	101	55-137				

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		816240										816241	
Parameter	Units	4080331001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.44	50	50	47.4	46.4	95	93	70-136	2	20		
1,1,2,2-Tetrachloroethane	ug/L	<0.38	50	50	54.0	52.5	108	105	70-130	3	20		
1,1,2-Trichloroethane	ug/L	<0.39	50	50	51.0	50.1	102	100	70-130	2	20		
1,1-Dichloroethane	ug/L	<0.28	50	50	62.3	59.7	125	119	70-146	4	20		
1,1-Dichloroethene	ug/L	<0.43	50	50	52.7	50.6	105	101	70-130	4	20		
1,2,4-Trichlorobenzene	ug/L	<2.5	50	50	48.1	46.5	96	93	70-130	3	20		
1,2-Dibromo-3-chloropropane	ug/L	<1.5	50	50	44.0	41.9	88	84	46-150	5	20		
1,2-Dibromoethane (EDB)	ug/L	<0.38	50	50	48.5	47.6	97	95	70-130	2	20		
1,2-Dichlorobenzene	ug/L	<0.44	50	50	50.0	48.8	100	98	70-130	2	20		
1,2-Dichloroethane	ug/L	<0.48	50	50	53.8	52.6	108	105	70-146	2	20		
1,2-Dichloropropane	ug/L	<0.50	50	50	53.0	52.1	106	104	70-136	2	20		
1,3-Dichlorobenzene	ug/L	<0.45	50	50	50.1	49.0	100	98	70-130	2	20		
1,4-Dichlorobenzene	ug/L	<0.43	50	50	49.5	48.1	99	96	70-130	3	20		
Benzene	ug/L	<0.50	50	50	54.0	52.5	108	105	70-137	3	20		
Bromodichloromethane	ug/L	<0.45	50	50	45.5	44.3	91	89	70-133	3	20		
Bromoform	ug/L	<0.23	50	50	40.3	38.0	81	76	57-130	6	20		
Bromomethane	ug/L	<0.43	50	50	46.8	46.2	94	92	41-148	1	20		
Carbon tetrachloride	ug/L	<0.37	50	50	46.8	45.3	94	91	70-154	3	20		
Chlorobenzene	ug/L	<0.36	50	50	48.5	48.0	97	96	70-130	1	20		

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 204154 STH38 &amp; NORTHWESTERN AV

Pace Project No.: 4080283

Parameter	Units	4080331001		MS Spike		MSD Spike		MS Result		MSD Result		MS % Rec		MSD % Rec		% Rec		Max		
				Conc.		Conc.		Result		MSD		MS		MSD		MS		RPD	RPD	Qual
Chloroethane	ug/L	<0.44		50		50		53.6		51.5		107		103		70-140		4		20
Chloroform	ug/L	<0.69		50		50		51.0		49.2		102		98		70-130		4		20
Chloromethane	ug/L	<0.39		50		50		45.6		45.0		91		90		45-154		1		20
cis-1,2-Dichloroethene	ug/L	<0.42		50		50		50.4		48.6		101		97		70-130		4		20
cis-1,3-Dichloropropene	ug/L	<0.29		50		50		44.1		41.4		88		83		70-136		6		20
Dibromochloromethane	ug/L	<1.9		50		50		43.5		41.8		87		84		70-130		4		20
Dichlorodifluoromethane	ug/L	<0.40		50		50		37.6		36.6		75		73		10-157		3		20
Ethylbenzene	ug/L	<0.50		50		50		51.0		49.9		102		100		70-130		2		20
Isopropylbenzene (Cumene)	ug/L	<0.34		50		50		52.0		50.5		104		101		70-130		3		20
m&p-Xylene	ug/L	<0.82		100		100		99.0		96.8		99		97		70-130		2		20
Methyl-tert-butyl ether	ug/L	<0.49		50		50		51.0		49.0		102		98		59-141		4		20
Methylene Chloride	ug/L	<0.36		50		50		54.0		51.7		108		103		70-130		4		20
o-Xylene	ug/L	<0.50		50		50		47.9		47.4		96		95		70-130		1		20
Styrene	ug/L	<0.35		50		50		44.8		44.6		90		89		35-164		1		20
Tetrachloroethene	ug/L	<0.47		50		50		45.4		44.8		91		90		70-130		1		20
Toluene	ug/L	<0.44		50		50		49.1		48.5		98		97		70-130		1		20
trans-1,2-Dichloroethene	ug/L	<0.37		50		50		54.2		52.0		108		104		70-130		4		20
trans-1,3-Dichloropropene	ug/L	<0.26		50		50		42.3		39.9		85		80		55-137		6		20
Trichloroethene	ug/L	<0.43		50		50		51.3		50.2		103		100		70-130		2		20
Trichlorofluoromethane	ug/L	<0.48		50		50		53.6		52.1		107		104		50-150		3		20
Vinyl chloride	ug/L	<0.18		50		50		50.8		49.4		102		99		59-144		3		20
4-Bromofluorobenzene (S)	%											102		102		43-137				
Dibromofluoromethane (S)	%											106		104		70-130				
Toluene-d8 (S)	%											100		100		55-137				

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 204154 STH38 & NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch: OEXT/18815 Analysis Method: WI MOD DRO

QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS

Associated Lab Samples: 4080283008, 4080283009, 4080283010

METHOD BLANK: 815426 Matrix: Solid

Associated Lab Samples: 4080283008, 4080283009, 4080283010

Parameter	Units	Blank Result	Reporting Limit		Analyzed	Qualifiers
			2.0	07/01/13 08:47		
Diesel Range Organics	mg/kg	<0.80				

LABORATORY CONTROL SAMPLE & LCSD: 815427 815428

Parameter	Units	Spike Conc.	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
			Result	Result	% Rec	% Rec	Limits			
Diesel Range Organics	mg/kg	40	33.1	31.9	83	80	70-120	4	20	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 204154 STH38 & NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch: OEXT/18830 Analysis Method: WI MOD DRO

QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS

Associated Lab Samples: 4080283011, 4080283012, 4080283013

METHOD BLANK: 816377 Matrix: Solid

Associated Lab Samples: 4080283011, 4080283012, 4080283013

Parameter	Units	Blank Result	Reporting			Qualifiers
			Limit	Analyzed		
Diesel Range Organics	mg/kg	<0.80	2.0	07/02/13 14:57		

LABORATORY CONTROL SAMPLE & LCSD: 816378 816379

Parameter	Units	Spike Conc.	LCS	LCSD	LCS	LCSD	% Rec	RPD	Max RPD	Qualifiers
			Result	Result	% Rec	% Rec	Limits			
Diesel Range Organics	mg/kg	40	26.8	28.0	67	70	70-120	4	20	L0

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: 204154 STH38 & NORTHWESTERN AV

Pace Project No.: 4080283

QC Batch:	PMST/8628	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	4080283002, 4080283003, 4080283004, 4080283005, 4080283006, 4080283007, 4080283008, 4080283009, 4080283010, 4080283011, 4080283012, 4080283013		

SAMPLE DUPLICATE: 816753

Parameter	Units	4080259001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.3	12.4	0	10	

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### SAMPLE QUALIFIERS

Sample: 4080283002

[1] Dry weight cup had meltwater in it upon receipt. Water was drained prior to moisture analysis.

### BATCH QUALIFIERS

Batch: MSV/20280

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

### ANALYTE QUALIFIERS

1q Filter Blank for samples 4080081001-005.

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

W Non-detect results are reported on a wet weight basis.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

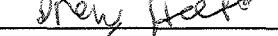
Project: 204154 STH38 & NORTHWESTERN AV  
Pace Project No.: 4080283

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4080283008	GP-4 (2-4)	WI MOD DRO	OEXT/18815	WI MOD DRO	GCSV/9785
4080283009	GP-4 (4-6)	WI MOD DRO	OEXT/18815	WI MOD DRO	GCSV/9785
4080283010	GP-5 (2-4)	WI MOD DRO	OEXT/18815	WI MOD DRO	GCSV/9785
4080283011	GP-5 (6-8)	WI MOD DRO	OEXT/18830	WI MOD DRO	GCSV/9795
4080283012	GP-6 (2-4)	WI MOD DRO	OEXT/18830	WI MOD DRO	GCSV/9795
4080283013	GP-6 (4-6)	WI MOD DRO	OEXT/18830	WI MOD DRO	GCSV/9795
4080283008	GP-4 (2-4)	TPH GRO/PVOC WI ext.	GCV/10522	WI MOD GRO	GCV/10528
4080283009	GP-4 (4-6)	TPH GRO/PVOC WI ext.	GCV/10522	WI MOD GRO	GCV/10528
4080283010	GP-5 (2-4)	TPH GRO/PVOC WI ext.	GCV/10522	WI MOD GRO	GCV/10528
4080283011	GP-5 (6-8)	TPH GRO/PVOC WI ext.	GCV/10522	WI MOD GRO	GCV/10528
4080283012	GP-6 (2-4)	TPH GRO/PVOC WI ext.	GCV/10522	WI MOD GRO	GCV/10528
4080283013	GP-6 (4-6)	TPH GRO/PVOC WI ext.	GCV/10522	WI MOD GRO	GCV/10528
4080283008	GP-4 (2-4)	EPA 3050	MPRP/8720	EPA 6010	ICP/7735
4080283009	GP-4 (4-6)	EPA 3050	MPRP/8720	EPA 6010	ICP/7735
4080283010	GP-5 (2-4)	EPA 3050	MPRP/8720	EPA 6010	ICP/7735
4080283011	GP-5 (6-8)	EPA 3050	MPRP/8720	EPA 6010	ICP/7735
4080283012	GP-6 (2-4)	EPA 3050	MPRP/8720	EPA 6010	ICP/7735
4080283013	GP-6 (4-6)	EPA 3050	MPRP/8720	EPA 6010	ICP/7735
4080283014	GP-3	EPA 6010	ICP/7745		
4080283014	GP-3	EPA 7470	MERP/3726	EPA 7470	MERC/4658
4080283002	GP-1 (2-4)	EPA 5035/5030B	MSV/20274	EPA 8260	MSV/20280
4080283003	GP-1 (4-6)	EPA 5035/5030B	MSV/20274	EPA 8260	MSV/20280
4080283004	GP-2 (2-4)	EPA 5035/5030B	MSV/20274	EPA 8260	MSV/20280
4080283005	GP-2 (4-6)	EPA 5035/5030B	MSV/20274	EPA 8260	MSV/20280
4080283006	GP-3 (4-6)	EPA 5035/5030B	MSV/20274	EPA 8260	MSV/20280
4080283007	GP-3 (8-10)	EPA 5035/5030B	MSV/20274	EPA 8260	MSV/20280
4080283001	TRIP BLANK	EPA 8260	MSV/20284		
4080283014	GP-3	EPA 8260	MSV/20284		
4080283002	GP-1 (2-4)	ASTM D2974-87	PMST/8628		
4080283003	GP-1 (4-6)	ASTM D2974-87	PMST/8628		
4080283004	GP-2 (2-4)	ASTM D2974-87	PMST/8628		
4080283005	GP-2 (4-6)	ASTM D2974-87	PMST/8628		
4080283006	GP-3 (4-6)	ASTM D2974-87	PMST/8628		
4080283007	GP-3 (8-10)	ASTM D2974-87	PMST/8628		
4080283008	GP-4 (2-4)	ASTM D2974-87	PMST/8628		
4080283009	GP-4 (4-6)	ASTM D2974-87	PMST/8628		
4080283010	GP-5 (2-4)	ASTM D2974-87	PMST/8628		
4080283011	GP-5 (6-8)	ASTM D2974-87	PMST/8628		
4080283012	GP-6 (2-4)	ASTM D2974-87	PMST/8628		
4080283013	GP-6 (4-6)	ASTM D2974-87	PMST/8628		

**REPORT OF LABORATORY ANALYSIS**

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**(Please Print Clearly)**

<b>Company Name:</b>	SPRC	
<b>Branch/Location:</b>		
<b>Project Contact:</b>	Ken Yass	
<b>Phone:</b>	262-901-2185	
<b>Project Number:</b>	204154	
<b>Project Name:</b>	SHSB 3 Northern Ave	
<b>Project State:</b>	WP	
<b>Sampled By (Print):</b>	Drew Heffner	
<b>Sampled By (Sign):</b>		
<b>PO #:</b>		<b>Regulatory Program:</b>



## **CHAIN OF CUSTODY**

**\*Preservation Codes**

A=None	B=HCL	C=H <sub>2</sub> SO <sub>4</sub>	D=HNO <sub>3</sub>	E=DI Water	F=Methanol	G=NaOH
H=Sodium Bisulfate Solution			I=Sodium Thiosulfate	J=Other		

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	Relinquished By: <u>Alex</u> Date/Time: <u>6/26/13 0830</u>	Received By: <u>Mary Fannin</u> Date/Time: <u>6/26/13 11:39</u>	PACE Project No. <u>4080283</u>
Transmit Prelim Rush Results by (complete what you want):	Relinquished By: <u>Mary Fannin</u> Date/Time: <u>6/26/13 1330</u>	Received By: <u>Alex</u> Date/Time: <u>6/26/13 1330</u>	Receipt Temp = <u>201</u> °C
Email #1:	Relinquished By: <u>CS Logistics</u> Date/Time: <u>6/21/13 1000</u>	Received By: <u>Alex</u> Date/Time: <u>6/27/13 1000</u>	Sample Receipt pH <u>OK / Adjusted</u>
Email #2:	Relinquished By: <u>CS Logistics</u> Date/Time: <u>6/21/13 1000</u>	Received By: <u>Alex</u> Date/Time: <u>6/27/13 1000</u>	Cooler Custody Seal <u>Present / Not Present</u>
Telephone:	Relinquished By: <u>CS Logistics</u> Date/Time: <u>6/21/13 1000</u>	Received By: <u>Alex</u> Date/Time: <u>6/27/13 1000</u>	Intact / Not intact <u>Intact</u>
Fax:	Relinquished By: <u>CS Logistics</u> Date/Time: <u>6/21/13 1000</u>	Received By: <u>Alex</u> Date/Time: <u>6/27/13 1000</u>	
Samples on HOLD are subject to special pricing and release of liability	Relinquished By: <u>CS Logistics</u> Date/Time: <u>6/21/13 1000</u>	Received By: <u>Alex</u> Date/Time: <u>6/27/13 1000</u>	

(Please Print Clearly)

Company Name:	TRC
Branch/Location:	
Project Contact:	Ken Yass
Phone:	262-901-2145
Project Number:	204154
Project Name:	STH 38 1/2 Northwestern Ave
Project State:	WF
Sampled By (Print):	Drew Heets
Sampled By (Sign):	
PO #:	
Regulatory Program:	

Data Package Options (billable)	<input type="checkbox"/> MS/MSD <input type="checkbox"/> On your sample (billable)	<input type="checkbox"/> Matrix Codes A = Air      W = Water B = Biota      DW = Drinking Water C = Charcoal      GW = Ground Water O = Oil      SW = Surface Water S = Soil      WW = Waste Water SI = Sludge      WP = Wipe
<input type="checkbox"/> EPA Level III	<input type="checkbox"/> NOT needed on your sample	
<input type="checkbox"/> EPA Level IV		

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
002	GP-1 (2-4)	6-18-13	-	S
003	GP-1 (4-6)		-	I
004	GP-2 (2-4)		-	I
005	GP-2 (4-6)		-	I
006	GP-3 (4-6)		-	I
007	GP-3 (8-10)		-	I
008	GP-4 (2-4)	6-25-13	-	I
009	GP-4 (4-6)		-	I
010	GP-5 (2-4)		-	I
011	GP-5 (6-8)		-	I
012	GP-6 (2-4)		-	I
013	GP-6 (4-6)		-	I
0014	GP-3		-	I

Rush Turnaround Time Requested - Prelims  
(Rush TAT subject to approval/surcharge)  
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1: \_\_\_\_\_  
Email #2: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_

Samples on HOLD are subject to  
special pricing and release of liability

## CHAIN OF CUSTODY

\*Preservation Codes  
 A=None    B=HCL    C=H2SO4    D=HNO3    E=DI Water    F=Methanol    G=NaOH  
 H=Sodium Bisulfate Solution    I=Sodium Thiosulfate    J=Other

FILTERED?  
(YES/NO)  
PRESERVATION  
(CODE)\*

Y/N	N	N	N	Y	N	N	N
Pick Letter	F	F	A	D	F	A	B

Analyses Requested	VOCs (8260)	Prox & Nitrates	Total Lead	Rock Metals	GRD	DRC	VOCs (8260)
--------------------	-------------	-----------------	------------	-------------	-----	-----	-------------

Quote #:	4080283	
Mail To Contact:		
Mail To Company:		
Mail To Address:		
Invoice To Contact:		
Invoice To Company:		
Invoice To Address:		
Invoice To Phone:		
CLIENT COMMENTS (Lab Use Only)	LAB COMMENTS (Lab Use Only)	Profile #
1-40mlvF 1-402p <sup>A</sup>		
use chain for set of analyses to be run		
1-202cg <sup>B</sup>		
3-40mlv <sup>C</sup> 1-250mlb <sup>D</sup>		
PACE Project No. 4080283	Receipt Temp = R01 °C	
Sample Receipt pH OK / Adjusted		
Cooler Custody Seal Present / Not Present		
Intact / Not Intact		

Relinquished By: 	Date/Time: 6/26/13 1030	Received By: 	Date/Time: 6/26/13 1139	PACE Project No. 4080283
Relinquished By: Mary Farmin	Date/Time: 6/26/13 1330	Received By: 	Date/Time: 6/26/13 1139	Receipt Temp = R01 °C
Relinquished By: CS Logistics	Date/Time: 6/27/13 1000	Received By: 	Date/Time: 6/27/13 1000	Sample Receipt pH OK / Adjusted
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____	Cooler Custody Seal Present / Not Present
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____	Intact / Not Intact

Version 6.0 08/14/06

*Pace Analytical*

Sample Condition Upon Receipt

Client Name: TRC

Project # 4080283

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace

Other CS Logistics

Tracking #:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used NA Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr:   /Corr: R01 Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Temp should be above freezing to 6°C for all sample except Biota.

Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:

Date: 6/27/13

Initials: CMA

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5. Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers Intact:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10. GP-1 (2-4) dry weight volume has melt water in jar <u>6/27/13</u>
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11. <u>6/27/13</u>
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>S/N</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤ 2%; NaOH+ZnAct ≥ 9%, NaOH ≥ 12%) exceptions: <u>VOA</u> , coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed <u>CMA</u> Lab Std #ID of preservative Date/ Time:
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15. one vial the seal is broken.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>299</u>		<u>6/27/13</u>

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted:

Date/Time:

Comments/ Resolution: GP-1 (2-4) dry weight volume lid is not on correctly, sample  
has melt water in jar. At 6/27/13

Project Manager Review:

Cff for TR

Date: 6/27/13

# **Appendix E**

## **Special Provisions**

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## **Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.**

### **A Description**

#### **A.1 General**

This special provision describes excavating, loading, hauling, and disposing of petroleum contaminated soil at a DNR licensed facility. The closest DNR licensed landfill facilities that can bioremediate this soil once excavated are:

Republic Services Kestrel Hawk Landfill  
1989 Oakes Road  
Racine, WI 53406  
(262) 884-7080

Waste Management Metro Landfill  
10712 South 124<sup>th</sup> Street  
Franklin, WI 53132  
(414) 529-6180

Advanced Disposal Emerald Park Landfill  
W124 S10629 124<sup>th</sup> St.  
Muskego, WI 53150  
(414) 529-3060

Perform this work in accordance to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

#### **A.2 Notice to the Contractor – Contaminated Soil Location**

The department and others completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following location as shown on the plans where storm sewer will be installed:

- Station 129+15 to 130+15, from reference line to project limits right, from approximately 6 feet to at least 11 feet bgs. Soil here is contaminated with benzene. Approximately 55 cubic yards (approximately 94 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location.

Directly load soil excavated by the project at the above location into trucks that will transport the soil to a WDNR-licensed bioremediation facility.

If contaminated soils are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer.

If dewatering is required at the above location, conduct the dewatering in accordance with Section C below. No active groundwater monitoring wells were observed within the construction limits; if any monitoring wells are encountered during construction, notify the engineer and protect them to maintain their integrity.

The excavation management plan for this project has been designed to minimize the offsite disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities at this site contact:

Name: Mr. Andrew Malsom  
Address: 141 NW Barstow Street, PO Box 798, Waukesha, WI 53187-0798  
Phone: 262-548-6705  
Fax: 262-548-6891  
E-mail: [andrew.malsom@dot.wi.gov](mailto:andrew.malsom@dot.wi.gov)

### A.3 Coordination

Coordinate work under this contract with the environment consultant:

Consultant: TRC Environmental Corporation  
Address: 150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045  
Contact: Mr. Ken Yass  
Phone: 262-901-2145  
Fax: 262-879-1220  
E-mail: [kyass@trcsolutions.com](mailto:kyass@trcsolutions.com)

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the landfill facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also

notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed.

Identify the DNR licensed landfill facility that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than at the preconstruction conference. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of contaminated soils. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

#### **A.4 Health and Safety Requirements**

*Supplement standard spec 107.1 with the following:*

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

#### **B (Vacant)**

#### **C Construction**

*Supplement standard spec 205.3 with the following:*

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically monitor soil excavated from the contaminated areas. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul soils designated by the environmental consultant for offsite disposal to the DNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

Groundwater was observed during the Phase 2.5 investigation at the location above at a depth of ~8 or 9 feet bgs. The anticipated depth of excavation at the location above is ~6 feet bgs, and dewatering is not anticipated.

#### **D Measurement**

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil accepted by the landfill facility as documented by weight tickets generated by the landfill facility.

#### **E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary. No additional payment will be made for tipping fees associated with the disposal of contaminated soil.

205-003 (20080902)