

## Ryan, Nancy D - DNR

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**From:** Ryan, Nancy D - DNR  
**Sent:** Monday, November 21, 2016 8:48 AM  
**To:** 'joelcook@ogdenre.com'  
**Cc:** 'patrick.patterson@psiusa.com'  
**Subject:** No Further Action letter Apartment Complex, 1701 N. Humboldt Ave. BRRTS# 02-41578054  
**Attachments:** 0241578054 Apartment Complex NFA.pdf

Gentlemen,

Please find attached the No Further Action letter for the above-referenced site. A hard copy of the letter will be mailed to Mr. Cook. Please let me know if you have any questions or concerns regarding the letter.

Regards,

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Nancy D. Ryan

Hydrogeologist, Bureau for Remediation and Redevelopment

Wisconsin Department of Natural Resources

2300 N. Dr. Martin Luther King, Jr. Dr.

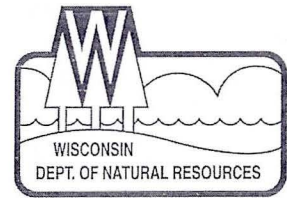
Milwaukee, WI 53212

Phone: (414) 263-8533

Fax: (414) 263-8550

[nancy.ryan@wisconsin.gov](mailto:nancy.ryan@wisconsin.gov)





November 21, 2016

Mr. Joel Cook  
Ogden Construction Corporation  
1665 N. Water Street  
Milwaukee, WI 53202

SUBJECT: No Further Action  
Apartment Complex, 1701 N. Humboldt Ave., Milwaukee, WI  
**DNR BRRTS# 02-41-578054 FID#341279730**

Dear Mr. Cook:

On October 13, 2016, the Wisconsin Department of Natural Resources (DNR) received a request for a no further action determination for the above-referenced site. The request and applicable review fee was submitted on your behalf by Patrick Patterson of Professional Service Industries, Inc. The DNR Southeast Region project manager reviewed the document and concurs that the environment has been restored to the extent practicable as provided in ch. NR 708.09, Wis. Adm. Code. The immediate action in response to a discharge of fuel oil/polynuclear aromatic hydrocarbons (PAHs) has been completed and the DNR is requiring no further action at this time.

Petroleum odors, similar to fuel oil, were detected in soil at the site during redevelopment activities. A composite sample of the soil was collected and submitted for laboratory analysis of petroleum volatile organic compounds, naphthalene and PAHs. PAHs were detected in the sample reported at concentrations exceeding soil residual contaminant levels (RCLs). In response to the identified contamination, approximately 78 tons of soil were excavated and disposed of off-site at a licensed landfill. Post excavation soil samples collected from the excavation base and sidewalls indicate that the contamination was successfully removed. No PAHs were detected above the laboratory detection limit and only one PVOC, xylene, was detected at an estimated concentration well below its soil RCL.

DNR appreciates the efforts you have taken to protect and restore the environment at this site. If you have any questions regarding this no further action determination, please contact the project manager, Nancy Ryan at the letterhead address, at (414) 263-8533 or by email to [nancy.ryan@wisconsin.gov](mailto:nancy.ryan@wisconsin.gov).

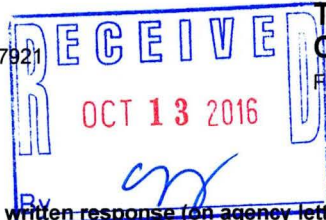
Sincerely,

Pamela A. Mylotta  
Southeast Region Team Supervisor  
Remediation & Redevelopment Program

cc. Patrick Patterson, Professional Services Industries, Inc.



341279730



**Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 9/15)

**Notice:** Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

**Definitions**

**"Property"** refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

**"Liability Clarification"** refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

**"Technical Assistance"** refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

**"Post-closure modification"** refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

**Select the Correct Form**

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

**Do not use this form if one of the following applies:**

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

**All forms, publications and additional information are available on the internet at:** [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

**Instructions**

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

## Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

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### Section 1. Contact and Recipient Information

#### Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Cook	First Joel	MI	Organization/ Business Name Ogden Construction Corporation
Mailing Address 1665 N. Water Street			City Milwaukee
			State WI
			ZIP Code 53202
Phone # (include area code) (414) 342-7200	Fax # (include area code)	Email joelcook@ogdenre.com	

The requester listed above: (select all that apply)

- Is currently the owner
  Is considering selling the Property  
 Is renting or leasing the Property
  Is considering acquiring the Property  
 Is a lender with a mortgagee interest in the Property  
 Other. Explain the status of the Property with respect to the applicant:

#### Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Patterson	First Patrick	MI J	Organization/ Business Name Professional Service Industries, Inc.
Mailing Address 821 Corporate Court			City Waukesha
			State WI
			ZIP Code 53189
Phone # (include area code) (262) 521-2125	Fax # (include area code)	Email patrick.patterson@psiusa.com	

#### Property Owner (if different from requester)

Contact Last Name Cook	First Joel	MI	Organization/ Business Name Ogden Multifamily Partners, LLC
Mailing Address 1665 N. Water Street			City Milwaukee
			State WI
			ZIP Code 53202
Phone # (include area code) (414) 342-7200	Fax # (include area code)	Email joelcook@ogdenre.com	

### Section 2. Property Information

Property Name Proposed Apartment Complex	FID No. (if known) 341279730
BRRTS No. (if known) 0241578054	Parcel Identification Number 3540814000
Street Address 1701 N. Humboldt Avenue	City Milwaukee
	State WI
	ZIP Code 53051
County Waukesha	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Milwaukee
	Property is composed of: <input checked="" type="radio"/> Single tax parcel <input type="radio"/> Multiple tax parcels
	Property Size Acres 1



**Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request**

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1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

- No  Yes

Date requested by: \_\_\_\_\_

Reason:

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

- No. **Include the fee that is required for your request in Section 3, 4 or 5.**  
 Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

**Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:**

**Section 3. Technical Assistance or Post-Closure Modifications;  
Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

**Section 3. Request for Technical Assistance or Post-Closure Modification**

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
  - Include a fee of \$300 for sites with residual soil contamination; and
  - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

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## Section 4. Request for Liability Clarification

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. **[Numbers in brackets are for DNR Use]**

"Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the real Property, and/or the personal Property and fixtures;
- (2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;
- (3) the date the environmental assessment was conducted by the lender;
- (4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.
- (5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.
- (6) a copy of the Property deed with the correct legal description; and,
- (7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).
- (8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292.21(1)(c)2., h.-i., Wis. Stats.:
  - h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.
  - i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

"Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the Property;
- (2) the date of Property acquisition by the representative;
- (3) the means by which the Property was acquired;
- (4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;
- (5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and
- (6) a copy of the Property deed with the correct legal description.

Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

- hazardous substances spills - s. 292.11(9)(e), Wis. Stats. [649];
- Perceived environmental contamination - [649];
- hazardous waste - s. 292.24 (2), Wis. Stats. [649]; and/or
- solid waste - s. 292.23 (2), Wis. Stats. [649].

❖ **Include a fee of \$700, a summary of the environmental liability clarification being requested, and the following:**

- (1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).
- (2) current and proposed ownership status of the Property;
- (3) date and means by which the Property was acquired by the LGU, where applicable;
- (4) a map and the ¼, ¼ section location of the Property;
- (5) summary of current uses of the Property;
- (6) intended or potential use(s) of the Property;
- (7) descriptions of other investigations that have taken place on the Property; and
- (8) (for solid waste clarifications) a summary of the license history of the facility.



**Technical Assistance, Environmental Liability  
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**Section 4. Request for Liability Clarification (cont.)**

Lease liability clarification - s. 292.55, Wis. Stats. [646]

❖ **Include a fee of \$700 for a single Property, or \$1400 for multiple Properties and the information listed below:**

- (1) a copy of the proposed lease;
- (2) the name of the current owner of the Property and the person who will lease the Property;
- (3) a description of the lease holder's association with any persons who have possession, control, or caused a discharge of a hazardous substance on the Property;
- (4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;
- (5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and
- (6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below.

❖ **Include a fee of \$700 and an adequate summary of relevant environmental work to date.**

No Action Required (NAR) - NR 716.05, [682]

❖ **Include a fee of \$700.**

Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has been conducted; the assessment reports should be submitted with this form. This is not a closure letter.

Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]

❖ **Include a fee of \$700.**

- Include a copy of any closure documents if a state agency other than DNR approved the closure.

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Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR.

Excavation Oversight and Environmental Consultant Services Letter Report, dated September 28, 2016

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

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## Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: [dnr.wi.gov/topic/Brownfields/lgu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/lgu.html#tabx4).

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf)).

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf)).

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

## Section 6. Other Information Submitted

Identify all materials that are included with this request.

**Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.**

Phase I Environmental Site Assessment Report - Date: \_\_\_\_\_

Phase II Environmental Site Assessment Report - Date: \_\_\_\_\_

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater     Soil     Sediment     Other medium - Describe: \_\_\_\_\_

Date of Collection: \_\_\_\_\_

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: see above

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): 09/30/2016

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at: [dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).



**Technical Assistance, Environmental Liability  
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**Section 7. Certification by the Person who completed this form**

- I am the person submitting this request (requester)
- I prepared this request for: Ogden Construction Corporation  
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

*[Signature]* on behalf of Ogden Construction Corp. 9/30/16  
Signature Date Signed

*Environmental Project Manager* *202 581 2125*  
Title Telephone Number (include area code)

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

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## Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a DNR regional brownfields specialist with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

### DNR NORTHERN REGION

Attn: RR Program Assistant  
Department of Natural Resources  
223 E Steinfest Rd Antigo, WI 54409

### DNR NORTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay WI 54313

### DNR SOUTH CENTRAL REGION

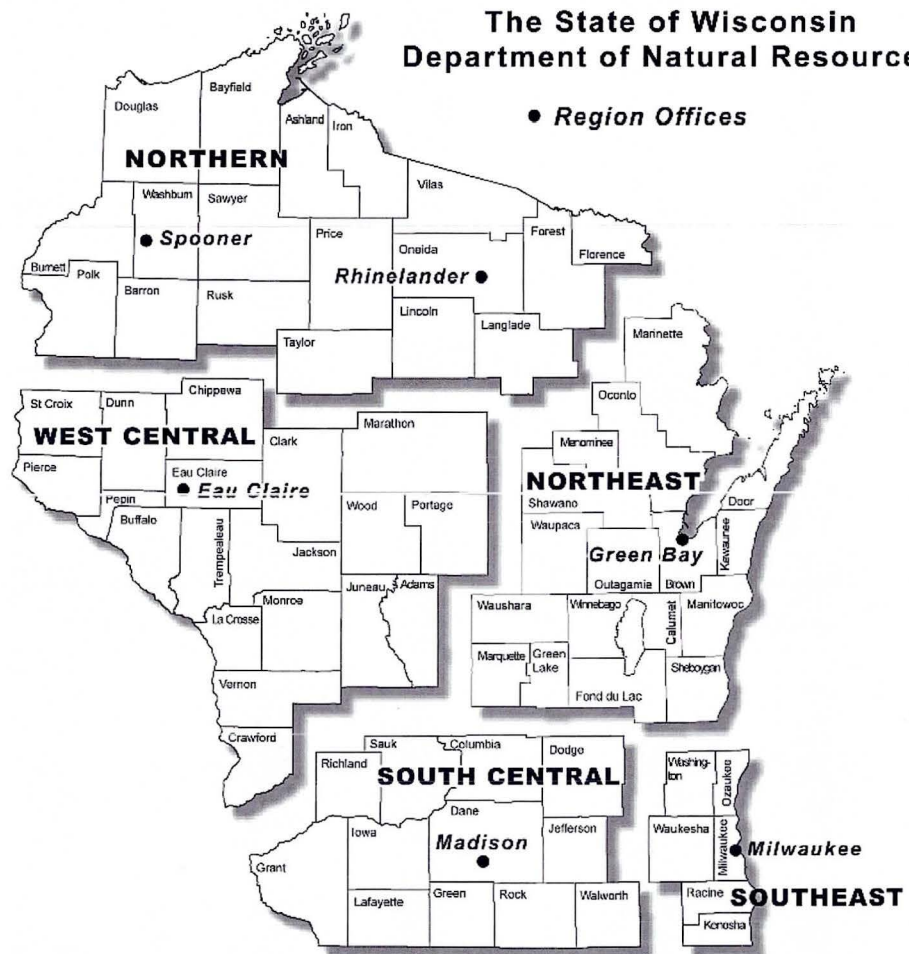
Attn: RR Program Assistant  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg WI 53711

### DNR SOUTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee WI 53212

### DNR WEST CENTRAL REGION

Attn: RR Program Assistant  
Department of Natural Resources  
1300 Clairemont Ave.  
Eau Claire WI 54702



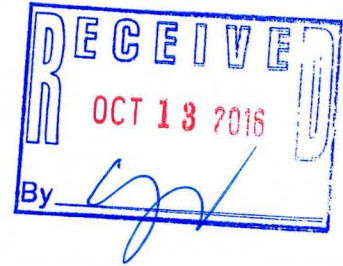
Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		



September 28, 2016

Ogden Construction Corporation  
1665 N. Water Street  
Milwaukee, WI 53202



Attn: Mr. Jason Pietsch

Re: Excavation Oversight and Environmental Consulting Services  
Apartment Complex  
1701 N. Humboldt Avenue  
Milwaukee, Wisconsin  
PSI Project No.: 00541258

Dear Mr. Pietsch:

Professional Service Industries, Inc. (PSI) is pleased to submit this letter report of excavation oversight and consulting services at the abovementioned property (Subject Property). The results of these services, including pertinent observations and a summary of the findings, area presented in the following paragraphs.

## INTRODUCTION

### Purpose

The purpose of these services was to collect a composite sample of the contaminated soils encountered during site development for landfill approval, and to monitor the removal and proper disposal of the encountered fuel oil-impacted soils on the Subject Property. The purpose of these services was not to evaluate any other potential environmental issues that may be associated with the Subject Property.

### Scope

The scope for these environmental services included a site visit to collect a composite sample of the fuel oil-impacted soils; coordinating landfill services; the monitoring of the excavation of the encountered fuel oil-impacted soils; the collection of confirmation soil samples from along the sidewalls and bottom of the excavation; laboratory analysis of the collected samples; an evaluation of the remedial data obtained; and letter report preparation.

Based upon the observed site conditions, the composite and subsequent remedial laboratory analyses included testing soils for the presence of Benzene (for landfill

approval), Petroleum Volatile Organic Compounds (PVOCs), Naphthalene, and Polynuclear Aromatic Hydrocarbons (PAHs). These tests were intended to provide an evaluation of the initial presence of fuel oil contaminants and the in-situ soils for the presence of residual fuel oil contamination.

### Authorization

Authorization to perform these environmental services was in the form of an acceptance copy of PSI's proposal for Excavation Oversight and Environmental Consulting Services, dated August 29, 2016, and signed by Mr. Joel Cook, President, on September 23, 2016. This letter report has been prepared on behalf of, and exclusively for Ogden Construction Corporation (Ogden). The information contained in this letter report may not be relied upon by any other parties without the express written consent of PSI, and acceptance by such parties of PSI' General Conditions.

## **SITE FEATURES AND BACKGROUND**

### Site Description

The Subject Property is located at 1701 N. Humboldt Avenue in the City of Milwaukee, Wisconsin, and is situated in the Southeast  $\frac{1}{4}$  of the Northwest  $\frac{1}{4}$  of Section 21, Township 7 North, Range 22 East in Milwaukee County. At the time these services were performed, the Subject Property consisted of an approximate 0.26-acre vacant parcel located on the northwest corner of E. Brady Street and N. Humboldt Avenue.

### Site and Project Background

It is understood that an approximate 2,660 square foot, single story commercial building formerly was located in the southeast corner of the parcel. It is also understood that it was recently razed for the development of an apartment complex. Further, it is understood that during the development activities, petroleum odors, similar to fuel oil, were observed within soils beneath a concrete slab that was formerly located near the northwest corner of the former building.

Due to the encountered petroleum odors and the planned site development, PSI was retained to collect a composite sample of the fuel oil-impacted soil for analytical testing for the presence of contaminants in accordance with landfill approval requirements. These test results indicated that contaminants were present in the soils and landfill approval was received. A discussion of the analytical test results of this composite soil sample are included in the following sections of this letter report. As a result of the analytical testing, PSI was further retained to coordinate and manage the removal of the fuel oil-impacted soils.



## **SITE REMEDIAL ACTIVITIES AND PROCEDURES**

### Field and Laboratory Data Analysis

Analysis and interpretation of the data generated during the initial site visit and the subsequent field remedial activities is presented in the following sections. Where appropriate, the results are compared with regulatory limits for the contaminants present within the applicable media. A copy of the laboratory analytical report and chain-of-custody documentation is provided in the Appendix.

### Scope Summary

A PSI representative visited the Subject Property to collect a composite sample for analytical testing. PSI subsequently observed the excavation of the impacted soils from the area of the encountered fuel oil contamination. PSI also coordinated the disposal of the fuel oil-impacted soil at a WDNR-licensed recycling and disposal facility. Post excavation/remediation soil samples were collected and analyzed for the presence of any residual PVOC, Naphthalene, and PAH contaminants.

### Field Activities

A PSI field representative visited the Subject Property on August 23, 2016 to observe existing site conditions and to collect a composite sample of the impacted soils for analysis for the presence of contamination for landfill disposal purposes.

On September 1, 2016, PSI monitored the excavation of the impacted soils present generally in the central portion of the Subject Property. No groundwater was observed during excavation activities. The excavation was approximately 10 feet to the north and south and 15 feet to the east and west and extended to about 9 feet below grade.

Approximately 78 tons of fuel oil-impacted soil were excavated and removed from the Subject Property. The excavation and transportation of the impacted soils were arranged by Ogden. Upon completion of the excavation of the contaminated soils, soil samples were collected from the excavation area and submitted for analytical testing for the presence of PVOCs, Naphthalene, and PAHs. These analytes were selected based upon the apparent fuel oil release. The impacted soils were transported and disposed of at the Orchard Ridge RDF for bioremediation under waste profile number BIO125624WI. The excavation was not backfilled due to the planned site development. A copy of a summary report of the loads of impacted soils removed from the property and transported to Orchard Ridge is included in the Appendix.

Post excavation/remediation soil samples were collected from along the sidewalls and bottom of the excavation following the removal of impacted soils. The sampling was performed using a hand trowel that had been decontaminated prior to the site visit and between sampling events. The collected samples were containerized for subsequent field screening and laboratory testing. The excavation of the fuel oil impacted soils extended

to a depth of about 9 feet below existing grade. The sidewall samples were collected at about 6 feet below grade, while a base sample was collected at about 9 feet below grade. The approximate excavation extent and the closure sample locations are shown on the excavation extent map, included in the Appendix. The results of the soil sample field observations and laboratory analyses are summarized on the post-remedial soil analytical table, included in the Appendix.

#### Quality Assurance/Quality Control Measures

All equipment decontamination, sample collection, sample custody records, and analysis were performed in general accordance with methods prescribed by the United States EPA and the WDNR.

All equipment utilized during the field activities was decontaminated prior to and following sampling. Decontamination of said equipment was accomplished by washing the equipment with a non-phosphate detergent and distilled water solution followed by a distilled water rinse.

The soil samples were handled with disposable gloves during initial collection, and when placed into laboratory jars. These procedures were performed to reduce the potential for cross-contamination between sample locations.

#### NR 720 Non-Industrial Direct Contact and Groundwater Pathway RCLs

Chapter 720 of the NR700 series code established residual contaminant levels (RCLs) for soils intended to be protective of direct contact (upper 4 feet of soil defined by human exposure to substances in soil through inhalation of particulate matter, dermal absorption, incidental ingestion, or inhalation of vapors from the soil) and soil-to-groundwater pathways (GW). The direct contact (DC) levels are dependent on the planned land use and zoning of the affected property. Although these individual RCLs have been established for a wide range of compounds, the WDNR requires that the cumulative effects of detected compounds be evaluated through use of a WDNR interactive table where individual concentrations can be entered to evaluate whether the target cancer risk has been exceeded. The individual RCLs provided by the WDNR were developed using standard default exposure assumptions. As an alternative, site specific calculations can be performed utilizing the U.S. EPA Regional Screening Level Web Calculator.

#### Soil Sample Collection Procedures

The chemical analysis of the composite sample was selected based upon existing site conditions and apparent fuel oil like odor. The closure soil samples for chemical analyses were selected from the excavation area based upon WDNR sampling requirements with the intent of evaluating the conditions of the remaining soil upon completion of the excavation activities.

The PVOC and Naphthalene samples were collected with a laboratory furnished, single-use syringe. 10 grams of soil was placed into Methanol-preserved glass vials. The PAH



samples were placed into clean unpreserved, laboratory provided jars. The soil samples were placed on ice, chain of custody procedures were initiated, and submitted Synergy Environmental Lab in Appleton, Wisconsin. The analytical report and chain of custody are included in the Appendix.

### Soil Conditions

The discussion of soil conditions on this site presents a generalized soil profile as encountered at the excavation location. The composite soil sample consisted of dark brown silty clay, which had an apparent fuel oil-like odor. The representative samples of the closure soils generally consisted of brown to grayish brown silty clay and clayey silt with some coarse sand to the maximum depth excavated of about 9 feet below grade. Groundwater was not encountered in the excavation.

### Volatile Organic Vapors Screening

The composite soil sample and the soil samples obtained during the remedial activities were screened with a PID. A PID reading of about 10 meter units was measured in the composite sample. No volatile organic vapors were detected in any of the closure soil samples from along the sidewalls or bottom of the excavation.

### Laboratory Soil Results – Composite Sample

The composite soil sample was tested for the presence of Benzene, which was expedited, for the landfill approval purposes, and for the presence of PVOCs, Naphthalene, and PAHs for future submittal to the WDNR for notification purposes. The test results indicated no Benzene, PVOCs, or Naphthalene within the composite sample. However, several PAH contaminants were detected, and consisted of Benzo (a) anthracene at a level of 173 micrograms per kilogram (ug/kg); Benzo (a) pyrene at a level of 212 ug/kg; Benzo (b) fluoranthene at a level of 209 ug/kg; Benzo (g,h,i) perylene at a level of 250 ug/kg; Benzo (k) fluoranthene at a level of 116 ug/kg; Chrysene at a level of 215 ug/kg; Fluoranthene at a level of 418 ug/kg; Indeno (1,2,3-cd) pyrene at a level of 219 ug/kg; Phenanthrene at a level of 161 ug/kg; and Pyrene at a level of 352 ug/kg. The Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, and Indeno (1,2,3-cd) pyrene concentrations are above their NR720 DC RCLs of 147 ug/kg, 15 ug/kg, 148 ug/kg, and 148 ug/kg, respectively. The Chrysene concentration is above its NR720 GW RCL of 144.6 ug/kg. The other detected PAH concentrations are not above their NR720 DC or GW RCLs.

### Laboratory Soil Results – Post Excavation/Remediation Samples

Five (5) soil samples were collected from the excavation area on the Subject Property and tested for the presence of PVOCs, Naphthalene, and PAHs. No contaminants were detected within the samples with the exception of m & p Xylene at a concentration of 54 ug/kg within the closure sample collected from the west side wall (X-WSW) at a depth of 6 feet below grade. This concentration is well below its NR720 DC RCL of 260,000 ug/kg and its NR720 GW RCL of 3,960 ug/kg.

The test results of the composite sample and sidewall and bottom samples are summarized on the soil analytical results table included in the Appendix, along with their respective NR720 DC and GW RCLs. The complete laboratory analysis data report is located in the Appendix.

## **FINDINGS OF REMEDIAL ACTIVITIES**

As a result of these remedial activities, a total of 77.62 tons of fuel oil-impacted soil have been removed from the Subject Property and transported to Orchard Ridge RDF in Menomonee Falls, Wisconsin for bioremediation treatment. No contaminants were detected above NR720 RCLs in the closure samples collected from the excavation subsequent to the removal activities. As such, no further remedial activities of the fuel oil contamination are warranted at this time.

It is recommended that this letter report along with a completed WDNR Notification for Hazardous Substance Discharge (Form 4400-225) be submitted to the WDNR. Further, it is recommended that a WDNR Technical Assistance Request (Form 4400-237) (TAR) be prepared and submitted to the WDNR requesting that they issue a "No Further Action Required" letter for the release area. A WDNR review fee of \$350.00 is required to be submitted along with the TAR documentation. Upon client approval, PSI will prepare these WDNR documents and will submit them along with the required WDNR review fee, to the WDNR.

## **GENERAL COMMENTS**

This study has been conducted in a manner consistent with that level of care ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings, recommendations and opinions contained herein have been promulgated in accordance with generally accepted practice in similar fields. No other representations, expressed or implied, and no warranty or guarantee is included or intended in this report.

The conclusions presented in this report were formulated from the data obtained during the course of exploratory work on the site, which may result in a redirection of conclusions and interpretations where new information is obtained. The regulatory climate and interpretation may also have an effect on the outcome of the environmental investigation for this site. The information contained in this report may have an effect on the value of the property, and is considered confidential. Copies of this report will be sent to others only with authorization from the client.



## CLOSING

Should you have any questions regarding the contents of this report, or if we could be of any further assistance on this or other projects, please call at any time. PSI appreciates the opportunity to be of service.

Very truly yours,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**



Patrick J. Patterson, P.E., P.G.  
Senior Engineer  
Environmental Services

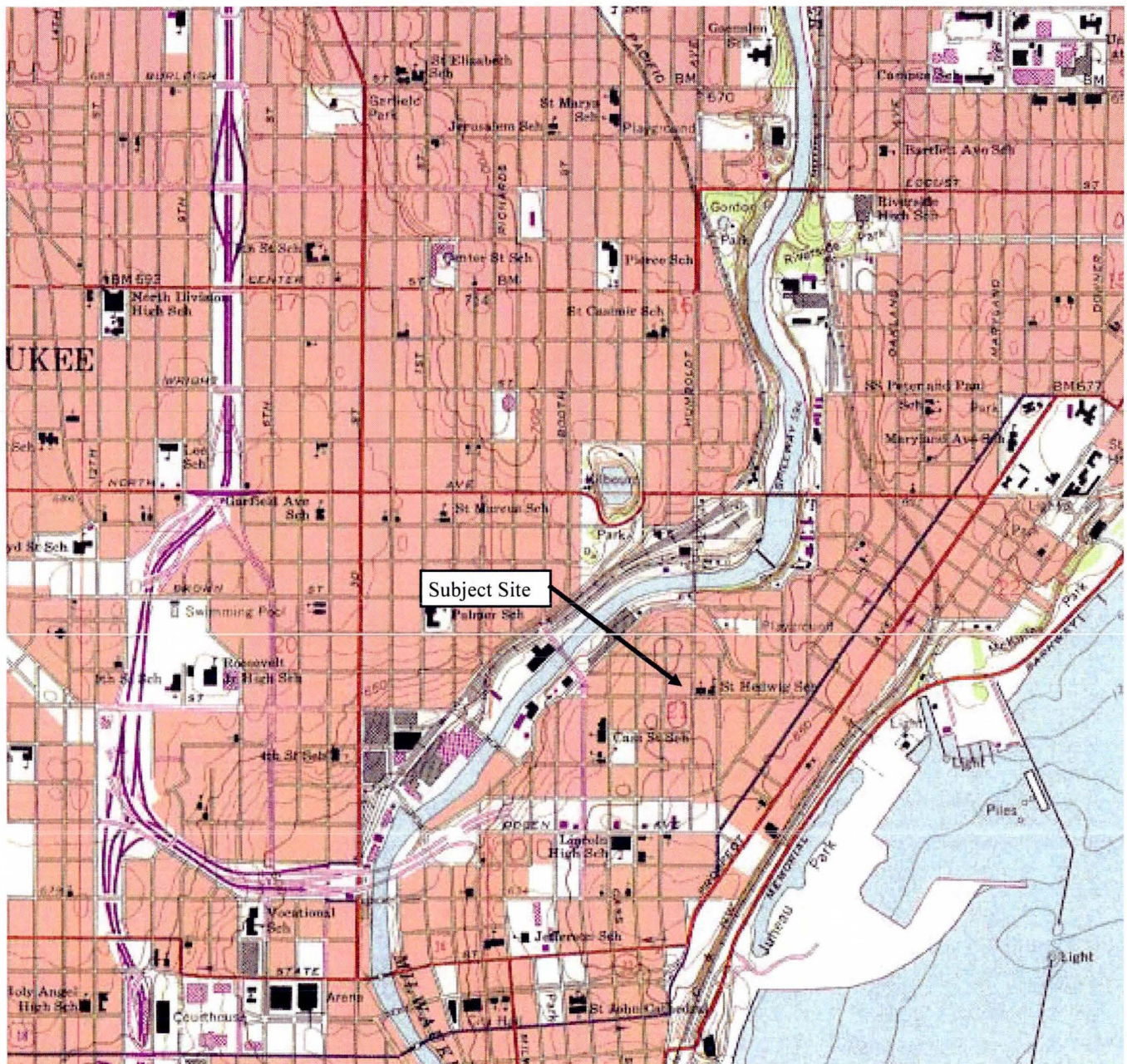


Larry Raether, P.E.  
Department Manager  
Environmental Services

Attachments:

Site Location Map  
Soil Excavation Plan  
Soil Analytical Results Table  
Analytical Laboratory Reports and Chain of Custodies  
Landfill Disposal List





Source: USGS Milwaukee, WI, dated 1958, Revised 1971

Site: Northwest 1/4 of Section 21, Township 7 North, Range 22 East, Milwaukee County



**psi** Information  
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**SITE LOCATION MAP**

Apartment Complex  
 1701 N. Humboldt Avenue  
 Milwaukee, Wisconsin  
 PSI Project No. 00541258



4, 6, 7, 8, 12 & 13 not surveyed related.

9. Terms and conditions contained in Certified Resolution designating Brady Street a Historic District recorded on May 16, 1990 as Document No. 6379708. Affects site, general in nature, cannot be plotted.

10. Easement Agreement by and between Clay Jones, Glorioso Brothers Realty Company and Coin Appliances, Inc. recorded on September 9, 1996 as Document No. 7262707. Affects site by location, shown.

11. Agreement by and between GAMBO, LLC and Coin Appliances, Inc. recorded on October 16, 2006 as Document No. 9321087. Affects site by location, shown.

**flood note**

According to the flood insurance rate map of the County of Milwaukee, Community Panel No. 5507500021E, effective date of September 26, 2008, this site falls in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

**MUNICIPAL ZONING**

Site is zoned: LB-2 (Commercial)  
 Front setback, minimum: none  
 Front setback, maximum: average  
 Side street setback, minimum: none  
 Side street setback, maximum: 5 feet  
 Rear street setback, minimum: none  
 Rear street setback, maximum: none  
 Side setback, minimum: none  
 Side setback, maximum: none  
 Rear setback, minimum: none  
 Rear setback, maximum: none  
 Minimum building height: 18 feet  
 Maximum building height: 60 feet

**MUNICIPAL ZONING**

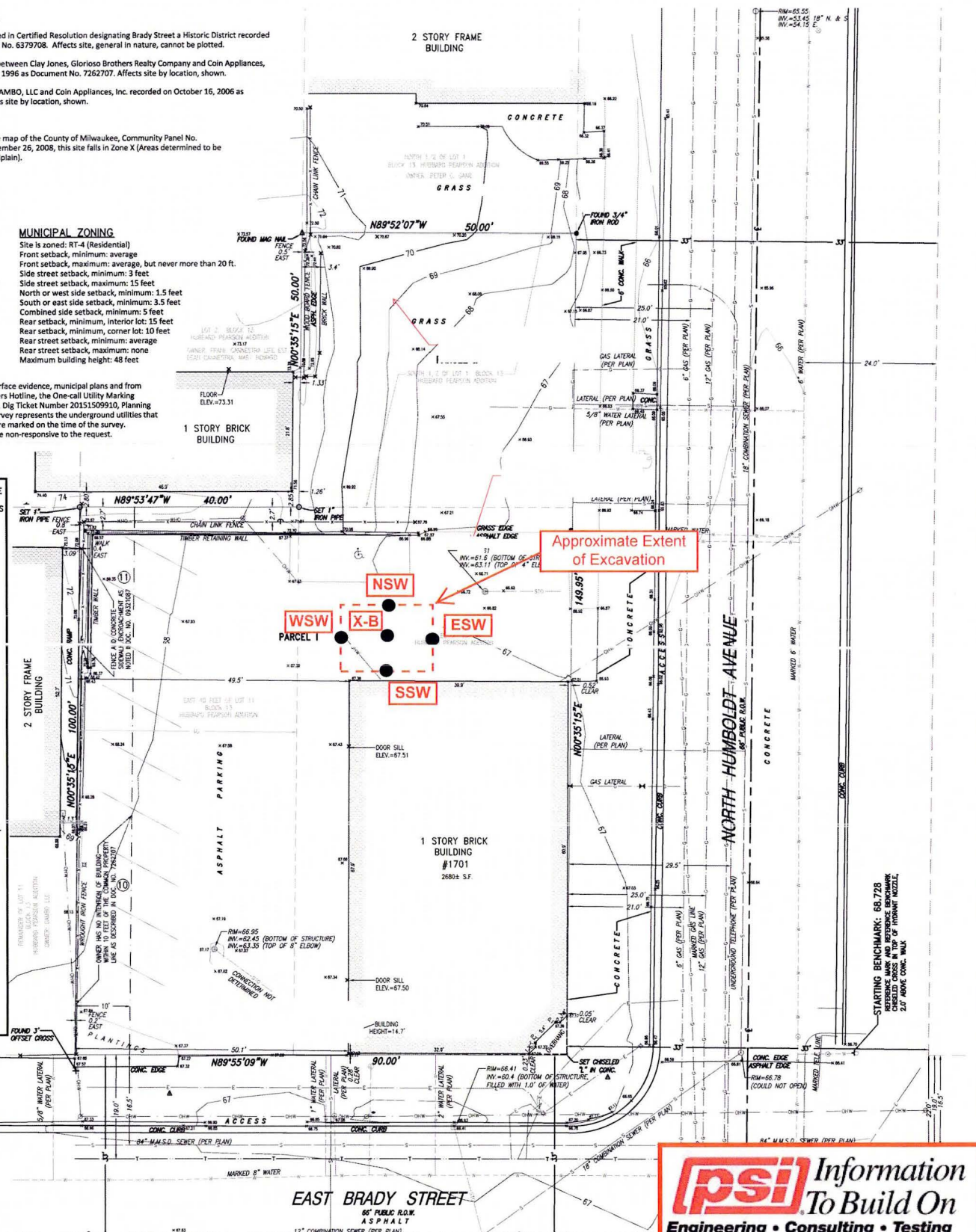
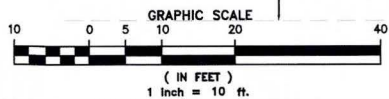
Site is zoned: RT-4 (Residential)  
 Front setback, minimum: average  
 Front setback, maximum: average, but never more than 20 ft.  
 Side street setback, minimum: 3 feet  
 Side street setback, maximum: 15 feet  
 North or west side setback, minimum: 1.5 feet  
 South or east side setback, minimum: 3.5 feet  
 Combined side setback, minimum: 5 feet  
 Rear setback, minimum, interior lot: 15 feet  
 Rear setback, minimum, corner lot: 10 feet  
 Rear street setback, minimum: average  
 Rear street setback, maximum: none  
 Maximum building height: 48 feet

Utility lines are shown from visible surface evidence, municipal plans and from plans and markings provided by Diggers Hotline, the One-call Utility Marking System (Wisconsin Statute 182.0175), Dig Ticket Number 20151509910, Planning Ticket Number 20151509916. This survey represents the underground utilities that participated with the request and were marked on the time of the survey. Additional utilities may exist, but were non-responsive to the request.

**LEGEND**

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- CURB INLET
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER STOP/PISTON STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- COLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- WALLBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- FENCE

Legend: ● : Approximate Sample Location



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**SOIL EXCAVATION PLAN**  
 Proposed Multi-Story  
 Retail/Apartment Building  
 1701 North Humboldt Avenue  
 Milwaukee, WI 53202  
**PSI PROJECT NO. 00541258**  
 \*Adapted from ALTA/ACSM Land  
 Title Survey provided by client.

**Soil Analytical Results Table**  
Humboldt Avenue Apartment Complex  
1701 N. Humboldt Avenue  
Milwaukee, Wisconsin  
PSI Project No. 00541258

Analytical Parameter	Location	Composite	X-B	X-WSW	X-ESW	X-SSW	X-NSW	NR 720	
	Depth		9'	6'	6'	6'	6'	RCL	
	Date	8/23/16	9/1/16	9/1/16	9/1/16	9/1/16	9/1/16	Direct Contact/ Non-Industrial	Groundwater Pathway
	Units								
PID	i.u.	10	ND	ND	ND	ND	ND		
<b>PVOCs + Naphthalene</b>									
Benzene	ug/kg	<116	<25.0	<25.0	<25.0	<25.0	<25.0	<b>1,490</b>	5.1
Ethylbenzene	ug/kg	<75.6	<25.0	<25.0	<25.0	<25.0	<25.0	<b>7,470</b>	1,570
Methyl tert-butyl ether	ug/kg	<199	<25.0	<25.0	<25.0	<25.0	<25.0	<b>59,400</b>	27
Naphthalene	ug/kg	<134	<40.0	<40.0	<40.0	<40.0	<40.0	<b>5,150</b>	658.2
Toluene	ug/kg	<139	<25.0	<25.0	<25.0	<25.0	<25.0	<b>818,000</b>	1,107.2
1,2,4-TMB	ug/kg	<128	<25.0	<25.0	<25.0	<25.0	<25.0	<b>89,800</b>	1,382.1
1,3,5-TMB	ug/kg	<63.1	<25.0	<25.0	<25.0	<25.0	<25.0	<b>182,000</b>	
Xylenes	ug/kg	<164.2	<75.0	54J	<75.0	<75.0	<75.0	<b>260,000</b>	3,960
<b>Detected PAHs</b>									
Benzo(a)anthracene	ug/kg	<b>173</b>	<11.6	<11.6	<11.6	<11.6	<11.6	<b>147</b>	---
Benzo(a)pyrene	ug/kg	<b>212</b>	<11.3	<11.3	<11.3	<11.3	<11.3	<b>15</b>	470
Benzo(b)fluoranthene	ug/kg	<b>209</b>	<13	<13	<13	<13	<13	<b>148</b>	479.3
Benzo(g,h,i)perylene	ug/kg	250	<11.4	<11.4	<11.4	<11.4	<11.4	---	---
Benzo(k)fluoranthene	ug/kg	116	<11.7	<11.7	<11.7	<11.7	<11.7	<b>1,480</b>	---
Chrysene	ug/kg	215	<13.8	<13.8	<13.8	<13.8	<13.8	<b>14,800</b>	144.6
Fluoranthene	ug/kg	418	<13.1	<13.1	<13.1	<13.1	<13.1	<b>2,290,000</b>	88,877.8
Indeno(1,2,3-cd)pyrene	ug/kg	<b>219</b>	<15	<15	<15	<15	<15	<b>148</b>	---
Phenanthrene	ug/kg	161	<10.9	<10.9	<10.9	<10.9	<10.9	---	---
Pyrene	ug/kg	352	<12.6	<12.6	<12.6	<12.6	<12.6	<b>1,720,000</b>	54,545.5

**Notes:**

Bold concentrations exceed NR 720 non-industrial direct contact RCLs

Underlined concentrations exceed NR 720 groundwater pathway RCLs

Concentrations in ( ) exceed NR 720 BTV

--- - Not analyzed/Not Established

J - concentration detected between the laboratory Limit of Detection and the Limit of Quantitation

i.u. - instrument units

ND = Not Detected

ug/kg -micrograms per kilogram, parts per billion

PAH - polynuclear aromatic hydrocarbons

PID - photoionization detector

RCL - residual contaminant level

PVOC - petroleum volatile organic compounds



## Analytical Report

Pat Patterson  
Professional Service Industries, Inc (PSI)  
821 Corporate Ct.  
Waukesha, WI 53189

August 26, 2016

Work Order: 16H1066

RE: PSI lab Analysis  
Humbolt & Brady/Composite

Dear Pat Patterson:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,



Katherine Langfoss  
Project Manager  
847.967.6666  
klangfoss@emt.com

Approved for release: 8/26/2016 1:12:56PM

Approved by,



Matthew Gregory  
Technical Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

State of Wisconsin Dept of Natural Resources, Cert No. 999888890

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8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

### Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
COMPOSITE #1	16H1066-01	Soil	08/23/16 12:00	08/24/16 12:00

## Case Narrative

**Client:** Professional Service Industries, Inc (PSI)

**Date:** 08/26/2016

**Project:** PSI lab Analysis  
Humbolt & Brady/Composite

**Work Order:** 16H1066

---

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

**Work Order: 16H1066**

The samples were received on 08/24/16 12:00. The samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was

<u>Cooler</u>	<u>Temp C°</u>
Default Cooler	6.2

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.



### Client Sample Results

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1066

**Client Sample ID:** COMPOSITE #1  
**Report Date:** 08/26/2016  
**Collection Date:** 08/23/2016 12:00  
**Matrix:** Soil  
**Lab ID:** 16H1066-01

Analyses	Result	EMT Reporting		Units	MDL	Date/Time Analyzed	Batch	Analyst	DF	
		Limit	Qual							
<b>Wet Chemistry</b>										
Method: SM2540G										
Total Solids	86.9	0.100		% (Percent)	0.0170	08/25/16 07:32	B6H1339	CP1	1	
<b>PVOC Compounds by GC PID/FID</b>										
Method: WI(95)-GRO/PVOC: PUBL-SW-140										
1,2,4-Trimethylbenzene	< 128	128		ug/Kg dry	42.6	08/25/16 13:49	B6H1361	MNN	70	
1,3,5-Trimethylbenzene	< 63.1	63.1		ug/Kg dry	21.0	08/25/16 13:49	B6H1361	MNN	70	
Benzene	< 116	116		ug/Kg dry	38.6	08/25/16 13:49	B6H1361	MNN	70	
Ethylbenzene	< 75.6	75.6		ug/Kg dry	25.2	08/25/16 13:49	B6H1361	MNN	70	
m,p-Xylene	< 69.2	69.2		ug/Kg dry	23.1	08/25/16 13:49	B6H1361	MNN	70	
Methyl tert-butyl ether	< 199	199		ug/Kg dry	66.3	08/25/16 13:49	B6H1361	MNN	70	
Naphthalene	< 134	134		ug/Kg dry	44.8	08/25/16 13:49	B6H1361	MNN	70	
o-Xylene	< 95.0	95.0		ug/Kg dry	31.7	08/25/16 13:49	B6H1361	MNN	70	
Toluene	< 139	139		ug/Kg dry	46.3	08/25/16 13:49	B6H1361	MNN	70	
Xylenes, Total	< 161	161		ug/Kg dry	53.6	08/25/16 13:49	B6H1361	MNN	70	
Surrogate: 1,4-Dichlorobenzene-d4				Recovery: 105%	Limits: 70-130	08/25/16 13:49	B6H1361	MNN	70	



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### Dates Report

**Client:** Professional Service Industries, Inc (PSI)

**Report Date:** 08/26/2016

**Project:** PSI lab Analysis  
Humbolt & Brady/Composite

**Work Order:** 16H1066

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
16H1066-01	COMPOSITE #1	08/23/16	Soil	Total Solids / Percent Moisture		08/25/16 07:23	08/25/16 07:32	B6H1339	
				PVOC (WDNR) by GC/FID		08/25/16 10:07	08/25/16 13:49	B6H1361	S6H0485



**Quality Control**

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1066

**Report Date:** 08/26/2016  
**Matrix:** Solid

**Wet Chemistry**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------	----

**Batch: B6H1339**

**Blank (B6H1339-BLK1)**

*Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:38*

Total Solids	< 0.0170	0.100	%								1
--------------	----------	-------	---	--	--	--	--	--	--	--	---

**LCS (B6H1339-BS1)**

*Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:40*

Total Solids	0.191		%	0.1995		95.5	93-115				1
--------------	-------	--	---	--------	--	------	--------	--	--	--	---

**Duplicate (B6H1339-DUP1)**

**Source: 16H1067-01**

*Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:42*

Total Solids	85.5	0.100	%		86.0			0.526	5		1
--------------	------	-------	---	--	------	--	--	-------	---	--	---

**Quality Control**

(Continued)

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1066

**Report Date:** 08/26/2016  
**Matrix:** Solid

**PVOC Compounds by GC PID/FID**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
<b>Batch: B6H1361</b>											
<b>Blank (B6H1361-BLK1)</b>											
						Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 12:22					
1,2,4-Trimethylbenzene	< 42.6	42.6	ug/Kg wet								50
1,3,5-Trimethylbenzene	< 25.0	25.0	ug/Kg wet								50
Benzene	< 38.6	38.6	ug/Kg wet								50
Ethylbenzene	< 25.2	25.2	ug/Kg wet								50
m,p-Xylene	< 25.0	25.0	ug/Kg wet								50
Methyl tert-butyl ether	< 66.3	66.3	ug/Kg wet								50
Naphthalene	< 44.8	44.8	ug/Kg wet								50
o-Xylene	< 31.7	31.7	ug/Kg wet								50
Toluene	< 46.3	46.3	ug/Kg wet								50
Xylenes, Total	< 53.6	53.6	ug/Kg wet								50
Surrogate: 1,4-Dichlorobenzene-d4	20.1		ug/Kg	20.00		101	70-130				50
<b>LCS (B6H1361-BS1)</b>											
						Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 13:05					
1,2,4-Trimethylbenzene	1100	42.6	ug/Kg wet	1000		110	80-120				50
1,3,5-Trimethylbenzene	1140	25.0	ug/Kg wet	1010		113	80-120				50
Benzene	1060	38.6	ug/Kg wet	1000		106	80-120				50
Ethylbenzene	1090	25.2	ug/Kg wet	1000		109	80-120				50
m,p-Xylene	2180	25.0	ug/Kg wet	2000		109	80-120				50
Methyl tert-butyl ether	1080	66.3	ug/Kg wet	1000		108	80-120				50
Naphthalene	1220	44.8	ug/Kg wet	1000		122	80-120			S	50
o-Xylene	1090	31.7	ug/Kg wet	1010		108	80-120				50
Toluene	1090	46.3	ug/Kg wet	1000		109	80-120				50
Xylenes, Total	3270	53.6	ug/Kg wet	3000		109	80-120				50
Surrogate: 1,4-Dichlorobenzene-d4	22.9		ug/Kg	20.00		114	70-130				50
<b>LCS Dup (B6H1361-BSD1)</b>											
						Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 15:16					
1,2,4-Trimethylbenzene	1040	42.6	ug/Kg wet	1000		104	80-120	6	20		50
1,3,5-Trimethylbenzene	1030	25.0	ug/Kg wet	1010		102	80-120	10	20		50
Benzene	1040	38.6	ug/Kg wet	1000		104	80-120	2	20		50
Ethylbenzene	1040	25.2	ug/Kg wet	1000		104	80-120	5	20		50
m,p-Xylene	2050	25.0	ug/Kg wet	2000		103	80-120	6	20		50
Methyl tert-butyl ether	1070	66.3	ug/Kg wet	1000		107	80-120	1	20		50
Naphthalene	1120	44.8	ug/Kg wet	1000		112	80-120	8	20		50
o-Xylene	1030	31.7	ug/Kg wet	1010		102	80-120	5	20		50
Toluene	1050	46.3	ug/Kg wet	1000		105	80-120	4	20		50
Xylenes, Total	3080	53.6	ug/Kg wet	3000		103	80-120	6	20		50
Surrogate: 1,4-Dichlorobenzene-d4	21.9		ug/Kg	20.00		109	70-130				50



### Certified Analyses included in this Report

Analyte	CAS #	Certifications
<b>SM2540G in Solid</b>		
Total Solids	Moist	WDNR
<b>WI(95)-GRO/PVOC: PUBL-SW-140 in Solid</b>		
1,2,4-Trimethylbenzene	95-63-6	WDNR
1,3,5-Trimethylbenzene	108-67-8	WDNR
Benzene	71-43-2	WDNR
Ethylbenzene	100-41-4	WDNR
m,p-Xylene	179601-23-1	WDNR
Methyl tert-butyl ether	1634-04-4	WDNR
Naphthalene	91-20-3	WDNR
o-Xylene	95-47-6	WDNR
Toluene	108-88-3	WDNR
Xylenes, Total	1330-20-7	WDNR

### List of Certifications

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	UST-105	07/16/2016
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L14-56	04/30/2016
DoD	Department of Defense, Accredited by PJLA	L14-55	04/30/2018
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	003674	07/27/2016
ISO	ISO/IEC 17025, Accredited by PJLA	L14-56	04/30/2018
LELAP	State of Louisiana, NELAP Accredited Lab No. 171344	05015	06/30/2016
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2016

**Qualifiers and Definitions**

Item	Description
S	The recovery is outside of the laboratory control limits.
%Rec	Percent Recovery





## Analytical Report

Pat Patterson  
Professional Service Industries, Inc (PSI)  
821 Corporate Ct.  
Waukesha, WI 53189

September 01, 2016

Work Order: 16H1067

RE: PSI lab Analysis  
Humbolt & Brady/Composite

Dear Pat Patterson:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,



Katherine Langfoss  
Project Manager  
847.967.6666  
klangfoss@emt.com

Approved for release: 9/1/2016 3:50:59PM

Approved by,



Matthew Gregory  
Technical Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

State of Wisconsin Dept of Natural Resources, Cert No. 999888890



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### Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HS#1	16H1067-01	Waste	08/23/16 12:00	08/24/16 12:00

## Case Narrative

**Client:** Professional Service Industries, Inc (PSI)

**Date:** 09/01/2016

**Project:** PSI lab Analysis  
Humbolt & Brady/Composite

**Work Order:** 16H1067

---

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

**Work Order: 16H1067**

The samples were received on 08/24/16 12:00. The samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was

<u>Cooler</u>	<u>Temp C°</u>
Default Cooler	6.2

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

### HPLC

Method: 8310\_PNA, B6H1664-MSD1: MSD recoveries for two compounds are above the QC limits. The LCS associated with the sample is acceptable.



### Client Sample Results

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1067

**Client Sample ID:** HS#1  
**Report Date:** 09/01/2016  
**Collection Date:** 08/23/2016 12:00  
**Matrix:** Waste  
**Lab ID:** 16H1067-01

Analyses	Result	EMT Reporting		Units	MDL	Date/Time Analyzed	Batch	Analyst	DF	
		Limit	Qual							
<b>Wet Chemistry</b>										
Method: SM2540G										
Total Solids	86.0	0.100		% (Percent)	0.0170	08/25/16 07:34	B6H1339	CP1	1	
<b>Polynuclear Aromatics by High Pressure Liquid Chromatography (HPLC)</b>										
Method: SW8310 / SW3546										
1-Methylnaphthalene	< 56.4	183		ug/Kg dry	56.4	08/31/16 19:41	B6H1664	AMP	1	
2-Methylnaphthalene	< 19.7	141		ug/Kg dry	19.7	08/31/16 19:41	B6H1664	AMP	1	
Acenaphthene	< 25.9	141		ug/Kg dry	25.9	08/31/16 19:41	B6H1664	AMP	1	
Acenaphthylene	< 27.4	141		ug/Kg dry	27.4	08/31/16 19:41	B6H1664	AMP	1	
Anthracene	< 17.5	141		ug/Kg dry	17.5	08/31/16 19:41	B6H1664	AMP	1	
Benzo(a)anthracene	173	141		ug/Kg dry	14.6	08/31/16 19:41	B6H1664	AMP	1	
Benzo(a)pyrene	212	70.5		ug/Kg dry	21.2	08/31/16 19:41	B6H1664	AMP	1	
Benzo(b)fluoranthene	209	141		ug/Kg dry	16.6	08/31/16 19:41	B6H1664	AMP	1	
Benzo(g,h,i)perylene	250	70.5		ug/Kg dry	9.31	08/31/16 19:41	B6H1664	AMP	1	
Benzo(k)fluoranthene	116	70.5		ug/Kg dry	13.8	08/31/16 19:41	B6H1664	AMP	1	
Chrysene	215	141		ug/Kg dry	14.7	08/31/16 19:41	B6H1664	AMP	1	
Dibenzo(a,h)anthracene	< 22.1	141		ug/Kg dry	22.1	08/31/16 19:41	B6H1664	AMP	1	
Fluoranthene	418	141		ug/Kg dry	21.9	08/31/16 19:41	B6H1664	AMP	1	
Fluorene	< 44.8	183		ug/Kg dry	44.8	08/31/16 19:41	B6H1664	AMP	1	
Indeno(1,2,3-cd)pyrene	219	183		ug/Kg dry	50.8	08/31/16 19:41	B6H1664	AMP	1	
Naphthalene	< 35.8	183		ug/Kg dry	35.8	08/31/16 19:41	B6H1664	AMP	1	
Phenanthrene	161	141		ug/Kg dry	18.6	08/31/16 19:41	B6H1664	AMP	1	
Pyrene	352	70.5		ug/Kg dry	9.59	08/31/16 19:41	B6H1664	AMP	1	
Surrogate: 4-Terphenyl-d14				Recovery: 84%	Limits: 33-133	08/31/16 19:41	B6H1664	AMP	1	
<b>PVOC Compounds by GC PID/FID</b>										
Method: WI(95)-GRO/PVOC: PUBL-SW-140										
1,2,4-Trimethylbenzene	< 128	128		ug/Kg dry	42.6	08/25/16 14:33	B6H1361	MNN	70	
1,3,5-Trimethylbenzene	< 63.1	63.1		ug/Kg dry	21.0	08/25/16 14:33	B6H1361	MNN	70	
Benzene	< 116	116		ug/Kg dry	38.6	08/25/16 14:33	B6H1361	MNN	70	
Ethylbenzene	< 75.6	75.6		ug/Kg dry	25.2	08/25/16 14:33	B6H1361	MNN	70	
m,p-Xylene	< 69.2	69.2		ug/Kg dry	23.1	08/25/16 14:33	B6H1361	MNN	70	
Methyl tert-butyl ether	< 199	199		ug/Kg dry	66.3	08/25/16 14:33	B6H1361	MNN	70	
Naphthalene	< 134	134		ug/Kg dry	44.8	08/25/16 14:33	B6H1361	MNN	70	
o-Xylene	< 95.0	95.0		ug/Kg dry	31.7	08/25/16 14:33	B6H1361	MNN	70	
Toluene	< 139	139		ug/Kg dry	46.3	08/25/16 14:33	B6H1361	MNN	70	
Xylenes, Total	< 161	161		ug/Kg dry	53.6	08/25/16 14:33	B6H1361	MNN	70	
Surrogate: 1,4-Dichlorobenzene-d4				Recovery: 107%	Limits: 70-130	08/25/16 14:33	B6H1361	MNN	70	

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### Dates Report

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1067

**Report Date:** 09/01/2016

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
16H1067-01	HS#1	08/23/16	Waste	Total Solids / Percent Moisture		08/25/16 07:23	08/25/16 07:34	B6H1339	
				PVOC (WDNR) by GC/FID		08/25/16 10:07	08/25/16 14:33	B6H1361	S6H0485
				Polynuclear Aromatic Hydrocarbons by HPLC		08/31/16 15:48	08/31/16 19:41	B6H1664	S6H0547

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**Quality Control**

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1067

**Report Date:** 09/01/2016  
**Matrix:** Solid

**Wet Chemistry**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
<b>Batch: B6H1339</b>											
<b>Blank (B6H1339-BLK1)</b>											
				<i>Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:38</i>							
Total Solids	< 0.0170	0.100	%								1
<b>LCS (B6H1339-BS1)</b>											
				<i>Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:40</i>							
Total Solids	0.191		%	0.1995		95.5	93-115				1
<b>Duplicate (B6H1339-DUP1)</b>											
				<b>Source: 16H1067-01</b> <i>Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:42</i>							
Total Solids	85.5	0.100	%		86.0			0.526	5		1



**Quality Control**

(Continued)

**Client:** Professional Service Industries, Inc (PSI)**Report Date:** 09/01/2016**Project:** PSI lab Analysis  
Humbolt & Brady/Composite**Matrix:** Solid**Work Order:** 16H1067**Polynuclear Aromatics by High Pressure Liquid Chromatography (HPLC)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B6H1664 - SW3546****Blank (B6H1664-BLK1)**

Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 18:23

1-Methylnaphthalene	< 49.1	159	ug/Kg wet								1
2-Methylnaphthalene	< 17.2	123	ug/Kg wet								1
Acenaphthene	< 22.6	123	ug/Kg wet								1
Acenaphthylene	< 23.8	123	ug/Kg wet								1
Anthracene	< 15.2	123	ug/Kg wet								1
Benzo(a)anthracene	< 12.7	123	ug/Kg wet								1
Benzo(a)pyrene	< 18.4	61.3	ug/Kg wet								1
Benzo(b)fluoranthene	< 14.5	123	ug/Kg wet								1
Benzo(g,h,i)perylene	< 8.10	61.3	ug/Kg wet								1
Benzo(k)fluoranthene	< 12.0	61.3	ug/Kg wet								1
Chrysene	< 12.8	123	ug/Kg wet								1
Dibenzo(a,h)anthracene	< 19.2	123	ug/Kg wet								1
Fluoranthene	< 19.1	123	ug/Kg wet								1
Fluorene	< 39.0	159	ug/Kg wet								1
Indeno(1,2,3-cd)pyrene	< 44.2	159	ug/Kg wet								1
Naphthalene	< 31.2	159	ug/Kg wet								1
Phenanthrene	< 16.2	123	ug/Kg wet								1
Pyrene	< 8.34	61.3	ug/Kg wet								1
Surrogate: 4-Terphenyl-d14	1960		ug/Kg wet	1963		100	33-133				1

**LCS (B6H1664-BS1)**

Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 19:02

1-Methylnaphthalene	183	155	ug/Kg wet	191.1		96	30-122				1
2-Methylnaphthalene	197	119	ug/Kg wet	191.1		103	30-122				1
Acenaphthene	185	119	ug/Kg wet	191.1		97	35-110				1
Acenaphthylene	188	119	ug/Kg wet	191.1		98	35-115				1
Anthracene	191	119	ug/Kg wet	191.1		100	45-125				1
Benzo(a)anthracene	197	119	ug/Kg wet	191.1		103	50-105				1
Benzo(a)pyrene	205	59.7	ug/Kg wet	191.1		107	40-135				1
Benzo(b)fluoranthene	194	119	ug/Kg wet	191.1		102	55-120				1
Benzo(g,h,i)perylene	203	59.7	ug/Kg wet	191.1		106	55-115				1
Benzo(k)fluoranthene	208	59.7	ug/Kg wet	191.1		109	50-120				1
Chrysene	197	119	ug/Kg wet	191.1		103	55-120				1
Dibenzo(a,h)anthracene	212	119	ug/Kg wet	191.1		111	45-115				1
Fluoranthene	193	119	ug/Kg wet	191.1		101	40-135				1
Fluorene	181	155	ug/Kg wet	191.1		94	45-105				1
Indeno(1,2,3-cd)pyrene	208	155	ug/Kg wet	191.1		109	55-135				1
Naphthalene	186	155	ug/Kg wet	191.1		97	50-110				1
Phenanthrene	191	119	ug/Kg wet	191.1		100	55-125				1
Pyrene	203	59.7	ug/Kg wet	191.1		106	50-115				1
Surrogate: 4-Terphenyl-d14	1920		ug/Kg wet	1911		100	33-133				1

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**Quality Control**

(Continued)

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1067

**Report Date:** 09/01/2016  
**Matrix:** Solid

**Polynuclear Aromatics by High Pressure Liquid Chromatography (HPLC)**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B6H1664 - SW3546 (Continued)**
**Matrix Spike (B6H1664-MS1)**
**Source: 16H1067-01**
*Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 21:00*

1-Methylnaphthalene	213	180	ug/Kg dry	221.2	ND	96	50-150				1
2-Methylnaphthalene	234	138	ug/Kg dry	221.2	ND	106	50-150				1
Acenaphthene	235	138	ug/Kg dry	221.2	ND	106	50-150				1
Acenaphthylene	217	138	ug/Kg dry	221.2	ND	98	50-150				1
Anthracene	245	138	ug/Kg dry	221.2	47.4	89	50-150				1
Benzo(a)anthracene	371	138	ug/Kg dry	221.2	173	89	50-150				1
Benzo(a)pyrene	397	69.1	ug/Kg dry	221.2	212	83	50-150				1
Benzo(b)fluoranthene	362	138	ug/Kg dry	221.2	209	69	50-150				1
Benzo(g,h,i)perylene	363	69.1	ug/Kg dry	221.2	250	51	50-150				1
Benzo(k)fluoranthene	308	69.1	ug/Kg dry	221.2	116	87	50-150				1
Chrysene	456	138	ug/Kg dry	221.2	215	109	50-150				1
Dibenzo(a,h)anthracene	258	138	ug/Kg dry	221.2	60.1	90	50-150				1
Fluoranthene	650	138	ug/Kg dry	221.2	418	105	50-150				1
Fluorene	293	180	ug/Kg dry	221.2	ND	133	50-150				1
Indeno(1,2,3-cd)pyrene	353	180	ug/Kg dry	221.2	219	61	50-150				1
Naphthalene	221	180	ug/Kg dry	221.2	ND	100	50-150				1
Phenanthrene	341	138	ug/Kg dry	221.2	161	81	50-150				1
Pyrene	556	69.1	ug/Kg dry	221.2	352	92	50-150				1
Surrogate: 4-Terphenyl-d14	2000		ug/Kg dry	2212		90	33-133				1

**Matrix Spike Dup (B6H1664-MSD1)**
**Source: 16H1067-01**
*Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 21:39*

1-Methylnaphthalene	189	184	ug/Kg dry	225.9	ND	84	50-150	12	30		1
2-Methylnaphthalene	208	141	ug/Kg dry	225.9	ND	92	50-150	12	30		1
Acenaphthene	229	141	ug/Kg dry	225.9	ND	101	50-150	3	30		1
Acenaphthylene	200	141	ug/Kg dry	225.9	ND	89	50-150	8	30		1
Anthracene	292	141	ug/Kg dry	225.9	47.4	108	50-150	18	30		1
Benzo(a)anthracene	495	141	ug/Kg dry	225.9	173	142	50-150	29	30		1
Benzo(a)pyrene	467	70.6	ug/Kg dry	225.9	212	113	50-150	16	30		1
Benzo(b)fluoranthene	430	141	ug/Kg dry	225.9	209	98	50-150	17	30		1
Benzo(g,h,i)perylene	432	70.6	ug/Kg dry	225.9	250	80	50-150	17	30		1
Benzo(k)fluoranthene	341	70.6	ug/Kg dry	225.9	116	99	50-150	10	30		1
Chrysene	500	141	ug/Kg dry	225.9	215	126	50-150	9	30		1
Dibenzo(a,h)anthracene	286	141	ug/Kg dry	225.9	60.1	100	50-150	10	30		1
Fluoranthene	781	141	ug/Kg dry	225.9	418	160	50-150	18	30	S	1
Fluorene	330	184	ug/Kg dry	225.9	ND	146	50-150	12	30		1
Indeno(1,2,3-cd)pyrene	430	184	ug/Kg dry	225.9	219	93	50-150	20	30		1
Naphthalene	193	184	ug/Kg dry	225.9	ND	86	50-150	14	30		1
Phenanthrene	417	141	ug/Kg dry	225.9	161	113	50-150	20	30		1
Pyrene	693	70.6	ug/Kg dry	225.9	352	151	50-150	22	30	S	1
Surrogate: 4-Terphenyl-d14	2250		ug/Kg dry	2259		100	33-133				1

### Quality Control

(Continued)

**Client:** Professional Service Industries, Inc (PSI)  
**Project:** PSI lab Analysis  
 Humbolt & Brady/Composite  
**Work Order:** 16H1067

**Report Date:** 09/01/2016  
**Matrix:** Solid

#### PVOC Compounds by GC PID/FID

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
<b>Batch: B6H1361</b>											
<b>Blank (B6H1361-BLK1)</b>											
<i>Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 12:22</i>											
1,2,4-Trimethylbenzene	< 42.6	42.6	ug/Kg wet								50
1,3,5-Trimethylbenzene	< 25.0	25.0	ug/Kg wet								50
Benzene	< 38.6	38.6	ug/Kg wet								50
Ethylbenzene	< 25.2	25.2	ug/Kg wet								50
m,p-Xylene	< 25.0	25.0	ug/Kg wet								50
Methyl tert-butyl ether	< 66.3	66.3	ug/Kg wet								50
Naphthalene	< 44.8	44.8	ug/Kg wet								50
o-Xylene	< 31.7	31.7	ug/Kg wet								50
Toluene	< 46.3	46.3	ug/Kg wet								50
Xylenes, Total	< 53.6	53.6	ug/Kg wet								50
<i>Surrogate: 1,4-Dichlorobenzene-d4</i>	<i>20.1</i>		<i>ug/Kg</i>	<i>20.00</i>		<i>101</i>	<i>70-130</i>				<i>50</i>
<b>LCS (B6H1361-BS1)</b>											
<i>Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 13:05</i>											
1,2,4-Trimethylbenzene	1100	42.6	ug/Kg wet	1000		110	80-120				50
1,3,5-Trimethylbenzene	1140	25.0	ug/Kg wet	1010		113	80-120				50
Benzene	1060	38.6	ug/Kg wet	1000		106	80-120				50
Ethylbenzene	1090	25.2	ug/Kg wet	1000		109	80-120				50
m,p-Xylene	2180	25.0	ug/Kg wet	2000		109	80-120				50
Methyl tert-butyl ether	1080	66.3	ug/Kg wet	1000		108	80-120				50
Naphthalene	1220	44.8	ug/Kg wet	1000		122	80-120			S	50
o-Xylene	1090	31.7	ug/Kg wet	1010		108	80-120				50
Toluene	1090	46.3	ug/Kg wet	1000		109	80-120				50
Xylenes, Total	3270	53.6	ug/Kg wet	3000		109	80-120				50
<i>Surrogate: 1,4-Dichlorobenzene-d4</i>	<i>22.9</i>		<i>ug/Kg</i>	<i>20.00</i>		<i>114</i>	<i>70-130</i>				<i>50</i>
<b>LCS Dup (B6H1361-BSD1)</b>											
<i>Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 15:16</i>											
1,2,4-Trimethylbenzene	1040	42.6	ug/Kg wet	1000		104	80-120	6	20		50
1,3,5-Trimethylbenzene	1030	25.0	ug/Kg wet	1010		102	80-120	10	20		50
Benzene	1040	38.6	ug/Kg wet	1000		104	80-120	2	20		50
Ethylbenzene	1040	25.2	ug/Kg wet	1000		104	80-120	5	20		50
m,p-Xylene	2050	25.0	ug/Kg wet	2000		103	80-120	6	20		50
Methyl tert-butyl ether	1070	66.3	ug/Kg wet	1000		107	80-120	1	20		50
Naphthalene	1120	44.8	ug/Kg wet	1000		112	80-120	8	20		50
o-Xylene	1030	31.7	ug/Kg wet	1010		102	80-120	5	20		50
Toluene	1050	46.3	ug/Kg wet	1000		105	80-120	4	20		50
Xylenes, Total	3080	53.6	ug/Kg wet	3000		103	80-120	6	20		50
<i>Surrogate: 1,4-Dichlorobenzene-d4</i>	<i>21.9</i>		<i>ug/Kg</i>	<i>20.00</i>		<i>109</i>	<i>70-130</i>				<i>50</i>



**Certified Analyses included in this Report**

Analyte	CAS #	Certifications
<b>SM2540G in Solid</b>		
Total Solids	Moist	WDNR
<b>SW8310 in Solid</b>		
1-Methylnaphthalene	90-12-0	AKDEC,WDNR,DoD
2-Methylnaphthalene	91-57-6	AKDEC,WDNR,DoD
Acenaphthene	83-32-9	AKDEC,WDNR,DoD,LELAP,ILEPA
Acenaphthylene	208-96-8	AKDEC,WDNR,DoD,LELAP,ILEPA
Anthracene	120-12-7	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(a)anthracene	56-55-3	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(a)pyrene	50-32-8	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(b)fluoranthene	205-99-2	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(g,h,i)perylene	191-24-2	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(k)fluoranthene	207-08-9	AKDEC,WDNR,DoD,LELAP,ILEPA
Chrysene	218-01-9	AKDEC,WDNR,DoD,LELAP,ILEPA
Dibenzo(a,h)anthracene	53-70-3	AKDEC,WDNR,DoD,LELAP,ILEPA
Fluoranthene	206-44-0	AKDEC,WDNR,DoD,LELAP,ILEPA
Fluorene	86-73-7	AKDEC,WDNR,DoD,LELAP,ILEPA
Indeno(1,2,3-cd)pyrene	193-39-5	AKDEC,WDNR,DoD,LELAP,ILEPA
Naphthalene	91-20-3	AKDEC,WDNR,DoD,LELAP,ILEPA
Phenanthrene	85-01-8	AKDEC,WDNR,DoD,LELAP,ILEPA
Pyrene	129-00-0	AKDEC,WDNR,DoD,LELAP,ILEPA
<b>WI(95)-GRO/PVOC: PUBL-SW-140 in Solid</b>		
1,2,4-Trimethylbenzene	95-63-6	WDNR
1,3,5-Trimethylbenzene	108-67-8	WDNR
Benzene	71-43-2	WDNR
Ethylbenzene	100-41-4	WDNR
m,p-Xylene	179601-23-1	WDNR
Methyl tert-butyl ether	1634-04-4	WDNR
Naphthalene	91-20-3	WDNR
o-Xylene	95-47-6	WDNR
Toluene	108-88-3	WDNR
Xylenes, Total	1330-20-7	WDNR

**List of Certifications**

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	UST-105	07/16/2016
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L14-56	04/30/2016
DoD	Department of Defense, Accredited by PJLA	L14-55	04/30/2018
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	003674	07/27/2016
ISO	ISO/IEC 17025, Accredited by PJLA	L14-56	04/30/2018
LELAP	State of Louisiana, NELAP Accredited Lab No. 171344	05015	06/30/2016
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2016

### Qualifiers and Definitions

Item	Description
S	The recovery is outside of the laboratory control limits.
%Rec	Percent Recovery





# Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

PAT PATTERSON  
PSI  
821 CORPORATE COURT  
WAUKESHA, WI 53189

Report Date 08-Sep-16

Project Name 1701 N. HUMBOLDT ROAD  
Project # 00541258

Invoice # E31676

Lab Code 5031676A  
Sample ID X-B-9'  
Sample Matrix Soil  
Sample Date 9/1/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	80.7	%			1	5021		9/6/2016	NJC	1
Organic										
PAH SIM										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C		9/7/2016	MJR	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C		9/7/2016	MJR	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C		9/7/2016	MJR	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C		9/7/2016	MJR	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C		9/7/2016	MJR	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C		9/7/2016	MJR	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C		9/7/2016	MJR	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C		9/7/2016	MJR	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C		9/7/2016	MJR	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C		9/7/2016	MJR	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C		9/7/2016	MJR	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C		9/7/2016	MJR	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C		9/7/2016	MJR	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C		9/7/2016	MJR	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C		9/7/2016	MJR	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C		9/7/2016	MJR	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C		9/7/2016	MJR	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C		9/7/2016	MJR	1
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		9/6/2016	CJR	1
Ethylbenzene	< 0.025	mg/kg	0.014	0.045	1	GRO95/8021		9/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.013	0.041	1	GRO95/8021		9/6/2016	CJR	1
Naphthalene	< 0.025	mg/kg	0.0094	0.03	1	GRO95/8021		9/6/2016	CJR	1
Toluene	< 0.025	mg/kg	0.015	0.048	1	GRO95/8021		9/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		9/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.012	0.038	1	GRO95/8021		9/6/2016	CJR	1
m&p-Xylene	< 0.05	mg/kg	0.023	0.074	1	GRO95/8021		9/6/2016	CJR	1
o-Xylene	< 0.025	mg/kg	0.024	0.078	1	GRO95/8021		9/6/2016	CJR	1

**Project Name** 1701 N. HUMBOLDT ROAD  
**Project #** 00541258

**Invoice #** E31676

**Lab Code** 5031676B  
**Sample ID** X-WSW-6'  
**Sample Matrix** Soil  
**Sample Date** 9/1/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>General</b>										
<b>General</b>										
Solids Percent	79.5	%			1	5021		9/6/2016	NJC	1
<b>Organic</b>										
<b>PAH SIM</b>										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C		9/7/2016	MJR	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C		9/7/2016	MJR	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C		9/7/2016	MJR	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C		9/7/2016	MJR	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C		9/7/2016	MJR	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C		9/7/2016	MJR	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C		9/7/2016	MJR	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C		9/7/2016	MJR	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C		9/7/2016	MJR	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C		9/7/2016	MJR	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C		9/7/2016	MJR	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C		9/7/2016	MJR	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C		9/7/2016	MJR	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C		9/7/2016	MJR	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C		9/7/2016	MJR	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C		9/7/2016	MJR	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C		9/7/2016	MJR	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C		9/7/2016	MJR	1
<b>PVOC + Naphthalene</b>										
Benzene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		9/6/2016	CJR	1
Ethylbenzene	< 0.025	mg/kg	0.014	0.045	1	GRO95/8021		9/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.013	0.041	1	GRO95/8021		9/6/2016	CJR	1
Naphthalene	< 0.025	mg/kg	0.0094	0.03	1	GRO95/8021		9/6/2016	CJR	1
Toluene	< 0.025	mg/kg	0.015	0.048	1	GRO95/8021		9/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		9/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.012	0.038	1	GRO95/8021		9/6/2016	CJR	1
m&p-Xylene	0.054 "J"	mg/kg	0.023	0.074	1	GRO95/8021		9/6/2016	CJR	1
o-Xylene	< 0.025	mg/kg	0.024	0.078	1	GRO95/8021		9/6/2016	CJR	1



Project Name 1701 N. HUMBOLDT ROAD  
 Project # 00541258

Invoice # E31676

Lab Code 5031676C  
 Sample ID X-ESW-6'  
 Sample Matrix Soil  
 Sample Date 9/1/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>General</b>										
<b>General</b>										
Solids Percent	79.4	%			1	5021		9/6/2016	NJC	1
<b>Organic</b>										
<b>PAH SIM</b>										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C		9/7/2016	MJR	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C		9/7/2016	MJR	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C		9/7/2016	MJR	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C		9/7/2016	MJR	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C		9/7/2016	MJR	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C		9/7/2016	MJR	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C		9/7/2016	MJR	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C		9/7/2016	MJR	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C		9/7/2016	MJR	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C		9/7/2016	MJR	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C		9/7/2016	MJR	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C		9/7/2016	MJR	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C		9/7/2016	MJR	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C		9/7/2016	MJR	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C		9/7/2016	MJR	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C		9/7/2016	MJR	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C		9/7/2016	MJR	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C		9/7/2016	MJR	1
<b>PVOC + Naphthalene</b>										
Benzene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		9/6/2016	CJR	1
Ethylbenzene	< 0.025	mg/kg	0.014	0.045	1	GRO95/8021		9/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.013	0.041	1	GRO95/8021		9/6/2016	CJR	1
Naphthalene	< 0.025	mg/kg	0.0094	0.03	1	GRO95/8021		9/6/2016	CJR	1
Toluene	< 0.025	mg/kg	0.015	0.048	1	GRO95/8021		9/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		9/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.012	0.038	1	GRO95/8021		9/6/2016	CJR	1
m&p-Xylene	< 0.05	mg/kg	0.023	0.074	1	GRO95/8021		9/6/2016	CJR	1
o-Xylene	< 0.025	mg/kg	0.024	0.078	1	GRO95/8021		9/6/2016	CJR	1

Project Name 1701 N. HUMBOLDT ROAD  
 Project # 00541258

Invoice # E31676

Lab Code 5031676D  
 Sample ID X-SSW-6'  
 Sample Matrix Soil  
 Sample Date 9/1/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>General</b>										
<b>General</b>										
Solids Percent	79.5	%			1	5021		9/6/2016	NJC	1
<b>Organic</b>										
<b>PAH SIM</b>										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C		9/7/2016	MJR	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C		9/7/2016	MJR	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C		9/7/2016	MJR	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C		9/7/2016	MJR	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C		9/7/2016	MJR	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C		9/7/2016	MJR	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C		9/7/2016	MJR	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C		9/7/2016	MJR	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C		9/7/2016	MJR	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C		9/7/2016	MJR	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C		9/7/2016	MJR	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C		9/7/2016	MJR	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C		9/7/2016	MJR	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C		9/7/2016	MJR	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C		9/7/2016	MJR	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C		9/7/2016	MJR	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C		9/7/2016	MJR	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C		9/7/2016	MJR	1
<b>PVOC + Naphthalene</b>										
Benzene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		9/6/2016	CJR	1
Ethylbenzene	< 0.025	mg/kg	0.014	0.045	1	GRO95/8021		9/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.013	0.041	1	GRO95/8021		9/6/2016	CJR	1
Naphthalene	< 0.025	mg/kg	0.0094	0.03	1	GRO95/8021		9/6/2016	CJR	1
Toluene	< 0.025	mg/kg	0.015	0.048	1	GRO95/8021		9/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		9/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.012	0.038	1	GRO95/8021		9/6/2016	CJR	1
m&p-Xylene	< 0.05	mg/kg	0.023	0.074	1	GRO95/8021		9/6/2016	CJR	1
o-Xylene	< 0.025	mg/kg	0.024	0.078	1	GRO95/8021		9/6/2016	CJR	1

**Project Name** 1701 N. HUMBOLDT ROAD  
**Project #** 00541258

**Invoice #** E31676

**Lab Code** 5031676E  
**Sample ID** X-NSW-6'  
**Sample Matrix** Soil  
**Sample Date** 9/1/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>General</b>										
<b>General</b>										
Solids Percent	78.3	%			1	5021		9/6/2016	NJC	1
<b>Organic</b>										
<b>PAH SIM</b>										
Acenaphthene	< 0.0135	mg/kg	0.0135	0.043	1	M8270C		9/7/2016	MJR	1
Acenaphthylene	< 0.012	mg/kg	0.012	0.0381	1	M8270C		9/7/2016	MJR	1
Anthracene	< 0.0124	mg/kg	0.0124	0.0395	1	M8270C		9/7/2016	MJR	1
Benzo(a)anthracene	< 0.0116	mg/kg	0.0116	0.037	1	M8270C		9/7/2016	MJR	1
Benzo(a)pyrene	< 0.0113	mg/kg	0.0113	0.0359	1	M8270C		9/7/2016	MJR	1
Benzo(b)fluoranthene	< 0.013	mg/kg	0.013	0.0414	1	M8270C		9/7/2016	MJR	1
Benzo(g,h,i)perylene	< 0.0114	mg/kg	0.0114	0.0363	1	M8270C		9/7/2016	MJR	1
Benzo(k)fluoranthene	< 0.0117	mg/kg	0.0117	0.0371	1	M8270C		9/7/2016	MJR	1
Chrysene	< 0.0138	mg/kg	0.0138	0.0439	1	M8270C		9/7/2016	MJR	1
Dibenzo(a,h)anthracene	< 0.0142	mg/kg	0.0142	0.0453	1	M8270C		9/7/2016	MJR	1
Fluoranthene	< 0.0131	mg/kg	0.0131	0.0418	1	M8270C		9/7/2016	MJR	1
Fluorene	< 0.0135	mg/kg	0.0135	0.0431	1	M8270C		9/7/2016	MJR	1
Indeno(1,2,3-cd)pyrene	< 0.015	mg/kg	0.015	0.0476	1	M8270C		9/7/2016	MJR	1
1-Methyl naphthalene	< 0.0143	mg/kg	0.0143	0.0456	1	M8270C		9/7/2016	MJR	1
2-Methyl naphthalene	< 0.0119	mg/kg	0.0119	0.038	1	M8270C		9/7/2016	MJR	1
Naphthalene	< 0.0122	mg/kg	0.0122	0.0387	1	M8270C		9/7/2016	MJR	1
Phenanthrene	< 0.0109	mg/kg	0.0109	0.0347	1	M8270C		9/7/2016	MJR	1
Pyrene	< 0.0126	mg/kg	0.0126	0.0401	1	M8270C		9/7/2016	MJR	1
<b>PVOC + Naphthalene</b>										
Benzene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		9/6/2016	CJR	1
Ethylbenzene	< 0.025	mg/kg	0.014	0.045	1	GRO95/8021		9/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.013	0.041	1	GRO95/8021		9/6/2016	CJR	1
Naphthalene	< 0.025	mg/kg	0.0094	0.03	1	GRO95/8021		9/6/2016	CJR	1
Toluene	< 0.025	mg/kg	0.015	0.048	1	GRO95/8021		9/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		9/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.012	0.038	1	GRO95/8021		9/6/2016	CJR	1
m&p-Xylene	< 0.05	mg/kg	0.023	0.074	1	GRO95/8021		9/6/2016	CJR	1
o-Xylene	< 0.025	mg/kg	0.024	0.078	1	GRO95/8021		9/6/2016	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

**Code**      **Comment**

1      Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature**





**Customer Summary Report**

**Criteria: 05/22/2016 12:00 AM to 09/22/2016 11:59 PM**

**Business Unit Name: Orchard Ridge RDF - S03953 (USA)**

**User: cchesnic**

**Date: Sep 22 2016, 3:04:26 PM - Central Standard Time**

**Operation Type: All**

**Customer Name: All**

**Ticket Type: All**

**Customer Type: All**

**PMT Category: All**

**Profile: BIO125624WI**

Ticket Date	Ticket ID	Cust Code	MAS Unique ID	Customer	Generator	fest	Profile	ck	Material	Material Description	in	Rate Qty	Yards	Tons
8/30/2016	1475821	0004816	174366753007	MULTIFAMILY	PROPOSEDA		BIO125624WI	1	APV	INITIAL APPROVAL		0	0	0
<b>Material Total</b>	1											0	0	0
9/1/2016	1476679	0004816	174366753007	OGDEN MULTIFAMILY PARTNERS	136- PROPOSEDA PART	NA	BIO125624WI	8	Spw Biorem RGC-Tons	Unspecified material, bioremediated, daily cover, PMT RGC	WI	20.06	0	20.06
9/1/2016	1476688	0004816	174366753007	OGDEN MULTIFAMILY PARTNERS	136- PROPOSEDA PART	NA	BIO125624WI	32	Spw Biorem RGC-Tons	Unspecified material, bioremediated, daily cover, PMT RGC	WI	17.96	0	17.96
9/1/2016	1476732	0004816	174366753007	OGDEN MULTIFAMILY PARTNERS	136- PROPOSEDA PART	NA	BIO125624WI	3	Spw Biorem RGC-Tons	Unspecified material, bioremediated, daily cover, PMT RGC	WI	19.91	0	19.91
9/1/2016	1476734	0004816	174366753007	OGDEN MULTIFAMILY PARTNERS	136- PROPOSEDA PART	NA	BIO125624WI	7	Spw Biorem RGC-Tons	Unspecified material, bioremediated, daily cover, PMT RGC	WI	19.69	0	19.69
<b>Material Total</b>	4											77.62	0	77.62
<b>Customer Total</b>	5											77.62	0	77.62
<b>Ticket Totals</b>	5											77.62	0	77.62

**Customer Summary Report**

**Criteria: 05/22/2016 12:00 AM to 09/22/2016 11:59 PM**



FID# 341279730

BRRTS# 02-41-578054

State of Wisconsin  
Department of Natural Resources  
dnr.wi.gov

### Notification For Hazardous Substance Discharge (Non-Emergency Only)

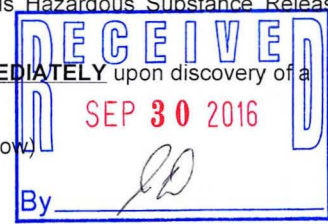
Form 4400-225 (09/13) Page 1 of 2

**Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003**

**Notice: Hazardous substance discharges must be reported immediately** according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (**check one**):



- Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- Aboveground Petroleum Storage Tank System
- Dry Cleaner Facility
- Other - Describe: Fuel Oil/Polynuclear Aromatic Hydrocarbons (PAHs).

ATTN DNR: **R & R Program Associate**

Date DNR Notified: 09/30/2016

#### 1. Discharge Reported By

Name Patrick J. Patterson	Firm Professional Service Industries, Inc. (PSI)	Phone No. (include area code) (262) 521-2125
Mailing Address 821 Corporate Court, Waukesha WI 53189	Email Address patrick.patterson@psiusa.com	

#### 2. Site Information

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. Apartment Complex

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 1701 N. Humboldt Avenue

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.

City of Milwaukee 53202-1622

County: Milwaukee	Legal Description: SE 1/4 NW 1/4 Sec <u>21</u> Tn <u>7</u> Range <u>22</u> <input checked="" type="radio"/> E <input type="radio"/> W	WTM: X <u>691153</u> Y <u>288874</u>
----------------------	--	---

#### 3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Ogden Construction Corporation

- Reported in compliance with s. 292.11(2), Wis. Stats., by a local government exempt from liability under s. 292.11(9)(e), Wis. Stats.
- For more information see <http://dnr.wi.gov/topic/Brownfields/Liability.html>.

Contact Person Name (if different) Joel Cook	Phone Number (414) 342-7200	Email Address joelcook@ogdenre.com	
Mailing Address 1665 N. Water Street	City Milwaukee	State WI	ZIP Code 53202

Property owner if Different From RP: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. Ogden Multifamily Partners, LLC

Contact Person Name (if different)	Phone Number (414) 342-7200	Email Address joelcook@ogdenre.com	
Mailing Address 1665 N. Water Street	City Milwaukee	State WI	ZIP Code 53202

(continued)



**4. Hazardous Substance Information**

Identify hazardous substance discharged (check all that apply):

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> VOC's                   | <input type="checkbox"/> Diesel                 | <input type="checkbox"/> PERC (Dry Cleaners)                |
| <input checked="" type="checkbox"/> PAH's        | <input checked="" type="checkbox"/> Fuel Oil    | <input type="checkbox"/> RCRA Hazardous Waste               |
| <input type="checkbox"/> Metals (specify): _____ | <input type="checkbox"/> Gasoline               | <input type="checkbox"/> Leachate                           |
| <input type="checkbox"/> Arsenic                 | <input type="checkbox"/> Hydraulic Oil          | <input type="checkbox"/> Fertilizer                         |
| <input type="checkbox"/> Chromium                | <input type="checkbox"/> Jet Fuel               | <input type="checkbox"/> Pesticide/Herbicide/Insecticide(s) |
| <input type="checkbox"/> Cyanide                 | <input type="checkbox"/> Mineral Oil            | <input type="checkbox"/> Other (specify): _____             |
| <input type="checkbox"/> Lead                    | <input type="checkbox"/> Waste Oil              | <input type="checkbox"/> Unknown                            |
| <input type="checkbox"/> PCB's                   | <input type="checkbox"/> Petroleum-Unknown Type |   |

**5. Impacts to the Environment Information**

Enter "K" for known/confirmed or "P" for potential for all that apply.

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Air Contamination                            | <input type="checkbox"/> Sanitary Sewer Contamination  | <input checked="" type="checkbox"/> Soil Contamination |
| <input type="checkbox"/> Co-Contamination (Petroleum & Non-Petroleum) | <input type="checkbox"/> Contamination in Right of Way | <input type="checkbox"/> Storm Sewer                   |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock      | <input type="checkbox"/> Fire Explosion Threat         | <input type="checkbox"/> Surface Water Contamination   |
| <input type="checkbox"/> Contaminated Private Well                    | <input type="checkbox"/> Free Product                  | <input type="checkbox"/> Within 100 ft of Private Well |
| <input type="checkbox"/> Contaminated Public Well                     | <input type="checkbox"/> Groundwater Contamination     | <input type="checkbox"/> Within 1000 ft of Public Well |
| <input type="checkbox"/> Contamination in Fractured Bedrock           | <input type="checkbox"/> Off-Site Contamination        |  |
|   | <input type="checkbox"/> Other (specify): _____        |  |

Contamination was discovered as a result of:

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Tank closure assessment | <input type="checkbox"/> Site assessment | <input checked="" type="checkbox"/> Other - Describe: <u>Site Development</u> |
| Date: <input type="text"/>                       | Date: <input type="text"/>               | Date: <input type="text" value="08/23/2016"/>                                 |

Lab results:  Lab results will be faxed upon receipt  Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

The extent of the fuel oil (PAH) contamination was excavated from the parcel on 9/1/2016.

**6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))**

For all confirmed releases from UST's occurring after 9/30/2007 please provide the following information:

- |                                     | Source  | Cause  |
|-------------------------------------|---|--|
| <input type="checkbox"/>            | <input type="checkbox"/> Tank                     | <input type="checkbox"/> Spill                             |
| <input type="checkbox"/>            | <input type="checkbox"/> Piping                   | <input type="checkbox"/> Overfill                          |
| <input type="checkbox"/>            | <input type="checkbox"/> Dispenser                | <input type="checkbox"/> Corrosion                         |
| <input type="checkbox"/>            | <input type="checkbox"/> Submersible Turbine Pump | <input type="checkbox"/> Physical or Mechanical Damage     |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Delivery Problem         | <input type="checkbox"/> Installation Problem              |
|                                     | <input type="checkbox"/> Other (specify): _____   | <input type="checkbox"/> Other (does not fit any of above) |
|                                     |   | <input type="checkbox"/> Unknown                           |

Contact information to report non-emergency releases in DNR's five regions are as follows:

**Northeast Region (FAX: 920-662-5197); Attention -- R&R Program Associate: DNRRRNER@wisconsin.gov**

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

**Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate: DNRRRNOR@wisconsin.gov**

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

**South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate: DNRRRSCR@wisconsin.gov**

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

**Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate: DNRRRSER@wisconsin.gov**

Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

**West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate: DNRRRWCR@wisconsin.gov**

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties



October 3, 2016

Mr. Joel Cook  
Ogden Construction Corporation  
1665 N. Water Street  
Milwaukee, WI 53202

Subject: Reported Contamination at Apartment Complex  
1701 N. Humboldt Ave., Milwaukee, WI 53202  
DNR BRRTS Activity # 02-41-578054  
DNR FID # 341279730

Dear Mr. Cook:

On September 30, 2016, Patrick Patterson from Professional Service Industries, Inc., on behalf of Ogden Construction Corporation notified the Department of Natural Resources (DNR) that soil contamination had been detected at the site described above.

Based on the information that has been submitted to the DNR regarding this site, we believe Ogden Construction Corporation is responsible for investigating and restoring the environment at the above-described site under Section 292.11, Wisconsin Statutes, known as the hazardous substances spills law.

This letter describes the legal responsibilities of a person who is responsible under section 292.11, Wis. Stats., explains what you need to do to investigate and clean up the contamination, and provides you with information about cleanups, environmental consultants, possible financial assistance, and working cooperatively with the DNR or the Department of Agriculture, Trade and Consumer Protection (DATCP).

### **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 Code chapters NR 700 through NR 754 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. 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. The following information provides the timeframes and required steps to take. Unless otherwise approved by DNR in writing you must complete the work by the timeframes specified.

1. Within the next **30 days**, by November 2, 2016, you should submit written verification (such as a letter from the consultant) that you have hired an environmental consultant. If you do not take action within this time frame, the DNR may initiate enforcement action against you.
2. Within the next **60 days**, by December 2, 2016, you must submit a work plan for completing the investigation. The work plan must comply with the requirements in the NR 700 Wis. Adm. Code rule series and should adhere to current DNR technical guidance documents.
3. You must initiate the site investigation within 90 days of submitting the site investigation work plan. If a fee for DNR review has been submitted, the site investigation must begin within 60 days after receiving DNR comments.
4. Within 60 days after completion of the field investigation and receipt of the laboratory data, you must submit a Site Investigation Report to the DNR or other agency with administrative authority. For sites with agrichemicals contamination, your case will be transferred to the Department of Agriculture, Trade and Consumer Protection for oversight.
5. Within 60 days after submitting the Site Investigation Report, you must submit a remedial actions options report.

Sites where discharges to the environment have been reported are entered into the Bureau for Remediation and Redevelopment Tracking System ("BRRTS"), a version of which appears on the DNR's internet site. You may view the information related to your site at any time (<http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>) and use the feedback system to alert us to any errors in the data.

If you want a formal written response from the department on a specific submittal, please be aware that a review fee is required in accordance with ch. NR 749, Wis. Adm. Code. If a fee is not submitted with your reports, you must complete the site investigation and cleanup to maintain your compliance with the spills law and chapters NR 700 through NR 754. **The timeframes specified above are required by rule, so do not delay the investigation of your site.** We have provided detailed technical guidance to environmental consultants. Your consultant is expected to know our technical procedures and administrative rules and should be able to answer your questions on meeting cleanup requirements. All correspondence regarding this site should be sent to:

Chue Yee Yang  
Environmental Program Associate  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
2300 N. Martin Luther King Dr.  
Milwaukee, WI 53212  
[chueyee.yang@wisconsin.gov](mailto:chueyee.yang@wisconsin.gov)



Unless otherwise directed, submit one paper copy and one electronic copy of plans and reports. To speed processing, correspondence should reference the BRRTS and FID numbers (if assigned) shown at the top of this letter.

**Site Investigation and Vapor Pathway Analysis:**

As you develop the site investigation work plan, we want to remind you to include an assessment of the vapor intrusion pathway. Chapter NR 716, Wisconsin Administrative Code outlines the requirements for investigation of contamination in the environment. Specifically, s. NR 716.11(3)(a) requires that the field investigation determine the "nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media". In addition, section NR 716.11(5)(g) and (h) contains the specific requirements for evaluating the presence of vapors in the sub-surface as well as in indoor air.

You will need to include documentation with the Site Investigation Report that explains how the assessment was done. If the vapor pathway is being ruled out, then the report needs to provide the appropriate justification for reaching this conclusion. If the pathway cannot be ruled out, then investigation and, if appropriate, remedial action must be taken to address the risk presented prior to submitting the site for closure. The DNR has developed guidance to help responsible parties and their consultants comply with the requirements described above. The guidance includes a detailed explanation of how to assess the vapor intrusion pathway and provides criteria which identify when an investigation is necessary. The guidance is available at: <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>.

**Additional Information for Site Owners:**

We encourage you to visit our website at <http://dnr.wi.gov/topic/Brownfields/>, where you can find information on selecting a consultant, financial assistance and understanding the cleanup process. You will also find information there about liability clarification letters, post-cleanup liability and more.

Information on Clean Contaminated Lands Environmental Action Network is enclosed.

If you have questions, call the DNR Project Manager Nancy Ryan at (414) 263-8533 for more information or visit the RR web site at the address above.

Thank you for your cooperation.

Sincerely,



Chue Yee Yang  
Environmental Program Associate  
Remediation & Redevelopment Program

Enclosures:

Selecting a Consultant – RR-502  
<http://dnr.wi.gov/files/PDF/pubs/rr/RR502.pdf>

Environmental Services Contractor List – RR-024  
<http://dnr.wi.gov/files/PDF/pubs/rr/RR024.pdf>

VPLE Fact Sheet #2

<http://dnr.wi.gov/files/PDF/pubs/rr/RR506.pdf>

Environmental Contamination Basics, RR-674

<http://dnr.wi.gov/files/PDF/pubs/rr/RR674.pdf>

cc: Patrick Patterson – Professional Service Industries, Inc.  
WI DNR Case File



8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

### Analytical Report

Pat Patterson  
Professional Service Industries, Inc (PSI)  
821 Corporate Ct.  
Waukesha, WI 53189

September 01, 2016

Work Order: 16H1067

RE: PSI lab Analysis  
Humbolt & Brady/Composite



Dear Pat Patterson:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,

Approved by,

Katherine Langfoss  
Project Manager  
847.967.6666  
klangfoss@emt.com  
Approved for release: 9/1/2016 3:50:59PM

Matthew Gregory  
Technical Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

State of Wisconsin Dept of Natural Resources, Cert No. 999888890



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8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

### Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HS#1	16H1067-01	Waste	08/23/16 12:00	08/24/16 12:00

---

**Case Narrative**

Client: Professional Service Industries, Inc (PSI)

Date: 09/01/2016

Project: PSI lab Analysis  
Humbolt & Brady/CompositeWork Order: 16H1067

---

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

**Work Order: 16H1067**

The samples were received on 08/24/16 12:00. The samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was

<u>Cooler</u>	<u>Temp C°</u>
Default Cooler	6.2

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

**HPLC**

Method: 8310\_PNA, B6H1664-MSD1: MSD recoveries for two compounds are above the QC limits. The LCS associated with the sample is acceptable.





8100 N. Austin Avenue Morton Grove, IL 60053-3203 P 847.967.6666 800.246.0663 F 847.967.6735 www.emt.com

**Client Sample Results**

Client: Professional Service Industries, Inc (PSI)  
Project: PSI lab Analysis  
Humbolt & Brady/Composite  
Work Order: 16H1067

Client Sample ID: HS#1  
Report Date: 09/01/2016  
Collection Date: 08/23/2016 12:00  
Matrix: Waste  
Lab ID: 16H1067-01

Analyses	EMT Reporting			MDL	Date/Time Analyzed	Batch	Analyst	DF
	Result	Limit	Qual Units					
<b>Wet Chemistry</b>								
Method: SM2540G								
Total Solids	86.0	0.100	% (Percent)	0.0170	08/25/16 07:34	B6H1339	CP1	1

**Polynuclear Aromatics by High Pressure Liquid Chromatography (HPLC)**

Method: SW8310 / SW3546

1-Methylnaphthalene	< 56.4	183	ug/Kg dry	56.4	08/31/16 19:41	B6H1664	AMP	1
2-Methylnaphthalene	< 19.7	141	ug/Kg dry	19.7	08/31/16 19:41	B6H1664	AMP	1
Acenaphthene	< 25.9	141	ug/Kg dry	25.9	08/31/16 19:41	B6H1664	AMP	1
Acenaphthylene	< 27.4	141	ug/Kg dry	27.4	08/31/16 19:41	B6H1664	AMP	1
Anthracene	< 17.5	141	ug/Kg dry	17.5	08/31/16 19:41	B6H1664	AMP	1
Benzo(a)anthracene	173	141	ug/Kg dry	14.6	08/31/16 19:41	B6H1664	AMP	1
Benzo(a)pyrene	212	70.5	ug/Kg dry	21.2	08/31/16 19:41	B6H1664	AMP	1
Benzo(b)fluoranthene	209	141	ug/Kg dry	16.6	08/31/16 19:41	B6H1664	AMP	1
Benzo(g,h,i)perylene	250	70.5	ug/Kg dry	9.31	08/31/16 19:41	B6H1664	AMP	1
Benzo(k)fluoranthene	116	70.5	ug/Kg dry	13.8	08/31/16 19:41	B6H1664	AMP	1
Chrysene	215	141	ug/Kg dry	14.7	08/31/16 19:41	B6H1664	AMP	1
Dibenzo(a,h)anthracene	< 22.1	141	ug/Kg dry	22.1	08/31/16 19:41	B6H1664	AMP	1
Fluoranthene	418	141	ug/Kg dry	21.9	08/31/16 19:41	B6H1664	AMP	1
Fluorene	< 44.8	183	ug/Kg dry	44.8	08/31/16 19:41	B6H1664	AMP	1
Indeno(1,2,3-cd)pyrene	219	183	ug/Kg dry	50.8	08/31/16 19:41	B6H1664	AMP	1
Naphthalene	< 35.8	183	ug/Kg dry	35.8	08/31/16 19:41	B6H1664	AMP	1
Phenanthrene	161	141	ug/Kg dry	18.6	08/31/16 19:41	B6H1664	AMP	1
Pyrene	352	70.5	ug/Kg dry	9.59	08/31/16 19:41	B6H1664	AMP	1
Surrogate: 4-Terphenyl-d14			Recovery: 84%	Limits: 33-133	08/31/16 19:41	B6H1664	AMP	1

**PVOC Compounds by GC PID/FID**

Method: WI(95)-GRO/PVOC: PUBL-SW-140

1,2,4-Trimethylbenzene	< 128	128	ug/Kg dry	42.6	08/25/16 14:33	B6H1361	MNN	70
1,3,5-Trimethylbenzene	< 63.1	63.1	ug/Kg dry	21.0	08/25/16 14:33	B6H1361	MNN	70
Benzene	< 116	116	ug/Kg dry	38.6	08/25/16 14:33	B6H1361	MNN	70
Ethylbenzene	< 75.6	75.6	ug/Kg dry	25.2	08/25/16 14:33	B6H1361	MNN	70
m,p-Xylene	< 69.2	69.2	ug/Kg dry	23.1	08/25/16 14:33	B6H1361	MNN	70
Methyl tert-butyl ether	< 199	199	ug/Kg dry	66.3	08/25/16 14:33	B6H1361	MNN	70
Naphthalene	< 134	134	ug/Kg dry	44.8	08/25/16 14:33	B6H1361	MNN	70
o-Xylene	< 95.0	95.0	ug/Kg dry	31.7	08/25/16 14:33	B6H1361	MNN	70
Toluene	< 139	139	ug/Kg dry	46.3	08/25/16 14:33	B6H1361	MNN	70
Xylenes, Total	< 161	161	ug/Kg dry	53.6	08/25/16 14:33	B6H1361	MNN	70
Surrogate: 1,4-Dichlorobenzene-d4			Recovery: 107%	Limits: 70-130	08/25/16 14:33	B6H1361	MNN	70



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**Dates Report**

Client: Professional Service Industries, Inc (PSI)  
 Project: PSI lab Analysis  
 Humbolt & Brady/Composite  
 Work Order: 16H1067

Report Date: 09/01/2016

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
16H1067-01	HS#1	08/23/16	Waste	Total Solids / Percent Moisture		08/25/16 07:23	08/25/16 07:34	B6H1339	
				PVOC (WDNR) by GC/FID		08/25/16 10:07	08/25/16 14:33	B6H1361	S6H0485
				Polynuclear Aromatic Hydrocarbons by HPLC		08/31/16 15:48	08/31/16 19:41	B6H1664	S6H0547



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**Quality Control**

Client: Professional Service Industries, Inc (PSI)  
Project: PSI lab Analysis  
Humbolt & Brady/Composite  
Work Order: 16H1067

Report Date: 09/01/2016  
Matrix: Solid

**Wet Chemistry**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
<b>Batch: B6H1339</b>											
<b>Blank (B6H1339-BLK1)</b> <span style="float: right;"><i>Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:38</i></span>											
Total Solids	< 0.0170	0.100	%								1
<b>LCS (B6H1339-BS1)</b> <span style="float: right;"><i>Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:40</i></span>											
Total Solids	0.191		%	0.1995		95.5	93-115				1
<b>Duplicate (B6H1339-DUP1)</b> <span style="float: right;"><b>Source: 16H1067-01</b> <i>Prepared: 08/25/2016 07:23 Analyzed: 08/25/2016 07:42</i></span>											
Total Solids	85.5	0.100	%		86.0			0.526	5		1



**Quality Control**

(Continued)

Client: Professional Service Industries, Inc (PSI)  
 Project: PSI lab Analysis  
 Humbolt & Brady/Composite  
 Work Order: 16H1067

Report Date: 09/01/2016

Matrix: Solid

**Polynuclear Aromatics by High Pressure Liquid Chromatography (HPLC)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B6H1664 - SW3546****Blank (B6H1664-BLK1)**

Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 18:23

1-Methylnaphthalene	< 49.1	159	ug/Kg wet								1
2-Methylnaphthalene	< 17.2	123	ug/Kg wet								1
Acenaphthene	< 22.6	123	ug/Kg wet								1
Acenaphthylene	< 23.8	123	ug/Kg wet								1
Anthracene	< 15.2	123	ug/Kg wet								1
Benzo(a)anthracene	< 12.7	123	ug/Kg wet								1
Benzo(a)pyrene	< 18.4	61.3	ug/Kg wet								1
Benzo(b)fluoranthene	< 14.5	123	ug/Kg wet								1
Benzo(g,h,i)perylene	< 8.10	61.3	ug/Kg wet								1
Benzo(k)fluoranthene	< 12.0	61.3	ug/Kg wet								1
Chrysene	< 12.8	123	ug/Kg wet								1
Dibenzo(a,h)anthracene	< 19.2	123	ug/Kg wet								1
Fluoranthene	< 19.1	123	ug/Kg wet								1
Fluorene	< 39.0	159	ug/Kg wet								1
Indeno(1,2,3-cd)pyrene	< 44.2	159	ug/Kg wet								1
Naphthalene	< 31.2	159	ug/Kg wet								1
Phenanthrene	< 16.2	123	ug/Kg wet								1
Pyrene	< 8.34	61.3	ug/Kg wet								1
Surrogate: 4-Terphenyl-d14	1960		ug/Kg wet	1963		100	33-133				1

**LCS (B6H1664-BS1)**

Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 19:02

1-Methylnaphthalene	183	155	ug/Kg wet	191.1		96	30-122				1
2-Methylnaphthalene	197	119	ug/Kg wet	191.1		103	30-122				1
Acenaphthene	185	119	ug/Kg wet	191.1		97	35-110				1
Acenaphthylene	188	119	ug/Kg wet	191.1		98	35-115				1
Anthracene	191	119	ug/Kg wet	191.1		100	45-125				1
Benzo(a)anthracene	197	119	ug/Kg wet	191.1		103	50-105				1
Benzo(a)pyrene	205	59.7	ug/Kg wet	191.1		107	40-135				1
Benzo(b)fluoranthene	194	119	ug/Kg wet	191.1		102	55-120				1
Benzo(g,h,i)perylene	203	59.7	ug/Kg wet	191.1		106	55-115				1
Benzo(k)fluoranthene	208	59.7	ug/Kg wet	191.1		109	50-120				1
Chrysene	197	119	ug/Kg wet	191.1		103	55-120				1
Dibenzo(a,h)anthracene	212	119	ug/Kg wet	191.1		111	45-115				1
Fluoranthene	193	119	ug/Kg wet	191.1		101	40-135				1
Fluorene	181	155	ug/Kg wet	191.1		94	45-105				1
Indeno(1,2,3-cd)pyrene	208	155	ug/Kg wet	191.1		109	55-135				1
Naphthalene	186	155	ug/Kg wet	191.1		97	50-110				1
Phenanthrene	191	119	ug/Kg wet	191.1		100	55-125				1
Pyrene	203	59.7	ug/Kg wet	191.1		106	50-115				1
Surrogate: 4-Terphenyl-d14	1920		ug/Kg wet	1911		100	33-133				1

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**Quality Control**

(Continued)

Client: Professional Service Industries, Inc (PSI)  
 Project: PSI lab Analysis  
 Humbolt & Brady/Composite  
 Work Order: 16H1067

Report Date: 09/01/2016  
 Matrix: Solid

**Polynuclear Aromatics by High Pressure Liquid Chromatography (HPLC)**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B6H1664 - SW3546 (Continued)**
**Matrix Spike (B6H1664-MS1)**
**Source: 16H1067-01**

Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 21:00

1-Methylnaphthalene	213	180	ug/Kg dry	221.2	ND	96	50-150				1
2-Methylnaphthalene	234	138	ug/Kg dry	221.2	ND	106	50-150				1
Acenaphthene	235	138	ug/Kg dry	221.2	ND	106	50-150				1
Acenaphthylene	217	138	ug/Kg dry	221.2	ND	98	50-150				1
Anthracene	245	138	ug/Kg dry	221.2	47.4	89	50-150				1
Benzo(a)anthracene	371	138	ug/Kg dry	221.2	173	89	50-150				1
Benzo(a)pyrene	397	69.1	ug/Kg dry	221.2	212	83	50-150				1
Benzo(b)fluoranthene	362	138	ug/Kg dry	221.2	209	69	50-150				1
Benzo(g,h,i)perylene	363	69.1	ug/Kg dry	221.2	250	51	50-150				1
Benzo(k)fluoranthene	308	69.1	ug/Kg dry	221.2	116	87	50-150				1
Chrysene	456	138	ug/Kg dry	221.2	215	109	50-150				1
Dibenzo(a,h)anthracene	258	138	ug/Kg dry	221.2	60.1	90	50-150				1
Fluoranthene	650	138	ug/Kg dry	221.2	418	105	50-150				1
Fluorene	293	180	ug/Kg dry	221.2	ND	133	50-150				1
Indeno(1,2,3-cd)pyrene	353	180	ug/Kg dry	221.2	219	61	50-150				1
Naphthalene	221	180	ug/Kg dry	221.2	ND	100	50-150				1
Phenanthrene	341	138	ug/Kg dry	221.2	161	81	50-150				1
Pyrene	556	69.1	ug/Kg dry	221.2	352	92	50-150				1
Surrogate: 4-Terphenyl-d14	2000		ug/Kg dry	2212		90	33-133				1

**Matrix Spike Dup (B6H1664-MSD1)**
**Source: 16H1067-01**

Prepared: 08/31/2016 15:48 Analyzed: 08/31/2016 21:39

1-Methylnaphthalene	189	184	ug/Kg dry	225.9	ND	84	50-150	12	30		1
2-Methylnaphthalene	208	141	ug/Kg dry	225.9	ND	92	50-150	12	30		1
Acenaphthene	229	141	ug/Kg dry	225.9	ND	101	50-150	3	30		1
Acenaphthylene	200	141	ug/Kg dry	225.9	ND	89	50-150	8	30		1
Anthracene	292	141	ug/Kg dry	225.9	47.4	108	50-150	18	30		1
Benzo(a)anthracene	495	141	ug/Kg dry	225.9	173	142	50-150	29	30		1
Benzo(a)pyrene	467	70.6	ug/Kg dry	225.9	212	113	50-150	16	30		1
Benzo(b)fluoranthene	430	141	ug/Kg dry	225.9	209	98	50-150	17	30		1
Benzo(g,h,i)perylene	432	70.6	ug/Kg dry	225.9	250	80	50-150	17	30		1
Benzo(k)fluoranthene	341	70.6	ug/Kg dry	225.9	116	99	50-150	10	30		1
Chrysene	500	141	ug/Kg dry	225.9	215	126	50-150	9	30		1
Dibenzo(a,h)anthracene	286	141	ug/Kg dry	225.9	60.1	100	50-150	10	30		1
Fluoranthene	781	141	ug/Kg dry	225.9	418	160	50-150	18	30	S	1
Fluorene	330	184	ug/Kg dry	225.9	ND	146	50-150	12	30		1
Indeno(1,2,3-cd)pyrene	430	184	ug/Kg dry	225.9	219	93	50-150	20	30		1
Naphthalene	193	184	ug/Kg dry	225.9	ND	86	50-150	14	30		1
Phenanthrene	417	141	ug/Kg dry	225.9	161	113	50-150	20	30		1
Pyrene	693	70.6	ug/Kg dry	225.9	352	151	50-150	22	30	S	1
Surrogate: 4-Terphenyl-d14	2250		ug/Kg dry	2259		100	33-133				1

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**Quality Control**

(Continued)

Client: Professional Service Industries, Inc (PSI)  
 Project: PSI lab Analysis  
 Humbolt & Brady/Composite  
 Work Order: 16H1067

Report Date: 09/01/2016

Matrix: Solid

**PVOC Compounds by GC PID/FID**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
<b>Batch: B6H1361</b>											
<b>Blank (B6H1361-BLK1)</b>											
<i>Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 12:22</i>											
1,2,4-Trimethylbenzene	< 42.6	42.6	ug/Kg wet								50
1,3,5-Trimethylbenzene	< 25.0	25.0	ug/Kg wet								50
Benzene	< 38.6	38.6	ug/Kg wet								50
Ethylbenzene	< 25.2	25.2	ug/Kg wet								50
m,p-Xylene	< 25.0	25.0	ug/Kg wet								50
Methyl tert-butyl ether	< 66.3	66.3	ug/Kg wet								50
Naphthalene	< 44.8	44.8	ug/Kg wet								50
o-Xylene	< 31.7	31.7	ug/Kg wet								50
Toluene	< 46.3	46.3	ug/Kg wet								50
Xylenes, Total	< 53.6	53.6	ug/Kg wet								50
Surrogate: 1,4-Dichlorobenzene-d4	20.1		ug/Kg	20.00		101	70-130				50
<b>LCS (B6H1361-BS1)</b>											
<i>Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 13:05</i>											
1,2,4-Trimethylbenzene	1100	42.6	ug/Kg wet	1000		110	80-120				50
1,3,5-Trimethylbenzene	1140	25.0	ug/Kg wet	1010		113	80-120				50
Benzene	1060	38.6	ug/Kg wet	1000		106	80-120				50
Ethylbenzene	1090	25.2	ug/Kg wet	1000		109	80-120				50
m,p-Xylene	2180	25.0	ug/Kg wet	2000		109	80-120				50
Methyl tert-butyl ether	1080	66.3	ug/Kg wet	1000		108	80-120				50
Naphthalene	1220	44.8	ug/Kg wet	1000		122	80-120			S	50
o-Xylene	1090	31.7	ug/Kg wet	1010		108	80-120				50
Toluene	1090	46.3	ug/Kg wet	1000		109	80-120				50
Xylenes, Total	3270	53.6	ug/Kg wet	3000		109	80-120				50
Surrogate: 1,4-Dichlorobenzene-d4	22.9		ug/Kg	20.00		114	70-130				50
<b>LCS Dup (B6H1361-BSD1)</b>											
<i>Prepared: 08/25/2016 10:07 Analyzed: 08/25/2016 15:16</i>											
1,2,4-Trimethylbenzene	1040	42.6	ug/Kg wet	1000		104	80-120	6	20		50
1,3,5-Trimethylbenzene	1030	25.0	ug/Kg wet	1010		102	80-120	10	20		50
Benzene	1040	38.6	ug/Kg wet	1000		104	80-120	2	20		50
Ethylbenzene	1040	25.2	ug/Kg wet	1000		104	80-120	5	20		50
m,p-Xylene	2050	25.0	ug/Kg wet	2000		103	80-120	6	20		50
Methyl tert-butyl ether	1070	66.3	ug/Kg wet	1000		107	80-120	1	20		50
Naphthalene	1120	44.8	ug/Kg wet	1000		112	80-120	8	20		50
o-Xylene	1030	31.7	ug/Kg wet	1010		102	80-120	5	20		50
Toluene	1050	46.3	ug/Kg wet	1000		105	80-120	4	20		50
Xylenes, Total	3080	53.6	ug/Kg wet	3000		103	80-120	6	20		50
Surrogate: 1,4-Dichlorobenzene-d4	21.9		ug/Kg	20.00		109	70-130				50



**Certified Analyses included in this Report**

Analyte	CAS #	Certifications
<b>SM2540G in Solid</b>		
Total Solids	Moist	WDNR
<b>SW8310 in Solid</b>		
1-Methylnaphthalene	90-12-0	AKDEC,WDNR,DoD
2-Methylnaphthalene	91-57-6	AKDEC,WDNR,DoD
Acenaphthene	83-32-9	AKDEC,WDNR,DoD,LELAP,ILEPA
Acenaphthylene	208-96-8	AKDEC,WDNR,DoD,LELAP,ILEPA
Anthracene	120-12-7	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(a)anthracene	56-55-3	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(a)pyrene	50-32-8	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(b)fluoranthene	205-99-2	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(g,h,i)perylene	191-24-2	AKDEC,WDNR,DoD,LELAP,ILEPA
Benzo(k)fluoranthene	207-08-9	AKDEC,WDNR,DoD,LELAP,ILEPA
Chrysene	218-01-9	AKDEC,WDNR,DoD,LELAP,ILEPA
Dibenzo(a,h)anthracene	53-70-3	AKDEC,WDNR,DoD,LELAP,ILEPA
Fluoranthene	206-44-0	AKDEC,WDNR,DoD,LELAP,ILEPA
Fluorene	86-73-7	AKDEC,WDNR,DoD,LELAP,ILEPA
Indeno(1,2,3-cd)pyrene	193-39-5	AKDEC,WDNR,DoD,LELAP,ILEPA
Naphthalene	91-20-3	AKDEC,WDNR,DoD,LELAP,ILEPA
Phenanthrene	85-01-8	AKDEC,WDNR,DoD,LELAP,ILEPA
Pyrene	129-00-0	AKDEC,WDNR,DoD,LELAP,ILEPA
<b>WI(95)-GRO/PVOC: PUBL-SW-140 in Solid</b>		
1,2,4-Trimethylbenzene	95-63-6	WDNR
1,3,5-Trimethylbenzene	108-67-8	WDNR
Benzene	71-43-2	WDNR
Ethylbenzene	100-41-4	WDNR
m,p-Xylene	179601-23-1	WDNR
Methyl tert-butyl ether	1634-04-4	WDNR
Naphthalene	91-20-3	WDNR
o-Xylene	95-47-6	WDNR
Toluene	108-88-3	WDNR
Xylenes, Total	1330-20-7	WDNR

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**List of Certifications**

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	UST-105	07/16/2016
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L14-56	04/30/2016
DoD	Department of Defense, Accredited by PJLA	L14-55	04/30/2018
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	003674	07/27/2016
ISO	ISO/IEC 17025, Accredited by PJLA	L14-56	04/30/2018
LELAP	State of Louisiana, NELAP Accredited Lab No. 171344	05015	06/30/2016
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2016



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### Qualifiers and Definitions

Item	Description
S	The recovery is outside of the laboratory control limits.
%Rec	Percent Recovery



