

From: Jason Powell <jasonp@metcohq.com>
Sent: Monday, January 20, 2020 11:29 AM
To: Neumann, Riley D - DNR
Subject: Auto Repair on Vliet - SSVS Results - Milwaukee, WI (03-41-286924)
(53205-1833-81-A)
Attachments: 0198_001.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

Riley, attached are the SSVS Data Table, Field Notes, and Laboratory Report.

As you can see the one sample (SSVS-1) collected in the slab-on-grade portion (shop area) is low level detects with no Residential or Small Commercial VAL exceedences and PID listed as 0.0 ppm.

However, sample SSVS-2 came back with a Small Commercial Building VAL exceedence for Ethylbenzene (2,010 ug/m3). This sample was collected from the basement area of the building and did show a PID reading of 305.7 ppm at the time of sampling. Also, please note that sample SSVS-2 did have elevated tentatively identified compounds (Butanes, Pentanes, and Hexanes) noted in the sample.

Based on these results, will another sub slab vapor sample be required from the basement area? If so, another port will have to be installed and sampled as the first was installed as temporary sampling locations. Or will a mitigation system be required at this time based on the levels?

An indoor air sample may not be representative with the heating oil AST in the basement and first floor being part of an Auto Repair Shop.

Once the laboratory results are received from the last groundwater sampling event, we will be preparing a Letter Report.

Thanks,



Jason Powell

METCO - Staff Scientist

jasonp@metcohq.com / 608.781.8879

709 Gillette Street - Suite 3, La Crosse WI 54603

www.metcohq.com

A.4 Vapor Analytical Table
Sub-Slab Sampling Data Table for Auto Repair on Vliet
BY METCO

Sub-Slab Sampling conducted on January 7, 2020

WDNR

Small Commercial
Sub-Slab Vapor Action
Levels for Various VOCs

Quick Look-Up Table
Updated November, 2017

Sample ID	WDNR		(ug/m ³)	
	SSVS-1	SSVS-2		
Benzene – ug/m ³	0.69	314	530	c
Carbon Tetrachloride – ug/m ³	NS	NS	670	c
Chloroform – ug/m ³	NS	NS	180	c
Chloromethane – ug/m ³	NS	NS	13000	n
Dichlorodifluoromethane – ug/m ³	NS	NS	15000	n
1,1-Dichloroethane (1,1-DCA) – ug/m ³	NS	NS	2600	c
1,2-Dichloroethane (1,2-DCA) - ug/m ³	NS	NS	160	c
1,1-Dichloroethylene (1,1-DCE) – ug/m ³	NS	NS	29000	n
1,2-Dichloroethylene (cis and trans) - ug/m ³	NS	NS	NA	-
Ethylbenzene – ug/m ³	<0.42	2010	1600	c
Methylene chloride – ug/m ³	NS	NS	87000	n
Methyl Tert-Butyl Ether (MTBE) – ug/m ³	<0.92	<244	16000	c
Naphthalene – ug/m ³	<1.8	<483	120	c
Tetrachloroethylene -ug/m ³	NS	NS	6000	n
Toluene – ug/m ³	2.2	1010	730000	n
1,1,1-Trichloroethane – ug/m ³	NS	NS	730000	n
Trichloroethylene – ug/m ³	NS	NS	290	n
Trichlorofluoromethane (Halcarbon 11) – ug/m ³	NS	NS	NA	-
Trimethylbenzene (1,2,4) – ug/m ³	1.4	1010	8700	n
Trimethylbenzene (1,3,5) – ug/m ³	<0.55	549	8700	n
Vinyl chloride – ug/m ³	NS	NS	930	c
Xylene (total) -ug/m ³	<1.45	3110	15000	n

ug/m³ = Micrograms per cubic meter.

< = Less than the reporting limit indicated in parentheses.

Bold = Sub-Slab Standard Exceedance

NS = Not sampled

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

Please note that the dilution factor (DF) for sample **SSVS-2** was 368.6 times thus giving elevated Limits of Detection (LOD) for the PVOC and Naphthalene compounds. This was due to elevated levels of the tentatively identified Compounds below:

1/7/2020

Isobutane	25500J	ppbv
Butane	63700J	ppbv
Pentane	59900J	ppbv
Pentane, 2-methyl-	72000J	ppbv
Pentane, 3-methyl-	35600J	ppbv
Cyclopentane, methyl-	39200J	ppbv
Pentane, 2,3,4-trimethyl	61.3J	ppbv
1-Hexanol 3,-methy-	19000J	ppbv
Cyclopentane 1,2,3-trim	309J	ppbv
Hexane, 2,3-dimethyl-	279J	ppbv
Cyclohexane, 1,3-dimethy	2500J	ppbv

A.4 Vapor Analytical Table
 Sub-Slab Sampling Data Table for Auto Repair on Vliet
 BY METCO

Sub-Slab Sampling conducted on January 7, 2020

WDNR
Residential
Sub-Slab Vapor Action
Levels for Various VOCs
Quick Look-Up Table
Updated November, 2017

Sample ID	WDNR		(ug/m ³)	
	SSVS-1	SSVS-2		
Benzene – ug/m ³	0.69	314	120	c
Carbon Tetrachloride – ug/m ³	NS	NS	160	c
Chloroform – ug/m ³	NS	NS	40	c
Chloromethane – ug/m ³	NS	NS	3100	n
Dichlorodifluoromethane – ug/m ³	NS	NS	3300	n
1,1-Dichloroethane (1,1-DCA) – ug/m ³	NS	NS	600	c
1,2-Dichloroethane (1,2-DCA) – ug/m ³	NS	NS	37	c
1,1-Dichloroethylene (1,1-DCE) – ug/m ³	NS	NS	7000	n
1,2-Dichloroethylene (cis and trans) – ug/m ³	NS	NS	NA	-
Ethylbenzene – ug/m ³	<0.42	2010	370	c
Methylene chloride – ug/m ³	NS	NS	21000	n
Methyl Tert-Butyl Ether (MTBE) – ug/m ³	<0.92	<244	3700	c
Naphthalene – ug/m ³	<1.8	<483	28	c
Tetrachloroethylene -ug/m ³	NS	NS	1400	n
Toluene – ug/m ³	2.2	1010	170000	n
1,1,1-Trichloroethane – ug/m ³	NS	NS	170000	n
Trichloroethylene – ug/m ³	NS	NS	70	n
Trichlorofluoromethane (Halcarbon 11) – ug/m ³	NS	NS	NA	-
Trimethylbenzene (1,2,4) – ug/m ³	1.4	1010	2100	n
Trimethylbenzene (1,3,5) – ug/m ³	<0.55	549	2100	n
Vinyl chloride – ug/m ³	NS	NS	57	c
Xylene (total) -ug/m ³	<1.45	3110	3300	n

ug/m³ = Micrograms per cubic meter.

< = Less than the reporting limit indicated in parentheses.

Bold = Sub-Slab Standard Exceedance

NS = Not sampled

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

Please note that the dilution factor (DF) for sample SSVS-2 was 368.6 times thus giving elevated Limits of Detection (LOD) for the PVOC and Naphthalene compounds. This was due to elevated levels of the tentatively identified Compounds below:

	1/7/2020	
Isobutane	25500J	ppbv
Butane	63700J	ppbv
Pentane	59900J	ppbv
Pentane, 2-methyl-	72000J	ppbv
Pentane, 3-methyl-	35600J	ppbv
Cyclopentane, methyl-	39200J	ppbv
Pentane, 2,3,4-trimethyl	61.3J	ppbv
1-Hexanol 3,-methy-	19000J	ppbv
Cyclopentane 1,2,3-trim	309J	ppbv
Hexane, 2,3-dimethyl-	279J	ppbv
Cyclohexane, 1,3-dimethy	2500J	ppbv

Vapor Pin® Installation and Soil Vapor Sampling Form

Project No.: B1911680 Sample ID: SSVS-1

Project Name: Auto Repair on Vliet Date: 1-7-2020

Location: 2481 W Vliet St. Personnel: David Bradshaw
Milw., WI

Radon or VOC mitigation system in building? Present Operating

Equipment

- | | | |
|--|--|--|
| <input type="checkbox"/> Air canister & connectors | <input type="checkbox"/> Shut-in Test assembly | <input type="checkbox"/> Covers (permanent installation) |
| <input type="checkbox"/> Air Chain-of-Custody form | <input type="checkbox"/> Vapor Pin® kit | <input type="checkbox"/> Shop-Vac / broom & dustpan |
| <input type="checkbox"/> Hammer drill and bit(s) | <input type="checkbox"/> Vapor Pin® toolbox | <input type="checkbox"/> Concrete patch |
| <input type="checkbox"/> Extension cord | <input type="checkbox"/> PID # <u>0070</u> | |

Vapor Pin® Installation

Installation Date: 1-7-2020

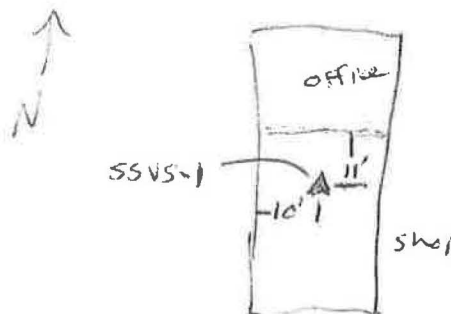
Installation Type:

- Temporary
 Permanent
 Stainless steel cover
 Plastic cover

Concrete Thickness (inches): 6.5"

Concrete patch (if temporary)

Sketch of pin location with measurements to walls:



Soil Vapor Sampling

Relative sub-slab pressure (±pascals): 0.0

Water dam test passed

Shut-in test passed

Purged 200 mL air prior to sampling

Sampling Canister ID: 0738
 1 Liter 6 Liters

Flow Controller ID: FC1187
 None 200 mL/min

Canister Vacuum on Label ("Hg): -30

Canister Initial Vacuum ("Hg): -30

Do not use the canister if the difference between the label and initial vacuum is >4"Hg or if the initial is <25"Hg.

Collection Start Time: 09:36

The final vacuum must be <5"Hg or at least 20"Hg less than the initial vacuum.

Canister Final Vacuum ("Hg): 10.18

Collection End Time: -3

PID Reading (ppm): 0.0

Notes:

Concrete in good condition
Patched w/ vinyl concrete repair

Vapor Pin® Installation and Soil Vapor Sampling Form

Project No.: B1911680

Sample ID: SSVS-2

Project Name: Auto Repair on Vliet

Date: 1-7-2020

Location: 2481 W. Vliet St.
Milw., WI

Personnel: David Bradshaw

Radon or VOC mitigation system in building? Present Operating

Equipment

- | | | |
|--|--|--|
| <input type="checkbox"/> Air canister & connectors | <input type="checkbox"/> Shut-in Test assembly | <input type="checkbox"/> Covers (permanent installation) |
| <input type="checkbox"/> Air Chain-of-Custody form | <input type="checkbox"/> Vapor Pin® kit | <input type="checkbox"/> Shop-Vac / broom & dustpan |
| <input type="checkbox"/> Hammer drill and bit(s) | <input type="checkbox"/> Vapor Pin® toolbox | <input type="checkbox"/> Concrete patch |
| <input type="checkbox"/> Extension cord | <input type="checkbox"/> PID # <u>0070</u> | |

Vapor Pin® Installation

Installation Date: 1-7-2020

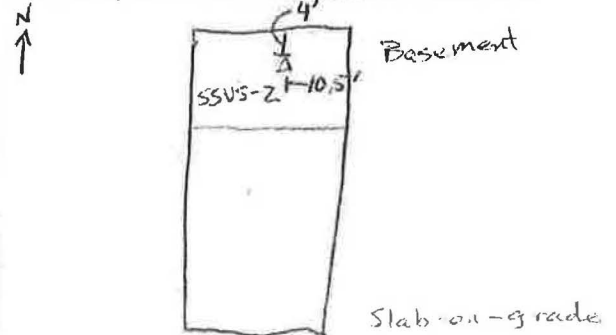
Installation Type:

- Temporary
 Permanent
 Stainless steel cover
 Plastic cover

Concrete Thickness (inches): 3"

Concrete patch (if temporary)

Sketch of pin location with measurements to walls:



Soil Vapor Sampling

Relative sub-slab pressure (±pascals): 0.0

Canister Vacuum on Label ("Hg): -30

Water dam test passed

Canister Initial Vacuum ("Hg): -29

Shut-in test passed

Do not use the canister if the difference between the label and initial vacuum is >4"Hg or if the initial is <25"Hg.

Purged 200 mL air prior to sampling

Collection Start Time: 09:44

Sampling Canister ID: 3507
 1 Liter 6 Liters

The final vacuum must be <5"Hg or at least 20"Hg less than the initial vacuum.

Flow Controller ID: FC 0977
 None 200 mL/min

Canister Final Vacuum ("Hg): 10:23

Collection End Time: -2.5

PID Reading (ppm): 305.7

Notes:

Concrete in good condition

patched w/ vinyl concrete repair



January 16, 2020

Nicholas Stingl
Braun Intertec
2309 Palace Sreet
La Crosse, WI 54603

RE: Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

Dear Nicholas Stingl:

Enclosed are the analytical results for sample(s) received by the laboratory on January 09, 2020. 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,

Bob Michels
bob.michels@pacelabs.com
(612)709-5046
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01	Minnesota Dept of Ag Certification #: via MN 027-053-137
Alabama Certification #: 40770	Minnesota Petrofund Certification #: 1240
Alaska Contaminated Sites Certification #: 17-009	Mississippi Certification #: MN00064
Alaska DW Certification #: MN00064	Missouri Certification #: 10100
Arizona Certification #: AZ0014	Montana Certification #: CERT0092
Arkansas DW Certification #: MN00064	Nebraska Certification #: NE-OS-18-06
Arkansas WW Certification #: 88-0680	Nevada Certification #: MN00064
California Certification #: 2929	New Hampshire Certification #: 2081
CNMI Saipan Certification #: MP0003	New Jersey Certification #: MN002
Colorado Certification #: MN00064	New York Certification #: 11647
Connecticut Certification #: PH-0256	North Carolina DW Certification #: 27700
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Carolina WW Certification #: 530
Florida Certification #: E87605	North Dakota Certification #: R-036
Georgia Certification #: 959	Ohio DW Certification #: 41244
Guam EPA Certification #: MN00064	Ohio VAP Certification #: CL101
Hawaii Certification #: MN00064	Oklahoma Certification #: 9507
Idaho Certification #: MN00064	Oregon Primary Certification #: MN300001
Illinois Certification #: 200011	Oregon Secondary Certification #: MN200001
Indiana Certification #: C-MN-01	Pennsylvania Certification #: 68-00563
Iowa Certification #: 368	Puerto Rico Certification #: MN00064
Kansas Certification #: E-10167	South Carolina Certification #: 74003001
Kentucky DW Certification #: 90062	Tennessee Certification #: TN02818
Kentucky WW Certification #: 90062	Texas Certification #: T104704192
Louisiana DEQ Certification #: 03086	Utah Certification #: MN00064
Louisiana DW Certification #: MN00064	Vermont Certification #: VT-027053137
Maine Certification #: MN00064	Virginia Certification #: 460163
Maryland Certification #: 322	Washington Certification #: C486
Massachusetts Certification #: M-MN064	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01

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SAMPLE SUMMARY

Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10504871001	SSVS-1	Air	01/07/20 10:18	01/09/20 09:56
10504871002	SSVS-2	Air	01/07/20 10:23	01/09/20 09:56
10504871003	Unused 1581	Air		01/09/20 09:56

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SAMPLE ANALYTE COUNT

Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10504871001	SSVS-1	TO-15	CH1	9	PASI-M
10504871002	SSVS-2	TO-15	MJL	20	PASI-M

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SUMMARY OF DETECTION

Project: B1911680 Auto Repair on Vliet
 Pace Project No.: 10504871

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10504871001	SSVS-1					
TO-15	Benzene	0.69	ug/m3	0.45	01/10/20 23:32	
TO-15	Toluene	2.2	ug/m3	1.1	01/10/20 23:32	
TO-15	1,2,4-Trimethylbenzene	1.4	ug/m3	1.4	01/10/20 23:32	
10504871002	SSVS-2					
TO-15	Benzene	314	ug/m3	120	01/11/20 14:52	
TO-15	Ethylbenzene	2010	ug/m3	326	01/11/20 14:52	
TO-15	Toluene	1010	ug/m3	282	01/11/20 14:52	
TO-15	1,2,4-Trimethylbenzene	1010	ug/m3	368	01/11/20 14:52	
TO-15	1,3,5-Trimethylbenzene	549	ug/m3	368	01/11/20 14:52	
TO-15	m&p-Xylene	2070	ug/m3	652	01/11/20 14:52	
TO-15	o-Xylene	1040	ug/m3	326	01/11/20 14:52	
TO-15	3.064:Isobutane	25500J	ppbv		01/11/20 14:52	N
TO-15	3.145:Butane	63700J	ppbv		01/11/20 14:52	N
TO-15	3.556:Pentane	59900J	ppbv		01/11/20 14:52	N
TO-15	4.058:Pentane, 2-methyl-	72000J	ppbv		01/11/20 14:52	N
TO-15	4.206:Pentane, 3-methyl-	35600J	ppbv		01/11/20 14:52	N
TO-15	4.772:Cyclopentane, methyl-	39200J	ppbv		01/11/20 14:52	N
TO-15	5.318:Pentane, 2,3,4-trimethyl	61.3J	ppbv		01/11/20 14:52	N
TO-15	6.183:1-Hexanol, 3-methyl-	19000J	ppbv		01/11/20 14:52	N
TO-15	6.579:Cyclopentane, 1,2,3-trimethyl	309J	ppbv		01/11/20 14:52	N
TO-15	6.785:Hexane, 2,3-dimethyl-	279J	ppbv		01/11/20 14:52	N
TO-15	7.196:Cyclohexane, 1,3-dimethyl	2500J	ppbv		01/11/20 14:52	N

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PROJECT NARRATIVE

Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

Method: TO-15
Description: TO15 MSV AIR (TICS)
Client: Braun Intertec Corporation
Date: January 16, 2020

General Information:

2 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: B1911680 Auto Repair on Vliet
 Pace Project No.: 10504871

Sample: SSVS-1 Lab ID: 10504871001 Collected: 01/07/20 10:18 Received: 01/09/20 09:56 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR (TICS)		Analytical Method: TO-15							
Benzene	0.69	ug/m3	0.45	0.21	1.39		01/10/20 23:32	71-43-2	
Ethylbenzene	ND	ug/m3	1.2	0.42	1.39		01/10/20 23:32	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.1	0.92	1.39		01/10/20 23:32	1634-04-4	
Naphthalene	ND	ug/m3	3.7	1.8	1.39		01/10/20 23:32	91-20-3	
Toluene	2.2	ug/m3	1.1	0.49	1.39		01/10/20 23:32	108-88-3	
1,2,4-Trimethylbenzene	1.4	ug/m3	1.4	0.63	1.39		01/10/20 23:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	0.55	1.39		01/10/20 23:32	108-67-8	
m&p-Xylene	ND	ug/m3	2.5	0.97	1.39		01/10/20 23:32	179601-23-1	
o-Xylene	ND	ug/m3	1.2	0.48	1.39		01/10/20 23:32	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: B1911680 Auto Repair on Vliet
 Pace Project No.: 10504871

Sample: SSVS-2 Lab ID: 10504871002 Collected: 01/07/20 10:23 Received: 01/09/20 09:56 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR (TICS)		Analytical Method: TO-15							
Benzene	314	ug/m3	120	56.4	368.6		01/11/20 14:52	71-43-2	
Ethylbenzene	2010	ug/m3	326	112	368.6		01/11/20 14:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	1350	244	368.6		01/11/20 14:52	1634-04-4	
Naphthalene	ND	ug/m3	981	483	368.6		01/11/20 14:52	91-20-3	
Toluene	1010	ug/m3	282	129	368.6		01/11/20 14:52	108-88-3	
1,2,4-Trimethylbenzene	1010	ug/m3	368	167	368.6		01/11/20 14:52	95-63-6	
1,3,5-Trimethylbenzene	549	ug/m3	368	147	368.6		01/11/20 14:52	108-67-8	
m&p-Xylene	2070	ug/m3	652	258	368.6		01/11/20 14:52	179601-23-1	
o-Xylene	1040	ug/m3	326	127	368.6		01/11/20 14:52	95-47-6	
Tentatively Identified Compounds									
Isobutane	25500J	ppbv			368.6		01/11/20 14:52	75-28-5	N
Butane	63700J	ppbv			368.6		01/11/20 14:52	106-97-8	N
Pentane	59900J	ppbv			368.6		01/11/20 14:52	109-66-0	N
Pentane, 2-methyl-	72000J	ppbv			368.6		01/11/20 14:52	107-83-5	N
Pentane, 3-methyl-	35600J	ppbv			368.6		01/11/20 14:52	96-14-0	N
Cyclopentane, methyl-	39200J	ppbv			368.6		01/11/20 14:52	96-37-7	N
Pentane, 2,3,4-trimethyl	61.3J	ppbv			368.6		01/11/20 14:52	565-75-3	N
1-Hexanol, 3-methyl-	19000J	ppbv			368.6		01/11/20 14:52	13231-81-7	N
Cyclopentane, 1,2,3-trimethyl	309J	ppbv			368.6		01/11/20 14:52	2815-57-8	N
Hexane, 2,3-dimethyl-	279J	ppbv			368.6		01/11/20 14:52	584-94-1	N
Cyclohexane, 1,3-dimethyl	2500J	ppbv			368.6		01/11/20 14:52	638-04-0	N

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QUALITY CONTROL DATA

Project: B1911680 Auto Repair on Vliet
 Pace Project No.: 10504871

QC Batch: 653994 Analysis Method: TO-15
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
 Associated Lab Samples: 10504871001

METHOD BLANK: 3515637 Matrix: Air
 Associated Lab Samples: 10504871001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	01/10/20 10:53	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	01/10/20 10:53	
Benzene	ug/m3	ND	0.32	01/10/20 10:53	
Ethylbenzene	ug/m3	ND	0.88	01/10/20 10:53	
m&p-Xylene	ug/m3	ND	1.8	01/10/20 10:53	
Methyl-tert-butyl ether	ug/m3	ND	3.7	01/10/20 10:53	
Naphthalene	ug/m3	ND	2.7	01/10/20 10:53	
o-Xylene	ug/m3	ND	0.88	01/10/20 10:53	
Toluene	ug/m3	ND	0.77	01/10/20 10:53	

LABORATORY CONTROL SAMPLE: 3515638

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	58.7	117	70-137	
1,3,5-Trimethylbenzene	ug/m3	50	57.3	115	70-136	
Benzene	ug/m3	32.5	32.6	100	70-133	
Ethylbenzene	ug/m3	44.1	49.3	112	70-142	
m&p-Xylene	ug/m3	88.3	102	115	70-141	
Methyl-tert-butyl ether	ug/m3	36.6	40.8	111	70-131	
Naphthalene	ug/m3	53.3	51.1	96	63-130	
o-Xylene	ug/m3	44.1	48.8	111	70-135	
Toluene	ug/m3	38.3	42.3	110	70-136	

SAMPLE DUPLICATE: 3516758

Parameter	Units	10504670013 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	ND			25
1,3,5-Trimethylbenzene	ug/m3	ND	ND			25
Benzene	ug/m3	0.62	0.64	2		25
Ethylbenzene	ug/m3	ND	ND			25
m&p-Xylene	ug/m3	ND	ND			25
Methyl-tert-butyl ether	ug/m3	ND	ND			25
Naphthalene	ug/m3	ND	ND			25
o-Xylene	ug/m3	ND	ND			25
Toluene	ug/m3	ND	.89J			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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QUALITY CONTROL DATA

Project: B1911680 Auto Repair on Vliet
 Pace Project No.: 10504871

QC Batch: 654132 Analysis Method: TO-15
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
 Associated Lab Samples: 10504871002

METHOD BLANK: 3516752 Matrix: Air
 Associated Lab Samples: 10504871002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	01/11/20 12:42	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	01/11/20 12:42	
Benzene	ug/m3	ND	0.32	01/11/20 12:42	
Ethylbenzene	ug/m3	ND	0.88	01/11/20 12:42	
m&p-Xylene	ug/m3	ND	1.8	01/11/20 12:42	
Methyl-tert-butyl ether	ug/m3	ND	3.7	01/11/20 12:42	
Naphthalene	ug/m3	ND	2.7	01/11/20 12:42	
o-Xylene	ug/m3	ND	0.88	01/11/20 12:42	
Toluene	ug/m3	ND	0.77	01/11/20 12:42	

LABORATORY CONTROL SAMPLE: 3516753

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	60.7	121	70-137	
1,3,5-Trimethylbenzene	ug/m3	50	60.0	120	70-136	
Benzene	ug/m3	32.5	35.4	109	70-133	
Ethylbenzene	ug/m3	44.1	51.0	116	70-142	
m&p-Xylene	ug/m3	88.3	103	117	70-141	
Methyl-tert-butyl ether	ug/m3	36.6	38.1	104	70-131	
Naphthalene	ug/m3	53.3	54.5	102	63-130	
o-Xylene	ug/m3	44.1	49.5	112	70-135	
Toluene	ug/m3	38.3	43.3	113	70-136	

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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QUALIFIERS

Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

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, percent moisture, initial weight and final volume.
LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.
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

N The reported TIC has an 85% or higher match on a mass spectral library search.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: B1911680 Auto Repair on Vliet
Pace Project No.: 10504871

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10504871001	SSVS-1	TO-15	653994		
10504871002	SSVS-2	TO-15	654132		

REPORT OF LABORATORY ANALYSIS



AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

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Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Program	
Company: Braun Intertec		Report To: Nick Stingl		Attention:		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: 2309 Palace St.		Copy To:		Company Name:		<input type="checkbox"/> Reporting Units <input checked="" type="checkbox"/> ug/m ³ <input type="checkbox"/> mg/m ³ <input type="checkbox"/> PPBV <input type="checkbox"/> PPMV <input type="checkbox"/> Other	
La Crosse, WI 54603		Purchase Order No.: B1911680		Address:		Location of Sampling by State: WI	
Email To: nstingl@braunintertec.com		Project Name: Auto Repair on Vliet		Pace Quote Reference:		Report Level: II. III. IV. Other	
Phone: 608-781-7277 Fax:		Project Number: B1911680		Pace Project Manager/Sales Rep.			
Requested Due Date/TAT: STD				Pace Profile #:			

ITEM #	Section D Required Client Information		MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:	Pace Lab ID	
	AIR SAMPLE ID				COMPOSITE START		COMPOSITE - END/GRAB								Method:
	Sample IDs MUST BE UNIQUE				DATE	TIME	DATE	TIME							
1	SSVS-1	62C 010	1-7-20	09:36	1-7-20	10:18	-30	-3	0738	1187	X	PVOC + Naphthalene	(W)		
2	SSVS-2	62C 305.7	1-7-20	09:44	1-7-20	10:23	-29	-25	3507	0977	X	PVOC + Naphthalene	(W)		
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															

WO#: 10504871



Comments :	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
	David Bradshaw / Braun	1-7-20		(Signature) PAE	1/9/20	450	-	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	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: David Bradshaw	SIGNATURE of SAMPLER: (Signature)				
DATE Signed (MM / DD / YY): 1-7-2020					

ORIGINAL

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Air Sample Condition Upon Receipt: **Client Name:** Braun Intertec **Project #:** WO#: 10504871
Courier: Fed Ex UPS USPS Client
 Pace Speedee Commercial See Exception
Tracking Number: 1083 0283 5847

Custody Seal on Cooler/Box Present? Yes No **Seals Intact?** Yes No
Packing Material: Bubble Wrap Bubble Bags Foam None Tin Can Other: _____ **Temp Blank rec:** Yes No
Temp. (TO17 and TO13 samples only) (°C): X **Corrected Temp (°C):** X **Thermometer Used:** G87A9170600254
 G87A9155100842
Temp should be above freezing to 6°C **Correction Factor:** X **Date & Initials of Person Examining Contents:** 1/9/20 cmj
Type of Ice Received Blue Wet None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y (N) (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge # 10AIR26 10AIR34 10AIR35 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SSVS-1	0738	1187	-1	15					
SSVS-2	3507	0477	-2	15					
UNUSED	1581	1201	-28						

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** Yes No
Person Contacted: _____ **Date/Time:** _____
Comments/Resolution: _____