

9-27-2013



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September 23, 2013

Mr. David Hon
Wisconsin Department of Natural Resources
1300 W Clairemont Ave
Eau Claire, WI 54701

Subject: Petroleum-Contaminated Soil Management, Soil Over-Excavation Services
USH 12 (Former Dave's Gas Station), Merrilan, Wisconsin
BRRTS #03-27-001459

Dear Mr. Hon:

Enclosed is the Petroleum-Contaminated Soil Management Report for the WDNR soil over-excavation at USH 12 (Former Dave's Gas Station - 405 N Washington St) in Merrilan, Wisconsin.

Feel free to contact Dennis Siewert at (608) 826-3659, or Dan Haak at (608) 826-3628, with any questions or comments.

Sincerely,
TRC Environmental Corporation

Dennis Siewert

Dennis Siewert /s/1
Senior Designer

Dan Haak

Daniel Haak /s/1
Project Manager

cc: Jim Morse - TRC



Petroleum-Contaminated Soil Management Report

**USH 12 (Former Dave's Gas Station)
Merrillan, Wisconsin**

WDNR BRRTS #03-27-001459

September 2013



Petroleum-Contaminated Soil Management Report

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September 2013

Nathaniel F. Breen for

Dennis Siewert
Senior Designer

Daniel Haak

Daniel Haak, P.E.
Project Engineer

James E. Morse

James E. Morse
Senior Client Service Manager

TRC Environmental Corporation | Wisconsin Department
of Natural Resources

Final

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Commonly Used Abbreviations and Acronyms

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
DATCP	Department of Agriculture, Trade and Consumer Protection
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
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

Wisconsin Department of Transportation (WisDOT) is completing the reconstruction of the USH 12 from Old Highway 12 (south) to Merrill Street (north) in the Village of Merrilan, Jackson County, Wisconsin. The Special Provisions describe the management of petroleum-contaminated soils encountered during this reconstruction project. Based on previous investigations, The Wisconsin Department of Natural Resources (WDNR) has identified an area within this corridor adjacent to the former Dave's Gas Station site where significant petroleum contamination is known to be present with concentrations exceeding NR 720 RCL's and NR 746 Standards. The WDNR has retained TRC to over- excavate contaminated soils from beneath USH 12 to unconfined water table, a confining layer, or bedrock, anticipated at approximately 8-9' bgs, within the construction limits between STA. 589+20 to 590+20 from reference line to construction limits left and right.

TRC and our subcontractor, Gerke Excavating, Inc. (Gerke) over-excavated additional contaminated soils beyond that which is part of the ongoing WisDOT USH- 12 utility and roadway reconstruction project in Merrilan, WI. TRC directed and observed Gerke complete excavations in this area. TRC field-screened soil with a PID, and also observed for odors and staining. A total of 658.3 tons of petroleum-contaminated soil was over-excavated and taken to Advanced Disposal – Cranberry Creek Landfill for treatment and disposal.

The results of the field observations, field-screening, and confirmation soil sample laboratory results, indicate that petroleum-contaminated soil remains within the USH 12 corridor adjacent to the former Dave's Gas Station site.

Section 1

Introduction

1.1 Background

The WisDOT is completing the reconstruction of USH 12 from Old Highway 12 (south) to Merrill Street (north) in the Village of Merrilan, Jackson County, Wisconsin. This project includes the installation of stormwater sewers, sanitary sewers, watermains, as well as water service and sanitary sewer laterals to residences and businesses along the USH 12 reconstruction corridor within the Village of Merrilan. As part of the WisDOT project, the highway contractor shall manage contaminated soils excavated during the installation of the utilities (stormwater, sanitary, and water), within the areas of contaminated soils at five locations along the reconstruction corridor. The Wisconsin Department of Natural Resources (WDNR) has identified an area within this corridor adjacent to the former Dave's Gas Station (BRRTS #03-27-001459), where significant petroleum contamination is known to be present with concentrations exceeding NR 720 RCL's and NR 746 Standards. The WDNR has retained TRC and our subcontractor, Gerke Excavating, Inc. (Gerke) to over-excavate additional contaminated soils beyond that which is part of the ongoing WisDOT USH 12 utility and roadway reconstruction project in Merrilan, Wisconsin.

1.2 Contaminated Soil Management

WDNR retained TRC to manage the excavation of petroleum-contaminated soil at the Former Dave's Gas Station, 405 Washington Street (USH 12), and to document the depths and extents of contamination at the following location:

- Station 589+20 to 590+20 from reference line to construction limits left and right.

1.3 Purpose and Scope

The purpose of this report is to document the over-excavation of petroleum-contaminated soil within the limits of USH 12 adjacent to the Former Dave's Gas Station (405 Washington Street, at approximate station 589+20 to 590+20 from reference line to construction limits left and right).

This report summarizes the observations and activities performed by TRC during this over-excavation project, documents treatment and disposal, and identifies the depth and extent of petroleum-contaminated soil along USH 12 adjacent to the Former Dave's Gas Station site.

Section 2

Contaminated Soil Management

On August 19, 2013, TRC and its excavation contractor, Gerke, mobilized to the site to over-excavate, and treat and dispose of petroleum-contaminated soils within the limits of USH 12 adjacent to the Former Dave's Gas Station. TRC field screened soil with a PID, and also observed for odors and staining. Soils within the pre-identified location and field-identified as petroleum-contaminated (PID >10 ppm), was excavated and hauled to Advanced Disposal – Cranberry Creek Landfill for treatment and disposal. If excavated soil was field-screened (<10 ppm) and had no indication of contamination, it was available for re-use as backfill.

Petroleum-contaminated soil was encountered between STA. 589+20 and 590+20 within the majority of construction limits. A total of 658.3 tons of petroleum-contaminated soil was taken to Advanced Disposal – Cranberry Creek Landfill for treatment and disposal. Samples collected for field screening and submitted for laboratory analysis are summarized in Table 1. Field screening and soil sample collection locations are shown on Figure 2. Site photos are presented in Appendix A. Phase II ESA background information (Boring Logs) is presented in Appendix B. Landfill disposal documentation of petroleum-contaminated soil is presented in Appendix C. The laboratory analytical reports are presented in Appendix D.

Section 3 Conclusions

TRC completed the over-excavation and treatment/disposal of petroleum-contaminated soils within USH 12 adjacent to former Dave's Gas Station in Merrillan, Wisconsin.

Based on the laboratory analytical results, petroleum-contaminated soil above NR 720 and 746 Standards remains beyond the limits of this over-excavation on the northern end of the excavation from reference line to construction limits right, and on the southern end of the excavation and areas left of the reference line, as well as beyond the over-excavation right of construction limits at Station 589+40.

Table 1
Summary of Soil Analytical Results
USH 12/STH 27 - Former Daves Gas Station - Overexcavation, Merrillan, WI – Wisconsin Department of Natural Resources (WDNR)
August 19, 2013

ANALYTE	NR 720 RCL	NR 746 TABLE 1	SOIL SAMPLE ID AND DEPTH (feet bgs)										
			Sample #1	Sample #2	Sample #3	Sample #4	Sample #5	Sample #6	Sample #7	Sample #8	Sample #9	Sample #10	Sample #11
			5-8	5-6	5-6	6-8	7-8	7-8	7-8	6-7	6-7	6-7	6-7
PID	--	--	770	16.5	115	51	1,267	1,538	528	2175	1483	1632	<10
Benzene (µg/kg)	5.5	8,500	<125	<25.0	<25.0	<25.0	1820J	563	1,080	1,230J	<1,000	<200	<25.0
Ethylbenzene (µg/kg)	2,900	4,600	6,070	<25.0	127.0	<25.0	66,700	274	1,690	47,600	9,510	4,640	<25.0
MTBE (µg/kg)	--	--	<125	<25.0	<25.0	<25.0	<1,250	<25.0	<50.0	<625	<1,000	<200	<25.0
Naphthalene (µg/kg)	400 ⁽¹⁾	2,700	3,220	71.6	328	<25.0	40,100	73.7	1,240	20,900	11,600	4,760	<25.0
Toluene (µg/kg)	1,500	38,000	1,280	<25.0	<25.0	<25.0	95,400	2,050	5,120	57,200	7,420	689	<25.0
1,2,4-Trimethylbenzene (µg/kg)	--	83,000	23,600	333	1,900	56.5J	233,000	270	6,050	114,000	264,000	30,400	<25.0
1,3,5-Trimethylbenzene (µg/kg)	--	11,000	8,060	186	1,010	38.7J	79,800	81.3	2,380	35,700	96,900	12,900	<25.0
Total xylenes (µg/kg)	4,100	42,000	27,550	284.0	249.4	<78.9J	451,000	1,511	9,190	267,600	67,700	18,410	<75.0
Lead (mg/kg)	50	--	3.6	14.6	12.0	4.2	23.8	1.8	1.6	11.9	12.7	4.4	1.0

Notes:

bgs = Below ground surface.

J = Result is less than the reporting limit but greater than or equal to the minimum detection limit. The concentration is an approximate value.

NR 720 RCL = Wisconsin Administrative Code Chapter NR 720 generic Residual Contaminant level. RCL for lead is non-industrial standard.

NR 746 Table 1 = NR 746.06 Table 1 Indicators of Residual Petroleum Product in Soil Pores.

PID = Photoionization detector.

-- = Not established.

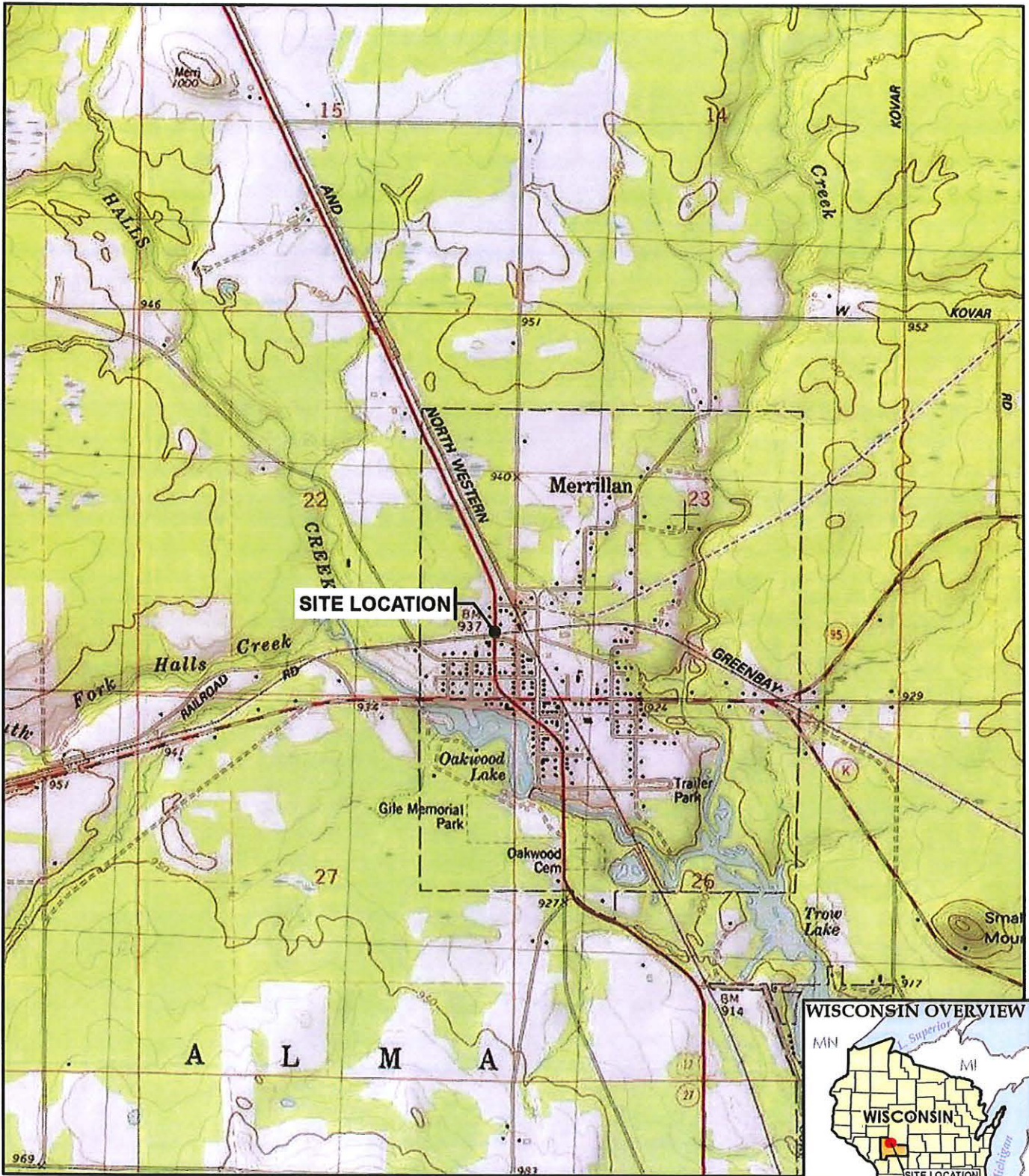
Bold concentrations exceed NR746 Table 1

Footnotes:

⁽¹⁾ RR-519-97 groundwater pathway RCL for naphthalene.

Created By: DSS 9/5/13

Checked by: OAF 9/9/13



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



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WI DEPARTMENT OF NATURAL RESOURCES (WNRD)
 405 N. WASHINGTON STREET
 MERRILLAN, WISCONSIN

SITE OVEREXCAVATION LOCATION MAP

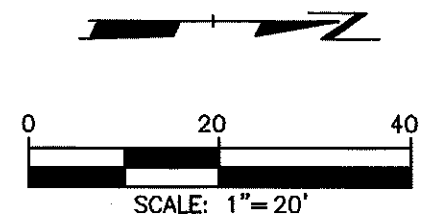
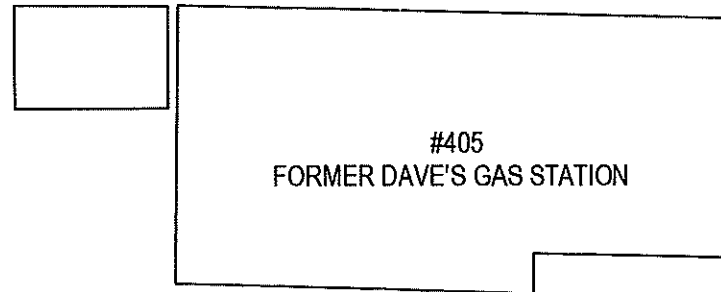
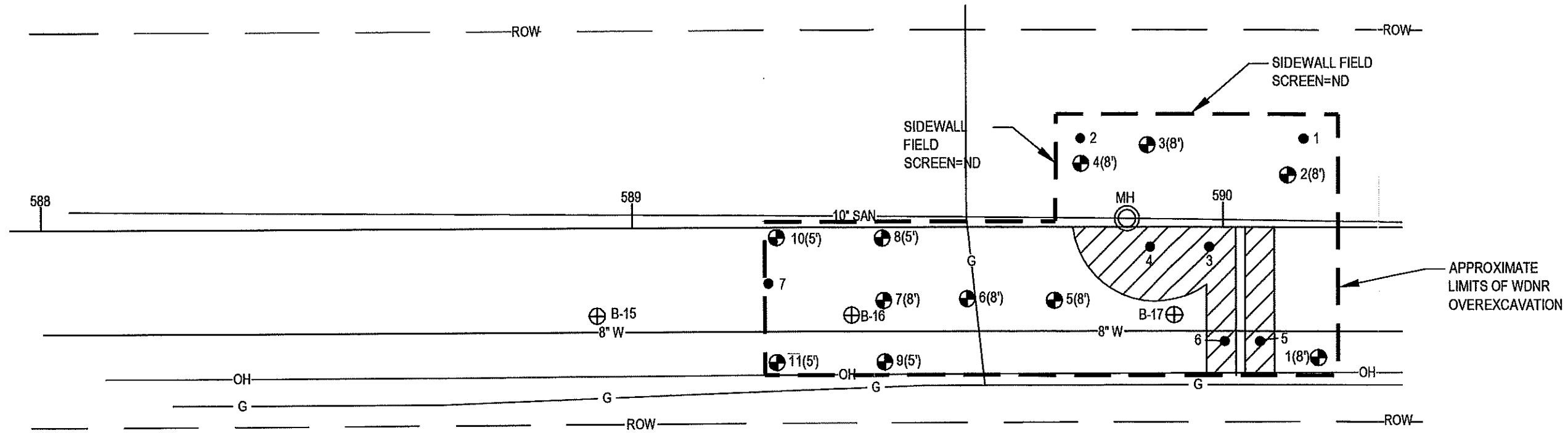
DRAWN BY:	PAPEZ J
APPROVED BY:	SIEWERT D
PROJECT NO:	206021
FILE NO.	206021-001slm.mxd
DATE:	SEPTEMBER 2013

Attached Xrefs:
2012121103plan.tif, DOC08213-08212013141717;
Model

Attached Images:
Layout

Dwg Size: 0.11 Mb
Plot Date: September 19, 2013
Plot Time: 10:46 AM

PLOT DATA
Drawing Name: J:\wisDOT\206021\01-1.dwg
Operator Name: SEWERT, DENNIS
Drawing Plot Scale: 0.386663



NOTES

1. BASEMAP PROVIDED FROM 2012 WISDOT USH 12 CONSTRUCTION PLANS, SANITARY SEWER AND WATER MAIN, SHEET 68.
2. SEE TABLE 1 FOR LABORATORY ANALYTICAL RESULTS AND ASSOCIATED FIELD SCREENING (PID) RESULTS.

LEGEND

- 2(8') DNR EXCAVATION SOIL SAMPLE ID AND LOCATION (FEET BGS)
- ▨ APPROXIMATE UTILITY TRENCH / EXCAVATION AREAS FOR WISDOT
- 1 UTILITY AND DNR EXCAVATION PID ID NO.
- ⊕ B-15 PHASE II ESA BORING LOCATION (SEE APPENDIX B)

FIELD SCREENING (PID) READINGS AND DEPTH (FEET BGS)							
PID ID	1 (8')	2 (6')	3 (8')	4 (8')	5 (7')	6 (7')	7 (7')
PID (PPM)	86	50	1630	785	770	290	151

PROJECT: **WisDOT - FORMER DAVES GAS STATION**
WDR OVEREXCAVATION
MERRILLAN, WI

SHEET TITLE:
SOIL SAMPLE LOCATIONS MAP

DRAWN BY: DSS	SCALE: 1"=20'	PROJ. NO. 206021.0000.0000
CHECKED BY: DSS	DATE PRINTED:	FILE NO. C-1.dwg
APPROVED BY: DH	FIGURE 2	
DATE: SEPTEMBER 2013		

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Appendix A Site Photos

Photographic Log

Client Name: Wisconsin Department of Natural Resources (WDNR)	Site Location: 405 N. Washington Street Former Dave's Gas Station, Merrillan, WI	Project No.: WisDOT: 7080-05-73 TRC: 206021.0000.0000
----------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------	--------------------------------------------------------------------



Photo No. 1	Date 08/19/2013	
Description Stained soils at approx. 8-feet bgs in center of over-excavation.		


Photo No. 2	Date 08/19/2013	
Description Stained soils at approx. 8-feet bgs in center of over-excavation.		



Photographic Log

Client Name: Wisconsin Department of Natural Resources (WDNR)	Site Location: 405 N. Washington Street Former Dave's Gas Station Merrillan, WI	Project No.: WisDOT: 7080-05-73 TRC: 206021.0000.0000
----------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	--------------------------------------------------------------------

Photo No. 3	Date 08/19/2013	
Description Over-excavation area - view looking south in front of Former Dave's Gas Station		

Photo No. 4	Date 08/19/2013	
Description Grading work after over-excavation – view looking south		

Appendix B Phase II ESA Background Information (Boring Logs)

USH 12 - Merrilan
7080-05-73
Hammond, Diagonal, and Washington Street
Jackson County

HAZARD MATERIALS PHASE 2 Borings

Boring	Station	Offset	RT/LT	DTM Elevation
B-1	569+99	14.1	RT	930.600
B-2	570+36	14.0	RT	930.875
B-3	570+75	15.3	RT	931.297
B-4	573+60	15.5	LT	931.682
B-5	573+84	15.6	LT	931.535
B-6	574+12	15.3	LT	931.400
B-7	580+81	26.7	LT	931.504
B-10	582+82	14.2	RT	932.542
B-11	583+57	12.4	RT	933.174
B-12	584+24	13.0	RT	933.408
B-13	585+07	12.9	RT	933.637
B-14	585+47	11.8	RT	933.647
B-15	588+94	11.6	RT	936.435
B-16	589+37	11.6	RT	936.639
B-17	589+92	11.7	RT	937.079
B-18	591+36	11.6	RT	938.371
B-19	591+73	12.3	RT	938.497
B-20	591+97	12.6	RT	938.614
B-21	592+09	16.2	LT	937.549
B-22	589+52	17.2	LT	936.817

Facility/Project Name USH 12 - Merrillan - 21009.02		License/Permit/Monitoring Number		Boring Number B-15
Boring Drilled By (Firm name and name of crew chief) Soil Essentials		Date Drilling Started 5 5 11 MM/ DD/ YY	Date Drilling Completed 5 5 11 MM/ DD/ YY	Drilling Method Geoprobe
Common Well Name		Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 2 inches
Boring Location State Plane 0 1/4 of 0 1/4 of Section 0 T, 0 R, 0		Lat	Local Grid Location (if applicable) Feet <input type="checkbox"/> N <input type="checkbox"/> S	
County Jackson		DNR County Code 27	Civil Town/City/or Village Merrillan	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in feet	Soil / Rock Description and Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
SB-15A	60		2	SILTY SAND				1		0					
			4	old musty petro. odor SB-15A (2-4")				8		0					
			6	SILTY SAND					5		0				
			8	SILTY SAND					2		0				
			10	SILTY SAND, w some clay + FINE GRAVEL EOB Clayer-tighter than SAND ABOVE					6		0				
			14	NO water sample PETRO. ODOR FROM 1'-8' bgs											

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

Signature Peter E. Pavalko Firm **PEP Environmental Services, LLC**
 7147 Cedar Sauk Road, Saukville, WI 53080 414-801-1730

This form is authorized by Chapters 144, 147, and 162, Wis. Stat. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Facility/Project Name: **USH 12 - Merrillan - 21009.02** License/Permit/Monitoring Number: **B-16** Boring Number: **B-16**

Boring Drilled By (Firm name and name of crew chief): **Soil Essentials** Date Drilling Started: **5/5/11** Date Drilling Completed: **5/5/11** Drilling Method: **Geoprobe**

Common Well Name: **[REDACTED]** Final Static Water Level: **[REDACTED]** Surface Elevation: **[REDACTED]** Borehole Diameter: **2** inches

Boring Location: State Plane **0 1/4 of 0 1/4 of Section 0 T, 0 R, 0** Lat: **[REDACTED]** Long: **[REDACTED]** Local Grid Location (if applicable): **[REDACTED]**

County: **Jackson** DNR County Code: **27** Civil Town/City/Village: **Merrillan**

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in feet	Soil / Rock Description and Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					ROD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
	60		2	SILTY SAND STRONG! GAS ODOR				460		D					
			4	SAND				420		D					
			6	SAND				490		U					
	36		8	SAND				390		W					
			8	SILTY clay layer - SB-16A 7-8"				560		M					SB-16A WB-16
			10	Collected water sample WB-16											
			14	Free NO apparent product in water sample, but "silty" sheen on outside of g.w. sampling tubing											

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

Signature: **Peter E. Pawalko** Firm: **PEP Environmental Services, LLC**
 7147 Cedar Sauk Road, Saukville, WI 53080 414-801-1730

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Route to:
 Solid Waste
 Emergency Response
 Wastewater
 Superfund
 HazWaste
 Underground Tanks
 Water Resources
 Other

Facility/Project Name: **USH 12 - Merrillan - 21009.02 - DAVES** License/Permit/Monitoring Number: Boring Number: **B-17**

Boring Drilled By (Firm name and name of crew chief): **GAS STA.** Date Drilling Started: Date Drilling Completed: Drilling Method: **Geoprobe**

Soil Essentials

DNR Permit/Well ID: Common Well Name: Final Static Water Level: Feet MSL Surface Elevation: Feet MSL Borehole Diameter: **2** inches

Boring Location: State Plane: N, E Lat: Long: Local Grid Location (if applicable): Feet N S Feet N S

County: **Jackson** DNR County Code: **27** Civil Town/City/or Village: **Merrillan**

Sample Number and Type	Length Att. & Recovered (ft)	Blow Counts	Depth in feet	Soil / Rock Description and Geological Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SB-17A	60	36	2	SILTY SAND STRONG! GAS ODOR				552		D				SB-17A
			4	SB-17A (2-4") SAND				568		D				
			6	SAND				560		M				
			8	Tight SILTY clay - bottom 2"				550		W				
			10	No water sample - too contaminated to send to lab.				255		W				
			12							M				
			14											
			16											
			18											
			20											
			22											
			24											

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

Signature: **Peter E. Pawalis** Firm: **PEP Environmental Services, LLC**
 7147 Cedar Sauk Road, Saukville, WI 53080 414-801-1730

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Appendix C

Soil Disposal Documentation

History and Waiting Specific Contract: 13065B WIS DOT MERRILLIAN OVER EXC

13065B WIS DOT MEI TicketDate	Facility . Customer	Truck	Material	ContractRateRate	Ordered	Minimur	MaximumQuantity
08/19/2013 I	D1	412686 000175 - GERKE EXCAVATING	GERKE36	C-Soil 33A@ Pet Ldd Gs. F	18.50	TN	
08/19/2013 I	D1	412689 000175 - GERKE EXCAVATING	GERKE33	C-Soil 33A@ Pet Ldd Gs. F	18.15	TN	
08/19/2013 I	D1	412691 000175 - GERKE EXCAVATING	GERKE8	C-Soil 33A@ Pet Ldd Gs. F	16.60	TN	
08/19/2013 I	D1	412697 000175 - GERKE EXCAVATING	GERKE6	C-Soil 33A@ Pet Ldd Gs. F	19.64	TN	
08/19/2013 I	D1	412700 000175 - GERKE EXCAVATING	HANDY4001	C-Soil 33A@ Pet Ldd Gs. F	23.71	TN	
08/19/2013 I	D1	412706 000175 - GERKE EXCAVATING	GERKE17	C-Soil 33A@ Pet Ldd Gs. F	20.95	TN	
08/19/2013 I	D1	412709 000175 - GERKE EXCAVATING	ROYCE1	C-Soil 33A@ Pet Ldd Gs. F	23.82	TN	
08/19/2013 I	D1	412710 000175 - GERKE EXCAVATING	KING3	C-Soil 33A@ Pet Ldd Gs. F	22.56	TN	
08/19/2013 I	D1	412713 000175 - GERKE EXCAVATING	GERKE26	C-Soil 33A@ Pet Ldd Gs. F	23.30	TN	
08/19/2013 I	D1	412716 000175 - GERKE EXCAVATING	GERKE23	C-Soil 33A@ Pet Ldd Gs. F	27.64	TN	
08/19/2013 I	D1	412717 000175 - GERKE EXCAVATING	GERKE36	C-Soil 33A@ Pet Ldd Gs. F	22.68	TN	
08/19/2013 I	D1	412723 000175 - GERKE EXCAVATING	GERKE8	C-Soil 33A@ Pet Ldd Gs. F	22.25	TN	
08/19/2013 I	D1	412724 000175 - GERKE EXCAVATING	HANDY4002	C-Soil 33A@ Pet Ldd Gs. F	24.14	TN	
08/19/2013 I	D1	412726 000175 - GERKE EXCAVATING	GERKE33	C-Soil 33A@ Pet Ldd Gs. F	22.60	TN	
08/19/2013 I	D1	412734 000175 - GERKE EXCAVATING	GERKE6	C-Soil 33A@ Pet Ldd Gs. F	27.58	TN	
08/19/2013 I	D1	412741 000175 - GERKE EXCAVATING	HANDY4001	C-Soil 33A@ Pet Ldd Gs. F	19.98	TN	
08/19/2013 I	D1	412748 000175 - GERKE EXCAVATING	ROYCE1	C-Soil 33A@ Pet Ldd Gs. F	20.93	TN	
08/19/2013 I	D1	412749 000175 - GERKE EXCAVATING	KING3	C-Soil 33A@ Pet Ldd Gs. F	18.96	TN	
08/19/2013 I	D1	412751 000175 - GERKE EXCAVATING	GERKE26	C-Soil 33A@ Pet Ldd Gs. F	22.05	TN	
08/19/2013 I	D1	412755 000175 - GERKE EXCAVATING	GERKE27	C-Soil 33A@ Pet Ldd Gs. F	17.59	TN	
08/19/2013 I	D1	412756 000175 - GERKE EXCAVATING	GERKE23	C-Soil 33A@ Pet Ldd Gs. F	21.50	TN	
08/19/2013 I	D1	412757 000175 - GERKE EXCAVATING	GERKE36	C-Soil 33A@ Pet Ldd Gs. F	18.92	TN	
08/19/2013 I	D1	412761 000175 - GERKE EXCAVATING	HANDY4002	C-Soil 33A@ Pet Ldd Gs. F	22.49	TN	
08/19/2013 I	D1	412766 000175 - GERKE EXCAVATING	GERKE8	C-Soil 33A@ Pet Ldd Gs. F	21.38	TN	
08/19/2013 I	D1	412768 000175 - GERKE EXCAVATING	GERKE33	C-Soil 33A@ Pet Ldd Gs. F	21.96	TN	
08/19/2013 I	D1	412773 000175 - GERKE EXCAVATING	GERKE6	C-Soil 33A@ Pet Ldd Gs. F	28.37	TN	
08/19/2013 I	D1	412784 000175 - GERKE EXCAVATING	HANDY4001	C-Soil 33A@ Pet Ldd Gs. F	22.65	TN	
08/19/2013 I	D1	412788 000175 - GERKE EXCAVATING	ROYCE1	C-Soil 33A@ Pet Ldd Gs. F	22.13	TN	
08/19/2013 I	D1	412789 000175 - GERKE EXCAVATING	KING3	C-Soil 33A@ Pet Ldd Gs. F	22.57	TN	
08/19/2013 I	D1	412790 000175 - GERKE EXCAVATING	GERKE26	C-Soil 33A@ Pet Ldd Gs. F	22.70	TN	
Tickets Reported:	30 Items R	30 Contract Totals:		\$0.00			

Material Summary	Weight	Volume	Count	BillingQuantity	MaterialTotal	TaxTotal	Inbound	Outbour	Inbound
H3 - C-Soil 33A@ Pet	658.30	0.00	TN		0.00	0.00 YD	0.00		658.30

Material Summary	Weight	Volume	Count	BillingQuantity	MaterialTotal	TaxTotal	Inbound	Outbour	Inbound
H3 - C-Soil 33A@ Pet	658.30	0.00	TN		0.00	0.00 YD	0.00		658.30

REPORT SUMMARY Total Tickets: 30 Total Weight: 658.30 TN In TN Out
 Total Volume:

Total Count:

Total Sales:

Appendix D

Laboratory Analytical Reports

September 03, 2013

DENNIS SIEWERT
TRC - Madison
708 HEARTLAND TRAIL
Madison, WI 53717

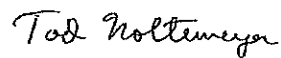
RE: Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Dear DENNIS SIEWERT:

Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 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



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4083364001	#1	Solid	08/19/13 07:18	08/22/13 08:25
4083364002	#2	Solid	08/19/13 07:40	08/22/13 08:25
4083364003	#3	Solid	08/19/13 09:05	08/22/13 08:25
4083364004	#4	Solid	08/19/13 09:20	08/22/13 08:25
4083364005	#5	Solid	08/19/13 09:45	08/22/13 08:25
4083364006	#6	Solid	08/19/13 13:00	08/22/13 08:25
4083364007	#7	Solid	08/19/13 14:00	08/22/13 08:25
4083364008	#8	Solid	08/19/13 14:30	08/22/13 08:25
4083364009	#9	Solid	08/19/13 15:00	08/22/13 08:25
4083364010	#10	Solid	08/19/13 15:30	08/22/13 08:25
4083364011	#11	Solid	08/19/13 16:00	08/22/13 08:25

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SAMPLE ANALYTE COUNT

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4083364001	#1	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364002	#2	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364003	#3	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364004	#4	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364005	#5	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364006	#6	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364007	#7	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364008	#8	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364009	#9	WI MOD GRO	LCF	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364010	#10	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
4083364011	#11	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G

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HITS ONLY

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Lab Sample ID	Client Sample ID	Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
4083364001	#1							
WI MOD GRO	Ethylbenzene			6070 ug/kg		300	08/23/13 17:22	
WI MOD GRO	Naphthalene			3220 ug/kg		300	08/23/13 17:22	
WI MOD GRO	Toluene			1280 ug/kg		300	08/23/13 17:22	
WI MOD GRO	1,2,4-Trimethylbenzene			23600 ug/kg		300	08/23/13 17:22	
WI MOD GRO	1,3,5-Trimethylbenzene			8060 ug/kg		300	08/23/13 17:22	
WI MOD GRO	m&p-Xylene			22300 ug/kg		600	08/23/13 17:22	
WI MOD GRO	o-Xylene			5250 ug/kg		300	08/23/13 17:22	
EPA 6010	Lead			3.6 mg/kg		0.88	08/28/13 16:48	
4083364002	#2							
WI MOD GRO	Naphthalene			71.6 ug/kg		60.0	08/23/13 16:05	
WI MOD GRO	1,2,4-Trimethylbenzene			333 ug/kg		60.0	08/23/13 16:05	
WI MOD GRO	1,3,5-Trimethylbenzene			186 ug/kg		60.0	08/23/13 16:05	
WI MOD GRO	m&p-Xylene			176 ug/kg		120	08/23/13 16:05	
WI MOD GRO	o-Xylene			108 ug/kg		60.0	08/23/13 16:05	
EPA 6010	Lead			14.6 mg/kg		0.87	08/28/13 16:50	
4083364003	#3							
WI MOD GRO	Ethylbenzene			127 ug/kg		60.0	08/23/13 17:47	
WI MOD GRO	Naphthalene			328 ug/kg		60.0	08/23/13 17:47	
WI MOD GRO	1,2,4-Trimethylbenzene			1900 ug/kg		60.0	08/23/13 17:47	
WI MOD GRO	1,3,5-Trimethylbenzene			1010 ug/kg		60.0	08/23/13 17:47	
WI MOD GRO	m&p-Xylene			169 ug/kg		120	08/23/13 17:47	
WI MOD GRO	o-Xylene			80.4 ug/kg		60.0	08/23/13 17:47	
EPA 6010	Lead			12.0 mg/kg		0.85	08/28/13 16:52	
4083364004	#4							
WI MOD GRO	1,2,4-Trimethylbenzene			56.5J ug/kg		60.0	08/23/13 20:47	
WI MOD GRO	1,3,5-Trimethylbenzene			38.7J ug/kg		60.0	08/23/13 20:47	
WI MOD GRO	m&p-Xylene			53.9J ug/kg		120	08/23/13 20:47	
EPA 6010	Lead			4.2 mg/kg		0.92	08/28/13 16:54	
4083364005	#5							
WI MOD GRO	Benzene			1820J ug/kg		3000	08/23/13 19:04	
WI MOD GRO	Ethylbenzene			66700 ug/kg		3000	08/23/13 19:04	
WI MOD GRO	Naphthalene			40100 ug/kg		3000	08/23/13 19:04	
WI MOD GRO	Toluene			95400 ug/kg		3000	08/23/13 19:04	
WI MOD GRO	1,2,4-Trimethylbenzene			233000 ug/kg		3000	08/23/13 19:04	
WI MOD GRO	1,3,5-Trimethylbenzene			79800 ug/kg		3000	08/23/13 19:04	
WI MOD GRO	m&p-Xylene			314000 ug/kg		6000	08/23/13 19:04	
WI MOD GRO	o-Xylene			137000 ug/kg		3000	08/23/13 19:04	
EPA 6010	Lead			23.8 mg/kg		0.89	08/28/13 16:56	
4083364006	#6							
WI MOD GRO	Benzene			563 ug/kg		60.0	08/23/13 16:31	
WI MOD GRO	Ethylbenzene			274 ug/kg		60.0	08/23/13 16:31	
WI MOD GRO	Naphthalene			73.7 ug/kg		60.0	08/23/13 16:31	
WI MOD GRO	Toluene			2050 ug/kg		60.0	08/23/13 16:31	
WI MOD GRO	1,2,4-Trimethylbenzene			270 ug/kg		60.0	08/23/13 16:31	

REPORT OF LABORATORY ANALYSIS

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HITS ONLY

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Lab Sample ID	Client Sample ID				
Method	Parameters	Result	Units	Report Limit	Analyzed
4083364006	#6				
WI MOD GRO	1,3,5-Trimethylbenzene	81.3 ug/kg		60.0	08/23/13 16:31
WI MOD GRO	m&p-Xylene	1040 ug/kg		120	08/23/13 16:31
WI MOD GRO	o-Xylene	471 ug/kg		60.0	08/23/13 16:31
EPA 6010	Lead	1.8 mg/kg		0.88	08/28/13 16:59
4083364007	#7				
WI MOD GRO	Benzene	1080 ug/kg		120	08/23/13 16:56
WI MOD GRO	Ethylbenzene	1690 ug/kg		120	08/23/13 16:56
WI MOD GRO	Naphthalene	1240 ug/kg		120	08/23/13 16:56
WI MOD GRO	Toluene	5120 ug/kg		120	08/23/13 16:56
WI MOD GRO	1,2,4-Trimethylbenzene	6050 ug/kg		120	08/23/13 16:56
WI MOD GRO	1,3,5-Trimethylbenzene	2380 ug/kg		120	08/23/13 16:56
WI MOD GRO	m&p-Xylene	6570 ug/kg		240	08/23/13 16:56
WI MOD GRO	o-Xylene	2620 ug/kg		120	08/23/13 16:56
EPA 6010	Lead	1.6 mg/kg		0.97	08/28/13 17:01
4083364008	#8				
WI MOD GRO	Benzene	1230J ug/kg		1500	08/23/13 18:13
WI MOD GRO	Ethylbenzene	47600 ug/kg		1500	08/23/13 18:13
WI MOD GRO	Naphthalene	20900 ug/kg		1500	08/23/13 18:13
WI MOD GRO	Toluene	57200 ug/kg		1500	08/23/13 18:13
WI MOD GRO	1,2,4-Trimethylbenzene	114000 ug/kg		1500	08/23/13 18:13
WI MOD GRO	1,3,5-Trimethylbenzene	35700 ug/kg		1500	08/23/13 18:13
WI MOD GRO	m&p-Xylene	195000 ug/kg		3000	08/23/13 18:13
WI MOD GRO	o-Xylene	72600 ug/kg		1500	08/23/13 18:13
EPA 6010	Lead	11.9 mg/kg		0.94	08/28/13 17:03
4083364009	#9				
WI MOD GRO	Ethylbenzene	9510 ug/kg		2400	08/23/13 18:38
WI MOD GRO	Naphthalene	11600 ug/kg		2400	08/23/13 18:38
WI MOD GRO	Toluene	7420 ug/kg		2400	08/23/13 18:38
WI MOD GRO	1,2,4-Trimethylbenzene	264000 ug/kg		2400	08/23/13 18:38
WI MOD GRO	1,3,5-Trimethylbenzene	96900 ug/kg		2400	08/23/13 18:38
WI MOD GRO	m&p-Xylene	55800 ug/kg		4800	08/23/13 18:38
WI MOD GRO	o-Xylene	11900 ug/kg		2400	08/23/13 18:38
EPA 6010	Lead	12.7 mg/kg		0.84	08/28/13 17:05
4083364010	#10				
WI MOD GRO	Ethylbenzene	4640 ug/kg		480	08/26/13 18:11
WI MOD GRO	Naphthalene	4760 ug/kg		480	08/26/13 18:11
WI MOD GRO	Toluene	689 ug/kg		480	08/26/13 18:11
WI MOD GRO	1,2,4-Trimethylbenzene	30400 ug/kg		480	08/26/13 18:11
WI MOD GRO	1,3,5-Trimethylbenzene	12900 ug/kg		480	08/26/13 18:11
WI MOD GRO	m&p-Xylene	14800 ug/kg		960	08/26/13 18:11
WI MOD GRO	o-Xylene	3610 ug/kg		480	08/26/13 18:11
EPA 6010	Lead	4.4 mg/kg		0.85	08/28/13 17:07
4083364011	#11				
EPA 6010	Lead	1.0 mg/kg		0.85	08/28/13 17:14

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Method: WI MOD GRO
Description: WIGRO GCV
Client: TRC - MADISON
Date: September 03, 2013

General Information:

11 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: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Method: EPA 6010
Description: 6010 MET ICP
Client: TRC - MADISON
Date: September 03, 2013

General Information:

11 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:

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: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #1 Lab ID: 4083364001 Collected: 08/19/13 07:18 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<125	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	71-43-2	W
Ethylbenzene	6070	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	100-41-4	
Methyl-tert-butyl ether	<125	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	1634-04-4	W
Naphthalene	3220	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	91-20-3	
Toluene	1280	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	108-88-3	
1,2,4-Trimethylbenzene	23600	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	95-63-6	
1,3,5-Trimethylbenzene	8060	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	108-67-8	
m&p-Xylene	22300	ug/kg	600	250	5	08/23/13 08:44	08/23/13 17:22	179601-23-1	
o-Xylene	5250	ug/kg	300	125	5	08/23/13 08:44	08/23/13 17:22	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	108	%	80-120		5	08/23/13 08:44	08/23/13 17:22	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	3.6	mg/kg	0.88	0.26	1	08/28/13 08:15	08/28/13 16:48	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #2 Lab ID: 4083364002 Collected: 08/19/13 07:40 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	1634-04-4	W
Naphthalene	71.6	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	91-20-3	
Toluene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	108-88-3	W
1,2,4-Trimethylbenzene	333	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	95-63-6	
1,3,5-Trimethylbenzene	186	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	108-67-8	
m&p-Xylene	176	ug/kg	120	50.0	1	08/23/13 08:44	08/23/13 16:05	179601-23-1	
o-Xylene	108	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:05	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1	08/23/13 08:44	08/23/13 16:05	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	14.6	mg/kg	0.87	0.25	1	08/28/13 08:15	08/28/13 16:50	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION

Pace Project No.: 4083364

Sample: #3 Lab ID: 4083364003 Collected: 08/19/13 09:05 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	71-43-2	W
Ethylbenzene	127	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	100-41-4	
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	1634-04-4	W
Naphthalene	328	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	91-20-3	
Toluene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	108-88-3	W
1,2,4-Trimethylbenzene	1900	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	95-63-6	
1,3,5-Trimethylbenzene	1010	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	108-67-8	
m&p-Xylene	169	ug/kg	120	50.0	1	08/23/13 08:44	08/23/13 17:47	179601-23-1	
o-Xylene	80.4	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 17:47	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	111	%	80-120		1	08/23/13 08:44	08/23/13 17:47	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	12.0	mg/kg	0.85	0.25	1	08/28/13 08:15	08/28/13 16:52	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION

Pace Project No.: 4083364

Sample: #4 Lab ID: 4083364004 Collected: 08/19/13 09:20 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	108-88-3	W
1,2,4-Trimethylbenzene	56.5J	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	95-63-6	
1,3,5-Trimethylbenzene	38.7J	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	108-67-8	
m&p-Xylene	53.9J	ug/kg	120	50.0	1	08/23/13 08:44	08/23/13 20:47	179601-23-1	
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 20:47	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	98 %		80-120		1	08/23/13 08:44	08/23/13 20:47	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	4.2	mg/kg	0.92	0.27	1	08/28/13 08:15	08/28/13 16:54	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #5 Lab ID: 4083364005 Collected: 08/19/13 09:45 Received: 08/22/13 08:25 Matrix: Solid
Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	1820J	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	71-43-2	
Ethylbenzene	66700	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	100-41-4	
Methyl-tert-butyl ether	<1250	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	1634-04-4	W
Naphthalene	40100	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	91-20-3	
Toluene	95400	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	108-88-3	
1,2,4-Trimethylbenzene	233000	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	95-63-6	
1,3,5-Trimethylbenzene	79800	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	108-67-8	
m&p-Xylene	314000	ug/kg	6000	2500	50	08/23/13 08:44	08/23/13 19:04	179601-23-1	
o-Xylene	137000	ug/kg	3000	1250	50	08/23/13 08:44	08/23/13 19:04	95-47-8	
Surrogates									
a,a,a-Trifluorotoluene (S)	114	%	80-120		50	08/23/13 08:44	08/23/13 19:04	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	23.8	mg/kg	0.89	0.26	1	08/28/13 08:15	08/28/13 16:56	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #6 Lab ID: 4083364006 Collected: 08/19/13 13:00 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	563	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	71-43-2	
Ethylbenzene	274	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	100-41-4	
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	1634-04-4	W
Naphthalene	73.7	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	91-20-3	
Toluene	2050	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	108-88-3	
1,2,4-Trimethylbenzene	270	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	95-63-6	
1,3,5-Trimethylbenzene	81.3	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	108-67-8	
m&p-Xylene	1040	ug/kg	120	50.0	1	08/23/13 08:44	08/23/13 16:31	179601-23-1	
o-Xylene	471	ug/kg	60.0	25.0	1	08/23/13 08:44	08/23/13 16:31	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	08/23/13 08:44	08/23/13 16:31	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	1.8	mg/kg	0.88	0.26	1	08/28/13 08:15	08/28/13 16:59	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #7 Lab ID: 4083364007 Collected: 08/19/13 14:00 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	1080	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	71-43-2	
Ethylbenzene	1690	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	100-41-4	
Methyl-tert-butyl ether	<50.0	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	1634-04-4	W
Naphthalene	1240	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	91-20-3	
Toluene	5120	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	108-88-3	
1,2,4-Trimethylbenzene	6050	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	95-63-6	
1,3,5-Trimethylbenzene	2380	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	108-67-8	
m&p-Xylene	6570	ug/kg	240	100	2	08/23/13 08:44	08/23/13 16:56	179601-23-1	
o-Xylene	2620	ug/kg	120	50.0	2	08/23/13 08:44	08/23/13 16:56	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	109	%	80-120		2	08/23/13 08:44	08/23/13 16:56	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	1.6	mg/kg	0.97	0.28	1	08/28/13 08:15	08/28/13 17:01	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
 Pace Project No.: 4083364

Sample: #8 Lab ID: 4083364008 Collected: 08/19/13 14:30 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	1230J	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	71-43-2	
Ethylbenzene	47600	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	100-41-4	
Methyl-tert-butyl ether	<625	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	1634-04-4	W
Naphthalene	20900	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	91-20-3	
Toluene	57200	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	108-88-3	
1,2,4-Trimethylbenzene	114000	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	95-63-6	
1,3,5-Trimethylbenzene	35700	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	108-67-8	
m&p-Xylene	195000	ug/kg	3000	1250	25	08/23/13 08:44	08/23/13 18:13	179601-23-1	
o-Xylene	72600	ug/kg	1500	625	25	08/23/13 08:44	08/23/13 18:13	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		25	08/23/13 08:44	08/23/13 18:13	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	11.9	mg/kg	0.94	0.27	1	08/28/13 08:15	08/28/13 17:03	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #9 Lab ID: 4083364009 Collected: 08/19/13 15:00 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<1000	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	71-43-2	W
Ethylbenzene	9510	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	100-41-4	
Methyl-tert-butyl ether	<1000	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	1634-04-4	W
Naphthalene	11600	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	91-20-3	
Toluene	7420	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	108-88-3	
1,2,4-Trimethylbenzene	264000	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	95-63-6	
1,3,5-Trimethylbenzene	96900	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	108-67-8	
m&p-Xylene	55800	ug/kg	4800	2000	40	08/23/13 08:44	08/23/13 18:38	179601-23-1	
o-Xylene	11900	ug/kg	2400	1000	40	08/23/13 08:44	08/23/13 18:38	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	118	%	80-120		40	08/23/13 08:44	08/23/13 18:38	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	12.7	mg/kg	0.84	0.25	1	08/28/13 08:15	08/28/13 17:05	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #10 Lab ID: 4083364010 Collected: 08/19/13 15:30 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<200	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	71-43-2	W
Ethylbenzene	4640	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	100-41-4	
Methyl-tert-butyl ether	<200	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	1634-04-4	W
Naphthalene	4760	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	91-20-3	
Toluene	689	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	108-88-3	
1,2,4-Trimethylbenzene	30400	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	95-63-6	
1,3,5-Trimethylbenzene	12900	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	108-67-8	
m&p-Xylene	14800	ug/kg	960	400	8	08/26/13 11:10	08/26/13 18:11	179601-23-1	
o-Xylene	3610	ug/kg	480	200	8	08/26/13 11:10	08/26/13 18:11	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	109	%	80-120		8	08/26/13 11:10	08/26/13 18:11	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	4.4	mg/kg	0.85	0.25	1	08/28/13 08:15	08/28/13 17:07	7439-92-1	

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ANALYTICAL RESULTS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Sample: #11 Lab ID: 4083364011 Collected: 08/19/13 16:00 Received: 08/22/13 08:25 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/26/13 11:10	08/26/13 12:31	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/26/13 11:10	08/26/13 12:31	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	99 %		80-120		1	08/26/13 11:10	08/26/13 12:31	98-08-8	
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Lead	1.0	mg/kg	0.85	0.25	1	08/28/13 08:15	08/28/13 17:14	7439-92-1	

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QUALITY CONTROL DATA

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

QC Batch: GCV/10839 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 4083364001, 4083364002, 4083364003, 4083364004, 4083364005, 4083364006, 4083364007, 4083364008, 4083364009

METHOD BLANK: 843676 Matrix: Solid
Associated Lab Samples: 4083364001, 4083364002, 4083364003, 4083364004, 4083364005, 4083364006, 4083364007, 4083364008, 4083364009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	08/23/13 08:46	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	08/23/13 08:46	
Benzene	ug/kg	<25.0	60.0	08/23/13 08:46	
Ethylbenzene	ug/kg	<25.0	60.0	08/23/13 08:46	
m&p-Xylene	ug/kg	<50.0	120	08/23/13 08:46	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	08/23/13 08:46	
Naphthalene	ug/kg	<25.0	60.0	08/23/13 08:46	
o-Xylene	ug/kg	<25.0	60.0	08/23/13 08:46	
Toluene	ug/kg	<25.0	60.0	08/23/13 08:46	
a,a,a-Trifluorotoluene (S)	%	100	80-120	08/23/13 08:46	

LABORATORY CONTROL SAMPLE & LCSD: 843677		843678								
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	896	976	90	98	80-120	8	20	
1,3,5-Trimethylbenzene	ug/kg	1000	890	975	89	98	80-120	9	20	
Benzene	ug/kg	1000	927	1010	93	101	80-120	9	20	
Ethylbenzene	ug/kg	1000	908	999	91	100	80-120	10	20	
m&p-Xylene	ug/kg	2000	1810	1990	91	99	80-120	9	20	
Methyl-tert-butyl ether	ug/kg	1000	919	998	92	100	80-120	8	20	
Naphthalene	ug/kg	1000	855	961	86	96	80-120	12	20	
o-Xylene	ug/kg	1000	896	989	90	99	80-120	10	20	
Toluene	ug/kg	1000	916	1010	92	101	80-120	10	20	
a,a,a-Trifluorotoluene (S)	%				100	101	80-120			

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QUALITY CONTROL DATA

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

QC Batch: GCV/10850 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 4083364010, 4083364011

METHOD BLANK: 844903 Matrix: Solid
Associated Lab Samples: 4083364010, 4083364011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	08/26/13 10:13	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	08/26/13 10:13	
Benzene	ug/kg	<25.0	60.0	08/26/13 10:13	
Ethylbenzene	ug/kg	<25.0	60.0	08/26/13 10:13	
m&p-Xylene	ug/kg	<50.0	120	08/26/13 10:13	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	08/26/13 10:13	
Naphthalene	ug/kg	<25.0	60.0	08/26/13 10:13	
o-Xylene	ug/kg	<25.0	60.0	08/26/13 10:13	
Toluene	ug/kg	<25.0	60.0	08/26/13 10:13	
a,a,a-Trifluorotoluene (S)	%	99	80-120	08/26/13 10:13	

LABORATORY CONTROL SAMPLE & LCSD: 844904 844905

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	948	963	95	96	80-120	2	20	
1,3,5-Trimethylbenzene	ug/kg	1000	947	957	95	96	80-120	1	20	
Benzene	ug/kg	1000	986	996	99	100	80-120	1	20	
Ethylbenzene	ug/kg	1000	969	981	97	98	80-120	1	20	
m&p-Xylene	ug/kg	2000	1930	1960	97	98	80-120	1	20	
Methyl-tert-butyl ether	ug/kg	1000	987	997	99	100	80-120	1	20	
Naphthalene	ug/kg	1000	935	957	94	96	80-120	2	20	
o-Xylene	ug/kg	1000	962	973	96	97	80-120	1	20	
Toluene	ug/kg	1000	980	984	98	98	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				102	102	80-120			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

QC Batch: MPRP/9023	Analysis Method: EPA 6010
QC Batch Method: EPA 3050	Analysis Description: 6010 MET
Associated Lab Samples: 4083364001, 4083364002, 4083364003, 4083364004, 4083364005, 4083364006, 4083364007, 4083364008, 4083364009, 4083364010, 4083364011	

METHOD BLANK: 845481 Matrix: Solid
Associated Lab Samples: 4083364001, 4083364002, 4083364003, 4083364004, 4083364005, 4083364006, 4083364007, 4083364008, 4083364009, 4083364010, 4083364011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	<0.29	1.0	08/28/13 16:22	

LABORATORY CONTROL SAMPLE: 845482

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	50.7	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 845483 845484

Parameter	Units	4083367001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Lead	mg/kg	7.1	59.4	59.6	57.9	57.4	86	84	75-125	1	20	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

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

ANALYTE QUALIFIERS

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: 206021 TRC-DNR-OVEREXCAVATION
Pace Project No.: 4083364

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4083364001	#1	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364002	#2	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364003	#3	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364004	#4	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364005	#5	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364006	#6	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364007	#7	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364008	#8	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364009	#9	TPH GRO/PVOC WI ext.	GCV/10839	WI MOD GRO	GCV/10842
4083364010	#10	TPH GRO/PVOC WI ext.	GCV/10850	WI MOD GRO	GCV/10853
4083364011	#11	TPH GRO/PVOC WI ext.	GCV/10850	WI MOD GRO	GCV/10853
4083364001	#1	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364002	#2	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364003	#3	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364004	#4	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364005	#5	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364006	#6	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364007	#7	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364008	#8	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364009	#9	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364010	#10	EPA 3050	MPRP/9023	EPA 6010	ICP/7985
4083364011	#11	EPA 3050	MPRP/9023	EPA 6010	ICP/7985

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

UPPER MIDWEST REGION

Page 1 of

MN: 612-607-1700 WI: 920-469-2436

Company Name: TRC
 Branch/Location: MADISON
 Project Contact: Dennis Stewart
 Phone: 608 826-3659
 Project Number: 206021
 Project Name: TRC-DNR-009 excavation
 Project State: WI
 Sampled By (Print): Dennis Stewart
 Sampled By (Sign): Dan Stewart
 PO #:
 Regulatory Program:



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

Quote #: 4083364
 Mail To Contact: ACCTS PAYABLE
 Mail To Company: TRC
 Mail To Address:
 Invoice To Contact: ACCTS PAYABLE
 Invoice To Company: TRC
 Invoice To Address:
 Invoice To Phone:

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

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
 Sl = Sludge WP = Wipe

FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analysis Requested																
			1	2	3	4	5	6	7	8	9	10						
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							
		X	X	X	X	X	X	X	X	X	X							

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Analysis Requested													
		DATE	TIME			1	2	3	4	5	6	7	8	9	10			
001	#1	8-19	7:10	S	X	X	X	X	X	X	X							
002	#2	"	7:40	S	X	X	X	X	X	X	X							
003	#3	"	9:05	S	X	X	X	X	X	X	X							
004	#4	"	9:30	S	X	X	X	X	X	X	X							
005	#5	"	9:45	S	X	X	X	X	X	X	X							
006	#6	"	1:00	S	X	X	X	X	X	X	X							
007	#7	"	2:00	S	X	X	X	X	X	X	X							
008	#8	"	2:30	S	X	X	X	X	X	X	X							
009	#9	"	3:00	S	X	X	X	X	X	X	X							
010	#10	"	3:30	S	X	X	X	X	X	X	X							
011	#11	"	4:00	S	X	X	X	X	X	X	X							

CLIENT COMMENTS
 LAB COMMENTS (Lab Use Only)
 Profile #

1-40m/F 1-40zP²

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

Relinquished By: Dan Stewart 8/22/13 8:00am
 Relinquished By: Walco 8/22/13 0825
 Relinquished By:
 Relinquished By:
 Relinquished By:

Received By: M.V. 8/22/13 0825
 Received By:
 Received By:
 Received By:

PACE Project No. 4083364
 Receipt Temp = 20.1 °C
 Sample Receipt pH OK / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

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Sample Condition Upon Receipt

Client Name: TRC Project # 4083364

Courier: Fed Ex UPS USPS Client Commercial Pace Other Whiteco
Tracking #: 395999

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: 20 /Corr: Biological Tissue is Frozen: yes no
Temp Blank Present: yes no

Person examining contents:
Date: 8/22/13
Initials: MV

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
- Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
- Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10. 008 vial septa was decontaminated.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. 8/22/13
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. No date/time on samples. 8/22/13 402 PM
- Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input 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)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed Lab Std #/ID of preservative Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: Off for TW Date: 8/22/13