State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Sturtevant Service Center
9531 Rayne Road, Suite 4
Sturtevant WI 53177

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



July 3, 2012

WE Energies Attn: Mr. C. Luke Peters 333 W. Everett St. Milwaukee, WI 53203

Subject:

Closure Review for Pleasant Prairie Power Plant Tractor Garage Refueling Area, 8000

95<sup>th</sup> St., Kenosha, WI FID 230006260, BRRTS 03-30-210485

Dear Mr. Peters:

The Department received the request for site closure for the above noted property on April 2, 2012. After reviewing the documentation provided the Department requested several additional items to complete the closure review. On June 12, 2012 the additional information was received in the Sturtevant office. No further investigation or remediation is required at this time. This final closure decision is based on the correspondence and data provided, and is issued under ch. NR 726, Wisconsin Administrative Code.

The above noted property is an operating coal fired power plant located in a semi-industrial area in Pleasant Prairie, Wisconsin. There does not appear to be any plans in the near future for changing the use of the property to anything other then a power plant. The monitoring wells that were sampled in association with this investigation will remain in place and continue to be sampled in conjunction with a larger groundwater concern at the property.

If the property is ever not a power plant and does not have an industrial use then additional soil and groundwater samples will be necessary. However at this time no additional investigation is required in regards to the Tractor Garage Refueling Area.

The Department appreciates your efforts in addressing this environmental concern. If you have any questions regarding this letter feel free to contact me at 262-884-2341.

Sincerely,

Shanna L. Laube-Anderson

Hydrogeologist

Sturtevant Service Center



June 7, 2012

State of Wisconsin Department of Natural Resources Attn: Shanna Laube-Anderson 9531 Rayne Road, Suite 4 Sturtevant, WI 53177

Subject:

Closure Review for Pleasant Prairie Power Plant Tractor Garage Refueling

Area, 8000 95<sup>th</sup> St., Kenosha, WI FID 230006260, BRRTS 03-30-210485

Dear Ms. Laube-Anderson:

We are submitting this letter in response to your letter dated May 9, 2012 requesting additional information regarding our closure request for the above referenced project.

The DNR comments are italicized below:

1. A map that clearly identifies the location of where on the 20 acre parcel this investigation was performed.

The map is included in Attachment A.

2. Correct Table #1, Title: We Energies P4 Site Investigation Soil Sample Analytical Results, PAH's, this table does not include the boring numbers for the sample results. Also be sure to include the NR 720 RCLs on the table.

Final Table #1 is included in Attachment B.

3. Please adjust the units on both the VOC and PAH tables to be in the same units.

Final Table #1 is included in Attachment B.

4. Determine if a Soil GIS is necessary, it does not appear that one of your borings had PAH exceedances for several compounds.

Based on review of the laboratory results, we have determined that the exceedance in Boring B3-1 was not found in the duplicate sample nor in the deeper sample collected from B3; therefore a soil GIS should not be required for the UST closure for this site.

5. Please include tables for the groundwater samples that were also collected. Be sure that the monitoring wells that were samples were sampled in conjunction with this investigation are also included on the maps.

Table #2, Title: We Energies P4 Groundwater Sample Analytical Results is included in Attachment B.

MW-1, P-2, and MW-3 which were sampled in conjunction with this investigation are included on the map in Attachment A.

Thank you for your consideration and assistance with this project.

Sincerely,

C. Luke Peters

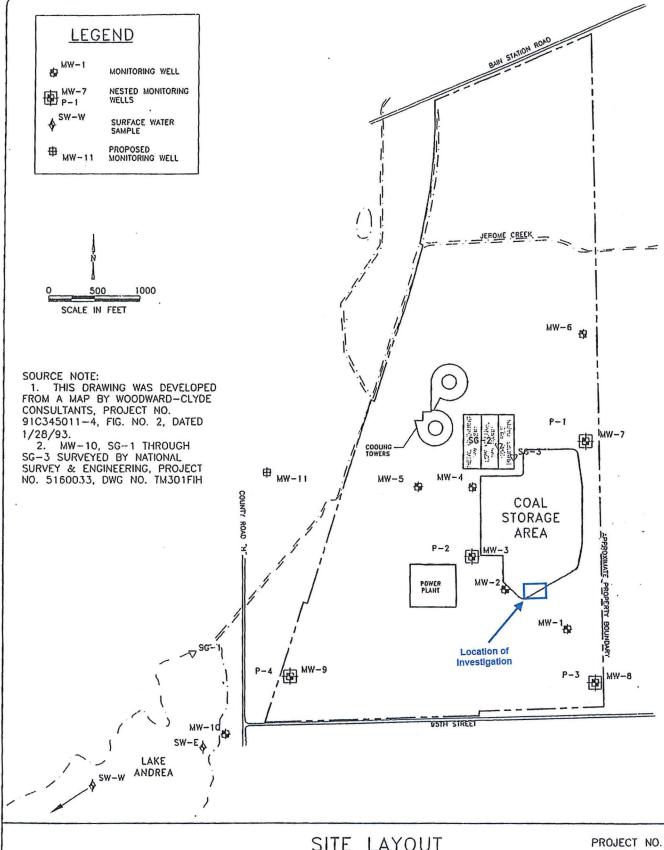
We Energies – Environmental

C Luke Peter

ATTACHMENTS:

ATTACHMENT A: MAPS ATTACHMENT B: TABLES

# ATTACHMENT A MAPS





#### SITE LAYOUT

COAL AREA MONITORING REPORT WE ENERGIES PLEASANT PRAIRIE POWER PLANT PLEASANT PRAIRIE, WISCONSIN DRAWN BY: HMS 06/14/06 APP'D BY: CAR DATE: 08/16/06 \* 1580/2.0

DRAWING NO. 1580-2-A02

FIGURE NO.

# ATTACHMENT B TABLES

Table #1, Title: We Energies P4
Soil Sample Analytical Results

					VOCs					PAHs						
Sample #	Depth (ft bgs)	Date Collected	PID (ppm eq)	DRO	GRO	Ethylbenzene	Naphthalene	Trimethylbenzene	Xylene	Acenaphthene	Acenaphthylene	Anthracene	Chrysene	Fluorene	Phenanthrene	Pyrene
B1-1	2-4'	11/14/2011	<10	5.1	7.8	<0.043.1	0.11	0.07	<0.13	<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
B2-1	2-4'	11/14/2011	<10	4.8	3.0	<0.025	0.05	<0.025	<0.05	<2.7	<3.1	<4.6	<3.5	<4.9	<4.3	<3.6
B3-1	2-4'	11/14/2011	<10	24.0	120.0	0.15	1.25	0.69	0.48	54.30	4.70	29.30	6.50	94.70	163.00	40.30
B3-1D	2-4'	11/14/2011	<10	NS	NS	0.15	<0.09	1.03	0.64	<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
B3-2	8-10'	11/14/2011	<10	1.7	12.6	<0.05	0.19	0.06	<0.13	<2.8	<3.1	<4.6	<3.6	<4.9	5.50	<3.6
B4-1	2-4'	11/14/2011	<10	1.8	<5.5	<0.05	<0.05	<0.05	<0.09	<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
B4-2	8-10'	11/14/2011	<10	2.1	12.2	<0.06	0.18	0.06	<0.09	<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
NR 720				250	250	2.9	1,100	NS	4	900	18	5,000	8.8	600	18	500

NOTES: All results in parts per million (ppm) unless otherwise noted

**Bold** samples equal or exceed the Enforcement Standards *Italic* samples equal or exceed the Preventive Action Limits

(ft bgs) = feet below ground surface

VOCs = volatile organic compounds

Metals = Resource Conservation Recovery Act (RCRA) Metals

PAHs = polynuclear aromatic hydrocarbons

NA = not analyzed

NS = no standard

Only parameters detected in at least one sample are shown in this table.

## Table # 2, Title: We Energies P4 Groundwater Sample Analytical Results

			PAHs									
Sample #	Date Collected	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Naphthalene	Phenanthrene	Pyrene
MW-1	12/1/2011	<0.0057	<0.0036	<0.0029	<0.0034	<0.0048	<0.0044	0.0052	<0.0044	0.0072	0.0084	<0.0047
P-2	12/1/2011	0.0070	0.0064	0.0061	0.0061	0.0062	0.0061	0.011	0.016	0.0074	0.020	0.014
MW-3	12/1/2011	<0.0062	<0.0039	<0.0031	< 0.0037	<0.0052	<0.0047	0.0041	<0.0048	0.015	<0.0088	<0.0051
NR 1	40 ES	3000	0.048	0.2	0.2	0.48	0.48	0.2	400	40	4.8	250
NR 1	40 PAL	600	0.0048	0.02	0.02	0.096	0.048	0.02	80	8	0.96	50

NOTES: All results in parts per billion (ppb) unless otherwise noted

Bold samples equal or exceed the Enforcement Standards

Italic samples equal or exceed the Preventive Action Limits

(ft bgs) = feet below ground surface

VOCs = volatile organic compounds

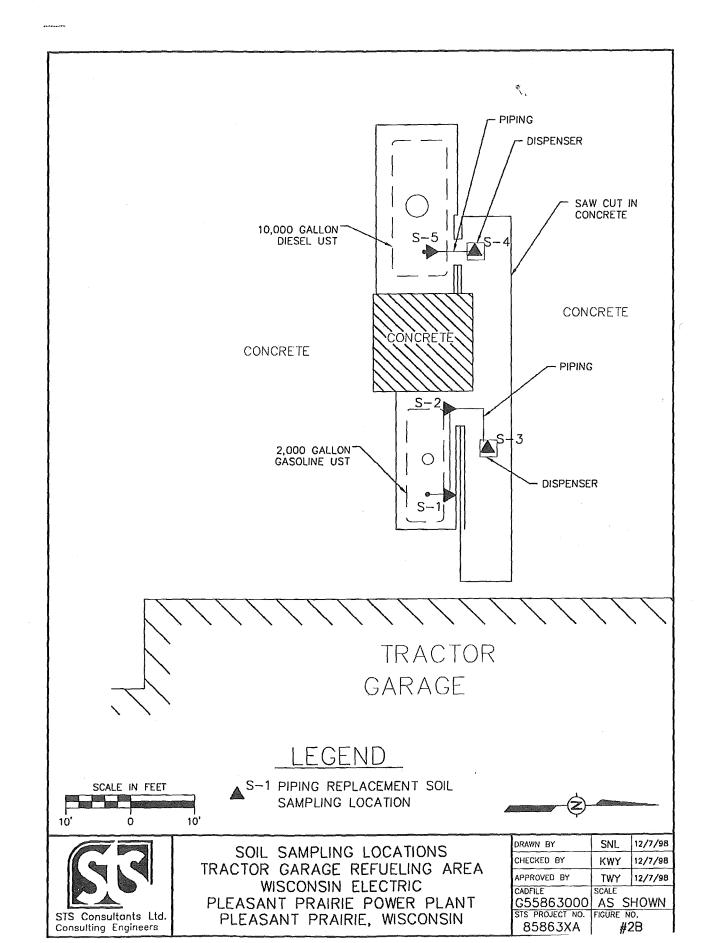
Metals = Resource Conservation Recovery Act (RCRA) Metals

PAHs = polynuclear aromatic hydrocarbons

NA = not analyzed

NS = no standard

Only parameters detected in at least one sample are shown in this table.



# Table 1 Soil Sampling Results - Piping Replacements Tractor Garage Refueling Area Wisconsin Electric - Pleasant Prairie Power Plant STS Project No. 85863XA

Sample No.	S-1	S-2	<b>S-3</b>	S-4	S-5
Sample Depth Soil Description	Crushed stone, some gravel	4.5 feet below ground surface Crushed stone, some gravel	Crushed stone, some gravel	crushed stone Some Gravel	4.5 feet below ground surface crushed stone Some Gravel
Odor?	Petroleum	Petroleum	Petroleum	Petroleum	Petroleum
PID Reading (IU)	620	160	260	160	250
DRO, mg/kg	3,320 (D1, D2A)	3,910 (D1)	6,600 (D1)	12,100 (D1)	19,500 <b>(D1)</b>
GRO, mg/kg	777 (G2, G6)	481 (G3, G6)	777 (G3, G6)	NA	NA

#### NOTES:

- 1. DRO Diesel Range Organics (WI. Modified Method).
- 2. GRO Gasoline Range Organics (WI. Modified Method).
- 3. mg/kg milligrams per kilogram, or parts per million.
- 4. Sample depths shown in feet below ground surface.
- 5. Field PID (IU) Photoionization Detector result. IU Instrument Units, similar to ppm.
- 6. NR 720 RCL = Residual Contaminant Level = 1) the NR 720 Table 1 generic RCL = 100 for DRO
- 7. 101 = NR 720 RCL exceedance
- 8. Samples analyzed by U.S. Filter/Enviroscan laboratory in Rothschild, WI
- 9. See Figure 2 for sampling locations.
- 10. D1-The chromatogram is charateristic for a fuel oil/diesel. (i.e. # 1 or #2 diesel, jet fuel, kerosene, aged or degraded diesel, etc.)
- 11. D2A-The chromatagram is characteristic for a light petroleum product. (I.e. gasoline, aged or degraded gasoline, mineral spirits, etc.)
- 12. G2- The chromatagram has characteristics of an aged gasoline sample.
- 13. G3 The chromatogram is not distinct for either gas or aged gas. It has a reportable concentration of peaks/area within the GRO window.
- 14. G6- The cromatogram contains a significant number of peaks and a raised baseline outside the GRO window.
- 15. NA Not analyzed

Wisconsin Electric P4 - Tractor Garage Refueling Area STS Project No. 85863XA January 27, 1999

#### 7.0 PROJECT SUMMARY

The following summary is based on the observations, activities, and findings of the piping replacement and closure assessment:

- A total of 27 feet of buried steel piping which connected two separate USTs to two separate dispensers was replaced with flexible piping at the tractor garage refueling area at WE's Pleasant Prairie Power Plant.
- Prior to replacement, surplus product was drained from the piping back to the UST.
- No sludge was generated from the piping replacement.
- Groundwater was not observed during the piping replacement activities.
- Physical evidence of a release, including odors, soil discoloration and elevated PID values, were noted in the tank/cavity backfill material.
- STS collected three soil samples for GRO testing and five samples for DRO from the tank/piping backfill to begin evaluating the magnitude and extent of the release.
- DRO was detected in all samples tested for DRO at concentrations ranging from 3,320 mg/kg to 19,500 mg/kg.
- GRO was detected in all samples tested for GRO at concentrations ranging from 481 mg/kg to 777 mg/kg.
- Based on field observations and laboratory testing results, a release has occurred to the tank/piping backfill material.
- WE reported the release to the WDNR.

#### 8.0 RECOMMENDATIONS

A site investigation must be performed in accordance with NR716, WAC to determine the lateral and vertical extent of contamination in the area of the former piping. A Work Plan for completing the site investigation must be submitted to the WDNR.

A copy of this report must be submitted to:

Mr. Michael Farley
Wisconsin Department of Natural Resources
4041 North Richards Street, Box 12436
Milwaukee, Wisconsin 53212-0436

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Sturtevant Service Center
9531 Rayne Road, Suite 4
Sturtevant WI 53177

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



May 9, 2012

WE Energies Attn: Mr. Mark Collins 333 W. Everett St. Milwaukee, WI 53203

Subject:

Request for Additional Information to Complete Closure Review for Pleasant Prairie Power Plant

Tractor Garage Refueling Area, 8000 95th St., Kenosha, WI FID 230006260, BRRTS 03-30-

210485

Dear Mr. Collins:

The Department received the request for site closure for the above noted property on April 2, 2012. After reviewing the documentation provided the Department is requesting the following additional items in order to complete the review.

- 1. A map that clearly identifies the location of where on the 20 acre parcel this investigation was performed.
- 2. Correct Table#1, Title: We Energies P4 Site Investigation Soil Sample Analytical Results, PAH's, this table does not include the boring numbers for the sample results. Also be sure to include the NR 720 RCLs on the table.
- 3. Please adjust the units on both the VOC and PAH tables to be in the same units.
- 4. Determine if a Soil GIS is necessary, it does appear that one of your borings had PAH exceedences for several compounds.
- 5. Please include tables for the groundwater samples that were also collected. Be sure that the monitoring wells that were sampled in conjunction with this investigation are also included on the maps.

Once these items are received in this office a complete closure review can be performed. The Department will pause this site, no a closure denial, until the additional information is received.

Feel free to contact me if you have any questions, 262-884-2341.

Sincerely,

Shanna L. Laube-Anderson

Hydrogeologist

Sturtevant Service Center

Cc: Linda Fellenz, LF Green Development, LLC, PO Box 370888, Milwaukee, WI 53237



State of Wisconsin Department of Natural Resources http://dnr.wi.gov DECEIVED MAK 2 9 2012

#### **Case Closure Request**

Form 4400-202 (R 8/09)

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WDNR BRRTS CASE # \_\_\_03 - 30 - 210485

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

#### Remediation and Redevelopment Program

This form is intended to provide instructions and a list of information that must be submitted for evaluation for case closure, each time a request is made. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

NOTICE: Completion of this form is mandatory for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

In order to expedite the closure process, provide a complete and accurate closure package according to the following instructions, each time a closure decision is requested:

- Submit the Case Closure Request form and the required attachments as a stand-alone, unbound package. Include all information requested per section, as appropriate to the site, in the order shown. Include all attachments per section, as appropriate. Do not attach previously submitted reports. Correctly reference any reports in the case summary, as applicable.
- Include fees with this request at the time it is submitted to the department in order for the application to be considered complete.
- Specify your selected closure option.
- Use forms 4400-245 and 4400-246 for Section H. Include all GIS Registry information (in Section H) as a standalone document (do not refer to materials in other attachments). Include copies of all off-source property and ROW notifications.
- Place a √ (attached) or NA (not applicable) in the blank next to each attachment, in each section.
- Include a maintenance plan, if it is required for the implemented remedial action.
- Maps for the GIS Registry may not be larger than 8.5 x 14 inches, unless maps are submitted in electronic form in portable document format (pdf) readable by the Adobe Acrobat Reader. For electronic document submittal requirements, see <a href="http://dnr.wi.gov/org/aw/rr/archives/pubs/RR690.pdf">http://dnr.wi.gov/org/aw/rr/archives/pubs/RR690.pdf</a>.
- Prepare maps according to the applicable portions of ss. NR 716.15(2)(h)1 and 726.05(3)(a)4.d. Prepare visual aids, including maps, plans, drawings, cross sections, fence diagrams, tables and photographs according to s. NR 716.15(2)(h)1. 4.
- Use a bold font on information of importance on tables, maps and figures. A bold font (for ES exceedances) and italics (for PALs) are preferred when differentiation is necessary. Please do not use shading or highlights on any of the analytical tables (per s. NR 726.05(3) and maps as the shading obscures the information that is scanned for inclusion in the GIS Registry.
- Put multiple tables submitted for contaminated media data (eg. pre- and post-remedial data) in chronological order. Include the level of detection for results which are below the detection level (i.e. do not just list as no detect (ND)). Summaries of all data should include information collected by previous consultants. Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15(2)(g)3 in the format required in s. NR 716.15(2)(h)3.
- Document free product recovery estimates as required in s. NR 708.15, if applicable.

## Case Closure Request Form 4400-202 (R 8/09)

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WDNR BRRTS CASE # \_\_\_03 - 30 - 210485

WDNR SITE NAME: WEPCO Pleasant Prairie Power Plt

#### Section A: Case History and Closure Pathway Selected

ATTACHMENT	is:			
_X	description of a	ny residual soil and/or grou	ndwater contamina	ities, interim and remedial actions taken, a ation and their locations, a description of d potential impacts to receptors have been
V		ap on USGS topographic ba	ace man	
<del></del>				property and impacted non-source
^_				icipal wells. These maps may be
	combined.	and cover and supply wells,	including any mun	icipai wells. These maps may be
NA		ne zoning for affected prope	erties.	
		<b>3</b> · · · · · · · · · · · · · · · · · · ·		
INFORMATION		<u>.</u>		
		<u>airie Power Plant Tractor G</u>	<u> Sarage Refueling A</u>	rea
	ress: <u>8000 95<sup>th</sup> S</u>			
		airie, Wisconsin, 53158		
2. BRRTS #:_	03-30-2104	,85		
	: <u>230006260</u>		A Claim#: NA	
<ol><li>Responsibl</li></ol>	le Party Name	We Energies		
Mailing Add	dress:	333 W. Everett Street	City/Zip Code: _	Milwaukee, WI 53203
Phone num	nber:	414-221-2162	E Mail Address:	mark.collins@we-energies.com
Contact Pe	rson:	414-221-2162 Mark Collins		pe(s): Petroleum
<ol><li>Date of Inc</li></ol>	ident/Discovery:_	December 1998	Contaminant Ty	oe(s): <u>Petroleum</u>
	eleased:	Unknown		
7. Land Use:				
Curren	t:	Residential	Commercial	X Industrial Other
	If other,	specify:		
Planne	d Post Remediat			X Industrial Other
		specify: NA		
8. Is a zoning	change required	?	Y>	<u>C_</u> N
If so, has it	been completed	for post remedial land use?	?Y	N
where the conta acres. For mul	amination origina tiple discharges t		earest .5 acre and rently, count the ac	rcels owned by the same entity on the site noting >100 acres for acreages above 100 res once.)  N 231552
11. Method Us C U _X_ L	sed to Obtain Ge On-site using GPS Used county web	ographic Coordinates: Sequipment, converted or pmap site to get coordinates ap web site to get WTM83/9	orojected into WTM	
		n Remaining (>ES):		
				e See File for BRRTS # 02-30-527479
	irce Property			e See File for BRRTS # 02-30-527479
13. Residual So	oil Contaminatior	n > Generic or Site-Specific	RCL:	
On Sou	rce Property	YX_N		
Off Sou	rce Property	YX_N		
	ition in Right of W			
15. Closure Pa	thway Selected:	check all that apply		
CLOSUBE	ND 726			
<u>CLOSURE via</u> Soil	IVIT 120		Groundwater	
OUII			Groundwater	

CLOSURE via NR 726	
Soil	Groundwater
< s. NR 720.09/720.11 Generic RCLs	< s. NR 140.10 Table 1 & Table 2 Values
s. NR 720.19(2) Soil Performance Standards	s. NR 140.28(2) PAL Exemption
s. NR 720.19(4) Groundwater Pathway	s. NR 726.05(2)(b), ≥ ES Natural Attenuation
X s. NR 720.19(5) Direct Contact	

#### **Case Closure Request**

Form 4400-202 (R 8/09)

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WDNR BRRTS CASE # <u>03 - 30 - 210485</u> WDNR SITE NAME: WEPCO Pleasant Prairie Power Plt s. NR 720.19(6) Other Pathways CLOSURE via NR 746 and NR 726 Petroleum Storage Tank Soil Options for Closure: s. NR 746.07 Requirements Met-Post Investigation s. NR 746.08 Requirements Met-Post Remed. Petroleum Storage Tank GW Options for Closure: Petroleum Storage Tank GW Options for Closure: Within Permeable Material: Within Low Permeability Material: s. NR 746.07(2), Post Investigation s. NR 746.07(3) ≥PAL <ES, Post Investigation s. NR746.07(4) >ES, Post Investigation s. NR 746.08(2), Post Remediation s. NR 746.08(3)≥ PAL, <ES, Post Remediation s. NR 746.08(4) >ES, Post Remediation Section B: Receptor Summary ATTACHMENTS: NA Notification(s) regarding contamination in ROW NA Notification(s) to off-source property owners regarding sampling results INFORMATION NEEDED: 1. Identify all pre-remedial actual receptors, the assessed risk and their locations (e.g., both on- and off-site utility corridors, basements or sumps of nearby buildings, direct contact threat from soil, water supplies, surface waters, sediments, vapors, etc.) For definitions, refer to s. NR 700.03 (47), Wis. Adm. Code. NONE 2. Have the remedial actions addressed the potential or actual impacts to these receptors? (Details in the case history summary (Section A)). If no, please identify the nature of the remaining risk and the receptor at risk, if any: Section C: Soil Investigation Information ATTACHMENTS: Complete soil data summary table of field screening and laboratory analytical results, including all \_\_X\_\_ detects, regardless of ch. NR 720 standards, with dates, sample locations, depths and detection limits. Identify exceedances. Map(s) of all pre-remedial soil sampling locations: depicting all soil sample locations relative to site facilities. Note in bold font those sample locations that exceed ch. NR 720 RCLs (including free product location) and delineate the extent of contamination. Pre-remedial geologic cross-sections; including geology, source location(s), extent of soil and NA groundwater contamination, free product location/depth, soil sample locations, water table elevation, and bedrock elevation, if encountered. INFORMATION NEEDED: 1. Extent Defined? X Y \_\_\_\_N If not, explain why. \_\_\_\_\_ 2. Soil Type(s): \_\_\_\_ Silty clay 3. Depth of Contamination: Top: Bottom: Granite Depth to Bedrock: > 100 feet 4. Type of Bedrock: 5. Is Any Contaminated Soil (Unsaturated or Saturated) in Contact With the Bedrock?

## Case Closure Request Form 4400-202 (R 8/09)

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WDNR BRRTS CASE #03 - 30 - 210485
Section D: Soil Remediation Information
ATTACHMENTS:  NA  Map showing remediated area (for example, excavation limits or area influenced by SVE) and locations of post-remediation soil samples (if any). This map should show the locations and extent of residual soil contamination exceeding ch. NR 720 RCLs. These samples should be noted in bold font. A copy of the map(s) from Section H(form 4400-245) may be used.  NA  Soil disposal documentation  NR 720.19 analysis, assumptions and calculations for site specific RCLs (SSRCLs), with justification Calculations and results of EPA Soil Screening Level Model.  Post-remedial cross-section(s) with post remedial soil sampling results, if soil removal or treatment has occurred. Identify sample results and depths. A copy of the cross-section(s) from Section H(form 4400-245) may be used or you may refer to the cross-section(s) in Section E, as appropriate. see Section E
INFORMATION NEEDED: NA  1. Remodial Action Completed?
<ol> <li>Remedial Action Completed?</li> <li>Were immediate or interim actions conducted?</li> <li>YN</li> <li>If yes, what action was taken?</li> </ol>
<ul> <li>3. Brief description of remedial action taken:</li> <li>4. Were soils excavated?YN</li> <li>Quantity: Disposal Method:</li> <li>5. Final Confirmation Sample Collection Methods:</li> </ul>
6. Final Soil/Drill Cuttings Disposal Location:
7. Estimated volume and depth of in situ soils exceeding ch. NR 720 Table RCLs or Site Specific RCLs:
8. Estimated volume and depth of in situ soils exceeding ch. NR 746 Table 1 or Table 2 or Site Specific RCLs (underground petroleum tank systems, as defined in ch. NR 746 only):
9. s. NR 720.19 Analysis?YN Performance Standard -NR 720.19(2) SSRCL - NR 720.19(3) and (4),(5) or ( 6)  10. If the remedy includes a Soil Performance Standard, what type? Cap Soil Building Natural Attenuation of Groundwater Other Specify other: Parking lot constructed of hard pack gravel and concrete
11. Will the maintenance of the SPS be consistent with the planned post remediation land use?  Y N If No, please explain:  12. Is the EPA Soil Screening Level Model used as justification for closure of sites with residual contaminated soils?  Y N Are the input numbers used:  Site Specific, or WI Defaults?
Section E: Groundwater Information
ATTACHMENTS:  X Table identifying all contaminants, summarizing all pre- and post-remediation groundwater analytical results, with sample collection dates (prepared in accordance with guidance document RR-628)  X Groundwater sample location map showing the site facilities and all monitoring wells, sumps, extraction wells, and potable and non-potable wells.  NA Isoconcentration map(s) when included as part of the site investigation or map(s) of the horizontal extent of contamination based on most recent data. A copy of the map(s) from Section H (from 4400-245) may be used.

### Case Closure Request Form 4400-202 (R 8/09)

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WI	ONR BRRTS CASE # 03 - 30 - 210485 WDNR SITE NAME: WEPCO Pleasant Prairie Power Plt
	A map showing groundwater flow direction(s) and summarizing the maximum variation in flow direction Multiple maps may be used. A copy of the map(s) from Section H (form 4400-245) may be used.  A table summarizing all groundwater elevations, with dates, and top and bottom elevations of well screens. (Wells are to be referenced to national geodetic survey datum, as per NR 141.065(2)).  Graphs and statistical analyses which demonstrate the dynamics of the groundwater plume, for sites requesting closure using natural attenuation that meet the criteria s. NR 726.05(2)(b) or of s. NR 746 (permeable soils). Refer to WDNR publication RR-614 for guidance.  Geologic cross-sections showing extent of residual soil and/or groundwater contamination, as applicable. A copy of the cross-section(s) from Section H, (form 4400-245) may be used.
	FORMATION NEEDED:  Extent of Contamination Defined? X Y N N N/A  Remedial Action Completed? Y N X N/A  Brief Description of Remedial Action Taken:
<ol> <li>4.</li> <li>5.</li> </ol>	Depth(s) to GroundwaterFlow Direction(s):  Field Analyses?XYN  Lab Analyses?XYN
7.	Preventive Action Limit currently exceeded?Y _X_N If yes, identify location(s)
8.	Enforcement Standard currently exceeded?Y _X_N If yes, identify location(s)
9.	Measurable free product detected? Y X N Pre-remediation Y X N Post-remediation
10.	Was free product remediated? Y N X N/A  Method:
	Purge water or free product-groundwater mixture disposal method?
11.	Potable wells within 1200 feet of site?Y _X _N Have they been sampled?Y _N _X _N/A Type (i.e. municipal, private, etc.)?[NOTE: Include wells on <i>groundwater well location map</i> ]
13.	Has DNR been provided with <b>all</b> results of private well sampling?  YN _X _N/A  Have well owners/occupants been notified of results? (Sec. B Attachments)YN _X _N/A
	(Results also need to be sent to the DNR Water Supply Specialist)  Are there any monitoring wells that have not been located for abandonment?YNXN/A Identify the property address(es) where the missing well is located:

#### **Section F. Other Contaminated Media Information:**

#### ATTACHMENTS:

Table of analytical results for all contaminants for media other than soil or groundwater NA

State of Wisconsin Department of Natural Resources http://dnr.wi.gov

## Case Closure Request Form 4400-202 (R 8/09)

Page 6 of 9

WDNR	BRRTS CASE # <u>03 - 30 - 210485</u> WDNR SITE NAME: <u>WEPCO Pleasant Prairie Power Plt</u>
INFO	MATION NEEDED: NA
	ve other media been impacted (either on-site or off-site e.g. sediment, utilities, air)?YN efly describe type and extent of <b>all</b> contamination found in media other than soil or groundwater:
2. Re	medial action completed?YNN/A ef description of remedial action taken:
# 0	f Post Remedial Sample Rounds: f Sampling Points: d Analyses?YN Analyses?YN
Secti	on G. Associated Site Closure Information:
ATTA	CHMENTS:
NA	Construction documentation or as-built report for any constructed remedial action or portion of, or
N 1 A	interim action specified in s. NR 724.02(1), in accordance with s. NR 724.15.
NA NA	<ul> <li>Maps and photos documenting the cap area, and/or integrity of the cap, with date.</li> <li>Description of any soil performance standard cover system used, including a description of how it meet</li> </ul>
INA	the requirement to be protective until residual contaminant concentrations no longer pose a threat to
NA	public health, safety, welfare or the environment, per s. NR 720.19(2), s. NR 722.09(2) and (3).
INFO	RMATION NEEDED:
1. En	forcement actions closed out?YNX_N/A
2. Pe	rmits closed out?YN _X_N/A
3. De	scribe how the following pathways are protected:
	Direct Contact Pathway:
b)	Groundwater:
c)	Other:

**Section H. Required GIS Registry Information:** Use form 4400-245, GIS Registry Checklist, and form 4400-246, Impacted Off-Source Property Information. Submit these forms and their attachments with this closure request form.

## Case Closure Request Form 4400-202 (R 8/09)

Page 7 of 9

WDNR BRRTS CASE # \_\_\_03 - 30 - 210485

WDNR SITE NAME: WEPCO Pleasant Prairie Power Plt

I certify that, to the best of my knowledge, the information presented on and attached to this form is true and accurate. This recommendation for case closure is based upon all available data as of
Printed Name: LINDA J FELLENZ
Company Name: LF GREEN DEVELOPMENT, LLC
Email address:lfellenz@lfgreendevelopment.com
If not site owner, relationship to site owner: Consultant
Address: PO Box 370888 City/Zip Code Milwaukee, WI 53237
Telephone Number: <u>(414) 254-4813</u> FAX Number: <u>(414) 763-5499</u>
Source Property Owner's Name (if different from person conducting the cleanup):  Wisconsin Electric Power Company d.b.a. We Energies
Address: 333 W. Everett St A 231 City/Zip Code Milwaukee, WI 53203
Telephone Number: _(414) 221-2162
Environmental Consultant (if different than above):
Address: City/Zip Code
Email Address:
Telephone Number: () FAX Number: ()

## Case Closure Request Form 4400-202 (R 8/09)

Page 8 of 9

WDNR BRRTS CASE # \_\_\_03 - 30 - 210485

WDNR SITE NAME: WEPCO Pleasant Prairie Power Plt

ENT USE ONLY	
Date Reviewed:	
(Date:	)
()Approved	( ) Denied
(Signature)	(Signature)
needed for cap on and investigation needer Jse soil standards applied land use	
	Date Reviewed:  (Date:

## Case Closure Request Form 4400-202 (R 8/09)

Page 9 of 9

WDNR BRRTS CASE # \_\_\_03 - 30 - 210485\_\_

WDNR SITE NAME: WEPCO Pleasant Prairie Power Plt

	FOR DEPARTM	IENT USE ONLY	
PROJECT MANAC	GER:	Date Reviewed:	
( ) Approved (	) Denied ( ) Sent to Committe	ee (Date:)	
CLOSURE COMMI	TTEE DECISION ON CLOSURE:		
SECOND COMMIT	TTEE REVIEW DATE:	()Approve	d ( ) Denied
(Signature)	(Signature)	(Signature)	(Signature)
	commendation: ure Approved With: No Restrictions Listing on GIS Registry due to GListing on GIS Registry due to ScZoning Verification Deed Restriction Deed Notice Site Specific Close Out Letter Well Abandonment Documentat Soil Disposal Documentation NR 140 Exemption For:VPLE Insurance needed Other Conditions/Comments:	oil impacts	
	ure Denied, Needs More:InvestigationGroundwater MonitoringSoil RemediationGroundwater RemediationDocumentation of Soil Landspre _Specific Comments:	eading or Biopile Destiny	

#### **BRRTS Treeview Details**

LOCATION/FACILITY

NAME: WE ENERGIES PLEASANT PRAIRIE STATION

ADDRESS: 8000 95TH ST

MUNICIPALITY: PLEASANT PRAIRIE

COUNTY: KENOSHA

REGION: SE FID: 230006260

NO BANKRUPTCY OR LIENS

RR ACTIVITIES [11]

03-30-210485 WEPCO PLEASANT PRAIRIE POWER PLT

TYPE: LUST

START: 12/29/1998

END: None

ADDL ADDRESS: None

**COMMENT: None** 

FILE LOCATION: None

DNR MGMT REGION: SE

DSN: 210485

DSPS NUMBER: None

CREATED 01/15/1999 08:41:10 by FARLEM

UPDATED 04/03/2012 09:45:10 by S71584

**ACTIONS [10]** 

12/29/1998 - 1 Notification:

01/15/1999 - 2 RP Letter Sent :

02/18/1999 - 33 Tank Closure Environmental Site Assessm

08/11/2011 - 200 Push Action Taken : DISCUSSED SITE STA

08/25/2011 - 99 Miscellaneous : CONSULTANT RETAINED TO

09/07/2011 - 130 DNR Regulatory Reminder Sent : Vapor I

10/17/2011 - 35 Site Investigation Workplan Received (w

11/09/2011 - 300 Informal Review Performed for a Non-Fe

03/29/2012 - 37 SI Report Received (w/out Fee) :

03/29/2012 - 79 Closure Review Request Received with Fe

DOCUMENTS [0]

NO DOCUMENTS

ELIGIBILITY [1]

Federal

ENERGY ACT [0]

Not Entered

**EXCEEDENCES** [0]

NO EXCEEDENCES

FINANCIAL [0]

NO FINANCIAL INFO

FLAGS [1]

Map Viewable

**GEOGRAPHIC INFO [1]** 

SDE Point Feature Class

PLSS Desc: NENW2101N22E

#### **BRRTS Treeview Details**

DTRSQQ: 401222121

LAT: 42.5372032 LONG: -87.9046331

Click to View on Google Maps

IMPACTS [1]

Soil Contamination

OFFSOURCE PROPERTIES [0]

NO OFFSOURCE ADDR.

PHANTOM CONTAMINATION [0]

NO PHANTOM CONTAMINATION

PRIORITY [1]

01/15/1999 PRIORITY: Unknown

RISK [1]

12/01/1999 High

SER REVIEWER

LAUBE, SHANNA

SUBSTANCES [2]

PETROLEUM: DIESEL

COMMENT: 10k

OTHER DESC: Diesel

RELEASED: None None

RECOVERED: None None

PHYSICAL CHAR: None

COLOR: None

ODOR: None

PETROLEUM: GASOLINE

COMMENT: 1000

OTHER DESC: Gasoline

RELEASED: None None

RECOVERED: None None

PHYSICAL CHAR: None

COLOR: None

ODOR: None

VAPOR INTRU OPTIONS [0]

NONE

WHO [6]

Responsible Party

WEPCO

333 W EVERETT ST

MILWAUKEE, WI 53203

**UNITED STATES** 

4142212162 phone

RP Contact/Agent

LIZ STUECK MULLANE

RP Contact/Agent

MARK COLLINS

333 W EVERETT ST A231

**MILWAUKEE** 

#### **BRRTS Treeview Details**

4142212162 phone

#### Project Manager

SHANNA LAUBE-ANDERSON

**HYDROGEOLOGIST** 

9531 RAYNE ROAD

STURTEVANT, WI 53177

**UNITED STATES** 

2628842341 phone

#### Consultant

LINDA FELLENZ

**HYDROGEOLOGIST** 

PO BOX 370888

MILWAUKEE, WI 53217

**UNITED STATES** 

4142544813 phone

#### Consultant

LF GREEN DEVELOPMENT, LLC

PO BOX 370888

MILWAUKEE, WI 53237

**UNITED STATES** 

4142544813 phone

02-30-001149 WEPCO POWER PLT

02-30-527479 WI ELECTRIC POWER PLEASANT PRAIRIE STN

03-30-215807 WEPCO LOCOMOTIVE REFUELING AREA

04-30-040173 POWER PLT - 8000 95TH ST [HISTORIC SPILL]

04-30-044863 8000 95TH ST [HISTORIC SPILL]

04-30-252435 WEPCO PLEASANT PRAIRIE POWER PLT

04-30-553671 AMERICAN TRANSMISSION SPILL

04-30-554120 WE ENERGIES SPILL

04-30-557188 WE ENERGIES SPILL

04-30-558565 WE ENERGIES SPILL

#### WM ACTIVITIES [4]

HW Generator - Large INACTIVE Lic. No.

HW Generator - Small ACTIVE Lic. No.

Hazardous Waste Report Certifier ACTIVE Lic. No.

Hazardous Waste Report Preparer ACTIVE Lic. No.



We Energies 231 W. Michigan St. Milwaukee, WI 53203 www.we-energies.com



March 22, 2012

Ms. Victoria Stovall Wisconsin Department of Natural Resources 2300 N. Martin Luther King Jr. Drive Milwaukee, Wisconsin 53212

Subject:

Site Investigation Update / Request for Closure

Pleasant Prairie Power Plant Tractor Garage Refueling Area

8000 95th Street, Kenosha, Wisconsin

WDNR FID: 230006260

WDNR BRRTS: 03-30-210485

Dear Ms. Stovall:

We Energies is submitting this letter report summarizing the additional site investigation completed at the above referenced site as outlined in the work plan submitted on October 12, 2011. In December 1998, a petroleum release was reported by We Energies to the Wisconsin Department of Natural Resources (WDNR). The release was identified during an upgrade to piping associated with two Underground Storage Tanks (USTs) located at the site. Based on the results from this additional investigation we request that the site be closed and issued a No Further Action letter by the WDNR.

#### **INVESTIGATION ACTIVITIES**

#### **Soil Sampling**

Soil sampling activities were conducted on November 14, 2011 in the vicinity of the tractor garage refueling area at Pleasant Prairie Power Plant. The site investigation included the installation of a total of four Geoprobe soil borings. Two soil samples were collected from each boring and analyzed for Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Petroleum Volatile Organic Compounds (PVOCs) plus naphthalene, and Polyaromatic Hydrocarbons (PAHs). No groundwater was encountered in borings to a depth of 16 feet below ground surface (bgs).

The Geoprobe borings were strategically located surrounding the pump island and USTs in areas of the site that had the greatest potential for environmental impact. Continuous soil samples were collected at 2-foot intervals without any break in the sample column. Sample identification numbers were assigned based on boring numbers and sample depths.

Boring and sampling by Geoprobe techniques consisted of pushing hydraulically a 1.375-inch outside diameter (OD) steel sampler into the ground and retrieving the soil sample in a 48-inch long, 1.06-inch inside diameter (ID) clear plastic tube liner. Moraine Environmental of Grafton, Wisconsin performed soil boring activities. A representative from LF Green Development, LLC conducted field screening and soil sampling activities.

#### **Decontamination and Restoration Procedures**

All down-hole boring and sampling equipment was decontaminated before use and between sampling events by scrubbing off soil particles with a brush and water in a bucket with an Alconox solution and then rinsing the sampler in a separate bucket of clean water. Two or more Geoprobe samplers were used alternately to minimize drilling delays during decontamination of the sampler.

Once all of the soil samples had been collected, restoration was completed by filling the Geoprobe holes with 3/8" bentonite chips.

#### Field-Screening of Soil Samples

Soil samples from each probe were collected and examined by a LF Green Hydrogeologist for color, odor, texture, moistness, and other characteristics of the soil. These observations were used to prepare descriptive geologic logs for each boring and classify the soils according to Unified Soil Classification System (USCS).

A portion of each sample was field-screened for the presence of VOCs using a HNu Model DL101 Photoionization Detector (PID) equipped with an 11.7 eV probe. The samples were tested by filling a zip tight plastic freezer storage (zip-lock) bag half-full with desegregated soil and then sealing the bag. The bags were then set aside for a minimum of 20 minutes to allow any VOCs present within the soil to volatilize and equilibrate within headspace in the bag. The sample was heated by storing the sample bag adjacent to the heating vent inside a heated truck cab. The VOC concentration in the headspace was then measured by gently piercing the plastic with the tip of the PID probe and recording the highest meter response shown on the HNu meter. A background measurement of ambient VOCs was also made immediately prior to each sample measurement. The PID was calibrated at the beginning using a standard of 100 parts per million (ppm) isobutylene gas and the manufacturer recommended calibration procedures. The PID values for each sample are presented in WDNR Soil Boring Logs.

Sixteen soil samples were collected and field screened for Volatile Organic Compounds (VOCs) using a HNU DL-101 type photoionization detector (PID). Based on the PID readings and subsurface conditions, two soil samples were collected from each soil boring for laboratory analysis. Eight soil samples were submitted to Pace Analytical (Wisconsin DNR Certification Number: 405132750) for laboratory analysis of DRO, GRO, PVOCs plus Naphthalene, and PAHs.

The PID values for each sample are presented in WDNR Soil Boring Logs.

Site location maps, aerial photographs, and soil sample location map are included in Attachment A. Sample results are presented in Table 1, included in Attachment B. Boring Logs are presented in Attachment D. Complete laboratory analytical reports with chain of custody are included in Attachment C.

#### **Groundwater Sampling**

Groundwater samples were collected on December 1, 2011, per WDNR protocols from existing wells located on the property MW-1, MW-3, and P-2. The samples were collected with a bailer and analyzed for PVOCs plus naphthalene, and PAHs.

Field readings for each sample point were as follows:

- Well MW-1 had a static water level reading of 15.86 feet, temperature was 12° C, specific conductivity adjusted to 25° C was 1,123 (umhos/cm), and pH was 7.0. The sample was turbid tan in color and had no odor. A duplicate sample (QC-1) was collected from this point.
- Well MW-3 had a static water level reading of 14.23 feet, temperature was 13.5° C, specific conductivity adjusted to 25° C was 1,287 (umhos/cm), and pH was 7.1; ,The sample was turbid tan in color with some orange floc and had no odor.
- Well P-2 had a static water level reading of 14.64 feet, temperature was 12.5° C, specific conductivity adjusted to 25° C was 415 (umhos/cm), and pH was 7.9. The sample was turbid tan in color and had no odor. Well MW-3 is nested with well P-2.

#### Laboratory Activities and Methods

In addition to the soil used for PID testing, a separate portion of each sample was preserved for possible laboratory analyses. These samples were preserved by placing the soil in a labeled ziplock bag, and then placing the bag into a cooler with ice. Two samples from each of the borings (eight total soil samples) were selected for laboratory analyses of DRO, GRO, PVOCs plus naphthalene, and PAHs.

Groundwater samples collected were also preserved for laboratory analyses. Four groundwater samples were collected in total and each was analyzed for PVOCs plus Naphthalene, and PAHs.

The samples were collected in the laboratory provided jars as required by WDNR guidance documents. All samples were stored in a cooler with ice and maintained at a temperature of approximately 4° C until delivered under chain of custody procedures to laboratory personnel.

#### FINDINGS:

The findings of the Phase II ESI are summarized below:

#### Soil Sampling Results

- On November 14, 2011 four soil borings were advanced at We Energies Pleasant Prairie Power Plant
- The site soils consisted of fill material comprised of sand and gravel, silty clay, sandy silt, and gravel to depths ranging from ground surface to the maximum boring depth of 15 feet bgs.
- Eight soil samples were collected and analyzed for DRO, GRO, PVOCs plus naphthalene, and PAHs.
- DRO concentrations ranged from below laboratory detection limits to 24 parts per million (ppm) in all samples. The concentrations are below the NR 720 RCLs of 250 ppm for silty clay soils.
- GRO concentrations ranged from below laboratory detection limits to 120 ppm in all samples. The concentrations are below the NR 720 RCLs of 250 ppm for silty clay soils.
- Among the PVOCs:
  - O Naphthalene concentrations ranged from below laboratory detection limits to 1.25 ppm in sample B3-1, below the NR 720 RCL of 2.7 ppm.
  - o Trimethylbenzene (TMB) concentrations ranged from below laboratory detection limits to 1.03 ppm in all borings. There is no NR 720 standard for TMB.
  - O Xylene concentrations ranged from below laboratory detection limits to 0.4 ppm in sample B3-1, below the NR 720 RCL of 4.1 ppm.
- Several PAH compounds were detected in sample B3-1, however all concentrations were below the NR 720 RCLs for PAHs.
- No impacts above the NR 720 RCLs were detected in soils samples collected during this investigation.

#### **Groundwater Sampling Results**

• Groundwater samples were collected from existing wells located on the property (MW-1, MW-3, and P-2) and sampled for PVOCs plus naphthalene and PAHs.

• Groundwater results of four samples collected from two locations showed no impacts above the NR 140 Preventive Action Limit (PAL).

#### **CONCLUSIONS**

Based on field observations and the laboratory analytical results of the Site Investigation activities performed at Pleasant Prairie Power Plant, We Energies has reached the following conclusions:

- The site soils consist of silty clay, sand and gravel to depths ranging from ground surface to a maximum boring depth of 20 feet bgs.
- There is no DRO, GRO, PVOCs plus naphthalene or PAH soil contamination onsite above the NR 720 standards.
- There is no PVOCs plus naphthalene or PAH groundwater contamination detected in MW-1, MW-3 or P-2 above the NR 140 standards.

#### **RECOMMENDATIONS:**

Based on the findings and conclusions for site investigation activities completed at Pleasant Prairie Power Plant Tractor Garage Refueling Area (WDNR BRRTS: 03-30-210485) located at 8000 95<sup>th</sup> Street, Kenosha Wisconsin, We Energies is making the following recommendations:

- Since no contamination above state standards were detected in groundwater or soil samples collected for this investigation, no additional investigation is considered necessary at this time.
- Based on the results from this additional investigation we are recommending that the site be closed and issued a No Further Action letter.

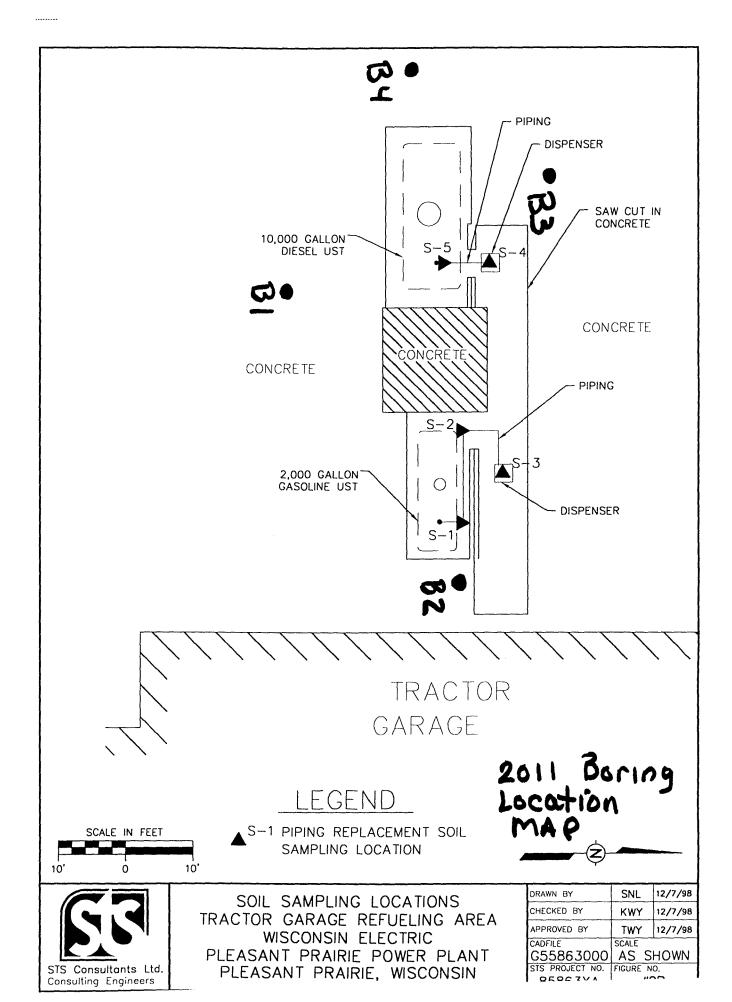
Sincerely,

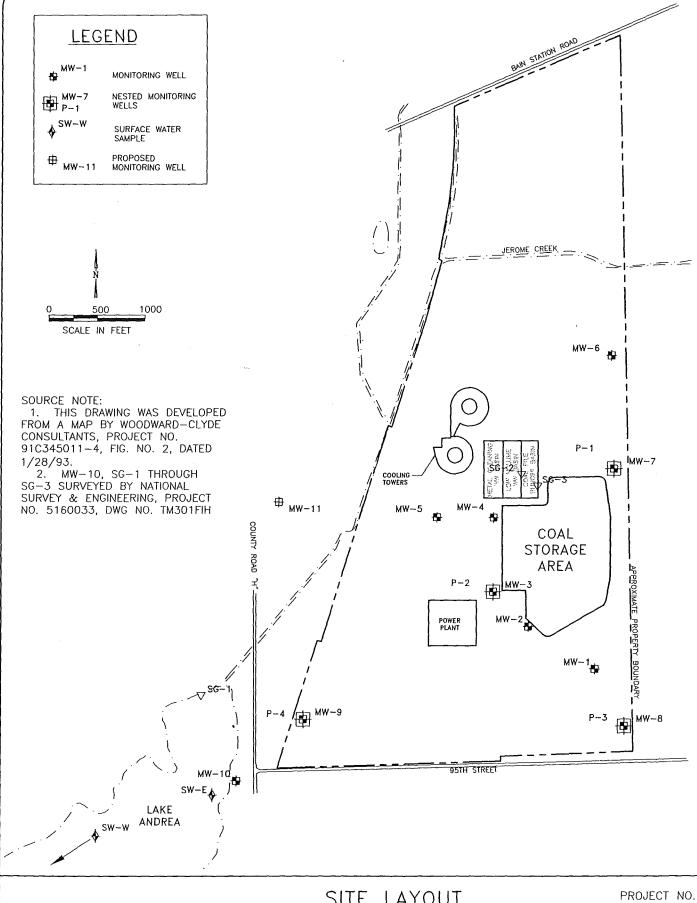
C. Luke Peters

We Energies - Environmental

C Sake Ist

## ATTACHMENT A SITE AND BORING LOCATION MAPS







#### SITE LAYOUT

COAL AREA MONITORING REPORT WE ENERGIES PLEASANT PRAIRIE POWER PLANT PLEASANT PRAIRIE, WISCONSIN

DRAWN BY: HMS 06/14/06 APP'D BY: CAR DATE: 08/16/06

1580/2.0

DRAWING NO. 1580-2-A02

FIGURE NO. 2

## ATTACHMENT B

**PHOTOGRAPHS** 



## ATTACHMENT C TABLE AND ANALYTICAL REPORT

## Table # 1, Title: We Energies P4 Site Investigation Soil Sample Analytical Results

				PVOCS ppm					
Sample #	Depth (ft	Date Collected	PID (ppm eq)	DRO	GRO	ETHYLBENZENE	NAPHTHALENE	TRIMETHYLBENZENE	XYLENE
B1-1	2-4'	11/14/2011	<10	5.1	7.8	<0.043.1	0.11	0.07	<0.13
B2-1	2-4'	11/14/2011	<10	4.8	3.0	<0.025	0.05	<0.025	<0.05
B3-1	2-4'	11/14/2011	<10	24.0	120.0	0.15	1.25	0.69	0.48
B3-1D	2-4'	11/14/2011	<10	NS	NS	0.15	<0.09	1.03	0.64
B3-2	8-10'	11/14/2011	<10	1.7	12.6	<0.05	0.19	0.06	<0.13
B4-1	2-4'	11/14/2011	<10	1.8	<5.5	<0.05	<0.05	<0.05	<0.09
B4-2	8-10'	11/14/2011	<10	2.1	12.2	<0.06	0.18	0.06	<0.09
NR 720			_	250	250	2.9	NS	NS	4

NOTES: All results are in parts per million (ppm) unless otherwise noted Concentrations exceeding the NR 720 RCLs are in **bold face** 

PID = photoionization detector

ft bgs = feet below ground surface

<sup>\* =</sup> Residual Contaminant Levels (RCLs) based on protection of groundwater per NR 720 in ppm

<sup>\*\*\* =</sup> RCLs based on Soil Cleanup Levels for PAHs Iterim Guidance

Table # 1, Title: We Energies P4 Site Investigation
Soil Sample Analytical Results

		P.A	\Hs *** ¡	opb		
Acenaphthene	Acenaphthylene	Anthracene	Chrysene	Fluorene	Phenanthrene	Pyrene
<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
<2.7	<3.1	<4.6	<3.5	<4.9	<4.3	<3.6
54.30	4.70	29.30	6.50	94.70	163.00	40.30
<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
<2.8	<3.1	<4.6	<3.6	<4.9	5.50	<3.6
<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
<2.8	<3.1	<4.6	<3.6	<4.9	<4.3	<3.6
900	18	5,000	8.8	600	18	500

NOTES: All results are in parts per million (ppm) unless otherwise Concentrations exceeding the NR 720 RCLs are in **bold** 

ft bgs = feet below ground surface

<sup>\* =</sup> Residual Contaminant Levels (RCLs) based on protection of ground

<sup>\*\*\* =</sup> RCLs based on Soil Cleanup Levels for PAHs Iterim Guidance

PID = photoionization detector





November 28, 2011

Linda Fellenz LF Green Development PO Box 370888 Milwaukee, WI 53237

RE: Project: WE P4

Pace Project No.: 4053745

### Dear Linda Fellenz:

Enclosed are the analytical results for sample(s) received by the laboratory on November 17, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Brian Basten

brian.basten@pacelabs.com

Project Manager

Enclosures





Pace Analytical Services, Inc.

1241 Bellevue Street - Suite 9 Green Bay, WI 54302

(920)469-2436

## **CERTIFICATIONS**

Project:

WE P4

Pace Project No.: 4053745

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

North 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:

WE P4

Pace Project No.:

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4053745001	B1-1	Solid	11/14/11 09:50	11/17/11 08:20
4053745002	B2-1	Solid	11/14/11 10:30	11/17/11 08:20
4053745003	B3-1	Solid	11/14/11 11:00	11/17/11 08:20
4053745004	B3-1D	Solid	11/14/11 11:00	11/17/11 08:20
4053745005	B3-2	Solid	11/14/11 11:00	11/17/11 08:20
4053745006	B4-1	Solid	11/14/11 11:30	11/17/11 08:20
4053745007	B4-2	Solid	11/14/11 11:30	11/17/11 08:20



(920)469-2436



# SAMPLE ANALYTE COUNT

Project:

WE P4

Pace Project No.: 4053745

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4053745001	B1-1	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	RJN	18
		ASTM D2974-87	SKW	1
4053745002	B2-1	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	RJN	18
		ASTM D2974-87	SKW	1
4053745003	B3-1	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	RJN	18
		ASTM D2974-87	SKW	1
4053745004	B3-1D	WI MOD GRO	PMS	10
		ASTM D2974-87	SKW	1
4053745005	B3-2	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	RJN	18
		ASTM D2974-87	SKW	1
4053745006	B4-1	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	RJN	18
		ASTM D2974-87	SKW	1
4053745007	B4-2	WI MOD DRO	DAL	1
		WI MOD GRO	PMS	11
		EPA 8270 by SIM	RJN	18
		ASTM D2974-87	SKW	1





Project:

WE P4

Pace Project No.:

4053745

Sample: B1-1

Lab ID: 4053745001

Collected: 11/14/11 09:50

Received: 11/17/11 08:20 Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical N	/lethod: WI f	MOD DRO Pr	eparation N	1ethod	: WI MOD DRO			
Diesel Range Organics	5.1 mg	<u>J/</u> kg	2.1	1.0	1	11/18/11 12:00	11/21/11 09:53		L2
WIGRO GCV	Analytical N	/lethod: WI	MOD GRO Pr	eparation N	/lethod	: TPH GRO/PVO	C WI ext.		
Benzene	<b>&lt;43.1</b> ug	/kg	103	43.1	1	11/21/11 12:00	11/21/11 14:20	71-43-2	W
Ethylbenzene	<43.1 ug	/kg	103	43.1	1	11/21/11 12:00	11/21/11 14:20	100-41-4	W
Gasoline Range Organics	<b>7.8</b> mg		5.1	5.1	1	11/21/11 12:00	11/21/11 14:20		
Methyl-tert-butyl ether	<43.1 ug	/kg	103	43.1	1	11/21/11 12:00	11/21/11 14:20	1634-04-4	W
Naphthalene	<b>110J</b> ug	/kg	122	50.8	1	11/21/11 12:00	11/21/11 14:20	91-20-3	
Toluene	<43.1 ug	/kg	103	43.1	1	11/21/11 12:00	11/21/11 14:20	108-88-3	W
1,2,4-Trimethylbenzene	72.1J ug	-	122	50.8	1	11/21/11 12:00	11/21/11 14:20	95-63-6	
1,3,5-Trimethylbenzene	<43.1 ug	•	103	43.1	1	11/21/11 12:00	11/21/11 14:20	108-67-8	W
m&p-Xylene	<86.2 ug		207	86.2	1	11/21/11 12:00	11/21/11 14:20	179601-23-1	W
o-Xylene	<43.1 ug	_	103	43.1	1	11/21/11 12:00	11/21/11 14:20	95-47-6	W
Surrogates		J							
a,a,a-Trifluorotoluene (S)	101 %.		80-120		1	11/21/11 12:00	11/21/11 14:20	98-08-8	
8270 MSSV PAH by SIM	Analytical N	Nethod: EPA	8270 by SIM	Preparation	n Meth	nod: EPA 3546			
Acenaphthene	<2.8 ug	/kg	19.7	2.8	1	11/21/11 12:00	11/22/11 15:20	83-32-9	
Acenaphthylene	<3.1 ug	/kg	19.7	3.1	1	11/21/11 12:00	11/22/11 15:20	208-96-8	
Anthracene	<4.6 ug	/kg	19.7	4.6	1	11/21/11 12:00	11/22/11 15:20	120-12-7	
Benzo(a)anthracene	<2.8 ug	/kg	19.7	2.8	1	11/21/11 12:00	11/22/11 15:20	56-55-3	
Benzo(a)pyrene	<3.2 ug	/kg	19.7	3.2	1	11/21/11 12:00	11/22/11 15:20	50-32-8	
Benzo(b)fluoranthene	<3.4 ug.	/kg	19.7	3.4	1	11/21/11 12:00	11/22/11 15:20	205-99-2	
Benzo(g,h,i)perylene	<2.6 ug	/kg	19.7	2.6	1	11/21/11 12:00	11/22/11 15:20	191-24-2	
Benzo(k)fluoranthene	<3.6 ug	/kg	19.7	3.6	1	11/21/11 12:00	11/22/11 15:20	207-08-9	
Chrysene	<3.6 ug	/kg	19.7	3.6	1	11/21/11 12:00	11/22/11 15:20	218-01-9	
Dibenz(a,h)anthracene	<5.3 ug	/kg	19.7	5.3	1	11/21/11 12:00	11/22/11 15:20	53-70-3	
Fluoranthene	<9.8 ug	/kg	19.7	9.8	1	11/21/11 12:00	11/22/11 15:20	206-44-0	
Fluorene	<4.9 ug	_	19.7	4.9	1	11/21/11 12:00	11/22/11 15:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.8 ug	-	19.7	2.8	1	11/21/11 12:00	11/22/11 15:20	193-39-5	
Naphthalene	<3.4 ug.	•	19.7	3.4	1	11/21/11 12:00	11/22/11 15:20	91-20-3	
Phenanthrene	<4.3 ug.	•	19.7	4.3	1	11/21/11 12:00	11/22/11 15:20	85-01-8	
Pyrene	<3.6 ug	-	19.7	3.6	1	11/21/11 12:00		129-00-0	
Surrogates		J	•						
2-Fluorobiphenyl (S)	86 %.		43-130		1	11/21/11 12:00	11/22/11 15:20	321-60-8	
Terphenyl-d14 (S)	92 %.		32-130		1	11/21/11 12:00	11/22/11 15:20	1718-51-0	
Percent Moisture	Analytical N	Method: AST	M D2974-87						
Percent Moisture	15.2 %		0.10	0.10	1		11/23/11 08:08		



Project:

WE P4

Pace Project No.:

4053745

Sample: B2-1

Lab ID: 4053745002

Collected: 11/14/11 10:30 Received: 11/17/11 08:20 Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical	Method: WI	MOD DRO PI	reparation N	/lethod	: WI MOD DRO			
Diesel Range Organics	4.8 n	ng/kg	2.0	0.99	1	11/18/11 12:00	11/21/11 09:58		L2
WIGRO GCV	Analytical	Method: WI	MOD GRO P	reparation I	/lethod	I: TPH GRO/PVO	C WI ext.		
Benzene	<25.0 u		60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	71-43-2	W
Ethylbenzene	<b>&lt;25.0</b> u		60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	100-41-4	W
Gasoline Range Organics	<b>3.0</b> n	ng/kg	2.9	2.9	1	11/21/11 12:00	11/21/11 14:46		
Methyl-tert-butyl ether	<25.0 u	g/kg	60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	1634-04-4	W
Naphthalene	48.7J u	g/kg	70.3	29.3	1	11/21/11 12:00	11/21/11 14:46	91-20-3	
Toluene	<25.0 u	g/kg	60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	108-88-3	W
1,2,4-Trimethylbenzene	<25.0 u	g/kg	60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	95-63-6	W
1,3,5-Trimethylbenzene	<b>&lt;25.0</b> u	g/kg	60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	108-67-8	W
m&p-Xylene	<50.0 u		120	50.0	1	11/21/11 12:00	11/21/11 14:46	179601-23-1	W
o-Xylene	<b>&lt;25.0</b> u	g/kg	60.0	25.0	1	11/21/11 12:00	11/21/11 14:46	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	102 %	<b>6</b> .	80-120		1	11/21/11 12:00	11/21/11 14:46	98-08-8	
8270 MSSV PAH by SIM	Analytical	Method: EPA	8270 by SIM	Preparation	n Meth	nod: EPA 3546			
Acenaphthene	<2.7 u	g/kg	19.5	2.7	1	11/21/11 12:00	11/23/11 03:29	83-32-9	
Acenaphthylene	<b>&lt;3.1</b> u	g/kg	19.5	3.1	1	11/21/11 12:00	11/23/11 03:29	208-96-8	
Anthracene	<b>&lt;4.5</b> u	g/kg	19.5	4.5	1	11/21/11 12:00	11/23/11 03:29	120-12-7	
Benzo(a)anthracene	<b>&lt;2.8</b> u	g/kg	19.5	2.8	1	11/21/11 12:00	11/23/11 03:29	56-55-3	
Benzo(a)pyrene	<b>&lt;3.2</b> u	g/kg	19.5	3.2	1	11/21/11 12:00	11/23/11 03:29	50-32-8	
Benzo(b)fluoranthene	<3.4 u	g/kg	19.5	3.4	1	11/21/11 12:00	11/23/11 03:29	205-99-2	
Benzo(g,h,i)perylene	<b>&lt;2.6</b> u	g/kg	19.5	2.6	1	11/21/11 12:00	11/23/11 03:29	191-24-2	
Benzo(k)fluoranthene	<b>&lt;3.6</b> u	g/kg	19.5	3.6	1	11/21/11 12:00	11/23/11 03:29	207-08-9	
Chrysene	<3.5 u	g/kg	19.5	3.5	1	11/21/11 12:00	11/23/11 03:29	218-01-9	
Dibenz(a,h)anthracene	<5.3 u	g/kg	19.5	5.3	1	11/21/11 12:00	11/23/11 03:29	53-70-3	
Fluoranthene	<9.8 u	g/kg	19.5	9.8	1	11/21/11 12:00	11/23/11 03:29	206-44-0	
Fluorene	<4.9 u		19.5	4.9	1	11/21/11 12:00	11/23/11 03:29	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.8 u		19.5	2.8	1	11/21/11 12:00	11/23/11 03:29	193-39-5	
Naphthalene	< <b>3.4</b> u	~ ~	19.5	3.4	1	11/21/11 12:00	11/23/11 03:29	91-20-3	
Phenanthrene	<4.3 u		19.5	4.3	1	11/21/11 12:00	11/23/11 03:29	85-01-8	
Pyrene	<3.6 u		19.5	3.6	1	11/21/11 12:00	11/23/11 03:29		
Surrogates		0 0	- · · <del>-</del>						
2-Fluorobiphenyl (S)	100 %	D.	43-130		1	11/21/11 12:00	11/23/11 03:29	321-60-8	
Terphenyl-d14 (S)	102 %	, o.	32-130		1	11/21/11 12:00	11/23/11 03:29	1718-51-0	
Percent Moisture	Analytical	Method: AST	M D2974-87						
Percent Moisture	14.7 %	b	0.10	0.10	1		11/23/11 08:08		

(920)469-2436



## **ANALYTICAL RESULTS**

Project:

WE P4

Pace Project No.:

4053745

Sample: B3-1

Lab ID: 4053745003

Collected: 11/14/11 11:00 Received: 11/17/11 08:20 Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical	Method: WI	MOD DRO PI	reparation N	/lethod	: WI MOD DRO			
Diesel Range Organics	<b>24.0</b> m	ng/kg	2.3	1.1	1	11/18/11 12:00	11/21/11 10:04		L2
WIGRO GCV	Analytical	Method: WI	MOD GRO P	reparation f	Method	: TPH GRO/PVO	C WI ext.		
Benzene	<b>&lt;54.3</b> u	g/kg	130	54.3	1	11/21/11 12:00	11/21/11 19:03		W
Ethylbenzene	<b>148J</b> u	g/kg	164	68.1	1	11/21/11 12:00	11/21/11 19:03	100-41-4	
Gasoline Range Organics	<b>120</b> m	ng/kg	6.8	6.8	1	11/21/11 12:00	11/21/11 19:03		
Methyl-tert-butyl ether	<b>&lt;54.3</b> u	g/kg	130	54.3	1	11/21/11 12:00	11/21/11 19:03	1634-04-4	W
Naphthalene	<b>1250</b> u	g/kg	164	68.1	1	11/21/11 12:00	11/21/11 19:03	91-20-3	
Toluene	<b>&lt;54.3</b> u	g/kg	130	54.3	1	11/21/11 12:00	11/21/11 19:03	108-88-3	W
1,2,4-Trimethylbenzene	<b>692</b> u	g/kg	164	68.1	1	11/21/11 12:00	11/21/11 19:03	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;54.3</b> u	g/kg	130	54.3	1	11/21/11 12:00	11/21/11 19:03	108-67-8	W
m&p-Xylene	<b>286J</b> u	g/kg	327	136	1	11/21/11 12:00	11/21/11 19:03	179601-23-1	
o-Xylene	<b>142J</b> u	g/kg	164	68.1	1	11/21/11 12:00	11/21/11 19:03	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	101 %	6.	80-120		1	11/21/11 12:00	11/21/11 19:03	98-08-8	
8270 MSSV PAH by SIM	Analytical	Method: EPA	4 8270 by SIM	Preparation	n Meth	nod: EPA 3546			
Acenaphthene	<b>54.3</b> u	g/kg	20.9	2.9	1	11/21/11 12:00	11/22/11 15:55	83-32-9	
Acenaphthylene	4.7J u	g/kg	20.9	3.3	1	11/21/11 12:00	11/22/11 15:55	208-96-8	
Anthracene	<b>29.3</b> u	g/kg	20.9	4.9	1	11/21/11 12:00	11/22/11 15:55	120-12-7	
Benzo(a)anthracene	<3.0 u	g/kg	20.9	3.0	1	11/21/11 12:00	11/22/11 15:55	56-55-3	
Benzo(a)pyrene	<3.4 u	g/kg	20.9	3.4	1	11/21/11 12:00	11/22/11 15:55	50-32-8	
Benzo(b)fluoranthene	<b>&lt;3.6</b> u	g/kg	20.9	3.6	1	11/21/11 12:00	11/22/11 15:55	205-99-2	
Benzo(g,h,i)perylene	<2.8 u	g/kg	20.9	2.8	1	11/21/11 12:00	11/22/11 15:55	191-24-2	
Benzo(k)fluoranthene	<b>&lt;3.9</b> u	g/kg	20.9	3.9	1	11/21/11 12:00	11/22/11 15:55	207-08-9	
Chrysene	<b>6.5J</b> u		20.9	3.8	1	11/21/11 12:00	11/22/11 15:55	218-01-9	
Dibenz(a,h)anthracene	<b>&lt;5.7</b> u		20.9	5.7	1	11/21/11 12:00	11/22/11 15:55	53-70-3	
Fluoranthene	<10.4 u		20.9	10.4	1	11/21/11 12:00	11/22/11 15:55	206-44-0	
Fluorene	<b>94.7</b> u		20.9	5.2	1	11/21/11 12:00	11/22/11 15:55		
Indeno(1,2,3-cd)pyrene	<3.0 u	~ ~	20.9	3.0	1	11/21/11 12:00	11/22/11 15:55	193-39-5	
Naphthalene	15.6J u	-	20.9	3.7	1	11/21/11 12:00	11/22/11 15:55	91-20-3	
Phenanthrene	163 u		20.9	4.6	1	11/21/11 12:00	11/22/11 15:55	85-01-8	
Pyrene	40.3 u		20.9	3.8	1	11/21/11 12:00	11/22/11 15:55		
Surrogates		J -J			•			+	
2-Fluorobiphenyl (S)	96 %	, 0.	43-130		1	11/21/11 12:00	11/22/11 15:55	321-60-8	
Terphenyl-d14 (S)	107 %	ó.	32-130		1	11/21/11 12:00	11/22/11 15:55	1718-51-0	
Percent Moisture	Analytical	Method: AST	ГМ D2974-87						
Percent Moisture	20.2 %	,	0.10	0.10	1		11/23/11 08:08		



LOQ

Project:

WE P4

Pace Project No.:

WIGRO GCV

4053745

Sample: B3-1D

Lab ID: 4053745004

Units

Results

Collected: 11/14/11 11:00

LOD

Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.

DF

Received: 11/17/11 08:20

Analyzed

11/21/11 12:00 11/22/11 09:50 120-12-7

11/21/11 12:00 11/22/11 09:50 56-55-3

11/21/11 12:00 11/22/11 09:50 50-32-8

Prepared

CAS No.

Qual

Results reported on a "dry-weight" basis

Parameters

mone co.	, mary trodi motriod: vii m	0000110	pulation i	*1001100		o vvi oxi		
Benzene	<86.2 ug/kg	207	86.2	2	11/21/11 12:00	11/21/11 19:29	71-43-2	W
Ethylbenzene	<b>150J</b> ug/kg	252	105	2	11/21/11 12:00	11/21/11 19:29	100-41-4	
Methyl-tert-butyl ether	<86.2 ug/kg	207	86.2	2	11/21/11 12:00	11/21/11 19:29	1634-04-4	W
Naphthalene	< <b>86.2</b> ug/kg	207	86.2	2	11/21/11 12:00	11/21/11 19:29	91-20-3	W
Toluene	<86.2 ug/kg	207	86.2	2	11/21/11 12:00	11/21/11 19:29	108-88-3	W
1,2,4-Trimethylbenzene	1030 ug/kg	252	105	2	11/21/11 12:00	11/21/11 19:29	95-63-6	
1,3,5-Trimethylbenzene	<86.2 ug/kg	207	86.2	2	11/21/11 12:00	11/21/11 19:29	108-67-8	W
m&p-Xylene	437J ug/kg	503	210	2	11/21/11 12:00	11/21/11 19:29	179601-23-1	
o-Xylene	<b>209J</b> ug/kg	252	105	2	11/21/11 12:00	11/21/11 19:29	95-47-6	
Surrogates	0 0							
a,a,a-Trifluorotoluene (S)	102 %.	80-120		2	11/21/11 12:00	11/21/11 19:29	98-08-8	D3
Percent Moisture	Analytical Method: ASTM	M D2974-87						
Percent Moisture	17.8 %	0.10	0.10	1		11/23/11 08:09		
Sample: B3-2	Lab ID: 4053745005	Collected	11/14/11	11:00	Received: 11/	17/11 08:20 M	atrix: Solid	
Results reported on a "dry-we		00.0000			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Parameters	Results Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
WIDRO GCS	Analytical Method: WI M	OD DRO Pre	paration l	/lethod	: WI MOD DRO			
Diesel Range Organics	<b>1.7J</b> mg/kg	2.1	1.1	1	11/18/11 12:00	11/21/11 10:10		L2
WIGRO GCV	Analytical Method: Wi M	OD GRO Pre	eparation I	Method	: TPH GRO/PVO	C WI ext.		
Benzene	< <b>49.0</b> ug/kg	118	49.0	1	11/21/11 12:00	11/21/11 12:35	71-43-2	W
Ethylbenzene	<49.0 ug/kg	118	49.0	1	11/21/11 12:00	11/21/11 12:35	100-41-4	W
Basoline Range Organics	12.6 mg/kg	5.8	5.8	1	11/21/11 12:00	11/21/11 12:35		
Methyl-tert-butyl ether	<49.0 ug/kg	118	49.0	1	11/21/11 12:00	11/21/11 12:35	1634-04-4	W
Naphthalene	192 ug/kg	139	57.8	1	11/21/11 12:00	11/21/11 12:35	91-20-3	
oluene	<49.0 ug/kg	118	49.0	1	11/21/11 12:00	11/21/11 12:35	108-88-3	W
1,2,4-Trimethylbenzene	<49.0 ug/kg	118	49.0	1	11/21/11 12:00	11/21/11 12:35	95-63-6	W
I,3,5-Trimethylbenzene	58.7J ug/kg	139	57.8	1	11/21/11 12:00	11/21/11 12:35	108-67-8	
n&p-Xylene	<98.0 ug/kg	235	98.0	1	11/21/11 12:00	11/21/11 12:35	179601-23-1	W
-Xylene	<49.0 ug/kg	118	49.0	1	11/21/11 12:00	11/21/11 12:35		W
Surrogates			_					
a,a,a-Trifluorotoluene (S)	102 %.	80-120		1	11/21/11 12:00	11/21/11 12:35	98-08-8	
270 MSSV PAH by SIM	Analytical Method: EPA	8270 by SIM	Preparation	n Meth	nod: EPA 3546			
Acenaphthene	<2.8 ug/kg	19.7	2.8	1	11/21/11 12:00	11/22/11 09:50	83-32-9	
Acenaphthylene	< <b>3.1</b> ug/kg	19.7	3.1	1	11/21/11 12:00	11/22/11 09:50	208-96-8	
A ()		40.7			14101111 10 00	44/00/44 00 50	100 10 =	

Date: 11/28/2011 11:32 AM

Anthracene

Benzo(a)anthracene

Benzo(a)pyrene

4.6

2.8

3.2

19.7

19.7

19.7

<4.6 ug/kg

<2.8 ug/kg

<3.2 ug/kg





Project:

WE P4

Pace Project No.:

4053745

Sample: B3-2

Lab ID: 4053745005

Collected: 11/14/11 11:00 Received: 11/17/11 08:20 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytica	l Method: EP/	A 8270 by SIM	Preparatio	n Metl	nod: EPA 3546			
Benzo(b)fluoranthene	<3.4	ug/kg	19.7	3.4	1	11/21/11 12:00	11/22/11 09:50	205-99-2	
Benzo(g,h,i)perylene	<2.6	ug/kg	19.7	2.6	1	11/21/11 12:00	11/22/11 09:50	191-24-2	
Benzo(k)fluoranthene	<3.7		19.7	3.7	1	11/21/11 12:00	11/22/11 09:50	207-08-9	
Chrysene	<3.6		19.7	3.6	1	11/21/11 12:00	11/22/11 09:50	218-01-9	
Dibenz(a,h)anthracene	<5.3		19.7	5.3	1	11/21/11 12:00	11/22/11 09:50	53-70-3	
Fluoranthene	<9.8		19.7	9.8	1	11/21/11 12:00	11/22/11 09:50	206-44-0	
Fluorene	<b>&lt;4.9</b> t		19.7	4.9	1	11/21/11 12:00	11/22/11 09:50	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.8		19.7	2.8	1	11/21/11 12:00	11/22/11 09:50	193-39-5	
Naphthalene	<3.4		19.7	3.4	1	11/21/11 12:00	11/22/11 09:50	91-20-3	
Phenanthrene	5.5J (		19.7	4.3	1	11/21/11 12:00	11/22/11 09:50	85-01-8	
Pyrene	<3.6 t		19.7	3.6	1	11/21/11 12:00	11/22/11 09:50	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	90 (	%.	43-130		1	11/21/11 12:00	11/22/11 09:50	321-60-8	
Terphenyl-d14 (S)	91 '	%.	32-130		1	11/21/11 12:00	11/22/11 09:50	1718-51-0	
Percent Moisture	Analytica	Method: AS	ΓM D2974-87						
Percent Moisture	15.2 9	%	0.10	0.10	1		11/23/11 08:09		

Sample: B4-1

Lab ID: 4053745006

Collected: 11/14/11 11:30 Received: 11/17/11 08:20

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 N	1ethod	: WI MOD DRO					
Diesel Range Organics	<b>1.8J</b> n	ng/kg	2.1	1.1	1	11/18/11 12:00	11/21/11 10:16		L2		
WIGRO GCV	Analytical	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<b>&lt;46.3</b> u	ıg/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	71-43-2	W		
Ethylbenzene	<46.3 u	ıg/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	100-41-4	W		
Gasoline Range Organics	<5.5 n	ng/kg	5.5	5.5	1	11/21/11 12:00	11/21/11 13:01				
Methyl-tert-butyl ether	<46.3 u	g/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	1634-04-4	W		
Naphthalene	<46.3 u	ıg/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	91-20-3	W		
Toluene	<b>&lt;46.3</b> u	g/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	108-88-3	W		
1,2,4-Trimethylbenzene	<b>&lt;46.3</b> u	g/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	95-63-6	W		
1,3,5-Trimethylbenzene	<b>&lt;46.3</b> u	ıg/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	108-67-8	W		
m&p-Xylene	<92.6 u	g/kg	222	92.6	1	11/21/11 12:00	11/21/11 13:01	179601-23-1	W		
o-Xylene	<46.3 u	g/kg	111	46.3	1	11/21/11 12:00	11/21/11 13:01	95-47-6	W		
Surrogates											
a,a,a-Trifluorotoluene (S)	102 %	6.	80-120		1	11/21/11 12:00	11/21/11 13:01	98-08-8			
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546										
Acenaphthene	< <b>2.8</b> u	g/kg	19.6	2.8	1	11/21/11 12:00	11/22/11 16:12	83-32-9			
Acenaphthylene	<b>&lt;3.1</b> u		19.6	3.1	1	11/21/11 12:00	11/22/11 16:12	208-96-8			

Date: 11/28/2011 11:32 AM

### **REPORT OF LABORATORY ANALYSIS**



(920)469-2436

## **ANALYTICAL RESULTS**

Project:

WE P4

Pace Project No.:

4053745

Sample: B4-1

Lab ID: 4053745006

Collected: 11/14/11 11:30 Received: 11/17/11 08:20

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical	Method: EPA	8270 by SIM	Preparatio	n Meth	od: EPA 3546			
Anthracene	<b>&lt;4.6</b> u	g/kg	19.6	4.6	1	11/21/11 12:00	11/22/11 16:12	120-12-7	
Benzo(a)anthracene	<b>&lt;2.8</b> u	g/kg	19.6	2.8	1	11/21/11 12:00	11/22/11 16:12	56-55-3	
Benzo(a)pyrene	<b>&lt;3.2</b> u	g/kg	19.6	3.2	1	11/21/11 12:00	11/22/11 16:12	50-32-8	
Benzo(b)fluoranthene	<b>&lt;3.4</b> u	g/kg	19.6	3.4	1	11/21/11 12:00	11/22/11 16:12	205-99-2	
Benzo(g,h,i)perylene	<b>&lt;2.6</b> u	g/kg	19.6	2.6	1	11/21/11 12:00	11/22/11 16:12	191-24-2	
Benzo(k)fluoranthene	<b>&lt;3.6</b> u	g/kg	19.6	3.6	1	11/21/11 12:00	11/22/11 16:12	207-08-9	
Chrysene	<b>&lt;3.6</b> u		19.6	3.6	1	11/21/11 12:00	11/22/11 16:12	218-01-9	
Dibenz(a,h)anthracene	<b>&lt;5.3</b> u		19.6	5.3	1	11/21/11 12:00	11/22/11 16:12	53-70-3	
Fluoranthene	<b>&lt;9.8</b> u		19.6	9.8	1	11/21/11 12:00	11/22/11 16:12	206-44-0	
Fluorene	<b>&lt;4.9</b> u		19.6	4.9	1	11/21/11 12:00	11/22/11 16:12	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;2.8</b> u		19.6	2.8	1	11/21/11 12:00	11/22/11 16:12	193-39-5	
Naphthalene	<b>&lt;3.4</b> u		19.6	3.4	1	11/21/11 12:00	11/22/11 16:12	91-20-3	
Phenanthrene	<b>&lt;4.3</b> u		19.6	4.3	1	11/21/11 12:00	11/22/11 16:12	85-01-8	
Pyrene	<b>&lt;3.6</b> u	g/kg	19.6	3.6	1	11/21/11 12:00	11/22/11 16:12	129-00-0	
Surrogates			•						
2-Fluorobiphenyl (S)	96 %	<b>5</b> .	43-130		1	11/21/11 12:00	11/22/11 16:12	321-60-8	
Terphenyl-d14 (S)	102 %		32-130		1	11/21/11 12:00	11/22/11 16:12	1718-51-0	
Percent Moisture	Analytical	Method: AST	M D2974-87						
Percent Moisture	15.1 %	ò	0.10	0.10	1		11/23/11 08:09		
Sample: B4-2	Lab ID:	4053745007	Collected	: 11/14/11	11:30	Received: 11/	17/11 08:20 Ma	atrix: Solid	

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytica	l Method: WI	MOD DRO Pr	eparation N	/lethod	i: WI MOD DRO			
Diesel Range Organics	2.1J :	mg/kg	2.1	1.1	1	11/18/11 12:00	11/21/11 10:21		L2
WIGRO GCV	Analytica	l Method: WI	MOD GRO Pr	eparation N	Method	d: TPH GRO/PVO	C WI ext.		
Benzene	<b>&lt;52.1</b> ι	ug/kg	125	52.1	1	11/21/11 12:00	11/21/11 13:26	71-43-2	W
Ethylbenzene	<b>&lt;52.1</b> (	ug/kg	125	52.1	1	11/21/11 12:00	11/21/11 13:26	100-41-4	W
Gasoline Range Organics	12.2		6.3	6.3	1	11/21/11 12:00	11/21/11 13:26		
Methyl-tert-butyl ether	< <b>52.1</b> :		125	52.1	1	11/21/11 12:00	11/21/11 13:26	1634-04-4	W
Naphthalene	184 (	ug/kg	151	63.0	1	11/21/11 12:00	11/21/11 13:26	91-20-3	
Toluene	<52.1		125	52.1	1	11/21/11 12:00	11/21/11 13:26	108-88-3	W
1,2,4-Trimethylbenzene	<b>63.2J</b> (	ug/kg	151	63.0	1	11/21/11 12:00	11/21/11 13:26	95-63-6	
1,3,5-Trimethylbenzene	<b>&lt;52.1</b> ≀	ug/kg	125	52.1	1	11/21/11 12:00	11/21/11 13:26	108-67-8	W
m&p-Xylene	<104 t	Jg/kg	250	104	1	11/21/11 12:00	11/21/11 13:26	179601-23-1	W
o-Xylene	<b>&lt;52.1</b> (		125	52.1	1	11/21/11 12:00	11/21/11 13:26	95-47-6	W
Surrogates		-							
a,a,a-Trifluorotoluene (S)	101 9	%.	80-120		1	11/21/11 12:00	11/21/11 13:26	98-08-8	

Date: 11/28/2011 11:32 AM





Project:

WE P4

Pace Project No.:

4053745

Sample: B4-2

Lab ID: 4053745007

Collected: 11/14/11 11:30 Received: 11/17/11 08:20

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytic	al Method: EP	A 8270 by SIM	Preparation	n Meth	nod: EPA 3546			
Acenaphthene	<2.8	ug/kg	20.2	2.8	1	11/21/11 12:00	11/22/11 16:29	83-32-9	
Acenaphthylene	<3.2	ug/kg	20.2	3.2	1	11/21/11 12:00	11/22/11 16:29	208-96-8	
Anthracene	<4.7	ug/kg	20.2	4.7	1	11/21/11 12:00	11/22/11 16:29	120-12-7	
Benzo(a)anthracene	<2.9	ug/kg	20.2	2.9	1	11/21/11 12:00	11/22/11 16:29	56-55-3	
Benzo(a)pyrene	<3.3	ug/kg	20.2	3.3	1	11/21/11 12:00	11/22/11 16:29	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	20.2	3.5	1	11/21/11 12:00	11/22/11 16:29	205-99-2	
Benzo(g,h,i)perylene	<2.7	ug/kg	20.2	2.7	1	11/21/11 12:00	11/22/11 16:29	191-24-2	
Benzo(k)fluoranthene		ug/kg	20.2	3.7	1	11/21/11 12:00	11/22/11 16:29	207-08-9	
Chrysene	<3.7	ug/kg	20.2	3.7	1	11/21/11 12:00	11/22/11 16:29	218-01-9	
Dibenz(a,h)anthracene	<5.5	ug/kg	20.2	5.5	1	11/21/11 12:00	11/22/11 16:29	53-70-3	
Fluoranthene	<10.1	ug/kg	20.2	10.1	1	11/21/11 12:00	11/22/11 16:29	206-44-0	
Fluorene	<5.0	ug/kg	20.2	5.0	1	11/21/11 12:00	11/22/11 16:29	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.9	ug/kg	20.2	2.9	1	11/21/11 12:00	11/22/11 16:29	193-39-5	
Naphthalene	<3.5	ug/kg	20.2	3.5	1	11/21/11 12:00	11/22/11 16:29	91-20-3	
Phenanthrene	<4.4	ug/kg	20.2	4.4	1	11/21/11 12:00	11/22/11 16:29	85-01-8	
Pyrene		ug/kg	20.2	3.7	1	11/21/11 12:00	11/22/11 16:29	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	97	%.	43-130		1	11/21/11 12:00	11/22/11 16:29	321-60-8	
Terphenyl-d14 (S)	101	%.	32-130		1	11/21/11 12:00	11/22/11 16:29	1718-51-0	
Percent Moisture	Analytica	al Method: AS	TM D2974-87						
Percent Moisture	17.3	%	0.10	0.10	1		11/23/11 08:09		





Project:

WE P4

Pace Project No.:

4053745

QC Batch:

GCV/7641

Analysis Method:

WI MOD GRO

QC Batch Method:

TPH GRO/PVOC WI ext.

Analysis Description:

WIGRO Solid GCV

Associated Lab Samples:

4053745001, 4053745002, 4053745003, 4053745004, 4053745005, 4053745006, 4053745007

METHOD BLANK: 537188

Matrix: Solid

Associated Lab Samples:

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	60.0	11/21/11 10:39	
1,3,5-Trimethylbenzene	ug/kg	<25.0	60.0	11/21/11 10:39	
Benzene	ug/kg	<25.0	60.0	11/21/11 10:39	
Ethylbenzene	ug/kg	<25.0	60.0	11/21/11 10:39	
Gasoline Range Organics	mg/kg	<2.5	2.5	11/21/11 10:39	
m&p-Xylene	ug/kg	<50.0	120	11/21/11 10:39	
Methyl-tert-butyl ether	ug/kg	<25.0	60.0	11/21/11 10:39	
Naphthalene	ug/kg	<25.0	60.0	11/21/11 10:39	
o-Xylene	ug/kg	<25.0	60.0	11/21/11 10:39	
Toluene	ug/kg	<25.0	60.0	11/21/11 10:39	
a,a,a-Trifluorotoluene (S)	%.	102	80-120	11/21/11 10:39	

LABORATORY CONTROL SAM	PLE & LCSD: 537189		53	37190						
		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	1100	1090	110	109	80-120	1	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1070	1060	107	106	80-120	.6	20	
Benzene	ug/kg	1000	1080	1070	108	107	80-120	1	20	
Ethylbenzene	ug/kg	1000	1060	1050	106	105	80-120	1	20	
Gasoline Range Organics	mg/kg	10	11.4	10.8	114	108	80-120	5	20	
m&p-Xylene	ug/kg	2000	2110	2090	106	105	80-120	.9	20	
Methyl-tert-butyl ether	ug/kg	1000	1040	1020	104	102	80-120	2	20	
Naphthalene	ug/kg	1000	1020	1030	102	103	80-120	.9	20	
o-Xylene	ug/kg	1000	1050	1030	105	103	80-120	2	20	
Toluene	ug/kg	1000	1050	1040	105	104	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%.				102	101	80-120			





Project:

WE P4

Pace Project No.:

4053745

QC Batch:

OEXT/13275

Analysis Method:

EPA 8270 by SIM

QC Batch Method:

EPA 3546

Analysis Description:

8270/3546 MSSV PAH by SIM

Associated Lab Samples: METHOD BLANK: 537471

4053745001

Matrix: Solid

Associated Lab Samples:

4053745001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<2.3	16.7	11/22/11 08:06	
Acenaphthylene	ug/kg	<2.7	16.7	11/22/11 08:06	
Anthracene	ug/kg	<3.9	16.7	11/22/11 08:06	
Benzo(a)anthracene	ug/kg	<2.4	16.7	11/22/11 08:06	
Benzo(a)pyrene	ug/kg	<2.7	16.7	11/22/11 08:06	
Benzo(b)fluoranthene	ug/kg	<2.9	16.7	11/22/11 08:06	
Benzo(g,h,i)perylene	ug/kg	<2.2	16.7	11/22/11 08:06	
Benzo(k)fluoranthene	ug/kg	<3.1	16.7	11/22/11 08:06	
Chrysene	ug/kg	<3.0	16.7	11/22/11 08:06	
Dibenz(a,h)anthracene	ug/kg	<4.5	16.7	11/22/11 08:06	
Fluoranthene	ug/kg	<8.3	16.7	11/22/11 08:06	
Fluorene	ug/kg	<4.1	16.7	11/22/11 08:06	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.4	16.7	11/22/11 08:06	
Naphthalene	ug/kg	<2.9	16.7	11/22/11 08:06	
Phenanthrene	ug/kg	<3.7	16.7	11/22/11 08:06	
Pyrene	ug/kg	<3.1	16.7	11/22/11 08:06	
2-Fluorobiphenyl (S)	%.	87	43-130	11/22/11 08:06	
Terphenyl-d14 (S)	%.	103	32-130	11/22/11 08:06	

LABORATORY CONTROL SAMPLE:

LABORATORY CONTROL SAMPLE:	53/4/2					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Acenaphthene	ug/kg	333	325	97	51-130	
Acenaphthylene	ug/kg	333	327	98	53-130	
Anthracene	ug/kg	333	350	105	48-130	
Benzo(a)anthracene	ug/kg	333	326	98	55-130	
Benzo(a)pyrene	ug/kg	333	345	104	56-130	
Benzo(b)fluoranthene	ug/kg	333	321	96	53-130	
Benzo(g,h,i)perylene	ug/kg	333	374	112	58-130	
Benzo(k)fluoranthene	ug/kg	333	372	111	55-130	
Chrysene	ug/kg	333	343	103	59-130	
Dibenz(a,h)anthracene	ug/kg	333	379	114	56-130	
Fluoranthene	ug/kg	333	351	105	56-130	
Fluorene	ug/kg	333	339	102	54-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	377	113	57-130	
Naphthalene	ug/kg	333	291	87	43-130	
Phenanthrene	ug/kg	333	342	103	56-130	
Pyrene	ug/kg	333	340	102	54-130	
2-Fluorobiphenyl (S)	%.			91	43-130	
Terphenyl-d14 (S)	%.			101	32-130	

Date: 11/28/2011 11:32 AM





Project:

WE P4

Pace Project No.:

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 53747	3		537474							
			MS	MSD								
	40	053898016	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Acenaphthene	ug/kg	<3.0	420	420	347	331	82	79	40-130	5	20	
Acenaphthylene	ug/kg	<3.4	420	420	354	344	84	82	40-130	3	20	
Anthracene	ug/kg	<4.9	420	420	366	355	87	84	46-130	3	24	
Benzo(a)anthracene	ug/kg	<3.0	420	420	343	334	81	79	42-130	3	25	
Benzo(a)pyrene	ug/kg	<3.4	420	420	360	359	85	85	40-130	.3	31	
Benzo(b)fluoranthene	ug/kg	<3.6	420	420	319	320	75	75	45-130	.2	29	
Benzo(g,h,i)perylene	ug/kg	<2.8	420	420	401	394	95	93	16-143	2	23	
Benzo(k)fluoranthene	ug/kg	<3.9	420	420	380	375	90	89	38-130	1	33	
Chrysene	ug/kg	<3.8	420	420	360	347	85	82	38-130	4	31	
Dibenz(a,h)anthracene	ug/kg	<5.7	420	420	398	391	95	93	30-135	2	23	
Fluoranthene	ug/kg	<10.5	420	420	370	364	87	86	42-133	2	28	
luorene	ug/kg	<5.2	420	420	355	338	84	80	43-130	5	22	
ndeno(1,2,3-cd)pyrene	ug/kg	<3.0	420	420	398	390	94	92	15-150	2	27	
Naphthalene	ug/kg	<3.7	420	420	319	293	76	70	24-130	9	33	
Phenanthrene	ug/kg	<4.6	420	420	353	346	84	82	27-135	2	27	
Pyrene	ug/kg	<3.9	420	420	366	345	86	81	36-130	6	23	
-Fluorobiphenyl (S)	%.						76	78	43-130			
erphenyl-d14 (S)	%.						84	82	32-130			





Project:

WE P4

Pace Project No.:

4053745

QC Batch:

OEXT/13276

Analysis Method:

EPA 8270 by SIM

QC Batch Method:

EPA 3546

Analysis Description:

8270/3546 MSSV PAH by SIM

Associated Lab Samples:

4053745002, 4053745003, 4053745005, 4053745006, 4053745007

METHOD BLANK: 537475

Matrix: Solid

Associated Lab Samples:

4053745002, 4053745003, 4053745005, 4053745006, 4053745007

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<2.3	16.7	11/22/11 09:16	
Acenaphthylene	ug/kg	<2.7	16.7	11/22/11 09:16	
Anthracene	ug/kg	<3.9	16.7	11/22/11 09:16	
Benzo(a)anthracene	ug/kg	<2.4	16.7	11/22/11 09:16	
Benzo(a)pyrene	ug/kg	<2.7	16.7	11/22/11 09:16	
Benzo(b)fluoranthene	ug/kg	<2.9	16.7	11/22/11 09:16	
Benzo(g,h,i)perylene	ug/kg	<2.2	16.7	11/22/11 09:16	
Benzo(k)fluoranthene	ug/kg	<3.1	16.7	11/22/11 09:16	
Chrysene	ug/kg	<3.0	16.7	11/22/11 09:16	
Dibenz(a,h)anthracene	ug/kg	<4.5	16.7	11/22/11 09:16	
Fluoranthene	ug/kg	<8.3	16.7	11/22/11 09:16	
Fluorene	ug/kg	<4.1	16.7	11/22/11 09:16	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.4	16.7	11/22/11 09:16	
Naphthalene	ug/kg	<2.9	16.7	11/22/11 09:16	
Phenanthrene	ug/kg	<3.7	16.7	11/22/11 09:16	
Pyrene	ug/kg	<3.1	16.7	11/22/11 09:16	
2-Fluorobiphenyl (S)	%.	91	43-130	11/22/11 09:16	
Terphenyl-d14 (S)	%.	107	32-130	11/22/11 09:16	

LABORATORY CONTROL SAMPLE:	537476					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Acenaphthene	ug/kg	333	322	97	51-130	
Acenaphthylene	ug/kg	333	328	98	53-130	
Anthracene	ug/kg	333	343	103	48-130	
Benzo(a)anthracene	ug/kg	333	323	97	55-130	
Benzo(a)pyrene	ug/kg	333	345	103	56-130	
Benzo(b)fluoranthene	ug/kg	333	326	98	53-130	
Benzo(g,h,i)perylene	ug/kg	333	366	110	58-130	
Benzo(k)fluoranthene	ug/kg	333	373	112	55-130	
Chrysene	ug/kg	333	334	100	59-130	
Dibenz(a,h)anthracene	ug/kg	333	373	112	56-130	
Fluoranthene	ug/kg	333	344	103	56-130	
Fluorene	ug/kg	333	336	101	54-130	
Indeno(1,2,3-cd)pyrene	ug/kg	333	369	111	57-130	
Naphthalene	ug/kg	333	272	82	43-130	
Phenanthrene	ug/kg	333	335	100	56-130	
Pyrene	ug/kg	333	333	100	54-130	
2-Fluorobiphenyl (S)	%.			88	43-130	
Terphenyl-d14 (S)	%.			97	32-130	

Date: 11/28/2011 11:32 AM





Project:

WE P4

Pace Project No.: 4053745

MATRIX SPIKE & MATRIX SP	PIKE DUPLICAT	E: 53747	7		537478							
			MS	MSD								
	40	053745005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Acenaphthene	ug/kg	<2.8	393	393	436	434	111	110	40-130	.3	20	
Acenaphthylene	ug/kg	<3.1	393	393	441	442	112	112	40-130	.2	20	
Anthracene	ug/kg	<4.6	393	393	453	460	115	117	46-130	1	24	
Benzo(a)anthracene	ug/kg	<2.8	393	393	425	434	108	111	42-130	2	25	
Benzo(a)pyrene	ug/kg	<3.2	393	393	457	458	116	117	40-130	.2	31	
Benzo(b)fluoranthene	ug/kg	<3.4	393	393	457	466	116	118	45-130	2	29	
Benzo(g,h,i)perylene	ug/kg	<2.6	393	393	507	508	129	129	16-143	.3	23	
Benzo(k)fluoranthene	ug/kg	<3.7	393	393	423	402	108	102	38-130	5	33	
Chrysene	ug/kg	<3.6	393	393	451	459	115	117	38-130	2	31	
Dibenz(a,h)anthracene	ug/kg	<5.3	393	393	509	509	129	130	30-135	.07	23	
Fluoranthene	ug/kg	<9.8	393	393	453	457	115	116	42-133	.7	28	
Fluorene	ug/kg	<4.9	393	393	439	442	112	112	43-130	.5	22	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.8	393	393	506	509	129	129	15-150	.4	27	
Naphthalene	ug/kg	<3.4	393	393	383	392	97	100	24-130	2	33	
Phenanthrene	ug/kg	5.5J	393	393	439	448	110	112	27-135	2	27	
Pyrene	ug/kg	<3.6	393	393	432	441	110	112	36-130	2	23	
2-Fluorobiphenyl (S)	%.						100	103	43-130			
Terphenyl-d14 (S)	%.						106	108	32-130			



### **QUALITY CONTROL DATA**

Project:

WE P4

Pace Project No.:

4053745

QC Batch:

OEXT/13251

Analysis Method:

WI MOD DRO

QC Batch Method:

WI MOD DRO

Analysis Description:

WIDRO GCS

Associated Lab Samples:

4053745001, 4053745002, 4053745003, 4053745005, 4053745006, 4053745007

METHOD BLANK: 536244

Matrix: Solid

Associated Lab Samples:

4053745001, 4053745002, 4053745003, 4053745005, 4053745006, 4053745007

Blank

Reporting

Parameter

Units

Result

Limit

Analyzed

Qualifiers

Diesel Range Organics

mg/kg

< 0.99

2.0 11/21/11 09:06

LABORATORY CONTROL SAMPLE & LCSD: 536245 536246 LCS LCSD LCS LCSD % Rec Max Spike Parameter Units Conc. Result Result % Rec % Rec Limits **RPD** RPD Qualifiers Diesel Range Organics 40 59 70-120 20 L0 mg/kg 23.6 25.6 64



### **QUALITY CONTROL DATA**

Project:

WE P4

Pace Project No.:

4053745

QC Batch:

PMST/6411

Analysis Method:

ASTM D2974-87

RPD

QC Batch Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

Associated Lab Samples:

Parameter

4053745001, 4053745002, 4053745003, 4053745004, 4053745005, 4053745006, 4053745007

SAMPLE DUPLICATE: 537903

4053683001 Result

Dup Result Max

**RPD** 

Qualifiers

Percent Moisture

Units

13.0

13.2



#### **QUALIFIERS**

Project:

WE P4

Pace Project No.:

4053745

#### **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.

SG - Silica Gel - Clean-Up

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

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

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

### **ANALYTE QUALIFIERS**

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interfer
--

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

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

W





## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

WE P4

Pace Project No.:

Date: 11/28/2011 11:32 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4053745001	B1-1	WI MOD DRO	OEXT/13251	WI MOD DRO	GCSV/6863
4053745002	B2-1	WI MOD DRO	OEXT/13251	WI MOD DRO	GCSV/6863
4053745003	B3-1	WI MOD DRO	OEXT/13251	WI MOD DRO	GCSV/6863
4053745005	B3-2	WI MOD DRO	OEXT/13251	WI MOD DRO	GCSV/6863
4053745006	B4-1	WI MOD DRO	OEXT/13251	WI MOD DRO	GCSV/6863
4053745007	B4-2	WI MOD DRO	OEXT/13251	WI MOD DRO	GCSV/6863
4053745001	B1-1	TPH GRO/PVOC WI ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745002	B2-1	TPH GRO/PVOC WI ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745003	B3-1	TPH GRO/PVOC WI ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745004	B3-1D	TPH GRO/PVOC WI ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745005	B3-2	TPH GRO/PVOC WI ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745006	B4-1	TPH GRO/PVOC WI ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745007	B4-2	TPH GRO/PVOC Wi ext.	GCV/7641	WI MOD GRO	GCV/7644
4053745001	B1-1	EPA 3546	OEXT/13275	EPA 8270 by SIM	MSSV/4091
4053745002	B2-1	EPA 3546	OEXT/13276	EPA 8270 by SIM	MSSV/4092
4053745003	B3-1	EPA 3546	OEXT/13276	EPA 8270 by SIM	MSSV/4092
4053745005	B3-2	EPA 3546	OEXT/13276	EPA 8270 by SIM	MSSV/4092
4053745006	B4-1	EPA 3546	OEXT/13276	EPA 8270 by SIM	MSSV/4092
4053745007	B4-2	EPA 3546	OEXT/13276	EPA 8270 by SIM	MSSV/4092
4053745001	B1-1	ASTM D2974-87	PMST/6411		
4053745002	B2-1	ASTM D2974-87	PMST/6411		
4053745003	B3-1	ASTM D2974-87	PMST/6411		
4053745004	B3-1D	ASTM D2974-87	PMST/6411		
4053745005	B3-2	ASTM D2974-87	PMST/6411		
4053745006	B4-1	ASTM D2974-87	PMST/6411		
4053745007	B4-2	ASTM D2974-87	PMST/6411		

	(Please Print Clearly)							UPPER	MIDWES	ST REGION	Page 1 of
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Branch/Locat			Pace Ana	AIYTIC Pacelets (	al com	150	)				4053 4
Project Conta	et: Linda Fellenz									Quote #:	
Phone:	414-254-4813		CHAIN	OF	C	<u>US</u>	<u>TO</u>	DY		Mail To Contact:	
Project Numb		A=None B=	HCL C=H2SO4		ation Cod 3 E≃DI		F=Methar	nol G=Na	а <b>О</b> Н	Mail To Company:	
Project Name	· WE-P4	H=Sodium Bisi	ulfate Solution	1=Sodiur	m Thiosulf	fate J	l=Other			Mail To Address:	
Project State:	MI	FILTERED? (YES/NO)	Y/N								
Sampled By (I	Print): L Fellenz	PRESERVATION (CODE)*	Pick F	F			·			Invoice To Contact:	Mark Collins
Sampled By (	Sign): XXV Teller		reguested							Invoice To Company:	We Energies 333 W. Everett Milwaukee, WI
PO #:	Regula									Invoice To Address:	333 W. Everett
Data Packa	blo)	Matrix Codes W = Water	1 2 3		0	3>					Milwanker, W3 53203
☐ EPA	A Level III (billable) B = Biota	DW = Drinking Water	ے 💈	1 3	2	4				Invoice To Phone:	7,20-5
	your sample   S = Soil   Si = Studg	WW = Waste Water e WP = Wipe	Same S			*	1.		1	CLIENT	LAB COMMENTS Profile #
PACE LAB#	CLIENT FIELD ID	COLLECTION MATRIX		ļ						COMMENTS	(Lab Use Only)
001	131-1	14/4 9:50 5	X	X	Κ.	X	ļ				3-40= plag/cg A; 1-40ml
002	B2-1	10:30 5	X	×	X	1	ļ				
003	B3-1	11:00 5	X	×		X	ļ				
004	B3-1D	11:00 5	X	ļ		<u> </u>					)1-40zp4
005	B3-2	11:06 5	X	X	×	X					
006	B47	11130 5	X	×	_<	×					
007	B4-2	11:30 5		X	×	×					
				ļ							
	maround Time Requested - Prelims  AT subject to approval/surcharge)	Relinquished By:	tellan	Dat	te/Time:	91	00	Received	£	Dafe/Time:	8 96 0 PACE Project No.
	Date Needed:	Relianuished By	10	11.6	te/Time:		20	Received		Date/Time:	10005 140
Transmit Prei	lim Rush Results by (complete what you want):  LFEILNZ QLEGTERN develop	Refinedished By:	~ "	//6/ Dat	te/Time:			Received	Logis	Date/Time:	Receipt Temp = ROT °C
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elephone:		Relinquished By:		Dat	te/Time:			Received	By: V	Date/Time:	OK / Adjusted
	amples on HOLD are subject to	Relinquished By:		Dat	te/Time:			Received	Ву:	Date/Time:	Cooler Custody Seal Present (Not Present
spec	cial pricing and release of liability	l	*		,			<u> </u>		<del></del>	Version 6.0 08/14/06 EMH III
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December 13, 2011

David Kollakowsky We Energies PO Box 2179 Room P129 Milwaukee, WI 532012179

RE: Project: 1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

## Dear David Kollakowsky:

Enclosed are the analytical results for sample(s) received by the laboratory on December 03, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Brian Basten

brian.basten@pacelabs.com Project Manager

Enclosures





(920)469-2436

## **CERTIFICATIONS**

Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

4054316

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

North 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:

1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4054316001	MW-1 AD46531	Water	12/01/11 09:45	12/03/11 08:25
4054316002	P-2 AD46532	Water	12/01/11 10:10	12/03/11 08:25
4054316003	MW-3 AD46533	Water	12/01/11 10:20	12/03/11 08:25
4054316004	QC-1 AD46534	Water	12/01/11 00:00	12/03/11 08:25
4054316005	TRIP BLANK AD46535	Water	12/01/11 00:00	12/03/11 08:25





## **SAMPLE ANALYTE COUNT**

Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

Lab ID	Sample ID	Method	Analysts	Analytes Reported
4054316001	MW-1 AD46531	Wi MOD GRO	SES	9
		EPA 8270 by SIM	RJN	20
4054316002	P-2 AD46532	WI MOD GRO	SES	9
		EPA 8270 by SIM	RJN	20
4054316003	MW-3 AD46533	WI MOD GRO	SES	9
		EPA 8270 by SIM	RJN	20
4054316004	QC-1 AD46534	WI MOD GRO	SES	9
		EPA 8270 by SIM	RJN	20
4054316005	TRIP BLANK AD46535	WI MOD GRO	SES	9



Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

Sample: MW-1 AD46531	Lab ID: 40	<b>Lab ID: 4054316001</b> Collected: 12/01/11 09:45 Received: 12/03/11 08:						1 08:25 Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua	
WIGRO GCV	Analytical M	ethod: WI M	OD GRO							
Benzene	<b>&lt;0.39</b> ug/L	-	1.0	0.39	1		12/12/11 11:10	71-43-2		
Ethylbenzene	<0.41 ug/l	_	1.0	0.41	1		12/12/11 11:10	100-41-4		
Methyl-tert-butyl ether	<0.38 ug/L	_	1.0	0.38	1		12/12/11 11:10	1634-04-4		
Toluene	<b>&lt;0.42</b> ug/l	_	1.0	0.42	1		12/12/11 11:10	108-88-3		
1,2,4-Trimethylbenzene	<0.43 ug/l	-	1.0	0.43	1		12/12/11 11:10	95-63-6		
1,3,5-Trimethylbenzene	<0.40 ug/l	-	1.0	0.40	1		12/12/11 11:10	108-67-8		
m&p-Xylene	<b>&lt;0.87</b> ug/L	_	2.0	0.87	1		12/12/11 11:10	179601-23-1		
o-Xylene	<0.38 ug/L	_	1.0	0.38	1		12/12/11 11:10	95-47-6		
Surrogates	•									
a,a,a-Trifluorotoluene (S)	99 %.		80-120		1		12/12/11 11:10	98-08-8		
8270 MSSV PAH by SIM	Analytical Me	ethod: EPA 8	270 by SIV	Preparation	on Meth	od: EPA 3510				
Acenaphthene	<0.0045 ug/L	-	0.047	0.0045	1	12/07/11 12:00	12/08/11 10:08	83-32-9		
Acenaphthylene	<0.0036 ug/L	_	0.047	0.0036	1	12/07/11 12:00	12/08/11 10:08	208-96-8		
Anthracene	<b>&lt;0.0057</b> ug/L	-	0.047	0.0057	1	12/07/11 12:00	12/08/11 10:08	120-12-7		
Benzo(a)anthracene	<0.0036 ug/L	•	0.047	0.0036	1	12/07/11 12:00	12/08/11 10:08	56-55-3		
Benzo(a)pyrene	<0.0029 ug/L	-	0.047	0.0029	1	12/07/11 12:00	12/08/11 10:08	50-32-8		
Benzo(b)fluoranthene	<0.0034 ug/L	_	0.047	0.0034	1	12/07/11 12:00	12/08/11 10:08	205-99-2		
Benzo(g,h,i)perylene	<0.0048 ug/L	_	0.047	0.0048	1	12/07/11 12:00	12/08/11 10:08	191-24-2		
Benzo(k)fluoranthene	<0.0044 ug/L		0.047	0.0044	1	12/07/11 12:00	12/08/11 10:08	207-08-9	L3	
Chrysene	0.0052J ug/L		0.047	0.0035	1	12/07/11 12:00	12/08/11 10:08	218-01-9		
Dibenz(a,h)anthracene	<0.0032 ug/L	_	0.047	0.0032	1	12/07/11 12:00	12/08/11 10:08	53-70-3		
luoranthene	<0.0044 ug/L		0.047	0.0044	1	12/07/11 12:00	12/08/11 10:08	206-44-0		
luorene	<0.0048 ug/L	-	0.047	0.0048	1	12/07/11 12:00	12/08/11 10:08	86-73-7		
ndeno(1,2,3-cd)pyrene	<0.0047 ug/L	_	0.047	0.0047	1	12/07/11 12:00	12/08/11 10:08	193-39-5		
I-Methylnaphthalene	<0.0050 ug/L		0.047	0.0050	1	12/07/11 12:00	12/08/11 10:08	90-12-0		
2-Methylnaphthalene	<0.0039 ug/L		0.047	0.0039	1	12/07/11 12:00	12/08/11 10:08	91-57-6		
Naphthalene	0.0072J ug/L		0.047	0.0048	1	12/07/11 12:00	12/08/11 10:08	91-20-3	В	
Phenanthrene	0.0084J ug/L		0.047	0.0081	1	12/07/11 12:00	12/08/11 10:08	85-01-8		
Pyrene	<0.0047 ug/L		0.047	0.0047	1	12/07/11 12:00	12/08/11 10:08	129-00-0		
Surrogates										
2-Fluorobiphenyl (S)	66 %.		27-130		1	12/07/11 12:00	12/08/11 10:08	321-60-8		
Terphenyl-d14 (S)	99 %.		66-140		1	12/07/11 12:00	12/08/11 10:08	1718-51-0		
Sample: P-2 AD46532	Lab ID: 40	54316002	Collecte	d: 12/01/11	10:10	Received: 12/	03/11 08:25 Ma	atrix: Water		
F										
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua	
VIGRO GCV	Analytical Me	ethod: WI MC	DD GRO							
Benzene	<0.39 ug/L		1.0	0.39	1		12/12/11 11:35	71-43-2		
Ethylbenzene	<0.41 ug/L		1.0	0.41	1		12/12/11 11:35			
Methyl-tert-butyl ether	<0.38 ug/L		1.0	0.38	1		12/12/11 11:35			
Toluene	<0.42 ug/L		1.0	0.42	1		12/12/11 11:35			
1,2,4-Trimethylbenzene	<0.43 ug/L		1.0	0.43	1		12/12/11 11:35			

Date: 12/13/2011 01:46 PM

### REPORT OF LABORATORY ANALYSIS





Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

Sample: P-2 AD46532	Lab ID:	4054316002	Collecte	d: 12/01/1	1 10:10	Received: 12	/03/11 08:25 M	03/11 08:25 Matrix: Water		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual	
WIGRO GCV	Analytica	l Method: WI M	OD GRO							
1,3,5-Trimethylbenzene	<0.40	ug/L	1.0	0.40	1		12/12/11 11:35	108-67-8		
m&p-Xylene	< 0.87	ug/L	2.0	0.87	1		12/12/11 11:35	179601-23-1		
o-Xylene	< 0.38	ug/L	1.0	0.38	1		12/12/11 11:35	95-47-6		
Surrogates										
a,a,a-Trifluorotoluene (S)	100 '	%.	80-120		1		12/12/11 11:35	98-08-8		
8270 MSSV PAH by SIM	Analytica	I Method: EPA 8	3270 by SIM	Preparati	on Meth	od: EPA 3510				
Acenaphthene	<0.0045	ug/L	0.047	0.0045	1	12/07/11 12:00	12/08/11 10:25	83-32-9		
Acenaphthylene	< 0.0036	ug/L	0.047	0.0036	1	12/07/11 12:00	12/08/11 10:25	208-96-8		
Anthracene	0.0070J	ug/L	0.047	0.0057	1	12/07/11 12:00	12/08/11 10:25	120-12-7		
Benzo(a)anthracene	0.0064J	ug/L	0.047	0.0036	1	12/07/11 12:00	12/08/11 10:25	56-55-3		
Benzo(a)pyrene	0.0061J	ug/L	0.047	0.0029	1	12/07/11 12:00	12/08/11 10:25	50-32-8		
Benzo(b)fluoranthene	0.0061J	ug/L	0.047	0.0034	1	12/07/11 12:00	12/08/11 10:25	205-99-2		
Benzo(g,h,i)perylene	0.0062J	ug/L	0.047	0.0048	1	12/07/11 12:00	12/08/11 10:25	191-24-2		
Benzo(k)fluoranthene	0.0061J	ug/L	0.047	0.0044	1	12/07/11 12:00	12/08/11 10:25	207-08-9	L1	
Chrysene	0.011J i	ug/L	0.047	0.0035	1	12/07/11 12:00	12/08/11 10:25	218-01-9		
Dibenz(a,h)anthracene	<0.0032	ug/L	0.047	0.0032	1	12/07/11 12:00	12/08/11 10:25	53-70-3		
Fluoranthene	0.016J t		0.047	0.0044	1	12/07/11 12:00	12/08/11 10:25	206-44-0		
Fluorene	<0.0048	ug/L	0.047	0.0048	1	12/07/11 12:00	12/08/11 10:25	86-73-7		
Indeno(1,2,3-cd)pyrene	<0.0047 t	•	0.047	0.0047	1	12/07/11 12:00	12/08/11 10:25	193-39-5		
1-Methylnaphthalene	<0.0050 t	-	0.047	0.0050	1	12/07/11 12:00	12/08/11 10:25			
2-Methylnaphthalene	<b>&lt;0.0039</b> (	•	0.047	0.0039	1	12/07/11 12:00	12/08/11 10:25	91-57-6		
Naphthalene	0.0074J t	•	0.047	0.0048	1	12/07/11 12:00	12/08/11 10:25	91-20-3	В	
Phenanthrene	<b>0.020J</b> (	•	0.047	0.0081	1	12/07/11 12:00	12/08/11 10:25	85-01-8		
Pyrene	<b>0.014J</b> (	ug/L	0.047	0.0047	1	12/07/11 12:00	12/08/11 10:25	129-00-0		
Surrogates										
2-Fluorobiphenyl (S)	57 9		27-130		1	12/07/11 12:00	12/08/11 10:25			
Terphenyl-d14 (S)	98 '	%.	66-140		1	12/07/11 12:00	12/08/11 10:25	1718-51-0		
Sample: MW-3 AD46533	Lab ID:	4054316003	Collected	d: 12/01/1	10:20	Received: 12/	03/11 08:25 Ma	atrix: Water	<del></del>	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual	
WIGRO GCV	Analytica	l Method: WI M	OD GRO							
Benzene	<0.39 t	ıg/L	1.0	0.39	1		12/12/11 12:00	71-43-2		
Ethylbenzene	< <b>0.41</b> t	•	1.0	0.41	1		12/12/11 12:00			
Methyl-tert-butyl ether	<b>&lt;0.38</b> t		1.0	0.38	1		12/12/11 12:00			
Toluene	<b>&lt;0.42</b> (		1.0	0.42	1		12/12/11 12:00			
1,2,4-Trimethylbenzene	<b>&lt;0.43</b> ≀		1.0	0.43	1		12/12/11 12:00			
1,3,5-Trimethylbenzene	<b>&lt;0.40</b> t	-	1.0	0.40	1		12/12/11 12:00	108-67-8		
m&p-Xylene	<b>&lt;0.87</b> ≀	_	2.0	0.87	1		12/12/11 12:00			
o-Xylene	<0.38 t	-	1.0	0.38	1		12/12/11 12:00			
Surrogates										
a,a,a-Trifluorotoluene (S)	100 9		80-120				12/12/11 12:00			

Date: 12/13/2011 01:46 PM

## **REPORT OF LABORATORY ANALYSIS**

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Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

4054316

Sample: MW-3 AD46533	Lab ID: 4	4054316003	Collected	d: 12/01/11	10:20	Received: 12/	03/11 08:25 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qua
8270 MSSV PAH by SIM	Analytical N	Method: EPA 8	3270 by SIM	Preparation	n Meth	od: EPA 3510			
Acenaphthene	<b>&lt;0.0049</b> ug		0.051	0.0049	1	12/07/11 12:00	12/08/11 10:43	83-32-9	
Acenaphthylene	<b>&lt;0.0039</b> ug	/L	0.051	0.0039	1	12/07/11 12:00	12/08/11 10:43	208-96-8	
Anthracene	<b>&lt;0.0062</b> ug	/L	0.051	0.0062	1	12/07/11 12:00	12/08/11 10:43	120-12-7	
Benzo(a)anthracene	<0.0039 ug	/L	0.051	0.0039	1	12/07/11 12:00	12/08/11 10:43	56-55-3	
Benzo(a)pyrene	<0.0031 ug	/L	0.051	0.0031	1	12/07/11 12:00	12/08/11 10:43	50-32-8	
Benzo(b)fluoranthene	<0.0037 ug	/L	0.051	0.0037	1	12/07/11 12:00	12/08/11 10:43	205-99-2	
Benzo(g,h,i)perylene	<0.0052 ug	/L	0.051	0.0052	1	12/07/11 12:00	12/08/11 10:43	191-24-2	
Benzo(k)fluoranthene	<0.0047 ug		0.051	0.0047	1	12/07/11 12:00	12/08/11 10:43	207-08-9	L3
Chrysene	0.0041J ug		0.051	0.0038	1	12/07/11 12:00	12/08/11 10:43	218-01-9	
Dibenz(a,h)anthracene	<0.0035 ug		0.051	0.0035	1	12/07/11 12:00	12/08/11 10:43		
Fluoranthene	<0.0048 ug		0.051	0.0048	1	12/07/11 12:00	12/08/11 10:43		
Fluorene	<0.0052 ug		0.051	0.0052	1	12/07/11 12:00	12/08/11 10:43		
Indeno(1,2,3-cd)pyrene	<0.0051 ug		0.051	0.0051	1	12/07/11 12:00	12/08/11 10:43		
1-Methylnaphthalene	<0.0054 ug		0.051	0.0054	1	12/07/11 12:00	12/08/11 10:43		
2-Methylnaphthalene	<0.0042 ug		0.051	0.0042	1	12/07/11 12:00	12/08/11 10:43		
Naphthalene	0.015J ug		0.051	0.0052	1	12/07/11 12:00	12/08/11 10:43		В
Phenanthrene	<0.0088 ug		0.051	0.0032	1	12/07/11 12:00	12/08/11 10:43		U
	· ·		0.051	0.0051	1	12/07/11 12:00	12/08/11 10:43		
Pyrene <b>Surrogates</b>	<b>&lt;0.0051</b> ug	/L	0.051	0.0051	1	12/07/11 12.00	12/00/11 10.43	129-00-0	
2-Fluorobiphenyl (S)	56 %.		27-130		1	12/07/11 12:00	12/08/11 10:43	321.60.8	
Terphenyl-d14 (S)	99 %.		66-140		1	12/07/11 12:00	12/08/11 10:43		
respirenting (3)	<i>33</i> 70.		00-140		,	12/07/11 12:00	12/00/11 10.40	17 10-31-0	
Sample: QC-1 AD46534	Lab ID: 4	1054316004	Collected	I: 12/01/11	00:00	Received: 12/	03/11 08:25 Ma	atrix: Water	
Sample: QC-1 AD46534 Parameters	Lab ID: 4	<b>4054316004</b> Units	Collected	l: 12/01/11 LOD	00:00 DF	Received: 12/	03/11 08:25 Ma Analyzed	atrix: Water  CAS No.	Qual
Parameters	Results		LOQ						Qual
Parameters WIGRO GCV	Results Analytical M	Units Method: WI MO	LOQ DD GRO	LOD	DF		Analyzed	CAS No.	Qual
Parameters WIGRO GCV Benzene	Results Analytical M	Units 	LOQ DD GRO 1.0	LOD 0.39	DF 1		Analyzed 12/12/11 12:25	CAS No. 71-43-2	Qual
Parameters  WIGRO GCV  Benzene  Ethylbenzene	Results  Analytical N  <0.39 ug/ <0.41 ug/	Units Method: WI MO /L /L	LOQ DD GRO 1.0 1.0	0.39 0.41	DF 1 1		Analyzed 12/12/11 12:25 12/12/11 12:25	CAS No. 71-43-2 100-41-4	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene  Methyl-tert-butyl ether	Analytical M <0.39 ug/ <0.41 ug/ <0.38 ug/	Units  Method: WI MO  /L /L /L	LOQ DD GRO 1.0 1.0 1.0	0.39 0.41 0.38	DF 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	CAS No. 71-43-2 100-41-4 1634-04-4	Qual
Parameters  WIGRO GCV  Benzene  Ethylbenzene  Methyl-tert-butyl ether  Toluene	Analytical M <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/	Units  Method: WI MO /L /L /L	LOQ	0.39 0.41 0.38 0.42	DF 1 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene	Results  Analytical N  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/	Units  Method: WI Mo /L /L /L /L	LOQ DD GRO 1.0 1.0 1.0 1.0	0.39 0.41 0.38 0.42 0.43	DF 1 1 1 1 1 1 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/	Units  Method: WI MO /L /L /L /L /L	LOQ  1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.39 0.41 0.38 0.42 0.43 0.40	DF 1 1 1 1 1 1 1 1 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/	Units  Method: WI MO /L /L /L /L /L /L	LOQ  1.0 1.0 1.0 1.0 1.0 1.0 2.0	0.39 0.41 0.38 0.42 0.43 0.40 0.87	DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene 0-Xylene	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/	Units  Method: WI MO /L /L /L /L /L /L	LOQ  1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0.39 0.41 0.38 0.42 0.43 0.40	DF 1 1 1 1 1 1 1 1 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene p-Xylene Surrogates	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/	Units  Method: WI MO /L /L /L /L /L /L /L	LOQ  1.0 1.0 1.0 1.0 1.0 2.0 1.0	0.39 0.41 0.38 0.42 0.43 0.40 0.87	DF 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene 0-Xylene Surrogates a,a,a-Trifluorotoluene (S)	Analytical M <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/	Units	LOQ  1.0 1.0 1.0 1.0 1.0 2.0 1.0 80-120	0.39 0.41 0.38 0.42 0.43 0.40 0.87 0.38	DF  1 1 1 1 1 1 1 1 1 1 1	Prepared	Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene o-Xylene Surrogates a,a,a-Trifluorotoluene (S)	Analytical M <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/	Units  Method: WI MO /L /L /L /L /L /L /L	LOQ 1.0 1.0 1.0 1.0 1.0 1.0 1.0 80-120 270 by SIM	0.39 0.41 0.38 0.42 0.43 0.40 0.87 0.38	DF  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prepared	Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6 98-08-8	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene p-Xylene p-Xylene Surrogates a,a,a-Trifluorotoluene (S)	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/  101 %.  Analytical M  <0.0045 ug/	Units  Method: WI MO /L	LOQ  1.0 1.0 1.0 1.0 1.0 2.0 1.0 80-120	0.39 0.41 0.38 0.42 0.43 0.40 0.87 0.38  Preparation 0.0045	DF  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prepared od: EPA 3510 12/08/11 12:00	Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6 98-08-8	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene p-Xylene p-Xylene Surrogates a,a,a-Trifluorotoluene (S) B270 MSSV PAH by SIM Acenaphthene	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/  101 %.  Analytical M <0.0045 ug/ <0.0036 ug/	Units  Method: WI MO /L	LOQ 1.0 1.0 1.0 1.0 1.0 1.0 1.0 80-120 270 by SIM	0.39 0.41 0.38 0.42 0.43 0.40 0.87 0.38  Preparation 0.0045 0.0036	DF  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prepared od: EPA 3510 12/08/11 12:00 12/08/11 12:00	Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6 98-08-8	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene o-Xylene Surrogates a,a,a-Trifluorotoluene (S) B270 MSSV PAH by SIM  Acenaphthene Acenaphthylene Anthracene	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/  101 %.  Analytical M <0.0045 ug/ <0.0057 ug/	Units  Method: WI MO /L	LOQ  1.0 1.0 1.0 1.0 1.0 1.0 1.0 2.0 1.0 80-120 270 by SIM 0.047	0.39 0.41 0.38 0.42 0.43 0.40 0.87 0.38  Preparation 0.0045	DF  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prepared od: EPA 3510 12/08/11 12:00	Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6 98-08-8	Qual
Parameters  WIGRO GCV  Benzene Ethylbenzene Methyl-tert-butyl ether Toluene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene m&p-Xylene p-Xylene p-Xylene Surrogates a,a,a-Trifluorotoluene (S) B270 MSSV PAH by SIM Acenaphthene Acenaphthylene	Results  Analytical M  <0.39 ug/ <0.41 ug/ <0.38 ug/ <0.42 ug/ <0.43 ug/ <0.40 ug/ <0.87 ug/ <0.38 ug/  101 %.  Analytical M <0.0045 ug/ <0.0036 ug/	Units  Method: WI MO /L	LOQ 1.0 1.0 1.0 1.0 1.0 1.0 1.0 2.0 1.0 80-120 270 by SIM 0.047 0.047	0.39 0.41 0.38 0.42 0.43 0.40 0.87 0.38  Preparation 0.0045 0.0036	DF  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Prepared od: EPA 3510 12/08/11 12:00 12/08/11 12:00	Analyzed  12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25 12/12/11 12:25	CAS No.  71-43-2 100-41-4 1634-04-4 108-88-3 95-63-6 108-67-8 179601-23-1 95-47-6 98-08-8  83-32-9 208-96-8 120-12-7	Qual

Date: 12/13/2011 01:46 PM



Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

Sample: QC-1 AD46534	Lab ID:	4054316004	Collected	12/01/11	00:00	Received: 12/	03/11 08:25 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytica	I Method: EPA 8	3270 by SIM	Preparation	on Meth	od: EPA 3510			
Benzo(b)fluoranthene	<b>&lt;0.0034</b> (	•	0.047	0.0034	1	12/08/11 12:00	12/08/11 13:02	205-99-2	
Benzo(g,h,i)perylene	<0.0048 t	ıg/L	0.047	0.0048	1	12/08/11 12:00	12/08/11 13:02	191-24-2	
Benzo(k)fluoranthene	<0.0044 t	ıg/L	0.047	0.0044	1	12/08/11 12:00	12/08/11 13:02	207-08-9	
Chrysene	0.0056J	ıg/L	0.047	0.0035	1	12/08/11 12:00	12/08/11 13:02	218-01-9	
Dibenz(a,h)anthracene	< <b>0.0032</b> ≀	ıg/L	0.047	0.0032	1	12/08/11 12:00	12/08/11 13:02	53-70-3	
Fluoranthene	<b>&lt;0.0044</b> t	ıg/L	0.047	0.0044	1	12/08/11 12:00	12/08/11 13:02	206-44-0	
Fluorene	<0.0048 t	ıg/L	0.047	0.0048	1	12/08/11 12:00	12/08/11 13:02	86-73-7	
Indeno(1,2,3-cd)pyrene	<b>&lt;0.0047</b> ι	_	0.047	0.0047	1	12/08/11 12:00	12/08/11 13:02	193-39-5	
1-Methylnaphthalene	<0.0050 t	ug/L	0.047	0.0050	1	12/08/11 12:00	12/08/11 13:02	90-12-0	
2-Methylnaphthalene	<0.0039 t		0.047	0.0039	1	12/08/11 12:00	12/08/11 13:02	91-57-6	
Naphthalene	0.0064J	U	0.047	0.0048	1	12/08/11 12:00	12/08/11 13:02		
Phenanthrene	0.015J		0.047	0.0081	1	12/08/11 12:00	12/08/11 13:02		
Pyrene	<0.0047 t		0.047	0.0047	1	12/08/11 12:00	12/08/11 13:02		•
Surrogates		-9/	0.0	0.00	•	,2,00,11,12,00	72700717 10102	.20 00 0	
2-Fluorobiphenyl (S)	69 9	%.	27-130		1	12/08/11 12:00	12/08/11 13:02	321-60-8	
Terphenyl-d14 (S)	100 %	<b>%</b> .	66-140		1	12/08/11 12:00	12/08/11 13:02	1718-51-0	
Sample: TRIP BLANK AD46535	Lab ID:	4054316005	Collected	12/01/1	00:00	Received: 12/	03/11 08:25 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytica	Method: WI M	OD GRO						
Benzene	<b>&lt;0.39</b> ≀	ıg/L	1.0	0.39	1		12/12/11 12:50	71-43-2	
Ethylbenzene	<b>&lt;0.41</b> ∪	ig/L	1.0	0.41	1		12/12/11 12:50	100-41-4	
Methyl-tert-butyl ether	<0.38		1.0	0.38	1		12/12/11 12:50	1634-04-4	
Toluene	<0.42 t		1.0	0.42	1		12/12/11 12:50	108-88-3	
1,2,4-Trimethylbenzene	<0.43 t	-	1.0	0.43	1		12/12/11 12:50	95-63-6	
1,3,5-Trimethylbenzene	<0.40 t	•	1.0	0.40	1		12/12/11 12:50	108-67-8	
m&p-Xylene	<0.87 t	•	2.0	0.87	1		12/12/11 12:50		
o-Xylene	<0.38 t	-	1.0	0.38	1		12/12/11 12:50		
Surrogates a,a,a-Trifluorotoluene (S)	101 %	<b>/</b>	80-120		1		12/12/11 12:50	00 00 0	

Date: 12/13/2011 01:46 PM





Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

4054316

QC Batch:

GCV/7726

Analysis Method:

WI MOD GRO

QC Batch Method:

WI MOD GRO

Analysis Description:

WIGRO GCV Water

Associated Lab Samples:

4054316001, 4054316002, 4054316003, 4054316004, 4054316005

METHOD BLANK: 544870

Matrix: Water

Associated Lab Samples: 4054316001, 4054316002, 4054316003, 4054316004, 4054316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.43	1.0	12/12/11 08:40	
1,3,5-Trimethylbenzene	ug/L	< 0.40	1.0	12/12/11 08:40	
Benzene	ug/L	< 0.39	1.0	12/12/11 08:40	
Ethylbenzene	ug/L	< 0.41	1.0	12/12/11 08:40	
m&p-Xylene	ug/L	<0.87	2.0	12/12/11 08:40	
Methyl-tert-butyl ether	ug/L	<0.38	1.0	12/12/11 08:40	
o-Xylene	ug/L	< 0.38	1.0	12/12/11 08:40	
Toluene	ug/L	< 0.42	1.0	12/12/11 08:40	
a,a,a-Trifluorotoluene (S)	%.	100	80-120	12/12/11 08:40	

LABORATORY CONTROL SAM	IPLE & LCSD: 544871		54	14872						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	20.2	20.3	101	102	80-120	.8	20	
1,3,5-Trimethylbenzene	ug/L	20	19.9	20.0	100	100	80-120	.3	20	
Benzene	ug/L	20	21.2	21.2	106	106	80-120	.4	20	
Ethylbenzene	ug/L	20	19.9	20.2	100	101	80-120	1	20	
m&p-Xylene	ug/L	40	39.7	40.1	99	100	80-120	.9	20	
Methyl-tert-butyl ether	ug/L	20	20.6	20.9	103	104	80-120	1	20	
o-Xylene	ug/L	20	19.9	20.0	100	100	80-120	.5	20	
Toluene	ug/L	20	20.3	20.5	102	102	80-120	.7	20	
a,a,a-Trifluorotoluene (S)	%.				101	101	80-120			



(920)469-2436

## **QUALITY CONTROL DATA**

Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

4054316

QC Batch:

OEXT/13383

Analysis Method:

EPA 8270 by SIM

QC Batch Method:

EPA 3510

Analysis Description:

8270 Water PAH by SIM MSSV

Associated Lab Samples:

4054316001, 4054316002, 4054316003

METHOD BLANK: 543253

Matrix: Water

Associated Lab Samples: 4054316001, 4054316002, 4054316003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	< 0.0053	0.050	12/08/11 08:40	
2-Methylnaphthalene	ug/L	< 0.0041	0.050	12/08/11 08:40	
Acenaphthene	ug/L	<0.0048	0.050	12/08/11 08:40	
Acenaphthylene	ug/L	<0.0038	0.050	12/08/11 08:40	
Anthracene	ug/L	< 0.0061	0.050	12/08/11 08:40	
Benzo(a)anthracene	ug/L	<0.0038	0.050	12/08/11 08:40	
Benzo(a)pyrene	ug/L	< 0.0030	0.050	12/08/11 08:40	
Benzo(b)fluoranthene	ug/L	< 0.0036	0.050	12/08/11 08:40	
Benzo(g,h,i)perylene	ug/L	< 0.0051	0.050	12/08/11 08:40	
Benzo(k)fluoranthene	ug/L	< 0.0046	0.050	12/08/11 08:40	
Chrysene	ug/L	< 0.0037	0.050	12/08/11 08:40	
Dibenz(a,h)anthracene	ug/L	< 0.0034	0.050	12/08/11 08:40	
Fluoranthene	ug/L	< 0.0047	0.050	12/08/11 08:40	
Fluorene	ug/L	<0.0051	0.050	12/08/11 08:40	
Indeno(1,2,3-cd)pyrene	ug/L	< 0.0050	0.050	12/08/11 08:40	
Naphthalene	ug/L	0.0087J	0.050	12/08/11 08:40	
Phenanthrene	ug/L	<0.0086	0.050	12/08/11 08:40	
Pyrene	ug/L	< 0.0050	0.050	12/08/11 08:40	
2-Fluorobiphenyl (S)	%.	79	27-130	12/08/11 08:40	
Terphenyl-d14 (S)	%.	75	66-140	12/08/11 08:40	

LABORATORY CONTROL SAM	MPLE & LCSD: 543254		54	3255						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1-Methylnaphthalene	ug/L	.2	0.17	0.17	83	87	32-130	5	50	
2-Methylnaphthalene	ug/L	.2	0.16	0.17	82	84	29-130	2	50	
Acenaphthene	ug/L	.2	0.20	0.19	98	97	30-130	.3	49	
Acenaphthylene	ug/L	.2	0.18	0.18	92	92	23-130	.09	48	
Anthracene	ug/L	.2	0.18	0.17	91	87	20-130	4	46	
Benzo(a)anthracene	ug/L	.2	0.21	0.21	103	107	34-130	3	21	
Benzo(a)pyrene	ug/L	.2	0.21	0.23	107	113	41-130	5	20	
Benzo(b)fluoranthene	ug/L	.2	0.19	0.19	95	97	31-131	2	24	
Benzo(g,h,i)perylene	ug/L	.2	0.22	0.23	110	115	51-130	5	20	
Benzo(k)fluoranthene	ug/L	.2	0.24	0.26	119	131	56-130	10	23 LC	)
Chrysene	ug/L	.2	0.23	0.23	113	115	55-130	2	20	
Dibenz(a,h)anthracene	ug/L	.2	0.22	0.23	111	115	40-130	4	20	
Fluoranthene	ug/L.	.2	0.22	0.22	109	109	38-130	.3	40	
Fluorene	ug/L	.2	0.20	0.20	101	99	27-130	2	50	
Indeno(1,2,3-cd)pyrene	ug/L	.2	0.22	0.23	109	115	48-130	5	20	
Naphthalene	ug/L	.2	0.17	0.18	87	92	33-130	5	50	
Phenanthrene	ug/L	.2	0.22	0.21	111	106	28-130	5	47	

Date: 12/13/2011 01:46 PM

**REPORT OF LABORATORY ANALYSIS** 

Page 10 of 14



(920)469-2436

# **QUALITY CONTROL DATA**

Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

LABORATORY CONTROL SAM	IPLE & LCSD: 543254		54	3255						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
Pyrene	ug/L	.2	0.21	0.21	106	105	41-130	.9	40	
2-Fluorobiphenyl (S)	%.				85	84	27-130			
Terphenyl-d14 (S)	%.				101	97	66-140			





Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.:

4054316

QC Batch:

OEXT/13389

Analysis Method:

EPA 8270 by SIM

QC Batch Method:

EPA 3510

Analysis Description:

8270 Water PAH by SIM MSSV

Associated Lab Samples:

METHOD BLANK: 543585

Matrix: Water

Associated Lab Samples:

4054316004

4054316004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	<0.0053	0.050	12/08/11 11:35	
2-Methylnaphthalene	ug/L	< 0.0041	0.050	12/08/11 11:35	
Acenaphthene	ug/L	<0.0048	0.050	12/08/11 11:35	
Acenaphthylene	ug/L	<0.0038	0.050	12/08/11 11:35	
Anthracene	ug/L	< 0.0061	0.050	12/08/11 11:35	
Benzo(a)anthracene	ug/L	<0.0038	0.050	12/08/11 11:35	
Benzo(a)pyrene	ug/L	< 0.0030	0.050	12/08/11 11:35	
Benzo(b)fluoranthene	ug/L	< 0.0036	0.050	12/08/11 11:35	
Benzo(g,h,i)perylene	ug/L	< 0.0051	0.050	12/08/11 11:35	
Benzo(k)fluoranthene	ug/L	< 0.0046	0.050	12/08/11 11:35	
Chrysene	ug/L	< 0.0037	0.050	12/08/11 11:35	
Dibenz(a,h)anthracene	ug/L.	< 0.0034	0.050	12/08/11 11:35	
Fluoranthene	ug/L	< 0.0047	0.050	12/08/11 11:35	
Fluorene	ug/L	< 0.0051	0.050	12/08/11 11:35	
Indeno(1,2,3-cd)pyrene	ug/L	< 0.0050	0.050	12/08/11 11:35	
Naphthalene	ug/L	0.0060J	0.050	12/08/11 11:35	
Phenanthrene	ug/L	<0.0086	0.050	12/08/11 11:35	
Pyrene	ug/L	< 0.0050	0.050	12/08/11 11:35	
2-Fluorobiphenyl (S)	%.	69	27-130	12/08/11 11:35	
Terphenyl-d14 (S)	%.	93	66-140	12/08/11 11:35	

LABORATORY CONTROL SAN	MPLE & LCSD: 543586		54	3587						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1-Methylnaphthalene	ug/L	.2	0.15	0.11	76	55	32-130	32	50	
2-Methylnaphthalene	ug/L	.2	0.15	0.11	74	53	29-130	33	50	
Acenaphthene	ug/L	.2	0.18	0.13	89	64	30-130	33	49	
Acenaphthylene	ug/L	.2	0.17	0.12	83	60	23-130	32	48	
Anthracene	ug/L	.2	0.15	0.11	77	55	20-130	33	46	
Benzo(a)anthracene	ug/L	.2	0.19	0.18	93	89	34-130	4	21	
Benzo(a)pyrene	ug/L	.2	0.21	0.21	104	106	41-130	3	20	
Benzo(b)fluoranthene	ug/L	.2	0.21	0.21	107	103	31-131	4	24	
Benzo(g,h,i)perylene	ug/L	.2	0.21	0.22	104	108	51-130	4	20	
Benzo(k)fluoranthene	ug/L	.2	0.22	0.23	109	115	56-130	5	23	
Chrysene	ug/L	.2	0.23	0.23	115	115	55-130	.4	20	
Dibenz(a,h)anthracene	ug/L	.2	0.19	0.20	97	98	40-130	1	20	
Fluoranthene	ug/L	.2	0.19	0.16	97	78	38-130	22	40	
Fluorene	ug/L.	.2	0.18	0.13	89	63	27-130	34	50	
Indeno(1,2,3-cd)pyrene	ug/L	.2	0.20	0.20	99	102	48-130	3	20	
Naphthalene	ug/L	.2	0.17	0.12	87	61	33-130	34	50	
Phenanthrene	ug/L	.2	0.18	0.14	91	69	28-130	29	47	

Date: 12/13/2011 01:46 PM



## **QUALITY CONTROL DATA**

Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

LABORATORY CONTROL SAM	543587									
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
Pyrene	ug/L	.2	0.20	0.16	101	79	41-130	25	40	
2-Fluorobiphenyl (S)	%.				82	56	27-130			
Terphenyl-d14 (S)	%.				99	81	66-140			



#### **QUALIFIERS**

Project:

1207363 P4 TRACTOR GARAGE

Pace Project No.: 4054316

#### **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.

SG - Silica Gel - Clean-Up

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

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

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

#### **BATCH QUALIFIERS**

Batch: MSSV/4132

[IP]

Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 8270C. Sample results included are reported as individual isomers, but the lab and the client must recognize them as an isomeric pair.

[M5]

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

Batch: MSSV/4135

[IP]

Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 8270C. Sample results included are reported as individual isomers, but the lab and the client must recognize them as an isomeric pair.

[M5]

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

Batch: GCV/7726

[M5]

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

#### **ANALYTE QUALIFIERS**

В Analyte was detected in the associated method blank.

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

Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. L1

Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in L3

associated samples. Results unaffected by high bias.

# ATTACHMENT D BORING LOGS

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Signature

SOIL BORING LOG INFORMATION From 4400-122 Rev. 7-98

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

State of Wisconsin department of Netherl Resources

### SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

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#### SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

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### SOIL BORING LOG INFORMATION From 4400-102 Rev 7-98

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



October 12, 2011

Ms. Victoria Stovall Wisconsin Department of Natural Resources 2300 N. Martin Luther King Jr. Drive Milwaukee, Wisconsin 53212

Subject:

Work Plan

Pleasant Prairie Power Plant Tractor Garage Refueling Area

8000 95<sup>th</sup> Street, Kenosha, Wisconsin

WDNR FID: 230006260

WDNR BRRTS: 03-30-210485

Dear Ms. Stovall:

We Energies is pleased to provide this work plan for environmental services regarding the above referenced project.

#### **INTRODUCTION:**

In December 1998, a petroleum release was reported by We Energies to the Wisconsin Department of Natural Resources (WDNR). The release was identified during an upgrade to piping associated with two Underground Storage Tanks (USTs) located at the site. This work plan outlines additional investigation proposed for the site.

#### **SITE INVESTIGATION:**

Our work plan includes installing additional soil borings around the UST location to delineate the soil impacts and sampling groundwater monitoring wells near the UST area. The details of the environmental site investigation are outlined below:

- Review the previous investigation data available.
- Coordinate subcontractors driller, laboratory, and diggers hotline.
- Advance 4 geoprobe borings around the UST area. One boring on the east, west, north, and south of the UST area.
- Collect one to two soil samples per boring for laboratory analysis, including QA/QC samples.
- Analyze the soil for Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Petroleum Range Organics (PVOC) plus naphthalene, and Polyaromatic Hydrocarbons (PAH).
- Containerize and manage the investigative wastes;
- Collect groundwater samples from MW-3/P2 and MW-1 for PVOCs plus naphthalene and PAH.





- Determine the contaminants present in the soil and groundwater.
- Establish the horizontal and vertical extent of impacted soil and/or groundwater associated with this release.
- Evaluate field work and laboratory results.
- Preparation of a Site Investigation report providing a summary of fieldwork, results, conclusions and recommendations.
- Determine whether additional investigation is needed to fully establish the vertical and horizontal extent of soil and groundwater impacts.

We plan to initiate the investigation activities in October 2011 and have them completed by early 2012. LF Green Development, LLC is the environmental consultant for the project. The project manager for LF Green is Ms. Linda Fellenz.

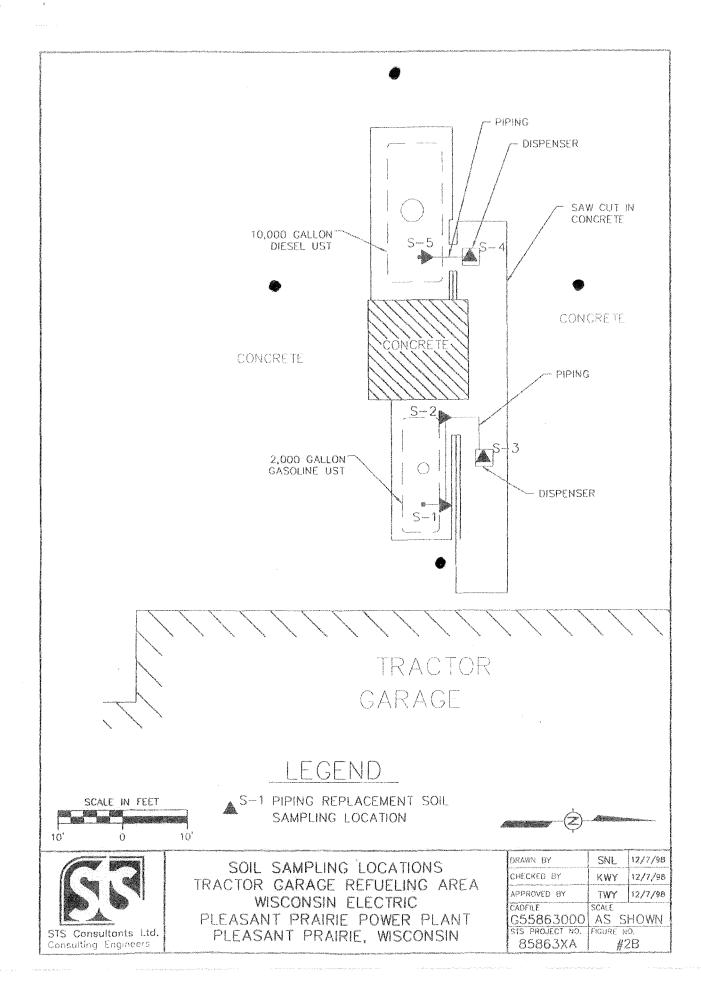
If you have any questions or comments, please feel free to contact me all me at 414-221-4778.

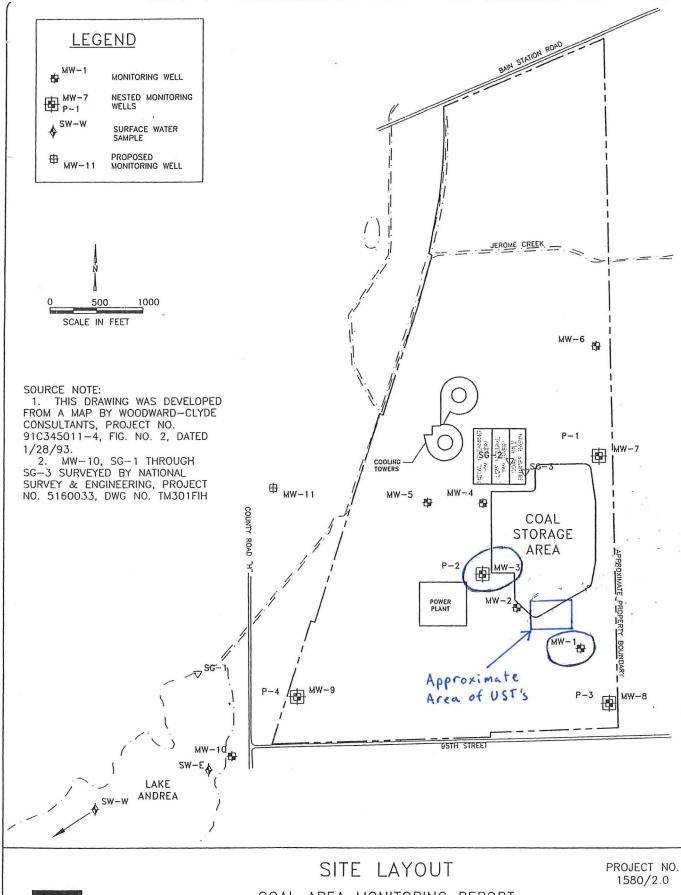
Sincerely,

C. Luke Peters

We Energies – Environmental

C Suke Pet







COAL AREA MONITORING REPORT
WE ENERGIES
PLEASANT PRAIRIE POWER PLANT
PLEASANT PRAIRIE, WISCONSIN
DRAWN BY: HMS 06/14/06 APP'D BY: CAR DATE: 08/16/06

DRAWING NO. 1580-2-A02

FIGURE NO. 2



August 25, 2011

Mr. Mark Gordon Wisconsin Dept. of Natural Resources 101 S Webster Street - RR/5 Madison WI 53703

RE:

Consultant Notification/Project Status Update

Pleasant Prairie Power Plant Tractor Garage Refueling Area

8000 95th Street, Kenosha, Wisconsin

WDNR FID: 230006260

WDNR BRRTS: 03-30-210485

Dear Mr. Gordon:

On December 29<sup>th</sup>, 1998 Wisconsin Electric Power Company (d.b.a. We Energies) informed the Wisconsin Department of Natural Resources (WDNR) that leaded gasoline and diesel fuel which leaked from underground storage systems caused soil contamination in the vicinity of the tractor garage refueling area at Pleasant Prairie Power Plant in Kenosha, Wisconsin.

We Energies plans to retain LF Green Development, LLC as the environmental consultant for the project. The project manager for LF Green is Ms. Linda Fellenz. Once a contract is in place with LF Green, additional soil sampling locations will be chosen to investigate the current conditions in the soil in the vicinity of the tanks and piping. A work plan will be submitted near the end of September with field work to follow.

If you have any questions, please feel free to contact me at 414-221-4778.

Sincerely,

C. Luke Peters

We Energies – Environmental

Chile I dez



231 W. Michigan
P.O. Box 2046
Milwaukee, WI 53201-2046
Phone 414 221-2345

February 12, 1999

Mr. Michael Farley **Department of Natural Resources**Box 12436

Milwaukee, WI 53212

Closure Assessment Report

Pleasant Prairie Power Plant, 8000 95th Street, Kenosha

BRRTS: 03-30-210485

Status Update

Dear Mr. Farley:

RE:

Enclosed, please find a copy of the <u>Closure Assessment Report</u> dated January 27, 1999. This report was prepared by STS Consultants, Ltd. The report documents the removal of piping from a 1,000 gallon gasoline underground tank and a 10,000 gallon underground tank.

As stated in your January 15, 1999 letter "Steps to Take" we have retained HSI Geotrans, 175 N. Corporate Drive, Suite 100 Brookfield, WI 53045 to investigate the extent of petroleum contamination from the removal of the piping.

The project manager for HSI is Ms. Jennifer Johanson. Ms. Johanson can be reached at 414-792-1282. The Wisconsin Electric contact person will be Mr. Mark Collins. Mr. Collins can be reached at 414-221-2162.

We will provide a workplan for the investigation to the Department by your deadline of 4-12-99.

If you have any questions, please feel free to contact Mr. Collins.

Sincerely,

Liz Stueck-Mullane

Senior Environmental Specialist Wisconsin Electric Power Company

enclosure

cc: Mark Collins-w/out enclosure

Jennifer Johanson, HSI Geotrans, 175 N. Corporate Drive, Suite 100, Brookfield, WI 53045-w/out enclosure

#### Wisconsin Electric

333 West Everett Street Milwaukee, Wisconsin 53203

Underground Storage Tank Piping Replacement Report



Wisconsin Electric

Tractor Garage Refueling Area

Pleasant Prairie Power Plant 8000 95th Street Pleasant Prairie, Wisconsin

STS Project No. 85863XA

January 27, 1999





January 27, 1999

Ms. Liz Stueck-Mullane Wisconsin Electric 333 West Everett Street Milwaukee, Wisconsin 53201

Re: Underground Storage Tank Piping Replacement Report for the Wisconsin Electric Pleasant Prairie Power Plant facility (Tractor Garage Refueling Area) Located in Pleasant Prairie, Wisconsin -- STS Project No. 85863XA

Dear Liz:

STS Consultants Ltd. is pleased to submit this Underground Storage Tank Piping Replacement Report for the above-referenced site. The report contains summaries of the information collected during the piping replacement.

We appreciate the opportunity to be of service to you. Please contact us at (414) 359-3030 if you have any questions or comments regarding this report or this project.

Sincerely,

STS CONSULTANTS LTD.

Ken W. Yass, E.I.T., CHMM

Project Engineer

Tom Kroeger KWY
Thomas W. Kroeger

Principal Scientist

Attachments

©STS Consultants Ltd., January 1999

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#### **EXECUTIVE SUMMARY**

Wisconsin Electric (WE) retained STS Consultants, Ltd. (STS) to perform a site assessment following the replacement of buried piping which connected two separate underground storage tanks (USTs) holding diesel and gasoline fuel for refueling equipment at WE's Pleasant Prairie Power Plant facility. The assessment was performed to determine if diesel range organics (DRO) and gasoline range organics (GRO) were released into the environment. STS prepared this report to summarize field activities and observations, and the results of independent laboratory analysis for soil samples collected during the assessment.

U.S. Petroleum Equipment and Environmental Services (U.S. Pertroleum) replaced the piping with flexible piping. Prior to replacement, the product in the piping was drained back to the USTs. U.S. Petroleum then removed the piping and disposed of it on site for recycling where it was rendered useless for all but scrap.

STS inspected the piping excavation on December 1, 1998 for any evidence of a release. Obvious odors and discolored soil were noted in the tank/piping backfill soils. Native soil was not encountered within 3 feet below the piping elevation. The piping excavation backfill was sand and gravel. Groundwater was not observed during pipe replacement activities.

Although a release was obvious based on petroleum odors in backfill soils, soil samples were collected to begin to assess the magnitude and lateral distribution of the release. Five soil samples were collected from the backfill and analyzed for DRO and three soil samples were analyzed for GRO. The soil sample results were compared to the NR720, WAC generic residual contaminant level (RCL) Table 1 value of 100 milligrams per kilogram (mg/kg) for DRO and GRO. All of the backfill samples analyzed contained GRO and DRO concentrations above the generic RCL. GRO concentrations ranged from 481 mg/kg to 777 mg/kg. DRO concentrations ranged from 3,320 mg/kg to 19,500 mg/kg.

A site investigation must be performed in accordance with NR716, WAC to determine the lateral and vertical extent of the contamination in the area of the former piping. A Work Plan for completing the site investigation must be submitted to WDNR.

#### UNDERGROUND STORAGE TANK PIPING REPLACEMENT REPORT WISCONSIN ELECTRIC PLEASANT PRAIRIE POWER PLANT TRACTOR GARAGE REFUELING AREA PLEASANT PRAIRIE, WISCONSIN

#### 1.0 INTRODUCTION

Wisconsin Electric (WE) retained STS Consultants, Ltd. (STS) to perform a site assessment following the replacement of buried piping which connected two underground storage tanks (USTs) to two separate dispenser islands at WE's Pleasant Prairie Power Plant in Pleasant Prairie, Wisconsin. The piping and tanks are used for refueling front end loaders used at the facility. STS prepared this report to document the personnel and companies involved with the project, disposal of the piping, surplus product and sludge, geologic and hydrogeologic conditions, soil sample analytical results, and project conclusions.

#### 2.0 PURPOSE AND SCOPE OF WORK

#### 2.1 Purpose of Work

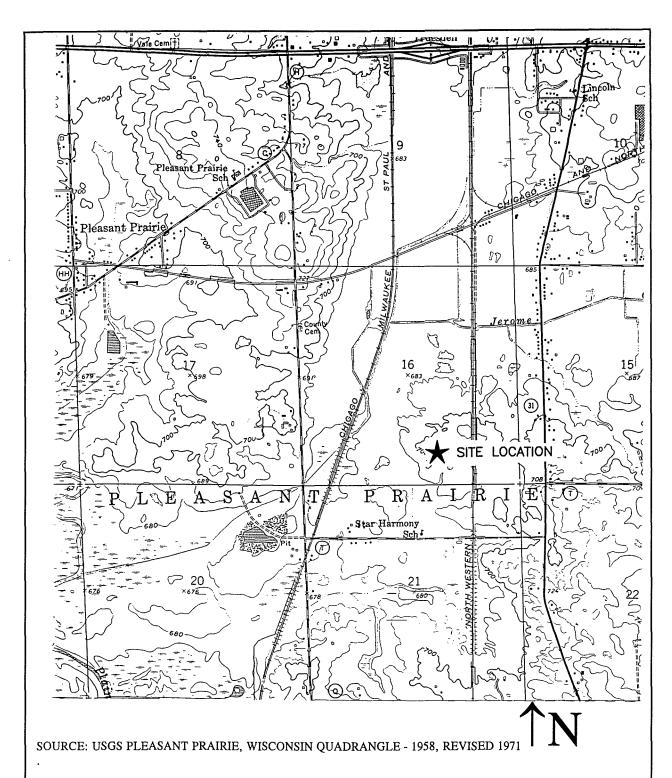
The purpose of the site assessment was to assess soil quality within the piping excavation to determine if diesel range organics (DRO), and in some cases, gasoline range organics (GRO) were released from the piping into the environment.

#### 2.2 Project Team

The contractors and personnel involved with the project are listed in Appendix A.

#### 3.0 SITE LOCATION AND BACKGROUND INFORMATION

The Pleasant Prairie Power Plant is located in a rural area of The Village of Pleasant Prairie. The site is located in the southwest 1/4 of the southeast 1/4 of Section 16, Township 1 North, Range 22 East, Kenosha County, Wisconsin (Figure 1). Specifically, the site is located at 8000 95<sup>th</sup> Street, Pleasant Prairie, Wisconsin.





STS Consultants Ltd Consulting Engineers SITE LOCATION MAP PLEASANT PRAIRIE POWER PLANT 8000 95<sup>TH</sup> STREET PLEASANT PRAIRIE, WISCONSIN

	DRAWN BY: dlm	DATE: 12/12/98
	CHECKED BY: kwy	DATE: 12/12/98
	APPROVED BY: jmt	DATE: 12/12/98
ļ	FILE NO.	SCALE:
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	STS PROJECT NO.	FIGURE NO.
	5-85863XA	1

Wisconsin Electric P4 - Tractor Garage Refueling Area STS Project No. 85863XA January 27, 1999

#### 4.0 PIPING REPLACEMENT PROCEDURES

#### 4.1 Surplus Product Management

Product in the piping runs was drained back into the respective USTs prior to piping replacement activities.

#### 4.2 Piping Replacement

On December 1, 1998, the sections of steel piping were replaced with flexible piping. U.S. Petroleum Equipment and Environmental Services (U.S. Petroleum) personnel broke concrete in the area of the dispensers and excavated approximately three to five feet of soil to access the piping. Piping from the diesel UST extended approximately 6 feet north and connected to a dispenser island (see Figure 2B). Piping from the gasoline UST extended generally 10 feet west, 6 feet north and 5 feet east with associated pipe elbows to a dispenser island. The installation checklist for the new piping installation is included in Appendix B.

#### 4.3 Sludge Management

No sludge was generated from the piping upgrade.

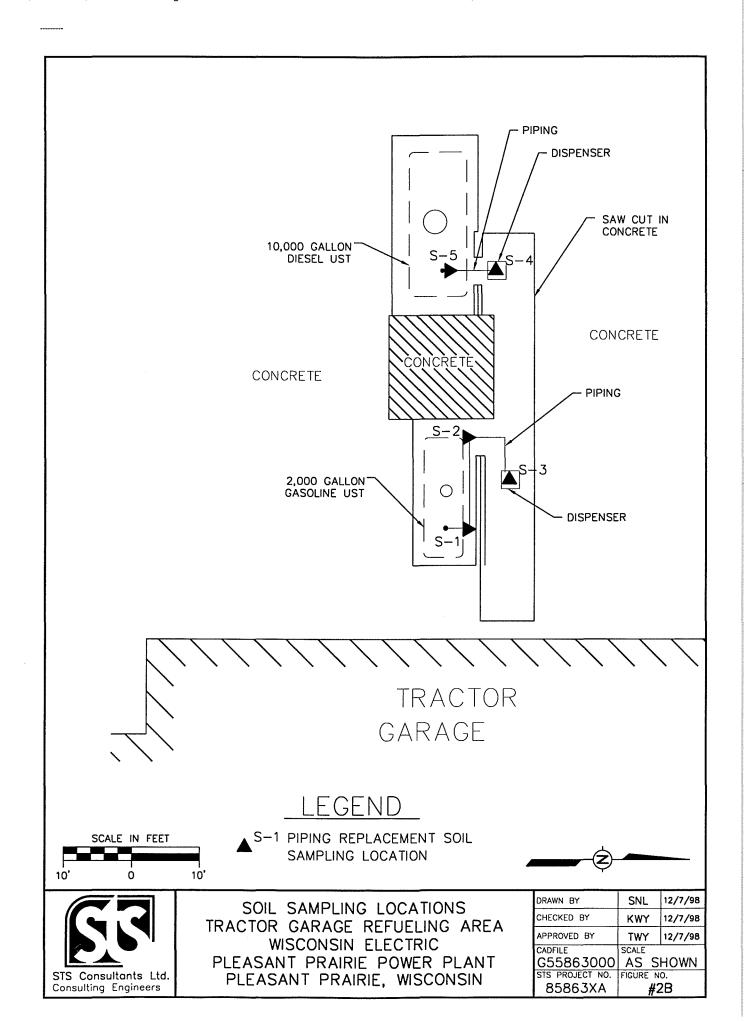
#### 4.4 Piping Disposal

The piping was disposed of by U.S. Petroleum in an on-site recycling container and was rendered useless for all uses but scrap. Approximately 27 feet of piping was replaced.

#### 5.0 FIELD OBSERVATIONS AND SOIL SAMPLING

#### **5.1 Field Observations**

During removal and upgrade activities obvious petroleum odors were noted in the soils from below both the diesel and gasoline piping systems. The piping was observed to be in fair condition with no obvious corrosion or perforations noted. Groundwater was not observed in the excavation during replacement activities. The checklist for piping replacement is included in Appendix B.



Wisconsin Electric P4 - Tractor Garage Refueling Area STS Project No. 85863XA January 27, 1999

Although a release to the backfill was obvious based on petroleum odors noted in backfill soils, soil samples were collected at approximate locations that would be required if there was no obvious signs of contamination. This was done so that WE would have an idea of the magnitude of impacts and have some idea of lateral distribution of impacts. Soil samples from native soil were not accessible given that the piping was in close proximity to the tanks and the tank cavity backfill extended to at least three feet beneath the piping (the maximum depth of the hand auger used to collect the samples). Given this, soil samples were collected from tank/piping backfill material. Samples were collected from approximately three feet below the former piping elevation, 4.5 feet below ground surface, using a stainless steel hand auger.

A Photoionization Detector (PID) was used to screen the soil samples for the presence of volatile organic compounds by means of headspace analysis. The PID was equipped with a 10.6 eV lamp and was calibrated in the field. Prior to headspace analysis, each soil sample was allowed to equilibrate to approximately 70°F and vigorously agitated to break-up large clumps to facilitate vapor release. The PID readings are tabulated on Table 1.

#### 6.0 SOIL SAMPLING LABORATORY RESULTS

The soil samples were transported with a chain-of-custody document to U.S. Filter Analytical laboratory for DRO, and in some cases, GRO analysis. The samples were analyzed using the Wisconsin Department of Natural Resources (WDNR) modified method specified in the "Leaking Underground Storage Tank Analytical and Quality Assurance Guidance Document (PUBL-SW-13093)". The analytical results from the soil samples are listed in Table 1.

The backfill soil sample results were compared to the NR720, WAC generic residual contaminant level (RCL) Table 1 value of 100 milligrams per kilogram (mg/kg) for DRO and GRO. All of the backfill soil samples analyzed contained GRO and DRO concentrations above the generic RCL. GRO was detected in all samples tested for GRO with concentrations ranging from 481 mg/kg to 777 mg/kg. DRO was detected in all samples tested for DRO with concentrations ranging from 3,320 mg/kg to 19,500 mg/kg.

Based on the field observations and soil sample laboratory analysis, a release has occurred to the tank/piping backfill material. WE has reported the release to the WDNR. Copies of the laboratory reports are presented as Appendix C.

# Table 1 Soil Sampling Results - Piping Replacements Tractor Garage Refueling Area Wisconsin Electric - Pleasant Prairie Power Plant STS Project No. 85863XA

Sample No.	S-1	S-2	S-3	S-4	S-5
Sample Depth	4.5 feet below ground surface				
Soil Description	Crushed stone,	Crushed stone,	Crushed stone,	crushed stone	crushed stone
,	some gravel				
Odor?	Petroleum	Petroleum	Petroleum	Petroleum	Petroleum
PID Reading (IU)	620	160	260	160	250
DRO, mg/kg	3,320 (D1, D2A)	3,910 (D1)	6,600 (D1)	12,100 (D1)	19,500 (D1)
GRO, mg/kg	777 (G2, G6)	481 (G3, G6)	777 (G3, G6)	NA	NA

#### NOTES:

- 1. DRO Diesel Range Organics (WI. Modified Method).
- 2. GRO Gasoline Range Organics (WI. Modified Method).
- 3. mg/kg milligrams per kilogram, or parts per million.
- 4. Sample depths shown in feet below ground surface.
- 5. Field PID (IU) Photoionization Detector result. IU Instrument Units, similar to ppm.
- 6. NR 720 RCL = Residual Contaminant Level = 1) the NR 720 Table 1 generic RCL = 100 for DRO
- 7. = NR 720 RCL exceedance
- 8. Samples analyzed by U.S. Filter/Enviroscan laboratory in Rothschild, WI
- 9. See Figure 2 for sampling locations.
- 10. D1-The chromatogram is charateristic for a fuel oil/diesel. (i.e. # 1 or #2 diesel, jet fuel, kerosene, aged or degraded diesel, etc.)
- 11. D2A-The chromatagram is characteristic for a light petroleum product. (I.e. gasoline, aged or degraded gasoline, mineral spirits, etc.)
- 12. G2- The chromatagram has characteristics of an aged gasoline sample.
- 13. G3 The chromatogram is not distinct for either gas or aged gas. It has a reportable concentration of peaks/area within the GRO window.
- 14. G6- The cromatogram contains a significant number of peaks and a raised baseline outside the GRO window.
- 15. NA Not analyzed

Wisconsin Electric P4 - Tractor Garage Refueling Area STS Project No. 85863XA January 27, 1999

#### 7.0 PROJECT SUMMARY

The following summary is based on the observations, activities, and findings of the piping replacement and closure assessment:

- A total of 27 feet of buried steel piping which connected two separate USTs to two separate dispensers was replaced with flexible piping at the tractor garage refueling area at WE's Pleasant Prairie Power Plant.
- Prior to replacement, surplus product was drained from the piping back to the UST.
- No sludge was generated from the piping replacement.
- Groundwater was not observed during the piping replacement activities.
- Physical evidence of a release, including odors, soil discoloration and elevated PID values, were noted in the tank/cavity backfill material.
- STS collected three soil samples for GRO testing and five samples for DRO from the tank/piping backfill to begin evaluating the magnitude and extent of the release.
- DRO was detected in all samples tested for DRO at concentrations ranging from 3,320 mg/kg to 19,500 mg/kg.
- GRO was detected in all samples tested for GRO at concentrations ranging from 481 mg/kg to 777 mg/kg.
- Based on field observations and laboratory testing results, a release has occurred to the tank/piping backfill material.
- WE reported the release to the WDNR.

#### 8.0 RECOMMENDATIONS

A site investigation must be performed in accordance with NR716, WAC to determine the lateral and vertical extent of contamination in the area of the former piping. A Work Plan for completing the site investigation must be submitted to the WDNR.

A copy of this report must be submitted to:

Mr. Michael Farley
Wisconsin Department of Natural Resources
4041 North Richards Street, Box 12436
Milwaukee, Wisconsin 53212-0436

Wisconsin Electric P4 - Tractor Garage Refueling Area STS Project No. 85863XA January 27, 1999

#### 9.0 LIMITATIONS OF INVESTIGATION

This report was prepared under constraints of cost, time, and scope and reflects a limited assessment and evaluation rather than a full, total, complete or extensive assessment and evaluation.

Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by professional consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusions and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of the Property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside of our control.

The interpretations and conclusions contained in this report are based upon the result of independent laboratory tests and analyses intended to detect the presence and/or concentrations of certain chemical constituents in samples taken from the subject property. STS has no control over such testing and analysis and therefore, disclaims any responsibility for any errors and omissions arising therefrom.

This report is issued with the understanding that it is the responsibility of the owner(s) to ensure that the information and recommendations contained herein are brought to the attention of the appropriate regulatory agency(ies).

#### **APPENDICES**

Appendix A - Personnel/Contractor Identification and Certification Appendix B - Piping Replacement Checklist and Installation Form

Appendix C - Laboratory Analytical Reports and Chain-of-Custody Form

#### APPENDIX A

#### Personnel/Contractor Identification and Certifications

Site Assessor -

Mr. David Markelz STS Consultants Ltd. 11425 West Lake Park Drive Milwaukee, WI 53224 (414) 359-3030 Site Owner -

Wisconsin Electric Contact: Ms. Liz Stueck-Mullane 333 West Everett Street Milwaukee, WI 53202 (414) 221-2303

Tank Excavator, Remover and Cleaner -

Certification No. 41465

On-Site DILHR Representative -

Mr. Jeff Wildenburg
U.S. Petroleum Equipment and Env. Services
1425 Commerce Avenue, Unit C
Brookfield, Wisconsin 53045
Telephone: 414-786-8742
Remover Certification No. 42840

Not applicable

Surplus Product -

Sludge Disposal Facility -

Drained back into USTs

Not applicable

Piping Disposal Facility -

Laboratory Services -

Not applicable

U.S. Filter Analytical Laboratory Contact: Ms. Sharon Maltbey 301 West Military Road Rothschild, Wisconsin 54474 Telephone: 800-338-7226 WDNR Certification #737053130

### APPENDIX B

Piping Replacement Checklist and Installation Form

# Complete one form for each site closure.

The information you provide may be used by other government agency programs [Privacy Law, s.15.04 (1)(m)].

#### **CHECKLIST FOR TANK CLOSURE**

CHECK ONE:

UNDERGROUND

ABOVEGROUND

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

#### RETURN COMPLETED CHECKLIST TO:

Wisconsin Department of Commerce ERS Division Bureau of Storage Tank Regulation P.O. Box 7969 Madison, WI 53707

A. IDENTIFICATION:  1. Site Name	(Please Pri	nt) Indicate wheth	ner closure is	s for: Tank Sy 2. Owner Name	/stem 🔲 Tan	k Only	₽	iping On	ly
PLEASANT	PAATRI	E POWER F	DEPORT !		IN ELFC	TOT	CF	OCUE	2
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City	₩ Village	☐ Town	of:	X City □ Vill	lage	of: S	State	Zip Co	de
PLEASAN		IRIE		MILWAL			WI		201
State	Zip Code	County	····	County	Telephon			a code)	<del></del>
WI	5314	A KEN	OSHA	KENOSHA	(414				
3. Closure Company Nar		1/101	Closure Com	pany Street Address				3 310	
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Closure Company Teleph	one No. (includ	e area code)	Closure Com	pany City, State, Zip Co	de	<u> </u>		<del></del>	
(414) 786.						304	5		
4. Name of Company Pe	forming Closur	e Assessment		Company Street Addres					
STS Consu	Itants		11425	W lake Park			و س	= 5322	4
Telephone # (include area	code)	Certified Assessor Nam	ne (print)	Assessor Signature		ssessor			•
(414 )359-3		David Mark	:412	Don't Ma		41	465	•	
Tank ID#	Closure	Temp. Closure	Closure in Pl	lace Tank Capacit	ty Content	s"		re Assess	
1.							Y		] N
2.							Y		] N
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							Y		] N
5.					İ		□ Y	´ [	] N
6.							Y	<u> </u>	J N
* Indicate which produ	ct by numeric	code: 01-Diesel: 02-	Leaded: 03-Ur	nleaded: 04-Fuel Oil:	05-Gasohol: 06-0	Other:		; 10-Pr	emix:
11-Waste Oil; 13-Che							rosene		
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				of closure date					□NA
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	btained befor at right in re	e beginning closure. esponse to all stater		·····			Y over		□NA
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	CLOSURE BY REMOVAL (continued)		over ified	Inspector Verified	NA
1	. Tank labeled in 2" high letters after removal but before being moved from site	□Y	□и		×
4	CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE.			_	
	Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site	□Y			X
	Site security is provided while the excavation is open	Y <u>N</u>	□N □N		
1	CLOSURE IN PLACE	<u> </u>		Ц	
٠, ر	NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF				
	THE DEPARTMENT OF COMMERCE OR LOCAL AGENT.				
1	. Product from piping drained into tank (or other container)	□Y	$\square$ N		×
2	Piping disconnected from tank and removed.		□N	ā	×
. 3	. All liquid and residue removed from tank using explosion proof pumps or hand pumps	□Y	$\square$ N		2
	. All pump motors and suction hoses bonded to tank or otherwise grounded	□У	$\square$ N		NNN
5	Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed	$\Box$ Y	$\square$ N		×
·	NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR - EDUCTOR OUTPUT 12 FT. ABOVE GRADE. Vent lines left connected until tanks purged.	□Y	□N		
	. Tank openings temporarily plugged so vapors exit through vent.				الكم
	Tank atmosphere reduced to 10% of the lower flammable range (LEL) see Section F.	∐Y			区区区
	Tank properly cleaned to remove all sludge and residue.	∐Y	□N		
	). Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled	Η̈́Υ	□N		(A)
	. Vent line disconnected or removed.	ĽΥ			7
	Inventory form filed by owner with the Department of Commerce indicating closure in place	ΠY	□N	H	医医医皮
(	LOSURE ASSESSMENTS				
	NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO ILHR 10.				
1	Individual conducting the assessment has a closure assessment plan (written) which				
	is used as the basis for their work on the site.	⊠Y	$\square$ N		
2	. Do points of obvious contamination exist?	ΪXΙΥ	_	ā	
- 3	. Are there strong odors in the soils?	ΥŒ	□и	ā	
	. Was a field screening instrument used to pre-screen soil sample locations?				
5	. Was a closure assessment omitted because of obvious contamination?	ZY	$\square$ N		
, 6	. Was the DNR notified of suspected or obvious contamination?	∐Υ	$\square$ N		
	Agency, office and person contacted:				
	. Contamination suspected because of: 风Odor ☐Soil Staining ☐Free Product ☐Sheen on Groundwat	er∭X)F	ield Ins	trument Tes	st
F. N	ETHOD OF ACHIEVING 10% LEVEL DESCRIPTION				
	]Eductor Or Diffused Air Blower				
	Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12	teet at	ove gr	ound.	
_	Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.  Dry Ice				
L	Dry Ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over	the are:	atest no	ossible tank	area
	Dry ice evaporated before proceeding.	ano gro	atout p	Josibio tarik	ui cu.
Γ	Inert Gas (CO/2 or N/2) NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE.	THE	TANK N	MAY NOT B	E
, -	ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.		•		
	Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposition.			•	
_	Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing dev	ice gro	unded.		
, L	Tank atmosphere monitored for flammable or combustible vapor levels.  Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. Tank space more	aitorad	at botto	m middle e	nd
	upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) obtained before rem				iiu
G N	OTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW	o tinig to		i giodila.	***************************************
<b>O.</b> 1	OIL OI LOW TO THOUSENING OF MONOGOME ENVIRONMENTAL TOOLS DELOW				
. I. F	EMOVER/CLEANER INFORMATION				
	Tare in agree of the land of the sun			/1 - 2	_9¢
	TEFF WILDENBERG  Remover Name (print)  Remover Signature  Remover Certification N	10		Date Sign	ned
	NSPECTOR INFORMATION			Date Oigi	icu
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ısp	ector Name (print) Inspector Signature	Insp	ector C	ertification N	lo.
יווח	0 # For Location Where Inspection Performed Inspector Telephone Number	Date	Signe	1	
ווע	7 # 1 Of LOCATION VINIGHE INSPECTION I FINANCIAL INSPECTION FEIGURE NUMBER		DE CU	- ECVLICT	

Reg Obj #: 300400 | 58

# UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

Send Completed Form To:
Department of Commerce
Bureau of Storage Tank Regulation
P.O. Box 7837
Madison, WI 53707-7837

STORAGE TANK INVENTORY Madison, WI 53707-7837 Information Required By Section 101.142, Wis. Stats. ம் derground 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 istered this tank by submitting a form? Yes No If yes, are you correcting/updating information only? Yes No rsonal information you provide may be used for secondary purposes. [Privacy Law, s. 15.04 (1)(m)] This registration applies to a tank that is (check one): Fire Department providing fire coverage where tank is located; In Use Closed - Tank Removed Ownership Change (Indicate **Newly Installed** ☐ City. 🔀 Village Closed - Filled with Inert Materials new owner name in block 2) Abandoned with Product Temporary Out of Service - Provide Date: Town of Pleasant Prairie Abandoned without Product (empty) Abandon with Water **IDENTIFICATION (Please Print)** 1. Tank Site Name Site Address Site Telephone Number 800 g County City Tank Owner Name Mailing Address State County Town of: Previous Name Previous site address if different than #1 Site ID #: Facility ID #: Customer ID #: 4. Tank Age (age or date installed): 5. Tank Capacity (gallons): ). LAND OWNER TYPE (check one) ☐ Federal Leased ☐ Federal Owned ☐ County ☐ Municipal Other Government ☐ Private State ☐ Tribal Nation F. OCCUPANCY TYPE (check one) ☐ Bulk Storage Gas/Retail Sales Utility ☐ Mercantile/Commercial Industrial ☐ School ☐ Residential Agricultural ☐ Backup or Emergency Generator Other (Specify:) F. Tank Construction: Cathodic Protection Overfill Protection? Yes ☐ No ☐ Sacrificial Anodes
☐ Impressed Current ☐ Coated Steel Bare Steel
Fiberglass Unknown Spill Containment? ▼ Yes □ No Steel - Fiberglass Reinforced Plastic Composite Impressed Current Tank Double Walled? ☐ Yes 
☐ No Other (specify): □ N/A Lined (Date): G. Primary Tank leak detection method: Automatic tank gauging G ∩ bαr cρ ξ m □ Groundwater monitoring Inventory control and tightness testing Interstitial monitoring Vapor monitoring Manual tank gauging (only for tanks of 1,000 gallons or less) Statistical Inventory Reconciliation (SIR) Unknown **Piping Construction:** Cathodic Protection Vent Coated Steel Pipe Double Walled? Unknown ☐ Bare Steel ☐ Sacrificial Anodes ☐ Fiberglass □N/A ☐ Impressed Current APT Other (specify) □ N/A Primary Piping System Type: Sign Pressurized piping with → A. □ auto shutoff; B. □ alarm or C. I flow restrictor ☐ Unknown Suction piping with check valve at pump and inspectable \* 5 \$ 21 pw \in \text{Not needed if waste oil} Suction piping with check valve at tank J. Piping Leak Detection Method: (used if pressurized or check valve at tank): ▼ Tightness testing ☐ SIR ☐ Electronic line leak monitor □ Vapor monitoring ☐ Interstitial monitoring ☐ Groundwater monitoring ☐ Unknown Vapor Recovery/Stage II CARB #: Other (specify): Flexible Operational - Provide Date (mo/day/yr): TANK CONTENTS (Current, or previous product if tank now empty) ] Diesel Leaded Unleaded Fuel Oil Gasohol Other (Specify): \_ **Empty** ] Sand/Gravel/Slurry\* Unknown\* Premix Waste/Used Motor Oil Chemical Kerosene Aviation ☐ Hazardous Waste\* (Indicate chemical name and number) Geo Latitude: Geo Longitude: If chosen, this tank is NOT PECFA eligible. A. If Tank Closed, Abandoned or Out of Service, give date Has a site assessment been completed (see reverse side for details) (mo/day/yr): Yes No Owner or Operator Name (please print): Indicate whether:

Owner or

**Date Signed** 

Operator

Note: Refer to comments on reverse side of form.

Owner or Operator Signature:

78-7437 (R. 04/98) \* Existing PLD (2+3)

# Reg Obj #: <u>300400 159</u>

# UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

Information Required By Section 101.142, Wis. Stats.

Send Completed Form To:
Department of Commerce
Bureau of Storage Tank Regulation
P.O. Box 7837
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. Personal information you provide may be used for secondary purposes. [Privacy Law, s. 15.04 (1)(m)] This registration applies to a tank that is (check one): Fire Department providing fire ☐ In Use coverage where tank is located: Closed - Tank Removed Ownership Change (Indicate Closed - Filled with Inert Materials ☐ City 🔯 Village Newly Installed new owner name in block 2) Abandoned with Product Temporary Out of Service - Provide Date: Town of Pleasant Prairie Abandoned without Product (empty) Abandon with Water IDENTIFICATION (Please Print) 1. Tank Site Name Site Address Site Telephone Number 800 b <u>asant</u> City Tank Owner Name Mailing Address Telephone Number County Village Town of: State Previous site address if different than #1 Facility ID #: 767 Customer ID #: B. Site ID #: C. 4. Tank Age (age or date installed): 5. Tank Capacity (gallons): D. LAND OWNER TYPE (check one) ☐ County ☐ Private ☐ Federal Leased ☐ Federal Owned ☐ Municipal ☐ Other Government ☐ State ☐ Tribal Nation E. OCCUPANCY TYPE (check one) ☐ Gas/Retail Sales ☐ Bulk Storage **∠**Utility ☐ Mercantile/Commercial ☐ Industrial ☐ School ☐ Residential ☐ Agricultural ☐ Backup or Emergency Generator Other (Specify:) F. Tank Construction: Cathodic Protection Overfill Protection? Yes No ☐ Sacrificial Anodes ☐ Impressed Current ☐ Bare Steel Coated Steel ☐ Unknown Spill Containment? Yes No Fiberglass
Lined (Date): Steel - Fiberglass Reinforced Plastic Composite Tank Double Walled? Yes X No Other (specify): Automatic tank gauging G. I bor co & MC Groundwater monitoring □ N/A G. Primary Tank leak detection method: Interstitial monitoring Inventory control and tightness testing Vapor monitoring Manual tank gauging (only for tanks of 1,000 gallons or less) Statistical Inventory Reconciliation (SIR) Unknown Cathodic Protection H. Piping Construction: # // Ven †
Coated Steel Pipe Double Walled? Unknown ☐ Sacrificial Anodes Bare Steel Impressed Current ☐ Fiberglass Flexible □N/A APT Other (specify) □ N/A I. Primary Piping System Type: Sign Pressurized piping with → A. ☐ auto shutoff; B. ☐ alarm or C. ☐ flow restrictor Unknown ☐ Suction piping with check valve at tank Suction piping with check valve at pump and inspectable \* Spinul Not needed if waste oil ☐ Tightness testing☐ Not required 교사 3 ☐ Electronic line leak monitor J. Piping Leak Detection Method: (used if pressurized or check valve at tank): SIR Unknown □ Vapor monitoring ☐ Interstitial monitoring Not required Groundwater monitoring K. Vapor Recovery/Stage II CARB #: Other (specify): ☐ Flexible Operational - Provide Date (mo/day/yr): TANK CONTENTS (Current, or previous product if tank now empty) Diesel Fuel Oil Leaded Unleaded ☐ Gasohol Other (Specify): \_ Sand/Gravel/Slurry\* Unknown\* Premix **Empty** Waste/Used Motor Oil Chemical Kerosene ☐ Aviation Hazardous Waste\* (Indicate chemical name and number) Geo Latitude: Geo Longitude: \* If chosen, this tank is NOT PECFA eligible. M. If Tank Closed, Abandoned or Out of Service, give date Has a site assessment been completed (see reverse side for details) (mo/day/yr): ☐ Yes ☐ No Owner or Operator Name (please print): Indicate whether: Owner or Operator Owner or Operator Signature: **Date Signed** 

Note: Refer to comments on reverse side of form.

-RS-7437 (R. 04/98) \*\* Existing PLD (2+3)

# <u>u</u> 22585

# CHECKLIST FOR UNDERGROUND TANK INSTALLATION

**Return Completed Checklist To:** 

	Wisconsin De	∍partmen	t of Comr	nerce	
	j#: For Office Use Only Complete one form for each ERS Division				
300	400 110 D tank and related piping. Bureau of Sto	orage Tar	nk Regula	ation	
	The information you provide may be used for P. O. Box 78		•		
This c	hecklist covers secondary purposes [Privacy Law, s.15.04(1)(m)]. Madison, WI	53707-7	837		
	ation of:				
motan	Leak Detection; Corrosion Protection; Automated Fueling (ke			1 :-:-	
		y-caru-c	oue), [	LININ	g
	NTIFICATION: (Please Print)				,
Di Insta	allation Name 2. Owner Name		0		
PIEO	sant Prairie Power Plant Wisconsin Elect	V.C	Powe	, C	
Installati	on Street Address (not P.O. Box) Owner Street Address 333 W. EVERT	11	54		
	333 W. Everes		$\frac{\mathcal{O}T}{\mathcal{I}}$	p Code	
City	Pleasant Prairie Town of: Pkcity Village Town of			アマゴ	
State	Pleasant Prairie Dillage Town of: Wayket Telephone		e area code	201	01
Otate	WI 53143 Kenosha Milwawkee 414		7-53		
3 Install	ation Company Name (print) Installation Company Street Address	State		c Code	
	S. Petroleum Egwip 1425 Commerce Ave, Unit (		+	3384	15
Compan	y Telephone No. (include area code)   Certified Installer Name	Insta	aller Certific	ation No	$\stackrel{\cdot}{\sim}$
(4)-		"""		4	••
<u>`                                    </u>	1 / V W / D F / B	Inst	aller Ins	pector	NA
B. PLA	N APPROVAL	Veri		erified	
1.	Plans have been submitted and approved		$\mathbf{X}$	VY -	
2.	State plan number/LPO plan number is:	-	* C		
3.	Tank Capacity: 10006 quest gallons. Tank contents, if known: Deser				
C. TAI	NK CONSTRUCTION				
1.	Tank is new and carries UL or other national testing label				
2.	Tank is used, but has been recertified to meet the EPA new tank standard				<b>8</b>
3.	Tank is corrosion protected (☐ cathodically protected steel, ☑ fiberglass or ☐ composite tank) at	nd			
	matches the equipment listed in the plan review.				
4.	Test stations have been installed for monitoring cathodic protection on the tank	[			T
5.	Gasoline and other Class I flammable tank vents discharge at least 12 feet above ground	ſ	_	_	-
	level, discharge only upward, and do not terminate under eaves or near a building opening	[		Ц	X
6.	Fuel oil, diesel or other Class II or III A liquid storage tank vents are at least 4 feet above	•	- /	Á.	
	ground level.				님
7.	Overfill protection device is installed and matches plan submittal.				H
8.	Spill containment device installed.		<del>\</del> (	we-	<u> </u>
	NK HANDLING AND TESTING  Tank was lifted using lifting lugs, no chains or slings were placed around the tank shell	ı	_		<b>\</b>
1.	Tank was littled using litting lugs, no chains of slings were placed around the tank shell		=	H	四
2. 3.	Preinstallation test of single wall tank conducted by pressurizing tank with 3-5 psi air	[	:	느	تعن
J.	pressure, soaping all surfaces, seams, and fittings and inspecting for bubbles	Г	7		中
	or			_	-
Pre	installation test of double-walled tank: pressurize inner tank to a maximum of 5 psi, seal inner				
	tank and disconnect external air supply, monitor for one hour. After one hour, pressurize the				
	interstitial space with a maximum 5 psi air from the inner tank and use a second gauge for				14
	monitoring the pressure. Soap all surfaces, seams and fittings and inspect for bubbles		] !		
4.	Tank tested after backfilling through precision test, approved tank gauge or interstitial monitor				
5.	Tank gauge or interstitial monitor verified as operative.			<u> </u>	Z
E. TA	NK SITE AND BACKFILL		<u> </u>	<b>~</b> //	_
1.	Tank located a minimum of 3 feet from property lines and 1 foot from buildings			2	닏
2.	Tank is spaced a minimum of 2 feet from any other tank.		<b>9</b>	æ	Ш
3.	Backfill for steel or fiberglass clad steel tank is clean, washed, well granulated sand,	. ,		W.	
4	crushed rock, or pea gravel no larger than 3/4 inch.	····· }			Ш
4.	Backfill for fiberglass tank is pea gravel naturally round with minimum diameter of 1/8 inch and maximum size of 3/4 inch or crushed rock or gravel between 1/8 and 1/2 inch in size			700	
5.	Minimum of 1 foot of backfill extended beyond perimeter of tank.	······ \$		72	H
6.	Minimum of 1 foot of backfill extended beyond permitted of tank.  Minimum of 1 foot of compacted backfill in bottom of excavation. (If hold down pads			~ ~	
٠.	are used, bedding may be reduced to 6 inches.)	r	X C	4	
7.	Bottom hold down pads used.				
	a. Fiberglass tank with 1 foot of compacted backfill over top of pad	f	<b>77</b> ( )		
	b. Steel tank with 6 inches of compacted backfill over top of pad.				
8.	Backfill material placed over tank to a depth of at least 1 foot.		<u>র</u>		

TANK SITE AND BACKFILL (continued)	Installer Verified	Inspector Verified	NΑ
9. Backfill compaction is adequate to securely and evenly support the tank and prevent	. ≱⁄1	(W	_
movement/settlement	•	Cia	
the migration of the backfill material.  11. Tank in area of vehicle traffic, 3 feet of earth cover or 18 inches of earth plus 6 inches	. 🗆		X.
of reinforced concrete or 8 inches of asphalt.	· <b>/2</b> 0	RE .	
12. Tank in area not subject to traffic, a minimum of 2 feet of earth or 1 foot of earth plus 4 inches of reinforced concrete or 6 inches of asphalt.	. 🔯	DK.	
F. TANK ANCHORAGE			
1. Installation is in an area of high water table or subject to flooding and tank is anchored	. 🗆		A
Anchor straps for fiberglass tank were nonmetallic and were placed according to     manufacturer's specifications	. п	П	X
<ul> <li>b. Anchor straps for steel tank were either nonmetallic or electrically isolated from the</li> </ul>		_	
tank structure. (All metal fittings are protected from corrosion.)		H	
G. PIPING (Indicate whether piping isFiberglass;Steel; or XFlexible; then check one of the types be		re	NEI
proceeding to answer 1-15).			
Pipe installation is vapor recovery pipe only.			
Pressurized piping with auto shutoff, alarm or flow restrictor.  Suction piping with check valve at tank suction piping with check valve at pump and inspectable.		$\bigcirc$	
Suction piping with check valve at tank.  1. Piping is sloped back to tank (1/8 inch per foot).	. IXI	1319	П
1. Piping is sloped back to tank (1/8 inch per foot). 2. Piping is evenly and adequately supported by at least 6 inches of backfill bedding. 3. Piping trench provides at least 18 inches of compacted backfill and paving on top of piping. 4. Pipes are separated by at least twice the pipe diameter. 5. Pipes are separated from the trench excavation sidewalls by at least 6 inches. 6. Piping inspected for damage to pipe or coating.		Was a	
3. Piping trench provides at least 18 inches of compacted backfill and paving on top of piping	. 🔯	CZAŁ	
4. Pipes are separated by at least twice the pipe diameter.	· 🔯	TO TO	H
Pipes are separated from the trench excavation sidewalls by at least 6 inches.     Piping inspected for damage to pipe or coating.		786	H
7. Metal piping is at least schedule 40 black steel or galvanized pipe, and is wrapped or coated	. Ц		P
8. Fittings and couplings are extra-heavy malleable iron screw-type, Schedule 40 or better	. <b></b>	RIC.	
<ol><li>Piping was isolated from the tank and dispenser and tested at 150% of operating pressure of the system (but not less that 50 psi) for 1 hour prior to and after backfilling.</li></ol>	. 🔯	The -	
10. Secondary containment piping was tested for tightness before it was covered, enclosed	. फ	<u> </u>	ш
or placed in use. For rigid secondary piping test at 10 psi	. 🛛	(E)	
	· 2	Car	Ш
11. After backfilling, piping was isolated from the tank and dispenser and precision tested at 110% of operating pressure but not less than 50 psi for 1 hour.	. 180	THE STATE OF THE S	П
12. Piping was isolated from the tank and dispenser and tested through another approved	٠.	_	_
means prior to and after backfilling. Indicate method(s) prior	. 📙		X
after	· H	H	$\mathcal{K}$
14. Test stations have been installed for monitoring cathodic protection on piping.		H '	凶
15. Flexible connectors are used at the top of tank, between tank and vent pipe, below the dispenser	Λ	-01	_
and also where less than 4 feet of run exists between changes in direction with fiberglass piping			ш
metallic piping.	. 121	100	
H. PRIMARY LEAK DETECTION (Check which applies under both TANK and PIPING)			_=
1. Tank	_		
		ater monito	oring
☐ Interstitial monitoring ☐ Manual tank gauging (only for tanks of 1,000 gallons or 2. Piping (pressurized or suction with check valve at tank) Pipe installation is: ☐ single wall, ☑ double walle	ess)		
☐ Tightness testing ☐ Automatic line leak detectors	□ Vap	or monitorir	ng
☐ Groundwater monitoring ☐ Interstitial monitoring			
I. INSPECTOR INFORMATION			
Inspection Dates: 10-3-98 11-16-98			
	perator #:	500	
Date Signed: #-16-98 Fire department providing coverage: Flasant Prairie F	DID#:	0042	
J. INSTALLER CERTIFICATION			
I certify that the tank and related piging was installed according to the manufacturers' instructions and comply with	one of the	•	
following standards:  API 1615, PEI RP100 or ANSI B31.4.	1 6	~	
Installer Signature: Date Signed:	116/	18	
TANK INVENTORY FORM ERS-7437 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH INSTALL	TION CH	ECKLIST.	
·			

## U 23481

#### **CHECKLIST FOR UNDERGROUND** TANK INSTALLATION

Reg Obj #: For Office Use Only	
300400 158	

Complete one form for each

tank and related piping.

The information you provide may be used for

**Return Completed Checklist To:** Wisconsin Department of Commerce

**ERS Division** 

Bureau of Storage Tank Regulation P. O. Box 7837

	purposes [Privacy Law, s.15.04(1)(m)]. Madison, WI 5			
<u>—</u>	Vapor Recovery; ⊠ Spill Containment; ⊠ Overfil		•	
	Corrosion Protection: Automated Fueling (key	-card-code)	, : 🏻 Lini:	na
A. IDENTIFICATION: (Please Print)				
. 1. Installation Name	2. Owner Name	^	. 0	
leasant Prairie Power Plant	Wisconsin Electr	ic Pou	Jer P	lan
Installation Street Address (not P.O. Box)	Owner Street Address			
8000 95+4 St	333 W. Everett S	<u> </u>		
	wn of: City Village Town of:	State W T	Zip Code	
TICASAIT FAIR O	Milwankee	, -	1532°	<u>o I</u>
State WI Zip Code County		o. (include area		
3. Installation Company Name (print)	nosha Milwawkee (414) Installation Company Street Address	State	Zip Code	
U.S. Petroleum Equip	1425 Commerce Ave, C	WI	530	
Company Telephone No. (include area code)	Certified Installer Name		ertification N	
(414)7868742	MEFF WILDENBERG	42	1840	
		Installer	Inspector	NΑ
B. PLAN APPROVAL		Verified	Verified	
- •		Ø		
<ol><li>State plan number/LPO plan number is: _</li></ol>	183895			
3. Tank Capacity: 1,0∞	gallons. Tank contents, if known:UNLEADED			
C. TANK CONSTRUCTION		_		<del></del> .
Tank is new and carries UL or other nation	nal testing label	······	님	
2. Tank is used, but has been recertified to n	neet the EPA new tank standard.	····· 🗆	LJ	X
	lly protected steel, 🔀 fiberglass or 🔲 composite tank) and		<u></u>	
	eview.		H	XX XX
	toring cathodic protection on the tank.	Ц	Ц	<b>420</b> 0
	k vents discharge at least 12 feet above ground erminate under eaves or near a building opening	🗷	$\Box$ $\tilde{c}$	TU
	uid storage tank vents are at least 4 feet above	🔼	ш -	. <del>M</del>
			П	X
	natches plan submittal		П	
D. TANK HANDLING AND TESTING				
	s or slings were placed around the tank shell			
	age to the coating repaired			
3. Preinstallation test of single wall tank cond				-
pressure, soaping all surfaces, seams, an	d fittings and inspecting for bubbles			X
	or			
	ssurize inner tank to a maximum of 5 psi, seal inner			
	nonitor for one hour. After one hour, pressurize the			
	from the inner tank and use a second gauge for			ΙS
	s, seams and fittings and inspect for bubblession test, approved tank gauge or interstitial monitor		H	
	as operative.		· H	XIXX XIXX
E. TANK SITE AND BACKFILL	20 0 0 0 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2			_=
	operty lines and 1 foot from buildings	П	П	<b>X</b>
	any other tank		Ħ	Z X
3. Backfill for steel or fiberglass clad steel ta				<i>_</i> _
	3/4 inch			X
<ol> <li>Backfill for fiberglass tank is pea gravel na</li> </ol>	aturally round with minimum diameter of 1/8 inch and		_	•
	or gravel between 1/8 and 1/2 inch in size			区区
	ond perimeter of tank			M
6. Minimum of 1 foot of compacted backfill in				
	ches.)		H	
	d basisii aasaa af aad			
	ed backfill over top of pad		H	会
	backfill over top of padthe of at least 1 foot		H	
o. Dackilli materiai piaceu over tarik to a uep	ui vi at icast i liult			<b>-</b>

•	TANK SITE AND BACKFILL (continued)	Installer Verified	Inspector Verified	NA
	Backfill compaction is adequate to securely and evenly support the tank and prevent movement/settlement.			×
	Excavation is in a bog, swampy area or landfill and a filter fabric was used to prevent the migration of the backfill material.			Z Z
	11. Tank in area of vehicle traffic, 3 feet of earth cover or 18 inches of earth plus 6 inches			
	of reinforced concrete or 8 inches of asphalt.  12. Tank in area not subject to traffic, a minimum of 2 feet of earth or 1 foot of earth plus 4			Z —
_	inches of reinforced concrete or 6 inches of asphalt  F. TANK ANCHORAGE	🗆		X
	1. Installation is in an area of high water table or subject to flooding and tank is anchored	🗆 ,		×
	Anchor straps for fiberglass tank were nonmetallic and were placed according to manufacturer's specifications.			X
	b. Anchor straps for steel tank were either nonmetallic or electrically isolated from the tank structure. (All metal fittings are protected from corrosion.)	🗆		×
_	c. Mid anchoring with non conductive material between tank and concrete			XX
	proceeding to answer 1-15).    Pipe installation is vapor recovery pipe only.   Pressurized piping with   auto shutoff,   alarm or   flow restrictor.   Suction piping with check valve at tank.   Suction piping with check valve at pump and inspectable.  1. Piping is sloped back to tank (1/8 inch per foot)			
	16. Dispensers, pumps, check valves, etc., not cathodically protected are electrically isolated from metallic piping.			×
	H. PRIMARY LEAK DETECTION (Check which applies under both TANK and PIPING)  1. Tank	☐ Groundw or less) lled.	vater monito	oring
	Inspection Dates:			
i	inspector Signature: Inspector #: Local	Operator #:		
_	Date Signed: Fire department providing coverage:	FDID #:		
	J. INSTALLER CERTIFICATION    certify that the tank and related piping was installed according to the manufacturers' instructions and comply wit following standards:     API 1615,   PEI RP100 or   ANSI B31.4.    Date Signed:   Date Signed:   ANSI B41	1-3-98	>	

### APPENDIX C

Laboratory Analytical Reports and Chain-of-Custody Form



ENVIROSCAN SERVICES 301 WEST MILITARY ROAD ROTHSCHILD, WI 54474 TELEPHONE 715-359-7226 FACSIMILE 715-355-3221

December 16, 1998

STS Consultants Ltd. 11425 W. Lake Park Dr. Milwaukee, WI 53224

P4

Tractor Garage

Attn: Ken Yass

Re: 85863XA

Please find enclosed the analytical results for the samples received December 3, 1998.

The chain of custody document is enclosed.

If you have any questions about the results, please call. Thank you for using US Filter/Enviroscan for your analytical needs.

Sincerely,

US Filter/Enviroscan

ominie Br

Dominic J. Bush

Senior Analytical Chemist



STS Consultants Ltd. 11425 W. Lake Park Dr. Milwaukee, WI 53224

CUST NUMBER: 85863XA SAMPLED BY: Client DATE REC'D: 12/03/98 REPORT DATE: 12/16/98

PREPARED BY: DJB
REVIEWED BY: KW

Attn: Ken Yass

	Units	Reporting Limit	S-1 12/01/98	<u>Qualifier</u> s	Date Analyzed	Ву
MOSA21-2 Total Solids	%	-	91.5		12/10/98	LMW
WI DNR Soil Diesel Range Organic Soil Org Ext - DRO Soil Gasoline Range Organ		550. - 55.	3,320. COMP 777.	D2A D1 G2 G6	12/09/98 12/07/98 12/11/98	DJB CKV LMP
Analytical No.:			57174			
	Units	Reporting Limit	S-2 12/01/98	Qualifiers	Date Analyzed	Ву
MOSA21-2 Total Solids	%	-	93.4		12/10/98	LMW
<u>WI DNR</u> Soil Diesel Range Organion Soil Org Ext - DRO Soil Gasoline Range Organ		550. - 55.	3,910. COMP 481.	D1 G3 G6	12/09/98 12/07/98 12/14/98	DJB CKV LMP
Analytical No.:			57175			
	Units	Reporting Limit	S-3 12/01/98	<u> Qualifier</u> s	Date Analyzed	Ву
MOSA21-2 Total Solids	%	-	92.1		12/10/98	LMW
WI DNR Soil Diesel Range Organio Soil Org Ext - DRO Soil Gasoline Range Organ		1,000. - 30.	6,600. COMP 777.	D1 G3 G6	12/09/98 12/07/98 12/12/98	DJB CKV LMP
Analytical No.:			57176			
	Units	Reporting <u>Limit</u>	S-4 12/01/98	<u>Qualifier</u> s	Date Analyzed	Ву
MOSA21-2 Total Solids	ફ	-	93.7		12/10/98	LMW
<u>WI DNR</u> Soil Diesel Range Organio Soil Org Ext - DRO	cs mg/kg	1,500.	12,100. COMP	D1	12/09/98 12/07/98	DJB CKV
Analytical No.:			57177			

Results calculated on a dry weight basis.



STS Consultants Ltd. 11425 W. Lake Park Dr. Milwaukee, WI 53224 CUST NUMBER: 85863XA SAMPLED BY: Client DATE REC'D: 12/03/98 REPORT DATE: 12/16/98

PREPARED BY: DJB REVIEWED BY:

Attn: Ken Yass

	Units	Reporting Limit	S-5 12/01/98	<u>Qualifier</u> s	Date Analyzed	Ву
MOSA21-2 Total Solids	왕	-	89.6		12/10/98	LMW
WI DNR Soil Diesel Range Organic Soil Org Ext - DRO	s mg/kg	4,000.	19,500. COMP	D1	12/09/98 12/07/98	DJB CKV
Analytical No.:			57178			

Results calculated on a dry weight basis.



STS Consultants Ltd. 11425 W. Lake Park Dr. Milwaukee, WI 53224 CUST NUMBER: 85863XA SAMPLED BY: Client DATE REC'D: 12/03/98 REPORT DATE: 12/16/98

PREPARED BY: DJB REVIEWED BY: Ha

Attn: Ken Yass

#### Qualifier Descriptions

D2A	The chromatogram is characteristic for a light petroleum product. (i.e. gasoline, aged or degraded gasoline, mineral spirits, etc.)
D1	The chromatogram is characteristic for a fuel oil/diesel. (i.e. #1 or #2 Diesel, jet fuel, kerosene, aged or degraded diesel, etc.)
G2	The chromatogram has characteristics of an aged gasoline sample.
G6	The chromatogram contains a significant number of peaks and a raised baseline outside the GRO window.
G3	The chromatogram in not characteristic for either gas or aged gas. It has a reportable concentration of peaks/area within the GRO window.

# CHAIN OF CUSTODY RECORD

Nº 24992



									Sp	ecial	Handling Request	REC	ORD NUMBER	THROUGH _
Contact Person	Ker	Yo	22						- F			Laboratory	1. S. FIL-	le,
Phone No. (414) 3	59-	3030	Of	fice	milw	au	Ke		1	[	☐ Rush	Contact Person		
Project No 95	863	$A \times S$	P	O No	•				1	-	☐ Verbal	4		
Project Name	PI	<u>eas</u>	in	7	pairie	60,	WA	r plan	4_	[	☐ Other	Phone No Results Due	STD	
		, - ,			· 				3000					
Sample I.D.	Date	Time	Grab	Composite	Sample Type (Water, soil, air, sludge, etc.)	<u> </u>	Z Preservation	PID/FID	Data	Special Cond.		s Request		ments on Sample Major Contaminants)
<b>18</b> -1	12/1	13:15		3	3 50.1	×	X				GRO	, DRO	21057	174
養-2		13:20			<b>3</b> 50.1	メ	X -				Gpo	DRO	21057	175
<b>26</b> -3		13.22			3 501	X	(k)				GRO	DRU	210571	76
4		13.3.5	5		2 Soil		X				DRU		210571	[77]
<b>3</b> 5	V	13,40			2 5011		メ				DRO		210571	178
Collected by: $\mathcal{D}_{0}$	m!9	m	~K	212	Date 2	119	8)	Tir	ne Pr	~	Delivery by:		Date	Time
Received by:					Date			Tir	ne		Relinquished by	:	Date	Time
Received by:					Date			Tir	ne		Relinquished by	<i>:</i>	Date	Time
Received by:					Date			Tir	ne		Relinquished by	r:	Date	Time
Received for lab b	у: 🕜	7	,	X,	Date /2	-3	98	→ Tir	ne 8	: 43	Relinquished by	<i>!</i> :	Date	Time
_aboratory Comn	nents	Only:							es 🗆	l No	□ N/A Que	cewel on 1	Le.	
inal Disposition:												eather Conditions, Preca	utions, Hazards):	stsm.1
											Same	les on ice		6662
											1 200,00			210753
														ت ت ا



#### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Southeast Region Headquarters 2300 N. Dr. Martin Luther King, Jr. Drive PO Box 12436 Milwaukee, Wisconsin 53212-0436 Telephone 414-263-8500 FAX 414-263-8606 TDD 414-263-8713

January 15, 1999

BRRTS#: 03-30-210485 Facility ID#: 230006260

BRR/LUST

LIZ STUECK-MULLANE WI ELECTRIC POWER CO 333 W EVERETT ST **MILWAUKEE WI 53203** 

Reported Contamination at Pleasant Prairie Power Plant, 8000 95th St., Kenosha SUBJECT:

Dear Ms. Stueck-Mullane:

On 12-29-98 you informed the Department that leaded gasoline and diesel fuel which leaked from underground storage systems caused soil contamination at the subject location.

Based on the information submitted to the Wisconsin Department of Natural Resources (WDNR), we believe you are responsible for restoring the environment at the referenced site under Section 292, Wisconsin Stats., known as the hazardous substances spills law. Utilizing information submitted to the Department, this case has been assigned an unknown ranking due to the lack of information concerning soil and groundwater contamination.

#### WDNR Southeast Region Prioritization and Scoring Policy

Due to the WDNR workload, it is necessary to rank all contamination cases for review priority. Lower priority cases do not have assigned project managers, however, responsible parties are required to proceed with investigation and clean-up efforts. Until a priority has been assigned to this site, you should proceed with the required response work, submitting all plans and reports, along with status reports, to this office. The WDNR will notify you if your site will receive active oversight.

Your responsibilities include investigating the extent of the contamination and then selecting and implementing the most appropriate remedial action. Enclosed is information to help you understand what you need to do to ensure your compliance with the spills law.

The purpose of this letter is threefold: 1) to describe your legal responsibilities, 2) to explain what you need to do to investigate and clean up the contamination, and 3) to provide you with information about cleanups, environmental consultants, possible financial assistance, and working cooperatively with the Department of Natural Resources.

#### Legal Responsibilities:

Your legal responsibilities are defined both in statute and in administrative codes. The hazardous substances spill law, Section 292.11 (3) Wisconsin Statutes, states:



\* RESPONSIBILITY. A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wisconsin Administrative Codes chapters NR 700 through NR 728 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. Chapter NR 708 includes provisions for immediate actions in response to limited contamination. Wisconsin Administrative Code chapter NR 140 establishes groundwater standards for contaminants that reach groundwater.

#### Steps to Take:

The longer contamination is left in the environment the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and neighboring properties and reduce your costs in investigating and cleaning up the contamination. To ensure that your cleanup complies with Wisconsin's laws and administrative codes, you should hire a professional environmental consultant who understands what needs to be done. These are the first four steps to take:

- 1. By 3-1-99, please submit <u>written</u> verification (such as a letter from the consultant) that you have hired an environmental consultant. You will need to work quickly to meet this timeline.
- 2. By 4-12-99, your consultant must submit a workplan and schedule for the investigation. The consultant must follow the DNR administrative codes and technical guidance documents. Please include with your workplan a copy of any previous information that has been completed (such as an underground tank removal report or a preliminary excavation report).
- 3. Please inform DNR of what is being done at your site. Submittal requirement timelines depend on the contaminants at the site. As described in s. NR 700.11, if the site meets criteria for a "simple site", progress reports must be submitted semi-annually, beginning 6 months from the initial notification date. If the site meets criteria for a "complex site", the site investigation report and a draft remedial options report must be submitted to DNR within 30 days of completion of both reports. Your consultant must clearly document the extent and degree of soil and groundwater contamination and submit a proposal for cleaning it up.
- 4. For complex sites, per s. NR 724.13(3), you or your consultant must provide a <u>brief</u> report at least every 90 days, starting after the remediation system begins operation. The reports should summarize the work completed since the last report. Quarterly reports need only include one or two pages of text, plus any relevant maps and tables. However, should conditions at your site warrant, we may require more frequent contacts with the Department.

Due to the number of contaminated sites and our staffing levels in DNR's Southeast Region, we will be unable to provide workplan approvals for investigations or remedial actions. To maintain your compliance with the spills law and chs. NR 700 through NR 728, do not delay the investigation and cleanup of your site by waiting for DNR response. We have provided detailed technical guidance to environmental consultants. Your consultant is expected to know our technical procedures and administrative codes and should be able to answer your questions on meeting cleanup requirements.

Your correspondence and reports regarding this site should be sent to:

Michael Farley, BRR Program Assistant Wisconsin Department of Natural Resources Box 12436 Milwaukee WI 53212 Unless otherwise requested, please send only one copy of plans and reports. To speed processing, correspondence should reference the BRRTS and FID numbers shown at the top of this letter.

#### **Information for Site Owners:**

Enclosed is a list of environmental consultants and some tips on selecting one. If you are eligible for reimbursement of costs under Wisconsin's PECFA program (see last paragraph) you will need to compare at least three consultants' proposals before hiring a consultant. Consultants and laboratories working in the PECFA program are required to carry errors and omissions insurance to help protect you against unsuitable work. Also enclosed are materials on controlling costs, understanding the cleanup process, and choosing a site cleanup method. Please read this information carefully.

If you are interested in obtaining the protection of limited liability under s. 292, Stats., please call 1-800-367-6076 in DNR's Madison office for more information. The liability exemption under s. 292 Stats., is available to persons who meet the definition of "purchaser" in s. 292 and receive DNR approval for the response actions taken at the property undergoing cleanup. DNR will determine eligibility for this program on a case-by-case basis, prior to the "purchaser" developing a scope of work for conducting a ch. NR 716 site investigation.

#### **Financial Information:**

Reimbursement from the Petroleum Environmental Cleanup Fund (PECFA) is available for the costs of cleaning up contamination from eligible petroleum storage tanks. The fund is administered by the Department of Commerce (Commerce). Please contact DILHR at (608) 266-2424 for more information on eligibility and regulations for this program.

Thank you for your cooperation.

Sincerely,

Michael G. Farley Program Assistant 414-263-8680 Department of Natural Resources

Type of Case: LUST ERP\_

#### BRRTS CASE TRACKING FORM

SER Form #1

May 20, 1998

ACTIVITY NO.: 03-30-210485	FID NO.: 230006 260
County: Site Name: Pleasant Province Payer Plant Address:	Initial Contact Date: Send RP Letter? Y N Date Mailed: //5199 Closure Date:
Municipality:	Person/Firm Reporting:
PRIORITY:  High  Medium  Low  EF  Unknown  SF  None  Other (describe below)  FEDERALLY FUNDED?  Y N EPA Emergency Response  Abandoned Containers  LUST  NR 600 Hazardous Waste  Superfund	
RESPONSIBLE PARTY is aCompany or aPerson Company Name: Contact Person: Address:  Phone: CC:	CONSULTANT: Company Name: Contact Name: Address:  Phone: CC: (EG: lab)
IMPACTS: (enter P for potential, K for known)  Fire/Explosion Threat Contaminated Private Well(s) No. of Wells Contaminated Public Well Groundwater Contamination Soil Contamination Surface Water Impacts Free Product Storm Sewer Contam Sanitary Sewer Contam Air Contamination Direct Contact Concrete/Asphalt Contained/Recovered Other:	SUBSTANCES: #Tanks/containers Size Leaded Gas Unleaded Gas Unleaded Gas Unknown Hydrocbn Unknown Hydrocbn Waste Oil Metals RCRA Haz. Waste VOCs Chlorinated Solvent PCBs Foundry Sand Misc. Fill Pesticides Leachate PAHs/SVOCs Oil & Grease Other

5.	Impacts to the environment (enter "K" for known/confirmed or "P" for potential for all that apply):
	Fire/explosion threatSoil contamination
	Contaminated private wells (# of wells) Surface water impacts
	Contaminated public wells  Groundwater contamination  Other
6.	Contamination was discovered as a result of:
	Tank closure assessment Site assessment (other)
	On what date: $12 22 98$
Add	itional Comments:
	Tanks have been upgraded to meet fed. standards.
ı	Piping was removed and replaced. Soil samples are
	from the site asses closure assessment of the piping
	trom the straining
,	I received the analytical today because I was out
	Of the office.
	2 fanks - IK gasdine
	lox diesel
,	- 000001

#### FAX numbers to report leaking tank sites in DNR's five regions are as follows:

Northeast Region (920-492-5859)

Underground Tanks: Attention - Janis DeBrock

Aboveground Tanks: Attention - Roxanne Chronert

Brown, Calumet, Door, Fond du Lac (except City of Waupun - see South Central Region), Green Lake, Kewaunce, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Waupaca, Waushara, Winnebago Counties

Northern Region (715-365-8932); Attention - Janet Kazda:

Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn Counties

South Central Region (608-275-3338); Attention - Marilyn Jahnke:

Columbia, Crawford, Dane, Dodge, Fond du Lac (City of Waupun only), Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk Counties

Southeast Region (414-229-0810); Attention - Mike Farley:

Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, Waukesha Counties West Central Region (715-839-6076); Attention - John Grump:

Table 1
Soil Sampling Results - Piping Replacements
Tractor Garage Refueling Area
Wisconsin Electric - Pleasant Prairie Power Plant
STS Project No. 85863XA

Sample No.	S-1	\$-2	S-3	S- <del>4</del>	S-5
Sample Depth Soil Description	4.5 feet below ground surface Crushed stone, some gravel	4.5 feet below ground surface Crushed stone, some grave)	Crushed stone, some gravel	crushed stone Some Gravel	4.5 feet below ground surface crushed stone Some Gravel
Odor?	Petroleum	Petroleum	Petroleum	Petroleum	Petroleum
PID Reading (IU)	62D	160	260	160	250
DRO, mg/kg	3,320 (D1, D2A)	3,910 (D1)	6,600 (D1)	12,100 (D1)	19,500 (D1)
GRO, mg/kg	777 (G2, G6)	481 (G3, G6)	777 (G3, G6)	NA	NA

#### NOTES:

- 1. DRO Diesel Range Organics (Wl. Modified Method).
- 2. mg/kg milligrams per kilogram, or parts per million.
- 3. Sample depths shown in feet below ground surface.
- 4. Field PID (IU) Photoionization Detector result. IU Instrument Units, similar to ppm.
- 5. NR 720 RCL = Residual Contaminant Level = 1) the NR 720 Table 1 generic RCL = 100 for DRO
- 6. 101 = NR 720 RCL exceedance
- 7. Samples analyzed by U.S. Filter/Enviroscan laboratory in Rothschild, WI
- 8. See Figure 2 for sampling locations.
- D1-The chromatogram is charateristic for a fuel cil/diesel. (i.e. #1 or #2 diesel, jet fuel, kerosene, aged or degraded diesel, etc.)
- 10. D2A-The chromatagram is Characteristic for a light petroleum product.
  - (I.e. gasoline, aged or degraded gasoline, mineral spints, etc.)
- 11, G2- The Chromatagram has characteristics of an aged gasoline sample.
- 12. G6- The cromatogram contains a significant number of peaks and a raised baseline
- 13. G3 The chromatogram is not distinct for either gas or aged gas.
  It has a reportable concentration of peaks / area within the GRO window.
- 14, NA Not analyzed