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**From:** Chronert, Roxanne N - DNR  
**Sent:** Thursday, November 9, 2017 10:43 AM  
**To:** Ales, Stephen M - DNR  
**Cc:** Neste, David E - DNR; Lauridsen, Keld B - DNR  
**Subject:** FW: Kopatz Property - SSVS Results - Krivitz, WI (03-38-231379)  
**Attachments:** 0080\_001.pdf; 0081\_001.pdf

FYI – Yesterday Dave Neste was contact with Metco and told them to contact FD due to LEL. Dave will keep us posted today with updates.

**We are committed to service excellence.**

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

### Roxanne Nelezen Chronert

Northeast Region Remediation and Redevelopment Team Supervisor  
Wisconsin Department of Natural Resources  
2984 Shawano Avenue, Green Bay WI 54313-6727  
Phone: (920) 662-5120  
Cell Phone: (920) 362-3981  
Roxanne.chronert@Wisconsin.gov



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**From:** Jason Powell [mailto:jasonp@metcohq.com]  
**Sent:** Wednesday, November 08, 2017 11:32 AM  
**To:** Chronert, Roxanne N - DNR  
**Cc:** Ron Anderson  
**Subject:** FW: Kopatz Property - SSVS Results - Krivitz, WI (03-38-231379)

Roxanne, I am passing this information along to you as I see Tom is out until next week Monday.  
Any questions please call or email.  
Thanks,

### Jason Powell

**METCO** - Staff Scientist  
[jasonp@metcohq.com](mailto:jasonp@metcohq.com) / 608.781.8879  
709 Gillette Street - Suite 3, La Crosse WI 54603  
[www.metcohq.com](http://www.metcohq.com)

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**From:** Jason Powell  
**Sent:** Wednesday, November 08, 2017 11:23 AM  
**To:** 'Verstegen, Thomas - DNR' <[Thomas.Verstegen@wisconsin.gov](mailto:Thomas.Verstegen@wisconsin.gov)>  
**Cc:** Ron Anderson <[rona@metcohq.com](mailto:rona@metcohq.com)>  
**Subject:** Kopatz Property - SSVS Results - Krivitz, WI (03-38-231379)

Tom, attached are the data table, laboratory results, fieldnotes, photos, and Methods & Procedures.

Please note the levels found in VP-2 and VP-3 nearest the source area along with the field measured LEL noted as being >99%. Based on these results, will you be requiring an immediate action to address this? If you need anything from METCO please let us know.

No reporting costs were approved as part of this workscope, thus all the information and data is included in this email.

Thanks,

**Jason Powell**

**METCO - Staff Scientist**

[jasonp@metcohq.com](mailto:jasonp@metcohq.com) / 608.781.8879

709 Gillette Street - Suite 3, La Crosse WI 54603

[www.metcohq.com](http://www.metcohq.com)

A.4 Vapor Analytical Table  
 Sub-Slab Sampling Data Table for Kopatz Property  
 BY METCO

Sub-Slab Sampling conducted on October 20, 2017

<b>WDNR</b>  <b>Residential</b> <b>Sub-Slab Vapor Action</b> <b>Levels for Various VOCs</b>  <b>Quick Look-Up Table</b> <b>Updated June, 2017</b> <b>(ug/m<sup>3</sup>)</b>
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Sample ID	VP-1	VP-2	VP-3		
Benzene – ug/m <sup>3</sup>	422	910000	1050000	120	c
Carbon Tetrachloride – ug/m <sup>3</sup>	NS	NS	NS	160	c
Chloroform – ug/m <sup>3</sup>	NS	NS	NS	40	c
Chloromethane – ug/m <sup>3</sup>	NS	NS	NS	3100	n
Dichlorodifluoromethane – ug/m <sup>3</sup>	NS	NS	NS	3300	n
1,1-Dichloroethane (1,1-DCA) – ug/m <sup>3</sup>	NS	NS	NS	600	c
1,2-Dichloroethane (1,2-DCA) - ug/m <sup>3</sup>	NS	NS	NS	37	c
1,1-Dichloroethylene (1,1-DCE) – ug/m <sup>3</sup>	NS	NS	NS	7000	n
1,2-Dichloroethylene (cis and trans) - ug/m <sup>3</sup>	NS	NS	NS	NA	-
Ethylbenzene – ug/m <sup>3</sup>	108	361000	125000	370	c
Methylene chloride – ug/m <sup>3</sup>	NS	NS	NS	21000	n
Methyl Tert-Butyl Ether (MTBE) – ug/m <sup>3</sup>	<58.4	<5090	<5500	3700	c
Naphthalene – ug/m <sup>3</sup>	<52.2	<4550	<4920	28	c
Tetrachloroethylene -ug/m <sup>3</sup>	NS	NS	NS	1400	n
Toluene – ug/m <sup>3</sup>	259	573000	89200	170000	n
1,1,1-Trichloroethane – ug/m <sup>3</sup>	NS	NS	NS	170000	n
Trichloroethylene – ug/m <sup>3</sup>	NS	NS	NS	70	n
Trichlorofluoromethane (Halcarbon 11) – ug/m <sup>3</sup>	NS	NS	NS	NA	-
Trimethylbenzene (1,2,4) – ug/m <sup>3</sup>	113	442000	35600	2100	n
Trimethylbenzene (1,3,5) – ug/m <sup>3</sup>	<36.0	238000	28100	2100	n
Vinyl chloride – ug/m <sup>3</sup>	NS	NS	NS	57	c
Xylene (total) -ug/m <sup>3</sup>	538	4300000	823800	3300	n

ug/m<sup>3</sup> = Micrograms per cubic meter.

< = Less than the reporting limit indicated in parentheses.

**Bold = Sub-Slab Standard Exceedance**

c = Carcinogen

n = Non Carcinogen

J = between Limit of Detection (LOD) and Limit of Quantitation (LOQ)

**\* Please note that other VOCs were detected that are not on the WDNR Sub-Slab Vapor Action Levels Quick Look-Up Table.**

B = Compound was found in the blank and sample

E = Result exceeded calibration range

- = Inhalation toxicity values are not available from U.S. EPA

NS = Not Sampled



November 06, 2017

Andy Delforge  
REI Engineering  
4080 N. 20th Ave  
Wausau, WI 54401

RE: Project: 7396 Kopatz Property  
Pace Project No.: 10408323

Dear Andy Delforge:

Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 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,

Megan McCabe  
megan.mccabe@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 7396 Kopatz Property  
Pace Project No.: 10408323

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### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485  
A2LA Certification #: 2926.01  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014  
Arkansas Certification #: 88-0680  
California Certification #: 2929  
CNMI Saipan Certification #:MP0003  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605  
Georgia Certification #: 959  
Guam EPA Certification #: MN00064  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
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  
Massachusetts Certification #: M-MN064

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 DEP Certification #: 382  
Wisconsin Certification #: 999407970

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### SAMPLE SUMMARY

Project: 7396 Kopatz Property  
Pace Project No.: 10408323

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10408323001	VP-1	Air	10/20/17 11:43	10/24/17 12:05
10408323002	VP-2	Air	10/20/17 12:05	10/24/17 12:05
10408323003	VP-3	Air	10/20/17 12:31	10/24/17 12:05

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### SAMPLE ANALYTE COUNT

Project: 7396 Kopatz Property

Pace Project No.: 10408323

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10408323001	VP-1	TO-15	MJL	9	PASI-M
10408323002	VP-2	TO-15	MJL	9	PASI-M
10408323003	VP-3	TO-15	MJL	9	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 7396 Kopatz Property  
 Pace Project No.: 10408323

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: VP-1</b> <b>Lab ID: 10408323001</b> Collected: 10/20/17 11:43      Received: 10/24/17 12:05      Matrix: Air									
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Benzene	422	ug/m3	28.4	13.2	87.5		11/05/17 22:17	71-43-2	
Ethylbenzene	108	ug/m3	77.0	15.0	87.5		11/05/17 22:17	100-41-4	
Methyl-tert-butyl ether	<58.4	ug/m3	321	58.4	87.5		11/05/17 22:17	1634-04-4	
Naphthalene	<52.2	ug/m3	233	52.2	87.5		11/05/17 22:17	91-20-3	
Toluene	259	ug/m3	67.4	13.9	87.5		11/05/17 22:17	108-88-3	
1,2,4-Trimethylbenzene	113	ug/m3	87.4	15.0	87.5		11/05/17 22:17	95-63-6	
1,3,5-Trimethylbenzene	<36.0	ug/m3	87.4	36.0	87.5		11/05/17 22:17	108-67-8	
m&p-Xylene	400	ug/m3	155	30.5	87.5		11/05/17 22:17	179601-23-1	
o-Xylene	138	ug/m3	77.0	32.5	87.5		11/05/17 22:17	95-47-6	

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: VP-2</b> <b>Lab ID: 10408323002</b> Collected: 10/20/17 12:05      Received: 10/24/17 12:05      Matrix: Air									
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Benzene	910000	ug/m3	2480	1150	7628.8		11/05/17 21:43	71-43-2	E
Ethylbenzene	361000	ug/m3	6710	1300	7628.8		11/05/17 21:43	100-41-4	
Methyl-tert-butyl ether	<5090	ug/m3	28000	5090	7628.8		11/05/17 21:43	1634-04-4	
Naphthalene	<4550	ug/m3	20300	4550	7628.8		11/05/17 21:43	91-20-3	
Toluene	573000	ug/m3	5870	1210	7628.8		11/05/17 21:43	108-88-3	
1,2,4-Trimethylbenzene	442000	ug/m3	7620	1310	7628.8		11/05/17 21:43	95-63-6	
1,3,5-Trimethylbenzene	238000	ug/m3	7620	3140	7628.8		11/05/17 21:43	108-67-8	
m&p-Xylene	3210000	ug/m3	13500	2660	7628.8		11/05/17 21:43	179601-23-1	E
o-Xylene	1090000	ug/m3	6710	2830	7628.8		11/05/17 21:43	95-47-6	

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>Sample: VP-3</b> <b>Lab ID: 10408323003</b> Collected: 10/20/17 12:31      Received: 10/24/17 12:05      Matrix: Air									
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Benzene	1050000	ug/m3	2680	1240	8243.2		11/05/17 21:09	71-43-2	E
Ethylbenzene	125000	ug/m3	7250	1410	8243.2		11/05/17 21:09	100-41-4	
Methyl-tert-butyl ether	<5500	ug/m3	30200	5500	8243.2		11/05/17 21:09	1634-04-4	
Naphthalene	<4920	ug/m3	21900	4920	8243.2		11/05/17 21:09	91-20-3	
Toluene	89200	ug/m3	6350	1310	8243.2		11/05/17 21:09	108-88-3	
1,2,4-Trimethylbenzene	35600	ug/m3	8230	1420	8243.2		11/05/17 21:09	95-63-6	
1,3,5-Trimethylbenzene	28100	ug/m3	8230	3400	8243.2		11/05/17 21:09	108-67-8	
m&p-Xylene	727000	ug/m3	14600	2880	8243.2		11/05/17 21:09	179601-23-1	
o-Xylene	96800	ug/m3	7250	3060	8243.2		11/05/17 21:09	95-47-6	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 7396 Kopatz Property  
Pace Project No.: 10408323

QC Batch: 506655 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10408323001, 10408323002, 10408323003

METHOD BLANK: 2754231 Matrix: Air  
Associated Lab Samples: 10408323001, 10408323002, 10408323003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	<0.17	1.0	11/05/17 13:51	
1,3,5-Trimethylbenzene	ug/m3	<0.41	1.0	11/05/17 13:51	
Benzene	ug/m3	<0.15	0.32	11/05/17 13:51	
Ethylbenzene	ug/m3	<0.17	0.88	11/05/17 13:51	
m&p-Xylene	ug/m3	<0.35	1.8	11/05/17 13:51	
Methyl-tert-butyl ether	ug/m3	<0.67	3.7	11/05/17 13:51	
Naphthalene	ug/m3	<0.60	2.7	11/05/17 13:51	
o-Xylene	ug/m3	<0.37	0.88	11/05/17 13:51	
Toluene	ug/m3	<0.16	0.77	11/05/17 13:51	

LABORATORY CONTROL SAMPLE: 2754232

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	61.3	123	70-136	
1,3,5-Trimethylbenzene	ug/m3	50	61.3	123	70-133	
Benzene	ug/m3	32.5	40.7	125	70-130	
Ethylbenzene	ug/m3	44.1	55.3	125	70-134	
m&p-Xylene	ug/m3	88.3	109	124	70-130	
Methyl-tert-butyl ether	ug/m3	91.6	113	124	66-148	
Naphthalene	ug/m3	53.3	54.5	102	53-150	
o-Xylene	ug/m3	44.1	54.3	123	70-130	
Toluene	ug/m3	38.3	46.3	121	70-130	

SAMPLE DUPLICATE: 2754325

Parameter	Units	10408616021 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	1.9	1.9	0	25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.61		25	
Benzene	ug/m3	2.5	2.5	1	25	
Ethylbenzene	ug/m3	ND	0.91J		25	
m&p-Xylene	ug/m3	3.9	3.9	0	25	
Methyl-tert-butyl ether	ug/m3	ND	<0.99		25	
Naphthalene	ug/m3	ND	<0.89		25	
o-Xylene	ug/m3	1.4	1.4	1	25	
Toluene	ug/m3	8.2	8.1	1	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.

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**QUALITY CONTROL DATA**

Project: 7396 Kopatz Property

Pace Project No.: 10408323

SAMPLE DUPLICATE: 2754326

Parameter	Units	10408616023 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	2.3	2.3	2	25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.59		25	
Benzene	ug/m3	3.1	3.3	4	25	
Ethylbenzene	ug/m3	1.4	1.5	3	25	
m&p-Xylene	ug/m3	5.8	5.9	3	25	
Methyl-tert-butyl ether	ug/m3	ND	<0.96		25	
Naphthalene	ug/m3	ND	<0.86		25	
o-Xylene	ug/m3	2.0	2.0	3	25	
Toluene	ug/m3	9.7	10	3	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: 7396 Kopatz Property  
Pace Project No.: 10408323

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### 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

### SAMPLE QUALIFIERS

Sample: 10408323002

- [1] This result is reported from a serial dilution.
- [2] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

Sample: 10408323003

- [1] This result is reported from a serial dilution.
- [2] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 7396 Kopatz Property  
Pace Project No.: 10408323

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10408323001	VP-1	TO-15	506655		
10408323002	VP-2	TO-15	506655		
10408323003	VP-3	TO-15	506655		

### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

10408323

28170

Page: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: <u>REI</u>	Report To: <u>AD</u>	Attention: <u>AD</u>			
Address: <u>4030 N. 20th Ave</u>	Copy To:	Company Name: <u>REI</u>			
<u>Wausau, WI 54401</u>		Address: <u>adelaide@reiengineering.com</u>			
Email To: <u>adelaide@reiengineering.com</u>	Purchase Order No.:	Pace Quote Reference:			
Phone: <u>715-615-9739</u>	Project Name: <u>Relax 2 P/W</u>	Pace Project Manager/Sales Rep.:			
Requested Due Date/TAT:	Project Number: <u>7396</u>	Pace Profile #:			

Program

JUST  Superfund  Emissions  Clean Air Act

Voluntary Clean Up  Dry Clean  RCRA  Other

Location of Sampling by State: WI

Reporting Units:  
 ug/m<sup>3</sup> 3 mg/m<sup>3</sup> \_\_\_  
 PPBV \_\_\_ PPMV \_\_\_  
 Other: \_\_\_

Report Level: I. \_\_\_ II. \_\_\_ III. \_\_\_ IV. \_\_\_ Other: \_\_\_

ITEM #	Section D Required Client Information		Valid Media Codes MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID
	AIR SAMPLE ID				COMPOSITE START		COMPOSITE -						TO-10	TO-11	TO-12	TO-13	TO-14	TO-15	TO-16	TO-17	
	Sample IDs MUST BE UNIQUE	CODE			DATE	TIME	DATE	TIME													
1	UP-1	6LC 18	10/20/17	11:43	31	9	0701	FC591										001			
2	UP-2	6LC 99	↓	11:38	↓	29.5	7	0628	FC028									002			
3	UP-3	6LC 21	↓	12:01	↓	285	5.5	1675	FC503									003			
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments :	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
				<u>Mr PAUL</u>	<u>10/24/17</u>	<u>1205</u>	<u>AKB</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>
							Y/N	Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: A. DeBry

SIGNATURE OF SAMPLER: [Signature]

DATE Signed (MM/DD/YY): 10/24/17

Temp in °C

Received on Ice

Custody Sealed Cooler

Samples Intact

ORIGINAL

**Air Sample Condition Upon Receipt**      **Client Name:** REI      **Project #:** WO# : 10408323

**Courier:**  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other: \_\_\_\_\_

**Tracking Number:** 7476 3001 9244



**Custody Seal on Cooler/Box Present?**  Yes  No      **Seals Intact?**  Yes  No

**Packing Material:**  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_

**Temp. (TO17 and TO13 samples only) (°C):** \_\_\_\_\_      **Corrected Temp (°C):** \_\_\_\_\_      **Thermom. Used:**  151401163  
 G87A9155100842

**Temp should be above freezing to 6°C**      **Correction Factor:** \_\_\_\_\_      **Date & Initials of Person Examining Contents:** WDS 10/24/17

**Type of ice Received**  Blue  Wet  None

		Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag    Filter    TDT    Passive		11. individually Certified Cans    Y <u>N</u> (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

**Samples Received:** FFFT

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>VP-1</u>			<u>-7</u>	<u>15</u>					
<u>VP-2</u>	<u>0568</u>	<u>0628</u>	<u>-3</u>	<u>"</u>					
<u>VP-3</u>		<u>5103</u>	<u>-5</u>	<u>"</u>					

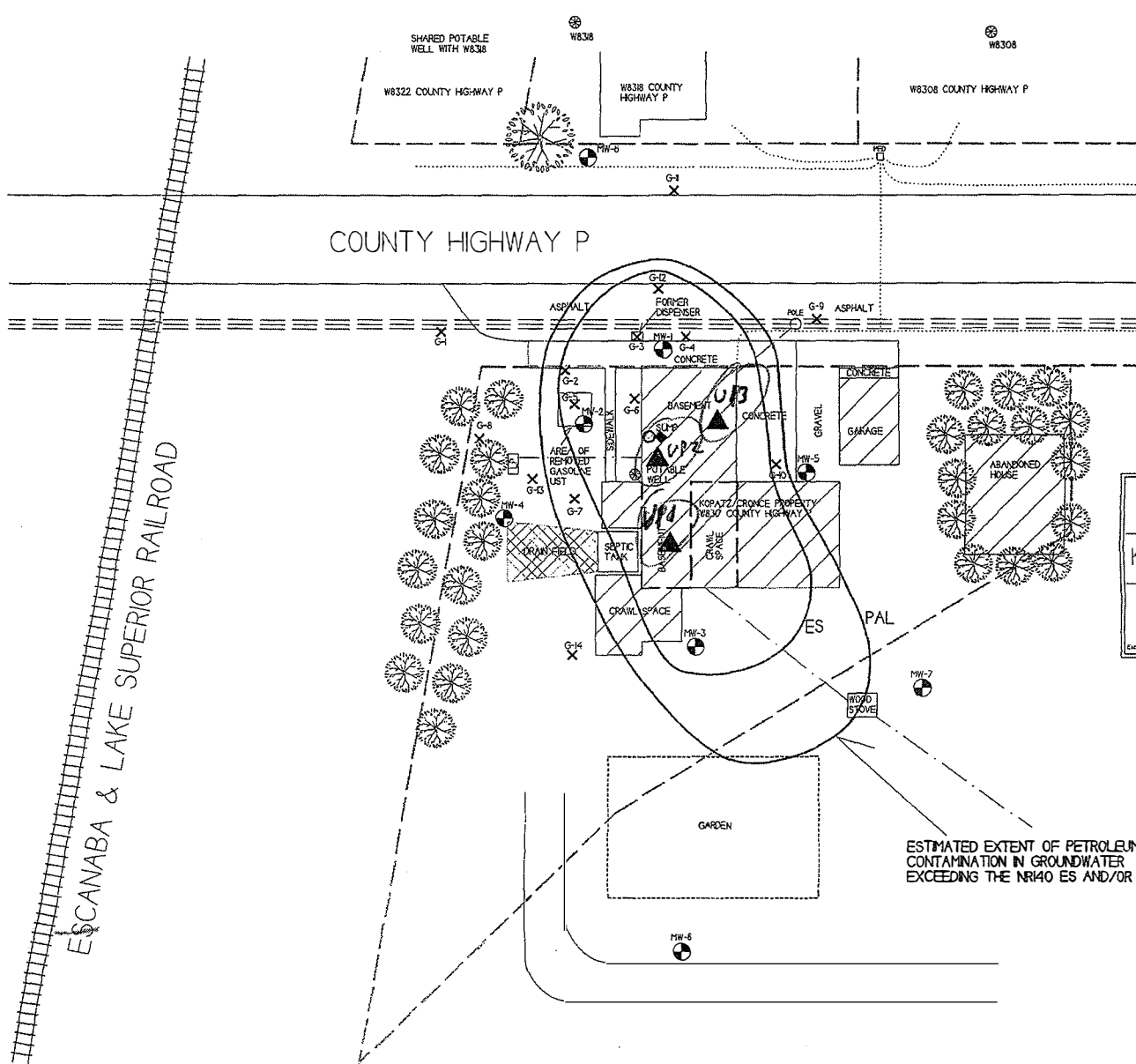
**CLIENT NOTIFICATION/RESOLUTION**      **Field Data Required?**  Yes  No

**Person Contacted:** \_\_\_\_\_      **Date/Time:** \_\_\_\_\_

**Comments/Resolution:** TO15 short list: PVOCs and Naphthalene per A. Delforge 10/25

**Project Manager Review:** Megan McCalve      **Date:** 10/25/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

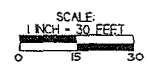


W8302

W8308

W838

COUNTY HIGHWAY P



<b>B.3.b GROUNDWATER ISOCONCENTRATION (10/10/16)</b>	
<b>KOPATZ/CRONCE PROPERTY</b>	
	<small>709 Glacis Street, Suite 3 La Crosse, WI 54603 Tel: (608) 781-8879 Fax: (608) 781-8892</small>
	<small>BEAVER WISCONSIN DRAWN BY: ED 07/05/2006 UPDATED BY: LD 07/09/2006</small>

NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER

- Proposed SSUS Location
- INDOOR AIR SAMPLE LOCATION
- GEOPROBE BORING LOCATION
- POTABLE WELL LOCATION
- MONITORING WELL LOCATION

- HOT WATER LINE
- GAS LINE
- OVER-HEAD ELECTRIC LINE
- TELEPHONE/CABLE LINE
- PROPERTY BOUNDARY

ESTIMATED EXTENT OF PETROLEUM CONTAMINATION IN GROUNDWATER EXCEEDING THE NR140 ES AND/OR PAL.

ESCANABA & LAKE SUPERIOR RAILROAD

7/20/17 20P42 POP.

VP-1

Can# ~~033553~~ 0701  
PC# 591 O<sub>2</sub> - 20.9 %  
Initial Ute 31 LCL - 0 %  
Start 11:12 CO - 0 PPM  
End 11:23 H<sub>2</sub>S - 0 PPM  
End Ute 9 Wc - 18  
CH<sub>4</sub> - 0.5%

VP-2

Can# 0568 O<sub>2</sub> - 3.5%  
PC# FC0628 LCL 799%  
Initial Ute 29.5 CO 7499 PPM  
Start 11:31 H<sub>2</sub>S 7.2 PPM  
End 12:05 Wc 99  
End Ute 4 CH<sub>4</sub> 0.3%

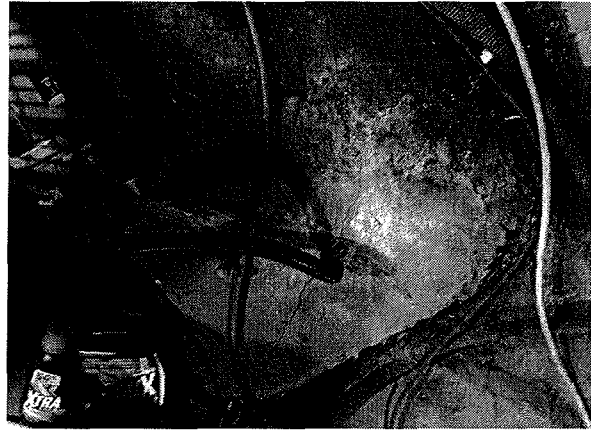
VP3

Can# 1675  
PC# 563  
Initial Ute - 28.5  
Start 12:01 O<sub>2</sub> 5.5 % CH<sub>4</sub> - 0.2%  
End 12:31 LCL 799 %  
End Ute - 6 CO 7499 PPM  
H<sub>2</sub>S 7.0 PPM  
Wc 21

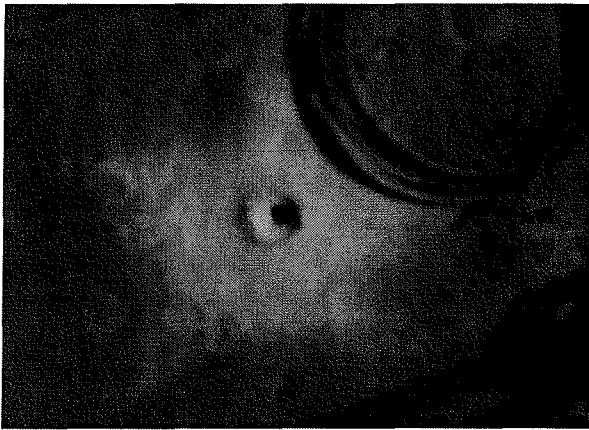




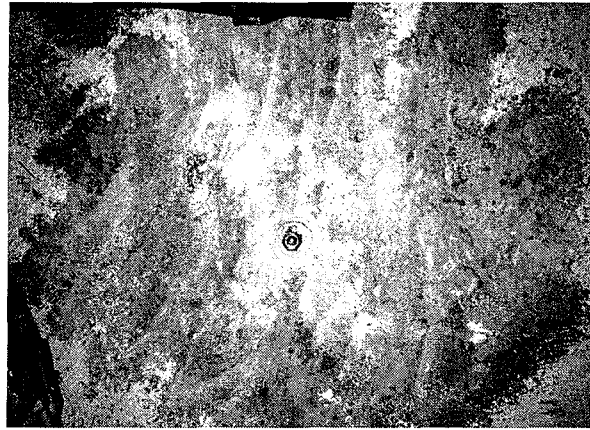
VP-1 location, adjacent to multiple cracks in concrete



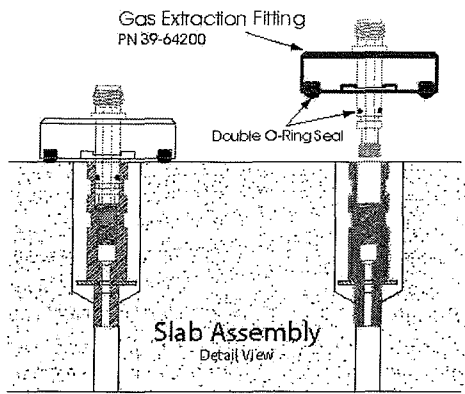
Vacuuming dust from drill hole - VP-1



VP-2 Drillhole



VP-2 probe placed



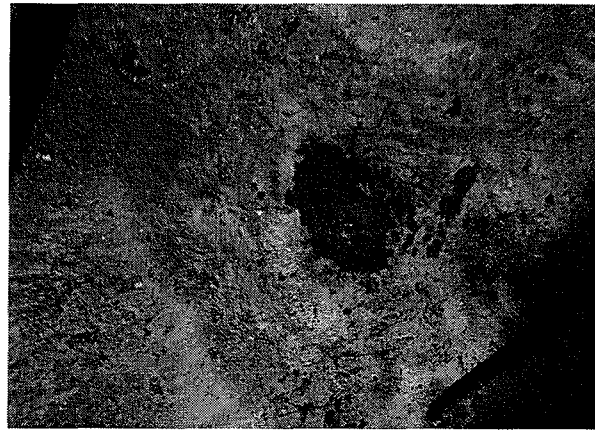
Thumbwheel Cap w/Chain  
*Never loose an end cap again!*

Gas Extraction  
PN: 39-64200  
(Available Separately)

Figure 1  
Cross section of vapor probe and connections



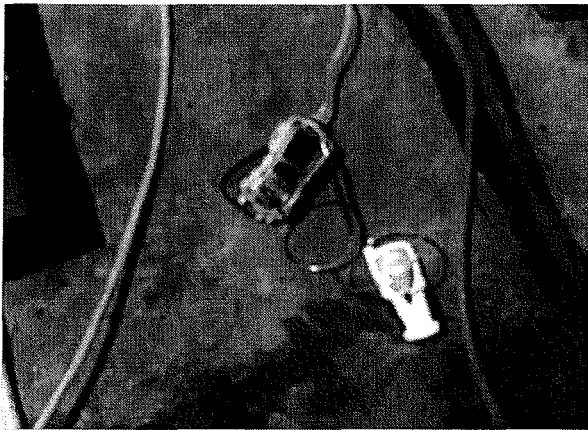
VP-1 grouted



VP-2 grouted



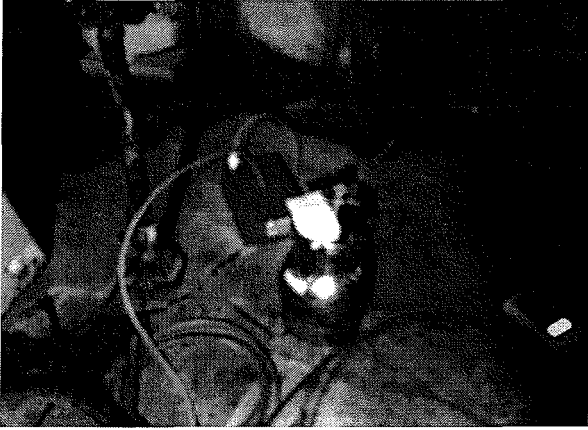
VP-3 grouted



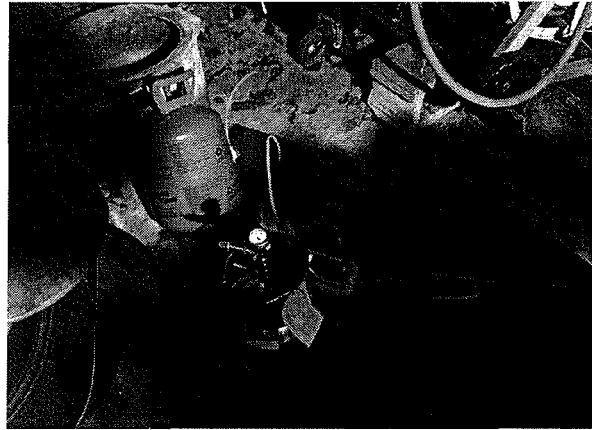
Purging VP-1, helium leak detector, PID, %O<sub>2</sub>, LEL, Methane, CO



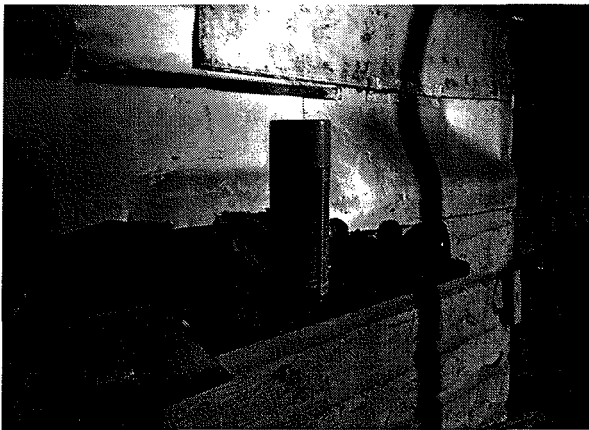
Helium shroud, Summa can connected VP-1



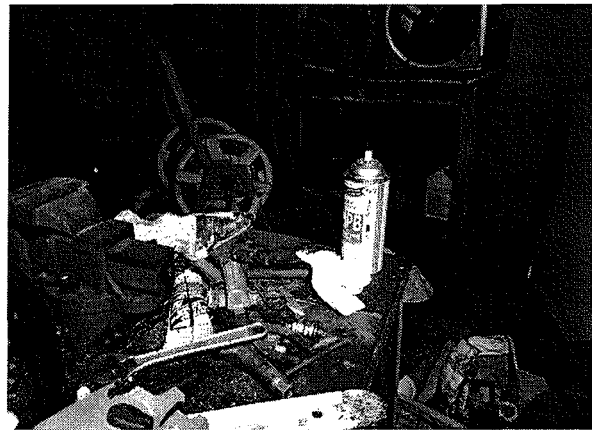
VP-2



VP-3



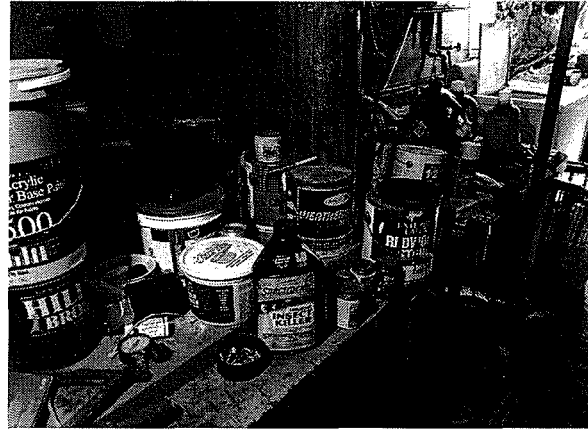
Additional vapor sources



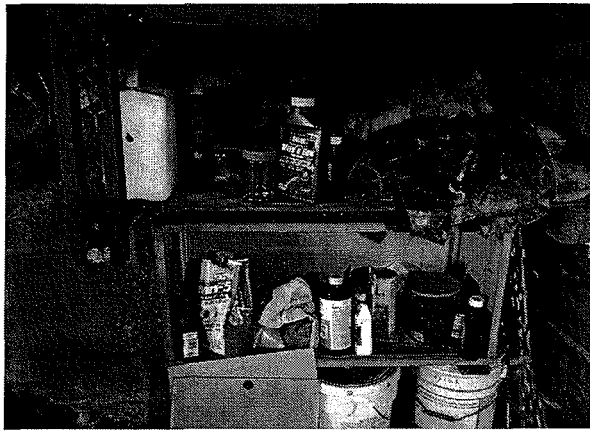
Additional vapor sources



Additional vapor sources



Additional vapor sources



Additional vapor sources

# METHODS AND PROCEDURES FOR INTERIOR VAPOR SAMPLE COLLECTION

Interior sampling will be conducted by the installation of a permanent sample port purchased from Entech Instruments, Inc. (Part #01-39-640020) and installed using a hammer drill with a 3/8" bit through the concrete slab and a 3/4" bit to a depth of approximately 2" to set the probe. The probes will be set in place using anchoring cement. Due to the type of sample port used, REI will use Entech part # 39-64200 – Gas Extraction Fitting. Samples will be collected using one liter Summa Canister and a helium shroud. The helium shroud consists of a three gallon polyethylene box placed over the sample port. The sample tubing is connected to the sample port through the gas extraction fitting, and the tubing passes through the helium shroud. Helium is introduced through a valve in the top of the helium shroud and a vacuum pump is used to purge the sample line. Four volumes of air were removed from the tubing and the purge air monitored for the presence of helium using an Restek Electronic Leak detector. Once the line was purged, and the helium detector showed the seal was adequate, the Summa Canister was connected to the sample line and allowed to fill for 30 minutes through a 30 minute flow restrictor.

