KPRG and Associates, Inc.

COMMENT RESPONSE AND ADDITIONAL WORK PLAN for COMPREHENSIVE SITE INVESTIGATION REPORT

November 5, 2018

Ms. Jennifer Dorman Wisconsin Department of Natural Resources 2300 North Martin Luther King, Jr. Drive Milwaukee, WI 53212

Re: Former Bayside Natural Cleaners

KPRG Project No. 18806.3

8828 North Port Washington Road, Bayside, WI FID# 341140250, BRRTS# 02-41-548572

Dear Ms. Dorman:

On January 23, 2018, on behalf of Former Bayside Natural Cleaners, KPRG and Associates, Inc. (KPRG) submitted a Supplemental Site Investigation Report Addendum for the above referenced site to the Wisconsin Department of Natural Resources (WDNR) for review. On October 12, 2018, which was received by KPRG on October 23, 2018, the WDNR issued a comment letter which requested that all site investigation addendum submittals for this site along with the initial site investigation report be combined into one comprehensive site investigation document and that a Work Plan/Cost estimate be submitted to WDNR for Dry Cleaner Environmental Response Fund (DERF) approval. A copy of the letter is provided in Attachment 1 for reference. The following is the requested scope of work and estimated cost requested by WDNR.

ADDITIONAL SCOPE OF WORK AND COST ESTIMATE

SCOPE OF WORK

Based on the above referenced WDNR letter, KPRG will develop a Comprehensive Site Investigation Report which will integrate all data generated to date from the various phases of site investigation work. The report will include, but not be limited to:

• Evaluate site conditions and contaminants to determine if vapor intrusion into residential homes to the east is a potential pathway of concern.

14665 West Lisbon Road, Suite 1A Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

- Evaluate whether the comprehensive soil and groundwater data are adequate to define the degree and extent of chlorinated volatile organic hydrocarbon (CVOC) impacts.
- Revise all maps to include properties to the north, south and east of the source property, including addresses and property boundaries.
- Revise maps to include comprehensive data for soil, groundwater and vapor data.
- Update cross-sections to include additional soil borings performed since the initial site investigation report submittal. The cross-sections will include all structures, location of former dry cleaning machine, subsurface data (soil and groundwater), utilities, etc.
- Comprehensive soil, groundwater and soil vapor data tables integrating all data along with applicable WDNR comparison standards/criteria.
- Create isoconcentration contour maps (pan and cross-section view) depicting the extent of soil and groundwater impacts.

COST ESTIMATE

The above defined scope of work can be completed for an estimated cost of \$6,520. A summary of the estimated cost detailed costing sheet is provided in Attachment 2.

KPRG and Natural Cleaners appreciate the continued cooperation with WDNR in addressing these issues. If there are any questions, please contact me at 262-781-0475.

Sincerely,

KPRG and Associates, Inc.

Richard R. Gnat, P.G.

Richard R

Principal

cc: Marilyn Fleming, Former Natural Cleaners Derek Reinke, Ogden & Company, Inc. John J. Hnat, P.G., C.P.G., WDNR Donald P. Gallo, Axley Brynelson

<u>ATTACHMENT 1</u> Copy of WDNR Letter Dated October 12, 2018

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Scott Walker, Governor Daniel L. Meyer, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



October 12, 2018

Ms. Marilyn Fleming Former Bayside Natural Cleaners N40 W27880 Glacier Road Pewaukee, WWI 53072

Subject: Supplemental Site Investigation Report Addendum, former Bayside Natural Cleaners.

8828 North Port Washington Road, Bayside, WI

FID: 341140250

BRRTS: 02-41-548572

Dear Ms. Fleming:

The Wisconsin Department of Natural Resources (DNR) has reviewed the Supplemental Site Investigation Report Addendum dated January 23, 2018. This document was submitted by your environmental consultant KPRG and Associates, Inc. (KPRG) in response to the DNR's scope-of-work approval letter of December 22, 2016. To determine if the number of supplemental site investigations have completed the requirements of Wis. Admin. Code ch. NR 716, a comprehensive Site Investigation Report will need to be completed and approved for the site prior to bidding out the Remedial Action Plan. Have KPRG submit a change order request to cover the costs of the preparation and submittal of this document.

Revisions to Document Submittals

The DNR's review of the Supplemental Site Investigation Report and previous report submittals will require revisions of maps, tables, and responses for the following as required in ch. NR 716, Wis. Admin. Code. Specifically:

- Per Wis. Admin. Code § NR 716.11(5)(g), evaluate site conditions and contaminants to determine
 if vapor intrusion into the residential homes to the east is a potential migration pathway of concern.
 When conducting a vapor intrusion assessment, use the DNR's vapor intrusion guidance
 document, RR-800, "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in
 Wisconsin."
- Evaluate whether the comprehensive soil and groundwater data are adequate to define the degree and extent of CVOC (chlorinated volatile organic compound) contamination. Wis. Admin. Code § NR 716.11(3)(a) requires the field investigation to determine the nature, degree, and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.
- 3. Revise all maps to include properties to the north, south, and east of the source property, including addresses and all property boundaries.
- 4. Revise maps to include comprehensive data for soil, groundwater, and vapor information.
- Provide cross-sections that incorporate applicable site information including, but not limited to, subsurface data, water table elevation, utilities, buildings, and the location of the former drycleaning machine.



Former Bayside Natural Cleaners 8828 N Port Washington Rd Bayside, WI 241140250 BRRTS: 02-41-548572

- 6. Provide comprehensive soil data tables that indicate if the soil samples were collected from saturated or unsaturated intervals; include groundwater pathway residual contaminant levels (RCLs), nonindustrial and industrial RCLs, and background threshold values in the tables, and clearly identify an exceedance of each RCL, per Wis. Admin. Code § NR 716.15(4)(e).
- 7. Use isoconcentration lines on the maps and cross-sections to define the degree and extent of contamination for soil and groundwater. Wis. Admin. Code § NR 716.15(4)(c) and (d) requires the site investigation report to include isoconcentration maps and cross-sections to depict the hazardous substance concentrations in each environmental medium.

Have your consultant KPRG upload an electronic copy to our FTP site and a hard copy to the address located above to our Environmental Program Associate Jennifer Dorman. If you have any questions, call me at 414-263-8644, or email me at john.hnat@wisconsin.gov.

Sincerely,

John J. Hreat, P.G., C.P.G

Project Manager/Hydrogeologist

Southeast Region

Remediation and Redevelopment Program

C: Richard Gnat & Patrick Allenstein - KPRG WDNR SER File

ATTACHMENT 2 Cost Estimate Backup

KPRG TASK COSTING SHEET

Project: Natural Cleaners Remedial Action - Bayside, WI

Task: 1 - Comprehensive Site Investigation Report

Professional Labor	Rate (\$/Hr.)		<u>Units</u>	<u>Total</u>
Principal/Proj. Mgr.	\$135		8	\$1,080.00
Field Eng./Sci.	\$70		60	\$4,200.00
CADD	\$60		16	\$960.00
Admin. Asst/ Word Proc.	\$45		4	\$180.00
			Total Labor	\$6,420.00
External Expenses	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>
Reproduction	\$ 100	Est.	1	\$ 100.0 0
Field Vehicle	\$60	Daily	0	\$0.00
Sampling Supplies	\$20	Daily	0	\$0.00
Drums	\$55	Each	0	\$0.00
PPE - Modified Level D	\$15	Daily	0	\$0.00
PPE - Level C	\$35	Daily	0	\$0.00
			Total Exp.	\$100.00
Contractors	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>
		Estimate		\$0.00
			Total Contractors	\$0.00

TASK TOTAL:	\$6,520.00
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ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

SUPPLEMENTAL SITE INVESTIGATION REPORT ADDENDUM

January 23, 2018

Mr. Chue Yee Yang Wisconsin Department of Natural Resources 2300 North Martin Luther King, Jr. Drive Milwaukee, WI 53212



Re: Former Bayside Natural Cleaners

8828 North Port Washington Road, Bayside, WI FID# 341140250, BRRTS# 02-41-548572

KPRG Project No. 18806.3

Dear Mr. Yang:

The following is a review of the recent correspondence between KPRG and the WDNR:

- October 6, 2014 KPRG Supplemental SI Report
- February 20, 2015 WDNR SI Denial Comment Letter
- March 16, 2015 KPRG and WDNR Meeting
- June 26, 2015 KPRG Comment Response Letter with Work Plan
- June 30, 2015 WDNR Approval Letter
- November 10, 2015 KPRG Supplemental SI Report
- April 20, 2016 WDNR SI Denial Response
- May 31, 2016 KPRG Comment Response with Work Plan and IRA
- November 2, 2016 WDNR Work Plan Denial Response
- November 22, 2016 KPRG Revised Work Plan
- December 22, 2016 WDNR Work Plan Approval

This report addendum documents the additional work completed outlined in the November 22, 2016 work plan and approved by the WDNR December 22, 2016.

Sub-Slab Vapor Probe Installations/Sampling

On March 31, 2017, KPRG installed four additional sub-slab vapor probes SV-1, SV-2, SV-3, and SV-4 at locations shown on Figure 1. Cox-Colvin vapor pins were installed through the concrete floor per manufacturer directions and were tested for tightness using a helium gas shroud method. During testing at vapor probe SV-4, water was drawn up while the probe was under vacuum. As a result, SV-4 was not able to be sampled. There were no water issues at the remaining probes. As requested by the WDNR, the Sub-Slab Depressurization System (SSDS)

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was shut down prior to sample collection. Once SV-1, SV-2 and SV-3 were determined to be air tight, sub-slab vapor samples were collected at each vapor point using a six-liter, Summa Canister with 1-hour flow controller. Samples were sent under completed chain-of-custody to a Pace Analytical laboratory for analysis of chlorinated volatile organic compounds (CVOCs) using Method TO15.

Check Working Condition of Existing SSDS

In 2012, KPRG installed a SSDS in the vicinity of the defined PCE impacts and conducted a field extension test verifying that the system had influence over the area of concern. As requested by the WDNR, an additional round of testing was completed on September 20, 2017. As shown on Figure 2, the field testing confirmed the previous conclusion that the system depressurization covers the area of concern. In addition and as requested by the WDNR, KPRG measured the exhaust vapors of the system with a photo-ionization detector (PID). There were no PID readings above 0.0 ppm observed that day.

Additional Soil Borings

KPRG advanced soil borings, GP-20 through GP-24, MW-3D and MW-5 at locations shown on Figure 1. Soil borings GP-20 through GP-24 were advanced with a Geoprobe and extended to 12 feet below ground surface (bgs). Borings MW-3D and MW-5 were also advanced with a Geoprobe and then followed by hollow-stem augers and extended to 50 and 25 feet bgs, respectively. Continuous soil core samples were collected from all borings. Soils were field screened with a PID for total organic vapors and logged using the Unified Soil Classification System (USCS). Borings MW-3D and MW-5 were converted into NR141 compliant monitoring wells and the remainder of the borings were abandoned with granular bentonite to the surface and hydrated. Copies of the boring logs, abandonment forms are included in Attachment 1.

In accordance with the approved work plan and based on the results of the field screening, two soil samples were collected from each boring except for MW-3D which was located adjacent to MW-3. The soil samples were analyzed for chlorinated volatile organic compounds (CVOCs). Appropriate sample aliquots were placed into laboratory prepared containers and placed on ice. All samples were transported under a completed chain-of-custody and were transported to Pace Analytical Services, Inc. for analysis of CVOCs using Method 8260B.

Additional Well Installations and Groundwater Sampling

As noted above, and in accordance with the approved work plan, two additional wells were installed using hollow stem auger drilling. The well locations are shown on Figure 1. Well MW-5 was constructed as a water table monitoring well with a depth of 25 feet with 10 feet of screen. Well MW-3D was constructed as a piezometer with a depth of 48 feet bgs with 5 feet of screen. Each well was constructed with 2-inch PVC and 0.010' slot screen. The wells were completed by placing a silica sand filter pack to approximately two feet above the top of the screen followed by a 2-foot bentonite seal that was placed and hydrated atop the filter sand. The remainder of the annulus was filled with granular bentonite and hydrated. Surface completions were flush mount well vaults anchored within concrete. All drill cuttings were containerized in

labeled 55-gallon drums and temporarily staged on the east side of the property for subsequent proper disposal.

The wells were developed using the pump and surge method. Purging continued until the well was dry or until field parameters of pH, specific conductance and temperature showed stable conditions. Purge water was also containerized in labeled 55-gallon drums for subsequent proper disposal. Monitoring well construction and development forms are included in Attachment 1.

Upon completion, the well locations and top of casing elevations were surveyed by a Wisconsin licensed surveyor.

Groundwater samples were collected per the approved work plan. One round of groundwater samples were collected from all monitoring wells associated with the site followed by a confirmation round of the two new wells MW-3D and MW-5. The samples were collected for analysis with dedicated bottom filling bailers and transferred directly into laboratory prepared containers, preserved as necessary, and placed on ice. Samples were shipped to Pace Analytical laboratory under completed chain-of-custody procedure for analysis of chlorinated volatile organic compounds.

Analytical Results

As noted above, three sub-slab vapor samples were collected at locations shown on Figure 1. All vapor samples were collected via Summa canisters and analyzed for CVOCs. The analytical data is presented in Table 1 and the laboratory packages are provided in Attachment 2. Table 1 includes WDNR Vapor Risk Screening Levels (VRSLs) for small commercial properties and also the sub-slab levels. A review of the data indicates that that there are no non-residential exceedances in any of the samples collected. The only detection in any of the samples was for trichloroethene (TCE) and was present in all three samples.

As part of this site investigation, a total of 12 additional soil samples were collected from 6 soil boring locations (GP-20 through GP-24 and MW-5) as shown on Figure 1. Soil sampling intervals were determined in the field based on PID field screening data to assist in defining the horizontal and vertical extent of impacts. As noted above all soil samples were analyzed for CVOCs. The soil data is summarized on Table 2 and shown on Figure 3. Analytical data packages are provided in Attachment 2. There were detections of selected CVOCs in all soil samples collected as part of this additional investigation. GP-21 was the only boring which contained soils exceeding any RCL. There were exceedances of the soil-to-groundwater standard in the remaining samples.

Table 3 includes the historical groundwater data along with the WDNR NR140 preventative action limits (PALs) and enforcement standards (ESs). A groundwater impact map is provided on Figure 4. As noted above, one complete round of groundwater samples were collected followed by a confirmation round of the two new wells, MW-3D and MW-5. During the first round, GP-10 was not located, presumed buried, and therefore was not sampled. A review of the recent data for the first round indicates that the concentrations in the wells were consistent with previous levels. There were no detections of any CVOC in either of the two new wells MW-3D

or MW-5. The second round results showed detections above the PAL at new well MW-5 for PCE and TCE.

Depth to groundwater water has been measured for the wells on the site for about ten years. The direction of flow has been consistently to the south east. The most recent round of water levels do not allow for a flow direction to be determined, potentially as a result of the time since the last round, or as a result of the recent change of potable water for the Bayside area from groundwater to water obtained from Lake Michigan.

Conclusions

Based on the above data summary discussions, the following conclusions are made:

- The installation and sampling of three additional sub-slab vapor probes revealed that there are no results above any standard with the SSDS temporarily turned off.
- The SSDS field extension was retested resulting in a similar sufficient radius of influence as initially reported.
- The additional soil samples collected confirmed that the source of impacts appears focused around MW-2. Additional areas of impacts above the soil-to-groundwater standard have been documented surrounding the source area.
- The installation of two additional groundwater monitoring wells confirm that the impacts are focused around the source in the area of MW-2. Results from MW-3D show that the deeper impacts also appear to be focused around the source area. Results from the monitoring MW-5 to the north were inconclusive.

KPRG and Associates, Inc. believes that the site investigation is now complete and that the site can proceed with obtaining remediation bids.

KPRG and Natural Cleaners appreciate the continued cooperation with WDNR in addressing these issues. If there are any questions, please contact us at 262-781-0475.

Sincerely,

KPRG and Associates, Inc.

Richard R. Gnat, P.G.

Principal

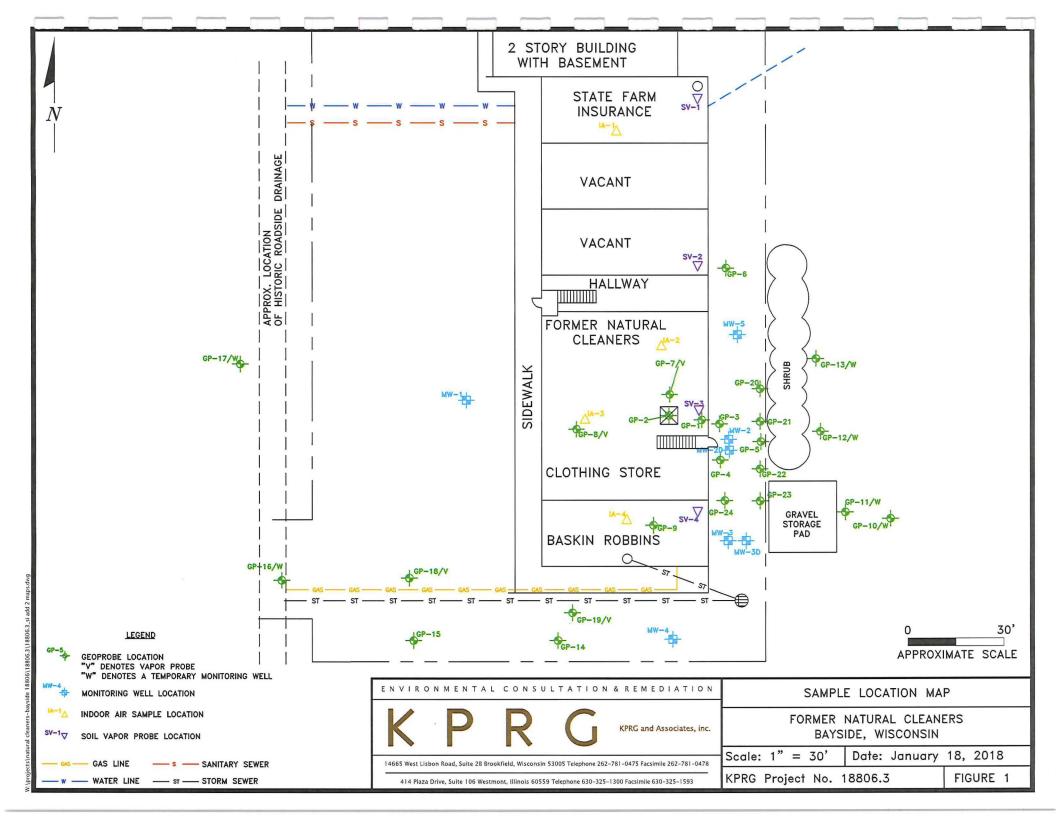
Patrick Allenstein, P.G.

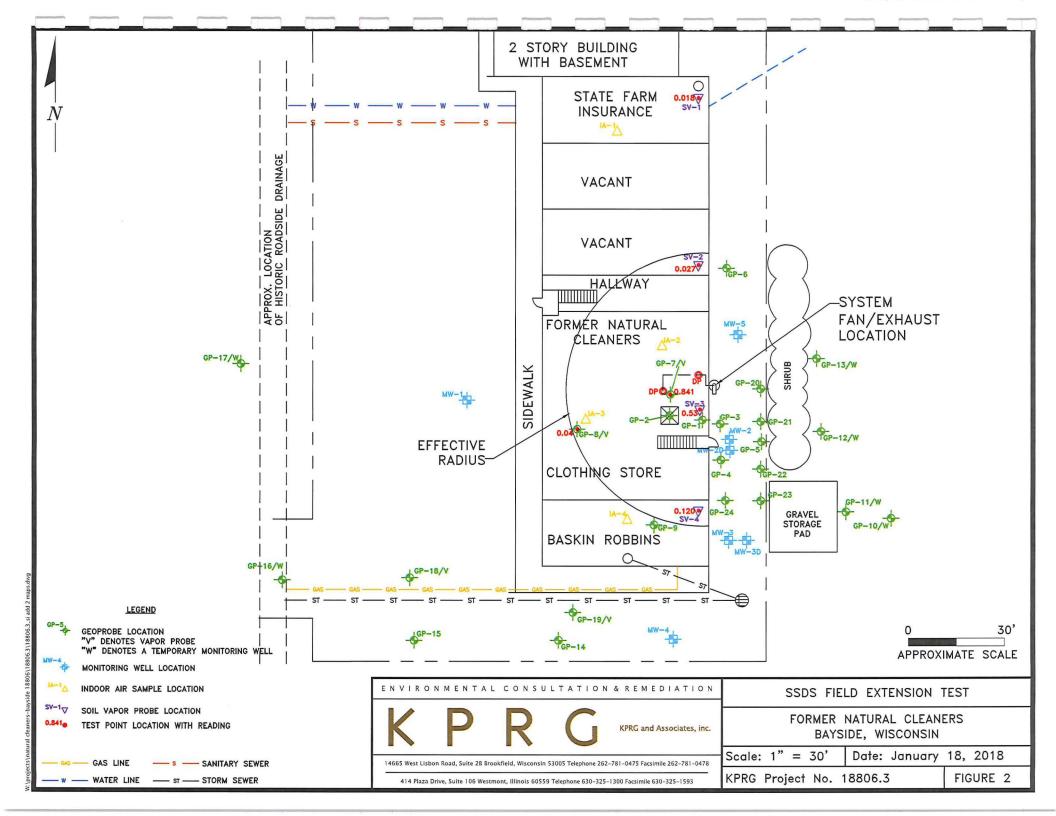
Senior Geologist/Project Manager

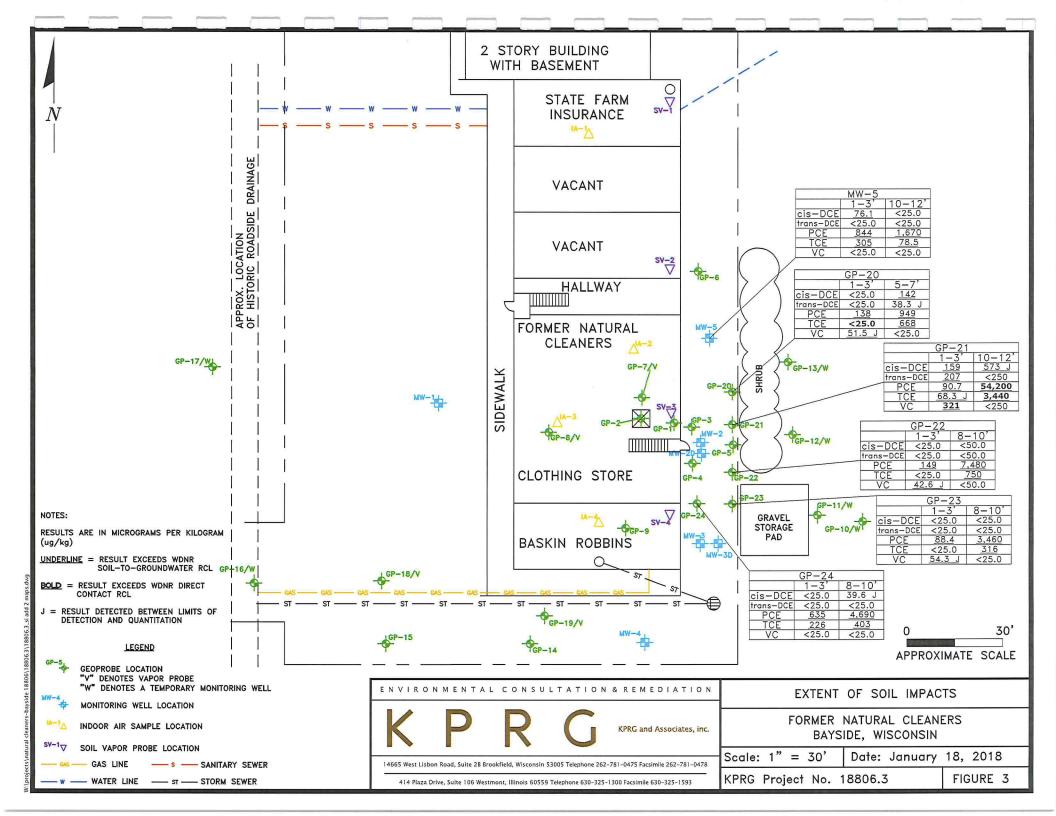
cc: Marilyn Fleming, former Natural Cleaners

John J. Hnat, P.G., C.P.G., WDNR

Derek Reinke, Ogden & Company, Inc. (e-mail) Donald P. Gallo, Husch Blackwell, LLP (e-mail)







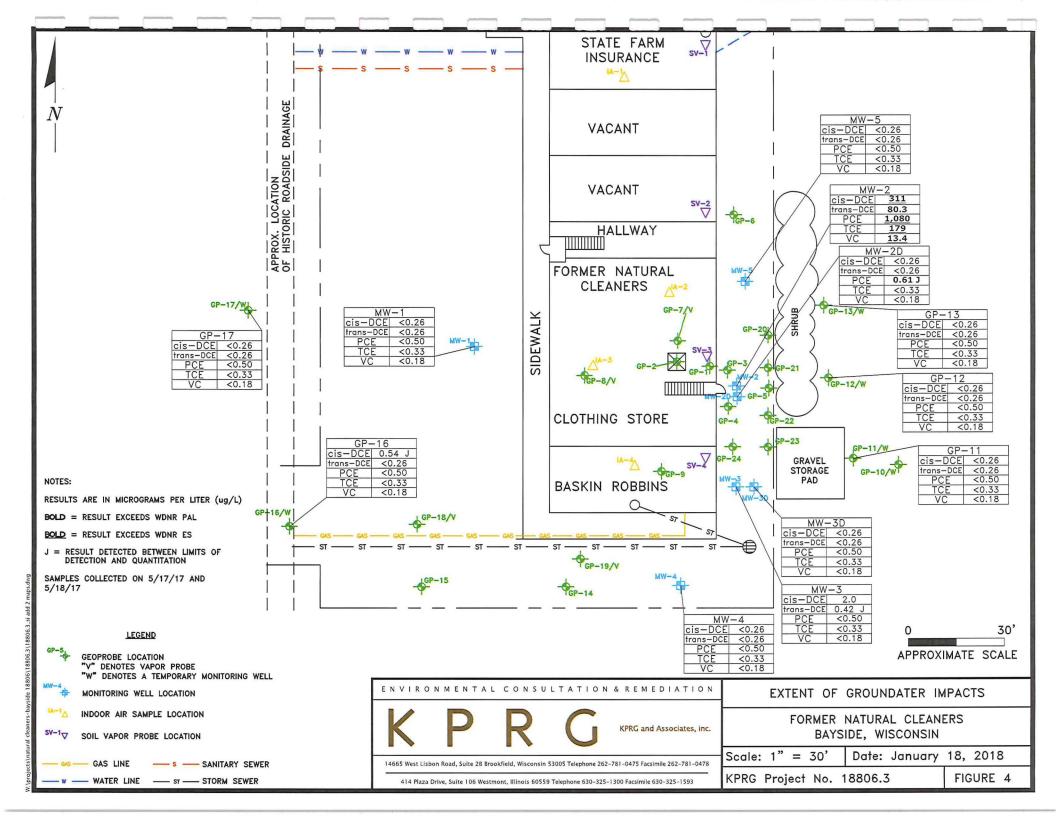


Table 1 - Summary of Sub-Slab Vapor Sample Analytical Results - Former Natural Cleaners, Bayside, WI

Sample N	lame	WDNR Sma	II Commercial	GP-18	GP-19	SV-1	SV-2	SV-3
Parameter	Date	Indoor VAL	Sub-Slab VRSL	10/06/15	10/06/15	03/31/17	03/31/17	03/31/17
1,1-Dichloroethane		77	2,600	<0.74	<0.79	<0.23	<0.24	<0.24
1,1-Dichloroethene		4.7	160	<1.1	<1.2	<0.34	<0.37	<0.37
cis-1,2-Dichloroethene		NV	NV	<1.2	<1.2	0.66 J	<0.38	8.7
trans-1,2-Dichloroethen	е	NV	NV	NA	NA	<0.55	<0.60	7.8
Tetrachloroethene		180	6,000	<1.3	4.9	2.5	0.68 J	175
1,1,1-Trichloroethane		22,000	730,000	<1.2	<1.2	<0.36	<0.38	0.36 J
Trichloroethene		8.8	290	<1.3	1.7 J	0.49 J	<0.43	32
Vinyl Chloride		28	930	<0.92	<0.99	<0.28	<0.30	<0.30

Notes: All values in ug/m³.

SV samples collected while SSDS shut off as directed by the WDNR.

VAL - Vapor Action Level

VRSL - Vapor Risk Screening Level

NA - Not Analyzed

NV - No Value

BOLD - Result exceeds the Sub-Slab VRSL

Table 2. Soil Sampling Analytical Results For Detected CVOC - Former Natural Cleaners, Bayside, WI

	Boring	WDNR Noi Stand		GP-20	GP-20	GP-21	GP-21	GP-22	GP-22
Parameter	Depth	RCL	Soil-GW	1-3	5-7	1-3	10-12	1-3	8-10
cis-1,2-Dichloro	ethene	156,000	41.2	<25.0	<u>142</u>	<u>159</u>	<u>573 J</u>	<25.0	<50.0
trans-1,2-Dichlo	roethene	1,560,000	62.6	<25.0	38.3 J	<u>207</u>	<250	<25.0	<50.0
Tetrachloroethe	ne	33,000	4.5	<u>138</u>	949	90.7	54,200	<u>149</u>	<u>7,480</u>
Trichloroethene		1,300	3.6	<25.0	668	68.3 J	3,440	<25.0	<u>750</u>
Vinyl chloride		67	0.1	<u>51.5 J</u>	<25.0	<u>321</u>	<250	<u>42.6 J</u>	<50.0

	Boring	WDNR Nor Stand		GP-23	GP-23	GP-24	GP-24	MW-5	MW-5
Parameter	Depth	RCL	Soil-GW	1-3	8-10	1-3	8-10	1-3	10-12
cis-1,2-Dichloro	ethene	156,000	41.2	<25.0	<25.0	<25.0	39.6 J	<u>76.1</u>	<25.0
trans-1,2-Dichlo	roethene	1,560,000	62.6	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Tetrachloroethe	ne	33,000	4.5	<u>88.4</u>	3,460	<u>635</u>	<u>4,690</u>	<u>844</u>	<u>1,670</u>
Trichloroethene		1,300	3.6	<25.0	<u>316</u>	<u>226</u>	403	<u>305</u>	<u>78.5</u>
Vinyl chloride		67	0.1	<u>54.3 J</u>	<25.0	<25.0	<25.0	<25.0	<25.0

Notes: All results are in ug/kg.

RCL - Residual Contaminant Level

Soil-GW - Soil to Groundwater RCL

<u>Underline</u> - Value exceeds the WDNR soil-to-gw RCL

Bold - Value exceeds the WDNR non-industrial direct contact RCL

J - Detected between the limits of detection and quantitation

Table 3. Summary of Groundwater Sample Analytical Results - Former Natural Cleaners, Bayside, WI

D	WDNR	NR 140						MW-1											MW-2					
Parameter Name	PAL	ES	1/24/2008	6/4/2008	8/26/2008	6/25/2009	6/3/2010	9/16/2010	12/15/2010	4/5/2011	11/11/2013	2/20/2014	5/17/2017	1/24/2008	6/4/2008	8/26/2008	6/25/2009	6/3/2010	9/16/2010	12/15/2010	4/5/2011	11/12/2013	2/20/2014	5/18/2017
1,2-Dichloroethane	0.5	5	<0.36	<0.36	<0.75	<0.36	<0.36	<0.36	<0.36	<0.36	<0.48	<0.48	<0.17	<0.90	0.67 J	1.3	1.1J	1.4 J	<0.72	<0.72	1.5 J	<2.4	<1.9	1.6 J
cis-1,2-Dichloroethene	7	70	< 0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.42	<0.42	<0.26	180	168	187	221	276	247	218	<u>258</u>	366	299	311
trans-1,2-Dichloroethene	20	100	< 0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.37	<0.37	<0.26	23	18.1	22.8	32.3	43.3	40.7	34.3	40.1	74.6	56.9	80.3
Methyl-tert-butyl ether	12	60	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	NA	NA	NA	<1.5	<0.61	<0.61	<1.2	<1.2	<1.2	<1.2	<1.2	NA	NA	NA
Tetrachloroethene	0.5	5	< 0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.47	<0.47	<0.50	320	164	199	412	<u>565</u>	539	450	507	1070	<u>757</u>	1080
1,1,1-Trichloroethane	40	200	< 0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.44	<0.44	<0.50	5.1 Q	3.1	4.8	7.1	7.4	8.6	7.7	6.9	9.0	7.2	7.1
Trichloroethene	0.5	5	< 0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.36	<0.36	<0.33	<u>58</u>	33	50.1	76.3	95.6	99.6	86.9	97.5	<u>161</u>	129	<u>179</u>
Vinyl Chloride	0.02	0.2	< 0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<u>7.2</u>	<0.18	4.3	11.9	14.6	2.1	<0.36	1.6 J	<u>56.9</u>	2.6 J	13.4
Dissolved Oxygen (mg/l)	NE	NE	1.32	0.70	0.48	1.03	0.39	0.20	0.27	0.60	0.71	0.69	0.94	1.04	0.64	0.69	1.14	0.28	0.32	0.28	0.81	0.21	0.97	0.52
Oxidation-Reduction Potential	NE.	NE	163	16.9	174	135	111.5	113	-30.3	59.9	93.0	-84.2	112.6	170	2.0	145.0	93.8	63.6	119.0	-64.4	50.1	87.4	-73.1	101.7

Parameter Name	WDNR	NR 140						MW-2D		***************************************									MW-3						MW	V-3D
Farameter Name	PAL	ES	1/24/2008	6/4/2008	8/26/2008	6/25/2009	6/3/2010	9/16/2010	12/15/2010	4/5/2011	11/12/2013	2/20/2014	5/18/2017	1/24/2008	6/4/2008	8/26/2008	6/25/2009	6/3/2010	9/16/2010	12/15/2010	4/5/2011	11/12/2013	2/20/2014	5/18/2017	5/18/2017	12/1/2017
1,2-Dichloroethane	0.5	5	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.48	<0.48	<0.17	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.48	<0.48	<0.17	<0.17	<0.17
cis-1,2-Dichloroethene	7	70	< 0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.42	1.2	<0.26	< 0.83	<0.83	1.3	<0.83	<0.83	<0.83	<0.83	<0.83	1.7	0.88 J	2.0	<0.26	<0.26
trans-1,2-Dichloroethene	20	100	< 0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.37	<0.37	<0.26	< 0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.89	<0.37	<0.37	0.42 J	<0.26	<0.26
Methyl-tert-butyl ether	12	60	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	NA	NA	NA	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	<0.61	NA	NA	NA	NA	NA
Tetrachloroethene	0.5	5	< 0.45	<0.45	0.51 J	<0.45	<0.57 J	0.64 J	1.0	0.62 J	1.1	3.0	0.61 J	< 0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.47	<0.47	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	40	200	< 0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.44	<0.44	<0.50	< 0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.44	<0.44	<0.50	<0.50	<0.50
Trichloroethene	0.5	5	< 0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.36	0.58 J	<0.33	< 0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.36	<0.36	<0.33	<0.33	<0.33
Vinyl Chloride	0.02	0.2	< 0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	0.42 Q	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Dissolved Oxygen (mg/l)	NE	NE	2.13	1.01	4.35	1.00	0.69	0.84	0.65	0.44	0.49	0.70	0.53	1.40	0.86	0.91	1.13	1.97	0.40	0.89	0.63	0.60	0.90	0.58	1.44	1.46
Oxidation-Reduction Potential	NE	NE	169	3.7	108	11.6	-30.1	87.4	-30.6	1.1	4.4	-74.9	-28	170	12.5	146	96.6	46.3	95.4	-23.2	57.6	23.5	-71.7	176.8	137.9	-24.6

Parameter Name	WDNR	NR 140						MW-4						MV	V-5		Dmwn-12-1		GP-10			
Parameter Name	PAL	ES	1/24/2008	6/4/2008	8/26/2008	6/25/2009	6/3/2010	9/16/2010	12/15/2010	4/5/2011	11/11/2013	2/20/2014	5/17/2017	5/18/2017	12/1/2017	6/25/2009	6/3/2010	9/16/2010	12/15/2010	4/5/2011	11/11/2013	2/19/2014
1,2-Dichloroethane	0.5	5	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.48	<0.48	<0.17	<0.17	<0.17	<0.36	<0.36	<0.36	<0.36	<0.36	<0.48	<0.48
cis-1,2-Dichloroethene	7	70	< 0.83	0.86J	< 0.83	< 0.83	<0.83	<0.83	<0.83	<0.83	<0.42	<0.42	<0.26	<0.26	1.7	< 0.83	<0.83	<0.83	<0.83	<0.83	<0.42	<0.42
trans-1,2-Dichloroethene	20	100	< 0.89	<0.89	< 0.89	< 0.89	<0.89	<0.89	<0.89	<0.89	<0.37	< 0.37	<0.26	<0.26	<0.26	< 0.89	<0.89	<0.89	<0.89	<0.89	<0.37	<0.37
Methyl-tert-butyl ether	12	60	<0.61	9.3	9.0	23.6	28.9	22.4	20.3	21.8	NA	NA	NA	NA	NA	<0.61	<0.61	<0.61	<0.61	<0.61	NA	NA
Tetrachloroethene	0.5	5	< 0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.47	<0.47	<0.50	<0.50	4.0	<0.45	<0.45	<0.45	<0.45	<0.45	<0.47	<0.47
1,1,1-Trichloroethane	40	200	< 0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.90	<0.44	<0.44	<0.50	<0.50	<0.50	<0.90	<0.90	<0.90	<0.90	<0.90	<0.44	<0.44
Trichloroethene	0.5	5	< 0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	<0.36	< 0.36	<0.33	<0.33	1.5	<0.48	<0.48	<0.48	<0.48	<0.48	<0.36	<0.36
Vinyl Chloride	0.02	0.2	< 0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Dissolved Oxygen (mg/l)	NE	NE	1.30	0.78	0.60	1.14	0.21	0.29	0.42	0.57	3378	0.30	0.57	4.89	0.45	6.66	1.41	1.26	4.56	1.99	1.0	NM
Oxidation-Reduction Potential	NE	NE	150	11.5	179	56.5	-13.1	46.8	-24.8	62.2	89.0	-74.8	-12.5	157.5	86.5	116	29.8	27.1	-21.3	141.1	31.5	NM

Parameter Name	WDNR	NR 140		GP-11			GP-12			GP-13			GP	-16			GP-17		Sump-N	Sump-S
rarameter Name	PAL	ES	11/11/2013	2/19/2014	5/17/2017	11/11/2013	2/19/2014	5/17/2017	11/11/2013	2/19/2014	5/17/2017	11/11/2013	2/19/2014	10/1/2015	5/17/2017	11/11/2013	2/19/2014	5/17/2017	2/20/2014	2/20/2014
1,2-Dichloroethane	0.5	5	<0.48	<0.48	<0.17	<0.48	<0.48	<0.17	<0.48	<0.48	<0.17	<0.48	<0.48	NA	<0.17	<0.48	<0.48	<0.17	<0.48	<0.48
cis-1,2-Dichloroethene	7	70	<0.42	<0.42	<0.26	<0.42	<0.42	<0.26	<0.42	<0.42	<0.26	1.7	1.4	1.2	0.54 J	<0.42	<0.42	<0.26	<0.42	<0.42
trans-1,2-Dichloroethene	20	100	<0.37	<0.37	<0.26	<0.37	<0.37	<0.26	<0.37	<0.37	<0.26	<0.37	<0.37	NA	<0.26	<0.37	<0.37	<0.26	<0.37	<0.37
Methyl-tert-butyl ether	12	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	0.5	5	<0.47	<0.47	<0.50	<0.47	<0.47	<0.50	<0.47	<0.47	<0.50	<0.47	<0.47	<0.50	<0.50	<0.47	<0.47	<0.50	<0.47	<0.47
1,1,1-Trichloroethane	40	200	<0.44	<0.44	<0.50	<0.44	<0.44	<0.50	<0.44	<0.44	<0.50	<0.44	<0.44	<0.50	<0.50	<0.44	<0.44	<0.50	<0.44	<0.44
Trichloroethene	0.5	5	<0.36	<0.36	<0.33	<0.36	<0.36	<0.33	<0.36	<0.36	<0.33	<0.36	<0.36	<0.33	<0.33	<0.36	<0.36	<0.33	<0.36	<0.36
Vinyl Chloride	0.02	0.2	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<u>0.40 J</u>	0.33 J	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Dissolved Oxygen (mg/l)	NE	NE	2.1	NM	2.2	2.7	NM	1.7	0.9	NM	1.7	1.9	NM	NM	1.9	1.4	NM	1.7	NM	NM
Oxidation-Reduction Potential	NE	NE	109.3	NM	145.5	100.8	NM	103.7	149.5	NM	45.3	92.1	NM	NM	31.1	81.4	NM	31.2	NM	NM

Note: All vaules are in ug/L unless otherwise noted. PAL - Preventative Action Limit ES - Enforcement Standard

NA - Not Analyzed Bold - Result exceeds the ES
NM - Not Measured Bold - Result exceeds the PAL
Q / J - Result estimated. Analyte detected between limits of detection and quantification.

Table 4. Monitoring Well Casing and Water Level Elevations - Natural Cleaners, Bayside, WI

WELL	Elev USGS	1/24/:	2008	6/11/	2008	8/26/	2008	6/25/2	2009
******	Datum	Depth to Water	Water Elev						
MW-1	687.75	18.86	668.89	12.46	675.29	6.79	680.96	6.16	681.59
MW-2	687.69	8.22	679.47	9.58	678.11	9.35	678.34	7.35	680.34
MW-2D	687.64	32.19	655.45	33.08	654.56	30.47	657.17	28.03	659.61
MW-3	686.99	22.05	664.94	18.72	668.27	14.85	672.14	13.82	673.17
MW-4	686.62	22.84	663.78	14.43	672.19	8.94	677.68	6.75	679.87

WELL	Elev USGS	6/3/2	010	9/16/2	2010	12/15/	/2010	4/5/2	2011
VVELL	Datum	Depth to Water	Water Elev						
MW-1	687.75	10.27	677.48	5.50	682.25	9.98	677.77	9.50	678.25
MW-2	687.69	7.62	680.07	7.47	680.22	11.83	675.86	7.20	680.49
MW-2D	687.64	28.38	659.26	28.49	659.15	32.10	655.54	28.00	659.64
MW-3	686.99	15.15	671.84	14.33	672.66	16.20	670.79	15.61	671.38
MW-4	686.62	7.06	679.56	9.39	677.23	12.00	674.62	9.38	677.24

WELL	Elev USGS	11/11	/2013	2/19/	2014	5/17/	2017
***************************************	Datum	Depth to Water	Water Elev	Depth to Water	Water Elev	Depth to Water	Water Elev
MW-1	687.80	4.74	683.06	11.01	676.79	7.03	680.77
MW-2	687.74	7.96	679.78	9.22	678.52	7.54	680.20
MW-2D	687.66	28.50	659.16	28.35	659.31	27.11	660.55
MW-3	687.05	13.98	673.07	15.90	671.15	14.34	672.71
MW-3D	687.01	NI	NI	NI	NI	48.35	638.66
MW-4	686.68	8.51	678.17	10.92	675.76	7.92	678.76
MW-5	687.57	NI	NI	NI	NI	20.70	666.87
GP-10	684.27	6.60	677.67	4.17	680.10	NS	NS
GP-11	684.43	3.95	680.48	3.33	681.10	0.51	683.92
GP-12	684.70	5.38	679.32	7.89	676.81	1.40	683.30
GP-13	686.92	7.05	679.87	5.06	681.86	1.25	685.67
GP-16	686.74	2.71	684.03	3.89	682.85	1.85	684.89
GP-17	687.92	3.40	684.52	4.17	683.75	3.23	684.69

Notes: All Water Elevations are in feet above mean sea level.

NI - Not Installed

NS - Not Sampled

ATTACHMENT 1

Boring Logs, Abandonment Forms, Well Construction Reports, and Well Development Forms

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

Ro		atershed / Waster emediation / Rede			agement										
	K	emediation / Red	evelopment [V]	Ou	ici [-				•		F	age 1	of	1
Facility/Project Name	former l	Vatural Cleane	ers	Lic	ense/Perm	it/Mo	onitor	ing Nu	mber		Boı	ring Nu	nber	GP-2	0
Boring Drilled By: Nar		,	nd Firm	Dat	te Drilling	Start	ed		Date D	rilling C	omplete	d	Drilling	Metho	d
First Name: Adam/Dar Firm: Horizon Const		t Name:			$\frac{3}{m}$ $\frac{1}{d}$ $\frac{1}{d}$		<u>0</u>	1 7	0 3 m m/	$\frac{1}{d}$ $\frac{5}{d/}$		1 7 y y		Geo	probe
WI Unique Well No.	DNR Wel	l ID No.	Well Name no well	Fin	al Static V		Leve et MS		Surface	e Elevati	on Feet M	SL	Boreho	le Diam 2	inches
Local Grid Origin (es State Plane SW 1/4 of SE	timated:	N,	ationE 8_N, R22	E	Lat_ Long_				Lo	cal Grid	Location Feet	N			FeetE
Facility ID 3411	40250	County Mi	lwaukee	County	Code 41	Ci	vil To	own / C	City / or Y	Village	Baysid	e			
Sample	rface)	<u> </u>									So	l Prope	rties		
Number and Type Length Att. & Recovered (ii											RQD / Comments				
Asphalt over Brown gravel base rock Dark Brown Clayey Gravel, some sand. Tan Gravel Base Rock. -2' Brown Silty Clay, trace med sand, mod stiff, some gray stringers, sl moist. 5.6 -8 -10 -1															
2		- no stringers							1.2						
	— 12 — 14 — 16 — 18 — 20 — 22	-	ned upon completion												
I hereby certify that Signature	t the inforn	nation on this for	m is true and correct	to the b		know irm			nd Acc	ociates	Inc	M			and the second s

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

tate of Wisconsin _ epartment of Natural Resources PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Page 1 of 2

otice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance ith chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

oute to: Drinking Water Watersh	ed/Waste	water	Waste Mar	nagement	X Remedi	ation/R	Redeve	lopment	Other		
1. General Information					2. Facility						
	ell ID No.	County			Facility Nam		ner in	iomation	1		
	011 12 110.	, ,	lwaukee		l domey Han	For	mer N	Matural C	leaners		
Common Boring Name		Gov't Lot#	(if applicat	ole)	Facility ID		Lic	cense/Perm	nit/Monitor	- 1	y, Village or Town ayside
SW SE Sec	tion 5	Township 8	Range N 22	× E			•	ashingtor	n Road	_	
Grid Location		Local Grid (VV	Present Wel	l Owne	er		Origina	l Well Ov	vner
eet NFeet [╡┖╟═	(estimated)		Well Location	Street Addre	ess or	Route	of Owner			
Latitude: DEG MIN SE	·	Longitude: [DEG MIN		City					State	ZIP Code
Reason For Abandonment	N N/L Lir	nique Well N	lo of Repla	Wacement We							
Soil Boring Only	W 01	inque vven i	vo. or repr	accincia vve	4. Pump, I	Liner,	Scree	en, Casing	g & Seali	ng Mate	rial
Well / Drillhole / Borehole	Informat	tion			Pump and	d piping	g remo	oved?			Yes No X N/A
		Construction	Date		Liner(s) re	emove	d?				Yes ☐ No ☒ N/A
Monitoring Well	03	/15/2017			Screen re	emoved	! ?				Yes ☐ No ☒ N/A
Water Well	iblo	Casing le	ft in pla	ace?				Yes ☐ No ☒ N/A			
Borehole / Drillhole	Construction Re ach.	ible,	Was casi	ng cut	off bel	ow surface	?		Yes No X N/A		
Construction Type:		_	_		Did sealir	ng mate	erial ris	se to surfac	e?	[x	Yes No No N/A
Drilled Driven (Sandpoint	:) <u></u>	Dug		Did mate	rial sett	tle afte	r 24 hours	?	<u> </u>	Yes X No N/A
X Other (specify): Geopro	be				1			topped?			Yes No N/A
ormation Type								e used, wer om a knowr		rce? x	Yes No N/A
∵ormation Type:					Required M					100:	Ties Lino Lin/A
Unconsolidated Formation		Bedrock	ζ.		1 [ctor Pip			onductor F	Pipe-Pum	ped
otal Well Depth From Groundsu	, ,	Casing Dia	ameter (in.)) AN	Screer (Bento	ned & P nite Ch		По	ther (Expl	ain):	
ower Drillhole Diameter (in.)	2.0	Cooing Do	nth (ft)		Sealing Mat	erials					
ower Drillhole Diameter (in.)	. 0	Casing De	pin (it.)	IA	Neat C	ement	Grout		닏	Clay-San	d Slurry (11 lb./gal. wt.)
					Sand-0	Cement	t (Cond	crete) Grout	∙ ∐	Bentonite	e-Sand Slurry " "
`Vas well annular space grouted?] _{Yes} []No □	Unknown	Concre	ete				Bentonite	Chips
J					For Monitor	ing We	lls and	d Monitori <u>n</u>	g Well Bor	eholes O	nly:
If yes, to what depth (feet)?	Dep	th to Water	(feet)		× Bentoni	te Chip	s		Bentoni	te - Ceme	ent Grout
					Granula	r Bento	onite		Bentoni	te - Sand	Slurry
. Material Used To Fill Well / D	rillhole				From (ft.)	То	(ft.)		ls, Sacks ıme (circl		Mix Ratio or Mud Weight
	Asph	alt Patch			Surface	0.	5				-
	Chip	ped bento	nite		0.5	12.	. 0				
6. Comments											
7. Supervision of Work									DNR	Use Onl	у
lame of Person or Firm Doing Se	aling Wor	rk	Į.	Date of Aba	ndonment		Date F	Received		ed By	-
Horizon Drilling				03/15/2	2017	İ				174 t	
Street or Route				Telephone N	lumber		Comm	ents			
764 Tower Drive		State	ZIP Code	()							
City Fredonia)	Signature of	Perso	n Doin	g Work		Da	te Signed			

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

Rou		atershed / Wastew mediation / Redev		iste Manag Other]								
	Ke	mediation / Redev	velopilient [*]	Other	LJ				•			Page _	<u>1</u> o	f <u>1</u>
Facility/Project Name	former N	Jatural Cleanei	rs	Licen	se/Permit	/Monito	ring Nu	mber		Bo	ring N	ımber	GP-	21
Boring Drilled By: Nam		chief (first,last) an	d Firm	Date	Drilling S	tarted		Date D	rilling C	omplete	ed	Drilli	ng Metl	nod
Firm: Horizon Constru		Name:		<u>0</u> <u>1</u>	$\frac{3}{4}$ $\frac{1}{4}$ $\frac{5}{4}$		$\underset{y}{\underline{1}}~\underset{y}{\underline{7}}$	0 3 m m/	1 5 d d/		1 7	-	Ge	coprobe
WI Unique Well No.	DNR Well	ID No.	Well Name no well	Final	Static Wa	ter Leve Feet M		Surface	Elevati	on Feet M	SL	Bore	nole Dia 2	meter inches
Local Grid Origin (est State Plane SW 1/4 of SE	imated:	N,	E	E	Lat Long			Lo	cal Grid	Locatio Feet	N	•		Feet W
Facility ID 34114		County	vaukee	County C	ode	Civil T	own / C	City / or Y	Village	Baysid	e			
Sample	тасе)									So	il Prop	erties		
Number and Type Length Att. & Recovered (in) Blow Counts	Depth in Feet (below ground surface)	Soil/R And Ge Eac		USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid	Plasticity	P 200	RQD / Comments	
2	2	Dark Brown Cla Tan Gravel Base Dark Brown Silty Brown Silty Clay, gray stringers, sl - fine sand and s	y Clay, trace med and, y, trace med sand. , mod stiff, trace med moist. silt layer 2"	sand.				8.9 33 31.7 55						
I hereby certify that Signature	the inform	ation on this form	is true and correc	t to the bes	t of my k Fir		e.							

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

KPRG and Associates, Inc.

State of Wisconsin Department of Natural Resources PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Page 1 of 2

lotice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance *i*th chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to:		A	X	. (D - 1			
Drinking Water Watershed/Waste	water waste iv	Management	T	ation/Redeve		Other:	
1. General Information VI Unique Well No. DNR Well ID No.	Country		2. Facility		formation		
— — — — —	Milwaukee	•	Facility Name	e Former N	Natural Clea	ners	
Common Boring Name GP-21	Gov't Lot # (if applic	cable)	Facility ID	Lie	cense/Permit/W	~	ly, Village or Town ayside
4 / 1/4	Township Rang	ge x E	Street Addre 8828 Nor	•	ashington Ro	pad	
Grid Location eet NFeet DE	Local Grid Origin	LJ VV	Present Well	Owner	C	Original Well Ov	wner
	(estimated) OR	Well Location	Street Addre	ss or Route	of Owner		77 TV TO THE PARTY OF THE PARTY
Latitude: DEG MIN SEC	Longitude: DEG MIN	SEC W	City			State	ZIP Code
Reason For Abandonment WI U Soil Boring Only	nique Well No. of Re	eplacement We	4. Pump, L	iner, Scre	en, Casing &	Sealing Mate	rial
J. Well / Drillhole / Borehole Informa	tion		Pump and	piping remo	oved?		Yes No No N/A
Monitoring Woll	Construction Date		Liner(s) re				Yes No No N/A Yes No No N/A
Water Well	/15/2017	-11-1-1	Screen rel	t in place?			Yes No No N/A Yes No X N/A
Borehole / Drillhole please at	Construction Report is ava ach. ————————————————————————————————————	aliable,	Was casir	g cut off bel	low surface?		Yes No No N/A
Construction Type:			Did sealin	g material ri	se to surface?	х	Yes No No N/A
Drilled Driven (Sandpoint	Dug				er 24 hours?		Yes No N/A
Other (specify): Geoprobe			If bentonit	was hole re e chips were	e used, were th	ey 🗔	JYes □ No □ N/A
, [:] ormation Type:					om a known sa		Yes No N/A
x Unconsolidated Formation	Bedrock			ethod of Plac ctor Pipe-Gra	cing Sealing Ma avity Cond	aterial uctor Pipe-Pum	ped
otal Well Depth From Groundsurface (ft.)	Casing Diameter (i	n.) NA	(Bentor	ed & Poured nite Chips)	Other	(Explain):	
ower Drillhole Diameter (in.) 2.0	Casing Depth (ft.)	NA	Sealing Mate	erials ement Grout		=	nd Slurry (11 lb./gal. wt.)
Vas well annular space grouted?	Yes No	Unknown	Concre		crete) Grout d Monitoring W	Bentonite	•
If yes, to what depth (feet)?	th to Water (feet)		× Bentonit	e Chips	□в	entonite - Ceme	ent Grout
			Granulai	Bentonite		entonite - Sand	Slurry
5. Material Used To Fill Well / Drillhole			From (ft.)	To (ft.)		acks Sealant (circle one)	Mix Ratio or Mud Weight
	alt Patch		Surface	0.5			
Chip	ped bentonite		0.5	12.0			
6. Comments				,			
7. Supervision of Work				<u>_</u>		DNR Use On	ly
lame of Person or Firm Doing Sealing Wo	rk	Date of Abar		Date F	Received	Noted By	
Horizon Drilling Street or Route		Telephone N		Comm	nents		
764 Tower Drive		()	.],			
Sity Fredonia	State ZIP Co	ode	Signature of	Person Doir	ng Work	Da	ate Signed

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	<u>Ro</u>		Watershed / Wastev Remediation / Rede			Manager Other]										
															P	age	<u>1</u> of	1
Facility/Project	Name	forme	r Natural Cleane	ers		License	/Permit	Monit	orin	g Nun	nber		Вс	ring	Nun	nber	GP-2	2
•	-		w chief (first,last) a	nd Firm		Date Di	rilling S	tarted			Date D	rilling C	Complet	ed		Drillin	g Metho	od
First Name: Firm: Horizor	Adam/Dar 1 Const		Last Name:			0 3 m m/	1 5 d d/			- _y 7	0 3 m m/	$\frac{1}{d}$ $\frac{5}{d/}$	2 <u>0</u>	<u>1</u> y	, <u>7</u>		Geo	probe
WI Unique Wel	ll No.	DNR W	/ell ID No.	Well Name no well		Final St	tatic Wa		rel			Elevati				Boreho	ole Dian 2	neter inches
Local Grid Orig	gin (es	stimated:) or Boring Loca								Loc	al Grid	-					
State Plane SW 1/4 of			N, Section5, T	E	E		Lat ong			-			Fee		N S			FeetE
Facility ID	3411	40250	County	lwaukee	Cot	inty Coo	de	Civil '	Tow	'n / Ci	ty / or \(\frac{1}{2}\)	/illage	Baysic	le				
Sample		face)											Sc	il Pro	oper	ties		
Number and Type Length Att. & Recovered (in	Sample Recooker Description Soil/Rock Description And Geologic Origin For Each Major Unit Each Major Unit							Graphic Log	Well	Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid	Limit	Plasticity Index	P 200	RQD / Comments
N E I	Щ		Asphalt over B	rown gravel base ro	ck	**	Ω	0 1				0 8	20	۲	Ţ	1		
		2	Dark Brown Cl	ayey Gravel, some	sand.						41							
3.5			Tan Gravel Bas			2											ļ	
		<u> </u>		lty Clay, trace med														
-			gray stringers, s	y, mod stiff, trace c	oarse	sand,					49							
		6	gray stringers, s	si moist.							42							
5		 																
		_ °	- no stringers								56							
		10																
2											4.1							
		12							╁					╁				
		14	End of boring a	it 12 feet.														
		14	Boring abandor	ned upon completio	n.													
		16							Ī								l	
		18																
		20								ļ								
		22																
I hereby cer	tify tha	t the info	ormation on this form	n is true and correc	t to t	he best	of my kı	l nowled	ge.			<u> </u>	<u></u>	Т			<u></u>	
Signature							Fin	n 17	nn		1 4	٠.	· ·		****			

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

KPRG and Associates, Inc.

tate of Wisconsin ⊒epartment of Natural Resources PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Page 1 of 2

otice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance ith chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

oute to: Drinking Water Watersh	ed/Waste	water	Waste Ma	anagem	ent	X Remedia	ation/Red	development	Othe	r:	
1. General Information			<u> </u>			2. Facility	/ Owne	er Information	on .		
[ell ID No.					Facility Nam	e	er Natural			
			lwaukee				FORME				***************************************
Common Boring Name		Gov't Lot#	(if applica	able)		Facility ID		License/Per	mit/Monito		y, Village or Town ayside
Sec SE	tion 5	Township 8	Range N 2	9 ×] E	Street Addre		ring t Washingto	on Road		
Grid Location						Present Well	Owner		Origin	al Well Ov	ner
eet NFeet C	╛╴╟──	Local Grid ((estimated)		Well Lo	cation	Street Addre	ss or R	oute of Owner			
Latitude: DEG MIN SEC		ongitude:		SEC		City	······································			State	ZIP Code
Decree For Alexander	N	.:			W	7					
Reason For Abandonment Soil Boring Only	WIUr	nque Well N	No. of Rep	olaceme	ent VVe	4. Pump, L	iner, S	creen, Casii	ng & Seal	ing Mate	rial
. Well / Drillhole / Borehole						Pump and					Yes No No N/A
		Construction	Date			Liner(s) re	moved?	•			Yes No No N/A
Monitoring Well	03	/15/2017				Screen re	moved?			느	Yes No No X N/A
Water Well		onstruction Re	eport is avai	ilable,		Casing let	t in plac	e?			Yes No No N/A
Borehole / Drillhole	please atta	ach.				Was casir	ng cut of	f below surfac	e?		Yes No No N/A
onstruction Type:		_	_			Did sealin	g materi	al rise to surfa	ace?	х	Yes No N/A
	Sandpoint) <u> </u>	Dug			ı		after 24 hour	s?		Yes X No N/A
Other (specify):Geoproi	be					1 .		le retopped? were used, we	ere thev		Yes LNo N/A
. ormation Type:								er from a knov		ırce? x	Yes No N/A
Unconsolidated Formation		Bedrock	<					Placing Sealin	_		d
		_					ctor Pipe ed & Poi		Conductor		ped
otal Well Depth From Groundsur	face (ft.)	Casing Dia	ameter (in	n.) NA			nite Chip		Other (Exp	lain): ———	V. 200411
ower Drillhole Diameter (in.) 2	.0	Casing De	epth (ft.)	NA			ement G	rout		Clay-San	d Slurry (11 lb./gal. wt.)
						Sand-C	ement (Concrete) Gro	ut <u> </u>	i	-Sand Slurry " "
Vas well annular space grouted?] _{Yes} [□no [Unkr	nown	Concre			<u> </u>	Bentonite	
			<i>(f</i> , 1)				-	and Monitori	_		
If yes, to what depth (feet)?	Deb.	th to Water	(teet)			× Bentonit	•	ito		ite - Ceme ite - Sand	
	<u> </u>					Gianuia	Denton	······································	ds, Sacks		Mix Ratio or
. Material Used To Fill Well / D	rillhole					From (ft.)	To (ff		lume (circ		Mud Weight
	Asph	alt Patch	1			Surface	0.5				
	Chip	ped bento	nite			0.5	12.0				
											
6. Comments											
7. Supervision of Work									DNR	Use Onl	у
lame of Person or Firm Doing Se	aling Wor	k		1		ndonment	Da	ate Received		ted By	
Horizon Drilling					/15/2						
Street or Route				Teleph	none l	Number	C	omments			
764 Tower Drive		State	ZIP Cod] (le)	Signature of	Person	Doing Work		Па	te Signed
Fredonia		WI	E 200			Signature of		POHIS MOLK		Da	to digition

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	Ro		Watershed / Waste Remediation / Red		aste l	Manager Other	nent []									
			romodiumon, rod	overopinent		Other]	Page	<u>1</u> of	
Facility/Project	t Name	forme	Natural Clean	ers		License	/Permit	/Monito	ring l	Nun	nber		Во	ring Nu	mber	GP-2	3
-	-		w chief (first,last) a	and Firm	,	Date D	rilling S	tarted		П	Date Dr	illing	Complet	ed	Drillin	g Metho	od
First Name: Firm: Horizo	Adam/Da on Const		Last Name:				$\frac{1}{d}$ $\frac{5}{d}$		<u>1</u> y y		$\frac{0}{m}$ $\frac{3}{m}$	1 5 d d/	2 <u>0</u>	1 7		Geo	probe
WI Unique W	ell No.	DNR W	ell ID No.	Well Name	***************************************	Final St	tatic Wa	ter Leve	el		Surface		tion		Boreho	le Dian	
Local Grid Or	igin (e	ctimated:) or Boring Loc	no well				Feet M	SL	_	Loc	al Gri	Feet M		<u> </u>	2	inches
State Plane SW 1/4 of		1/4 of S	N,	E 8 N, R 22	Е		Lat ong				1.00	ai Gin	Feet	N			Feet W
Facility ID		140250	County	lwaukee		unty Coo	ie	Civil T	own /	/ Ci	ty / or <u>V</u>	illage	Baysid	e			
Sample						41			-	_				il Prope	rties		
t. &	nts	Depth in Feet (below ground surface)		Rock Description								ive	1				
Number and Type Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground sur		Beologic Origin For ach Major Unit			CS	hic		ram	FID	Compressive	sture	Ei T	Plasticity Index		RQD / Comments
Number and Typ Length / Recover	Blow	Dept (below					SA	Graphic Log	Well	Diagram	PID/FID	Compress	Moisture Content	Liquid Limit	Plastic Index	P 200	RQD / Commo
				rown gravel base re						ļ							
2.5		_ 2		layey Gravel, some	sand	l .					1.2						
2.5			Tan Gravel Bas	se коск. ilty Clay, trace med	sand	1				}	0.8					l	
		4		ay, trace med sand		••					0.0						
-	1	1 1		y, mod stiff, trace of		e sand,				ı	1.4						
			gray stringers,	sl moist.										:			
5		8															
											2.8						
2	1	10								ŀ	0.9						
		12								l							
		12															
		14	End of boring														
			Boring abando	ned upon completi	on.											<u>.</u>	
		16								ŀ							
		1.0															
		18								ı							
		20															
	1																
		22								ł							
	ertify tha	t the info	rmation on this for	m is true and corre	ct to t	the best o			je.	_							
Signature							Fir	n					-				

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

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tate of Wisconsin ⇒epartment of Natural Resources PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Page 1 of 2

otice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance ith chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

oute to:					 1			-	_	
Drinking Water Watershed/W	'astewa	ter	Waste Ma	anagemen	Remed	iation/F	Redeve	lopment _	Other:	
1. General Information					2. Facility	/ / Ow	ner In	formation		
/I Unique Well No. DNR Well ID	No. Co	•	waukee		Facility Nan	ne For	mer N	atural Cl	eaners	
Common Boring Name GP-23	G	ov't Lot#	(if applica	ıble)	Facility ID		Lic	ense/Permi	- 1	ity, Village or Town Bayside
1/1/4 1/4 Section SE 5	To	wnship 8	Range N 2		E Street Addr 8828 No			ashington	Road	
Grid Location	<u>, , , , , , , , , , , , , , , , , , , </u>	aal Ovid O	<u> </u>		Present We	ll Own	er		Original Well C)wner
eet NFeet E	l 一	cal Grid C stimated)	_	Well Loca	Street Addr	ess or	Route	of Owner		
Latitude: DEG MIN SEC	Lor N	ngitude:	EG MIN	SEC	City				State	ZIP Code
Reason For Abandonment V	VI Uniq	ue Well N	o. of Rep	lacement	We 4 Pump	l iner	Scree	n Casina	& Sealing Mat	erial
				erroread.	Pump ar				a ocaming mat	Yes No No N/A
J. Well / Drillhole / Borehole Info			Data		Liner(s)		-	wed:	Ī	Yes No No N/A
Monitoring Well		nstruction 5/2017	Date		Screen r					Yes No No N/A
Water Well				1-61-	Casing le	eft in pla	ace?			☐Yes ☐ No ☒ N/A
	se attach	struction Re	port is avai	iavie,	Was cas	ing cut	off bel	ow surface?		Yes No No N/A
construction Type:						•		se to surface	? [2	Yes No N/A
Drilled Driven (Sand	point)		Dug		Did mate	rial set	tle afte	r 24 hours?		Yes X No N/A
X Other (specify): Geoprobe					_			topped?	[Yes No No N/A
ormation Type:								used, were om a known	they safe source?	Yes No No N/A
- · ·		1 5						ing S <u>eal</u> ing	Material	
Unconsolidated Formation	L	Bedrock					pe-Gra	vity Co	nductor Pipe-Pun	nped
otal Well Depth From Groundsurface	(ft.)	Casing Dia	meter (in	.) _{NA}		ned & F onite Ch		Oth	ner (Explain):	
ower Drillhole Diameter (in.)	C	asing De	pth (ft.)	NA	Neat 0	Cement				ind Slurry (11 lb./gal. wt.) te-Sand Slurry " "
Vas well annular space grouted?		Yes []no [Unknov	vn 🔲 Concr	ete	·	crete) Grout	=	te Chips
If yes, to what depth (feet)?	Depth	to Water	(feet)		× Benton	_		- Workoning	Bentonite - Cem	-
			` ,		Granul	ar Bent	onite		Bentonite - San	d Slurry
. Material Used To Fill Well / Drillho	ole				From (ft.)	То	(ft.)		, Sacks Sealant ne (circle one)	Mix Ratio or Mud Weight
	Asphal	t Patch			Surface	0.	. 5			
C	hippe	d bento	nite	***************************************	0.5	12	.0			
F. Comments										
							•			
7. Supervision of Work		,		<u></u>					DNR Use Or	ıly
lame of Person or Firm Doing Sealing Horizon Drilling	Work			1	bandonment 5/2017		Date F	Received	Noted By	
Street or Route				ļ	e Number		Comm	nents		
764 Tower Drive				()						
Jity Fredonia		State WI	ZIP Cod		Signature o	f Perso		g Work	D	ate Signed

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

Route To	Wastewater Wastewater Wastewater Remediation / Redevelopment	Management Other				
	Remediation / Redevelopment [1]	Other			Page_	1 of 1
Facility/Project Name form	ner Natural Cleaners	License/Perm	it/Monitoring Nu	ımber	Boring Number	GP-24
	crew chief (first,last) and Firm	Date Drilling	Started	Date Drilling Co	mpleted Drill	ing Method
First Name: Adam/Dan Firm: Horizon Construction	Last Name:	$ \underbrace{0}_{m \ m/d} \underbrace{1}_{d} $	$\frac{5}{y}$ $\frac{2}{y}$ $\frac{0}{y}$ $\frac{1}{y}$ $\frac{7}{y}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{bmatrix} 2 & 0 & 1 & 7 \\ y & y & y \end{bmatrix}$	Geoprobe
WI Unique Well No. DNR	Well ID No. Well Name	Final Static V	Vater Level	Surface Elevation	n Bore	ehole Diameter
I ICHO : : (: :	no well		Feet MSL	Local Grid L	Feet MSL	2 inches
Local Grid Origin (estimate State Plane SW 1/4 of SE 1/4 o	N, E	Lat_ Long		Local Grid L	ocation N Feet S	Feet W
Facility ID	County	ounty Code	Civil Town / C	City / or Village		FeetW
341140250	Milwaukee	41	CIVII TOWII / C	I vinage	Bayside	
Sample Sample	Soil/Rock Description			o l	Soil Properties	
r pe Att. Sount in Fe	And Geologic Origin For	S	o E	D essiv	re it	ents
Number and Type Length Att. & Recovered (in) Blow Counts	Soil/Rock Description And Geologic Origin For Each Major Unit	SC	Graphic Log Well Diagram	PID/FID Compressive Strength	Moisture Content Liquid Limit Plasticity	Index P 200 RQD / Comments
	Asphalt over Brown gravel base rock	<u> </u>		S S		
	Dark Brown Sandy Gravel some fine	1		1.8		
3	Tan Gravel Base Rock.					
	4 -1' Dark Brown Silty Clay, trace med san	nd.		0.5		
	-3' Brown Silty Clay, soft, moist					
	6 -5' Brown Silt Clay, mod stiff, trace sand gravel, gray stringers, sl moist.	and		1.7		
5	- silt seam					
	8			2.9		
	0					
2	- no stringers			1.7		
1	2		 			
	End of boring at 12 feet.					
	Boring abandoned upon completion.					
	16					
1	8					
	20					
	22					
		4.1.5				
Signature	nformation on this form is true and correct to		irm			

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state of Wisconsin Department of Natural Resources PO Box 7921, Madison WI 53707-7921

Well / Drillhole / Borehole Abandonment

Form 3300-005 (R 10/03)

Page 1 of 2

lotice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance *i*th chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to: Drinking Water Watershe	d/Wastev	vater \	Vaste Ma	anagement	× Remed	iation/Re	devel	opment [Other:			
1. General Information					2. Facility							
VI Unique Well No. DNR Wel	I ID No.	County			Facility Nan	ne						
		Mil	waukee 			Form		atural Cle				
Common Boring Name		Gov't Lot#(if applica	ible)	Facility ID		Lic	ense/Permit	/Monitori	- 1	y, Village or ayside	Town
3/1/4 1/4 SE Section SE Section SE Section SE Section SE	· · ·	Township 8	Range N 2	₹ X	Street Addr 8828 No			shington	Road		,	
Grid Location				<u> </u>	Present We	ll Owner	•		Origina	l Well Ow	/ner	
eet NFeet		Local Grid O	· —		. Street Addr	ass or R	Oute	of Owner	1			
Latitude:		(estimated)	OR 📙	Well Locat	tion	C33 01 1	iouic '	or Owner				
DEG MIN SEC	-	ongitude:	EG MIN	SEC	City	·				State	ZIP Code	
Reason For Abandonment	N	igue Well N	of Ren	lacement !	W			· · · · · · · · · · · · · · · · · · ·				
Soil Boring Only	Wight		o. or rep		We 4. Pump,	Liner, S	cree	n, Casing	& Sealii	ng Mate	rial	
J. Well / Drillhole / Borehole In	nformat	ion			Pump an	d piping	remo	ved?				× N/A
	riginal C	onstruction	Date		Liner(s) r	emoved	?				Yes No	
Monitoring Well Water Well	03/	/15/2017			Screen re							× N/A
\(\overline{\sigma}\)	lf a Well Co please atta	onstruction Rep	oort is avail	lable,	Casing le	eft in plac	ce?	<u>-</u>			Yes LIN	
Construction Type:	produce dite					-		w surface?		х	Yes No	
			1.					e to surface	?		Yes No	
Drilled Driven (Sa		' <u>L</u>	Dug			riai settie s, was ho		· 24 hours?			Yes No	F
Other (specify): Geoprob					If benton	ite chips	were	used, were				
.∹ormation Type:					L			m a known		ce? _^_	Yes No	N/A
x Unconsolidated Formation	[Bedrock				ietnoa oi ictor Pipe		ng Sealing i /ity Cor		ipe-Pump	ped	
otal Well Depth From Groundsurfa	ace (ft.)	Casing Dia	meter (in	.)	X Scree	ned & Po	oured		er (Expla	•		
12			(AN .	<u>`</u>	nite Chip	os)					
ower Drillhole Diameter (in.) 2.	0	Casing Dep	th (ft.)	NA	Sealing Ma	cenais Cement G	Grout			Clay-San	d Slurry (11 I	b./gal. wt.)
								rete) Grout		Bentonite	-Sand Slurry	u "
`Vas well annular space grouted?	Г] _{Yes} [] _{No} [Unknow			,	,		Bentonite	Chips	
					For Monitor	-		Monitoring				
If yes, to what depth (feet)?	Dept	h to Water (feet)		X Benton					e - Ceme		
					Granula	ar Bentor	nite	<u>L</u> _		e - Sand		
i. Material Used To Fill Well / Dr	illhole				From (ft.)	To (f	ft.)	No. Yards or Volun			Mix Rat Mud W	
	Aspha	alt Patch			Surface	0.5						
		0.5	12.0		<u>-</u> -							
						<u> </u>						
6. Comments										···		
7. Supervision of Work									DNR	Use Onl	у	
lame of Person or Firm Doing Sea	ling Worl	k		1	bandonment	Þ	ate R	eceived		ed By		
Horizon Drilling					5/2017							
Street or Route				Telephon	e Number	l _C	comm	ents				
764 Tower Drive		State	ZIP Cod	<u>j() </u>	Signature o	f Person	Doing	g Work		Da	te Signed	
Fredonia		WI	E 20'			^ <u>.</u>		•			J	

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	Ro			Wastewater	Waste	Manager Other]			-			Page	<u>1</u> of	2
Facility/Project	Name	forme	r Natural C	Cleaners		License	/Permit	/Monito	ring Nu	mber		Во	ring Nu	ımber	MW-	3D
Boring Drilled 1	By: Nar Adam/Dan		w chief (first	,last) and Firm			rilling S			1	rilling C	•		Drillin	_	
Firm: Horizon	n Consti	uction					d d/			0 3 m m/		у у	1 7	l		then HSA
WI Unique Wel			ell ID No.	Well Name MW-3D		Final St	tatic Wa	ter Lev Feet M			e Elevati	Feet M		Boreho	le Diam 2 then	
Local Grid Orig State Plane SW 1/4 of		timated: 1/4 of S	N,		E 2 E		Latong			Lo	cal Grid	Locatio Feet	N			E Feet W
Facility ID		40250	County	Milwaukee	Co	unty Coo	de	Civil T	own / C	City / or	Village	Baysid	<u> </u>			
Sample		rface)										So	il Prope	erties	1	
Number and Type Length Att. & Recovered (in)	And Geologic Origin Ed							Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
	tify that	2 4 6 8 10 12 14 16 18 20 22 the info	Please se	lind drilled to 25 feet. e boring log MW-3 for					e.							
Signature							Fire	n K1	PRG a	nd Ass	ociates	Inc				

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

Boring: MW-3D Site: former Natural Cleaners Page 2 of __ Sample Soil Properties Number and Type Length Att. & Recovered (in) Depth in Feet Soil/Rock Description Compressive Blow Counts RQD / Comments And Geologic Origin For Liquid Limit Plasticity Well Diagram Strength PID/FID Moisture Graphic Log USCS Content Each Major Unit P 200 - 24 - 26 3 Gray Silty Clay, trace coarse sand to fine 0.7 gravel, sl moist. - 28 - 30 5 - 29' to 32' silt and fine sand seams 1.1 **-** 32 5 1.4 36 **-** 38 5 1.5 44 5 0.9 46 48 50 End of Boring at 50 feet. - 52 Boring converted to monitoring well. 54 56 - 58

60

62

	Watershed/Wastewater Remediation/Redevelopment X	Waste Management	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
Facility/Project Name Former Natural Cleaners	Remediation/Redevelopment X Local Grid Location of Well ft	N.	Well Name MW-3D
Facility License, Permit or Monitoring No.	Local Grid Origin (estima	ited: 🗌) or Well Location 🔲	·
Facility ID 341140250	St. Planeft. N	, ft. E. S/C/N	Date Well Installed 1 5 /2 0 1 7
Type of Well Well Code 11 / mw	Section Location of Waste/Sou SW 1/4 of SE 1/4 of Sec.	5_,T8_N,R22	Well Installed By: Name (first, last) and Firm A. Sweet
Well Code/ _mw	Location of Well Relative to W u □ Upgradient s □ d □ Downgradient n □	Vaste/Source Gov. Lot Number Sidegradient	Horizon Drilling
A. Protective pipe, top elevation	, , , , , , , , , , , , , , , , , , , ,	1. Cap and lock?	⊠ Yes □ No
B. Well casing, top elevation	ft. MSL	2. Protective cover	1.0
C. Land surface elevation	ft. MSL	b. Length:	_ <u>1</u> _ ft.
D. Surface seal, bottom ft. M	SLor 1_ ft.	c. Material:	Steel ☑ 04 Other □
12. USCS classification of soil near scree	X243000A*A	d. Additional pr	
SM SC ML MH Bedrock		3. Surface scal:	Bentonite □ 30
T	Yes ⊠ No		Concrete □ 01 Other □
	tary 🗆 50	4. Material between	n well casing and protective pipe:
Hollow Stem And Geoprobe/HSA	uger □ 41		Bentonite △ 30 Other □
		5. Annular space s	
	Air 01		mud weight Bentonite-sand slurry □ 35
Drilling Mud □ 0 3	None 299		mud weight Bentonite slurry 31
16. Drilling additives used?	Yes ☑ No		onite Bentonite-cement grout \(\Pi \) 50
Describe		f. How installe	•
Describe	uired):		Tremie pumped 🗆 02
17. Boardo of Water (dieder analysis, if requ	mea).	C Pantanita and	Gravity ☑ 08 a. Bentonite granules □ 33
		6. Bentonite seal:	a. Bentonite granules ☐ 33 33/8 in. ☐ 1/2 in. Bentonite chips ☐ 32
E. Bentonite seal, top ft. MS	L or1_ft.	b. 21/4 III. 2	Other 🗆 🎎
F. Fine sand, top ft. MS	SL or 43 _ ft.	7. Fine sand mater	ial: Manufacturer, product name & mesh size
G. Filter pack, top ft. MS	L or 43 ft.	a b. Volume adde	ed ft ³
H. Screen joint, top ft. MS	L or45 ft.	- D / a	rial: Manufacturer, product name & mesh size
I. Well bottom ft. MS	L or _ 50 _ ft.	b. Volume adde 9. Well casing:	Flush threaded PVC schedule 40 🗵 23
J. Filter pack, bottomft. MS	L or50ft.		Flush threaded PVC schedule 80 24 Other
K. Borehole, bottom ft. MS	L or 50 ft.	10. Screen material a. Screen type:	:
L. Borehole, diameter $= -\frac{8}{3}$ in.			Continuous slot □ 01 Other □
M. O.D. well casing in.		c. Slot size:	0. <u>010</u> in.
N. I.D. well casing $\frac{2 \cdot 0}{}$ in.		d. Slotted lengt	th: $_{5}$ ft. I (below filter pack): None \square 14
	form to true and		Other 🗆 🌉
I hereby certify that the information on this Signature	Firm		
U	KPRG a	nd Associates Inc	

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent

MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater Remediation/Redevelopment	Waste Management								
Facility/Project Name County Name	Other Well Name								
former Natural Cleaners	Milwaukee MW-3D								
Facility License, Permit or Monitoring Number County Code	Wis. Unique Well Number DNR Well ID Number								
41									
1. Can this well be purged dry? ☐ Yes ☐ No	Before Development After Development 11. Depth to Water								
2. Well development method surged with bailer and bailed	(from top of well casing) a. <u>46.1</u> ft. <u>50.3</u> ft. Date b. <u>05</u> / <u>11</u> d / <u>2017</u> 05 / <u>11</u> d / <u>2017</u> m m d d d y y y y								
surged with block, bailed and pumped	Time c. 12 : 45 \square p.m. 14 : 05 \square p.m.								
pumped only 5 1 pumped slowly 5 50 Other	12. Sediment in well0inches0inches bottom 13. Water clarity Clear1 0 Clear2 0								
3. Time spent developing well80 min.	Turbid □ 1 5 Turbid □ 2 5 (Describe) (Describe)								
4. Depth of well (from top of well easisng)50.3 ft.									
5. Inside diameter of well in.									
6. Volume of water in filter pack and well casing gal.	Fill in if drilling fluids were used and well is at solid waste facility:								
7. Volume of water removed from well 2 5_ gal.	14. Total suspended mg/l mg/l								
8. Volume of water added (if any) gal.	solids								
9. Source of water added	15. COD mg/l mg/l								
10. Analysis performed on water added? Yes No (If yes, attach results)	16. Well developed by: Name (first, last) and Firm First Name: Patrick Last Name: Allenstein								
17. Additional comments on development:	Firm: KPRG and Associates, Inc.								
T. T. Postilonia, commente en de l'elephiene.									
Name and Address of Facility Contact /Owner/Responsible Party First Last Name:	I hereby certify that the above information is true and correct to the best of my knowledge.								
Facility/Firm: former Natural Cleaners	Signature:								
Street: 8828 Port Washington Road	Print Name: Patrick Allenstein								
City/State/Zip: Bayside, WI	Firm: KPRG and Associates, Inc.								

NOTE: See instructions for more information including a list of county codes and well type codes.

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	<u>Ro</u>		Watershed / Wastewater Watershed / Wastewater Wastewate		nagement her		· · · · · · · · · · · · · · · · · · ·				I	Page :	l of	2	
Facility/Project Name former Natural Cleaners License/Permit/Monitoring N							ring Nu								
Boring Drilled By: Name of crew chief (first,last) and Firm				Da	Date Drilling Started Date Drilling										
First Name: Adam/Dan Last Name: Firm: Horizon Construction				<u>0</u>	$\begin{bmatrix} \underline{0} & \underline{3} & \underline{1} & \underline{5} & \underline{2} & \underline{0} & \underline{1} & \underline{7} \\ \underline{m} & \underline{m} / & \underline{d} & \underline{d} / & \underline{y} & \underline{y} & \underline{y} & \underline{y} \end{bmatrix}$				$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						
					Final Static Water Level Feet MSL				Surface Elevation Feet MSL				Borehole Diameter 2 then 8 inches		
Local Grid Origin (estimated:) or Boring Location State Plane N, E SW 1/4 of SE 1/4 of Section 5 , T 8 N, R 22 E				E	Lat Long	Local Grid Location									
Facility ID County County Milwayless County C			y Code	Civil Town / City / or Village Bayside											
Sample					41			Soil Properties							
Number and Type Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments	
5		1 1	Asphalt over Brown gravel base ro Dark Brown Sandy Gravel, some: Tan Gravel Base Rock1' Dark Brown Silty Clay, trace med -2' Brown Silty Clay, mod soft, sl mo -5' Brown Silt Clay, trace med to coa gray stringers, sl moist. - no stringers	fines. sand. ist				2.4 1.3 4.1 3.2							
5		— 12 — 14 — 16	- silt and fine sand seam Gray Silty Clay, trace med sand, s	l moist.				430							
2		— 18 — 20					,	333							
I hereby cer	tify tha	22 t the info	ormation on this form is true and correc	et to the l	best of my kr	nowledg	e.								
I hereby certify that the information on this form is true and correct to the best of my knowledge. Signature Firm															

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

KPRG and Associates, Inc.

Site: former Natural Cleaners Boring: MW-5 Page 2 of 2

				ar creations Bornig. 11111 5								"gc		
Sam	ple		ce)					·		Soi	il Propei	ties		
Number and Type	Length Att. & 'Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	uscs	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content		Plasticity Index	P 200	RQD / Comments
			24	from above Gray Silty Clay, trace med sand, sl moist.				510						:
			26 28 30	End of Boring at 25 feet. Boring converted to monitoring well.						1				
			32											
			34	· · · · · · · · · · · · · · · · · · ·										
			36							1				
														
			42											
			— 44 — 46							:				
			— 48							:				
			50											
			— 52 — 54			:								
			— 56											
			— 58 — 60											
			— 62											

		lanagement	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
	Remediation/Redevelopment Other		1487 11 8 7
Facility/Project Name Former Natural Cleaners	Local Grid Location of Well	ft. □ E.	Well Name MW-5
Facility License, Permit or Monitoring No.	Local Grid Origin (estimated:)	or Well Location	Wis. Unique Well No. DNR Well ID No.
Facility ID 341140250	St. Plane ft. N,		Date Well Installed $\frac{0}{m} \frac{3}{m} / \frac{1}{d} \frac{5}{d} / \frac{2}{v} \frac{0}{v} \frac{1}{v} \frac{7}{v}$
Type of Well	Section Location of Waste/Source	🗷 E	m iii a a y y y y
Well Code 11 / mw	SW 1/4 of SE 1/4 of Sec. 5 .T. 8		A. Sweet
Distance from Waste/ Enf. Stds.	Location of Well Relative to Waste/Source		
Sourceft. Apply _	u ☐ Upgradient s ☐ Sidegradied ☐ Downgradient n ☐ Not Know		Horizon Drilling
A. Protective pipe, top elevation	ft. MSL	1. Cap and lock?	⊠ Yes □ No
B. Well casing, top elevation	ft. MSL	2. Protective cover a. Inside diamete	1.0
C. Land surface elevation	ft. MSL	b. Length:	$\frac{1}{1}$ ft.
	Section 1	c. Material:	Steel 🖾 04
D. Surface seal, bottom ft. M	SL or ft.	W.	Other 🗆
12. USCS classification of soil near scree		d. Additional pro	
	SW 🗆 SP 🗆		pe:
		li yes, deseri	Bentonite □ 30
Bedrock □		Surface seal:	
13. Sieve analysis performed?	Yes ⊠ No	\	//////
			Other 🗆
	tary D 50	4. Material between	n well casing and protective pipe:
Hollow Stem And Geoprobe/HSA			Bentonite 🗵 30
Geoplobe/ nan	ther 🗵 🏬		Other 🗆
45 D W Gulden J. Water D 0.2		5. Annular space se	
15. Drilling fluid used: Water □ 0 2	Air 01	bLbs/gal :	mud weight Bentonite-sand slurry □ 35
Drilling Mud 🗆 0 3	None ⊠ 99		mud weight Bentonite slurry 🛛 31
16. Drilling additives used?	Yes ⊠ No		nite Bentonite-cement grout 5 0
10. Diming additives used:	res 🛮 NO	eFt	3 volume added for any of the above
Describe		f. How installed	l: Tremie □ 01
	1 1001		Tremie pumped 🛚 02
17. Source of water (attach analysis, if requ	irea):		Gravity 🗵 08
		6. Bentonite seal:	a. Bentonite granules 33
		ъ. □1/4 in. 🖸	13/8 in. □ 1/2 in. Bentonite chips □ 32
E. Bentonite seal, top ft. MS	L or 1_ ft.	/ c	Other 🗆 🌉
F. Fine sand, top ft. MS	L or 8 ft.	7. Fine sand materi	al: Manufacturer, product name & mesh size
		/ a	
G. Filter pack, top ft. MS	Lor8ft.	 b. Volume adde 	dft ³
H. Screen joint, top ft. MS		8. Filter pack mate	rial: Manufacturer, product name & mesh size
The defect joint, top	201	a b. Volume adde	d ft ³
I. Well bottom ft. MS	L or _ 25 ft.	9. Well casing:	Flush threaded PVC schedule 40 🗵 23
			Flush threaded PVC schedule 80 🔲 24
J. Filter pack, bottom ft. MS	L or25 ft.	10. Screen material:	Other 🗆 🚆
K. Borehole, bottom ft. MS	L or 25 ft.	a. Screen type:	Factory cut 🗵 11
		**	Continuous slot 🔲 01
L. Borehole, diameter $\frac{8}{}$ in.	· ·	-	Other 🗆 🌉
M. O.D. well casing in.	\	b. Manufacturerc. Slot size:	0. 010 in.
_	\	d. Slotted length	h: <u>15</u> _ft.
N. I.D. well casing $-\frac{2}{2} \cdot \frac{0}{2}$ in.		11. Backfill materia	l (below filter pack): None □ 14 Other □
I hereby certify that the information on this	form is true and correct to the best of my k	nowledge.	<u> </u>
Signature	Firm		
•	KPRG and Associ	iates, Inc.	

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent

State of Wisconsin Department of Natural Resources

MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98 Route to: Watershed/Wastewater Waste Management ____

Remediation/Redevelopment X	Other
Facility/Project Name former Natural Cleaners County Name	Milwaukee MW-5
Facility License, Permit or Monitoring Number County Code 41	Wis. Unique Well Number DNR Well ID Number
1. Can this well be purged dry? 2. Well development method surged with bailer and bailed surged with bailer and pumped surged with block and pumped surged with block and pumped surged with block and pumped surged with block, bailed and pumped compressed air bailed only pumped only pumped slowly Other 3. Time spent developing well 4. Depth of well (from top of well casisng) 2 in. 4. Volume of water removed from well gal. 7. Volume of water removed from well 5 0 gal.	Before Development After Development
8. Volume of water added (if any) 0 gal.	solids
9. Source of water added	15. COD mg/l mg/l
10. Analysis performed on water added? ☐ Yes ☑ No (If yes, attach results) 17. Additional comments on development:	16. Well developed by: Name (first, last) and Firm First Name: Patrick Last Name: Allenstein Firm: KPRG and Associates, Inc.
Name and Address of Facility Contact / Owner/Responsible Party First Last Name:	I hereby certify that the above information is true and correct to the best of my knowledge.
Facility/Firm: former Natural Cleaners	Signature:
Street: 8828 Port Washington Road	Print Name: Patrick Allenstein
City/State/Zip: Bayside, WI	Firm: KPRG and Associates, Inc.

ATTACHMENT 2

Analytical Data Packages





December 07, 2017

Rich Gnat KPRG and Associates, Inc. 14665 W. Lisbon Rd. Suite 2B Brookfield, WI 53005

RE: Project: 18806 FORMER NATURAL CLEANERS

Pace Project No.: 40161815

Dear Rich Gnat:

Enclosed are the analytical results for sample(s) received by the laboratory on December 05, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milannia.

Dan Milewsky dan.milewsky@pacelabs.com (920)469-2436 Project Manager

Enclosures

cc: Josh Davenport, KPRG and Associates, Inc.







CERTIFICATIONS

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

40161815

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050

Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334

New York Certification #: 12064 North Dakota Certification #: R-150 Virginia VELAP ID: 460263

South Carolina Certification #: 83006001 Texas Certification #: T104704529-14-1 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444 USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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





SAMPLE SUMMARY

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

40161815

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40161815001	MW-3D	Water	12/01/17 11:50	12/05/17 08:15
40161815002	MW-5	Water	12/01/17 13:00	12/05/17 08:15
40161815003	DUP	Water	12/01/17 00:00	12/05/17 08:15
40161815004	TRIP BLANK	Water	12/01/17 00:00	12/05/17 08:15

REPORT OF LABORATORY ANALYSIS





SAMPLE ANALYTE COUNT

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.: 4

40161815

				Analytes	
Lab ID	Sample ID	Method	Analysts	Reported	Laboratory
40161815001	MW-3D	EPA 8260	HNW	13	PASI-G
40161815002	MW-5	EPA 8260	HNW	13	PASI-G
40161815003	DUP	EPA 8260	HNW	13	PASI-G
40161815004	TRIP BLANK	EPA 8260	HNW	13	PASI-G





SUMMARY OF DETECTION

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

40161815

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40161815002	MW-5					
EPA 8260	Tetrachloroethene	4.0	ug/L	1.0	12/06/17 16:32	
EPA 8260	Trichloroethene	1.5	ug/L	1.0	12/06/17 16:32	
EPA 8260	cis-1,2-Dichloroethene	1.7	ug/L	1.0	12/06/17 16:32	
40161815003	DUP					
EPA 8260	Tetrachloroethene	3.6	ug/L	1.0	12/06/17 16:54	
EPA 8260	Trichloroethene	1.3	ug/L	1.0	12/06/17 16:54	
EPA 8260	cis-1,2-Dichloroethene	1.5	ug/L	1.0	12/06/17 16:54	



ANALYTICAL RESULTS

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

Date: 12/07/2017 11:05 AM

40161815

Sample: MW-3D	Lab ID:	40161815001	Collected	i: 12/01/17	11:50	Received: 12	:/05/17 08:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		12/06/17 16:10	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		12/06/17 16:10	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		12/06/17 16:10	75-34-3	
1,1-Dichloroethene	< 0.41	ug/L	1.0	0.41	1		12/06/17 16:10	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		12/06/17 16:10	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		12/06/17 16:10	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		12/06/17 16:10	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		12/06/17 16:10	75-01-4	
cis-1,2-Dichloroethene	< 0.26	ug/L	1.0	0.26	1		12/06/17 16:10	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		12/06/17 16:10	156-60-5	
Surrogates		-							
4-Bromofluorobenzene (S)	96	%	61-130		1		12/06/17 16:10	460-00-4	
Dibromofluoromethane (S)	94	%	67-130		1		12/06/17 16:10	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		12/06/17 16:10	2037-26-5	





Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

Date: 12/07/2017 11:05 AM

40161815

Sample: MW-5	Lab ID:	40161815002	Collecte	d: 12/01/1	7 13:00	Received: 12	:/05/17 08:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		12/06/17 16:32	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		12/06/17 16:32	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		12/06/17 16:32	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		12/06/17 16:32	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		12/06/17 16:32	107-06-2	
Tetrachloroethene	4.0	ug/L	1.0	0.50	1		12/06/17 16:32	127-18-4	
Trichloroethene	1.5	ug/L	1.0	0.33	1		12/06/17 16:32	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		12/06/17 16:32	75-01-4	
cis-1,2-Dichloroethene	1.7	ug/L	1.0	0.26	1		12/06/17 16:32	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		12/06/17 16:32	156-60-5	
Surrogates		J							
4-Bromofluorobenzene (S)	91	%	61-130		1		12/06/17 16:32	460-00-4	
Dibromofluoromethane (S)	97	%	67-130		1		12/06/17 16:32	1868-53-7	
Toluene-d8 (S)	104	%	70-130		1		12/06/17 16:32	2037-26-5	



Matrix: Water

12/06/17 16:54 75-01-4

12/06/17 16:54 156-59-2

12/06/17 16:54 156-60-5

12/06/17 16:54 460-00-4

12/06/17 16:54 1868-53-7

12/06/17 16:54 2037-26-5



ANALYTICAL RESULTS

Collected: 12/01/17 00:00

0.18

0.26

0.26

1

1

1

Received: 12/05/17 08:15

Project:

18806 FORMER NATURAL CLEANERS

<0.18

<0.26

1.5

92

100

104

Lab ID: 40161815003

ug/L

ug/L

ug/L

%

%

%

Pace Project No.:

Sample: DUP

Vinyl chloride

Surrogates

Toluene-d8 (S)

cis-1,2-Dichloroethene

trans-1,2-Dichloroethene

4-Bromofluorobenzene (S)

Dibromofluoromethane (S)

Date: 12/07/2017 11:05 AM

40161815

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EP	A 8260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		12/06/17 16:54	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		12/06/17 16:54	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		12/06/17 16:54	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		12/06/17 16:54	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		12/06/17 16:54	107-06-2	
Tetrachloroethene	3.6	ug/L	1.0	0.50	1		12/06/17 16:54	127-18-4	
Trichloroethene	1.3	ug/L	1.0	0.33	1		12/06/17 16:54	79-01-6	

1.0

1.0

1.0

61-130 67-130

70-130

REPORT OF LABORATORY ANALYSIS





Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

Date: 12/07/2017 11:05 AM

40161815

Sample: TRIP BLANK	Lab ID:	40161815004	Collecte	d: 12/01/17	7 00:00	Received: 12	2/05/17 08:15 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		12/06/17 12:54	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		12/06/17 12:54	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		12/06/17 12:54	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		12/06/17 12:54	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		12/06/17 12:54	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		12/06/17 12:54	127-18-4	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		12/06/17 12:54	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		12/06/17 12:54	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		12/06/17 12:54	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		12/06/17 12:54	156-60-5	
Surrogates		ū							
4-Bromofluorobenzene (S)	93	%	61-130		1		12/06/17 12:54	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		1		12/06/17 12:54	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		12/06/17 12:54	2037-26-5	



QUALITY CONTROL DATA

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

40161815

QC Batch:

276249

Analysis Method:

EPA 8260

QC Batch Method:

EPA 8260

Analysis Description:

8260 MSV

Associated Lab Samples:

40161815001, 40161815002, 40161815003, 40161815004

METHOD BLANK: 1624805

Matrix: Water

Associated Lab Samples:

Date: 12/07/2017 11:05 AM

40161815001, 40161815002, 40161815003, 40161815004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	12/06/17 09:15	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	12/06/17 09:15	
1,1-Dichloroethane	ug/L	< 0.24	1.0	12/06/17 09:15	
1,1-Dichloroethene	ug/L	< 0.41	1.0	12/06/17 09:15	
1,2-Dichloroethane	ug/L	<0.17	1.0	12/06/17 09:15	
cis-1,2-Dichloroethene	ug/L	< 0.26	1.0	12/06/17 09:15	
Tetrachloroethene	ug/L	< 0.50	1.0	12/06/17 09:15	
trans-1,2-Dichloroethene	ug/L	< 0.26	1.0	12/06/17 09:15	
Trichloroethene	ug/L	< 0.33	1.0	12/06/17 09:15	
√inyl chloride	ug/L	<0.18	1.0	12/06/17 09:15	
4-Bromofluorobenzene (S)	%	91	61-130	12/06/17 09:15	
Dibromofluoromethane (S)	%	100	67-130	12/06/17 09:15	
Toluene-d8 (S)	%	105	70-130	12/06/17 09:15	

LABORATORY CONTROL SAMPLE:	1624806					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.2	100	70-130	
1,1,2-Trichloroethane	ug/L	50	59.6	119	70-130	
1,1-Dichloroethane	ug/L	50	53.8	108	71-132	
1,1-Dichloroethene	ug/L	50	53.0	106	75-130	
1,2-Dichloroethane	ug/L	50	54.7	109	70-131	
cis-1,2-Dichloroethene	ug/L	50	55.8	112	70-130	
Tetrachloroethene	ug/L	50	54.2	108	70-130	
rans-1,2-Dichloroethene	ug/L	50	53.0	106	75-132	
Trichloroethene	ug/L	50	55.3	111	70-130	
Jinyl chloride	ug/L	50	49.2	98	57-136	
4-Bromofluorobenzene (S)	%			98	61-130	
Dibromofluoromethane (S)	%			103	67-130	
Toluene-d8 (S)	%			104	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	ATE: 16249	38		1624939							
			MS	MSD								
	4	0161867012	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L	<2.5	1000	1000	978	1040	98	104	70-134	6	20	
1,1,2-Trichloroethane	ug/L	< 0.99	1000	1000	1050	1210	105	121	70-130	14	20	
1,1-Dichloroethane	ug/L	<1.2	1000	1000	1030	1070	103	107	71-133	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

Date: 12/07/2017 11:05 AM

40161815

MATRIX SPIKE & MATRIX SPI	KE DUPLICA	TE: 16249	38		1624939							
Parameter	4 Units	0161867012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	<2.1	1000	1000	1050	1070	105	107	75-136	2	20	
1,2-Dichloroethane	ug/L	< 0.84	1000	1000	997	1090	100	109	70-131	9	20	
cis-1,2-Dichloroethene	ug/L	<1.3	1000	1000	962	1010	96	101	70-130	5	20	
Tetrachloroethene	ug/L	<2.5	1000	1000	1030	1120	103	112	70-130	8	20	
trans-1,2-Dichloroethene	ug/L	<1.3	1000	1000	1050	1080	105	108	75-135	3	20	
Trichloroethene	ug/L	<1.7	1000	1000	1030	1090	103	109	70-130	6	20	
Vinyl chloride	ug/L	<0.88	1000	1000	1040	1080	104	108	56-143	3	20	
4-Bromofluorobenzene (S)	%						99	97	61-130			
Dibromofluoromethane (S)	%						102	105	67-130			
Toluene-d8 (S)	%						103	102	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

40161815

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

Date: 12/07/2017 11:05 AM

PASI-G Pace Analytical Services - Green Bay





QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

18806 FORMER NATURAL CLEANERS

Pace Project No.:

Date: 12/07/2017 11:05 AM

40161815

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40161815001	MW-3D	EPA 8260	276249		
40161815002	MW-5	EPA 8260	276249		
40161815003	DUP	EPA 8260	276249		
40161815004	TRIP BLANK	EPA 8260	276249		

	(Please Print Clearly)		UPPER MIDWEST REGION MN: 612-607-1700 WI: 920-469-243					Page 1	of ₁₀								
Company Nam	ie: KPRG ZASSES						halina	0	1/4	·	MN: 6	12-607	-1700	WI: 920-469-2436			Page 14 of 15
Branch/Location	on: Brookfield		/		ace		llyticai		1, 1					77	70	161815	e 4
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Project Numbe	er: [5806		A=No	one B=l	ICL C=	H2SO4	*Preservation D=HNO3	n Code E=DI W	_	Methan	ol G=N	IaOH		Mail To Company:			
Project Name:	Former Notural Clas	مرحرح	H≃Sc	odlum Bisul	fate Solut	on	I≃Sodium Th	niosulfa	ite J=0	Other			_	Mail To Address:			
Project State:	ω _ι			RED? S/NO)	Y/N	N				3							
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PACE LAB#		Sludge COLLE		e Water MATRIX	Ana									CLIENT COMMENTS	l	OMMENTS Use Only)	Profile #
100	MW-3D	12/1	11ME	GU		×		_						3-40mlvB	(
002	MW-5	12/1	13cc	GW	Lindial	X					<u> </u>	 -		DITOMICV	<u> </u>	. ,	· · · · · · · · · · · · · · · · · · ·
03	DUP	12/1		6W		X											
004	Trip Blank		_	ũ		文								1-40mWB			
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(Rush TA	AT subject to approval/surcharge/ Date Needed:		uishod Bu	4	Land		Date/T	1//1	7/4		Received	Jary	1 Ta	nni 12/04/17	, 1410	UNIKI	1815
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Sample Condition Upon Receipt

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

Pace Analytical" Project #: WO#:40161815 Client Name: KP PCT Courier: Fed Ex FUPS - Client F Pace Sther: 05 (Data CA Tracking #: Custody Seal on Cooler/Box Present: yes no Seals intact: yes no Custody Seal on Samples Present: yes no Seals intact: T yes T no Packing Material: | Bubble Wrap | Bubble Bags | None | Other Thermometer Used Type of Ice: (We) Blue Dry None Samples on ice, cooling process has begun Cooler Temperature /Corr: ROI Biological Tissue is Frozen: Tyes Uncorr: Temp Blank Present: ves no ☐ no Person examining contents: Date: 12/5/17 Temp should be above freezing to 6°C. Initials: K Biota Samples may be received at ≤ 0°C. Comments: Chain of Custody Present: ØYes □No □N/A Chain of Custody Filled Out: ØYes □No □N/A Chain of Custody Relinquished: ØYes □No □N/A Sampler Name & Signature on COC: ØYes □No □n/A ØYes □No Samples Arrived within Hold Time: □n/A - VOA Samples frozen upon receipt ☐Yes ☐No Date/Time: Short Hold Time Analysis (<72hr): □Yes ☑No □N/A 6. □Yes ☑No Rush Turn Around Time Requested: □N/A □Yes ☑No □N/A 8. NO MEMBED KA 1215117 Sufficient Volume: Yes ONO ON/A Correct Containers Used: ZÓYes □No □N/A -Pace Containers Used: □Yes □No □N/A -Pace IR Containers Used: Yes DNO DN/A Containers Intact: 10. □Yes □No ØN/A Filtered volume received for Dissolved tests 12 Sample Labels match COC: -Includes date/time/ID/Analysis All containers needing preservation have been checked. MO3 H2SO4 NaOH NaOH +ZnAct □Yes □No □N/A (Non-Compliance noted in 13.) All containers needing preservation are found to be in compliance with EPA recommendation. □Yes □No ☑N/A (HNO3, H2804 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) Date/ exceptions: VOA coliform, TOC, TOX, TOH, Initial when Lab Std #ID of ØYes □No O&G, WIDROW, Phenolics, completed preservative Time: ☐Yes ☑No □n/a Headspace in VOA Vials (>6mm): 14. Trip Blank Present: ØYes □No 15. □N/A Trip Blank Custody Seals Present □Yes □No □N/A Pace Trip Blank Lot # (if purchased): Client Notification/ Resolution: If checked, see attached form for additional comments Person Contacted: Date/Time: Comments/ Resolution:

for DM

F-GB-C-031-Rev.04 (12Dec2016) SCUR.xls Pace Analytical Services LLC. - Green Bay WI

Project Manager Review:

12/5/17

Date:





March 23, 2017

Rich Gnat KPRG and Associates, Inc. 14665 W. Lisbon Rd. Suite 2B Brookfield, WI 53005

RE: Project: 18806-3 FMR NATURAL CLEANERS

Pace Project No.: 40146960

Dear Rich Gnat:

Enclosed are the analytical results for sample(s) received by the laboratory on March 18, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky

Lan Miland

dan.milewsky@pacelabs.com

(920)469-2436 Project Manager

Enclosures

cc: Josh Davenport, KPRG and Associates, Inc.







CERTIFICATIONS

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948

Illinois Certification #: 200050 Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001 Texas Certification #: T104704529-14-1 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444 USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0



SAMPLE SUMMARY

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.: 40146960

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40146960001	GP-20 1-3	Solid	03/15/17 10:00	03/18/17 08:30
40146960002	GP-20 5-7	Solid	03/15/17 10:05	03/18/17 08:30
40146960003	GP-21 1-3	Solid	03/15/17 10:30	03/18/17 08:30
40146960004	GP-21 10-12	Solid	03/15/17 10:35	03/18/17 08:30
40146960005	GP-22 1-3	Solid	03/15/17 11:00	03/18/17 08:30
40146960006	GP-22 8-10	Solid	03/15/17 11:05	03/18/17 08:30
0146960007	GP-23 1-3	Solid	03/15/17 15:20	03/18/17 08:30
0146960008	GP-23 8-10	Solid	03/15/17 15:25	03/18/17 08:30
40146960009	GP-24 1-3	Solid	03/15/17 16:00	03/18/17 08:30
40146960010	GP-24 8-10	Solid	03/15/17 16:05	03/18/17 08:30
0146960011	MW-5 1-3	Solid	03/15/17 11:30	03/18/17 08:30
10146960012	MW-5 10-12	Solid	03/15/17 11:35	03/18/17 08:30



SAMPLE ANALYTE COUNT

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40146960001	GP-20 1-3	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40146960002	GP-20 5-7	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40146960003	GP-21 1-3	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40146960004	GP-21 10-12	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40146960005	GP-22 1-3	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
10146960006	GP-22 8-10	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
10146960007	GP-23 1-3	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40146960008	GP-23 8-10	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	AH	1	PASI-G
40146960009	GP-24 1-3	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
40146960010	GP-24 8-10	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
10146960011	MW-5 1-3	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	KTS	1	PASI-G
10146960012	MW-5 10-12	EPA 8260	SMT	13	PASI-G
		ASTM D2974-87	KTS	1	PASI-G

REPORT OF LABORATORY ANALYSIS



SUMMARY OF DETECTION

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.: 40146960

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10146960001	GP-20 1-3					
EPA 8260	Tetrachloroethene	138	ug/kg	71.6	03/22/17 13:01	
EPA 8260	Vinyl chloride	51.5J	ug/kg	71.6	03/22/17 13:01	
ASTM D2974-87	Percent Moisture	16.2	%	0.10	03/20/17 10:38	
0146960002	GP-20 5-7					
EPA 8260	cis-1,2-Dichloroethene	142	ug/kg	70.7	03/21/17 17:46	
EPA 8260	trans-1,2-Dichloroethene	38.3J	ug/kg	70.7	03/21/17 17:46	
EPA 8260	Tetrachloroethene	949	ug/kg	70.7	03/21/17 17:46	
EPA 8260	Trichloroethene	668	ug/kg	70.7	03/21/17 17:46	
ASTM D2974-87	Percent Moisture	15.1	%	0.10	03/20/17 10:38	
0146960003	GP-21 1-3					
EPA 8260	cis-1,2-Dichloroethene	159	ug/kg	71.6	03/21/17 18:09	
EPA 8260	trans-1,2-Dichloroethene	207	ug/kg	71.6	03/21/17 18:09	
EPA 8260	Tetrachloroethene	90.7	ug/kg	71.6	03/21/17 18:09	
EPA 8260	Trichloroethene	68.3J	ug/kg	71.6	03/21/17 18:09	
EPA 8260	Vinyl chloride	321	ug/kg	71.6	03/21/17 18:09	
ASTM D2974-87	Percent Moisture	16.1	%	0.10	03/20/17 10:38	
0146960004	GP-21 10-12					
EPA 8260	cis-1,2-Dichloroethene	573J	ug/kg	698	03/21/17 20:25	
PA 8260	Tetrachloroethene	54200	ug/kg	698	03/21/17 20:25	
PA 8260	Trichloroethene	3440	ug/kg	698	03/21/17 20:25	
ASTM D2974-87	Percent Moisture	14.1	%	0.10	03/20/17 10:38	
0146960005	GP-22 1-3					
PA 8260	Tetrachloroethene	149	ug/kg	72.9	03/21/17 18:31	
PA 8260	Vinyl chloride	42.6J	ug/kg	72.9	03/21/17 18:31	
STM D2974-87	Percent Moisture	17.7	%	0.10	03/20/17 10:38	
0146960006	GP-22 8-10					
EPA 8260	Tetrachloroethene	7480	ug/kg	137	03/21/17 20:47	
PA 8260	Trichloroethene	750	ug/kg	137	03/21/17 20:47	
STM D2974-87	Percent Moisture	12.4	%	0.10	03/20/17 10:38	
0146960007	GP-23 1-3					
EPA 8260	Tetrachloroethene	88.4	ug/kg	70.9	03/21/17 18:54	
EPA 8260	Vinyl chloride	54.3J	ug/kg	70.9	03/21/17 18:54	
ASTM D2974-87	Percent Moisture	15.4	%	0.10	03/20/17 10:38	
0146960008	GP-23 8-10					
EPA 8260	Tetrachloroethene	3460	ug/kg	70.5	03/21/17 19:17	
PA 8260	Trichloroethene	316	ug/kg	70.5	03/21/17 19:17	
ASTM D2974-87	Percent Moisture	14.9	%		03/20/17 10:38	
0146960009	GP-24 1-3					
PA 8260	Tetrachloroethene	635	ug/kg	72.0	03/22/17 13:24	
PA 8260	Trichloroethene	226	ug/kg		03/22/17 13:24	
ASTM D2974-87	Percent Moisture	16.7	%		03/18/17 12:13	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.: 4014

40146960

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40146960010	GP-24 8-10					
EPA 8260	cis-1,2-Dichloroethene	39.6J	ug/kg	69.5	03/22/17 14:09	
EPA 8260	Tetrachloroethene	4690	ug/kg	69.5	03/22/17 14:09	
EPA 8260	Trichloroethene	403	ug/kg	69.5	03/22/17 14:09	
ASTM D2974-87	Percent Moisture	13.7	%	0.10	03/18/17 12:13	
40146960011	MW-5 1-3					
EPA 8260	cis-1,2-Dichloroethene	76.1	ug/kg	75.9	03/22/17 13:46	
EPA 8260	Tetrachloroethene	844	ug/kg	75.9	03/22/17 13:46	
EPA 8260	Trichloroethene	305	ug/kg	75.9	03/22/17 13:46	
ASTM D2974-87	Percent Moisture	20.9	%	0.10	03/18/17 12:13	
40146960012	MW-5 10-12					
EPA 8260	Tetrachloroethene	1670	ug/kg	70.2	03/22/17 12:39	
EPA 8260	Trichloroethene	78.5	ug/kg	70.2	03/22/17 12:39	
ASTM D2974-87	Percent Moisture	14.5	%	0.10	03/18/17 12:13	





Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

Date: 03/23/2017 02:58 PM

40146960

Sample: GP-20 1-3

Lab ID: 40146960001

Collected: 03/15/17 10:00 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepar	ation Metho	od: EPA	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	156-60-5	W
Tetrachloroethene	138	ug/kg	71.6	29.8	1	03/22/17 07:00	03/22/17 13:01	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:01	79-01-6	W
Vinyl chloride	51.5J	ug/kg	71.6	29.8	1	03/22/17 07:00	03/22/17 13:01	75-01-4	
Surrogates									
Dibromofluoromethane (S)	108	%	53-165		1	03/22/17 07:00	03/22/17 13:01	1868-53-7	
Toluene-d8 (S)	109	%	54-163		1	03/22/17 07:00	03/22/17 13:01	2037-26-5	
4-Bromofluorobenzene (S)	98	%	48-138		1	03/22/17 07:00	03/22/17 13:01	460-00-4	
Percent Moisture	Analytical	Method: AST	ГМ D2974-87						
Percent Moisture	16.2	%	0.10	0.10	1		03/20/17 10:38		





Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-20 5-7

Date: 03/23/2017 02:58 PM

Lab ID: 40146960002

Collected: 03/15/17 10:05 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepar	ration Metho	od: EP	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 17:46	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 17:46	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 17:46	75-35-4	W
cis-1,2-Dichloroethene	142	ug/kg	70.7	29.4	1	03/21/17 07:30	03/21/17 17:46	156-59-2	
trans-1,2-Dichloroethene	38.3J	ug/kg	70.7	29.4	1	03/21/17 07:30	03/21/17 17:46	156-60-5	
Tetrachloroethene	949	ug/kg	70.7	29.4	1	03/21/17 07:30	03/21/17 17:46	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 17:46	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 17:46	79-00-5	W
Trichloroethene	668	ug/kg	70.7	29.4	1	03/21/17 07:30	03/21/17 17:46	79-01-6	
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 17:46	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	125	%	53-165		1	03/21/17 07:30	03/21/17 17:46	1868-53-7	
Toluene-d8 (S)	117	%	54-163		1	03/21/17 07:30	03/21/17 17:46	2037-26-5	
4-Bromofluorobenzene (S)	106	%	48-138		1	03/21/17 07:30	03/21/17 17:46	460-00-4	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	15.1	%	0.10	0.10	1		03/20/17 10:38		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-21 1-3

Date: 03/23/2017 02:58 PM

Lab ID: 40146960003

Collected: 03/15/17 10:30 Received: 03/18/17 08:30 Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepai	ration Metho	od: EP	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:09	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:09	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:09	75-35-4	W
cis-1,2-Dichloroethene	159	ug/kg	71.6	29.8	1	03/21/17 07:30	03/21/17 18:09	156-59-2	
trans-1,2-Dichloroethene	207	ug/kg	71.6	29.8	1	03/21/17 07:30	03/21/17 18:09	156-60-5	
Tetrachloroethene	90.7	ug/kg	71.6	29.8	1	03/21/17 07:30	03/21/17 18:09	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:09	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:09	79-00-5	W
Trichloroethene	68.3J	ug/kg	71.6	29.8	1	03/21/17 07:30	03/21/17 18:09	79-01-6	
Vinyl chloride	321	ug/kg	71.6	29.8	1	03/21/17 07:30	03/21/17 18:09	75-01-4	
Surrogates									
Dibromofluoromethane (S)	106	%	53-165		1	03/21/17 07:30	03/21/17 18:09	1868-53-7	
Toluene-d8 (S)	102	%	54-163		1	03/21/17 07:30	03/21/17 18:09	2037-26-5	
4-Bromofluorobenzene (S)	91	%	48-138		1	03/21/17 07:30	03/21/17 18:09	460-00-4	
Percent Moisture	Analytical	Method: AS	ГМ D2974-87						
Percent Moisture	16.1	%	0.10	0.10	1		03/20/17 10:38		





18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-21 10-12

Date: 03/23/2017 02:58 PM

Lab ID: 40146960004

Collected: 03/15/17 10:35 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepara	ation Meth	od: EP	A 5035/5030B			
1,1-Dichloroethane	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	75-34-3	W
1,2-Dichloroethane	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	107-06-2	W
1,1-Dichloroethene	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	75-35-4	W
cis-1,2-Dichloroethene	573J	ug/kg	698	291	10	03/21/17 07:30	03/21/17 20:25	156-59-2	
trans-1,2-Dichloroethene	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	156-60-5	W
Tetrachloroethene	54200	ug/kg	698	291	10	03/21/17 07:30	03/21/17 20:25	127-18-4	
1,1,1-Trichloroethane	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	71-55-6	W
1,1,2-Trichloroethane	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	79-00-5	W
Trichloroethene	3440	ug/kg	698	291	10	03/21/17 07:30	03/21/17 20:25	79-01-6	
Vinyl chloride	<250	ug/kg	600	250	10	03/21/17 07:30	03/21/17 20:25	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	118	%	53-165		10	03/21/17 07:30	03/21/17 20:25	1868-53-7	
Toluene-d8 (S)	109	%	54-163		10	03/21/17 07:30	03/21/17 20:25	2037-26-5	
4-Bromofluorobenzene (S)	103	%	48-138		10	03/21/17 07:30	03/21/17 20:25	460-00-4	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	14.1	%	0.10	0.10	1		03/20/17 10:38		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

Date: 03/23/2017 02:58 PM

40146960

Sample: GP-22 1-3 Lab ID: 40146960005 Collected: 03/15/17 11:00 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepar	ation Metho	d: EP	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	156-60-5	W
Tetrachloroethene	149	ug/kg	72.9	30.4	1	03/21/17 07:30	03/21/17 18:31	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:31	79-01-6	W
Vinyl chloride	42.6J	ug/kg	72.9	30.4	1	03/21/17 07:30	03/21/17 18:31	75-01-4	
Surrogates									
Dibromofluoromethane (S)	93	%	53-165		1	03/21/17 07:30	03/21/17 18:31	1868-53-7	
Toluene-d8 (S)	87	%	54-163		1	03/21/17 07:30	03/21/17 18:31	2037-26-5	
4-Bromofluorobenzene (S)	81	%	48-138		1	03/21/17 07:30	03/21/17 18:31	460-00-4	
Percent Moisture	Analytical	Method: AS	ГМ D2974-87						
Percent Moisture	17.7	%	0.10	0.10	1		03/20/17 10:38		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-22 8-10

Date: 03/23/2017 02:58 PM

Lab ID: 40146960006

Collected: 03/15/17 11:05 Received: 03/18/17 08:30 Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EP/	A 8260 Prepar	ation Metho	od: EP	A 5035/5030B			
1,1-Dichloroethane	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	75-34-3	W
1,2-Dichloroethane	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	107-06-2	W
1,1-Dichloroethene	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	75-35-4	W
cis-1,2-Dichloroethene	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	156-59-2	W
trans-1,2-Dichloroethene	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	156-60-5	W
Tetrachloroethene	7480	ug/kg	137	57.1	2	03/21/17 07:30	03/21/17 20:47	127-18-4	
1,1,1-Trichloroethane	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	71-55-6	W
1,1,2-Trichloroethane	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	79-00-5	W
Trichloroethene	750	ug/kg	137	57.1	2	03/21/17 07:30	03/21/17 20:47	79-01-6	
Vinyl chloride	<50.0	ug/kg	120	50.0	2	03/21/17 07:30	03/21/17 20:47	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	119	%	53-165		2	03/21/17 07:30	03/21/17 20:47	1868-53-7	
Toluene-d8 (S)	115	%	54-163		2	03/21/17 07:30	03/21/17 20:47	2037-26-5	
4-Bromofluorobenzene (S)	105	%	48-138		2	03/21/17 07:30	03/21/17 20:47	460-00-4	
Percent Moisture	Analytical	Method: AS	ГМ D2974-87						
Percent Moisture	12.4	%	0.10	0.10	1		03/20/17 10:38		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.: Sample: GP-23 1-3

Date: 03/23/2017 02:58 PM

40146960

Lab ID: 40146960007

Collected: 03/15/17 15:20 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EP/	A 8260 Prepai	ration Metho	od: EP/	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	156-60-5	W
Tetrachloroethene	88.4	ug/kg	70.9	29.6	1	03/21/17 07:30	03/21/17 18:54	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 18:54	79-01-6	W
Vinyl chloride	54.3J	ug/kg	70.9	29.6	1	03/21/17 07:30	03/21/17 18:54	75-01-4	
Surrogates									
Dibromofluoromethane (S)	111	%	53-165		1	03/21/17 07:30	03/21/17 18:54	1868-53-7	
Toluene-d8 (S)	106	%	54-163		1	03/21/17 07:30	03/21/17 18:54	2037-26-5	
4-Bromofluorobenzene (S)	95	%	48-138		1	03/21/17 07:30	03/21/17 18:54	460-00-4	
Percent Moisture	Analytical	Method: AS	ΓM D2974-87						
Percent Moisture	15.4	%	0.10	0.10	1		03/20/17 10:38		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-23 8-10

Date: 03/23/2017 02:58 PM

Lab ID: 40146960008

Collected: 03/15/17 15:25 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepar	ation Metho	od: EP	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	156-60-5	W
Tetrachloroethene	3460	ug/kg	70.5	29.4	1	03/21/17 07:30	03/21/17 19:17	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	79-00-5	W
Trichloroethene	316	ug/kg	70.5	29.4	1	03/21/17 07:30	03/21/17 19:17	79-01-6	
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	03/21/17 07:30	03/21/17 19:17	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	113	%	53-165		1	03/21/17 07:30	03/21/17 19:17	1868-53-7	
Toluene-d8 (S)	111	%	54-163		1	03/21/17 07:30	03/21/17 19:17	2037-26-5	
4-Bromofluorobenzene (S)	100	%	48-138		1	03/21/17 07:30	03/21/17 19:17	460-00-4	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	14.9	%	0.10	0.10	1		03/20/17 10:38		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-24 1-3

Date: 03/23/2017 02:58 PM

Lab ID: 40146960009

Collected: 03/15/17 16:00 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepai	ration Meth	od: EP	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	156-60-5	W
Tetrachloroethene	635	ug/kg	72.0	30.0	1	03/22/17 07:00	03/22/17 13:24	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	79-00-5	W
Trichloroethene	226	ug/kg	72.0	30.0	1	03/22/17 07:00	03/22/17 13:24	79-01-6	
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:24	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	110	%	53-165		1	03/22/17 07:00	03/22/17 13:24	1868-53-7	
Toluene-d8 (S)	101	%	54-163		1	03/22/17 07:00	03/22/17 13:24	2037-26-5	
4-Bromofluorobenzene (S)	91	%	48-138		1	03/22/17 07:00	03/22/17 13:24	460-00-4	
Percent Moisture	Analytical	Method: AS	ГМ D2974-87						
Percent Moisture	16.7	%	0.10	0.10	1		03/18/17 12:13		





18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: GP-24 8-10

Date: 03/23/2017 02:58 PM

Lab ID: 40146960010

Collected: 03/15/17 16:05 Received: 03/18/17 08:30 Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	8260 Prepar	ation Metho	od: EP/	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	75-35-4	W
cis-1,2-Dichloroethene	39.6J	ug/kg	69.5	29.0	1	03/22/17 07:00	03/22/17 14:09	156-59-2	
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	156-60-5	W
Tetrachloroethene	4690	ug/kg	69.5	29.0	1	03/22/17 07:00	03/22/17 14:09	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	79-00-5	W
Trichloroethene	403	ug/kg	69.5	29.0	1	03/22/17 07:00	03/22/17 14:09	79-01-6	
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 14:09	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	115	%	53-165		1	03/22/17 07:00	03/22/17 14:09	1868-53-7	
Toluene-d8 (S)	110	%	54-163		1	03/22/17 07:00	03/22/17 14:09	2037-26-5	
4-Bromofluorobenzene (S)	98	%	48-138		1	03/22/17 07:00	03/22/17 14:09	460-00-4	
Percent Moisture	Analytical	Method: AS7	TM D2974-87						
Percent Moisture	13.7	%	0.10	0.10	1		03/18/17 12:13		





Project:

18806-3 FMR NATURAL CLEANER'S

Pace Project No.:

40146960

Sample: MW-5 1-3

Date: 03/23/2017 02:58 PM

Lab ID: 40146960011

Collected: 03/15/17 11:30 Received: 03/18/17 08:30

Matrix: Solid

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	\ 8260 Prepar	ation Metho	od: EP	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	75-35-4	W
cis-1,2-Dichloroethene	76.1	ug/kg	75.9	31.6	1	03/22/17 07:00	03/22/17 13:46	156-59-2	
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	156-60-5	W
Tetrachloroethene	844	ug/kg	75.9	31.6	1	03/22/17 07:00	03/22/17 13:46	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	79-00-5	W
Trichloroethene	305	ug/kg	75.9	31.6	1	03/22/17 07:00	03/22/17 13:46	79-01-6	
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 13:46	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	109	%	53-165		1	03/22/17 07:00	03/22/17 13:46	1868-53-7	
Toluene-d8 (S)	107	%	54-163		1	03/22/17 07:00	03/22/17 13:46	2037-26-5	
4-Bromofluorobenzene (S)	96	%	48-138		1	03/22/17 07:00	03/22/17 13:46	460-00-4	
Percent Moisture	Analytical	Method: AS	ГМ D2974-87						
Percent Moisture	20.9	%	0.10	0.10	1		03/18/17 12:13		



Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

Sample: MW-5 10-12

Date: 03/23/2017 02:58 PM

Lab ID: 40146960012 Collected: 03/15/17 11:35 Received: 03/18/17 08:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EP	A 8260 Prepar	ration Meth	od: EP/	A 5035/5030B			
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	156-60-5	W
Tetrachloroethene	1670	ug/kg	70.2	29.2	1	03/22/17 07:00	03/22/17 12:39	127-18-4	
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	79-00-5	W
Trichloroethene	78.5	ug/kg	70.2	29.2	1	03/22/17 07:00	03/22/17 12:39	79-01-6	
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	03/22/17 07:00	03/22/17 12:39	75-01-4	W
Surrogates									
Dibromofluoromethane (S)	115	%	53-165		1	03/22/17 07:00	03/22/17 12:39	1868-53-7	
Toluene-d8 (S)	109	%	54-163		1	03/22/17 07:00	03/22/17 12:39	2037-26-5	
4-Bromofluorobenzene (S)	99	%	48-138		1	03/22/17 07:00	03/22/17 12:39	460-00-4	
Percent Moisture	Analytical	Method: AS	TM D2974-87						
Percent Moisture	14.5	%	0.10	0.10	1		03/18/17 12:13		

(920)469-2436



QUALITY CONTROL DATA

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

QC Batch:

250720

Analysis Method:

EPA 8260

QC Batch Method:

EPA 5035/5030B

Analysis Description:

8260 MSV Med Level Normal List

Associated Lab Samples:

40146960002, 40146960003, 40146960004, 40146960005, 40146960006, 40146960007, 40146960008

METHOD BLANK: 1479754

Matrix: Solid

Associated Lab Samples:

Date: 03/23/2017 02:58 PM

40146960002, 40146960003, 40146960004, 40146960005, 40146960006, 40146960007, 40146960008

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	03/21/17 11:21	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	03/21/17 11:21	
1,1-Dichloroethane	ug/kg	<17.6	50.0	03/21/17 11:21	
1,1-Dichloroethene	ug/kg	<17.6	50.0	03/21/17 11:21	
1,2-Dichloroethane	ug/kg	<15.0	50.0	03/21/17 11:21	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	03/21/17 11:21	
Tetrachloroethene	ug/kg	<12.9	50.0	03/21/17 11:21	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	03/21/17 11:21	
Trichloroethene	ug/kg	<23.6	50.0	03/21/17 11:21	
Vinyl chloride	ug/kg	<21.1	50.0	03/21/17 11:21	
4-Bromofluorobenzene (S)	%	93	48-138	03/21/17 11:21	
Dibromofluoromethane (S)	%	103	53-165	03/21/17 11:21	
Toluene-d8 (S)	%	101	54-163	03/21/17 11:21	

LABORATORY CONTROL SAMPL	E: 1479755					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2840	114	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2570	103	70-130	
1,1-Dichloroethane	ug/kg	2500	2830	113	70-133	
1,1-Dichloroethene	ug/kg	2500	2650	106	70-130	
1,2-Dichloroethane	ug/kg	2500	3110	124	70-138	
cis-1,2-Dichloroethene	ug/kg	2500	2590	104	70-130	
Tetrachloroethene	ug/kg	2500	2430	97	70-130	
trans-1,2-Dichloroethene	ug/kg	2500	2540	102	70-130	
Trichloroethene	ug/kg	2500	2560	102	70-130	
Vinyl chloride	ug/kg	2500	2750	110	57-130	
4-Bromofluorobenzene (S)	%			102	48-138	
Dibromofluoromethane (S)	%			109	53-165	
Toluene-d8 (S)	%			104	54-163	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	TE: 14797	56		1479757							
Parameter	4 Units	0146959005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	<0.025 mg/kg	1530	1530	1610	1660	105	109	70-130	3	20	
1,1,2-Trichloroethane	ug/kg	<0.025 mg/kg	1530	1530	1530	1640	100	107	70-130	7	20	

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REPORT OF LABORATORY ANALYSIS

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Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

Date: 03/23/2017 02:58 PM

40146960

MATRIX SPIKE & MATRIX SPI	IKE DUPLICA	TE: 14797	56		1479757							
			MS	MSD								
	4	0146959005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1-Dichloroethane	ug/kg	<0.025 mg/kg	1530	1530	1740	1720	114	113	64-133	1	20	
1,1-Dichloroethene	ug/kg	<0.025 mg/kg	1530	1530	1490	1300	98	85	56-130	14	24	
1,2-Dichloroethane	ug/kg	<0.025 mg/kg	1530	1530	1910	1980	125	130	70-138	4	20	
cis-1,2-Dichloroethene	ug/kg	<0.025 mg/kg	1530	1530	1600	1640	105	108	70-130	2	20	
Tetrachloroethene	ug/kg	<0.025 mg/kg	1530	1530	1400	1380	92	90	70-130	2	20	
trans-1,2-Dichloroethene	ug/kg	<0.025 mg/kg	1530	1530	1480	1550	97	101	70-130	4	20	
Trichloroethene	ug/kg	<0.025 mg/kg	1530	1530	1550	1550	102	102	70-130	0	20	
Vinyl chloride	ug/kg	<0.025 mg/kg	1530	1530	1280	1310	84	86	26-130	2	20	
4-Bromofluorobenzene (S)	%	5 5					104	109	48-138			
Dibromofluoromethane (S)	%						114	119	53-165			
Toluene-d8 (S)	%						112	113	54-163			

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Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

QC Batch:

250782

Analysis Method:

EPA 8260

QC Batch Method:

EPA 5035/5030B

Analysis Description:

8260 MSV Med Level Normal List

Associated Lab Samples:

40146960001, 40146960009, 40146960010, 40146960011, 40146960012

METHOD BLANK: 1479976

Matrix: Solid

Associated Lab Samples:

Date: 03/23/2017 02:58 PM

40146960001, 40146960009, 40146960010, 40146960011, 40146960012

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	03/22/17 09:34	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	03/22/17 09:34	
1,1-Dichloroethane	ug/kg	<17.6	50.0	03/22/17 09:34	
1,1-Dichloroethene	ug/kg	<17.6	50.0	03/22/17 09:34	
1,2-Dichloroethane	ug/kg	<15.0	50.0	03/22/17 09:34	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	03/22/17 09:34	
Tetrachloroethene	ug/kg	<12.9	50.0	03/22/17 09:34	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	03/22/17 09:34	
Trichloroethene	ug/kg	<23.6	50.0	03/22/17 09:34	
Vinyl chloride	ug/kg	<21.1	50.0	03/22/17 09:34	
4-Bromofluorobenzene (S)	%	97	48-138	03/22/17 09:34	
Dibromofluoromethane (S)	%	112	53-165	03/22/17 09:34	
Toluene-d8 (S)	%	108	54-163	03/22/17 09:34	

LABORATORY CONTROL SAMPLE:	1479977					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2640	106	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2250	90	70-130	
1,1-Dichloroethane	ug/kg	2500	2550	102	70-133	
1,1-Dichloroethene	ug/kg	2500	2500	100	70-130	
1,2-Dichloroethane	ug/kg	2500	2860	114	70-138	
cis-1,2-Dichloroethene	ug/kg	2500	2400	96	70-130	
Tetrachloroethene	ug/kg	2500	2240	90	70-130	
trans-1,2-Dichloroethene	ug/kg	2500	2300	92	70-130	
Trichloroethene	ug/kg	2500	2410	97	70-130	
Vinyl chloride	ug/kg	2500	2700	108	57-130	
4-Bromofluorobenzene (S)	%			93	48-138	
Dibromofluoromethane (S)	%			101	53-165	
Toluene-d8 (S)	%			98	54-163	

MATRIX SPIKE & MATRIX S	PIKE DUPLICA	ATE: 14799	78		1479979							
	2	10146960012	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/kg	<25.0	1460	1460	1550	1420	106	97	70-130	8	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1460	1460	1480	1680	102	115	70-130	13	20	
1,1-Dichloroethane	ug/kg	<25.0	1460	1460	1680	1530	115	104	64-133	10	20	

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REPORT OF LABORATORY ANALYSIS





Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

Date: 03/23/2017 02:58 PM

40146960

MATRIX SPIKE & MATRIX SP	IKE DUPLIC	CATE: 14799	78		1479979							
		40146960012	MS	MSD	MC	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Spike Conc.	Spike Conc.	MS Result	Result	% Rec	% Rec	% Rec	RPD		Qual
1,1-Dichloroethene	ug/kg	<25.0	1460	1460	1490	1330	102	91	56-130	11	24	
1,2-Dichloroethane	ug/kg	<25.0	1460	1460	1760	1850	120	127	70-138	5	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1460	1460	1590	1510	107	102	70-130	5	20	
Tetrachloroethene	ug/kg	1670	1460	1460	3100	3160	98	102	70-130	2	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1460	1460	1450	1340	99	91	70-130	8	20	
Trichloroethene	ug/kg	78.5	1460	1460	1540	1510	100	98	70-130	2	20	
Vinyl chloride	ug/kg	<25.0	1460	1460	1250	1130	86	77	26-130	10	20	
4-Bromofluorobenzene (S)	%						103	106	48-138			
Dibromofluoromethane (S)	%						121	114	53-165			
Toluene-d8 (S)	%						110	114	54-163			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Pace Analytical Services, LLC 1241 Bellevue Street - Suite 9 Green Bay, WI 54302

(920)469-2436

QUALITY CONTROL DATA

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

250536

Analysis Method:

ASTM D2974-87

RPD

QC Batch: QC Batch Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

5

Associated Lab Samples:

40146960009, 40146960010, 40146960011, 40146960012

SAMPLE DUPLICATE: 1479177

Date: 03/23/2017 02:58 PM

Parameter

Units

Dup Result

Max RPD

Qualifiers

Percent Moisture

%

16.5

40146961001

Result

17.3

10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

40146960

QC Batch:

250538

Analysis Method:

ASTM D2974-87

RPD

QC Batch Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

Associated Lab Samples:

40146960001, 40146960002, 40146960003, 40146960004, 40146960005, 40146960006, 40146960007,

40146960008

SAMPLE DUPLICATE: 1479179

40146961006 Result

Dup Result Max

RPD

Qualifiers

Parameter

Date: 03/23/2017 02:58 PM

Percent Moisture

Units %

12.4

11.9

5

10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Page 24 of 28





QUALIFIERS

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.: 40146960

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

Date: 03/23/2017 02:58 PM

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



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

18806-3 FMR NATURAL CLEANERS

Pace Project No.:

Date: 03/23/2017 02:58 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
40146960001	GP-20 1-3	EPA 5035/5030B	250782	EPA 8260	250783
40146960002	GP-20 5-7	EPA 5035/5030B	250720	EPA 8260	250723
40146960003	GP-21 1-3	EPA 5035/5030B	250720	EPA 8260	250723
40146960004	GP-21 10-12	EPA 5035/5030B	250720	EPA 8260	250723
40146960005	GP-22 1-3	EPA 5035/5030B	250720	EPA 8260	250723
40146960006	GP-22 8-10	EPA 5035/5030B	250720	EPA 8260	250723
40146960007	GP-23 1-3	EPA 5035/5030B	250720	EPA 8260	250723
40146960008	GP-23 8-10	EPA 5035/5030B	250720	EPA 8260	250723
40146960009	GP-24 1-3	EPA 5035/5030B	250782	EPA 8260	250783
40146960010	GP-24 8-10	EPA 5035/5030B	250782	EPA 8260	250783
40146960011	MW-5 1-3	EPA 5035/5030B	250782	EPA 8260	250783
40146960012	MW-5 10-12	EPA 5035/5030B	250782	EPA 8260	250783
40146960001	GP-20 1-3	ASTM D2974-87	250538		
40146960002	GP-20 5-7	ASTM D2974-87	250538		
40146960003	GP-21 1-3	ASTM D2974-87	250538		
40146960004	GP-21 10-12	ASTM D2974-87	250538		
40146960005	GP-22 1-3	ASTM D2974-87	250538		
40146960006	GP-22 8-10	ASTM D2974-87	250538		
40146960007	GP-23 1-3	ASTM D2974-87	250538		
40146960008	GP-23 8-10	ASTM D2974-87	250538		
40146960009	GP-24 1-3	ASTM D2974-87	250536		
40146960010	GP-24 8-10	ASTM D2974-87	250536		
40146960011	MW-5 1-3	ASTM D2974-87	250536		
40146960012	MW-5 10-12	ASTM D2974-87	250536		

Company Name: KPC_AND ASSOC.	AENTS Profile #
Branch/Location:	#ENTS Profile #
Phone:	#ENTS Profile #
Phone:	
Project Number:	
Project Name: Found Native C	
Project State:	
Sampled By (Print):	
Sampled By (Sign): Sign): Sign): Sampled By (Sign): Sign): Sampled By (Sign): Sign): S	
Po #:	
EPA Level II	
EPA Level II	
PACE LAB# CLIENT FIELD ID DATE TIME TIME TIME	
001 GP-20 1-3 7/15 1000 S X 1-40m 002 GP-20 5-7 (1005 (1) 003 GP-21 1-3 (1036 (1) 004 GP-21 10-12 (1035 (1) 005 GP-22 1-3 (1105 (1) 007 GP-23 1-3 (105 (1) 007 GP-23 (105 (1) 007	
002 GP-20 5-7 (1065 ()) 003 GP-21 1-3 (1630 ()) 004 GP-21 10-12 (1635 ()) 005 GP-22 1-3 (168 ()) 006 GP-22 8-10 (165 ()) 007 GP-23 1-3 (1626 ())	
003 GP-21 1-3 (1630) 004 GP-21 10-12 (1035) 005 GP-22 1-3 (1100) 006 GP-22 8-10 (105) 007 GP-23 1-3 (1620)	
004 GP-21 10-12 1035 005 GP-22 1-3 1168 006 GP-22 8-10 1165 007 GP-23 1-3 1526	
005 GP-22 1-3 (1100) 006 GP-22 8-10 (1105) 007 GP-23 1-3) 1520	
00 6 GP-22 8-10 (105) 007 GP-23 1-3) 1520	
007 GP-23 1-3) 1520	
(08 GP-23 8-10 / 1525)	
100 GP-24 1-3 (1600)	
010 GP-24 8-18 1605	
011 MW-5 1-3 1130 / 1130	
012 MW-5 10-12 V 1135 V	
Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed: Relinquished By: Date/Time: Date/Time: Date/Time: Received By: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Date/Time: Received By: Date/Time: Date/Date/Date/Date/Date/Date/Date/Date/	PACE Project No.
Transmit Prelim Rush Results by (complete what you want): Mary January 3/17/17 (300)	pt Temp = O / \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Email #1: Date/Time: D	Sample Receipt pH
Telephone: . Relinquished By: Date/Time: Received By: Date/Time:	OK / Adjusted
	Present / Not Present Intact / Not Intact

Sample Condition Upon Receipt

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

Pace Analytical Project #: WO#: 40146960

Courier: Fed Ex F UPS F Client F Pace Other: St. David St. WO#: 40146960

Courier: Fed Ex F UPS T Client	☐ Pace Other:	201/201/CS		
Tracking #: Custody Seal on Cooler/Box Present:	T von - no Rools intaci	T yes E no	40146960	
Custody Seal on Samples Present:		: Tyes 7 no		
Packing Material:				
Thermometer Used	Type of Ice: (Wet		☐ Samples on	ice, cooling process has begun
Cooler Temperature Uncorr: RD1	The same of the sa	gical Tissue is Froz	•	too, cosmig process nad bug
Temp Blank Present: yes // no			no	Person examining contents:
Temp should be above freezing to 6°C for all s Frozen Biota Samples should be received ≤ 0°	•	Comments:		Date: 3 18 · 17
Chain of Custody Present:	ZÖYes □No □N/A	1.		
Chain of Custody Filled Out:	ØYes □No □N/A	2.		
Chain of Custody Relinquished:	ØYes □No □N/A	3.		
Sampler Name & Signature on COC:	ØYes □No □N/A	4.		
Samples Arrived within Hold Time:	Yes Ono On/A	5.		
- VOA Samples frozen upon receip	ot □Yes □No	Date/Time:		
Short Hold Time Analysis (<72hr):	□Yes ØNo □N/A	6.		
Rush Turn Around Time Requested:	□Yes ØNo □N/A	7.		
Sufficient Volume:	ØYes □No □N/A	8.		
Correct Containers Used:	ØYes □No □N/A	9.		
-Pace Containers Used:	/ ☐Yes □No □N/A			
-Pace IR Containers Used:	□Yes □No ØN/A			
Containers Intact:	ØYes □No □N/A	10.		
Filtered volume received for Dissolved tes				
Sample Labels match COC:	□Yes □No □N/A	12. POLK 5	amples'	no collect date +
	atrix:	4imes	mm 31	817
All containers needing preservation have been (Non-Compliance noted in 13.)	checked.	13 F HNO3	T H2SO4 T	NaOH
All containers needing preservation are found t		13		
compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥1	Yes No DNA			
exceptions: VOA, coliform, TOC, TOX, TOH,		Initial when La	ab Std #ID of	Date/
O&G, WIDROW, Phenolics, OTHER:	□Yes □No		reservative	Time:
Headspace in VOA Vials (>6mm):	□Yes □No ØN/A			
Trip Blank Present:	□Yes □No ÞÍN/	15.		
Trip Blank Custody Seals Present	□Yes □No □N/			
Pace Trip Blank Lot # (if purchased): Client Notification/ Resolution:		If oh	rocked and attach	ed form for additional comments
Person Contacted:	Date	Time:	icuneu, see diidui	iod ionii joi additional comments []
Comments/ Resolution:				
Project Manager Review:	MIHAVI	MV	Date:	-





April 17, 2017

Patrick Allenstein KPRG and Associates, Inc. 14665 W. Lisbon Road Brookfield, WI 53005

RE: Project: 188063 FORMER NATIONAL CLEANER

Pace Project No.: 40147644

Dear Patrick Allenstein:

Enclosed are the analytical results for sample(s) received by the laboratory on April 03, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jan Milewsky

dan.milewsky@pacelabs.com (920)469-2436

(920)469-2436 Project Manager

Enclosures







CERTIFICATIONS

Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.:

40147644

Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01 Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: UST-078

Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: MN00064
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L

Florida Certification #: E87605 Georgia Certification #: 959

Guam EPA Certification #: MN00064 Hawaii Certification #: MN00064 Idaho Certification #: MN00064 Illinois Certification #: 200011 Indiana Certification #: C-MN-01

Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064

Maine Certification #: MN00064 Maryland Certification #: 322 Michigan Certification #: 9909 Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647

North Carolina DW Certification #: 27700 North Carolina WW Certification #: 530 North Dakota Certification #: R-036 Ohio DW Certification #: 41244 Ohio VAP Certification #: CL101 Oklahoma Certification #: 9507

Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia WW Certification #: 382

Wyoming via EPA Region 8 Certification #: 8TMS-L

Wisconsin Certification #: 999407970





SAMPLE SUMMARY

Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.: 40147644

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40147644001	SV-1	Air	03/31/17 14:58	04/03/17 12:15
40147644002	SV-2	Air	03/31/17 14:52	04/03/17 12:15
40147644003	SV-3	Air	03/31/17 15:08	04/03/17 12:15





SAMPLE ANALYTE COUNT

Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.:

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40147644001	SV-1	TO-15	MJL	10	PASI-M
40147644002	SV-2	TO-15	MJL	10	PASI-M
40147644003	SV-3	TO-15	MJL	10	PASI-M



SUMMARY OF DETECTION

Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.: 40147644

Lab Sample ID Method	Client Sample ID Parameters	Dogult	Linita	Donort Limit	A	Qualifiers
wethod	Farameters	Result	Units	Report Limit	Analyzed	Qualifiers
40147644001	SV-1					
TO-15	cis-1,2-Dichloroethene	0.66J	ug/m3	1.2	04/16/17 21:30	
TO-15	Tetrachloroethene	2.5	ug/m3	0.99	04/16/17 21:30	
TO-15	Trichloroethene	0.49J	ug/m3	0.79	04/16/17 21:30	
40147644002	SV-2					
TO-15	Tetrachloroethene	0.68J	ug/m3	1.1	04/16/17 21:58	
40147644003	SV-3					
TO-15	cis-1,2-Dichloroethene	8.7	ug/m3	1.3	04/16/17 22:26	
TO-15	trans-1,2-Dichloroethene	7.8	ug/m3	1.3	04/16/17 22:26	
TO-15	Tetrachloroethene	175	ug/m3	1.1	04/16/17 22:26	
TO-15	1,1,1-Trichloroethane	0.63J	ug/m3	1.7	04/16/17 22:26	
TO-15	Trichloroethene	32.0	ug/m3	0.85	04/16/17 22:26	





Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.:

Date: 04/17/2017 04:33 PM

Sample: SV-1	Lab ID:	Lab ID: 40147644001		Collected: 03/31/17 14:58		Received: 04/03/17 12:15 Matrix: Air			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15	i						
1,1-Dichloroethane	<0.23	ug/m3	1.2	0.23	1.44		04/16/17 21:30	75-34-3	
1,2-Dichloroethane	<0.30	ug/m3	0.59	0.30	1.44		04/16/17 21:30	107-06-2	
1,1-Dichloroethene	< 0.34	ug/m3	1.2	0.34	1.44		04/16/17 21:30	75-35-4	
cis-1,2-Dichloroethene	0.66J	ug/m3	1.2	0.35	1.44		04/16/17 21:30	156-59-2	
trans-1,2-Dichloroethene	<0.55	ug/m3	1.2	0.55	1.44		04/16/17 21:30	156-60-5	
Tetrachloroethene	2.5	ug/m3	0.99	0.40	1.44		04/16/17 21:30	127-18-4	
1,1,1-Trichloroethane	< 0.36	ug/m3	1.6	0.36	1.44		04/16/17 21:30	71-55-6	
1,1,2-Trichloroethane	< 0.35	ug/m3	0.79	0.35	1.44		04/16/17 21:30	79-00-5	
Trichloroethene	0.49J	ug/m3	0.79	0.40	1.44		04/16/17 21:30	79-01-6	
Vinyl chloride	<0.28	ug/m3	0.37	0.28	1.44		04/16/17 21:30	75-01-4	





Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.: 40147644

Sample:	SV-2	

Date: 04/17/2017 04:33 PM

Lab ID: 40147644002	Collected:	03/31/17 14:52	Received:	04/03/17 12:15	Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF .	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-	15						
1,1-Dichloroethane	<0.24	ug/m3	1.3	0.24	1.55		04/16/17 21:58	75-34-3	
1,2-Dichloroethane	< 0.32	ug/m3	0.64	0.32	1.55		04/16/17 21:58	107-06-2	
1,1-Dichloroethene	<0.37	ug/m3	1.3	0.37	1.55		04/16/17 21:58	75-35-4	
cis-1,2-Dichloroethene	<0.38	ug/m3	1.3	0.38	1.55		04/16/17 21:58	156-59-2	
trans-1,2-Dichloroethene	<0.60	ug/m3	1.3	0.60	1.55		04/16/17 21:58	156-60-5	
Tetrachloroethene	0.68J	ug/m3	1.1	0.43	1.55		04/16/17 21:58	127-18-4	
1,1,1-Trichloroethane	<0.38	ug/m3	1.7	0.38	1.55		04/16/17 21:58	71-55-6	
1,1,2-Trichloroethane	<0.38	ug/m3	0.85	0.38	1.55		04/16/17 21:58	79-00-5	
Trichloroethene	< 0.43	ug/m3	0.85	0.43	1.55		04/16/17 21:58	79-01-6	
Vinyl chloride	< 0.30	ug/m3	0.40	0.30	1.55		04/16/17 21:58	75-01-4	





Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.:

Date: 04/17/2017 04:33 PM

Sample: SV-3	Lab ID:	40147644003	Collecte	d: 03/31/1	7 15:08	Received: 04	/03/17 12:15 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF_	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15	i						
1,1-Dichloroethane	<0.24	ug/m3	1.3	0.24	1.55		04/16/17 22:26	75-34-3	
1,2-Dichloroethane	<0.32	ug/m3	0.64	0.32	1.55		04/16/17 22:26	107-06-2	
1,1-Dichloroethene	<0.37	ug/m3	1.3	0.37	1.55		04/16/17 22:26	75-35-4	
cis-1,2-Dichloroethene	8.7	ug/m3	1.3	0.38	1.55		04/16/17 22:26	156-59-2	
trans-1,2-Dichloroethene	7.8	ug/m3	1.3	0.60	1.55		04/16/17 22:26	156-60-5	
Tetrachloroethene	175	ug/m3	1.1	0.43	1.55		04/16/17 22:26	127-18-4	
1,1,1-Trichloroethane	0.63J	ug/m3	1.7	0.38	1.55		04/16/17 22:26	71-55-6	
1,1,2-Trichloroethane	<0.38	ug/m3	0.85	0.38	1.55		04/16/17 22:26	79-00-5	
Trichloroethene	32.0	ug/m3	0.85	0.43	1.55		04/16/17 22:26	79-01-6	
Vinyl chloride	<0.30	ug/m3	0.40	0.30	1.55		04/16/17 22:26	75-01-4	



Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.:

40147644

QC Batch:

468777

Analysis Method:

TO-15

QC Batch Method:

TO-15

Analysis Description:

TO15 MSV AIR Low Level

Associated Lab Samples:

40147644001, 40147644002, 40147644003

METHOD BLANK: 2560516

Matrix: Air

Associated Lab Samples:

Date: 04/17/2017 04:33 PM

40147644001, 40147644002, 40147644003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.25	1.1	04/16/17 09:25	-, <u></u> -
1,1,2-Trichloroethane	ug/m3	<0.25	0.55	04/16/17 09:25	MN
1,1-Dichloroethane	ug/m3	<0.16	0.82	04/16/17 09:25	
1,1-Dichloroethene	ug/m3	<0.24	0.81	04/16/17 09:25	
1,2-Dichloroethane	ug/m3	<0.20	0.41	04/16/17 09:25	
cis-1,2-Dichloroethene	ug/m3	< 0.25	0.81	04/16/17 09:25	
Tetrachloroethene	ug/m3	<0.28	0.69	04/16/17 09:25	
trans-1,2-Dichloroethene	ug/m3	<0.38	0.81	04/16/17 09:25	
Trichloroethene	ug/m3	<0.28	0.55	04/16/17 09:25	
Vinyl chloride	ug/m3	<0.20	0.26	04/16/17 09:25	

ABORATORY CONTROL SAMPLE:	2560517					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
,1,1-Trichloroethane	ug/m3	55.5	53.5	97	70-134	
1,2-Trichloroethane	ug/m3	55.5	56.2	101	70-130	
1-Dichloroethane	ug/m3	41.1	43.5	106	70-130	
1-Dichloroethene	ug/m3	40.3	41.3	102	70-130	
-Dichloroethane	ug/m3	41.1	41.1	100	70-130	
1,2-Dichloroethene	ug/m3	40.3	42.3	105	70-133	
rachloroethene	ug/m3	68.9	67.9	98	70-130	
ns-1,2-Dichloroethene	ug/m3	40.3	41.3	102	70-131	
chloroethene	ug/m3	54.6	59.1	108	70-130	
yl chloride	ug/m3	26	28.2	109	70-130	

SAMPLE DUPLICATE: 2560903						
		10384709002	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<0.33		25	
1,1,2-Trichloroethane	ug/m3	ND	< 0.33		25	
1,1-Dichloroethane	ug/m3	ND	<0.21		25	
1,1-Dichloroethene	ug/m3	ND	< 0.32		25	
1,2-Dichloroethane	ug/m3	ND	< 0.27		25	
cis-1,2-Dichloroethene	ug/m3	ND	< 0.33		25	
Tetrachloroethene	ug/m3	136	138	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	< 0.51		25	
Trichloroethene	ug/m3	ND	< 0.37		25	
Vinyl chloride	ug/m3	ND	< 0.26		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.:

40147644

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-M

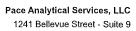
Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

Date: 04/17/2017 04:33 PM

MN

The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.



Green Bay, WI 54302 (920)469-2436



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

188063 FORMER NATIONAL CLEANER

Pace Project No.: 40147644

Date: 04/17/2017 04:33 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40147644001	SV-1	TO-15	468777		
40147644002	SV-2	TO-15	468777		
40147644003	SV-3	TO-15	468777		



AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

ument 40147644

Section Requirements	on A red Client Information:	Section B Required Project Inform				Section Invoice	n C Information	- 1.1 程, 3 - 3 - 3 - 3 :		1-			•		٠.				2	6	19	1	Page:	1 of	1
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ITEM#	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Testar Bay TB 1.tiler Summa Can 1LC 6.tiler Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COMPOSITE STAI	RT		₽POSITE -	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	С	mma an mber	Cor	-	low I Nu	mbe	Meth		7/	7	77		7//	7	
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May 31, 2017

Patrick Allenstein KPRG and Associates, Inc. 14665 W. Lisbon Road Brookfield, WI 53005

RE: Project: 18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Dear Patrick Allenstein:

Enclosed are the analytical results for sample(s) received by the laboratory on May 19, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Dan Milewsky

dan.milewsky@pacelabs.com

(920)469-2436 Project Manager

Enclosures







CERTIFICATIONS

Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

40150308

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 12064 North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001 Texas Certification #: T104704529-14-1 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444 USDA Soil Permit #: P330-16-00157 Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40150308001	MW-1	Water	05/17/17 14:26	05/19/17 13:27
40150308002	MW-2	Water	05/18/17 14:33	05/19/17 13:27
40150308003	MW-2D	Water	05/18/17 13:42	05/19/17 13:27
40150308004	MW-3	Water	05/18/17 10:40	05/19/17 13:27
40150308005	MW-3D	Water	05/18/17 09:45	05/19/17 13:27
40150308006	MW-4	Water	05/17/17 15:54	05/19/17 13:27
40150308007	MW-5	Water	05/18/17 11:40	05/19/17 13:27
40150308008	GP-11	Water	05/17/17 11:15	05/19/17 13:27
40150308009	GP-12	Water	05/17/17 11:45	05/19/17 13:27
40150308010	GP-13	Water	05/17/17 12:05	05/19/17 13:27
40150308011	GP-16	Water	05/17/17 13:10	05/19/17 13:27
40150308012	GP-17	Water	05/17/17 13:30	05/19/17 13:27
40150308013	DUP	Water	05/18/17 00:00	05/19/17 13:27
40150308014	FIELD BLANK	Water	05/18/17 00:00	05/19/17 13:27

REPORT OF LABORATORY ANALYSIS



SAMPLE ANALYTE COUNT

Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40150308001	MW-1	EPA 8260	HNW	13	PASI-G
40150308002	MW-2	EPA 8260	HNW	13	PASI-G
40150308003	MW-2D	EPA 8260	HNW	13	PASI-G
40150308004	MW-3	EPA 8260	HNW	13	PASI-G
40150308005	MW-3D	EPA 8260	HNW	13	PASI-G
40150308006	MW-4	EPA 8260	HNW	13	PASI-G
40150308007	MVV-5	EPA 8260	HNW	13	PASI-G
40150308008	GP-11	EPA 8260	HNW	13	PASI-G
40150308009	GP-12	EPA 8260	HNW	13	PASI-G
40150308010	GP-13	EPA 8260	HNW	13	PASI-G
40150308011	GP-16	EPA 8260	HNW	13	PASI-G
40150308012	GP-17	EPA 8260	HNW	13	PASI-G
40150308013	DUP	EPA 8260	LAP	13	PASI-G
40150308014	FIELD BLANK	EPA 8260	LAP	13	PASI-G



SUMMARY OF DETECTION

Project: 1

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

4.0	Analyzed 05/27/17 01:08 05/27/17 01:08	Qualifiers
4.0		
4.0		
	05/27/17 01:08	
4.0		
	05/27/17 01:08	
4.0	05/27/17 01:08	
4.0	05/27/17 01:08	
4.0	05/27/17 01:08	
4.0	05/27/17 01:08	
4.0	05/27/17 01:08	
4.0	05/27/17 01:08	
1.0	05/26/17 20:05	
1.0	05/26/17 20:27	
1.0	05/26/17 20:27	
1.0	05/26/17 22:58	
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REPORT OF LABORATORY ANALYSIS





Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Date: 05/31/2017 01:59 PM

Sample: MW-1	Lab ID:	40150308001	Collecte	d: 05/17/17	14:26	Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 19:43	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 19:43	79-00-5	
1,1-Dichloroethane	< 0.24	ug/L	1.0	0.24	. 1		05/26/17 19:43	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 19:43	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 19:43	107-06-2	
Tetrachloroethene	< 0.50	ug/L	1.0	0.50	1		05/26/17 19:43	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 19:43	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 19:43	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 19:43	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 19:43	156-60-5	
Surrogates									
4-Bromofluorobenzene (S)	94	%	61-118		1		05/26/17 19:43	460-00-4	
Dibromofluoromethane (S)	105	%	67-124		1		05/26/17 19:43	1868-53-7	
Toluene-d8 (S)	97	%	80-120		1		05/26/17 19:43	2037-26-5	



Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Date: 05/31/2017 01:59 PM

Sample: MW-2	Lab ID:	40150308002	Collecte	d: 05/18/17	7 14:33	Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	7.1	ug/L	4.0	2.0	4		05/27/17 01:08	71-55-6	
1,1,2-Trichloroethane	<0.79	ug/L	4.0	0.79	4		05/27/17 01:08	79-00-5	
1,1-Dichloroethane	3.5J	ug/L	4.0	0.97	4		05/27/17 01:08	75-34-3	
1,1-Dichloroethene	1.8J	ug/L	4.0	1.6	4		05/27/17 01:08	75-35-4	
1,2-Dichloroethane	1.6J	ug/L	4.0	0.67	4		05/27/17 01:08	107-06-2	
Tetrachloroethene	1080	ug/L	4.0	2.0	4		05/27/17 01:08	127-18-4	
Trichloroethene	179	ug/L	4.0	1.3	4		05/27/17 01:08	79-01-6	
Vinyl chloride	13.4	ug/L	4.0	0.70	4		05/27/17 01:08	75-01-4	
cis-1,2-Dichloroethene	311	ug/L	4.0	1.0	4		05/27/17 01:08	156-59-2	
trans-1,2-Dichloroethene	80.3	ug/L	4.0	1.0	4		05/27/17 01:08	156-60-5	
Surrogates		•							
4-Bromofluorobenzene (S)	93	%	61-118		4		05/27/17 01:08	460-00-4	
Dibromofluoromethane (S)	101	%	67-124		4		05/27/17 01:08	1868-53-7	
Toluene-d8 (S)	98	%	80-120		4		05/27/17 01:08	2037-26-5	



05/26/17 20:05 2037-26-5



ANALYTICAL RESULTS

Project:

Toluene-d8 (S)

Date: 05/31/2017 01:59 PM

18806.3 NATURAL CLEANERS

99

%

Pace Project No.:

40150308

Sample: MW-2D	Lab ID:	Collected: 05/18/17 13:42			Received: 05	Received: 05/19/17 13:27 Matrix			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 20:05	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 20:05	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 20:05	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 20:05	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 20:05	107-06-2	
Tetrachloroethene	0.61J	ug/L	1.0	0.50	1		05/26/17 20:05	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 20:05	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 20:05	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 20:05	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 20:05	156-60-5	
Surrogates		-							
4-Bromofluorobenzene (S)	95	%	61-118		1		05/26/17 20:05	460-00-4	
Dibromofluoromethane (S)	101	%	67-124		1		05/26/17 20:05	1868-53-7	

80-120



Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Date: 05/31/2017 01:59 PM

Sample: MW-3	Lab ID: 40150308004	Collected:	05/18/17 10:40	Received:	05/19/17 13:27	Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA	A 8260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 20:27	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 20:27	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 20:27	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 20:27	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 20:27	107-06-2	
Tetrachloroethene	< 0.50	ug/L	1.0	0.50	1		05/26/17 20:27	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 20:27	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 20:27	75-01-4	
cis-1,2-Dichloroethene	2.0	ug/L	1.0	0.26	1		05/26/17 20:27	156-59-2	
trans-1,2-Dichloroethene Surrogates	0.42J	ug/L	1.0	0.26	1		05/26/17 20:27	156-60-5	
4-Bromofluorobenzene (S)	95	%	61-118		1		05/26/17 20:27	460-00-4	
Dibromofluoromethane (S)	105	%	67-124		1		05/26/17 20:27	1868-53-7	
Toluene-d8 (S)	100	%	80-120		1		05/26/17 20:27	2037-26-5	





Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Date: 05/31/2017 01:59 PM

Sample: MW-3D	Lab ID:	40150308005	Collected	i: 05/18/17	' 09:45	Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 20:48	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 20:48	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 20:48	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 20:48	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 20:48	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		05/26/17 20:48	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 20:48	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 20:48	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 20:48	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 20:48	156-60-5	
Surrogates									
4-Bromofluorobenzene (S)	94	%	61-118		1		05/26/17 20:48	460-00-4	
Dibromofluoromethane (S)	104	%	67-124		1		05/26/17 20:48	1868-53-7	
Toluene-d8 (S)	98	%	80-120		1		05/26/17 20:48	2037-26-5	



Project:

18806.3 NATURAL CLEANERS

40150308

Pace Project No.:

Date: 05/31/2017 01:59 PM

Sample: MW-4 Lab ID: 40150308006 Collected: 05/17/17 15:54 Received: 05/19/17 13:27 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA	A 8260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 21:10	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 21:10	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 21:10	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 21:10	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 21:10	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		05/26/17 21:10	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 21:10	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 21:10	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 21:10	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 21:10	156-60-5	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-118		1		05/26/17 21:10	460-00-4	
Dibromofluoromethane (S)	103	%	67-124		1		05/26/17 21:10	1868-53-7	
Toluene-d8 (S)	99	%	80-120		1		05/26/17 21:10	2037-26-5	





Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Sample:	MW-5

Date: 05/31/2017 01:59 PM

Lab ID: 40150308007

Collected: 05/18/17 11:40 Received: 05/19/17 13:27 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual		
8260 MSV	Analytical Method: EPA 8260										
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 21:31	71-55-6			
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 21:31	79-00-5			
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 21:31	75-34-3			
1,1-Dichloroethene	< 0.41	ug/L	1.0	0.41	1		05/26/17 21:31	75-35-4			
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 21:31	107-06-2			
Tetrachloroethene	< 0.50	ug/L	1.0	0.50	1		05/26/17 21:31	127-18-4			
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 21:31	79-01-6			
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 21:31	75-01-4			
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 21:31	156-59-2			
trans-1,2-Dichloroethene Surrogates	<0.26	ug/L	1.0	0.26	1		05/26/17 21:31	156-60-5			
4-Bromofluorobenzene (S)	96	%	61-118		1		05/26/17 21:31	460-00-4			
Dibromofluoromethane (S)	103	%	67-124		1		05/26/17 21:31	1868-53-7			
Toluene-d8 (S)	100	%	80-120		1		05/26/17 21:31	2037-26-5			





Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Date: 05/31/2017 01:59 PM

Sample: GP-11	Lab ID: 40150308008		Collected: 05/17/17 11:15			Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 21:53	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 21:53	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 21:53	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 21:53	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 21:53	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		05/26/17 21:53	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 21:53	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 21:53	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 21:53	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 21:53	156-60-5	
Surrogates									
4-Bromofluorobenzene (S)	94	%	61-118		1		05/26/17 21:53	460-00-4	
Dibromofluoromethane (S)	102	%	67-124		1		05/26/17 21:53	1868-53-7	
Toluene-d8 (S)	98	%	80-120		1		05/26/17 21:53	2037-26-5	





ANALYTICAL RESULTS

Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Date: 05/31/2017 01:59 PM

40150308

Sample: GP-12	Lab ID:	40150308009	Collecte	d: 05/17/1	7 11:45	Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 22:15	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 22:15	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 22:15	75-34-3	
1,1-Dichloroethene	< 0.41	ug/L	1.0	0.41	1		05/26/17 22:15	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 22:15	107-06-2	
Tetrachloroethene	< 0.50	ug/L	1.0	0.50	1		05/26/17 22:15	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 22:15	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 22:15	75-01-4	
cis-1,2-Dichloroethene	< 0.26	ug/L	1.0	0.26	1		05/26/17 22:15	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 22:15	156-60-5	
Surrogates		-							
4-Bromofluorobenzene (S)	93	%	61-118		1		05/26/17 22:15	460-00-4	
Dibromofluoromethane (S)	104	%	67-124		1		05/26/17 22:15	1868-53-7	
Toluene-d8 (S)	100	%	80-120		1		05/26/17 22:15	2037-26-5	





ANALYTICAL RESULTS

Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Date: 05/31/2017 01:59 PM

40150308

Sample: GP-13	Lab ID: 40150308010	Collected: 05/17/17 12:05	Received: 05/19/17 13:27	Matrix: Water
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Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA	A 8260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 22:36	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 22:36	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 22:36	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 22:36	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 22:36	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		05/26/17 22:36	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 22:36	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 22:36	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 22:36	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 22:36	156-60-5	
Surrogates		-							
4-Bromofluorobenzene (S)	94	%	61-118		1		05/26/17 22:36	460-00-4	
Dibromofluoromethane (S)	102	%	67-124		1		05/26/17 22:36	1868-53-7	
Toluene-d8 (S)	100	%	80-120		1		05/26/17 22:36	2037-26-5	



05/26/17 22:58 2037-26-5



ANALYTICAL RESULTS

Project:

18806.3 NATURAL CLEANERS

99

%

Pace Project No.:

Toluene-d8 (S)

Date: 05/31/2017 01:59 PM

40150308

Sample: GP-16	Lab ID:	40150308011	Collecte	d: 05/17/17	7 13:10	Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 22:58	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 22:58	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 22:58	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 22:58	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 22:58	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		05/26/17 22:58	127-18-4	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		05/26/17 22:58	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 22:58	75-01-4	
cis-1,2-Dichloroethene	0.54J	ug/L	1.0	0.26	1		05/26/17 22:58	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/26/17 22:58	156-60-5	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-118		1		05/26/17 22:58	460-00-4	
Dibromofluoromethane (S)	102	%	67-124		1		05/26/17 22:58	1868-53-7	

80-120

1



ANALYTICAL RESULTS

Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Sample:	GP-17

Date: 05/31/2017 01:59 PM

Lab ID: 40150308012

Collected: 05/17/17 13:30 Received: 05/19/17 13:27 Matrix: Water

Campio. Ci -11	Lab ID.	401303000	iz odlicete	d. 00/1////	10.50	Neceived, of	0/10/11 10.21 W	atrix. Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA	A 8260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/26/17 23:20	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/26/17 23:20	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/26/17 23:20	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/26/17 23:20	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/26/17 23:20	107-06-2	
Tetrachloroethene	< 0.50	ug/L	1.0	0.50	1		05/26/17 23:20	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/26/17 23:20	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/26/17 23:20	75-01-4	
cis-1,2-Dichloroethene	< 0.26	ug/L	1.0	0.26	1		05/26/17 23:20	156-59-2	
trans-1,2-Dichloroethene Surrogates	<0.26	ug/L	1.0	0.26	1		05/26/17 23:20	156-60-5	
4-Bromofluorobenzene (S)	95	%	61-118		1		05/26/17 23:20	460-00-4	
Dibromofluoromethane (S)	104	%	67-124		1		05/26/17 23:20	1868-53-7	
Toluene-d8 (S)	100	%	80-120		1		05/26/17 23:20	2037-26-5	





ANALYTICAL RESULTS

Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

Date: 05/31/2017 01:59 PM

40150308

Sample: DUP	Lab ID:	40150308013	Collecte	d: 05/18/17	7 00:00	Received: 05	5/19/17 13:27 Ma	atrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA 8	260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/30/17 09:22	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/30/17 09:22	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/30/17 09:22	75-34-3	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		05/30/17 09:22	75-35-4	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		05/30/17 09:22	107-06-2	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		05/30/17 09:22	127-18-4	
Trichloroethene	< 0.33	ug/L	1.0	0.33	1		05/30/17 09:22	79-01-6	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		05/30/17 09:22	75-01-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/30/17 09:22	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		05/30/17 09:22	156-60-5	
Surrogates									
4-Bromofluorobenzene (S)	84	%	61-118		1		05/30/17 09:22	460-00-4	
Dibromofluoromethane (S)	104	%	67-124		1		05/30/17 09:22	1868-53-7	
Toluene-d8 (S)	96	%	80-120		1		05/30/17 09:22	2037-26-5	

REPORT OF LABORATORY ANALYSIS



Matrix: Water

05/30/17 09:45 107-06-2

05/30/17 09:45 127-18-4

05/30/17 09:45 79-01-6 05/30/17 09:45 75-01-4

05/30/17 09:45 156-59-2

05/30/17 09:45 156-60-5

05/30/17 09:45 460-00-4

05/30/17 09:45 1868-53-7

05/30/17 09:45 2037-26-5



ANALYTICAL RESULTS

Project:

1.2-Dichloroethane

Tetrachloroethene

cis-1,2-Dichloroethene

trans-1,2-Dichloroethene

4-Bromofluorobenzene (S)

Dibromofluoromethane (S)

Date: 05/31/2017 01:59 PM

Trichloroethene

Vinyl chloride

Surrogates

Toluene-d8 (S)

18806.3 NATURAL CLEANERS

Lab ID: 40150308014

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

%

%

%

<0.17

< 0.50

< 0.33

< 0.18

<0.26

<0.26

84

101

93

Pace Project No.: 40150308

Sample: FIELD BLANK

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical	Method: EPA	\ 8260						
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		05/30/17 09:45	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		05/30/17 09:45	79-00-5	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		05/30/17 09:45	75-34-3	
1,1-Dichloroethene	< 0.41	ug/L	1.0	0.41	1		05/30/17 09:45	75-35-4	

0.17

0.50

0.33

0.18

0.26

0.26

1.0

1.0

1.0

1.0

1.0

1.0

61-118

67-124

80-120

Collected: 05/18/17 00:00 Received: 05/19/17 13:27



Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

40150308

QC Batch:

256302

Analysis Method:

EPA 8260

QC Batch Method:

EPA 8260

Analysis Description:

8260 MSV

Associated Lab Samples:

40150308001, 40150308002, 40150308003, 40150308004, 40150308005, 40150308006, 40150308007,

40150308008, 40150308009, 40150308010, 40150308011, 40150308012

METHOD BLANK: 1511135

Matrix: Water

Associated Lab Samples:

Date: 05/31/2017 01:59 PM

40150308001, 40150308002, 40150308003, 40150308004, 40150308005, 40150308006, 40150308007, 40150308008, 40150308009, 40150308010, 40150308011, 40150308012

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<0.50	1.0	05/26/17 15:02	
1,1,2-Trichloroethane	ug/L	< 0.20	1.0	05/26/17 15:02	
1,1-Dichloroethane	ug/L	<0.24	1.0	05/26/17 15:02	
1,1-Dichloroethene	ug/L	<0.41	1.0	05/26/17 15:02	
1,2-Dichloroethane	ug/L	<0.17	1.0	05/26/17 15:02	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	05/26/17 15:02	
Tetrachloroethene	ug/L	< 0.50	1.0	05/26/17 15:02	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	05/26/17 15:02	
Trichloroethene	ug/L	< 0.33	1.0	05/26/17 15:02	
Vinyl chloride	ug/L	<0.18	1.0	05/26/17 15:02	•
4-Bromofluorobenzene (S)	%	96	61-118	05/26/17 15:02	
Dibromofluoromethane (S)	%	101	67-124	05/26/17 15:02	
Toluene-d8 (S)	%	101	80-120	05/26/17 15:02	

LABORATORY CONTROL SAMPLE:	1511136					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L		50.5	101	85-130	
1,1,2-Trichloroethane	ug/L	50	47.3	95	80-120	
1,1-Dichloroethane	ug/L	50	54.4	109	71-132	
1,1-Dichloroethene	ug/L	50	53.6	107	75-130	
1,2-Dichloroethane	ug/L	50	52.6	105	79-131	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	83-129	
etrachloroethene	ug/L	50	42.3	85	80-120	
ans-1,2-Dichloroethene	ug/L	50	54.9	110	75-132	
richloroethene	ug/L	50	47.7	95	80-120	
inyl chloride	ug/L	50	58.9	118	57-136	
-Bromofluorobenzene (S)	%			106	61-118	
ibromofluoromethane (S)	%			98	67-124	
Toluene-d8 (S)	%			97	80-120	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICA	ATE: 151159	96		1511597							
	4	0150234001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.00050 ma/L	50	50	44.8	39.8	90	80	85-134	12	20	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Date: 05/31/2017 01:59 PM

MATRIX SPIKE & MATRIX SPI	KE DUPLICA	TE: 151159	96		1511597							
			MS	MSD								
	4	0150234001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
1,1,2-Trichloroethane	ug/L	<0.00020 mg/L	50	50	46.3	42.2	93	84	80-120	9	20	
1,1-Dichloroethane	ug/L	<0.00024 mg/L	50	50	44.3	40.6	89	81	71-133	9	20	
1,1-Dichloroethene	ug/L	<0.00041 mg/L	50	50	47.4	39.3	95	79	75-136	19	20	
1,2-Dichloroethane	ug/L	<0.00017 mg/L	50	50	48.7	45.1	97	90	79-131	8	20	
cis-1,2-Dichloroethene	ug/L	<0.00026 mg/L	50	50	45.1	39.8	90	80	83-129	12	20	
Tetrachloroethene	ug/L	<0.00050 mg/L	50	50	36.5	33.4	73	67	80-120			M1
rans-1,2-Dichloroethene	ug/L	<0.00026 mg/L	50	50	45.1	38.8	90	78	75-135		20	
Trichloroethene	ug/L	<0.00033 mg/L	50	50	42.5	39.3	85	79	80-120		20	M1
Vinyl chloride	ug/L	<0.00018 mg/L	50	50	41.1	37.1	82	74	56-143	10	20	
4-Bromofluorobenzene (S)	%						102	100	61-118			
Dibromofluoromethane (S)	%						104	103	67-124			
Toluene-d8 (S)	%						99	98	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

40150308

QC Batch:

256768

Analysis Method:

EPA 8260

QC Batch Method:

EPA 8260

Analysis Description:

8260 MSV

Associated Lab Samples:

40150308013, 40150308014

METHOD BLANK: 1513263

Date: 05/31/2017 01:59 PM

Matrix: Water

Associated Lab Samples: 40150308013, 40150308014

	Blank	Reporting		
Units	Result	Limit	Analyzed	Qualifiers
ug/L	<0.50	1.0	05/30/17 06:32	
ug/L	< 0.20	1.0	05/30/17 06:32	
ug/L	< 0.24	1.0	05/30/17 06:32	
ug/L	< 0.41	1.0	05/30/17 06:32	
ug/L	< 0.17	1.0	05/30/17 06:32	
ug/L	< 0.26	1.0	05/30/17 06:32	
ug/L	< 0.50	1.0	05/30/17 06:32	
ug/L	< 0.26	1.0	05/30/17 06:32	
ug/L	< 0.33	1.0	05/30/17 06:32	
ug/L	<0.18	1.0	05/30/17 06:32	
%	84	61-118	05/30/17 06:32	
%	103	67-124	05/30/17 06:32	
%	92	80-120	05/30/17 06:32	
	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	Units Result ug/L <0.50 ug/L <0.20 ug/L <0.24 ug/L <0.41 ug/L <0.17 ug/L <0.26 ug/L <0.50 ug/L <0.50 ug/L <0.50 ug/L <0.33 ug/L <0.18 % 84 % 103	Units Result Limit ug/L <0.50	Units Result Limit Analyzed ug/L <0.50

LABORATORY CONTROL SAMPLE:	1513264					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.5	101	85-130	
1,1,2-Trichloroethane	ug/L	50	48.4	97	80-120	
1,1-Dichloroethane	ug/L	50	50.9	102	71-132	
1,1-Dichloroethene	ug/L	50	59.6	119	75-130	
1,2-Dichloroethane	ug/L	50	49.3	99	79-131	
cis-1,2-Dichloroethene	ug/L	50	49.1	98	83-129	
Tetrachloroethene	ug/L	50	52.1	104	80-120	
trans-1,2-Dichloroethene	ug/L	50	51.5	103	75-132	
Trichloroethene	ug/L	50	56.0	112	80-120	
Vinyl chloride	ug/L	50	51.5	103	57-136	
4-Bromofluorobenzene (S)	%			100	61-118	
Dibromofluoromethane (S)	%			97	67-124	
Toluene-d8 (S)	%			102	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPLICA	ATE: 15140	92		1514093							
			MS	MSD								
	4	0150525023	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.50	50	50	53.9	50.4	108	101	85-134	7	20	
1,1,2-Trichloroethane	ug/L	< 0.20	50	50	51.7	46.3	103	93	80-120	11	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	54.1	52.3	108	105	71-133	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS



Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Date: 05/31/2017 01:59 PM

MATRIX SPIKE & MATRIX SPI	KE DUPLICA	TE: 15140	92		1514093							
	4	0450505000	MS	MSD	MO	MOD	MC	MCD	0/ D		May	
Parameter	Units	0150525023 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	<0.41	50	50	63.9	58.7	128	117	75-136	8	20	
1,2-Dichloroethane	ug/L	< 0.17	50	50	52.1	48.7	104	97	79-131	7	20	
cis-1,2-Dichloroethene	ug/L	< 0.26	50	50	54.4	48.4	109	97	83-129	12	20	
Tetrachloroethene	ug/L	< 0.50	50	50	53.9	52.5	108	105	80-120	3	20	
trans-1,2-Dichloroethene	ug/L	< 0.26	50	50	53.6	51.9	107	104	75-135	3	20	
Trichloroethene	ug/L	< 0.33	50	50	56.5	57.0	113	114	80-120	1	20	
√inyl chloride	ug/L	<0.18	50	50	60.4	51.7	121	103	56-143	16	20	
4-Bromofluorobenzene (S)	%						104	95	61-118			
Dibromofluoromethane (S)	%						100	93	67-124			
Toluene-d8 (S)	%						100	103	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.





QUALIFIERS

Project:

18806.3 NATURAL CLEANERS

Pace Project No.:

40150308

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G

Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

Date: 05/31/2017 01:59 PM

M1

Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:

18806.3 NATURAL CLEANERS

Pace Project No.: 40150308

Date: 05/31/2017 01:59 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
40150308001	MW-1	EPA 8260	256302	-	
40150308002	MW-2	EPA 8260	256302		
40150308003	MW-2D	EPA 8260	256302		
40150308004	MW-3	EPA 8260	256302		
10150308005	MW-3D	EPA 8260	256302		
10150308006	MW-4	EPA 8260	256302		
10150308007	MW-5	EPA 8260	256302		
0150308008	GP-11	EPA 8260	256302		
0150308009	GP-12	EPA 8260	256302		
0150308010	GP-13	EPA 8260	256302		
0150308011	GP-16	EPA 8260	256302		
10150308012	GP-17	EPA 8260	256302		
0150308013	DUP	EPA 8260	256768		
10150308014	FIELD BLANK	EPA 8260	256768		

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Project Cont	act: Patrick Allenste	ein	7 /			,	oacelabs.c				,	1		Quote #:			Page 26 of 28
Phone:	262-227-029			(CHA	IN	OF	C	US'	TO	DX	\mathcal{K}	Mai	To Contact:			- India
Project Num	ber: 18806.3	····	A=No		=HCL C=		*Preserva	tion Cod	es	=Methar			Mail	To Company:			
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004	MW-3		710:40			\vdash											
005	MW-3D	-	79:45	-									<u> </u>				
006			215:54	, ,	-10												
007	MW-5		711:40				T						 	-		<u> </u>	
003			11:15			1							1				
009	GP-12		11:45			<u> </u>							1				
010		5/17/13	12:05			1				·							
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Project Contact: Patrick A		/ -			www.pa	celabs.com						Quote #:			Page
Phone: 262-227 -			C	HA	M	OF C	US	TO	DY	•	l	Mail To Contact:		- A JULIA ANALON-	
Project Number: 18806.3		A≃Non			12504	Preservation Co						Mail To Company:			
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Sample Condition Upon Receipt

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

Client Name: KPR C + 1590 Courier: Fed Ex F UPS F Client S Pac Tracking #:	e Other:	-	Project #: 	MUTT	40150308 	
Custody Seal on Cooler/Box Present: Tyes	no Seals	intact	_	40130306		
Custody Seal on Samples Present: Tyes T	•		□ yes □ no			· · · · · · · · · · · · · · · · · · ·
Packing Material: 🏹 Bubble Wrap 🍞 Bubl	ble Bags 「	None	Other			
Thermometer Used	Type of Ice	Wet	Blue Dry None	N Samples o	n ice, cooling process has b	egun
Cooler Temperature Uncorr: Roll /Corr:		Biolo	gical Tissue is Fr			
Temp Blank Present: Tyes Thino				no	Person examining co	ntents:
Femp should be above freezing to 6°C for all sample exc Frozen Biota Samples should be received ≤ 0°C.	cept Biota.		Comments:		Date: <u>Al (9/17</u> Initials: <u>S</u>	<u>a</u>
Chain of Custody Present:	P Yes □No	□n/a	1.	<u> </u>		
Chain of Custody Filled Out:	XYes □No	□n/a	2.			
Chain of Custody Relinquished:	YYes □No	□n/a	3.			
Sampler Name & Signature on COC:	Yes □No	□n/a	4.			
Samples Arrived within Hold Time:	ŠpYes □No	□n/a	5.			
- VOA Samples frozen upon receipt	□Yes □No		Date/Time:	-		
Short Hold Time Analysis (<72hr):	□Yes \$70o	□N/A	6.			
Rush Turn Around Time Requested:	□Yes 🖾No	□n/a	7.			
Sufficient Volume:	XYes □No	□n/a	8.			
Correct Containers Used:	Maryes □No	□n/a	9.			
-Pace Containers Used:	™Yes □No	□n/a				
-Pace IR Containers Used:	□Yes □No	X N/A				
Containers Intact:	MYes □No	□N/A	10.			
filtered volume received for Dissolved tests	□Yes ⊠No	□N/A	11.		. â	\
Sample Labels match COC:	□Yes XiNo	□n/a	12/710-10	on Simples is	GP-13/W" (224
-Includes date/time/ID/Analysis Matrix:	W.		009-LD0	on Sind4 is	EP-12/4 003	-1-4046
All containers needing preservation have been checked.	□Yes □No	'Marra			□ NaOH □ NaOH +	ZnAct 5
Non-Compliance noted in 13.) All containers needing preservation are found to be in			13. I	,	,	
compliance with EPA recommendation.	□Yes □No	MN/A				
HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) xeeptions: YOx, coliform, TOC, TOX, TOH,			Initial when	Lab Std #ID of	Date/	
O&G, WIDROW, Phenolics, OTHER:	Yes □No		completed	preservative	Time:	
leadspace in VOA Vials (>6mm):	□Yes ⊠No	□n/a		***************************************		
rip Blank Present:	MYes □No	□n/A	15.			
rip Blank Custody Seals Present	⊠Yes □No	□n/a				
Pace Trip Blank Lot # (if purchased):)		·		fabratical att	had form for additional	manta []
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Comments/ Resolution: 012 - 10 01 5cm	dy 13 6	P-17	/y"	55h 5/	19/1-	
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State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

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



December 22, 2016

Ms. Marilyn Fleming Former Bayside Natural Cleaners N40 W27880 Glacier Road Pewaukee, WI 53072

Subject:

Additional Site Investigation Work Plan (2) for the Former Bayside Natural Cleaners, 8828

North Port Washington Road, Bayside, WI

FID: 341140250

BRRTS: 02-41-548572

Dear MS. Fleming:

On November 22, 2016, the Wisconsin Department of Natural Resources (DNR) received from KPRG a revised additional site investigation work plan and responses to the DNR's letters dated April 20 and November 2, 2016 for the former Bayside Natural Cleaners site. The additional site investigation scope-of-work (SOW) plan is approved. The additional SOW is summarized as follows:

- Task 1: Interior Vapor Probe Installation and Sampling
- Task 2: Soil Borings/Sampling
- Task 3: SSDS System Check
- Task 4: Additional Well Installations and Groundwater Sampling
- Task 5: Additional Site Investigation Reporting

The cost approved for the above tasks is \$33,025. The total approved costs to date is \$121,383 (\$88,358 plus \$33,025 = \$121,383).

This approval does not guarantee the reimbursement of costs. Final determination regarding the eligibility of costs will be determined at the time of claim review.

The Department appreciates the actions you have taken to investigate and remediate the contamination at this site. If you have any questions or comments, please feel free to contact me at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to me at the above address.

Simcerely.

John J. Hnat, P.G., C.P.G.

Project Manager\Hydrogeologist

Southeast Region

Remediation and Redevelopment

C: Jennifer Feyerherm – WDNR, CF2

Richard R. Gnat - KPRG

WDNR SER File



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

ADDITIONAL COMMENT RESPONSES AND REVISED ADDITIONAL SITE INVESTIGATION WORK PLAN

November 22, 2016

RECEIVED

NOV 28 2016

Mr. John J. Hnat, P.G., C.P.G. Wisconsin Department of Natural Resources 2300 North Martin Luther King, Jr. Drive Milwaukee, WI 53212

Re:

Former Bayside Natural Cleaners 8828 North Port Washington Road, Bayside, WI

FID# 341140250, BRRTS# 02-41-548572

KPRG Project No. 18806.3

Initial:

Dear Mr. Hnat:

On June 26, 2015, KPRG and Associates, Inc. (KPRG), on behalf of Former Bayside Natural Cleaners, submitted comment responses and an Additional Site Investigation (SI) Work Plan for what we believed, based on discussions with Wisconsin Department of Natural Resources (WDNR), would be the final segment of site investigation activities. The resulting additional data were summarized in a Supplemental Site Investigation Report dated November 10, 2015 requesting that the SI portion of the project (which was started in August 2007), be considered complete and to allow the site to move into remediation. On April 20, 2016, WDNR issued a review letter requesting still additional site investigation work to be performed. Specifically, seven additional vapor probes were requested to be installed within the basement of the building (despite having two rounds of indoor air sampling from across the footprint of the building which did not indicate any indoor air exceedances for chlorinated volatile organic compounds [CVOCs]), four additional exterior soil borings and updated documentation on the effectiveness of the existing sub-slab depressurization system (SSDS) that was installed in 2012.

On May 31, 2016, KPRG submitted comment responses, an Additional Site Investigation Work Plan that included all additional work requested and a Proposed Alternate Interim Remedial Action. On November 2, 2016 (approximately 5 months after submittal of our responses and work plan) WDNR issued another comment letter requesting yet additional site investigation work to be added to the work plan, including more monitoring wells. The letter consisted of eight comments. Each is addressed separately below.

• Comment 1 – This comment requests additional soil borings to the north and south of location GP-5, along the east property line. These were part of the initial request addressed in the KPRG response dated May 31, 2016. In addition, soil borings to the

north towards location GP-6 and to the south towards well MW-3 are now also being requested.

Response – The additional requested borings are included in the revised work plan and cost estimate provided in Attachment 1. This will yield a total of six additional soil sampling locations with two soil samples collected per location. The samples will be analyzed for chlorinated volatile organic compounds (CVOCs).

• Comment 2 – This comment agrees to reducing the originally requested seven vapor probe locations within the basement of the building to four locations.

Response – The revised work plan and cost estimate provided in Attachment 1 reflects this change. The four vapor probes will be evenly space along the east wall of the building, as allowed by access.

• Comment 3 – This comment reiterates that testing of the sub-slab depressurization system (SSDS) that has been installed will need to be performed to establish a baseline prior to any remediation and subsequently after remediation.

Response – This comment was previously addressed and is included in the attached work plan and cost estimate. No changes are proposed at this time.

• Comment 4 – This comment states that additional monitoring wells are required to the north of MW-2 and east on the adjacent property.

Response – An additional well (MW-5) will be installed to the north of MW-2 as noted in the revised work plan and cost estimate provided in Attachment 1. There are currently four monitoring wells on the adjacent property to the east. Multiple rounds of sampling from these wells have not detected impacts. Additional wells on this property are not warranted and are not included in the attached work plan.

• Comment 5 – This comment requires an additional piezometer to be installed downgradient of the source area.

Response – The revised work plan and cost estimate in Attachment 1 includes an additional piezometer to be clustered next to downgradient well MW-3.

• Comments 6 through 8 – These comments are relative to the alternate proposal for the implementation of an interim remedial action (IRA) included with KPRG's previous submittal dated May 31, 2016. The comments request clarification on the type of injectate proposed, an evaluation of a direct soil removal alternative and for the completion of a formal Remedial Actions Options Report (RAOR).

Response – In the opening paragraph of the WDNR letter dated November 2, 2016, the WDNR states that an IRA can not be approved at this time because of an incomplete site

investigation. Although KPRG would like to note that IRAs are often, if not usually, performed concurrent with completion of site investigation work to help expedite implementation of remedy, it is clear that in this case the WDNR does not believe the implementation of an IRA is warranted. Therefore, rather than further addressing the technical aspects of these comments, KPRG withdraws the alternate proposal until after WDNR concurrence that the site investigation is complete.

KPRG and Natural Cleaners appreciate the continued cooperation with WDNR in addressing these issues and we request an expedited approval of this additional site investigation work plan. If there are any questions, please contact me at 262-781-0475.

Sincerely,

KPRG and Associates, Inc.

Richard R Snot

Richard R. Gnat, P.G.

Principal

cc: Marilyn Fleming, Former Natural Cleaners

Derek Reinke, Ogden & Company, Inc.

Donald P. Gallo, Husch Blackwell, LLP

ATTACHMENT 1

Revised Additional Site Investigation Work Plan and Cost Estimate

REVISED ADDITIONAL SITE INVESTIGATION WORK PLAN AND COST ESTIMATE

1.0 WORK PLAN SCOPE OF WORK

1.1 Sub-Slab Vapor Probe Installations/Sampling

KPRG will install additional four sub-slab vapor probes equally spaced (as allowed by access) along the east basement wall of the building. KPRG will use the Cox-Colvin vapor pin sampling system. The pins will be installed through the concrete floor slab per manufacturer directions. A concrete hammer drill will be used to drill through the floor slab. The sampling pin will then be installed and cemented into place. After a minimum of six hours, the sampling pin completion will be tested for tightness using a helium gas testing set-up. Once each location is tested to be air tight, sub-slab vapor sampling will commence using a Suma Canister with a 1-hour sampling control regulator. Samples will be sent to a Wisconsin Certified analytical laboratory for analysis of CVOCs using Method TO15.

1.2 Additional Soil Borings

KPRG will install six additional soil borings at locations noted on Figure 1 (locations GP-20 through GP-24 and MW-5). The soil borings will extend to at least 12 feet below ground surface (bgs). The soil borings will be advanced using the Geoprobe sampling technique. Continuous soil core samples will be collected. Each core will be field screened with a photoionization detector (PID) for total organic vapors. The core will also be visually inspected and logged using the Unified Soil Classification System (USCS).

Two soil samples will be collected per boring based on field screening and visual inspection. This will yield a total of 12 soil samples. One sample will be from the one to three foot depth interval and one from a deeper interval based on field screening. The samples will be collected using syringes and injected directly into laboratory prepared containers with a methanol preservative. The samples will then be placed on ice and delivered to the analytical laboratory under a completed chain-of-custody. The samples will be analyzed for CVOCs by a Wisconsin certified laboratory.

1.3 Check Working Condition of Existing SSDS

In 2012, KPRG installed a SSDS in the vicinity of the defined PCE release. A follow-up round of field extension test readings will be taken by the installation contractor (RMES). In addition, a set of at least four PID readings will be taken over the course of a single day at the vent of the system. The readings will be recorded and submitted to the WDNR.

1.4 Additional Well Installations and Groundwater Sampling

KPRG will install two additional wells using hollow stem auger drilling. The well locations are shown on Figure 1. Well MW-5 will be a water table monitoring well installed to the north of existing well MW-2. The depth of this well is anticipated to be approximately 25 feet. A deeper piezometer (MW-3D) will also be installed adjacent to existing well MW-3. The depth of the piezometer is anticipated to be approximately 45 to 50 feet. Both wells will be constructed using schedule 40 PVC. The water table well will include a 10-foot screen and the piezometer will include a 5-foot screen. Surface completions will be flush mounts. All well construction will be performed in accordance with NR 141 requirements. Digger's Hotline will be contact to mark public utilities prior to drilling. In addition, a private locate firm will be contracted to check for additional private utilities within the proposed drilling locations.

Upon completion, the wells will be properly developed and the locations and top of casing elevations will be surveyed by a Wisconsin licensed surveyor.

One round of groundwater samples will be collected from the new and all existing wells plus an additional verification round of sampling for the two new wells will be performed. The full round of sampling will include 11 wells and a duplicate sample. The verification round will consist of two wells and a duplicate sample. This will yield a total of 15 groundwater samples. Groundwater sampling will be performed in accordance with procedures previously approved for the site. The samples will be preserved with hydrochloric acid, placed on ice and delivered to the analytical laboratory under a completed chain-of-custody. Samples will be analyzed for CVOCs by a Wisconsin certified laboratory.

1.5 Additional Site Investigation Addendum No. 2

All data generated will be summarized in a Site Investigation Addendum No. 2 report. The report will include an updated geologic cross-section per WDNR request. Any figures will also include the additional information requested by WDNR.

1.6 Investigation Derived Waste

Investigation derived waste (IDW) will be handled in accordance with previously approved practices for this site.

2.0 COST ESTIMATE

The above defined scope of work can be completed for an estimated cost of \$33,025. The estimated cost is summarized in Table 1 followed by detailed task costing sheets. The costs are based on the following assumptions:

- Four additional sub-slab soil vapor probes sampled for CVOCs. Standard analytical turnaround.
- Six additional soil borings with two soil samples per borings analyzed for CVOCs with a standard analytical turnaround.

- One-half day of RMES services to check on condition of existing SSDS system. No repairs will be necessary.
- Two new well installations followed by one full round of groundwater sampling and a second verification round of sampling for the two new wells..

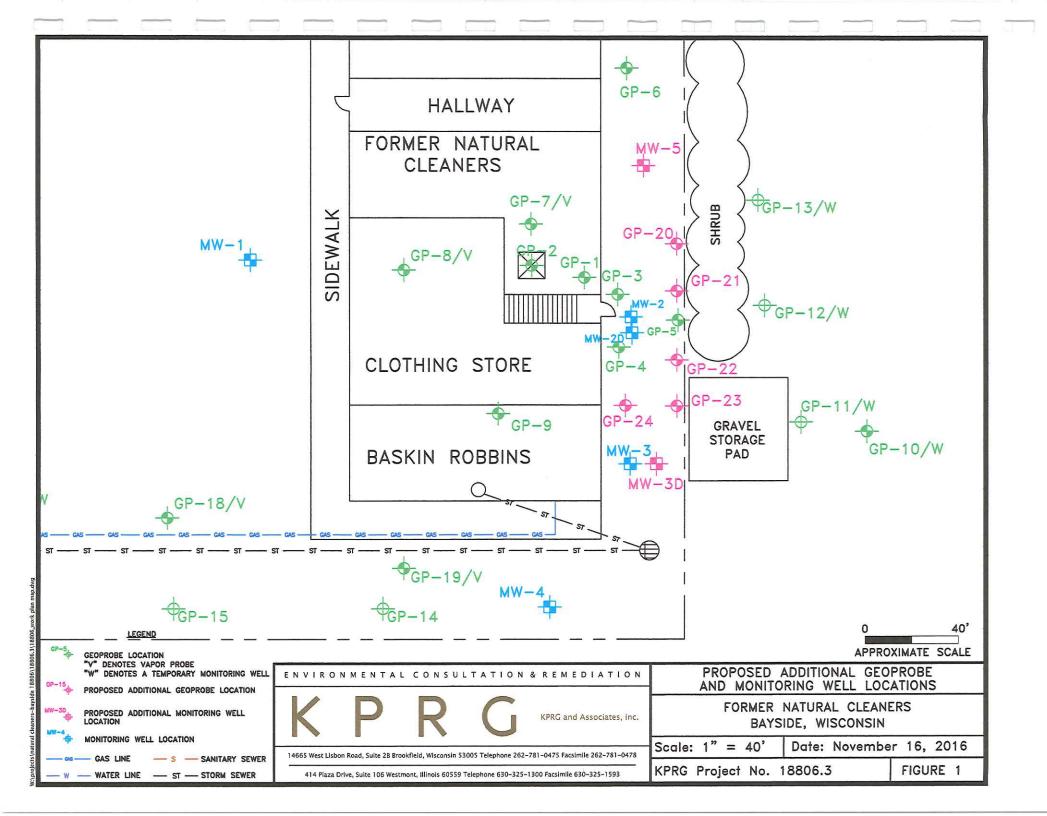


Table 1. Estimated Additional Work Cost Summary 11-16-16 - Natural Cleaners - Bayside, WI

					Contr	actors]
Task	KPRG Labor	Expenses	Analytical	Driller	SSDS Contractor	Surveyor	Private Locate	IDW Disp.	Totals
Interior Vapor Probe Installation/Sampling	\$2,870	\$1,175	\$700	\$0	\$0	\$0	\$0	\$0	\$4,745
2) Soil Borings/Sampling	\$1,425	\$180	\$910	\$1,800	\$0	\$0	\$0	\$175	\$4,490
3) SSDS System Check	\$460	\$110	\$0	\$0	\$1,500	\$0	\$0	\$0	\$2,070
Additional Well Installations and Groundwater Sampling	\$6,985	\$1,280	\$825	\$4,200	\$0	\$750	\$550	\$1,400	\$15,990
5) Additional SI Reporting	\$5,530	\$200	\$0	\$0	\$0	\$0	\$0	\$0	\$5,730
Totals	\$17,270	\$2,945	\$2,435	\$6,000	\$1,500	\$750	\$550	\$1,575	\$33,025

Project: Former Natural Cleaners, Bayside, WI

Task: 1 -Interior Vapor Probe Installation and Sampling

Professional Labor	Rate (\$/Hr.)		Units	<u>Total</u>
Principal/Proj. Mgr.	\$135		4	\$540.00
Field Eng./Sci.	\$70		32	\$2,240.00
CADD	\$60		0	\$0.00
Admin. Asst/ Word Proc.	\$45		2	\$90.00
			Total Labor	\$2,870.00
External Expenses	Rate	Type	Units	Total
Photoionization Detector	\$50	Daily	1	\$50.00
Field Vehicle	\$60	Daily	4	\$240.00
Hammer Drill	\$75	Daily	1	\$75.00
Vapor Pins	\$80	Each	4	\$320.00
Water Level Meter	\$25	Daily	0	\$0.00
Bailers	\$15	Each	0	\$0.00
Helium Test Kit	\$200	Daily	1	\$200.00
Summa Canisters/Controller	\$60	Each	4	\$240.00
Shipping	\$50	Est.	1	\$50.00
Access Agreement	\$250	Est.	0	\$0.00
•			Total Exp.	\$1,175.00
Contractors	Rate	Type	Units	Total
Analytical	\$55	VOC-Soil	0	\$0.00
•	\$55	VOC-Water	0	\$0.00
	\$144	NA Para Water	0	\$0.00
	\$35	TOC-Soil	0	\$0.00
	\$175	VOC-Vapor	4	\$700.00
	\$250	Profile	0	\$0.00
IDW Disposal	\$275	Per Drum Est	0	\$0.00
-		To	otal Contractors	\$700.00

TASK TOTAL: \$4,745.00

Project: Former Natural Cleaners, Bayside, WI

Task: 2 - Soil Borings/Sampling

Professional Labor	Rate (\$/Hr.)		Units	<u>Total</u>
Principal/Proj. Mgr.	\$135		4	\$ 540.0 0
Field Eng./Sci.	\$70		12	\$840.00
CADD	\$60		0	\$0.00
Admin. Asst/ Word Proc.	\$45		1	\$45.00
			Total Labor	\$1,425.00
External Expenses	<u>Rate</u>	Type	<u>Units</u>	<u>Total</u>
Photoionization Detector	\$50	Daily	1	\$50.00
Field Vehicle	\$60	Daily	1	\$60.00
Soil Sampling Supplies	\$20	Daily	1	\$20.00
GW Qual. Meters	\$150	Daily	o O	\$0.00
Water Level Meter	\$25	Daily	Ŏ	\$0.00
Bailers	\$15	Each	0	\$0.00
Slug Test Equip.	\$200	Daily	Ô	\$0.00
Summa Canisters	\$60	Each	0	\$0.00
Shipping	\$50	Est.	1	\$50.00
Permit	\$175	Est.	0	\$0.00
			Total Exp.	\$180.00
Contractors	Rate	<u>Type</u>	<u>Units</u>	<u>Total</u>
Drilling/Geoprobe	\$1,800	Est.	1	\$1,800.00
Surveyor	\$750	Est.	Ô	\$0.00
Analytical	\$55	VOC-Soil	12	\$660.00
•	\$250	Profile	1	\$250.00
IDW Disposal	\$175	Per Drum Est	1	\$175.00
		٦	Fotal Contractors	\$2,885.00

TASK TOTAL:	\$4,490.0)0[

Project: Former Natural Cleaners, Bayside, WI

Task: 3 - SSDS System Check

Professional Labor Principal/Proj. Mgr. Field Eng./Sci. CADD Admin. Asst/ Word Proc.	Rate (\$/Hr.) \$135 \$70 \$60 \$45		Units 1 4 0 1 Total Labor	Total \$135.00 \$280.00 \$0.00 \$45.00
External Expenses	<u>Rate</u>	<u>Туре</u>	<u>Units</u>	<u>Total</u>
Photoionization Detector	\$50	Daily	1	\$50.00
Field Vehicle	\$60	Daily	1	\$60.00
Soil Sampling Supplies	\$20	Daily	0	\$0.00
GW Qual. Meters	\$150	Daily	0	\$0.00
Water Level Meter	\$25	Daily	0	\$0.00
Bailers	\$15	Each	0	\$0.00
Slug Test Equip.	\$200	Daily	0	\$0.00
Summa Canisters	\$60	Each	0	\$0.00
Shipping	\$50	Est.	0	\$0.00
Permit	\$175	Est.	0	\$0.00
			Total Exp.	\$110.00
Contractors	<u>Rate</u>	<u>Type</u>	<u>Units</u>	Total
SSDS Contractor (RMES)	\$1,500	Est.	1	\$1,500.00
Surveyor	\$750	Est.	0	\$0.00
Analytical	\$55	VOC-Soil	0	\$0.00
	\$250	Profile	0	\$0.00
IDW Disposal	\$175	Per Drum Est	0	\$0.00
		Ţ.	otal Contractors	\$1,500.00

TASK TOTAL: \$2,070.0

Project: Former Natural Cleaners, Bayside, WI

Task: 4 - Additional Well Installations and Groundwater Sampling

Professional Labor	Rate (\$/Hr.)		<u>Units</u>	<u>Total</u>
Principal/Proj. Mgr.	\$135		12	\$1,620.00
Field Eng./Sci.	\$70		76	\$5,320.00
CADD	\$60		0	\$0.00
Admin. Asst/ Word Proc.	\$45		1	\$45.00
	·		Total Labor	\$6,985.00
External Expenses	Rate	Туре	<u>Units</u>	Total
Photoionization Detector	\$50	Daily	2	\$100.00
Field Vehicle	\$60	Daily	6	\$360.00
Soil Sampling Supplies	\$20	Daily	0	\$0.00
GW Qual. Meters	\$150	Daily	3	\$450.00
Water Level Meter	\$25	Daily	3	\$75.00
Bailers	\$15	Each	13	\$195.00
Slug Test Equip.	\$200	Daily	0	\$0.00
Summa Canisters	\$60	Each	0	\$0.00
Shipping	\$50	Est.	2	\$100.00
Permit	\$175	Est.	0	\$0.00
			Total Exp.	\$1,280.00
Contractors	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>
Drilling	\$4,200	Est.	1	\$4,200.00
Private Locate	\$550	Est.	1	\$550.00
Surveyor	\$750	Est.	1	\$750.00
Analytical	\$55	CVOC-W	15	\$825.00
	\$250	Profile	0	\$0.00
IDW Disposal	\$175	Per Drum Est	8	\$1,400.00
		T	otal Contractors	\$7,725.00

TASK TOTAL: \$15,990.00

Project: Former Natural Cleaners, Bayside, WI

Task: 5 - Additional SI Reporting

<u>Professional Labor</u> Principal/Proj. Mgr.	<u>Rate (\$/Hr.)</u> \$135		<u>Units</u> 16	<u>Total</u> \$2,160.00
Field Eng./Sci.	\$70		40	\$2,800.00
CADD	\$60		8	\$480.00
Admin. Asst/ Word Proc.	\$4 5		2	\$90.00
			Total Labor	\$5,530.00
External Expenses	Rate	Type	Units	Total
Reproduction	\$100	Est.	1	\$100.00
Field Vehicle	\$60	Daily	0	\$0.00
Soil Sampling Supplies	\$20	Daily	0	\$0.00
GW Qual. Meters	\$150	Daily	0	\$0.00
Water Level Meter	\$25	Daily	0	\$0.00
Bailers	\$15	Each	0	\$0.00
Slug Test Equip.	\$200	Daily	0	\$0.00
Summa Canisters	\$60	Each	0	\$0.00
Shipping	\$100	Est.	1	\$100.00
Permit	\$175	Est.	0	\$0.00
			Total Exp.	\$200.00
<u>Contractors</u>	Rate	Type	Units	Total
Drilling/Geoprobe	\$750	Lump Sum	0	\$0.00
Surveyor	\$750	Ést.	0	\$0.00
Analytical	\$50	VOC-Soil	0	\$0.00
	\$50	VOC-Water	0	\$0.00
	\$144	NA Para Water	0	\$0.00
	\$35	TOC-Soil	0	\$0.00
	\$180	VOC-Vapor	0	\$0.00
	\$250	Profile	0	\$0.00
IDW Disposal	\$175	Per Drum Est	0	\$0.00
		To	otal Contractors	\$0.00

TASK TOTAL:	\$5,730.00