FID# 241360170

Moraine Environmental, Inc.

Design • Engineer • Construct

BRRTS #09-41-560627

May 23, 2013

Project Ref: 5640

RECEIVED
MAY 29 2013
BY:

Richard Hurlebaus
Northern Petro Services
W222 N610 Cheaney Drive
Waukesha, WI 53186-1697

Re: Pump and Line Closure Assessment
Kerosene Fueling Operation
Roosevelt Gas, 4295 N. Teutonia Ave
Milwaukee, WI 53209

Dear Rick:

On Tuesday April 30, 2013, a representative from Moraine Environmental, Inc. conducted a Kerosene Pump and Line closure assessment following the removal of the old kerosene pump and supply line from the 6,000 gallon kerosene tank. The 6,000 tank will remain in place and be converted to an unleaded gasoline tank, to provide additional gasoline capacity for the gas station. Northern Petro Services, the UST installation and cleaner/removal contractor performed the cleaning/removal and equipment upgrade to include purging of the system of any excess kerosene residuals in accordance with their DSPS license. Northern Petro is responsible for the proper handling, disposal and recycling of the residual kerosene and part of the removal and system conversion.

Soil samples were collected by Tom Sweet, Site Assessor License #241784, at two locations as shown in the attached color aerial photograph and site photographs. Specifically, one soil sample was collected at 3' deep beneath the former kerosene pump and one at 4' beneath the former supply line connection (sump) feeding into the manway above the 6,000 gallon kerosene tank.

The two soil samples were analyzed for petroleum organic compounds plus naphthalene. **No contamination was identified in either of the two soil samples collected as referred on the enclosed Part B and analytical data lab sheet.**

Based on Moraines findings, ~~no further action is required.~~ NAR JA

1402 7th Avenue • Grafton, WI 53024-2330 • (262) 377-9060 • Fax (262) 377-9770 • (800) 920-2205
Email: moraine@execpc.com • www.moraineenvironmental.com

Please submit a copy of this report to your customer. Moraine has mailed a copy to Vicky Stovall at the Wisconsin Department of Natural Resources for recording.

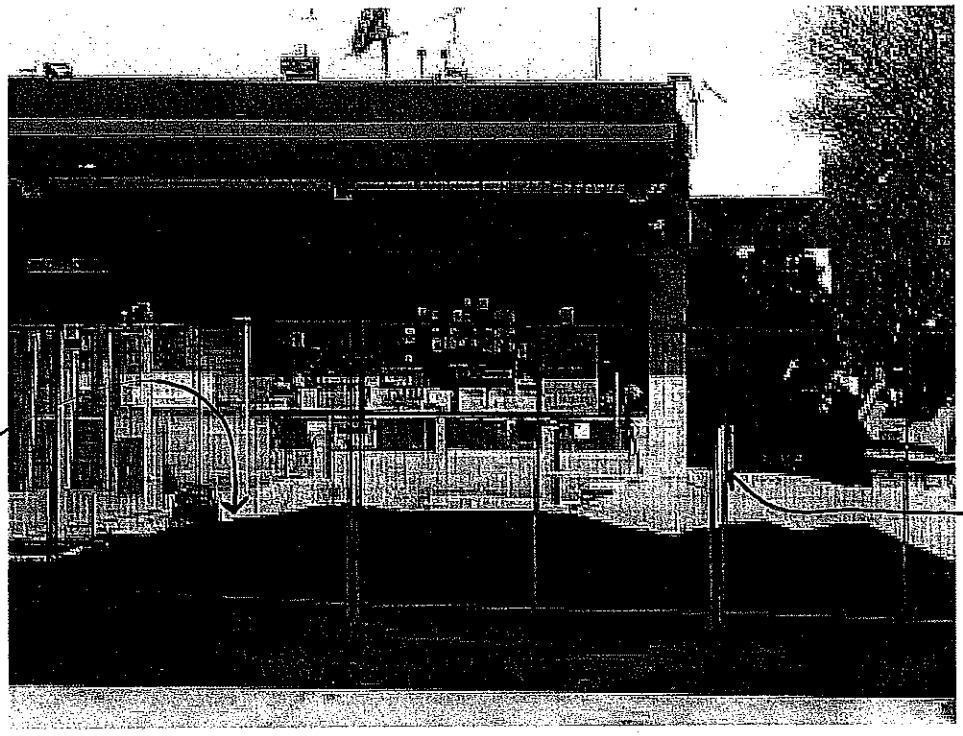
Thank you.

Sincerely,
Moraine Environmental, Inc.

Thomas C. Sweet
President

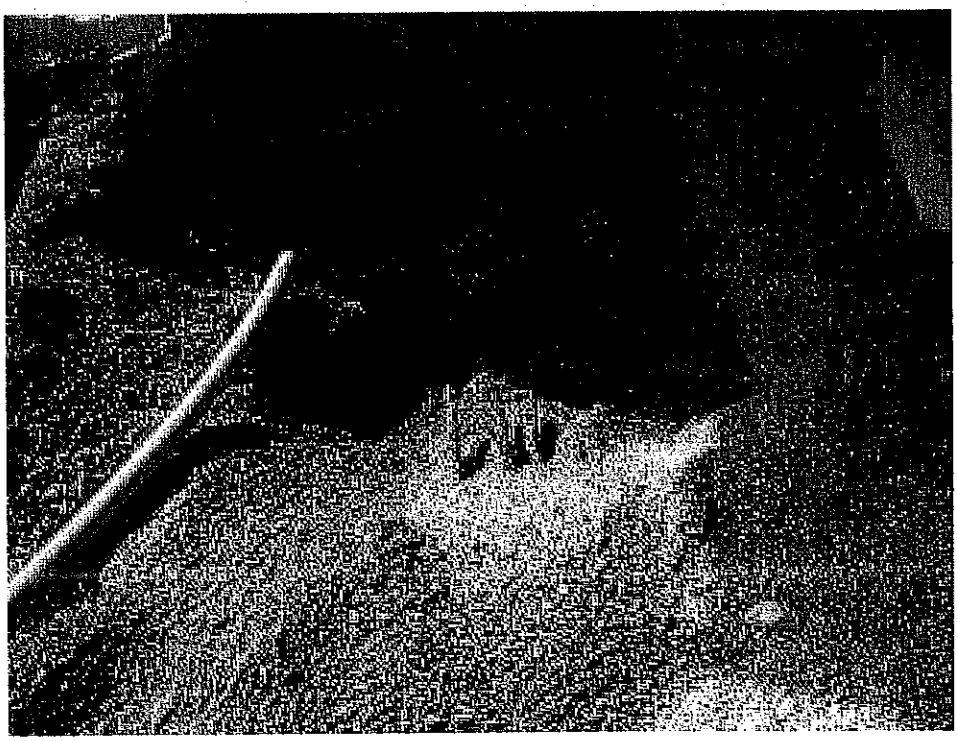
Enclosures

F:\WORD\Mswteh56\5640 Pump & Line Closure Assessment.docx

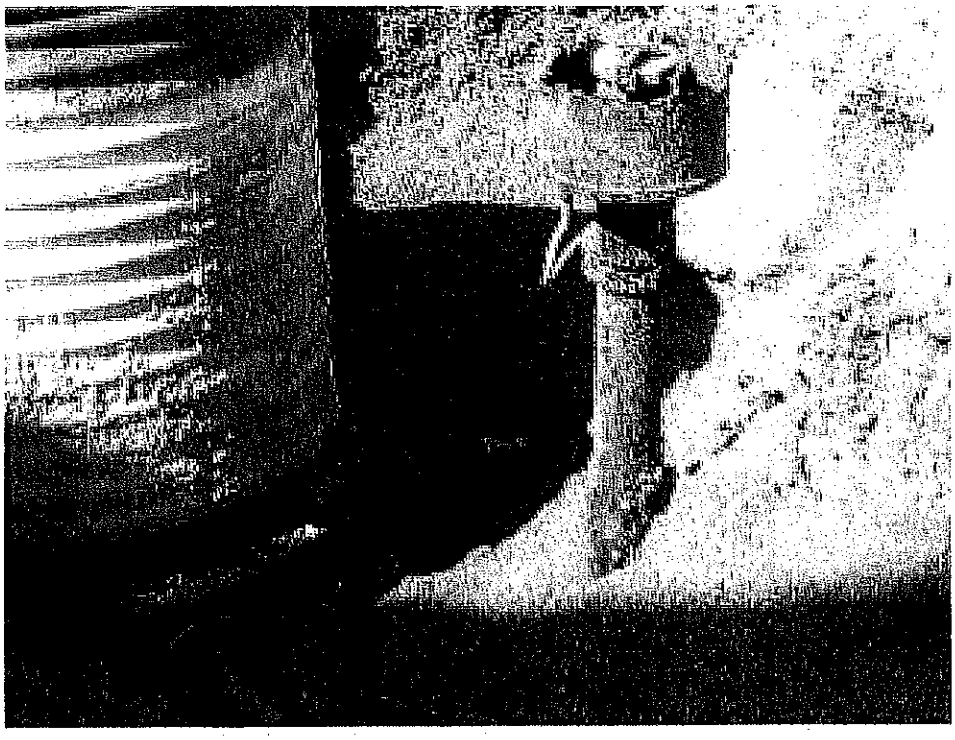


Location of Kerosene Supply Manway/Piping

Location of Former Kerosene Pump



Soil Sample Collected Below Former Kerosene Fueling Pump



Soil Sample Collected Beneath 3' Diameter Manway Following Manual Excavation

Each System Service Event

The information you provide may be used for secondary purposes (Privacy Law, s.16.04 (1) (m), Wis. Stats.)

ASSESSMENT REPORT

CHECK ONE: ☒ UNDERGROUND ☐ ABOVEGROUND

FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE 'N/A' BOX

Wisconsin Department of Safety and Professional Services
Bureau of Petroleum Products and Tanks
P.O. Box 7837
Madison, WI 53707-7837

Part A – To be completed by contractor performing repair or closure

A. TYPE OF SERVICE ☐ CLOSURE ☐ REPAIR/UPGRADE ☐ CHANGE-IN-SERVICE Pump Line Closure only Kerosene

Indicate portion of system being serviced if a repair, upgrade or change-in-service is being performed
☐ Remote fill ☐ Tank ☐ Piping ☐ Transition/containment sump ☐ Spill bucket ☐ Dispenser

B. IDENTIFICATION (Please Print)

1. Facility Name: Roosevelt GAS	2. Owner Name: Bachan Singh owner
Facility Street Address (not P.O. Box): 4295 N. Teutonia Avenue	3. Contact Name: SAA Job Title
Municipality Mail: Milwaukee	ng Address: Same
☒ City ☐ Village ☐ Town of: Milwaukee	Post Office: Same State Z Ip Code
Zip Code: 53209 County: Milwaukee	County: Milwaukee Telephone No. (include area code): ( )
4. Primary Service Contractor Section A above: Northern Petro Service	Service Contractor Street Address: W222 N610 Cheaney Drive
Service Contractor Telephone No. (include area code): ( ) [illegible]	Service Contractor City, State, Zip Code: [illegible]

C. TANK SYSTEM DETAIL (Complete for all service activities)

a	b	c	d	e	f	g		h	
Tank ID #	Type of Closure[1]	Tank Material of Construction	Piping Material of Construction	Tank Capacity (gallons)	Contents[2]	Release - System Integrity Compromised (e.g. holes, cracks, loose connection, etc)?		If "Yes" to "g", Then Specify Source & Cause of Release[3]	
								Source of Release[3]	Cause of Release[4]
306777	Pump + Line Closure	—	Bare Steel	6,000	K	☐ Y	☒ N	—	—
						☐ Y	☐ N	Clean Closure	
Comments: Kerosene Pump + Lines Closed/Removed						☐ Y	☐ N	Assessment	
Kerosene Tank being converted to						☐ Y	☐ N		
unleaded regular tank						☐ Y	☐ N		
						☐ Y	☐ N		

1. Indicate type of closure: P = Permanent, TOS = Temporarily Out-of-Service, CIP = Closure In-Place
2. Indicate type of product: DL = Diesel, LG = Leaded Gasoline, UG = Unleaded Gasoline, FO = Fuel Oil, GH = Gasohol, AF = Aviation Fuel, K = Kerosene, PX = Premix, WO = Waste/Used Motor Oil, FCHZW = Flammable/Combustible Hazardous Waste, OC = Other Chemical (indicate the chemical name(s):

CAS number(s):
3. Source of release: T = tank, P = piping, D = dispenser, STP = submersible turbine pump, DP = delivery problem, O = other, UNK = Unknown
4. Cause of release: S = spill, O = overfill, POMD = physical or mechanical damage, C = corrosion, IP = installation problem, O = other, UNK = Unknown
5. Has release been reported to the Department of Natural Resources? ☐ Yes ☐ No ☐ Release not evident at this time

D. CLOSURES (Check applicable box at right in response to all statements in section D)

Written notification was provided to the local agent 5 days in advance of closure date. ☒ Y ☐ N
All local permits were obtained before beginning closure. ☒ Y ☐ N ☐ NA
☒ UST Form ERS-7437 or ☐ AST Form ERS-8731 filed by owner with the DSPS indicating closure. ☐ Y ☐ N ☐ NA
NOTE: TANK INVENTORY FORM ERS-7437 or ERS-8731 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH CLOSURE or CHANGE-IN-SERVICE CHECKLIST

D.1 ☐ TEMPORARILY OUT-OF-SERVICE	Remover Verified	Inspector Verified	NA
1. Product removed.			
a. Product lines drained into tank (or other container) and liquid removed, and	☐Y ☐N	☐Y ☐N	☑
b. All product removed to bottom of suction line, OR	☐Y ☐N	☐Y ☐N	☑
c. All product removed to within 1" of bottom.	☐Y ☐N	☐Y ☐N	☑
2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped.	☐Y ☐N	☐Y ☐N	☑
3. All product lines at the islands or pumps located elsewhere are removed and capped, OR	☐Y ☐N	☐Y ☐N	☑

4. Dispensers/pumps left in place but locked and power disconnected.	☐Y ☐N	☐Y ☐N	☑
5. Vent lines left open.	☐Y ☐N	☐Y ☐N	☑
6. Inventory form filed indicating temporarily out-of-service (TOS) closure.	☐Y ☐N	☐Y ☐N	☑

D.2. ☒ CLOSURE BY REMOVAL OR IN-PLACE

1. General Requirements — Kerosene Pump + Line Only

a. Product from piping drained into tank (or other container).	☑Y ☐N	☒Y ☐N	☐
b. Piping disconnected from tank and removed.	☑Y ☐N	☒Y ☐N	☐
c. All liquid and residue removed from tank using explosion-proof pumps or hand pumps.	☑Y ☐N	☒Y ☐N	☐
d. All pump motors and suction hoses bonded to tank or otherwise grounded.	☑Y ☐N	☒Y ☐N	☐
e. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed. Tank will be converted to unleaded Tank.	☐Y ☑N	☐Y ☐N	☒
f. Vent lines left connected until tanks purged.	☐Y ☐N	☐Y ☐N	☑
g. Tank openings temporarily plugged so vapors exit through vent.	☐Y ☐N	☐Y ☐N	☑
h. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section E.	☑Y ☐N	☒Y ☐N	☐

2. Specific Closure-by-Removal Requirements

a. Tank removed from excavation after PURGING/INERTING; placed on level ground and blocked to prevent movement.	☐Y ☐N	☐Y ☐N	☑
b. Tank cleaned before being removed from site.	☐Y ☐N	☐Y ☐N	☑
c. Tank labeled in 2½" high letters after removal but before being moved from site.	☐Y ☐N	☐Y ☐N	☑
NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.			
d. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site.	☐Y ☐N	☐Y ☐N	☑
e. Site security is provided while the excavation is open.	☑Y ☐N	☒Y ☐N	☐

3. Specific Closure-In-Place Requirements N/A

NOTE: CLOSURES IN-PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DSPS) OR LOCAL AGENT.

a. Tank properly cleaned to remove all sludge and residue.	☐Y ☐N	☐Y ☐N	☑
b. Solid inert material (sand, cyclone boiler slag, or pea gravel recommended) introduced and tank filled.	☐Y ☐N	☐Y ☐N	☑
c. Vent line disconnected or removed.	☐Y ☐N	☐Y ☐N	☑
d. Inventory form filed by owner with the DSPS indicating closure in-place.	☐Y ☐N	☐Y ☐N	☑

E. ☐ REPAIR, UPGRADE OR CHANGE-IN-SERVICE

Written notification was provided to the local agent 5 days in advance of service date.	☑Y	☐N	☐NA
All local permits were obtained before beginning service.	☑Y	☐N	☐NA
Form ERS-7437 or ☑ ERS-8731 filed by owner with the DSPS indicating change-in-service.	☑Y	☐N	☐NA

F. METHOD OF VAPOR FREEING OF TANK

☐ Displacement of vapors by eductor or diffused air blower.
Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground.
Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.

☐ Inert gas using dry ice or liquid carbon dioxide.

☐ Inert gas using CO_2 or N_2 NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. LEL METERS MAY NOT FUNCTION ACCURATELY. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.
Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent.
Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.

☒ Readings of 10% or less of the lower flammable range (LEL) or 8% oxygen obtained before removing tank from ground.

☒ Tank atmosphere monitored for flammable or combustible vapor levels prior to and during cleaning and cutting.

☒ Calibrate combustible gas indicator and/or oxygen meter prior to use. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank.

G. REMOVER/CLEANER INFORMATION — Site Assessor - Tom Sweet - Moraine Environmental, Inc. 262-241-7844

Steve Kallmann		41026	9-2-13
Remover/Cleaner Name (print)	Remover/Cleaner Signature	Certification No.	Date Signed

I attest that the procedures and information which I have provided as the tank closure contractor are correct and comply with Comm 10.

Company expected to perform soil contamination assessment — None Required - Site Clean - Reference attached Rpt.

H. INSPECTOR INFORMATION

ADAM RODER		1147625	
Inspector Name (print)	Inspector Signature	Inspector Cert #	LPO Agency #:
4020	(414) 286-2538		9/2/13
FDID # For Location Where Inspection Performed	Inspector Telephone Number		Date Signed

Part B – To be completed by environmental professional

Submit original Part B to the WDNR along with a copy of Part A

I. TANK-SYSTEM SITE ASSESSMENT (TSSA)

Site Name: Roosevelt GAS

Address: 4295 N. Teutonia Ave, Milwaukee, WI 53209

Note: Site name and address must match with Part A Section 1.

To determine if a TSSA is required, see Comm 10 and section II part B of *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

If a TSSA is required, then follow the procedures detailed in *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

1. Site Information

a. Has there been a previously documented release at this site? ☐ Y ☒ N

If yes, provide the DSPS # N/A, or DNR BRRT's # N/A.

b. Number of active tanks[1] at facility prior to completion of current services USTs 4 ASTs 0.

(NOTE 1: Do not include previously closed systems or system components.)

c. Excavation/trench dimensions (in feet). (Photos must be provided.)

EXCAVATION/TRENCH #	LENGTH	WIDTH	DEPTH
#1 Kerosene Pump	2'	2'	36"
#2 Kerosene Sump	6'	4'	48"

2. Visual Excavation/Trench Inspection (Photos must be provided for "Yes" responses, except item b.)

Do any of the following conditions exist in or about the excavation(s)?

a. Stained soils: ☐ Y ☒ N b. Petroleum odor: ☐ Y ☒ N c. Water In excavation/trench: ☐ Y ☒ N

d. Free product in the excavation/trench: ☐ Y ☒ N e. Sheen or free product on water: ☐ Y ☒ N

3. Geology/Hydrogeology

a. Depth to groundwater ≈ 14' feet b. Indicate type of geology[2] Clay

(Note 2: Use these symbols individually or in combination as appropriate: C = Clay, SLT = Silt, S = Sand, Gr = Gravel)

4. Receptors

a. Water supply well(s) within 250 feet of the facility? ☐ Y ☒ N If yes, specify

b. Surface water(s) within 1000 feet of the facility? ☐ Y ☒ N If yes, specify

5. Sampling

a. Follow the procedures detailed in *ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.*

b. Complete Tables 1 and 2 as appropriate. (Attach chain-of-custody and laboratory analytical reports.)

c. Attach a detailed map of site features and sample locations.

J. NOTE RELEVANT OBSERVATIONS, SPECIFIC PROBLEMS OR CONCERNS BELOW

Clean Site, Disposal of Kerosene in lines was Contaminated by Cleaner/removal contractor; ~~[illegible]~~ Northern Petro Services

TABLE 1 SOIL FIELD SCREENING & GRO/DRO LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	Sample Location & Soil/Geologic Description	Sample Collection Method				Depth Below Tank/Piping (feet)	Field Screening Result (ppm)	GRO (mg/kg)	DRO (mg/kg)
		Grab	Shelby Tube	Direct Push	Split Spoon				
01	Kerosene Pump	☒	☐	☐	☐	3'	<0.1	NA	NA
02	Kerosene Tank Manway	☒	☐	☐	☐	4'	<0.1	NA	NA
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				
		☐	☐	☐	☐				

TABLE 2 SOIL LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID #	BENZENE	TOLUENE	ETHYLBENZENE	MTBE	TRIMETHYL - BENZENES (TOTAL)	XYLENES (TOTAL)	NAPHTHALENE
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
01	<25	<25	<25	<25	<25	<75.0	<25
02	<25	<25	<25	<25	<25	<75.0	<25

K. TANK-SYSTEM SITE ASSESSMENT INFORMATION

☒ As a tank-system site assessor certified under Wis. Admin. Code section Comm 5.83, it is my opinion that there is no indication of a release of a regulated substance to the environment.

☐ Sampling at the site indicates there has been a release to the environment. Pursuant to Wis. Admin. Code section Comm 10.585 (2) (a) and Wis. Stats. section 292.11 (2) (a), the owner or operator or contractor performing work under chapter Comm 10 shall immediately report any release of a regulated substance to the Wisconsin Department of Natural Resources. Failure to do so may result in forfeitures of a minimum of $10 and a maximum of $5000 for each violation under Wis. Stats. section 101.09 (5). Each day of continued violation and each tank are treated as separate offenses.

Thomas C. Sweet	Thomas C. Sweet	241784
Tank-System Site Assessor Name (print)	Tank-System Site Assessor Signature	Certification Number #
262-377-9060	5/23/2013	Moraine Environmental, Inc
Tank-System Site Assessor Telephone Number	Date Signed	~~Comp~~ Company Name

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

EMH

4077156

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

(Please Print Clearly)	
Company Name:	Moraine Enviro.
Branch/Location:	Grafton
Project Contact:	Tom Sweet
Phone:	262-377-9060
Project Number:	#5640
Project Name:	Teutonia GAS - 4295
Project State:	WI
Sampled By (Print):	Tom Sweet
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Tom Sweet
Mail To Company:	Moraine Environmental
Mail To Address:	1402 7th Avenue Grafton, WI 53024
Invoice To Contact:	
Invoice To Company:	
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, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: PVOCs + naphth. (FILTERED? Y/N: N, PRESERVATION (CODE)*: F)	Analyses Requested: Dry weight (FILTERED? Y/N: N, PRESERVATION (CODE)*: A)	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	Kerosene Pump + 3'	4/30	10:00	S	X	X		1-40mlv F 1-4oz p A	
002	Kerosene Sump @ 4'	4/30	10:05	S	X	X			

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:	Date/Time:	Received By:	Date/Time:
	5/01/2013	Mary Fannin	5/01/13 9:45
Mary Fannin	5/01/13 11:00am 1330		
CS Logistics	5/2/13 0950		5/2/13 0950

PACE Project No. 4077156
Receipt Temp = 2.1 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal: Present / Not Present, Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

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www.pacelabs.com

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

May 07, 2013

Tom Sweet
Moraine Environmental, Inc.
1402 7th Avenue
Grafton, WI 530242330

RE: Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

Dear Tom Sweet:
Enclosed are the analytical results for sample(s) received by the laboratory on May 02, 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,

Steven Mleczko

steve.mleczko@pacelabs.com
Project Manager

Enclosures

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without the written consent of Pace Analytical Services, Inc..

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

CERTIFICATIONS

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

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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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4077156001	**KEROSENE PUMP @ 3'**	Solid	04/30/13 10:00	05/02/13 09:50
4077156002	**KEROSENE SUMP @ 4'**	Solid	04/30/13 10:05	05/02/13 09:50

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Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4077156001	KEROSENE PUMP @ 3'	WI MOD GRO	MRS	10	PASI-G
		ASTM D2974-87	MAV	1	PASI-G
4077156002	KEROSENE SUMP @ 4'	WI MOD GRO	MRS	10	PASI-G
		ASTM D2974-87	MAV	1	PASI-G

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

Sample: KEROSENE PUMP @ 3' **Lab ID: 4077156001** Collected: 04/30/13 10:00 Received: 05/02/13 09:50 Matrix: Solid

Results reported on a "dry-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	05/06/13 08:34	05/06/13 13:53	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/13 08:34	05/06/13 13:53	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:53	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%	80-120		1	05/06/13 08:34	05/06/13 13:53	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**3.3**	%	0.10	0.10	1		05/04/13 13:01		

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

ANALYTICAL RESULTS

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

Sample: KEROSENE SUMP @ 4' **Lab ID: 4077156002** Collected: 04/30/13 10:05 Received: 05/02/13 09:50 Matrix: Solid

Results reported on a "dry-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	05/06/13 08:34	05/06/13 13:28	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	05/06/13 08:34	05/06/13 13:28	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	05/06/13 08:34	05/06/13 13:28	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%	80-120		1	05/06/13 08:34	05/06/13 13:28	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.0**	%	0.10	0.10	1		05/04/13 13:01		

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QUALITY CONTROL DATA

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

QC Batch: GCV/10184 | Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. | Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 4077156001, 4077156002

METHOD BLANK: 784828 | Matrix: Solid
Associated Lab Samples: 4077156001, 4077156002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	05/06/13 08:39	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	05/06/13 08:39	
Benzene	ug/kg	<25.0	60.0	05/06/13 08:39	
Ethylbenzene	ug/kg	<25.0	60.0	05/06/13 08:39	
m&p-Xylene	ug/kg	<50.0	120	05/06/13 08:39	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	05/06/13 08:39	
Naphthalene	ug/kg	<25.0	60.0	05/06/13 08:39	
o-Xylene	ug/kg	<25.0	60.0	05/06/13 08:39	
Toluene	ug/kg	<25.0	60.0	05/06/13 08:39	
a,a,a-Trifluorotoluene (S)	%	96	80-120	05/06/13 08:39	

LABORATORY CONTROL SAMPLE & LCSD: 784829 784830

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	932	942	93	94	80-120	1	20	
1,3,5-Trimethylbenzene	ug/kg	1000	928	936	93	94	80-120	1	20	
Benzene	ug/kg	1000	993	1020	99	102	80-120	3	20	
Ethylbenzene	ug/kg	1000	952	964	95	96	80-120	1	20	
m&p-Xylene	ug/kg	2000	1900	1940	95	97	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	969	962	97	96	80-120	1	20	
Naphthalene	ug/kg	1000	913	927	91	93	80-120	2	20	
o-Xylene	ug/kg	1000	942	954	94	95	80-120	1	20	
Toluene	ug/kg	1000	962	980	96	98	80-120	2	20	
a,a,a-Trifluorotoluene (S)	%				96	95	80-120			

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QUALITY CONTROL DATA

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

QC Batch: PMST/8404
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 4077156001, 4077156002

SAMPLE DUPLICATE: 784760

Parameter	Units	4077315001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	43.0	42.5	1	10	

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QUALIFIERS

Project: 5640 TEUTONIA GAS-4295
Pace Project No.: 4077156

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.

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1241 Bellevue Street, Suite
Green Bay, WI 5431

Sample Condition Upon Receipt

Client Name: Moraine Env. Project # 4077156

Courier: ☐ Fed Ex ☐ 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: RDI Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 5/2/13
Initials: [illegible]

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

F-GB-C-031-Rev.01 (01Mar2013) SCUR Form