December 10, 2010



Green Bay Office 4664 Golden Pond Park Ct. Hobart, WI 54155 920-662-9641 FAX 920-662-9141 E Mail rel@releeinc.com

Mr. Don Hermansen
MARINETTE MARINE CORPORATION
1600 Ely Street
Marinette, WI 54143

RE: TANK-SYSTEM SITE ASSESSMENT AND DOCUMENTATION OF REMEDIAL ACTION

Marinette Marine Corporation – Building #10 Expansion (SW Diesel UST) 1600 Ely Street, Marinette, Wisconsin

BRRTS # 02-38-555082

Dear Mr. Hermansen:

On behalf of Marinette Marine Corporation and Smet Construction Services, Robert E. Lee & Associates, Incorporated (REL) has completed a tank-system site assessment (TSSA), the remediation of petroleum-contaminated soil, and groundwater sampling at the above-referenced property (the Site). This letter report presents a summary of the activities completed and requests that no further action be required by the Wisconsin Department of Natural Resources (WDNR).

#### SITE LOCATION

The Site is the location of Building #10 (ship erection building) of the Marinette Marine Corporation (MMC) facility. The Wisconsin Transverse Mercater coordinates for the Site are 707096, 516816. The Site location and local topography is shown in Figure 1. The Site is a part of a 28-acre shipyard that builds ships for commercial use and the United States Navy and Coast Guard. The MMC facility is located in a mixed-use industrial, commercial, and residential area in the City of Marinette within the northeast quarter of the southeast quarter of Section 6, Township 30, Range 24 East, Marinette County, Wisconsin.

#### BACKGROUND INFORMATION

During February 2010, a Phase II Environmental Site Assessment (ESA) was completed in the immediate vicinity of Building #10 in preparation for a building addition. Numerous soil borings were completed throughout the area of planned construction. Soil samples were laboratory analyzed for Resource Conservation and Recovery Act (RCRA) metals, polynuclear aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs). Laboratory analysis detected concentrations of metals, PAHs, and/or VOCs in each of the soil borings. In accordance with the Wisconsin Spills Law, the detection of contaminants was reported to the WDNR on March 4, 2010.

Subsequently, the WDNR assigned Bureau of Remediation and Redevelopment Tracking System (BRRTS) #02-38-555082 to the Site and requested that a site investigation be completed to define the magnitude and extent of the contaminants in soil and/or groundwater. REL was retained by MMC and Smet Construction Services to perform an investigation of the contaminants and provide oversight of the handling of contaminated soils during construction activities, respectively.

During April 2010, construction for the Building #10 addition was initiated by Smet Construction Services. On July 8, 2010, a 1,000-gallon underground storage tank was discovered during the installation of a new storm sewer along the southern wall of the west addition of Building #10. The UST is believed to have contained diesel fuel and was installed between 30 to 50 years ago by Kargard, the previously property owner. During exploratory excavation, the UST was observed to be located in close proximity to the new building foundation and an underground natural gas line. Given the USTs proximity to these structures, approval for closure in-place of the UST was granted by the Wisconsin Department of Commerce (WDCOMM) inspector. The former UST location is shown on Figure 2.

#### **SUMMARY OF ACTIVITIES AND RESULTS**

#### **UST Closure and Remedial Action Activities**

On July 12, 2010, REL geologist, Ms. Nicole LaPlant (WDCOMM Certification #46836), was onsite to oversee the closure-in-place of the diesel UST and complete the TSSA. The WDCOMM inspector was present during the closure activities. Barley Excavating & Trucking provided excavation services. The UST was closed-in-place by SGS Environmental Contracting, LLC (SGS) (WDCOMM Certification #42227). The UST was abandoned with approximately 5 cubic yards of concrete slurry.

Prior to closure, approximately 900 gallons of water was pumped from the UST to a vac truck by Chief Liquid Waste. Cleaning of the UST was completed by SGS. All UST closure activities were conducted in accordance with Chapter Comm 10, Wisconsin Administrative Code, and the TSSA was completed in accordance with the Assessment and Reporting of Suspected and Obvious Releases from Underground and Aboveground Storage Tank System Guidance published by the Wisconsin Department of Commerce (WDCOMM, 2010). Detailed information regarding the UST system, UST closure and cleaning, surplus product, water, and sludge disposal, and photographs are included in Attachments A through E.

During the UST closure, obvious staining and petroleum odors were observed in soils surrounding the UST. Several small holes were observed in the UST during cleaning. Given the observed contamination and the continuing construction activities, accessible contaminated soil was excavated from around the UST and from within the new storm sewer trench. Excavation north of the UST was prohibited by the new gas line and building foundation. The petroleum-contaminated soil was placed on plastic and stockpiled on-site pending approval for proper off-site disposal. The contaminated soil stockpile was covered with plastic until it was transported off-site by Barley

Excavating & Trucking for disposal at Waste Management's Menominee Landfill, Menominee, Michigan.

A total of 114.57 tons of contaminated soil was excavated from the vicinity of the UST. The excavation surrounding the UST was approximately 14 feet wide by 20 feet long and was 5 to 6 feet deep. The storm sewer trench excavation was approximately 3 feet deep. Upon completion of the UST closure, the storm sewer was constructed and placed above the top of the closed in-place UST. Soil in the excavation consisted primarily of sand and silty sand with organics and lesser amounts of gravel. Saturated soil was encountered near 5 feet below grade (fbg). The bottom of the UST was located at approximately 7.5 fbg. The excavation was backfilled and compacted with clean imported sand. The extent of the excavation is shown on Figure 2. Documentation of contaminated soil disposal is included in Attachment F.

REL collected thirteen soil samples (S1 through S13) from the excavation for TSSA and landfill characterization purposes; and to document soil conditions at the excavation limits. Excavation sidewall profile soil samples were collected from each sidewall at approximate 2-foot vertical intervals from the ground surface to the bottom of the excavation. Each soil sample was described in the field and properly containerized for field screening and possible laboratory analysis. Soil sample collection, handling, and field-screening procedures followed WDNR guidance. Field screening was performed using an Ion Science Photocheck 1000 photoionization detector (PID). The soil sample locations and estimated extent of the excavation are shown in Figure 2.

A total of six soil samples were submitted for laboratory analysis. Two soil samples (S1 and S2) were collected at approximately 7 fbg for TSSA and landfill characterization purposes; and to characterize the residual petroleum-contaminated soil that was inaccessible for excavation. Four soil samples (S3, S6, S9, and S12) were collected above the apparent water table at approximately 4 fbg to document vadose zone soil conditions from the east, west, and south excavation limits. Existing infrastructure prohibited the collection of soil samples north of the UST. The samples were submitted under chain-of-custody protocol to Synergy Environmental Lab, Inc., (Synergy) (WDNR Certification #445037560) for a combination of diesel range organics (DRO), petroleum volatile organic compounds (PVOCs), naphthalene, and PAH analysis.

To evaluate groundwater quality, a monitoring well (MW1) was installed within the excavation prior to backfilling. The monitoring well is constructed with 2-inch diameter polyvinyl chloride (PVC) pipe with 6 feet of 0.01 slot screen to approximately 9 fbg. The monitoring well location is shown on Figure 2. Red Flint #10 sand (i.e., standard filter pack) and clean washed sand was placed around the well. REL personnel developed the monitoring well during July and August 2010 using a disposable bailer until it was sediment free. Development water was placed in a 55-gallon steel drum stored on-site pending proper disposal.

On August 31, 2010, REL collected a groundwater sample from Monitoring Well MW1 using low flow techniques. Specifically, the well was purged at a flow rate between 0.1 and 0.5 liters per minute using a submersible pump with a variable speed flow controller. The water was pumped through a flow through cell where measurements of temperature, conductivity, dissolved

oxygen, oxidation-reduction potential, and pH were collected using a YSI-556 multi-probe system. The wells were purged until consistent readings were observed, at which time, the tubing to the flow cell was disconnected and was used to fill the appropriate sample containers. A groundwater level measurement was collected from the well using an electronic water level indicator prior to sampling. The groundwater sample was submitted under chain-of-custody to Synergy for PVOC and PAH analysis.

#### Soil Results

Field screening of the soil samples produced PID readings ranging from 0 to >1000 parts per million. Field screening of Samples S1 and S2 indicated the presence of petroleum contamination near the base of the UST. Field screening of soil samples collected from the final excavation limits did not produce highly elevated PID readings. The field screening results are summarized in Table 1.

Laboratory analysis detected concentrations of DRO, PVOCs, and PAHs in the soil Samples S1 and S2, which confirmed the field screening results. Notably, the concentrations of DRO, ethylbenzene, toluene, xylenes, 2-methylnaphthane, and naphthalene detected in sample S2 are in excess of their respective Chapter NR 720 generic residual contaminant levels (RCLs) and/or the WDNR suggested groundwater pathway RCLs for PAHs. The concentrations of ethylbenzene, toluene, 1,2,4— trimethylbenzene, and 1,3,5— trimethylbenzene detected in Sample S2 are also in excess of the Chapter NR 746.06 Table 1 soil screening levels, which are indicative of residual petroleum product in soil pores. Laboratory analysis did not detect concentrations of DRO, PVOCs, and/or PAHs in excess of their respective RCLs or Table 1 values in soil Sample S1 and in any of the soil samples collected from the final excavation limits to the east, west, and south.

Based on laboratory analytical results, petroleum contaminated soil remains near the bottom of the UST where further excavation was prohibited. Given the lack of petroleum compounds in the samples collected from the limits of the excavation, it appears that the most highly contaminated accessible petroleum-contaminated soil was removed to the east, west, and south of the UST bed. Excavation and confirmation soil sampling was not completed north of the UST due to the close proximity of the UST to underground utilities and building foundation. Based on previous soil samples (P39, P41, P41A, and P43) collected by REL during the excavation of the pile caps, located north to northwest-east of the UST, the residual petroleum-contaminated soil extends laterally beneath the new building addition; however, is limited in extent. The soil analytical results are summarized in Table 2. The soil analytical reports are included in Attachment G.

#### **Groundwater Results**

A groundwater elevation measurement collected from MW1 indicates that shallow groundwater is approximately 4.5 fbg. Concentrations of petroleum compounds were not detected by laboratory analysis in excess of the Chapter NR 140 groundwater water quality standards in MW1. In addition, free-phase petroleum product was not observed in MW1, as potentially indicated by the presence of the Table 1 value exceedances in soil. The groundwater analytical results are summarized in Table 3. The groundwater analytical reports are included in Attachment G.

#### **CONCLUSIONS AND RECOMMENDATIONS**

Petroleum-contaminated soil was observed around the diesel UST during its closure in-place. To facilitate the ongoing construction activities, the over-excavation of 114.57 tons of accessible contaminated soil was excavated from the vicinity of the UST. Soil sampling results indicate that concentrations of petroleum compounds in excess of their respective WDNR RCLs and Table 1 values remains in soil within the UST bed, where further excavation was prohibited. Based on supplemental soil sampling results for the previous pile cap excavations, the soil contamination is limited in extent and extends laterally beneath the new building addition.

Groundwater sampling results from MW1, placed within the UST excavation, indicate that concentrations of petroleum compounds in excess of Chapter NR140 groundwater quality standards are not present in groundwater. Given the lack of significant petroleum compounds in groundwater, it does not appear that the remaining soil contamination is adversely impacting groundwater quality.

Given that the source of the petroleum release (i.e., the UST) has been properly decommissioned, accessible contaminated soil has been removed, the majority of the remaining petroleum-contaminated soil is capped by the Site building, and groundwater quality has not been adversely impacted, REL requests that no further action be required to address the residual contamination associated with the former diesel UST.

Please feel free to contact our office if you have any questions.

Sincerely,

ROBERT E. LEE & ASSOCIATES, INC.

Just L. Lallant

Nicole L. LaPlant

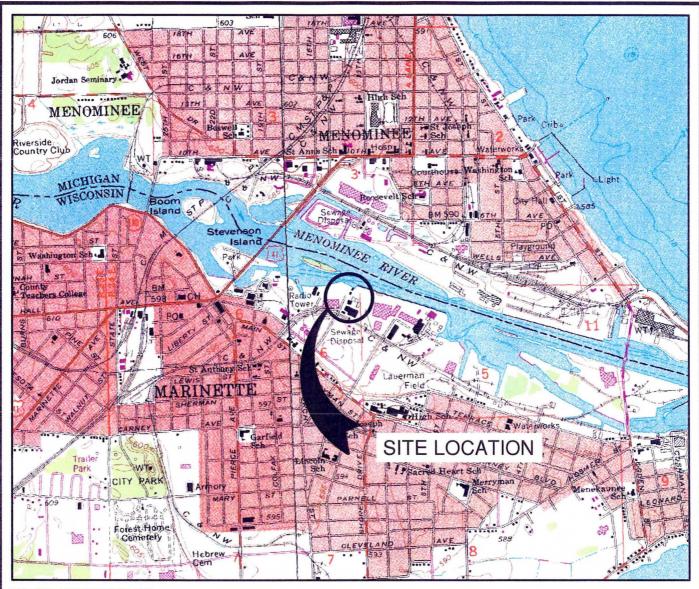
Senior Project Geologist

NLL/NJM

ENC.

CC/ENC.: Mr. Jason Moeller, WDNR

Mr. Joash Smits, Smet Construction Services Corp.



MAP USED - MARINETTE EAST - 1976 MAP USED - MARINETTE WEST - 1976

## SITE LOCATION AND LOCAL TOPOGRAPHY

MARINETTE MARINE CORP-BLDG. NO.10 EXPANSION MARINETTE, WISCONSIN





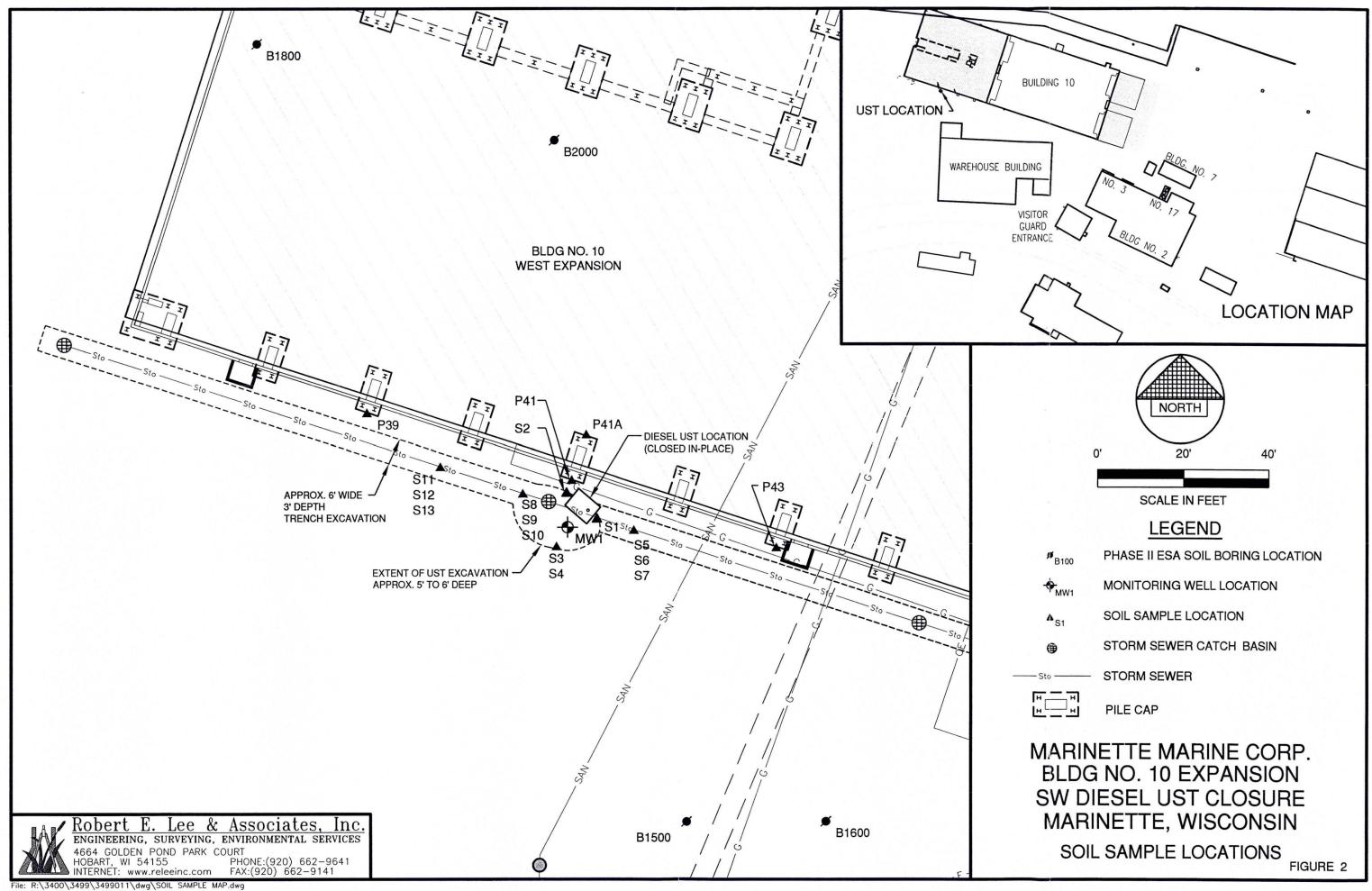


Table 1
Soil Field Screening Results Summary
Marinette Marine Building #10 Expansion (SW Diesel UST), Marinette, Wisconsin

Sample	Date Collected	Depth (Feet)	Sample Location/Type	Sample Description	Sample Petroleum Odor	PID Reading (ppm)
S1*	07/12/10	7	East end of UST / TSSA	Fine grained sand, stained, wet	Strong / Weathered	253
S2*	07/12/10	7	West end of UST / TSSA	Fine grained sand, stained, wet	Strong / Weathered	> 1000
S3*	07/12/10	4	Confirmatory sidewall	Silty sand, moist	Slight / Organic	77
<u>S4</u>	07/12/10	7	Confirmatory sidewall / floor	Silty sand, wet	Slight / Organic	65
<b>S</b> 5	07/12/10	2	Confirmatory sidewall	Fine to medium grained sand, dry	Organic	34
S6*	07/12/10	4	Confirmatory sidewall	Fine to medium grained sand, moist	Organic	70
S7	07/12/10	6	Confirmatory sidewall / floor	Medium grained sand, wet	None	3.5
S8	07/12/10	2	Confirmatory sidewall	Sand and gravel, dry	None	2
S9*	07/12/10	4	Confirmatory sidewall	Fine to medium grained sand, moist	Sulfur / Organic	19
S10	07/12/10	6	Confirmatory sidewall / floor	Fine to medium grained sand, wet	Organic	26
S11	07/12/10	2	Confirmatory sidewall	Fine to medium grained sand, dry	None	0.6
S12*	07/12/10	4	Confirmatory sidewall	Silty sand, moist	None	1.2
S13	07/12/10	6	Confirmatory sidewall / floor	Fine to medium grained sand, wet	None	0.5
P39*	04/27/10	2-4	Confirmatory / Pile excavation	Sand /Organics	Organic	8.5
P41*	04/27/10	2-4	Confirmatory / Pile excavation	Sand	Strong / Weathered near 4'	> 1000
P41A*	05/14/10	2-4	Confirmatory / Pile excavation	Sand, some gravel moist near 4'	None	1.6
P43*	04/27/10	2-4	Confirmatory / Pile excavation	Sand	None	2.5

PID = Photoionization Detector

ppm = Parts Per Million

\* = Submitted for Laboratory Analysis

Table 2 Soil Analytical Results Summary

Marinette Marine Building #10 Expansion (SW Diesel UST), Marinette, Wisconsin

Parameter   Par	gested RCLs
PID Reading (ppm)   263   > 1000   77   70   19   1   9   > 1000   2   3       Value   Value   Patt   Value   Value   Patt   Value   Value   Patt   Value   Value   Value   Value   Value   Patt   Value   V	Direct
DRO	ater Contact for
DRO   mg/kg   18.2   820   < 0.98   < 1   < 1   < 0.98   —   —   —   —   —   100   NE   NE   NE   PVOCs	
Proce   Proc	Sites
Benzene   μg/kg   < 25   < 2000   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25   < 25	NE NE
Ethylbenzene	
MTBE	NE NE
Tolluene	NE
1,2,4-Trimethylbenzene	NE
1,3,6-Trimethylbenzene	NE
Xylenes   μg/kg   1,780   395,000   <75   <75   <75   <75   <75   <75   345,500   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75   <75	NE
PAHs         Acenaphthalene         μg/kg         —         < 273         < 2.9         < 2.8         < 2.7         < 2.9         < 2.6         < 504         < 2.5         < 2.6         NE         NE         NE         38           Acenaphthylene         μg/kg         —         < 309	NE
Acenaphthalene         μg/kg         —         < 273         < 2.9         < 2.8         < 2.7         < 2.9         < 2.6         < 504         < 2.5         < 2.6         NE         N	NE
Acenaphthylene µg/kg — <309 <3.3 <3.1 <3.1 <3.1 <3.2 <4.J <571 <2.8 <3 NE	
Anthracene µg/kg — <451 <4.9 <4.6 <4.5 <4.7 <4.4 <835 <4.1 <4.4 NE NE NE 3.00 Benzo(a)anthracene µg/kg — <275 <3	0 60,000,000
Berizo(a)anthracene   pg/kg	360,000
Benzo(a)pyrene	00 300,000,000
Benzo(b)fluoranthene	0 3,900
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	0 3.900
Benzo(k)fluoranthene         μg/kg          < 360         < 3.9         < 3.6         < 3.8         7.9 J         < 666         < 3.3         < 3.5         NE	
Chrysene         μg/kg         —         < 352         < 3.8         < 3.6         < 3.5         < 3.7         6.6 J         < 651         < 3.2         < 3.4         NE         NE         NE         37           Dibenzo(a,h)anthracene         μg/kg         —         < 527	
Dibenzo(a,h)anthracene         μg/kg          < 527         < 5.7         < 5.3         < 5.2         < 5.5         < 5.1         < 976         < 4.8         < 5.1         NE         NE         NE         NE         38           Fluoranthene         μg/kg          < 969	
Fluoranthene	
Fluorene	
indeno (1,2,3-cd) pyrene         μg/kg          < 275         < 3         < 2.8         < 2.7         < 2.9         2.7 J         < 510         < 2.5         < 2.7         NE         NE         NE         NE         680           1-Methylnaphthalene         μg/kg          12,300         10.2 J         12 J         < 2.9	
1-Methylnaphthalene μg/kg 12,300 10.2 J 12 J <2.9 <3.1 12.4 J 21,000 <2.7 3.3 J NE NE NE 23 2-Methylnaphthalene μg/kg 29,100 25.2 18.6 J <2.9 <3.1 13.8 J 48,200 <2.7 6.4 J NE NE NE 20 Naphthalene μg/kg 2,670 42,900 58.3 19.2 J <3.4 9.5 J 24.6 71,600 <3.1 8.5 J NE 2,700 NE 4	,,
2-Methylnaphthalene μg/kg 29,100 25.2 18.6 J <2.9 <3.1 13.8 J 48,200 <2.7 6.4 J NE NE NE 20 Naphthalene μg/kg 2,670 42,900 58.3 19.2 J <3.4 9.5 J 24.6 71,600 <3.1 8.5 J NE 2,700 NE 4	
Naphthalene µg/kg 2,670 42,900 58.3 19.2 J < 3.4 9.5 J 24.6 71,600 < 3.1 8.5 J NE 2,700 NE 4	
	110,000
Phenanthrene µg/kg 869 J < 4.6 5 J < 4.2 < 4.5 13.3 J 1,130 J < 3.9 < 4.1 NE NE NE 1,	
Pyrene μg/kg — <355 <3.8 6.3 J <3.5 <3.7 7.6 J <657 <3.2 <3.4 NE NE NE 8.70	

Key:
RCL = Residual Contaminant Level
DRO = Diesel Range Organics
PVOCs = Petroleum Volatile Organic Compounds
PAHs = Polynuclear Aromatic Hydrocarbons
mg/kg = Milligrams per kilogram
μg/kg = Parts per million

ppm = Parts per million

Table 3
Groundwater Analytical Results Summary
Marinette Marine Building #10 Expansion (SW Diesel UST)
Marinette, Wisconsin

Parameter	NR 140 ES	NR 140 PAL	MW-1 8/31/2010
PVOCs (µg/L)			
Benzene	5	0.5	< 0.39
Ethylbenzene	700	140	< 0.41
Methyl-tert-butyl-ether	60	12	< 0.38
Toluene	1000	200	< 0.42
Trimethylbenzenes	480	96	0.44 J
Xylenes	10,000	1000	< 1.3
PAHs (µg/L)			
Acenaphthene	NE	NE	0.010 J
Acenaphthylene	NE	NE	< 0.0038
Anthracene	3000	600	0.014 J
Benzo(a)anthracene	NE	NE	0.0057 J
Benzo(a)pyrene	0.2	0.02	0.0041 J
Benzo(b)fluoranthene	0.2	0.02	0.0041 J
Benzo(g,h,i)perylene	NE	NE	< 0.0051
Benzo(k)fluoranthene	NE	NE	0.0048 J
Chrysene	0.2	0.02	0.0067 J
Dibenz(a,h)anthracene	NE	NE	< 0.0034
Fluoranthene	400	80	0.016 J
Fluorene	400	80	0.0057 J
indeno(1,2,3-cd)pyrene	NE	NE	< 0.0050
1-Methyl naphthalene	NE	NE	0.030 J
2-Methyl naphthalene	NE	NE	0.035 J
Naphthalene	100	10	0.085
Phenanthrene	NE	NE	0.022 J
Pyrene	250_	50	0.012 J

NE = Not Established

μg/L = Micrograms per liter

J = Analyte detected between Limit of Detection and Limit of Quantitation

100 = Exceeds the Chapter NR140 ES 10 = Exceeds the Chapter NR140 PAL

ES = Enforcement Standard

PAL = Preventive Action Limit



# **ATTACHMENT A**

**PROJECT CONTACTS** 

#### **PROJECT CONTACTS**

#### Site Owner/Operator

Marinette Marine Corporation 1600 Ely Street Marinette, WI 54143-2434 (715) 735-9341 Mr. Don Hermansen

#### **Certified Site Assessor**

Robert E. Lee & Associates, Inc. 4664 Golden Pond Park Court Hobart, WI 54155 (920) 662-9641 Ms. Nicole LaPlant, WDCOMM Certification # 46836

#### **UST Removal and Cleaning Contractor**

SGS Environmental Contracting, LLC N2570 Daytona Drive Merrill, WI 54452 (715) 539-2803 Mr. Jay Schlueter, WDCOMM Certification # 42227

#### **UST Excavation Contractor**

Barley Trucking & Excavating 1824 10<sup>th</sup> Avenue Menominee, MI 49858 (906) 863-9373

### Water/Sludge Transporter

Chief Liquid Waste, Inc. 210 Tower Road Winneconne, WI 54986 (920) 582-7596

#### **Water Disposal Facility**

Chief Waste Treatment Corporation 552 Carter Court Kimberly, WI 54986

### **Sludge Disposal Facility**

Chief Waste Treatment Corporation 210 Tower Road Winneconne, WI 54986

B

# **ATTACHMENT B**

TANK SYSTEM INFORMATION

#### TANK SYSTEM INFORMATION

Number of Tanks: 1

Tank I.D. #: 1274712

Capacity: 1,000 gallons

Contents: Diesel

**Dimensions:** 5-feet by 6-feet

Age: 30 to 50 years

Tank Construction: Bare steel

Tank Condition: Poor condition; numerous holes were observed in the UST

Piping Construction: Only a small piece was found above the UST; appeared to be 1.5-inch

bare steel.

Piping Condition: Unknown; no significant amount of product piping was discovered during

abandonment.



# **ATTACHMENT C**

TANK CLEANING & DISPOSAL AND SURPLUS PRODUCT & SLUDGE MANAGEMENT

#### TANK CLEANING AND DISPOSAL

Location and Method of Cleaning: The UST was emptied of infiltrated groundwater, cleaned in-place, and inspected. The inside of the tank was scraped by SGS personnel to remove residual sludge. The residual sludge was placed in a 55-gallon steel drum. The tank was then filled with approximately 5 cubic yards of concrete slurry.

Method of Tank Transport and Disposal: Not Applicable

Handling of Cleaning Wastewater: No water was used to clean the tank.

#### SURPLUS PRODUCT/WATER AND SLUDGE MANAGEMENT

Approximately 900 gallons of water was pumped from the tank to a vac truck by Chief Liquid Waste, Inc. Residual sludge scraped from the tank and placed in a 55-gallon steel drum during cleaning. The water and sludge were disposed at the Chief Waste Treatment Corporation facilities in Kimberly and Winneconne, Wisconsin, respectively. Disposal documentation is attached. No surplus product was present within the UST.

### SGS EnvironmentalContracting, LLC



N2570 Daytona Drive MERRILL, WI 54452 1-800-261-2803 715-539-2803 Fax 715-539-2661 Jay A. Schlueter CELL (715) 218-1001

ischlueter@hughes.net









GEOPROBE SOIL BORING

#### CERTIFICATE OF UNDERGROUND STORAGE TANK DISPOSAL

On July 12, 2010 SGS Environmental Contracting LLC, performed the removal of (1) Underground Storage Tank, (1 – 1,000 gallon Fuel Oil UST) for:

Marinette Marine Corp 1600 Ely St. Marinette, WI 54143

Sludge generated from the job site was barreled and left for others to handle.

SGS Environmental Contracting LLC, closed the tank in place.

Jay A. Schlueter

Project Manager

SGS Environmental Contracting LLC, N2570 Daytona Drive, Merrill, WI 54452 715.539.2803 Fax 715.539.2661 jschlueter@hughes.net

Court's



# LIQUID WASTE, INC.

210 Tower Road • Winneconne, WI 54986 Phone: 920-582-7596 • Fax: 920-582-3989 7517

MARINETTE MARINE DISTRY E, LEE & Associates, Inc. DESCRIPTION RUMP Underground TANK / GARY OILY WATER ADDRESS 4664 Golden POND PARK Ct. VOLUME 900 GAIS LIQUID SOLID. MARRINETTE SAIST RECEIVING FACILITY CHIEF WASTE TREATMENT CORP. PROFILE # ADDRESS 552 CARTER COURT DATE 7/12/10 SHIPPER UNDER PENALTY OF LAW CERTIFIES THAT THIS WASTE IS NON HAZARDOUS PER 40 CFR PART 261. THIS WASTE DOES NOT CONTAIN PCB'S IN CONCENTRATIONS ABOVE LIMITS FOR SUBTITLED FACILITIES. I AM AWARE OF PENALTIES F SIGNATURE X DRIVER BODDY CODATUDIA- SIGNATURE RECEIVED BY\_ LIQUID WASTE, INC. 210 Tower Road • Winneconne, WI 54986 8839 SHIPPER ROBERT E. LEE - MARINETTE MAR. DESCRIPTION SLUDGE DRUM ADDRESS 1600 ELY ST. VOLUME 1 DRIM LIQUID M CITY MARINETTE RECEIVING FACILITY ("HIER WASTE TREATMENT CORP PROFILE # ADDRESS 210 TOWER RD. DATE 8-12-10 CITY, STATE, ZIP WINNECONNE, WI 54986 I SHIPPER UNDER PENALTY OF LAW CERTIFIES THAT THIS WASTE IS NON HAZARDOUS PER 40 CFR PART 261. THIS WASTE DOES NOT CONTAIN PCB'S IN CONCENTRATIONS ABOVE LIMITS FOR SUBTITLED FACILITIES, I AM AWARE OF PENALTIES FOR FALSE CERTIFICATIONS. DAYT CONTRUGON SIGNATURE MANAGE DRIVER SIGNATURE



# **ATTACHMENT D**

**VISUAL INSPECTION AND PHOTOGRAPHS** 

#### VISUAL INSPECTION

Weather Conditions: 80° F, mostly sunny, no precipitation.

**Site Conditions:** The Site is currently a shipyard and located near the west addition of Building #10.

**Excavation Conditions:** The UST was closed-in-place with concrete slurry due to the proximity to underground utilities and the building foundation. Some excavation was complete around a portion of the UST that was accessible. The excavation was approximately 14-feet wide by 20-feet long by 5 to 6 feet deep. Staining and petroleum odors were noted in the soils near the UST. Saturated soil was encountered at approximately 5 fbg. No free-phase product was observed in the excavation. Material around the UST consisted primarily of sand, silty sand, and some gravel.

**Local Groundwater Use:** The Site receives potable water from the City of Marinette municipal distribution system.



Photo 1 – Discovery of UST, Soil Staining in Foreground.



Photo 2 – Uncovering of the UST, Looking North.



Photo 3 – Cutting Open of UST.

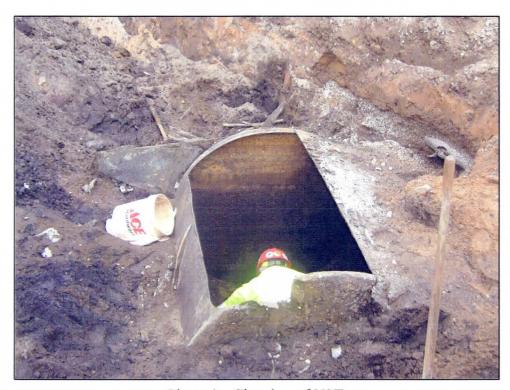


Photo 4 – Cleaning of UST.



Photo 5 – Cleaned UST, Hole Observed On Back (North) Wall of UST.



Photo 6 – Abandonment of UST with Concrete Slurry.



Photo 7 – Monitoring Well MW1, Located Top Right of Photo.



Photo 8 – Covered Soil Stockpile.



# ATTACHMENT E

TANK INVENTORY FORM AND CLOSURE CHECKLISTS

# UNDERGROUND LIQUID STORAGE TANK REGISTRATION

Send Completed Form To: Department of Commerce Tanks P.O. Box 7837

TDID#: FLAMMABLE/COMBUSTIBLE/HAZARDOUS Bureau of Petroleum Products and Reg Obj #: Information Required By Section 101.142, Wis. Stats. Madison, WI 53707-7837 Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate form is needed for each tank. Send each completed form to the agency designated in the top right corner. Have you previously registered this tank by submitting a form? 
Yes No. If yes, are you correcting/updating information only? 
Yes No. No. Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04 (1)(m)]. This registration applies to a tank status that is (check one) Fire Department providing fire ☐ In Use ☐ Closed - Tank Removed Ownership Change (Indicate coverage where tank is located ☐ Newly Installed Closed - Filled with finent Materials new owner name in block 2) City | Village | Town of: ☐ Abandon with Water
☐ Temporarily Out of Service - Provide Date: ☐ Abandoned with Product Abandoned without Product (empty) MARTINETE A. IDENTIFICATION (Please Print) 1. Tank Site Name Site Street Address Site Telephone Number MARTHETTE MARTHE CORP. Zip Code WISCONSIN Mailing Address State Zip Code County City Town of 3. Previous Site Name Previous site address if different than #1 B. Site ID #: Facility ID #: Customer ID #: C. Tank Capacity (gallons): Tank Age (age or date installed): # Vehicle fueling: 1.000 D. LAND OWNER TYPE (check one) Refer to back ☐ County Federal Leased ☐ State Federal Owned ☐ Tribal Nation ☐ Municipal ☐ Other Government E. OCCUPANCY TYPE (check one) Refer to back ☐ Retail Fuet Sales ☐ Bulk Storage ☐ Terminal Storage Mercantile/Commercial ☐ Industrial ☐ Residential ☐ Agricultural (crop or livestock production) ☐ Backup or Emergency Generator ☐ Gov't Fleet ☐ Utility Other (specify:) Tank Construction: Bare Steel Coated Steel Stainless steel ☐ Steel - Fiberglass Reinforced Plastic Composite Overfill Protection? Yes No Spill Containment? ☐ Yes X No ☐ Fiberglass ☐ Unknown Other (specify): Lined (date): G. Tank Cathodic Protection: ☐ Sacrificial Anodes N/A Tank Double Walled? ☐ !mpressed Current Yes No H. Primary Tank Leak Detection Method: Automatic tank gauging ☐ Interstitial monitoring ☐ Inventory control and tightness testing ☐ Groundwater monitoring ☐ Vapor monitoring Manual tank gauging (only for tanks of 1,000 gallons or less) Statistical Inventory Reconciliation (SIR) Unknown I. Piping Construction: ☐ Bare Steel ☐ Coated Steel ☐ Stainless Steel ☐ Fiberglass ☐ Flexible ☒ Copper ☐ Unknown ☐ NA X N/A J. Piping Cathodic Protection: Sacrificial Anodes ☐ Impressed Current Pipe Double Walled? Yes No K. Primary Piping System Type: Pressurized piping with 😁 A. 🗌 auto shutoff; B. 🗋 alarm, or C. 🗍 flow restrictor Pd Unknown Suction piping with check valve at pump and inspectable Suction piping with check valve at tank Not needed if waste oil ☐ Tightness testing☐ Not required ☐ SIR ☐ Electronic line leak monitor L. Piping Leak Detection Method: (used if pressurized or check valve at tank): ☐ Vapor menitoring Interstitial monitoring Unknown ☐ Groundwater monitoring ☐ Flexible Other (specify): ☐ Fiberglass M. Vapor Recovery/Stage II Operational - Provide Date (mo./day/yr.): CARB #: N. TANK CONTENTS (Current, or previous product (if tank now empty)) ☐ Gasobol ☐ E85 ☑ Diesel ☐ Bio-diesel ☐ Aviation ☐ Premix ☐ Fuel Oil ☐ Kerosene ☐ Unleaded ☐ Hazardous Waste\* ☐ Unknown ☐ Empty\* ☐ Sand/Gravei/Slurry\* ☐ Other (specify): ☐ Waste/Used Motor Oil ☐ New Motor Oil CAS #: ☐ Chemical\* Name Geo Longitude: \*NOT PECFA eligible. Has a site assessment been completed? (see reverse side for details) O. If Tank Closed, Abandoned or Out of Service Yes No Give date (moldaylyr): Tank Owner Name/(please print): HERMANSEN

Tank Owner, Signature. Note: By signing, styrist is, accepting legal and financial responsibility for the storage tank system.



**Search Instructions** 

Search by Site, Owner, or Tank **Characteristics** 

Search by Tank ID

#### **Tank Detail**

#### Site and Owner

Site Info

**County & Municipality** 

Owner

Facility ID: 706525 MARINETTE MARINE CORP 38 - MARINETTE

ID: 387126

1600 ELY ST

City of MARINETTE

MARINETTE MARINE CORP

**MARINETTE** 

Fire Dept ID: 3806 - Marinette 1600 ELY ST

Landowner Type: Private

MARINETTE WI 54143

Site Anniversary Date:

Underground Storage Tank - ID: 1274712, Wang ID: null, Closed Filled With Inert Material as of 07/12/2010

**Install Date:** 

Capacity in Gallons: 1000 Contents:

Diesel

Tank Occupancy:

Mercantile/Commercial Marketer:

**CAS Number:** Ν

Federally Regulated:

Υ **Spill Protection:**  Overfill Protection:

**Corrosion Protect Type:** 

**Date of Lining:** 

**Lining Inspected Date:** 

**Leak Detection:** 

**Cath Test Date:** 

**Cath Expire Date:** Leak Test Date:

Leak Test Meth:

**Leak Expire Date:** 

**Construction Material:** 

Wall Size:

**Underground Piping:** 

**Close Order Date:** 

Close Order By:

**Piping - Closed Filled With Inert Material** 

**Flex Connectors:** 

**UST** mainfolded:

Related Tank ID:

Type:

**Aboveground Piping:** 

**Aboveground Pipe Construction:** 

**Construction Material:** 

**Copper Corrosion Protect Type:** 

Leak Detection:

**Cath Test Date:** 

Cath Expire Date:

**Leak Test Meth:** 

**Leak Test Date:** 

Leak Expire Date:

Pipe Wall Size:

**Catastrophic Leak Detection:** 

**Cat Leak Test Date:** 

**Piping System Type:** 

Inspections

Click here for login page

Bare Steel

Trans ID

**Status** Type

**Date Fiscal Yr** 

\*\* No inspections for this tank \*\*

To Top

Close this response window

This document was last revised: February 2010

**Wisconsin Department of Commerce** 

## Complete One Form for TANK SYSTEM SERVICE AND CLOSURE RETURN COMPLETED CHECKLIST TO: Each System Service Event ASSESSMENT REPORT

Bullimin E. By

Wisconsin Department of Commerce

The information you provide may be used or secondary purposes Privacy Law, s.15.04 (1) (m), Wis. Stats.]	CHECK ONE:  UNDERGROUND  ABOVEGROUND  FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE 'N/A' BOX	ERS Division Bureau of Petroleum Products and Tanks P.O. Box 7837 Madison, WI 53707-7837
Part A – To be completed by o	contractor performing repair or closure	
	☐ REPAIR/UPGRADE ☐ CHANGE-IN-SERVICE erviced if a repair, upgrade or change-in-service is being ☐ Piping ☐ Transition/containment sump	performed

Part A -	to be co	mpietea by	contractor	perrormin	ıg repair	or closure			
A. TYPE C	F SERVICE	E TX CLOSU	RE 🗆 REP	AIR/UPGRAD	DE CH	ANGE-IN-SEF	RVICE		
		system being	serviced if a re	<u>epair, upgrade</u>	or <u>change</u>	-in-service is l	being perfor		
□ Tr	Remote fill	. <b>Ş</b> r. Tank	☐ Piping	☐ Tran	sition/conta	inment sump	☐ Spi	Il bucket	nser
B. IDENTI	FICATION	(Please Print)	)						1 1 7 E - 1143 24 F F T T T T T T T T T T T T T T T T T
1. Facility	Name	In	٠		2. Owne		4/1	- (12)	
MARZ	NETE /	HRINK	Olic	RAHON	_ MA	RENETTE	1/1/2	INE CORPORI	FOU
Facility Stre	et Address	(not P.O. Box	)		3. Contac	t Name			Job Title
1/00		57			<u> </u>				
Municipality	/ * /	م سد س	•		Mailing A			est sec	
	MARI		9.9	· · · · · · · · · · · · · · · · · · ·			7T.	n partie	or settler offer the
D City □	Village [	] Town of:			Post Office		مبرسه	State	Zip Code
					MAI	IFNET	16	W.B	54143
Zip Code		County	1 2		County	la -	شير بد	Telephone No. (inclu	
5411			1ARTHUE	TIE		) Augus		(115) 735	- 9341
		ntractor Section				Contractor Stre		a Do	
		MENTAL (					94TONI		Joseph Medicine
		lephone No. (i		ode)		Contractor City		Code	
1715	155	1-287	) 3	<del></del>	MICH	RELLE	4/		
		ETAIL (Comp							
<u>a</u>	<u> b</u>	С	d	е	f	g		h	
<u> </u>	Type of	Tank	Piping	Tank		Release -		If "Yes" to "g", Then Sp of Rele	ecity Source & Cause
Tank ID #	Closure <sup>1</sup>	Material of Construction	Material of	Capacity	Contents <sup>2</sup>	(e.g. holes, cr			•
		Construction	Construction	(gallons)		connectio	n, etc)?	Source of Release <sup>3</sup>	Cause of Release <sup>4</sup>
•	CIP	STEEL	COPPER	1.000	DL	ΣβΥ	$\square$ N		
		1.5			:	ПΥ	ΠN	· · · · · · · · · · · · · · · · · · ·	:
						<del>-</del>	ΠN		:
						<u> </u>			<u> </u>
						ЦΥ	□N		
						ΠY	N		
				:		ПΥ	ΠN	<u> </u>	:
	<u>:                                    </u>				<u> </u>				<u> </u>
		e: P = Permane		•					
2. Indicate	type of produ	ct: DL = Diesel,	LG = Leaded G	iasoline, UG =	Unleaded G	asoline, FO = F	fuel Oil, GH =	= Gasohol, AF = Aviation Chemical (indicate the che	Fuel, K = Kerosene,
FX = FIGHI	c, yvo = vvas	ste/Osea Motor (	JII, FUNZVV = F	iammable/Com	busuble maz	aruous waste,	Oc = Other C	memicai (indicate the chei	nicai name(s):
		<del></del>		`	<del></del> .				
CAS numbe	r(s):		·						
3. Source o	f release: T	= tank, P = pipir	ng, D = dispens	er, STP = subn	nersible turbi	ine pump, DP =	delivery prob	olem, O = other	•
4. Cause of	release: S =	spill, O = over	fill, POMD = phy	sical or mecha	nical damag	e, C = corrosion	n, IP = install	ation problem, O = other	
		orted to the Dep			_			evident at this time	
******	13 13 13 13 13 13 13 13 13 13 13 13 13 1	<u> </u>	**************************************	<u>and the straint of the straint</u>		4 (344) (375)	lon D\		
		ck applicable was provided						V LZYN	
		ere obtained be				□ N □ NA	. Ц	Y PN	
TV UST	Form ERS	-7437 or □ A	ST Form ERS	-8731 filed by				ndicating closure. 💢	Y 🗆 N 🗆 NA
NOTE:	TANK INVI	ENTORY FOR	M ERS-7437	or ERS-8731	SIGNED BY	THE OWNE	R MUST BE	SUBMITTED WITH EA	ACH CLOSURE or
CHANC	BE-IN-SERV	/ICE CHECKL	IST						
D.1	TEMPORA	RILY OUT-OF	SERVICE	taged thing the second	Commission (a)	Berti Ziliji A	G. o enjer	Remover	Inspector NA
1. P	roduct remo	oved.						<u>Verified</u>	<u>Verified</u> NA
a.	Product lin	es drained into	tank (or other	container) ar	nd liquid rer	noved, and	, ———, <del>, , , , , , , , , , , , , , , , </del>	□Y □N	Y N
b.	All product	removed to be	ottom of suctio	n line, OR				☐Y ☐N	YN
c.	All product	removed to w	ithin 1" of botto	om.				□Y □N	Y N
2. F	ill pipe, gau	ge pipe, tank t	ruck vapor rec	overy fittings,	and vapor	return lines ca	pped.	□Y □N	Y N
3. A	Il product lin	es at the islar	ds or pumps l	ocated elsewh	nere are rer	noved and cap	oped, OR	□X □N →	LY IN III

•	
<ol><li>Dispensers/pumps left in place but locked and power disconnected.</li></ol>	
5. Vent lines left open.	
<ol><li>Inventory form filed indicating temporarily out-of-service (TOS) closure.</li></ol>	
D.2. CLOSURE BY REMOVAL OR IN-PLACE	Caracteristics of the state of
a. Product from piping drained into tank (or other container).	
b. Piping disconnected from tank and removed.	
c. All liquid and residue removed from tank using explosion-proof pumps or	hand pumps.
d. All pump motors and suction hoses bonded to tank or otherwise grounde	d.   [XY   N   @ Y   N
e. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps	and other fixtures XY N MY N
seriemoved. The second of the	
f. Vent lines left connected until tanks purged.	
g. Tank openings temporarily plugged so vapors exit through vent.	
h. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - s	see Section E. XY N ZY N
2. Specific Closure-by-Removal Requirements	
<ul> <li>a. Tank removed from excavation after PURGING/INERTING; placed on leverage</li> </ul>	vel ground and
blocked to prevent movement.	
b. Tank cleaned before being removed from site.	
c. Tank labeled in 2" high letters after removal but before being moved from	site.
NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST RE	USE; FORMER
CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.	
d. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the	
e. Site security is provided while the excavation is open.	
3. Specific Closure-in-Place Requirements NOTE: CLOSURES IN-PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN	ADDDOVAL OF THE DEDARTMENT OF COMMEDCE OF
LOCAL AGENT.	APPROVAL OF THE DEPARTMENT OF COMMERCE OR
a. Tank properly cleaned to remove all sludge and residue.	XY ON 74 ON O
b. Solid inert material (sand, cyclone boiler slag, or pea gravel recommende	
tank filled.	
c. Vent line disconnected or removed.	
d. Inventory form filed by owner with the Department of Commerce indicating	ng closure in-place.
E. REPAIR, UPGRADE OR CHANGE-IN-SERVICE	
Written notification was provided to the local agent 15 days in advance of service	e date.
All local permits were obtained before beginning service.	□ Y □ N □ NA
Form ERS-7437 or ERS-8731 filed by owner with the Department of Comme	rce indicating change-in-service.  Y N N NA
F. METHOD OF VAPOR FREEING OF TANK	the second secon
☐ Displacement of vapors by eductor or diffused air blower.	and the second of the second o
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	ng 5 psig.
Inert gas using dry ice or liquid carbon dioxide.	
Inert gas using CO <sub>2</sub> or N <sub>2</sub> NOTE: INERT GASSES PRODUCE AN OXYGEN	
FUNCTION ACCURATELY. THE TANK MAY NOT BE ENTERED IN THIS S Gas introduced through a single opening at a point near the bottom of the tank	
Gas introduced under low pressure not to exceed 5 psig to reduce static elect	
Readings of 10% or less of the lower flammable range (LEL) or 0% oxygen of	
Tank atmosphere monitored for flammable or combustible vapor levels prior to	
Calibrate combustible gas indicator and/or oxygen meter prior to use. Drop to	the removed prior to checking atmosphere. Tank space
monitored at bottom, middle and upper portion of tank.	to followed prior to effecting anneaphore. Talk apade
G. REMOVER/CLEANER INFORMATION	
JAY A. SCHLUETER - ASA SILLULO	ang 1.a. 10年42227前20日742510元
Remover/Cleaner Name (print)  I attest that the procedures and information which I have provided as the tank closure contract	
Darama	tor are correct and comply with Comm 10.
Company expected to perform soil contamination assessment <u>KOBERT</u>	E. LEC
H. INSPECTOR INFORMATION	وسموس
To a second in D. Man at Lot on a world assurance of	- Jakon market and the place of the second
KHAINY KHANS TOZUJE	170m2 53000 462007
Inspector Name (print) Inspector Signature	Inspector Cert # LPO Agency #:
inspector orginature	mopeolor Cert # LFO Agericy #.
710-6	17920278 7-17-10
FDID # Fort again Where I again State of the	11-6200 1-10-10
FDID # For Location Where Inspection Performed Inspector Telepho	
5.1.16.5~1.4.50.5.1.11111111111111111111111111111	。 在15年,中国中国中国中国中国中国中国中国中国中国中国中国中国中国中国中国中国中国中国

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ERS-8951 (R.01/10)

annumpe -

Part A Distribution:

 $White-Commerce \quad Blue-Inspector \quad Pink-Contractor \quad Yellow-Owner$ 

Part B – To be completed	l by environmental professio	nal	
Submit original Part B to	the WDNR along with a copy	of Part A	
I. TANK-SYSTEM SITE ASSES	SMENT (TSSA)		
Site Name: Marinette	Marine Corporation - But treet, Marinette, Wisconsi	ilding #10 Expansion	
Address: 1600 Ely 5	treet, Marinette, Wisconsi	1 54143	
	ss must match with Part A Section		
OBVIOUS RELEASES FROM If a TSSA is required, ther	required, see Comm 10 and section I M UNDERGROUND AND ABOVEGRO In follow the procedures detailed in AS GROUND AND ABOVEGROUND STO	DUND STORAGE TANK SYSTEM SESSMENT AND REPORTING O	IS.
a. Has there been a previou	usly documented release at this site?	MYDN	
If ves. provide the Comm	erce #at facility prior to completion of curren	or DNR BRRT's # 02 - 38	1-555082
b. Number of active tanks <sup>1</sup>	at facility prior to completion of curren	t services USTs Ø	ASTs Ø
(NOTE 1: Do not include previ	ously closed systems or system componer	nts.)	
c. Excavation/trench dimen	sions (in feet). (Photos must be provi	ded.)	
EXCAVATION/TRENCH #	LENGTH	WIDTH	DEPTH
UST excavation	approx. 20Ft.	approx. 14 Ft.	approx.5 to 6 Ft.
ast exactation	appropriate 2011	approx. 1111	approx.5 10 cm.
a. Stained soils: Y d. Free product in the ex 3. Geology/Hydrogeology a. Depth to groundwater (Note 2: Use these synt 4. Receptors a. Water supply well(s) w b. Surface water(s) within 5. Sampling a. Follow the procedures UNDERGROUND All b. Complete Tables 1 an	Iditions exist in or about the excavation of N b. Petroleum odor: A cavation/trench: Y N e. S Approx. 5' feet b. Indicate to abols individually or in combination as in thin 250 feet of the facility? Y N e. S ABOVEGROUND STORAGE TANKED ABOVEGROUND STORAGE TANKED of site features and sample locations.	Y N c. Water In excavation heen or free product on water:  ype of geology <sup>2</sup> appropriate: C = Clay, SLT = Silt,  N If yes, specify If yes, specify  PORTING OF SUSPECTED AND SILK SYSTEMS.  custody and laboratory analytical respectively.	S = Sand, Gr = Gravel)  River is located  North of UST location  OBVIOUS RELEASES FROM
J. NOTE RELEVANT OBSE	RVATIONS, SPECIFIC PROBLEMS (	OR CONCERNS BELOW	
UST was abou	ndoned-in-place due	to its close proxim	nity to the new
	dation and new gas		,
was not exce	wated (due to these	e structures to a	ny substantial
	tion on north side o.		
			114 tons of soil (accession
	ed foom around south		
			hivities, Contaminated
	operly disposed at		
and document	ation of remedial action	og report for Furti	her detail.

TABLE 1	SOIL FIELD SCREENING	& GRO/D	RO LAB	ORATO	RY ANA	LYTICAL RES	<b>ULTS-FOR PE</b>	TROLEUM P	RODUCTS
Sample ID	Sample Location & Soil/Geolog	pic Sa	imple Colle	ction Met	hod	Depth Below Tank/Piping	Field Screening	GRO	DRO
#	Description	Grab	Shelby Tube	Direct Push	Split Spoon	(feet)	Result (ppm)	(mg/kg)	(mg/kg)
51	E. end of UST; sand	X				7	253		18.2
54	W. end of UST; sand	は 図				7	> 1000		820
53	5. sidewall; siltysan	$d \boxtimes$				4	<b>2011</b>		40.98
56	E. sidewall; sand	×				4	# 10		4/
59	W. sidewall; sand	X				4	19		4/
512	W Fexcavation; Sillys	end 🗵				4	1.2		40.96
							-		

#### TABLE 2 SOIL LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS

Sample ID#	BENZENE	TOLUENE	ETHYLBENZENE	МТВЕ	TRIMETHYL - BENZENES (TOTAL)	XYLENES (TOTAL)	NAPHTHALEN
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
51	425	56.75	389	425	2,361	1,180	2,670
52	<2000	- 38,300	61,400	< 2000	432,000	345,000	42,900
53	425	425	<25	<25	52.15	475	58.3
56	125	125	425	425	< 50	475	19.25
59	425	425	425	425	450	<75	43.4
512	225	<a5< td=""><td>125</td><td>&lt;25</td><td>250</td><td>475</td><td>9.55</td></a5<>	125	<25	250	475	9.55
	·						
		74 15.					

	<u> </u>						
K. TANK-S	SYSTEM SITE	ASSESSMENT	INFORMATION				
	-	assessor certified the environme		Code section Comm	5.83, it is my opinion	that there is no indica	ation of a release
Wis. Stats. release of a	section 292.11 regulated sub	(2) (a), the ownerstance to the Wi	er or operator or contr sconsin Department o	actor performing words of Natural Resources	uant to Wis. Admin. C rk under chapter Com . Failure to do so ma . Each day of continu	m 10 shall immediat y result in forfeitures	ely report any of a minimum of
as separate	e offenses. La <i>Plant</i>	-	4	Tuils L. Los	Unt		836
Tank-Syste	m Site Assesso	or Name (print)	Tank-Syst	tem Site Assessor Si	gnature	Certifica	tion Number#
920.	-662-964	<b>'</b> /		12-8-10	Roll	bert E. Lee ! As	sociates
Tank-Syste	m Site Assesso	or Telephone Nu	mber	Date Signed		Company Nar	ne



3148 Mid Valley Drive De Pere, WI 54115 920-532-3828 Fax: 920-532-3831 Cell 920-676-0065 E Mail jsmits@smet.com

July 15, 2010

Inspector Randy Barnes Wisconsin Department of Commerce 4595 County S Conover, WI 54519

RE: Request for Approval of Underground Storage Tank Closure In-Place

Marinette Marine Corporation, 1600 Ely Street, Marinette, Wisconsin

#### Dear Inspector Barnes:

A 1,000-gallon underground storage tank (UST) was recently discovered during construction activities associated with the expansion of Marinette Marine Corporation's (MMC) Building #10. The UST was encountered during the installation of a new storm sewer, located adjacent to Building #10's new addition. MMC believes the UST formerly contained diesel fuel and was installed at least 30 years ago by the previous property owner (Kargard).

During further excavation, the UST was observed to be located in close proximity to the new building foundation and new underground natural gas line. Given the UST's proximity to these structures, we believe that the removal of the UST would impact the structural integrity of the building foundation and necessitate the disconnection of the gas line. Therefore on behalf of MMC, Smet Construction Services Corporation requests approval for the UST to be closed in-place.

Thank you,

Joash Smits
Project Manager

Smet Construction Services Corp.



# **ATTACHMENT F**

SOIL DISPOSAL DOCUMENTATION

**Customer Summary Report** 

Business Unit Name: Menominee RDF - S03098 (USA)
Date: Dec 06 2010, 8:59:39 AM - Central Standard Time

Customer Name: SMET CONSTRUCTION SERVICE / MMC BUILDING #10 SW UST AREA

Ticket Date Ticket ID Customer		Generator Mani		Manifest Profile T		Truck Material		Origin Rate Unit		Yards	Tons	
Material Total					]							
7/26/2010	717609	SMET CONSTRUCTION SERVICE	136-MARINETTEMARINE	•	MW104834WI	53	SpwasteSolidOth-Tons	MARIWI	TON	22.68	0	22.68
7/26/2010	717627	SMET CONSTRUCTION SERVICE	136-MARINETTEMARINE	•	MW104834WI	53	SpwasteSolidOth-Tons	MARIWI	TON	22	0	22
7/26/2010	717635	SMET CONSTRUCTION SERVICE	136-MARINETTEMARINE		MW104834WI	53	SpwasteSolidOth-Tons	MARIWI	TON .	21.51	0	21.51
7/26/2010	717644	SMET CONSTRUCTION SERVICE	136-MARINETTEMARINE	*	MW104834WI	53	SpwasteSolidOth-Tons	MARIWI	TON	21.72	0	21.72
7/26/2010	717655	SMET CONSTRUCTION SERVICE	136-MARINETTEMARINE	•	MW104834WI	53	SpwasteSolidOth-Tons	MARIWI	TON	26.66	0	26.66
Material Load Total	5								TONS	114.57	0	114.57



# **ATTACHMENT G**

LABORATORY ANALYTICAL REPORTS





July 16, 2010

Nicole Laplant ROBERT E. LEE & ASSOCIATES, IN 4664 Golden Pond Park Court Oneida, WI 54155

RE: Project: 3499-011 MMC BLDG #10

Pace Project No.: 4034371

#### Dear Nicole Laplant:

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

**Brian Basten** 

brian.basten@pacelabs.com Project Manager

Enclosures







#### **CERTIFICATIONS**

Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034371

**Green Bay Certification IDs** 

1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

New York Certification #: 11888 North Carolina Certification #: 503 North Dakota Certification #: R-150 South Carolina Certification #: 83006001 US Dept of Agriculture #: S-76505 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444







#### **SAMPLE SUMMARY**

Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034371

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4034371001	S1	Solid	07/12/10 10:10	07/13/10 17:10







#### **SAMPLE ANALYTE COUNT**

Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034371

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4034371001	S1	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	12
		ASTM D2974-87	BLF	1
		EPA 1010	MY	1
		EPA 9095	MY	1





Project:

3499-011 MMC BLDG #10

Pace Project No.:

Sample: S1

4034371

Lab ID: 4034371001

Collected: 07/12/10 10:10 Received: 07/13/10 17:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical	Method: WI	MOD DRO PI	eparation M	lethod	: WI MOD DRO			
Diesel Range Organics	<b>18.2</b> m	ng/kg	1.7	0.83	1	07/15/10 10:07	07/16/10 08:22		L2
WIGRO GCV	Analytical	Method: WI	MOD GRO P	reparation N	lethod	: TPH GRO/PVO	C WI ext.		
Benzene	<25.0 u	g/kg	60.0	25.0	1	07/14/10 09:01	07/14/10 15:02	71-43-2	W
Ethylbenzene	389 u	g/kg	70.1	29.2	1	07/14/10 09:01	07/14/10 15:02	100-41-4	
Methyl-tert-butyl ether	<25.0 u	g/kg	60.0	25.0	1	07/14/10 09:01	07/14/10 15:02	1634-04-4	W
Naphthalene	<b>2670</b> u	g/kg	70.1	29.2	1	07/14/10 09:01	07/14/10 15:02	91-20-3	
Toluene	<b>56.7J</b> u	g/kg	70.1	29.2	1	07/14/10 09:01	07/14/10 15:02	108-88-3	
Total Trimethylbenzenes	<b>2380</b> u	g/kg	140	58.4	1	07/14/10 09:01	07/14/10 15:02		
1,2,4-Trimethylbenzene	1930 u	g/kg	70.1	29.2	1	07/14/10 09:01	07/14/10 15:02	95-63-6	
1,3,5-Trimethylbenzene	451 u	g/kg	70.1	29.2	1	07/14/10 09:01	07/14/10 15:02	108-67-8	
Xylene (Total)	1780 u	g/kg	210	87.6	1	07/14/10 09:01	07/14/10 15:02	1330-20-7	
m&p-Xylene	1540 u	g/kg	140	58.4	1	07/14/10 09:01	07/14/10 15:02	179601-23-1	
o-Xylene	<b>233</b> u	g/kg	70.1	29.2	1	07/14/10 09:01	07/14/10 15:02	95-47-6	
a,a,a-Trifluorotoluene (S)	107 %	6	80-120		1	07/14/10 09:01	07/14/10 15:02	98-08-8	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	14.4 %	6	0.10	0.10	1		07/15/10 07:53		
1010 Flashpoint, Closed Cup	Analytical	Method: EP/	A 1010						
Flashpoint	<b>&gt;210</b> d	eg F			1		07/15/10 13:00		
9095 Paint Filter Liquid Test	Analytical	Method: EPA	A 9095						
Free Liquids	PASS				1		07/14/10 09:52		





Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034371

QC Batch:

OEXT/7777

QC Batch Method:

Parameter

WI MOD DRO

Associated Lab Samples: 4034371001

METHOD BLANK: 327014

Associated Lab Samples:

4034371001

Blank Result Reporting

Limit

Analyzed

Qualifiers

**Diesel Range Organics** 

mg/kg

Units

<0.99

Analysis Method:

Analysis Description:

Matrix: Solid

2.0 07/16/10 08:13

WI MOD DRO

WIDRO GCS

LABORATORY CONTROL SAMPLE & LCSD: 327015 327016 Spike LCS LCSD LCSD % Rec Max LCS Parameter Units Conc. Result Result % Rec % Rec Limits RPD RPD Qualifiers 20 70-120 Diesel Range Organics 58 20 L0,R1 mg/kg 11.7 16.5 83 35







Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034371

QC Batch:

GCV/5311

5CV/5311

Analysis Method:

WI MOD GRO

QC Batch Method:

TPH GRO/PVOC WI ext.

Analysis Description:

WIGRO Solid GCV

Associated Lab Samples:

ples: 4034371001

METHOD BLANK: 326812

Matrix: Solid

Associated Lab Samples:

4034371001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	07/14/10 12:23	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	07/14/10 12:23	
Benzene	ug/kg	<25.0	60.0	07/14/10 12:23	
Ethylbenzene	ug/kg	<25.0	60.0	07/14/10 12:23	
m&p-Xylene	ug/kg	<50.0	120	07/14/10 12:23	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	07/14/10 12:23	
Naphthalene	ug/kg	<25.0	60.0	07/14/10 12:23	
o-Xylene	ug/kg	<25.0	60.0	07/14/10 12:23	
Toluene	ug/kg	<25.0	60.0	07/14/10 12:23	
Total Trimethylbenzenes	ug/kg	<50.0	120	07/14/10 12:23	
Xylene (Total)	ug/kg	<75.0	180	07/14/10 12:23	
a,a,a-Trifluorotoluene (S)	%	105	80-120	07/14/10 12:23	

LABORATORY CONTROL SAM	PLE & LCSD: 326813		32	6814						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1130	1120	113	112	80-120	1	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1120	1110	112	111	80-120	1	20	
Benzene	ug/kg	1000	1040	1020	104	102	80-120	1	20	
Ethylbenzene	ug/kg	1000	1110	1090	111	109	80-120	1	20	
m&p-Xylene	ug/kg	2000	2220	2190	111	110	80-120	1	20	
Methyl-tert-butyl ether	ug/kg	1000	991	979	99	98	80-120	1	20	
Naphthalene	ug/kg	1000	1040	1050	104	105	80-120	.06	20	
o-Xylene	ug/kg	1000	1100	1090	110	109	80-120	1	20	
Toluene	ug/kg	1000	1080	1070	108	107	80-120	1	20	
Total Trimethylbenzenes	ug/kg	2000	2260	2230	113	111	80-120	1	20	
Xylene (Total)	ug/kg	3000	3320	3280	111	109	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				105	104	80-120			

Date: 07/16/2010 09:51 AM







Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034371

QC Batch:

PMST/4242

Analysis Method:

ASTM D2974-87

QC Batch Method:

Parameter

ASTM D2974-87

Analysis Description:

Associated Lab Samples:

4034371001

Dry Weight/Percent Moisture

SAMPLE DUPLICATE: 327037

4034371001 Result

Dup Result

RPD

Max **RPD** 

Qualifiers

Percent Moisture

%

Units

14.4

14.4

10

Date: 07/16/2010 09:51 AM







Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034371

QC Batch:

EPA 1010

WET/6676

4034371001

Analysis Method:

EPA 1010

Analysis Description:

1010 Flash Point, Closed Cup

Associated Lab Samples:

Parameter

QC Batch Method:

SAMPLE DUPLICATE: 327771

Units

10133193001

Dup Result

**RPD** 

Max **RPD** 

Qualifiers

Flashpoint

deg F

>210

Result

>210

Date: 07/16/2010 09:51 AM

**REPORT OF LABORATORY ANALYSIS** 

Page 9 of 11

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Project:

3499-011 MMC BLDG #10

4034371001

Pace Project No.:

4034371

QC Batch:

WET/6657

WE 1/6657 EPA 9095 Analysis Method:

EPA 9095

**RPD** 

Analysis Description:

9095 PAINT FILTER LIQUID TEST

Associated Lab Samples:

QC Batch Method:

SAMPLE DUPLICATE: 326921

Parameter

Units

4034368001 Result Dup Result

Max RPD

Qualifiers

Free Liquids

PASS

PASS

Date: 07/16/2010 09:51 AM





#### **QUALIFIERS**

Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034371

#### **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.

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.

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

#### **ANALYTE QUALIFIERS**

LO	Analyte recover	y in the laboratory	control sample (	(LCS) was outside QC limits.
----	-----------------	---------------------	------------------	------------------------------

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

R1 RPD value was outside control limits.

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

# Robert E. Lee & Associates, Inc. Engineering, Surveying, Environmental Services 4664 Golden Pond Park Court Hobart, WI 54155 920.662.9641 FAX 920.662.9141

## To ensure the proper handling of samples, please see the back for instructions.

**CHAIN OF CUSTODY RECORD** 

COC#

200262 4034371

	Construction						٨١.					uired:		-1		Report	to: /	Nicole LaPlant
Project Name: MM	c Bldg .	<i>#10</i>				Filtered ?	(ivo	te spe	eciai c	retect	ווו וזטו	nits or n	etnod	<u> </u>	Γ	Compa	ny: 🔑	3EL
Project Number: 344	9-011	BID #: 0	422	10		(Y/N) Preservation	<del> </del>		_	-	-	[-		╁	<del> </del>	Addres		4 Golden Pond Prk. Ct.
755	A					*(Code)	u	M	u	И	u	_	1	_	_		H	boart, WI 54155
Environmental Program													1			Telepho	ne:	662-9641
LUST SDWA WPDES RCRA OTHER Requested Turnaround Time				ļ														
Requested Turnaround	Time	*;	reser	vatior	Code											Invoice	to:	Same
Normal Rush (10-15 DAYS) Date Needed: FLL by	N = N	litric Acid (red	}	C	) = Sodium Hydroxide										ŀ	Compa	ny:	
Date Needed: FLI by	ל א א א א א א א א א א א א א א א א א א א	lydrochloric Ac /lethanol	id		J = Unpreserved (white) S = Sulfuric Acid (green)				ne	1	2					Address	s:	·····
Date Needed: FLI by Rushes accepted only w/pric notification + no	urs. pm				(g. 55)				hale	010	F1.4		1		1			
Sampler:		,			Sample Type (Matrix) DW = Drinking Water		0	3	Vaphtbalene	lash point	1			-		Telepho	ne:	
	le LaPla				GW = Groundwater WW = Wastewater	No. Of	040	PVOCS	19/	143	ail							
Sample Name	Date	Time	Сощр	de de	Soil, Oil, Sludge, Air, Other:	Containers			_	1				_		Labor Samp		Remarks:
51	7-12-10	10:10 P			SOIL	4	X	X	X	×	X	_				00	1	2-4mant 1-2oncat 1-40m
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1		7-13-				X	· 				711	গাও		_ 4	710			ture of Contents Pole
														<del>-</del> -		A/P	Custody	Seal Intact NO
	<del></del> -				A/P											A/P	Sample (	Condition INTUL
Received by Lab	*									_				A =	: AM	P=PM	Sample p	pH <u>NK</u>

Pace Analytical Services, Inc. 1241 Bellevue Street, Suite 9 Green Bay, WI 54302

## Pace Analytical\*

#### Sample Condition Upon Receipt

Client Name	: Pobert E	. We Pr	oject#	4034371
Courier: Fed Ex F UPS F USPS	Client Commerc	ial Pace Other		
Tracking #:	,	7		
Custody Seal on Cooler/Box Present:  yes	T RO Seals	intact: Tyes T no	Optional	
		intact: Tyes T no	Proj Due	Date: 💉
Packing Material:   Bubble Wrap   Bub	ble Bags   Non	e Other DOYDROP	Proj Nam	e. A reserva
Thermometer Used N/A	Type of Ice: (Wet)	Blue Dry None	Samples on ice, cooling	process has begun
Cooler Temperature Pol	Biological Tissue	is Frozen: yes		
Temp Blank Present:  yes \no		no	Person examining con	tents:
Temp should be above freezing to 6°C for all sample exc Biota Samples should be received ≤ 0°C.	cept Biota.	Comments:	Date: 7/13/10 Initials: 15	
Chain of Custody Present:	Yes No NA	1.		
Chain of Custody Filled Out:	QYes ONo ON/A	2.		
Chain of Custody Relinquished:	Yes □No □N/A	3.		
Sampler Name & Signature on COC:	Dyes □No □N/A	4.		
Samples Arrived within Hold Time:	Dýes □No □N/A	5.		
Short Hold Time Analysis (<72hr):	□Yes ☑No □N/A	6.	2	
Rush Turn Around Time Requested:	Nes □No □N/A	7. 7/14 At 1/1	3)10	
Sufficient Volume:	Yes ONO ON/A	8.		
Correct Containers Used:	Yes ONO ON/A	9.		
-Pace Containers Used:	Yes □No □N/A			**************************************
Containers Intact:	QYes □No □N/A	10.		
Filtered volume received for Dissolved tests	□Yes No □N/A	11.		
Sample Labels match COC:	Eyes ONO ONA	12.		
-Includes date/time/ID/Analysis Matrix:	<u> </u>			
All containers needing preservation have been checked.	□Yes □No □N/A	13.		
All containers needing preservation are found to be in	□Yes □No □N/A			
compliance with EPA recommendation.	Lifes Livo Liva	Initial when	Lot # of added	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes □No.	completed	preservative	
Samples checked for dechlorination:	□Yes □No □N/A	14.		
Headspace in VOA Vials ( >6mm):	□Yes \\ \text{No \cap \text{IN/A}}	15.		-
Trip Blank Present:	□Yes □No □N/A	16.		
Trip Blank Custody Seals Present	□Yes □No □N/A			
Pace Trip Blank Lot # (if purchased):				
Client Notification/ Resolution:	D-1-1	Time	Field Data Required?	Y / N
Person Contacted:  Comments/ Resolution:	Date/	inne.	<del></del>	
Project Manager Review:	KR.		Date: 7	7-14-10
Note: Whenever there is a discrepancy affecting North Caroling incorrect preservative, out of temp, incorrect containers)	compliance samples, a copy	y of this form will be sent to the Ne	orth Carolina DEHNR Certific	ation Office (i.e out of hold,

F-ALL-C-006-Rev.05 (30Oct2009) SCUR Form





July 20, 2010

Nicole Laplant ROBERT E. LEE & ASSOCIATES, IN 4664 Golden Pond Park Court Oneida, WI 54155

RE: Project: 3499-011 BLDG #10

Pace Project No.: 4034373

#### **Dear Nicole Laplant:**

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Brian Basten

brian.basten@pacelabs.com

**Project Manager** 

**Enclosures** 





#### **CERTIFICATIONS**

Project:

3499-011 BLDG #10

Pace Project No.: 4034373

**Green Bay Certification IDs** 

1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

New York Certification #: 11888 North Carolina Certification #: 503 North Dakota Certification #: R-150 South Carolina Certification #: 83006001 US Dept of Agriculture #: S-76505 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444







#### **SAMPLE SUMMARY**

Project:

3499-011 BLDG #10

Pace Project No.: 4034373

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4034373001	S2	Solid	07/12/10 10:17	07/13/10 17:10







#### SAMPLE ANALYTE COUNT

Project:

3499-011 BLDG #10

Pace Project No.:

4034373

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4034373001	\$2	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	ARO	20
		ΔSTM D2974-87	RIF	1



Project:

3499-011 BLDG #10

Pace Project No.:

4034373

Sample: S2

Lab ID: 4034373001

Collected: 07/12/10 10:17 Received: 07/13/10 17:10 Matrix: Solid

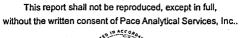
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical M	ethod: WI M	IOD DRO Pr	eparation N	Method:	: WI MOD DRO			
Diesel Range Organics	<b>820</b> mg/	'kg	34.0	16.9	20	07/16/10 11:18	07/19/10 11:16		
WIGRO GCV	Analytical M	ethod: WI M	OD GRO P	reparation I	Method	: TPH GRO/PVO	WI ext.		
Benzene	<2000 ug/l	<b>c</b> g	4800	2000	80	07/15/10 07:08	07/15/10 15:38	71-43-2	W
Ethylbenzene	61400 ug/l	<b>kg</b>	5580	2330	80	07/15/10 07:08	07/15/10 15:38	100-41-4	
Methyl-tert-butyl ether	<2000 ug/l		4800	2000	80	07/15/10 07:08	07/15/10 15:38	1634-04-4	W
Toluene	38300 ug/l	κg	5580	2330	80	07/15/10 07:08	07/15/10 15:38	108-88-3	
otal Trimethylbenzenes	432000 ug/l	κg	11200	4650	80	07/15/10 07:08	07/15/10 15:38		
,2,4-Trimethylbenzene	321000 ug/l	kg	5580	2330	80	07/15/10 07:08	07/15/10 15:38	95-63-6	
,3,5-Trimethylbenzene	111000 ug/l	kg	5580	2330	80	07/15/10 07:08	07/15/10 15:38	108-67-8	
(ylene (Total)	395000 ug/l	kg .	16700	6980	80	07/15/10 07:08	07/15/10 15:38	1330-20-7	
n&p-Xylene	282000 ug/l	-	11200	4650	80	07/15/10 07:08	07/15/10 15:38	179601-23-1	
-Xylene	113000 ug/l	-	5580	2330	80	07/15/10 07:08	07/15/10 15:38	95-47-6	
ı,a,a-Trifluorotoluene (S)	109 %	J	80-120		80	07/15/10 07:08	07/15/10 15:38	98-08-8	
270 MSSV PAH by SIM	Analytical M	ethod: EPA	8270 by SIM	Preparation	on Meth	nod: EPA 3546			
Acenaphthene	<273 ug/l	kg .	1940	273	100	07/15/10 10:14	07/16/10 08:40	83-32-9	
cenaphthylene	<309 ug/l	kg	1940	309	100	07/15/10 10:14	07/16/10 08:40	208-96-8	
Inthracene	<451 ug/l	kg	1940	451	100	07/15/10 10:14	07/16/10 08:40	120-12-7	
Benzo(a)anthracene	<275 ug/l		1940	275	100	07/15/10 10:14	07/16/10 08:40	56-55-3	
Benzo(a)pyrene	<317 ug/l	kg .	1940	317	100	07/15/10 10:14	07/16/10 08:40	50-32-8	
Benzo(b)fluoranthene	<335 ug/l		1940	335	100	07/15/10 10:14	07/16/10 08:40	205-99-2	
Benzo(g,h,i)perylene	<256 ug/l	kg	1940	256	100	07/15/10 10:14	07/16/10 08:40	191-24-2	
Senzo(k)fluoranthene	<360 ug/l	κg	1940	360	100	07/15/10 10:14	07/16/10 08:40	207-08-9	
Chrysene	<352 ug/l	ka	1940	352	100	07/15/10 10:14	07/16/10 08:40	218-01-9	
Dibenz(a,h)anthracene	<527 ug/l		1940	527	100	07/15/10 10:14	07/16/10 08:40	53-70-3	
luoranthene	<969 ug/l		1940	969	100	07/15/10 10:14	07/16/10 08:40	206-44-0	
luorene	<482 ug/l		1940	482	100	07/15/10 10:14	07/16/10 08:40	86-73-7	
ndeno(1,2,3-cd)pyrene	<275 ug/l		1940	275	100	07/15/10 10:14	07/16/10 08:40	193-39-5	
-Methylnaphthalene	12300 ug/l	•	1940	296	100	07/15/10 10:14	07/16/10 08:40		
-Methylnaphthalene	29100 ug/l	-	1940	296	100	07/15/10 10:14	07/16/10 08:40		
laphthalene	42900 ug/l	•	1940	339	100	07/15/10 10:14	07/16/10 08:40		
Phenanthrene	869J ug/l	•	1940	426	100	07/15/10 10:14	07/16/10 08:40		
Pyrene	<355 ug/l		1940	355	100	07/15/10 10:14	07/16/10 08:40		
!-Fluorobiphenyl (S)	0 %	-5	38-130		100	07/15/10 10:14	07/16/10 08:40		S4
Ferphenyl-d14 (S)	0 %		36-130		100	07/15/10 10:14	07/16/10 08:40		S4
Percent Moisture	Analytical M	ethod: ASTI	M D2974-87						
Percent Moisture	14.0 %		0.10	0.10	1		07/15/10 07:49		

Date: 07/20/2010 09:52 AM

**REPORT OF LABORATORY ANALYSIS** 

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Project:

3499-011 BLDG #10

Pace Project No.:

4034373

QC Batch:

OEXT/7805

WI MOD DRO

Analysis Method:

WI MOD DRO

QC Batch Method: Associated Lab Samples:

4034373001

Analysis Description:

WIDRO GCS

METHOD BLANK: 327928

Matrix: Solid

Associated Lab Samples:

4034373001

Blank

Reporting Limit

Analyzed Qualifiers

Diesel Range Organics

Parameter

mg/kg

Units

<0.99

Result

2.0 07/19/10 09:02

LABORATORY CONTROL SAMPLE & LCSD: 327929 327930 Spike LCS **LCSD** LCS LCSD % Rec Max RPD RPD Parameter Units Conc. Result Result % Rec % Rec Limits Qualifiers 20 74 70-120 20 Diesel Range Organics 16.0 14.8 80 mg/kg







Project:

3499-011 BLDG #10

Pace Project No.:

4034373

QC Batch:

GCV/5314

TPH GRO/PVOC WI ext.

Analysis Method:

WI MOD GRO

QC Batch Method:

Analysis Description:

WIGRO Solid GCV

Associated Lab Samples: METHOD BLANK: 327198

4034373001

Matrix: Solid

Associated Lab Samples: 4034373001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	07/15/10 08:49	-
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	07/15/10 08:49	
Benzene	ug/kg	<25.0	60.0	07/15/10 08:49	
Ethylbenzene	ug/kg	<25.0	60.0	07/15/10 08:49	
m&p-Xylene	ug/kg	<50.0	120	07/15/10 08:49	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	07/15/10 08:49	
o-Xylene	ug/kg	<25.0	60.0	07/15/10 08:49	
Toluene	ug/kg	<25.0	60.0	07/15/10 08:49	
Total Trimethylbenzenes	ug/kg	<50.0	120	07/15/10 08:49	
Xylene (Total)	ug/kg	<75.0	180	07/15/10 08:49	
a,a,a-Trifluorotoluene (S)	%	103	80-120	07/15/10 08:49	

LABORATORY CONTROL SAM	PLE & LCSD: 327199	•	32	7200				-		
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	1080	1090	108	109	80-120	.7	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1070	1080	107	108	80-120	1	20	
Benzene	ug/kg	1000	982	986	98	99	80-120	.5	20	
Ethylbenzene	ug/kg	1000	1060	1060	106	106	80-120	.5	20	
m&p-Xylene	ug/kg	2000	2120	2120	106	106	80-120	.06	20	
Methyl-tert-butyl ether	ug/kg	1000	917	921	92	92	80-120	.4	20	
o-Xylene	ug/kg	1000	1050	1050	105	105	80-120	.3	20	
Toluene	ug/kg	1000	1030	1030	103	103	80-120	.6	20	
Total Trimethylbenzenes	ug/kg	2000	2150	2170	107	108	80-120	. 1	20	
Xylene (Total)	ug/kg	3000	3170	3170	106	106	80-120	.07	20	
a,a,a-Trifluorotoluene (S)	%				104	104	80-120			

Date: 07/20/2010 09:52 AM







Project:

3499-011 BLDG #10

Pace Project No.:

QC Batch Method:

4034373

QC Batch:

OEXT/7790

Analysis Method:

EPA 8270 by SIM

EPA 3546

Analysis Description:

8270/3546 MSSV PAH by SIM

Associated Lab Samples:

4034373001

Associated Lab Samples: 4034373001

METHOD BLANK: 327211

Matrix: Solid

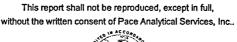
<b>.</b>		I Inte		Reporting		0 1:0
Parameter	U	nits	Result	Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg		<2.5	16.7	07/15/10 10:38	
2-Methylnaphthalene	ug/kg		<2.5	16.7	07/15/10 10:38	
Acenaphthene	ug/kg		<2.3	16.7	07/15/10 10:38	
Acenaphthylene	ug/kg		<2.7	16.7	07/15/10 10:38	
Anthracene	ug/kg		<3.9	16.7	07/15/10 10:38	
Benzo(a)anthracene	ug/kg		<2.4	16.7	07/15/10 10:38	
Benzo(a)pyrene	ug/kg		<2.7	16.7	07/15/10 10:38	
Benzo(b)fluoranthene	ug/kg		<2.9	16.7	07/15/10 10:38	
Benzo(g,h,i)perylene	ug/kg		<2.2	16.7	07/15/10 10:38	
Benzo(k)fluoranthene	ug/kg		<3.1	16.7	07/15/10 10:38	
Chrysene	ug/kg		<3.0	16.7	07/15/10 10:38	
Dibenz(a,h)anthracene	ug/kg		<4.5	16.7	07/15/10 10:38	
Fluoranthene	ug/kg		<8.3	16.7	07/15/10 10:38	
Fluorene	ug/kg		<4.1	16.7	07/15/10 10:38	
Indeno(1,2,3-cd)pyrene	ug/kg		<2.4	16.7	07/15/10 10:38	
Naphthalene	ug/kg		<2.9	16.7	07/15/10 10:38	
Phenanthrene	ug/kg		<3.7	16.7	07/15/10 10:38	
Pyrene	ug/kg		<3.1	16.7	07/15/10 10:38	
2-Fluorobiphenyl (S)	%		71	38-130	07/15/10 10:38	
Terphenyl-d14 (S)	%		72	36-130	07/15/10 10:38	

LABORATORY CONTROL SAMPLE:	327212	!				·	
			Spike	LCS	LCS	% Rec	
Parameter	Ĺ	Inits	Conc.	Result	% Rec	Limits	Qualifiers
1-Methylnaphthalene	ug/kg		333	257	77	56-130	· · · · · · · · · · · · · · · · · · ·
2-Methylnaphthalene	ug/kg		333	246	74	57-130	
Acenaphthene	ug/kg		333	232	69	62-130	
Acenaphthylene	ug/kg		333	250	75	62-130	
Anthracene	ug/kg		333	266	80	62-130	
Benzo(a)anthracene	ug/kg		333	250	75	60-130	
Benzo(a)pyrene	ug/kg		333	266	80	62-130	
Benzo(b)fluoranthene	ug/kg		333	278	83	61-130	
Benzo(g,h,i)perylene	ug/kg		333	269	81	52-130	
Benzo(k)fluoranthene	ug/kg		333	259	78	61-130	
Chrysene	ug/kg		333	255	76	54-130	
Dibenz(a,h)anthracene	ug/kg		333	262	79	55-130	
Fluoranthene	ug/kg		333	258	77	65-130	
Fluorene	ug/kg		333	248	74	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg		333	268	80	55-130	
Naphthalene	ug/kg		333	237	71	59-130	
Phenanthrene	ug/kg		333	254	76	62-130	

Date: 07/20/2010 09:52 AM

**REPORT OF LABORATORY ANALYSIS** 

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Project:

3499-011 BLDG #10

Pace Project No.:

4034373

LABORATORY CONTROL	SAMPLE:	327212
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Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	333	254	76	58-130	
2-Fluorobiphenyl (S)	%			70	38-130	
Terphenyl-d14 (S)	%			73	36-130	

MATRIX SPIKE & MATRIX	SPIKE DUPLICAT	E: 32721	3		327214							
			MS	MSD								
	40	34409001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
1-Methylnaphthalene	ug/kg	<2.7	350	350	224	245	64	70	44-130	9	22	
2-Methylnaphthalene	ug/kg	<2.7	350	350	221	243	63	69	43-130	9	20	
Acenaphthene	ug/kg	<2.5	350	350	216	232	62	66	47-130	7	20	
Acenaphthylene	ug/kg	<2.8	350	350	230	248	66	71	51-130	8	20	
Anthracene	ug/kg	<4.1	350	350	237	258	67	74	45-130	9	22	
Benzo(a)anthracene	ug/kg	<2.5	350	350	222	240	63	68	44-130	8	27	
Benzo(a)pyrene	ug/kg	<2.9	350	350	238	256	68	73	49-130	7	27	
Benzo(b)fluoranthene	ug/kg	<3.0	350	350	264	265	75	75	41-130	.1	32	
Benzo(g,h,i)perylene	ug/kg	<2.3	350	350	237	248	67	71	39-130	5	28	
Benzo(k)fluoranthene	ug/kg	<3.3	350	350	226	228	64	65	41-130	.9	26	
Chrysene	ug/kg	<3.2	350	350	222	245	63	70	45-130	10	28	
Dibenz(a,h)anthracene	ug/kg	<4.8	350	350	234	249	67	71	39-130	6	25	
Fluoranthene	ug/kg	<8.8	350	350	232	248	66	70	47-130	. 7	25	
Fluorene	ug/kg	<4.4	350	350	229	243	65	69	46-130	6	20	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.5	350	350	238	252	68	72	39-130	5	28	
Naphthalene	ug/kg	<3.1	350	350	207	235	59	67	43-130	13	22	
Phenanthrene	ug/kg	<3.8	350	350	230	248	65	71	47-130	8	20	
Pyrene	ug/kg	<3.2	350	350	224	241	64	69	42-130	8	25	
2-Fluorobiphenyl (S)	%						61	63	38-130			
Terphenyl-d14 (S)	%						60	64	36-130			

Date: 07/20/2010 09:52 AM







Project:

3499-011 BLDG #10

Pace Project No.:

4034373

QC Batch:

PMST/4240

QC Batch Method:

Parameter

ASTM D2974-87

Analysis Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

Associated Lab Samples: 4034373001

SAMPLE DUPLICATE: 327011

4034379001 Result

Dup Result

RPD

Max RPD

Qualifiers

Percent Moisture

%

Units

4.9

4.6

6

10

Date: 07/20/2010 09:52 AM

**REPORT OF LABORATORY ANALYSIS** 

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#### **QUALIFIERS**

Project:

3499-011 BLDG #10

Pace Project No.: 4034373

#### **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.

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.

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

#### **ANALYTE QUALIFIERS**

Surrogate recovery not evaluated against control limits due to sample dilution.

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



## XX

### Robert E. Lee & Associates, Inc. Engineering, Surveying, Environmental Services

Engineering, Surveying, Environmental Services 4664 Golden Pond Park Court Hobart, WI 54155

### To ensure the proper handling of samples, please see the back for instructions.



#### CHAIN OF CUSTODY RECORD

coc# 200257 4034373

Client: Smet Construction	Anal	yses Required:	Report to: Nicole Lallant
Project Name: Bldg # 10 (mmc)	Filtered ?	detection limits or methods)	Company: REL
Project Number: 3499 -011 BID #:	(Y / N) Preservation		Address: 4664 Golden Pond Pik Ct.
T554	*(Code) U U M		Hohark, W1 54155
Environmental Program: LUST SDWA WPDES RCRA OTHER			Telephone: 662-9041
Requested Turnaround Time *Preservation Code			Invoice to: Same
Normal Rush N = Nitric Acid (red) O = Sodium Hydro			Company:
Date Needed:  Rushes accepted only w/prior notification  H = Hydrochloric Acid  M = Methanol  S = Sulfuric Acid  S = Sulfuric Acid			Address:
Sampler:  Nicole LaPlant  Sample Type (N DW = Drinking W GW = Groundwat			Telephone:
Sample Name Date Time & WW= Wastewate Soil, Oil, Sludge, A	Other: No. Of Containers	.	Laboratory Sample I.D. Remarks:
52 7-12-10 10:17 P SOIL	X Y X X X		DOI 1-topphi-topagal-doggar-tom
A P			1 7 7 7 7
A P			
A			
P			<b> </b>
P		<del>                                     </del>	<del> </del>
P			<del>  </del>
PA		<del>                                     </del>	<del>                                     </del>
P			
P			
P A P P			
Rennquish,edy-By ∧ Date Time	Received By		Laboratory Receiving Notes
,	(M)		Temperature of Contents°C
2)			A/P Custody Seal Intact No
Received by Lab	,		Sample Condition N/TAX  1 P = PM Sample pH // (+

Pace Analytical Services, Inc. 1241 Bellevue Street, Suite 9 Green Bay, WI 54302

## Pace Analytical\*

#### Sample Condition Upon Receipt

Client Name	3: <u>foburt</u>	e.ue	_ Project #	4034373
Courier: Fed Ex F UPS F USPS T	Client T Com	mercial   Pace	Other	
Tracking #:	<u> </u>			
Custody Seal on Cooler/Box Present: ye	s T no S	Seals intact:	Γ no Option	al, a Alamana Alamana
		Seals intact: yes	787237828	lue Date
	bble Bags	None Other PD/	160	lame da como de la como
Thermometer Used NA		Vet) Blue Dry None	••	oling process has begun
Cooler Temperature	Biological Hs	saud is Prozeii. 1 ye		contents
Temp Blank Present:  yes no Temp should be above freezing to 6°C for all sample ex	vcent Riota	2	Date:	
Biota Samples should be received ≤ 0°C.		Comments:	Initials:	W
Chain of Custody Present:	UYes □No □	JNA 1.	· · · · · · · · · · · · · · · · · · ·	<u> </u>
Chain of Custody Filled Out:	Yes DNo D	JN⁄A 2.		
Chain of Custody Relinquished:	Yes No C	□N/A 3.	·	
Sampler Name & Signature on COC:	Yes DNo D	JN/A 4.		
Samples Arrived within Hold Time:	Dyes □No □	JN/A 5.		
Short Hold Time Analysis (<72hr):	□Yes ⊠No □	INVA 6.		· · · · · · · · · · · · · · · · · · ·
Rush Turn Around Time Requested:	□Yes QNo □	□N/A 7.		
Sufficient Volume:	QYes DNo D	JN/A 8.		· ·
Correct Containers Used:	QYes □No □	□n/a 9.		
-Pace Containers Used:	Yes DNo D	⊒n/a		
Containers Intact:	Dyes □No E	⊐n/A 10.		
Filtered volume received for Dissolved tests	□Yes BNo □	⊒N/A 11.		
Sample Labels match COC:	QYes ONo C	⊐N/A 12.		· · · · · · · · · · · · · · · · · · ·
-Includes date/time/ID/Analysis Matrix:				
All containers needing preservation have been checked.	□Yes □No	N/A 13.		
All containers needing preservation are found to be in				
compliance with EPA recommendation.	□Yes □No T	Initial when	Lot # of added	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes □No	completed	preservative	
Samples checked for dechlorination:	□Yes □No □	SN/A 14.		
Headspace in VOA Vials ( >6mm):	□Yes □No Ì	SWA 15.		
Trip Blank Present:	□Yes Byo E	⊒N/A 16.		
Trip Blank Custody Seals Present	□Yes □No È	AWE		
Pace Trip Blank Lot # (if purchased):				·
Glient Notification/ Resolution: Person Contacted:	-	Nata Minus	Field Data Require	d? Y / N
Comments/ Resolution:	L	Date/Time:		•
	<del> </del>			·
Project Manager Review:	KK	·—	Date:	7-14-10
Note: Whenever there is a discrepancy affecting North Carolina	compliance samples,	a copy of this form will be se	nt to the North Carolina DEHNR C	
incorrect preservative, out of temp, incorrect containers)				





July 20, 2010

Nicole Laplant ROBERT E. LEE & ASSOCIATES, IN 4664 Golden Pond Park Court Oneida, WI 54155

RE: Project: 3499-011 MMC BLDG #10

Pace Project No.: 4034372

#### **Dear Nicole Laplant:**

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Brian Basten

brian.basten@pacelabs.com Project Manager

**Enclosures** 





#### **CERTIFICATIONS**

Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

**Green Bay Certification IDs** 

1241 Bellevue Street, Green Bay, WI 54302 California Certification #: 09268CA Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 11888 New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444





#### **SAMPLE SUMMARY**

Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034372

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4034372001	S3	Solid	07/12/10 10:50	07/13/10 17:10
4034372002	S6	Solid	07/12/10 12:48	07/13/10 17:10
4034372003	S9	Solid	07/12/10 13:15	07/13/10 17:10
4034372004	S12	Solid	07/12/10 13:50	07/13/10 17:10





#### SAMPLE ANALYTE COUNT

Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4034372001	S3	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	BLF	1
4034372002	S6	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	BLF	1
4034372003	<b>S9</b>	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	BLF	1
4034372004	S12	WI MOD DRO	DAL	. 1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	BLF	1





Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034372

Sample: S3

Lab ID: 4034372001

Collected: 07/12/10 10:50 Received: 07/13/10 17:10 Matrix: Solid

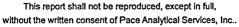
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical	Method: WI	MOD DRO Pr	reparation N	lethod	: WI MOD DRO			
Diesel Range Organics	<0.98 m	ng/kg	2.0	0.98	1	07/16/10 11:18	07/19/10 09:29		
WIGRO GCV	Analytical	Method: WI	MOD GRO P	reparation N	/lethod	: TPH GRO/PVO	C WI ext.		
Benzene	<25.0 u	g/kg	60.0	25.0	1	07/15/10 07:08	07/15/10 16:55	71-43-2	w
Ethylbenzene	<25.0 u	g/kg	60.0	25.0	1	07/15/10 07:08	07/15/10 16:55	100-41-4	W
Methyl-tert-butyl ether	<25.0 u	g/kg	60.0	25.0	1	07/15/10 07:08	07/15/10 16:55	1634-04-4	W
Toluene	<25.0 u	g/kg	60.0	25.0	1	07/15/10 07:08	07/15/10 16:55	108-88-3	W
Total Trimethylbenzenes	70.2J u	g/kg	151	62.8	1	07/15/10 07:08	07/15/10 16:55		
1,2,4-Trimethylbenzene	<b>52.1J</b> u	g/kg	75.4	31.4	1	07/15/10 07:08	07/15/10 16:55	95-63-6	
1,3,5-Trimethylbenzene	<25.0 u	g/kg	60.0	25.0	1	07/15/10 07:08	07/15/10 16:55	108-67-8	W
Xylene (Total)	<75.0 u	g/kg	180	75.0	1	07/15/10 07:08	07/15/10 16:55	1330-20-7	W
m&p-Xylene	<50.0 น	g/kg	120	50.0	1		07/15/10 16:55		W
o-Xylene	<b>&lt;25.0</b> u	g/kg	60.0	25.0	1	07/15/10 07:08	07/15/10 16:55	95-47-6	W
a,a,a-Trifluorotoluene (S)	104 %	6	80-120		1	07/15/10 07:08	07/15/10 16:55	98-08-8	
8270 MSSV PAH by SIM	Analytical	Method: EP	A 8270 by SIM	Preparation	n Meth	nod: EPA 3546			
Acenaphthene	<b>&lt;2.9</b> u	ıg/kg	20.9	2.9	1	07/15/10 10:14	07/15/10 14:38	83-32-9	
Acenaphthylene	<3.3 u	ıg/kg	20.9	3.3	1	07/15/10 10:14	07/15/10 14:38	208-96-8	
Anthracene	<4.9 u	ıg/kg	20.9	4.9	1	07/15/10 10:14	07/15/10 14:38	120-12-7	
Benzo(a)anthracene	<b>&lt;3.0</b> u		20.9	3.0	1	07/15/10 10:14	07/15/10 14:38	56-55-3	
Benzo(a)pyrene	<b>&lt;3.4</b> u	ıg/kg	20.9	3.4	1	07/15/10 10:14	07/15/10 14:38	50-32-8	
Benzo(b)fluoranthene	<b>&lt;3.6</b> u	ıg/kg	20.9	3.6	1	07/15/10 10:14	07/15/10 14:38	205-99-2	
Benzo(g,h,i)perylene	<b>&lt;2.8</b> u		20.9	2.8	1	07/15/10 10:14	07/15/10 14:38	191-24-2	
Benzo(k)fluoranthene	<b>&lt;3.9</b> u	ıg/kg	20.9	3.9	1	07/15/10 10:14	07/15/10 14:38	207-08-9	
Chrysene	<b>&lt;3.8</b> u	ıg/kg	20.9	3.8	1	07/15/10 10:14	07/15/10 14:38	218-01-9	
Dibenz(a,h)anthracene	<5.7 u		20.9	5.7	1	07/15/10 10:14	07/15/10 14:38	53-70-3	
Fluoranthene	<10.5 u		20.9	10.5	1	07/15/10 10:14	07/15/10 14:38	206-44-0	
Fluorene	<5.2 บ		20.9	5.2	1	07/15/10 10:14	07/15/10 14:38	86-73-7	
Indeno(1,2,3-cd)pyrene	<3.0 u		20.9	3.0	1		07/15/10 14:38		
1-Methylnaphthalene	10.2J u		20.9	3.2	1		07/15/10 14:38		
2-Methylnaphthalene	<b>25.2</b> u		20.9	3.2	1		07/15/10 14:38		
Naphthalene	58.3 u		20.9	3.7	1		07/15/10 14:38		
Phenanthrene	<4.6 u	• •	20.9	4.6	1		07/15/10 14:38		
Pyrene	<3.8 u		20.9	3.8	1		07/15/10 14:38		
2-Fluorobiphenyl (S)	73 %		38-130		1		07/15/10 14:38		
Terphenyl-d14 (S)	79 %	-	36-130		1		07/15/10 14:38		
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	20.4 %	6	0.10	0.10	1		07/15/10 07:49		

Date: 07/20/2010 09:53 AM

REPORT OF LABORATORY ANALYSIS

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Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

Sample: S6

Lab ID: 4034372002

Collected: 07/12/10 12:48 Received: 07/13/10 17:10 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical M	lethod: WI	MOD DRO Pr	eparation N	fethod:	WI MOD DRO			
Diesel Range Organics	<1.0 mg	/kg	2.1	1.0	1	07/16/10 11:18	07/19/10 09:38		
WIGRO GCV	Analytical M	lethod: WI	MOD GRO PI	eparation N	lethod	: TPH GRO/PVOC	WI ext.		
Benzene	<b>&lt;25.0</b> ug/	'kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	71-43-2	W
Ethylbenzene	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	100-41-4	W
Methyl-tert-butyl ether	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	1634-04-4	W
Toluene	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	108-88-3	W
Total Trimethylbenzenes	<50.0 ug/	kg	120	50.0	1	07/15/10 07:08	07/15/10 17:20		W
1,2,4-Trimethylbenzene	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	108-67-8	W
Xylene (Total)	<75.0 ug/	kg	180	75.0	1	07/15/10 07:08	07/15/10 17:20	1330-20-7	W
m&p-Xylene	<50.0 ug/	kg	120	50.0	1	07/15/10 07:08	07/15/10 17:20	179601-23-1	W
o-Xylene	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:20	95-47-6	W
a,a,a-Trifluorotoluene (S)	105 %		80-120		1	07/15/10 07:08	07/15/10 17:20	98-08-8	
3270 MSSV PAH by SIM	Analytical M	lethod: EPA	8270 by SIM	Preparatio	n Meth	od: EPA 3546			
Acenaphthene	<b>&lt;2.8</b> ug/	kg	19.6	2.8	1	07/15/10 10:14	07/15/10 14:55	83-32-9	
Acenaphthylene	<3.1 ug/	kg .	19.6	3.1	1	07/15/10 10:14	07/15/10 14:55	208-96-8	
Anthracene	<4.6 ug/	-	19.6	4.6	1	07/15/10 10:14	07/15/10 14:55	120-12-7	
Benzo(a)anthracene	<b>2.8J</b> ug/	-	19.6	2.8	1	07/15/10 10:14	07/15/10 14:55	56-55-3	
Benzo(a)pyrene	<b>&lt;3.2</b> ug/		19.6	3.2	1	07/15/10 10:14	07/15/10 14:55	50-32-8	
Benzo(b)fluoranthene	<3.4 ug/		19.6	3.4	1	07/15/10 10:14	07/15/10 14:55	205-99-2	
Benzo(g,h,i)perylene	< <b>2.6</b> ug/		19.6	2.6	1	07/15/10 10:14	07/15/10 14:55	191-24-2	
Benzo(k)fluoranthene	<3.6 ug/		19.6	3.6	1	07/15/10 10:14	07/15/10 14:55	207-08-9	
Chrysene	<3.6 ug/	-	19.6	3.6	1	07/15/10 10:14	07/15/10 14:55	218-01-9	
Dibenz(a,h)anthracene	< <b>5.3</b> ug/		19.6	5.3	1	07/15/10 10:14	07/15/10 14:55	53-70-3	
Fluoranthene	<9.8 ug/		19.6	9.8	1	07/15/10 10:14	07/15/10 14:55	206-44-0	
Fluorene	<4.9 ug/		19.6	4.9	1	07/15/10 10:14	07/15/10 14:55	86-73-7	
ndeno(1,2,3-cd)pyrene	<2.8 ug/	•	19.6	2.8	1	07/15/10 10:14	07/15/10 14:55	193-39-5	
1-Methylnaphthalene	<b>12.0J</b> ug/		19.6	3.0	1	07/15/10 10:14	07/15/10 14:55		
2-Methylnaphthalene	<b>18.6J</b> ug/		19.6	3.0	1	07/15/10 10:14	07/15/10 14:55	91-57-6	
Naphthalene	<b>19.2J</b> ug/		19.6	3.4	1	07/15/10 10:14	07/15/10 14:55	91-20-3	
Phenanthrene	<b>5.0J</b> ug/		19.6	4.3	1	07/15/10 10:14	07/15/10 14:55	85-01-8	
Pyrene	6.3J ug/		19.6	3.6	1	07/15/10 10:14			
2-Fluorobiphenyl (S)	63 %	•	38-130		1	07/15/10 10:14	07/15/10 14:55		
Terphenyl-d14 (S)	63 %		36-130		1		07/15/10 14:55		
Percent Moisture	Analytical M	lethod: AST	M D2974-87						
	15.2 %								

Date: 07/20/2010 09:53 AM





Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034372

Sample: S9

Lab ID: 4034372003

Collected: 07/12/10 13:15 Received: 07/13/10 17:10 Matrix: Solid

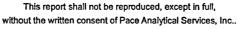
Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical M	ethod: WI MO	D DRO P	reparation I	Method:	WI MOD DRO			
Diesel Range Organics	<1.0 mg/	'kg	2.1	1.0	. 1	07/16/10 11:18	07/19/10 09:47		
WIGRO GCV	Analytical M	ethod: WI MO	D GRO P	reparation I	Method:	: TPH GRO/PVO	C WI ext.		
Benzene	<25.0 ug/l	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	71-43-2	w
Ethylbenzene	<25.0 ug/l	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	100-41-4	W
Methyl-tert-butyl ether	<25.0 ug/l	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	1634-04-4	W
Toluene	<25.0 ug/l	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	108-88-3	W
Total Trimethylbenzenes	<50.0 ug/l	kg	120	50.0	1	07/15/10 07:08	07/15/10 17:46		W
1,2,4-Trimethylbenzene	<25.0 ug/l	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	108-67-8	W
Xylene (Total)	<75.0 ug/k	kg	180	75.0	1	07/15/10 07:08	07/15/10 17:46	1330-20-7	W
m&p-Xylene	<50.0 ug/l	kg	120	50.0	1	07/15/10 07:08	07/15/10 17:46	179601-23-1	W
o-Xylene	<25.0 ug/l	kg	60.0	25.0	1	07/15/10 07:08	07/15/10 17:46	95-47-6	W
a,a,a-Trifluorotoluene (S)	103 %		80-120		1	07/15/10 07:08	07/15/10 17:46	98-08-8	
3270 MSSV PAH by SIM	Analytical M	ethod: EPA 82	270 by SIM	l Preparation	on Meth	od: EPA 3546			
Acenaphthene	<b>&lt;2.7</b> ug/l	kg	19.2	2.7	1	07/15/10 10:14	07/15/10 15:12	83-32-9	
Acenaphthylene	<3.1 ug/l		19.2	3.1	. 1	07/15/10 10:14	07/15/10 15:12	208-96-8	
Anthracene	<4.5 ug/l		19.2	4.5	1.	07/15/10 10:14	07/15/10 15:12	120-12-7	
Benzo(a)anthracene	<2.7 ug/\		19.2	2.7	1	07/15/10 10:14	07/15/10 15:12	56-55-3	
Benzo(a)pyrene	<3.1 ug/l	•	19.2	3.1	1	07/15/10 10:14	07/15/10 15:12	50-32-8	
Benzo(b)fluoranthene	<3.3 ug/l	_	19.2	3.3	1	07/15/10 10:14	07/15/10 15:12	205-99-2	
Benzo(g,h,i)perylene	<2.5 ug/	kg	19.2	2.5	1	07/15/10 10:14	07/15/10 15:12	191-24-2	
Benzo(k)fluoranthene	<3.6 ug/l	•	19.2	3.6	1	07/15/10 10:14	07/15/10 15:12	207-08-9	
Chrysene	<3.5 ug/l	ka	19.2	3.5	1	07/15/10 10:14	07/15/10 15:12	218-01-9	
Dibenz(a,h)anthracene	< <b>5.2</b> ug/l	~	19.2	5.2	. 1	07/15/10 10:14	07/15/10 15:12	53-70-3	
Fluoranthene	<9.6 ug/l		19.2	9.6	1	07/15/10 10:14			
Fluorene	<4.8 ug/l		19.2	4.8	1	07/15/10 10:14			
ndeno(1,2,3-cd)pyrene	<2.7 ug/		19.2	2.7	1		07/15/10 15:12		
I-Methylnaphthalene	<2.9 ug/	~	19.2	2.9	1	07/15/10 10:14			
2-Methylnaphthalene	<2.9 ug/l		19.2	2.9	1		07/15/10 15:12		
Naphthalene	<3.4 ug/l		19.2	3.4	1	07/15/10 10:14			
Phenanthrene	<4.2 ug/l		19.2	4.2	1	07/15/10 10:14			
Pyrene	<3.5 ug/l		19.2	3.5	1		07/15/10 15:12		
2-Fluorobiphenyl (S)	60 %	9	38-130	2.5	1	07/15/10 10:14			
Terphenyl-d14 (S)	64 %		36-130		1		07/15/10 15:12		
Percent Moisture	Analytical M	ethod: ASTM	D2974-87						
Percent Moisture	13.3 %		0.10	0.10	1		07/15/10 07:49		

Date: 07/20/2010 09:53 AM

**REPORT OF LABORATORY ANALYSIS** 

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Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

Sample: S12 Lab ID: 4034372004

Collected: 07/12/10 13:50 Received: 07/13/10 17:10 Matrix: Solid

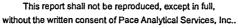
Results reported on a "dry-weight" basis

Parameters	Results	Units LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
WIDRO GCS	Analytical Me	ethod: WI MOD DRO	Preparation I	Method	: WI MOD DRO			
Diesel Range Organics	<0.96 mg/			1		07/19/10 09:56		
WIGRO GCV	Analytical Me	ethod: WI MOD GRO	Preparation	Method	: TPH GRO/PVO	C WI ext.		
Benzene	<25.0 ug/k	g 60.0	25.0	1	07/15/10 07:08	07/15/10 18:11	71-43-2	w
Ethylbenzene	<25.0 ug/k	g 60.0	25.0	1	07/15/10 07:08	07/15/10 18:11	100-41-4	W
Methyl-tert-butyl ether	<25.0 ug/k		25.0	1	07/15/10 07:08	07/15/10 18:11	1634-04-4	W
Toluene	<25.0 ug/k		25.0	1	07/15/10 07:08	07/15/10 18:11	108-88-3	W
Total Trimethylbenzenes	<b>&lt;50.0</b> ug/k		50.0	1	07/15/10 07:08	07/15/10 18:11		Ŵ
1,2,4-Trimethylbenzene	<b>&lt;25.0</b> ug/k		25.0	1	07/15/10 07:08	07/15/10 18:11	95-63-6	W
1,3,5-Trimethylbenzene	<25.0 ug/k		25.0	1	07/15/10 07:08	07/15/10 18:11	108-67-8	W
(ylene (Total)	<75.0 ug/k	-	75.0	1		07/15/10 18:11	1330-20-7	w
n&p-Xylene	<50.0 ug/k	-		1		07/15/10 18:11	179601-23-1	W
o-Xylene	<25.0 ug/k			1		07/15/10 18:11	95-47-6	W
a,a,a-Trifluorotoluene (S)	103 %	80-120		1		07/15/10 18:11		
2270 MSSV PAH by SIM	Analytical Me	ethod: EPA 8270 by S	SIM Preparati	on Meth	nod: EPA 3546			
Acenaphthene	<b>&lt;2.9</b> ug/k	.g 20.3	3 2.9	1	07/15/10 10:14	07/15/10 15:29	83-32-9	
Acenaphthylene	<3.2 ug/k	•		1	07/15/10 10:14	07/15/10 15:29	208-96-8	
Inthracene	<4.7 ug/k			1		07/15/10 15:29		
Benzo(a)anthracene	<2.9 ug/k			1	07/15/10 10:14	07/15/10 15:29	56-55-3	
Benzo(a)pyrene	<3.3 ug/k	=		1		07/15/10 15:29		
Benzo(b)fluoranthene	<3.5 ug/k			1		07/15/10 15:29		
Benzo(g,h,i)perylene	<2.7 ug/k			1		07/15/10 15:29		
Benzo(k)fluoranthene	<3.8 ug/k	▼	3 3.8	1		07/15/10 15:29		
Chrysene	<3.7 ug/k	•		1		07/15/10 15:29		
Dibenz(a,h)anthracene	<5.5 ug/k			1		07/15/10 15:29		
luoranthene	<10.2 ug/k			1		07/15/10 15:29		
luorene	<5.1 ug/k	•		1		07/15/10 15:29		
ndeno(1,2,3-cd)pyrene	<2.9 ug/k			1		07/15/10 15:29		
l-Methylnaphthalene	<3.1 ug/k	· ·		1		07/15/10 15:29		
2-Methylnaphthalene	<3.1 ug/k	•		1		07/15/10 15:29		
Naphthalene	<b>9.5J</b> ug/k	•		1		07/15/10 15:29		
Phenanthrene	<4.5 ug/k			1		07/15/10 15:29		
Pyrene	<3.7 ug/k			1		07/15/10 15:29		
?-Fluorobiphenyl (S)	66 %	38-130		1		07/15/10 15:29		
Terphenyl-d14 (S)	69 %	36-130		1		07/15/10 15:29		
Percent Moisture		ethod: ASTM D2974-8					-	
Percent Moisture	18.0 %	0.10		1		07/15/10 07:49		

Date: 07/20/2010 09:53 AM

**REPORT OF LABORATORY ANALYSIS** 

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Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

QC Batch:

OEXT/7805

Analysis Method:

WI MOD DRO

QC Batch Method:

WI MOD DRO

Analysis Description:

WIDRO GCS

Associated Lab Samples:

: 4034372001, 4034372002, 4034372003, 4034372004

METHOD BLANK: 327928

Matrix: Solid

Associated Lab Samples:

Parameter

4034372001, 4034372002, 4034372003, 4034372004

Blank Result Reporting

Limit Analyzed

Qualifiers

Diesel Range Organics

mg/kg

Units

< 0.99

2.0 07/19/10 09:02

LABORATORY CONTROL SAMPLE & LCSD: 327929 327930 LCS LCSD LCS LCSD Spike % Rec Max Parameter Units Conc. Result Result % Rec % Rec Limits **RPD** RPD Qualifiers Diesel Range Organics 20 80 70-120 20 16.0 14.8 74 mg/kg







Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

QC Batch:

GCV/5314

Analysis Method:

WI MOD GRO

QC Batch Method:

TPH GRO/PVOC WI ext.

Analysis Description:

WIGRO Solid GCV

Associated Lab Samples:

4034372001, 4034372002, 4034372003, 4034372004

METHOD BLANK: 327198

Matrix: Solid

Associated Lab Samples: 4034372001, 4034372002, 4034372003, 4034372004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers	
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	07/15/10 08:49		
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	07/15/10 08:49		
Benzene	ug/kg	<25.0	60.0	07/15/10 08:49		
Ethylbenzene	ug/kg	<25.0	60.0	07/15/10 08:49		
m&p-Xylene	ug/kg	<50.0	120	07/15/10 08:49		
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	07/15/10 08:49		
o-Xylene	ug/kg	<25.0	60.0	07/15/10 08:49		
Toluene	ug/kg	<25.0	60.0	07/15/10 08:49		
Total Trimethylbenzenes	ug/kg	<50.0	120	07/15/10 08:49		
Xylene (Total)	ug/kg	<75.0	180	07/15/10 08:49		
a,a,a-Trifluorotoluene (S)	%	103	80-120	07/15/10 08:49		

LABORATORY CONTROL SAM	PLE & LCSD: 327199	•	32	7200						
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	1080	1090	108	109	80-120	.7	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1070	1080	107	108	80-120	1	20	
Benzene	ug/kg	1000	982	986	98	99	80-120	.5	20	
Ethylbenzene	ug/kg	1000	1060	1060	106	106	80-120	.5	20	
m&p-Xylene	ug/kg	2000	2120	2120	106	106	80-120	.06	20	
Methyl-tert-butyl ether	ug/kg	1000	917	921	92	92	80-120	.4	20	
o-Xylene	ug/kg	1000	1050	1050	105	105	80-120	.3	20	
Toluene	ug/kg	1000	1030	1030	103	103	80-120	.6	20	
Total Trimethylbenzenes	ug/kg	2000	2150	2170	107	108	80-120	1	20	
Xylene (Total)	ug/kg	3000	3170	3170	106	106	80-120	.07	20	
a,a,a-Trifluorotoluene (S)	%				104	104	80-120			

Date: 07/20/2010 09:53 AM







Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

QC Batch:

OEXT/7790

Analysis Method:

EPA 8270 by SIM

36-130 07/15/10 10:38

QC Batch Method:

**EPA 3546** 

Analysis Description:

8270/3546 MSSV PAH by SIM

Associated Lab Samples:

Acenaphthene

Anthracene

Chrysene

Fluorene

Pyrene

Fluoranthene

Naphthalene

Phenanthrene

Terphenyl-d14 (S)

Acenaphthylene

Benzo(a)pyrene

4034372001, 4034372002, 4034372003, 4034372004

Matrix: Solid

METHOD BLANK: 327211

4034372001, 4034372002, 4034372003, 4034372004

Associated Lab Samples:

%

Blank Reporting Analyzed Units Result Limit Qualifiers Parameter <2.5 16.7 07/15/10 10:38 1-Methylnaphthalene ug/kg 2-Methylnaphthalene ug/kg <2.5 16.7 07/15/10 10:38 ug/kg <2.3 16.7 07/15/10 10:38 <2.7 07/15/10 10:38 ug/kg 16.7 ug/kg 07/15/10 10:38 <3.9 16.7 Benzo(a)anthracene ug/kg <2.4 16.7 07/15/10 10:38 ug/kg <2.7 16.7 07/15/10 10:38 Benzo(b)fluoranthene ug/kg <2.9 16.7 07/15/10 10:38 Benzo(g,h,i)perylene <2.2 16.7 07/15/10 10:38 ug/kg <3.1 16.7 Benzo(k)fluoranthene ug/kg 07/15/10 10:38 ug/kg <3.0 16.7 07/15/10 10:38 Dibenz(a,h)anthracene ug/kg <4.5 16.7 07/15/10 10:38 ug/kg <8.3 07/15/10 10:38 ug/kg <4.1 16.7 07/15/10 10:38 Indeno(1,2,3-cd)pyrene ug/kg <2.4 16.7 07/15/10 10:38 ug/kg <2.9 16.7 07/15/10 10:38 <3.7 16.7 07/15/10 10:38 ug/kg <3.1 07/15/10 10:38 ug/kg 16.7 2-Fluorobiphenyl (S) % 71 38-130 07/15/10 10:38

72

LABORATORY CONTROL SAM	MPLE: 327212					
Doromotor	l laws	Spike Conc.	LCS	LCS % Rec	% Rec	Qualifiers
Parameter	Units	Conc.	Result	% Rec	Limits	Quailliers
1-Methylnaphthalene	ug/kg	333	257	77	56-130	
2-Methylnaphthalene	ug/kg	333	246	74	57-130	
Acenaphthene	ug/kg	333	232	69	62-130	
Acenaphthylene	ug/kg	333	250	75	62-130	
Anthracene	ug/kg	333	266	80	62-130	
Benzo(a)anthracene	ug/kg	333	250	75	60-130	
Benzo(a)pyrene	ug/kg	333	266	80	62-130	
Benzo(b)fluoranthene	ug/kg	333	278	83	61-130	
Benzo(g,h,i)perylene	ug/kg	333	269	81	52-130	
Benzo(k)fluoranthene	ug/kg	333	259	78	61-130	
Chrysene	ug/kg	333	255	76	54-130	
Dibenz(a,h)anthracene	ug/kg	333	262	79	55-130	
Fluoranthene	ug/kg	333	258	77	65-130	
Fluorene	ug/kg	333	248	74	58-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	268	80	55-130	
Naphthalene	ug/kg	333	237	71	59-130	
Phenanthrene	ug/kg	333	254	76	62-130	

Date: 07/20/2010 09:53 AM

REPORT OF LABORATORY ANALYSIS

Page 11 of 14





Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034372

LABORATORY CONTROL SAMPLE: 327212

Parameter	· Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	333	254	76	58-130	
2-Fluorobiphenyl (S)	%			70	38-130	
Terphenyl-d14 (S)	%			73	36-130	

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 32721	3		327214							
		034409001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	DDD	Max	0 -1
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/kg	<2.7	350	350	224	245	64	70	44-130	9	22	
2-Methylnaphthalene	ug/kg	<2.7	350	350	221	243	63	69	43-130	9	20	
Acenaphthene	ug/kg	<2.5	350	350	216	232	62	66	47-130	7	20	
Acenaphthylene	ug/kg	<2.8	350	350	230	248	66	71	51-130	8	20	
Anthracene	ug/kg	<4.1	350	350	237	258	67	74	45-130	9	22	
Benzo(a)anthracene	ug/kg	<2.5	350	350	222	240	63	68	44-130	8	27	
Benzo(a)pyrene	ug/kg	<2.9	350	350	238	256	68	73	49-130	7	27	
Benzo(b)fluoranthene	ug/kg	<3.0	350	350	264	265	75	75	41-130	.1	32	
Benzo(g,h,i)perylene	ug/kg	<2.3	350	350	237	248	67	71	39-130	5	28	
Benzo(k)fluoranthene	ug/kg	<3.3	350	350	226	228	64	65	41-130	.9	26	
Chrysene	ug/kg	<3.2	350	350	222	245	63	70	45-130	10	28	
Dibenz(a,h)anthracene	ug/kg	<4.8	350	350	234	249	67	71	39-130	6	25	
Fluoranthene	ug/kg	<8.8	350	350	232	248	66	70	47-130	7	25	
Fluorene	ug/kg	<4.4	350	350	229	243	65	69	46-130	6	20	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.5	350	350	238	252	68	72	39-130	5	28	
Naphthalene	ug/kg	<3.1	350	350	207	235	59	67	43-130	13	22	
Phenanthrene	ug/kg	<3.8	350	350	230	248	65	71	47-130	8	20	
Pyrene	ug/kg	<3.2	350	350	224	241	64	69	42-130	8	25	
2-Fluorobiphenyl (S)	%						61	63	38-130			
Terphenyl-d14 (S)	%						60	64	36-130			

Date: 07/20/2010 09:53 AM





Project:

3499-011 MMC BLDG #10

Pace Project No.:

4034372

QC Batch:

PMST/4240

Analysis Method:

ASTM D2974-87

QC Batch Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

Associated Lab Samples: 4034372001, 4034372002, 4034372003, 4034372004

SAMPLE DUPLICATE: 327011

Parameter

4034379001

Result

Dup Result

**RPD** 

Max RPD

Qualifiers

Percent Moisture

%

Units

4.9

4.6

6

10

Date: 07/20/2010 09:53 AM





#### **QUALIFIERS**

Project:

3499-011 MMC BLDG #10

Pace Project No.: 4034372

#### **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.

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.

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

#### **ANALYTE QUALIFIERS**

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



Robert E. Lee & Associates, Inc.
Engineering, Surveying, Environmental Services
4664 Golden Pond Park Court
Hobart, WI 54155
920.662.9641 FAX 920.662.9141

# To ensure the proper handling of samples, please see the back for instructions. $\upsigma$

**CHAIN OF CUSTODY RECORD** 

COC#

200264 4034372

Client: Smet	Construct	hion					<b>A</b> 1-	. /	Analy	ses Required:	-111-1		Report	t to: N	licole LaPlant	
Project Name: MM	C Bldg #	<sup>‡</sup> /0				Filtered ?	(INC	te sp	eciai de	etection limits or m	etnoas)	1		any: RE		
Project Number: 349		BID #:				(Y / N) Preservation	.,	-	,		++	+-	Addres		1 Golden Pond Prk. Ck.	
						*(Code)	U	m	u		$\perp \perp$			Ho	bost WI 54155	
Environmental Program													Teleph	one: 6	62-9641	
LUST SDV		DES L	RCF	RA	OTHER											4
Requested Turnaround	Time		*Prese	rvatior	n Code								Invoice	e to:	Same	_
Normal Rush		Nitric Acid (re			) = Sodium Hydroxide								Compa	any:		1
Date Needed:	M-N	Hydrochloric <i>F</i> Methanol	Acia		J = Unpreserved (white) S = Sulfuric Acid (green)								Addres	ss:		4
Rushes accepted only w/prio notification	or															4
Sampler:	. 1 01.	,			Sample Type (Matrix) DW = Drinking Water		00	PVOCS	PAHS				Teleph	one:		4
	e LoPlan	<del></del>	a	T -	GW = Groundwater WW = Wastewater	No. Of	000	PV	PA				Labo	oratory		$\dashv$
Sample Name	Date	Time	Comp	Grab	Soil, Oil, Sludge, Air, Other:	Containers	_				-		Sam	ple I.Ď.	Remarks:	<u> </u>
53	7-12-10	1050 A			SOIL	<b>发</b> 4	X		X	_	$\vdash$	-	00		1-HonpA 1-Honaga 1-donc	21
56		1248 P		-		24	X		×				007		( a- donis	_
59		1315 P	}	-		X 4	×	X	$\frac{1}{x}$		++		007			-
512	V	1350 A	$\top$	-		A 7	1	_			++	+-	000	<u> </u>	V * V	+
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		A P														
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Bellinguished E	By A	Date		-	Time // 17/0 A/P ₩	Received	Ву			Date 7 1 3 1 0	•		me	1	oratory Receiving Notes	٦
						1				- 410110		111	<u>()</u> A/P		ure of Contents PO °C	;
3)					A/P								,V1		Seal Intact No	-
Received by Lab						****				- 1997		A = AM	P = PM		H NA	-

Pace Analytical Services, Inc. 1241 Bellevue Street, Suite 9 Green Bay, WI 54302

## Pace Analytical\*

### Sample Condition Upon Receipt

Project Manager Review:  Note: Whenever there is a discrepancy affecting North Carolina incorrect preservative, out of temp, incorrect containers)	compliance samples a c	<del></del>	ate: 7-14-10  DEHNR Certification Office (Le out of hold,
Person Contacted: Comments/ Resolution:	Dat	/Time:	*
Client Notification/ Resolution:			Required? Y / N
Pace Trip Blank Lot # (if purchased):			
Trip Blank Custody Seals Present	□Yes □No □		
Trip Blank Present:	□Yes ÌSWo □N	16.	•
Headspace in VOA Vials ( >6mm):	□Yes □No □N	15.	
Samples checked for dechlorination:	□Yes □No 図	14.	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes □No.	completed preservative	
compliance with EPA recommendation.	□Yes □No □N	Initial when Lot # of ad	hah
All containers needing preservation are found to be in	□Yes □No □N	13.	
-Includes date/time/ID/Analysis Matrix: All containers needing preservation have been checked.	<u> </u>		
Sample Labels match COC:	Yes DNo DN	12.	
Filtered volume received for Dissolved tests	□Yes □No □N		
Containers Intact:	Yes ONO ON	·	·
-Pace Containers Used:	Yes ONO ON	<del> </del>	10 7 13 10
Correct Containers Used:			MINI TME WT
Sufficient Volume:	QYes □No □N	9004 DFD jar is	AD+ tore wit
Rush Turn Around Time Requested:			
Short Hold Time Analysis (<72hr):	□Yes □No □N □Yes □No □N	<del></del>	
Samples Arrived within Hold Time:			
Sampler Name & Signature on COC:	QYes ONO ON		
Chain of Custody Relinquished:	`		
Chain of Custody Filled Out:	Yes No No	<u> </u>	
Chain of Custody Present:	Yes ONO ON	T	
Biota Samples should be received ≤ 0°C.	\n. 5. 5	Comments:   -	
Temp should be above freezing to 6°C for all sample ex	ccept Biota.		7/13/10
Temp Blank Present: Tyes Tno	•		amining contents:
Thermometer Used NA Cooler Temperature LO		is Frozen:  yes	n ice, cooling process has begun
Packing Material: F Bubble Wrap Bul	oble Bags Til No Type of Ice: We	ne other PD/YDAMP	RrogsName
		intact: yes no	Pror Due Date
Custody Seal on Cooler/Box Present: yes	s no Sea	intact: Tyes T no	Optional way and ware and a
Tracking #:	\		
Courier:   Fed Ex   T UPS   T USPS   T		-	
/ Client Name	: fobort	といと Project#	4034372



September 09, 2010

Nicole Laplant ROBERT E. LEE & ASSOCIATES, IN 4664 Golden Pond Park Court Oneida, WI 54155

RE: Project: 13499-011 MMC-BUILDING 10 SMET

Pace Project No.: 4036527

#### Dear Nicole Laplant:

Enclosed are the analytical results for sample(s) received by the laboratory on September 03, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

**Brian Basten** 

brian.basten@pacelabs.com Project Manager

Enclosures







#### **CERTIFICATIONS**

Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.:

4036527

**Green Bay Certification IDs** 

1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

New York Certification #: 11888 North Carolina Certification #: 503 North Dakota Certification #: R-150 South Carolina Certification #: 83006001 US Dept of Agriculture #: S-76505 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444







#### **SAMPLE SUMMARY**

Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.: 4036527

Lab ID Sample ID

Matrix

**Date Collected** 

**Date Received** 

4036527001

MW-1

Water

08/31/10 10:30

09/03/10 12:05

**REPORT OF LABORATORY ANALYSIS** 

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.







### **SAMPLE ANALYTE COUNT**

Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.: 4036527

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4036527001	MW-1	WI MOD GRO	SES	8
		EPA 8270 by SIM	RJN	20





#### **ANALYTICAL RESULTS**

Project:

13499-011 MMC-BUILDING 10 SMET

107 %

Pace Project No.: 4036527

Received: 09/03/10 12:05 Matrix: Water Sample: MW-1 Lab ID: 4036527001 Collected: 08/31/10 10:30 **Parameters** Results Units LOQ LOD DF Prepared Analyzed CAS No. Quai **WIGRO GCV** Analytical Method: WI MOD GRO 0.39 Benzene <0.39 ug/L 1.0 1 09/08/10 11:11 71-43-2 Ethylbenzene <0.41 ug/L 1.0 0.41 1 09/08/10 11:11 100-41-4 0.38 Methyl-tert-butyl ether <0.38 ug/L 1.0 1 09/08/10 11:11 1634-04-4 Toluene <0.42 ug/L 1.0 0.42 1 09/08/10 11:11 108-88-3 09/08/10 11:11 95-63-6 1,2,4-Trimethylbenzene 0.430.44J ug/L 1.0 1 0.40 1,3,5-Trimethylbenzene <0.40 ug/L 1.0 1 09/08/10 11:11 108-67-8 Xylene (Total) <1.3 ug/L 3.0 1.3 1 09/08/10 11:11 1330-20-7 09/08/10 11:11 98-08-8 a,a,a-Trifluorotoluene (S) 103 % 80-120 1 8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510 Acenaphthene 0.010J ug/L 0.050 0.0048 09/07/10 07:30 09/07/10 11:45 83-32-9 0.0038 09/07/10 07:30 09/07/10 11:45 208-96-8 Acenaphthylene <0.0038 ug/L 0.050 Anthracene 0.014J ug/L 0.050 0.0061 1 09/07/10 07:30 09/07/10 11:45 120-12-7 0.0038 Benzo(a)anthracene 09/07/10 07:30 09/07/10 11:45 56-55-3 0.0057J ug/L 0.050 1 Benzo(a)pyrene 0.0030 09/07/10 07:30 09/07/10 11:45 50-32-8 0.0041J ug/L 0.050 1 0.0036 09/07/10 07:30 09/07/10 11:45 205-99-2 Benzo(b)fluoranthene 0.0041J ug/L 0.050 1 Benzo(g,h,i)perylene 0.0051 09/07/10 07:30 09/07/10 11:45 191-24-2 <0.0051 ug/L 0.050 1 09/07/10 07:30 09/07/10 11:45 207-08-9 Benzo(k)fluoranthene 0.0048J ug/L 0.050 0.0046 1 0.0067J ug/L 0.0037 09/07/10 07:30 09/07/10 11:45 218-01-9 Chrysene 0.050 1 09/07/10 07:30 09/07/10 11:45 53-70-3 Dibenz(a,h)anthracene 0.050 0.0034 <0.0034 ug/L 1 Fluoranthene 0.0047 09/07/10 07:30 09/07/10 11:45 206-44-0 0.050 0.016J ug/L 1 Fluorene 0.0057J ug/L 0.050 0.0051 09/07/10 07:30 09/07/10 11:45 86-73-7 1 Indeno(1,2,3-cd)pyrene <0.0050 ug/L 0.050 0.0050 1 09/07/10 07:30 09/07/10 11:45 193-39-5 1-Methylnaphthalene 0.050 0.0053 09/07/10 07:30 09/07/10 11:45 90-12-0 0.030J ug/L 1 2-Methylnaphthalene 0.035J ug/L 0.050 0.0041 09/07/10 07:30 09/07/10 11:45 91-57-6 1 Naphthalene 0.085 ug/L 0.050 0.0051 09/07/10 07:30 09/07/10 11:45 91-20-3 1 В Phenanthrene 0.022J ug/L 0.050 0.0086 1 09/07/10 07:30 09/07/10 11:45 85-01-8 0.0050 09/07/10 07:30 09/07/10 11:45 129-00-0 Pyrene 0.012J ug/L 0.050 1 2-Fluorobiphenyl (S) 58 % 23-130 09/07/10 07:30 09/07/10 11:45 321-60-8

58-144

Date: 09/09/2010 04:34 PM

Terphenyl-d14 (S)

09/07/10 07:30 09/07/10 11:45 1718-51-0





Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.:

4036527

QC Batch:

GCV/5554

Analysis Method:

WI MOD GRO

QC Batch Method: WI MOD GRO

Analysis Description:

WIGRO GCV Water

Associated Lab Samples: 4036527001

METHOD BLANK: 351105

Associated Lab Samples: 4036527001

Matrix: Water

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.43	1.0	09/08/10 08:13	
1,3,5-Trimethylbenzene	ug/L	<0.40	1.0	09/08/10 08:13	
Benzene	ug/L	<0.39	1.0	09/08/10 08:13	
Ethylbenzene	ug/L	<0.41	1.0	09/08/10 08:13	
Methyl-tert-butyl ether	ug/L	<0.38	1.0	09/08/10 08:13	
Toluene	ug/L	<0.42	1.0	09/08/10 08:13	
Xylene (Total)	ug/L	<1.3	3.0	09/08/10 08:13	
a,a,a-Trifluorotoluene (S)	%	102	80-120	09/08/10 08:13	

LABORATORY CONTROL SAM	PLE & LCSD: 351106		35	51107						
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	22.0	21.8	110	109	80-120	.8	20	
1,3,5-Trimethylbenzene	ug/L	20	22.2	22.0	111	110	80-120	1	20	
Benzene	ug/L	20	21.8	21.7	109	108	80-120	.7	20	
Ethylbenzene	ug/L	20	22.4	22.0	112	110	80-120	2	20	
Methyl-tert-butyl ether	ug/L	20	20.5	20.9	102	104	80-120	2	20	
Toluene	ug/L	20	22.1	21.8	111	109	80-120	2	20	
Xylene (Total)	ug/L	60	66.1	65.2	110	109	80-120	1	20	
a.a.a-Trifluorotoluene (S)	%				103	102	80-120			

Date: 09/09/2010 04:34 PM





Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.:

4036527

QC Batch:

OEXT/8652

Analysis Method:

EPA 8270 by SIM

QC Batch Method:

EPA 3510

Analysis Description:

8270 Water PAH by SIM MSSV

Associated Lab Samples: 4036527001

METHOD BLANK: 350820

Matrix: Water

Associated Lab Samples: 4036527001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers	
1-Methylnaphthalene	ug/L	<0.0053	0.050	09/07/10 10:17		
2-Methylnaphthalene	ug/L	<0.0041	0.050	09/07/10 10:17		
Acenaphthene	ug/L	<0.0048	0.050	09/07/10 10:17		
Acenaphthylene	ug/L	<0.0038	0.050	09/07/10 10:17		
Anthracene	ug/L	< 0.0061	0.050	09/07/10 10:17		
Benzo(a)anthracene	ug/L	<0.0038	0.050	09/07/10 10:17		
Benzo(a)pyrene	ug/L	<0.0030	0.050	09/07/10 10:17		
Benzo(b)fluoranthene	ug/L	< 0.0036	0.050	09/07/10 10:17		
Benzo(g,h,i)perylene	ug/L	< 0.0051	0.050	09/07/10 10:17		
Benzo(k)fluoranthene	ug/L	< 0.0046	0.050	09/07/10 10:17		
Chrysene	ug/L	<0.0037	0.050	09/07/10 10:17		
Dibenz(a,h)anthracene	ug/L	< 0.0034	0.050	09/07/10 10:17		e 2
Fluoranthene	ug/L	< 0.0047	0.050	09/07/10 10:17		
Fluorene	ug/L	< 0.0051	0.050	09/07/10 10:17		
Indeno(1,2,3-cd)pyrene	ug/L	<0.0050	0.050	09/07/10 10:17		
Naphthalene	ug/L	0.0064J	0.050	09/07/10 10:17		
Phenanthrene	ug/L	<0.0086	0.050	09/07/10 10:17		
Pyrene	ug/L	<0.0050	0.050	09/07/10 10:17	•	
2-Fluorobiphenyl (S)	%	48	23-130	09/07/10 10:17		
Terphenyl-d14 (S)	%	75	58-144	09/07/10 10:17		

LABORATORY CONTROL SAMPLE:	3508	21						
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
1-Methylnaphthalene	ug/L		.2	0.099	49	27-130		
2-Methylnaphthalene	ug/L		.2	0.099	50	27-130		
Acenaphthene	ug/L		.2	0.099	50	32-130		
Acenaphthylene	ug/L		.2	0.10	50	32-130		
Anthracene	ug/L		.2	0.097	49	27-130		
Benzo(a)anthracene	ug/L		.2	0.19	94	43-130		
Benzo(a)pyrene	ug/L		.2	0.17	85	57-130		
Benzo(b)fluoranthene	ug/L		.2	0.19	95	42-130		
Benzo(g,h,i)perylene	ug/L		.2	0.20	98	55-130		
Benzo(k)fluoranthene	ug/L		.2	0.19	96	66-138		
Chrysene	ug/L		.2	0.19	94	68-130		
Dibenz(a,h)anthracene	ug/L		.2	0.20	100	35-130		
Fluoranthene	ug/L		.2	0.11	57	44-130		
Fluorene	ug/L		.2	0.10	51	31-130		
Indeno(1,2,3-cd)pyrene	ug/L		.2	0.20	99	46-130		
Naphthalene	ug/L		.2	0.10	51	27-130		
Phenanthrene	ug/L		.2	0.10	51	30-130		

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**REPORT OF LABORATORY ANALYSIS** 

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Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.: 4036527

LABORATORY CONTROL SAMPLE:	350821					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Pyrene	ug/L		0.11	57	40-130	
2-Fluorobiphenyl (S)	%			47	23-130	
Terphenyl-d14 (S)	%			79	58-144	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 35082	2		350823							
			MS	MSD								
	41	036499012	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/L	<0.0053	.4	.4	0.20	0.18	49	44	11-130	12	50	
2-Methylnaphthalene	ug/L	0.0048J	.4	.4	0.20	0.18	49	43	10-130	12	50	
Acenaphthene	ug/L	0.028J	.4	.4	0.23	0.20	50	44	16-130	11	42	
Acenaphthylene	ug/L	0.0041J	.4	.4	0.21	0.19	51	45	10-130	11	41	
Anthracene	ug/L	0.090	.4	.4	0.30	0.27	52	44	10-130	11	39	
Benzo(a)anthracene	ug/L	0.070	.4	.4	0.46	0.47	98	99	54-130	.6	20	
Benzo(a)pyrene	ug/L	0.061	.4	.4	0.41	0.42	87	90	55-130	3	20	
Benzo(b)fluoranthene	ug/L	0.084	.4	.4	0.51	0.52	106	108	48-130	2	23	
Benzo(g,h,i)perylene	ug/L	0.057	.4	.4	0.40	0.41	85	87	53-130	2	21	
Benzo(k)fluoranthene	ug/L	0.069	.4	.4	0.44	0.46	93	97	53-135	4	20	
Chrysene	ug/L	0.10	.4	.4	0.51	0.52	100	103	60-130	2	20	
Dibenz(a,h)anthracene	ug/L	0.012J	.4	.4	0.31	0.32	75	77	49-130	2	20	
Fluoranthene	ug/L	0.34	.4	.4	0.72	0.72	94	95	34-130	.6	33	
Fluorene	ug/L	0.028J	.4	.4	0.24	0.21	52	46	10-130	11	44	
Indeno(1,2,3-cd)pyrene	ug/L	0.046J	.4	.4	0.36	0.37	79	82	50-130	-3	20	
Naphthalene	ug/L	0.013J	.4	.4	0.22	0.19	52	45	10-130	14	50	
Phenanthrene	ug/L	0.096	.4	.4	0.31	0.28	54	47	12-130	10	40	
Pyrene	ug/L	0.20	.4	.4	0.55	0.55	86	88	41-130	.9	29	
2-Fluorobiphenyl (S)	%						48	42	23-130			
Terphenyl-d14 (S)	%						110	107	58-144			

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#### **QUALIFIERS**

Project:

13499-011 MMC-BUILDING 10 SMET

Pace Project No.:

4036527

#### **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.

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.

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

#### **BATCH QUALIFIERS**

Batch: GCV/5554

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

#### **ANALYTE QUALIFIERS**

B Analyte was detected in the associated method blank.

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# Robert E. Lee & Associates, Inc. Engineering, Surveying, Environmental Services 4664 Golden Pond Park Court Hobart, WI 54155 920.662.9641 FAX 920.662.9141

# To ensure the proper handling of samples please see the back for instructions.

CHAIN OF CUSTODY RECORD

COC#

200382

Client: SMET  Project Name: MMC - Building 10								/No	10.00	naly	/ses l letectio	Req	uired	d:	oda)		Repoi	t to: _ ^	J.cole La PLANT
Project Name:	MM	<u>C</u> -	Bu	<u>17</u>	٠٨	n 10	Filtered ?	_	W	eciai c	retection	11 181	iks or	meur	ous)	T	Comp	any:	
Project Number: 134°	99-011	BID #	:			<u> </u>	(Y/N) Preservation	1	1		$\dashv$	+	十	+	$\dashv$	+	Addre	ss:(	Ke
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Environmental Program  LUST SDV		WPDES	F	RCR	A	OTHER											Telepi	none:	
Requested Turnaround  Normal Rush (10-15 DAYS)  Date Needed:  Rushes accepted only w/pric notification	N H	N = Nitric Acid I = Hydrochlo N = Methanol	(red)		. c	n Code D = Sodium Hydroxide J = Unpreserved (white) S = Sulfuric Acid (green)											Comp Addre	any:	SAME
Sampler: Ben	Bel	lile	-			Sample Type (Matrix) DW = Drinking Water GW = Groundwater WW= Wastewater	No. Of	2000	PAH								Teleph	none:	
Sample Name	Date			Сопр	Grab	Soll, Oll, Sludge, Air, Other:	Containers											oratory ple I.D.	Remarks:
MW-1	8-31-1	10 10:30		X		CW	4	X	X					4			00	/	1-18A4; 3-4000
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Relinquished  1) 2) 3)				-/t	<u>-</u> -	Time 12:05 A& 444 A/P A/P	Sportsold						Dat /				25 A/P A/P A/P	Tempera Custody	boratory Receiving Notes ature of Contents*C y Seal Intact Condition
Received by Lab						·					_					A = A	A P=PM		pH

## Pace Analytical

### Sample Condition Upon Receipt

Client Name:	SMET	Pr	oject#	4036527
Courier: Fed Ex T UPS T USPS T C	lient Commerci	ial Pace Other		
Tracking #:		, , 400		
Custody Seal on Cooler/Box Present: Tyes	no Seals	intact: Tyes T no	Options	list and the second
Custody Seal on Samples Present: yes	no Seals	intact: [ yes	Prop Di	reDate : : 2.1
Packing Material: // Bubble Wrap // Bubb	ole Bags None	1	Pio N	imes un se e , ,
Thermometer Used M	Type of Ice: Wet	/	Samples on ice, cool	ing process has begun
Cooler Temperature	Biological Tissue			
Temp Blank Present: Tyes 700		no no	Person examining of Date:	ontents:
Temp should be above freezing to 6°C for all sample exc Biota Samples should be received ≤ 0°C.		Comments:	Initials:	7.5
Chain of Custody Present:	Yes ONO ON/A	1		
Chain of Custody Filled Out:	Øyes □No □N/A	2.		
Chain of Custody Relinquished:	ZYes □No □N/A	3.		
Sampler Name & Signature on COC:	Yes No N/A	4.		
Samples Arrived within Hold Time:	Øyes □No □N/A	5.		
Short Hold Time Analysis (<72hr):	TYES ONO ON/A	6.		
Rush Turn Around Time Requested:	□Yes DNo □N/A	7.		
Sufficient Volume:	Yes ONO ON/A	8.		
Correct Containers Used:	ZYes ONO ON/A	9.		
-Pace Containers Used:	Yes ONO ONA			
Containers Intact:	DYes □No □N/A	10.		
Filtered volume received for Dissolved tests	OYes ONO NIA	11.		
Sample Labels match COC:	Yes ONO ON/A	12.		
-Includes date/time/ID/Analysis Matrix:	W			
All containers needing preservation have been checked.	□Yes □No ☑N/A	13.		
All containers needing preservation are found to be in	Yes ONO ONA			
compliance with EPA recommendation.		Initial when	Lot # of added	•
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes □No.	completed	preservative	
Samples checked for dechlorination:	□Yes □No □N/A	14.		
Headspace in VOA Vials (>6mm):	□Yes DNo DNA	15.		
Trip Blank Present:	DYes DNo DNA	16.		
Trip Blank Custody Seals Present	□Yes □No ØN/A			
Pace Trip Blank Lot # (if purchased):				
Client Notification/ Resolution:			Field Data Required	? Y/N
Person Contacted:  Comments/ Resolution:	Date/	rime:		4
Toolidion.				
	*.		·	<del></del>
Project Manager Review:	ff.		Date:	9-3-10
Note: Whenever there is a discrepancy affecting North Carolina of incorrect preservative, out of temp, incorrect containers)	complience samples, a cop	y of this form will be sent to the N	orth Carolina DEHNR Ce	rtification Office (i.e out of hold