VI Sampling

Seymour
Environmental Services, Inc.

Tel: 608-838-9120
Fax: 608-838-9121

Memo

Date: 04/18/2016
To: Shawn Wenzel – WDNR
From: Robyn Seymour

RE: Vapor Intrusion Sampling
Bob's Citgo – Milton, WI
Cc Bob Richardson

53563 - 1032-02
03-54-000173

RECEIVED
APR 22 2016
DEPT OF NATURAL RESOURCES
JANESVILLE SERVICE CENTER

Shawn,

We visited the site on March 9, 2016 to conduct the sampling of the sub-slab vapors. This was the second round of vapor sampling at the site as approved in our March 2015 budget request. Only samples of the sub-slab vapors were collected this March.

The subslab vapor data from March 2016 is consistent with data collected in June 2015. Low levels of five VOCs have been detected in the sub-slab vapors beneath the building including; acetone, tetrachloroethene, methyl ethyl ketone, dichlorofluoromethane, and trichlorofluoromethane. These compounds are typical of cleaning products (degreasers), and/or refrigerants. All concentrations of the compounds detected were below the indoor air standard listed by the WDNR or the USEPA. No petroleum-related contamination was detected in the sub-slab vapors although they were present in the ambient air samples collected in June 2015.

Vapor analytical data collected at the site indicates that hazardous levels of vapors are not accumulating beneath the building. Thus, we do not anticipate the need for any sort of mitigation system. We plan to conduct the last of the three vapor monitoring events sometime early this summer.

Please give us a call if you have any questions or comments on this data or other environmental activities at the site.

Thanks,

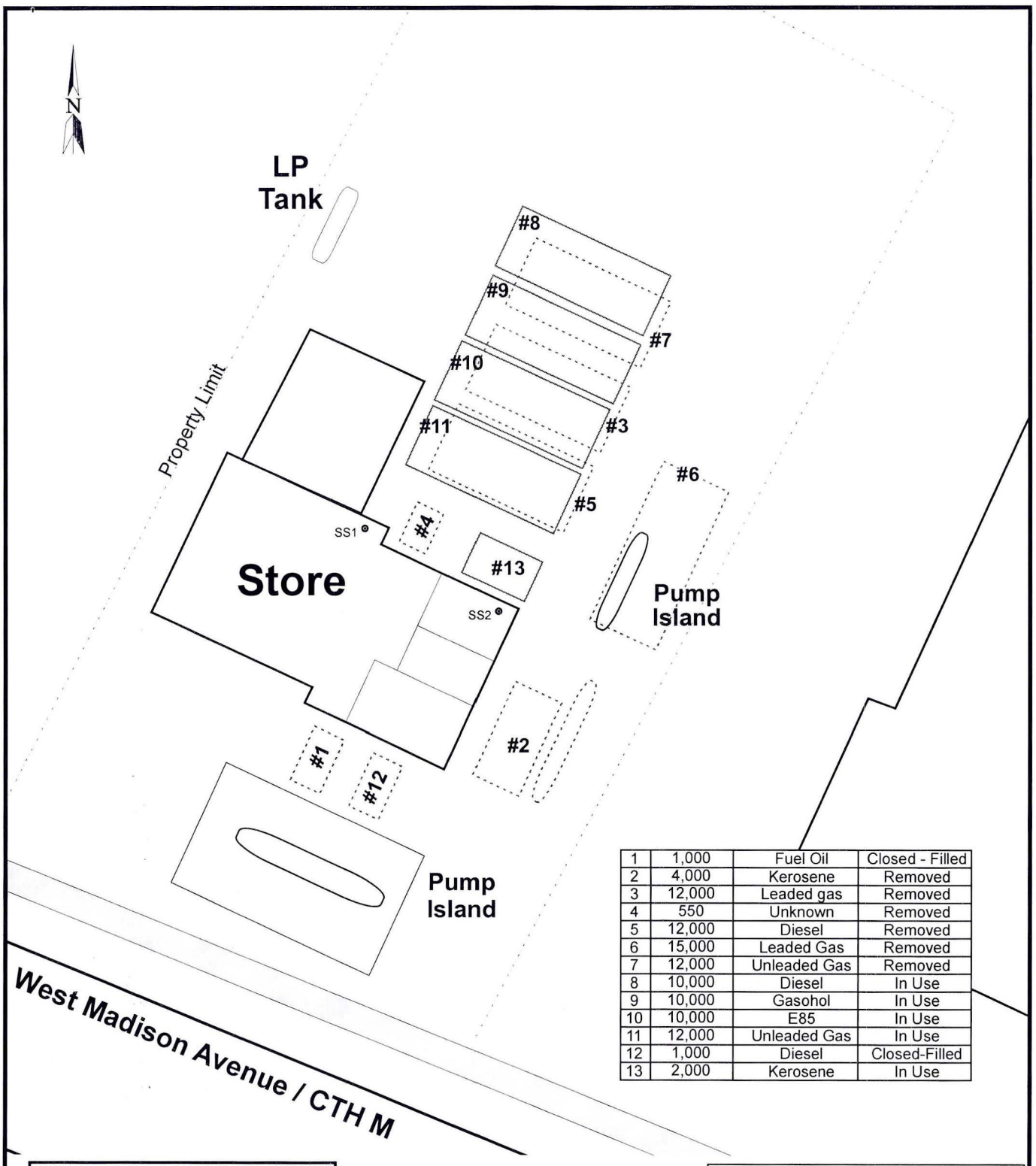
Robyn Seymour

Attached: Table of Vapor Analytical Data
Map of Vapor Sampling Points
Laboratory Report

TABLE 1
SUMMARY OF VAPOR MIGRATION SAMPLING
Former Bob's CITGO
602 West Madison Avenue - Milton, Wisconsin

	Sample Results						Standards / Screening Levels (commercial)	
Sample	SS-1		SS-2		Indoor	Outdoor	Indoor Air Standard (ppbV)	Subslab VAL Small Commercial (33 X)
Date	06/09/15	03/09/16	06/09/15	03/09/16	06/09/15	06/09/15		
Benzene	<0.085	<0.17	<0.085	<0.17	**0.37**	**0.45**	4.9	163
Ethylbenzene	<0.085	<0.17	<0.085	<0.17	**0.55**	**0.36**	11	366
n-Hexane	<0.085	<0.17	<0.085	<0.17	**0.73**	**1.1**	865*	28,833*
MTBE	<0.085	<0.17	<0.085	<0.17	<0.085	<0.085	130	4,333
Toluene	<0.085	<0.17	<0.085	<0.17	**1.5**	**1.6**	5700	190,000
1,2,4 Trimethylbenzene	<0.085	<0.17	0.32	<0.17	**0.67**	**0.66**	6.2	206
1,3,5 Trimethylbenzene	<0.085	<0.17	<0.085	<0.17	**0.36**	**0.33**	Ne	Ne
m&p Xylenes	<0.17	<0.34	<0.17	<0.34	**2.1**	**1.2**	200	6,666
o Xylene	<0.085	<0.17	<0.085	<0.17	**0.57**	**0.49**	100	3,333
Ethyl Acetate	<0.085	<0.17	<0.085	<0.17	**0.78**	<0.085	ne*	ne*
Cyclohexane	<0.085	<0.17	<0.085	<0.17	<0.085	**0.28**	7,430*	247667*
Propene (propylene)	<0.085	<0.17	<0.085	<0.17	<0.085	<0.085	7,430*	247667*
Heptane	<0.085	<0.17	<0.085	<0.17	**0.20 F**	**0.36**	ne*	ne*
Vinyl Acetate	<0.085	<0.17	<0.085	<0.17	**0.85**	**0.86**	246*	8200*
Acetone	**0.68**	**0.52 F**	**0.77**	**0.45 F**	**11**	**7.2**	57,972*	1932400*
Methylene Chloride	<0.085	<0.17	<0.085	<0.17	**0.13 F**	<0.085	740	24,666
Tetrachloroethene	**0.66**	**0.62**	**0.46**	<0.17	<0.085	<0.085	27	900
Trichloroethene	<0.085	<0.17	<0.085	<0.17	<0.085	<0.085	1.6	53
cis 1,2 Dichloroethene	<0.085	<0.17	<0.085	<0.17	<0.085	<0.085	ne*	ne*
trans 1,2 Dichloroethene	<0.085	<0.17	<0.085	<0.17	<0.085	<0.085	65*	2167*
Vinyl chloride	<0.085	<0.17	<0.085	<0.17	<0.085	<0.085	11	366
Trichlorofluoromethane	**3.8**	**1.1**	**2.1**	**0.86**	**5.6**	**0.23 F**	540	18,000
MEK	**0.24 F**	<0.17	**0.23 F**	<0.17	**0.94**	**0.80**	6239*	207969*
Dichlorodifluoromethane	<0.085	<0.17	<0.085	**0.85**	**2.9**	**0.43**	88	2933
Acrolein	<0.085	<0.17	<0.085	<0.17	**0.70**	**0.39**	0.03*	1*
Tetrahydrofuran	<0.085	<0.17	<0.085	<0.17	**0.20 F**	<0.085	ne*	ne*
Carbon tetrachloride	<0.085	<0.17	<0.085	<0.17	**0.20 F**	<0.085	3.1	103
Styrene	<0.085	<0.17	<0.085	<0.17	**0.37**	<0.085	864*	28798*
Chloromethane	<0.085	<0.17	<0.085	<0.17	**13**	**11**	190	6333
1-ethyl-4-methyl benzene	<0.085	<0.17	<0.085	<0.17	**0.34**	**0.35**	ne*	ne*

- All results are listed in ppbV
- ne = no standard established
- Detected compounds shown in bold
- Indoor Air Standard (exceedances underlined)
- Subslab VAL (33X) = Screening level based on WDNR attenuation factor of 0.03 (exceedances shaded)
- * = Standard from USEPA not listed in WDNR guidance



1	1,000	Fuel Oil	Closed - Filled
2	4,000	Kerosene	Removed
3	12,000	Leaded gas	Removed
4	550	Unknown	Removed
5	12,000	Diesel	Removed
6	15,000	Leaded Gas	Removed
7	12,000	Unleaded Gas	Removed
8	10,000	Diesel	In Use
9	10,000	Gasohol	In Use
10	10,000	E85	In Use
11	12,000	Unleaded Gas	In Use
12	1,000	Diesel	Closed-Filled
13	2,000	Kerosene	In Use

LEGEND

♦ - Geoprobe Location

MW-1 - Monitoring Well

0 20' 40'

1 INCH = 20 FEET
SCALE IS APPROXIMATE

FILE/PATH: D:\PROJECTS\BOBSCITGO\ Bob's-basemap.cdr
DATE: 04/21/2011
PREPARED: MDF APPROVED:
SOURCE: FIELD MEASUREMENTS

SEYMOUR ENVIRONMENTAL SERVICES, INC.

SITE LAYOUT and VAPOR SAMPLING POINTS
Bob's Citgo
602 W. Madison Avenue
Milton, Wisconsin

FIGURE 1

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603001

Report To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558

Invoice To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558
Customer ID: 13810

Field #: SS-1 (BOBS)
Project No: BOBSCITGO(#10370.00)
Collection End: 3/9/2016 11:34:00 AM
Collection Start: 03/09/16 1100
Collected By: MARK FRYMAN
Date Received: 3/11/2016
Date Reported: 3/24/2016
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SB-SUB SLAB
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

0.9 VPPM

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
Propene	EPA TO-15	ND	ppbv	0.17	0.56
Dichlorodifluoromethane	EPA TO-15	ND	ppbv	0.17	0.56
Chloromethane	EPA TO-15	ND	ppbv	0.17	0.56
1,2-Dichlorotetrafluoroethane	EPA TO-15	ND	ppbv	0.17	0.66
Vinyl chloride	EPA TO-15	ND	ppbv	0.17	0.56
1,3-Butadiene	EPA TO-15	ND	ppbv	0.17	0.56
Bromomethane	EPA TO-15	ND	ppbv	0.17	0.56
Chloroethane	EPA TO-15	ND	ppbv	0.17	0.56
Acrolein	EPA TO-15	ND	ppbv	0.17	0.56
Acetone	EPA TO-15	0.52F	ppbv	0.17	0.56
Trichlorofluoromethane	EPA TO-15	1.1	ppbv	0.17	0.56
1,1-Dichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
Methylene chloride	EPA TO-15	ND	ppbv	0.17	0.56

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Environmental Health Division

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WSLH Sample: 243603001

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
Carbon disulfide	EPA TO-15	ND	ppbv	0.17	0.56
Trichlorotrifluoroethane	EPA TO-15	ND	ppbv	0.17	0.56
trans-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
1,1-Dichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
Methyl tert-Butyl ether (MTBE)	EPA TO-15	ND	ppbv	0.17	0.56
Vinyl acetate	EPA TO-15	ND	ppbv	0.17	0.56
Methyl Ethyl Ketone (MEK)	EPA TO-15	ND	ppbv	0.17	0.56
cis-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
Hexane	EPA TO-15	ND	ppbv	0.17	0.56
Chloroform	EPA TO-15	ND	ppbv	0.17	0.56
Ethyl acetate	EPA TO-15	ND	ppbv	0.17	0.56
Tetrahydrofuran	EPA TO-15	ND	ppbv	0.17	0.56
1,2-Dichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
1,1,1-Trichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Benzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Carbon tetrachloride	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Cyclohexane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2-Dichloropropane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Bromodichloromethane	EPA TO-15	ND	ppbv	0.17	0.66
The internal standard QC limit is exceeded.					
Trichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,4 Dioxane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					

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WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603001

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
n-Heptane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
cis-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
4-Methyl-2-pentanone (MIBK)	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
trans-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,1,2-Trichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Toluene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
2-Hexanone	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Chlorodibromomethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2-Dibromoethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Tetrachloroethene	EPA TO-15	0.62	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Chlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Ethyl Benzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
m,p-Xylene	EPA TO-15	ND	ppbv	0.34	1.1
The internal standard QC limit is exceeded.					
Bromoform	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Styrene	EPA TO-15	ND	ppbv	0.17	0.56

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Environmental Health Division

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WSLH Sample: 243603001

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
The internal standard QC limit is exceeded.					
1,1,2,2-Tetrachloroethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
o-Xylene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1-ethyl-4-methyl benzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,3,5-Trimethylbenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2,4-Trimethylbenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Benzyl chloride	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,3-Dichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,4-Dichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2-Dichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2,4-Trichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Hexachlorobutadiene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					

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D.F. Kurtycz, M.D., Medical Director - Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: Tracy Hanke, Lab Manager, 608-224-6270
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Dave Webb, Lab Manager, 608-224-6200

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Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603002

Report To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558

Invoice To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558
Customer ID: 13810

Field #: SS-2 (BOBS)
Project No: BOBSCITGO(#10370.00)
Collection End: 3/9/2016 11:26:00 AM
Collection Start: 03/09/16 1053
Collected By: MARK FRYMAN
Date Received: 3/11/2016
Date Reported: 3/24/2016
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SB-SUB SLAB
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

Sample Comments

1.1 VPPM

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
Propene	EPA TO-15	ND	ppbv	0.17	0.56
Dichlorodifluoromethane	EPA TO-15	0.85	ppbv	0.17	0.56
The Upper QC limit for the calibration check is exceeded.					
Chloromethane	EPA TO-15	ND	ppbv	0.17	0.56
1,2-Dichlorotetrafluoroethane	EPA TO-15	ND	ppbv	0.17	0.66
Vinyl chloride	EPA TO-15	ND	ppbv	0.17	0.56
1,3-Butadiene	EPA TO-15	ND	ppbv	0.17	0.56
Bromomethane	EPA TO-15	ND	ppbv	0.17	0.56
Chloroethane	EPA TO-15	ND	ppbv	0.17	0.56
Acrolein	EPA TO-15	ND	ppbv	0.17	0.56
Acetone	EPA TO-15	0.45F	ppbv	0.17	0.56
Trichlorofluoromethane	EPA TO-15	0.86	ppbv	0.17	0.56
1,1-Dichloroethene	EPA TO-15	ND	ppbv	0.17	0.56

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Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603002

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
Methylene chloride	EPA TO-15	ND	ppbv	0.17	0.56
Carbon disulfide	EPA TO-15	ND	ppbv	0.17	0.56
Trichlorotrifluoroethane	EPA TO-15	ND	ppbv	0.17	0.56
trans-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
1,1-Dichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
Methyl tert-Butyl ether (MTBE)	EPA TO-15	ND	ppbv	0.17	0.56
Vinyl acetate	EPA TO-15	ND	ppbv	0.17	0.56
Methyl Ethyl Ketone (MEK)	EPA TO-15	ND	ppbv	0.17	0.56
cis-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
Hexane	EPA TO-15	ND	ppbv	0.17	0.56
Chloroform	EPA TO-15	ND	ppbv	0.17	0.56
Ethyl acetate	EPA TO-15	ND	ppbv	0.17	0.56
Tetrahydrofuran	EPA TO-15	ND	ppbv	0.17	0.56
1,2-Dichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
1,1,1-Trichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Benzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Carbon tetrachloride	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Cyclohexane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2-Dichloropropane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Bromodichloromethane	EPA TO-15	ND	ppbv	0.17	0.66
The internal standard QC limit is exceeded.					
Trichloroethene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,4 Dioxane	EPA TO-15	ND	ppbv	0.17	0.56

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WSLH Sample: 243603002

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Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
The internal standard QC limit is exceeded.					
n-Heptane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
cis-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
4-Methyl-2-pentanone (MIBK)	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
trans-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,1,2-Trichloroethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Toluene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
2-Hexanone	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Chlorodibromomethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2-Dibromoethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Tetrachloroethene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Chlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Ethyl Benzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
m,p-Xylene	EPA TO-15	ND	ppbv	0.34	1.1
The internal standard QC limit is exceeded.					
Bromoform	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
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Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Charles D. Brokopp, Dr.P.H., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603002

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 03/23/16 Analysis Date 03/23/16					
Styrene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,1,2,2-Tetrachloroethane	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
o-Xylene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1-ethyl-4-methyl benzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,3,5-Trimethylbenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2,4-Trimethylbenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Benzyl chloride	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,3-Dichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,4-Dichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2-Dichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
1,2,4-Trichlorobenzene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					
Hexachlorobutadiene	EPA TO-15	ND	ppbv	0.17	0.56
The internal standard QC limit is exceeded.					

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Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 243603002

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: Tracy Hanke, Lab Manager, 608-224-6270
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Dave Webb, Lab Manager, 608-224-6200

03-54-000193
VI sampling

Seymour
Environmental Services, Inc.

Tel: 608-838-9120

Memo

Date: 08/08/2016
To: Shawn Wenzel – WDNR
From: Robyn Seymour

RE: Vapor Intrusion Sampling
Bob's Citgo – Milton, WI
cc Bob Richardson

Shawn,

We visited the site on June 29, 2016 to conduct the vapor intrusion sampling. This was the last (third) round of vapor sampling at the site as approved in our March 2015 budget request. During the work vapor samples were collected of the indoor air and from the two sub-slab vapors points, which were installed previously.

Indoor air data from June 2016 appears to be consistent with the information collected in June 2015. The indoor air sample contained 22 volatile organic compounds in 2015 and 19 in 2016. The concentrations of the VOCs generally were within a factor of 2 in the two events. The exception to this was chloromethane, which was present at much higher levels in both the indoor and outdoor air in June 2015. Only acrolein exceeded the indoor vapor action level (VAL). Acrolein has been present above the VAL in all of the indoor and outdoor samples collected at the site.

We believe the sub-slab vapor data from June 2016 generally is consistent with data collected in June 2015 and March 2016. At SS-1 similar compounds and concentrations were present in the vapors during each sampling event. At SS-2 data from the first two events were very similar but additional VOCs were detected during the most recent sampling. The anomalous data from this sample is most likely related to leakage in the sampling apparatus. During the line tightness testing a small, 10%, drop in pressure was noted but we believed it was a problem with the gauge so sampling was continued. Monitoring of the sampling apparatus showed that the summa canister filled in approximately 20 minutes. This indicates that the leak was between the canister inlet and the flow regulator. Comparison of data from SS-2 and the indoor air indicate a leakage of ~35%. If the levels of the compounds historically present in the sub-slab vapors are adjusted proportionally for the leakage they remain substantially below the indoor VAL.

Low levels of five VOCs have been detected in the sub-slab vapors beneath the building including acetone, tetrachloroethene, methyl ethyl ketone, dichlorofluoromethane, and trichlorofluoromethane. These compounds are typical of cleaning products (degreasers), and/or refrigerants. All concentrations of the compounds detected were below the indoor air standard listed by the WDNR or the USEPA. No petroleum-related contamination was detected in the sub-slab vapors although they were present in the ambient air samples collected in June 2015. Based on this we believe that hazardous levels of vapors are not accumulating beneath the building. Thus, we do not anticipate the need for a mitigation system. Please give us a call if you have any questions or comments on this data or other environmental activities at the site.

Thanks,

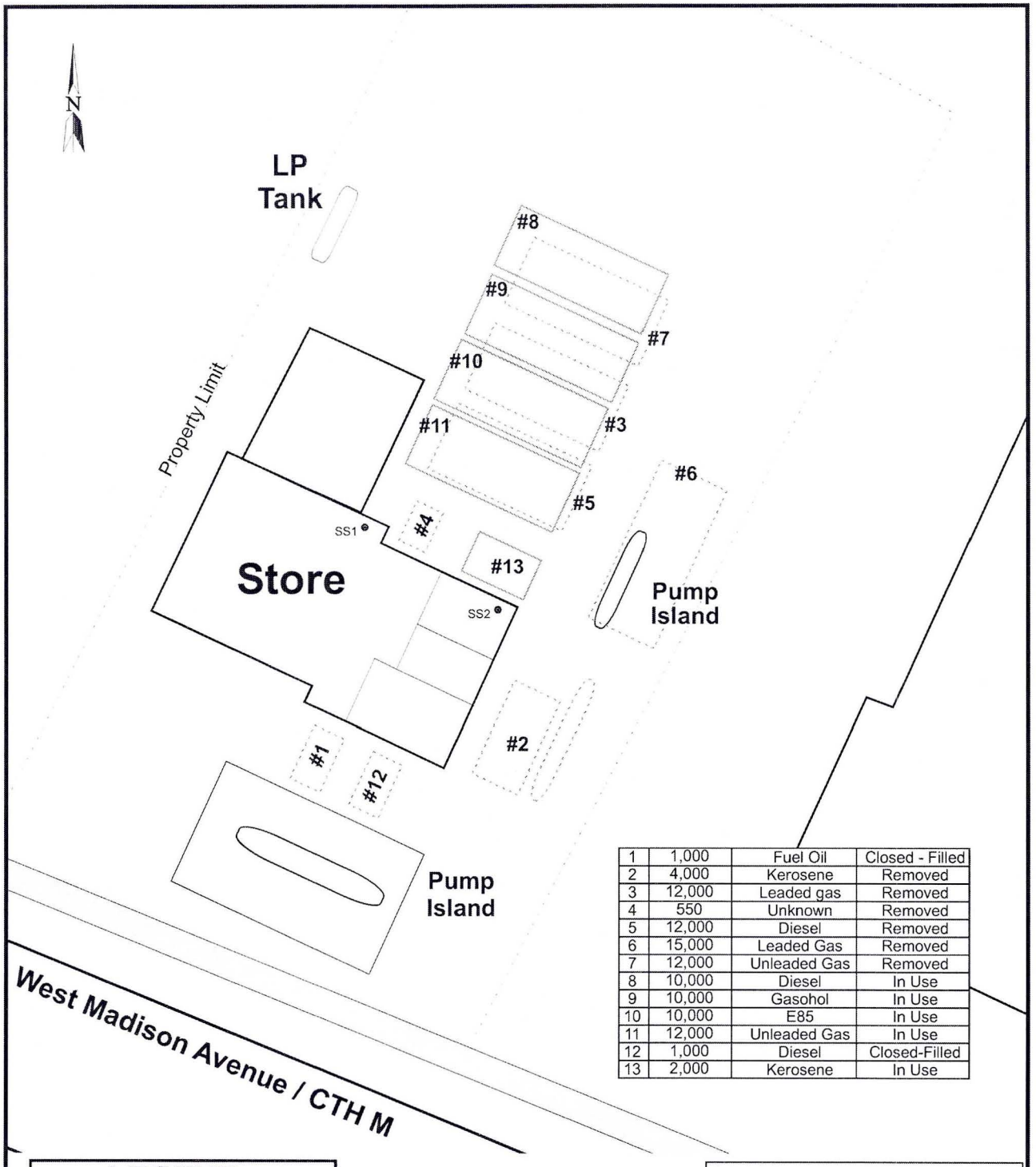
Robyn Seymour

Attached: Table of Vapor Analytical Data
Map of Vapor Sampling Points
Laboratory Report

TABLE 1
SUMMARY OF VAPOR MIGRATION SAMPLING
Former Bob's CITGO - 602 West Madison Avenue - Milton, Wisconsin

	Sample Results									Standards / Screening Levels (small commercial)	
Sample	SS-1			SS-2			Indoor		Outdoor	VAL	SS VRSL
Date	06/09/15	03/09/16	06/29/16	06/09/15	03/09/16	06/29/16	06/09/15	06/29/16	06/09/15	(ppbV)	(ppb)
Benzene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.27 F**	**0.37**	**0.64**	**0.45**	4.9	163
Ethylbenzene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.15 F**	**0.55**	**0.37**	**0.36**	11	366
n-Hexane	<0.085	<0.17	<0.085	<0.085	<0.17	**0.44**	**0.73**	**1.2**	**1.1**	865*	28,833*
MTBE	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	<0.085	<0.085	130	4,333
Toluene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.70**	**1.5**	**2.0**	**1.6**	5700	190,000
1,2,4 Trimethylbenzene	<0.085	<0.17	<0.085	0.32	<0.17	**0.18 F**	**0.67**	**0.36**	**0.66**	6.2	206
1,3,5 Trimethylbenzene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.090 F**	**0.36**	**0.14 F**	**0.33**	ne	ne
m&p Xylenes	<0.17	<0.34	<0.17	<0.17	<0.34	**0.60**	**2.1**	**1.5**	**1.2**	200	6,666
o Xylene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.17 F**	**0.57**	**0.40**	**0.49**	100	3,333
Ethyl Acetate	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	**0.78**	<0.085	<0.085	ne	ne
Cyclohexane	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	**0.21 F**	**0.28**	7,430*	247667*
Propene (propylene)	<0.085	<0.17	<0.085	<0.085	<0.17	<0.7	<0.085	<9.56	<0.085	7,430*	247667*
Heptane	<0.085	<0.17	<0.085	<0.085	<0.17	**0.14 F**	**0.20 F**	**0.40**	**0.36**	ne	ne
Vinyl Acetate	<0.085	<0.17	<0.085	<0.085	<0.17	**0.50**	**0.85**	**1.2**	**0.86**	246*	8200*
Acetone	**0.68**	**0.52 F**	**0.37**	**0.77**	**0.45 F**	**4.3**	**11**	**10**	**7.2**	57,972*	1932400*
Methylene Chloride	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	**0.13 F**	<0.085	<0.085	740	24,666
Tetrachloroethene	**0.66**	**0.62**	**1.3**	**0.46**	<0.17	**0.41**	<0.085	<0.085	<0.085	27	900
Trichloroethene	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	<0.085	<0.085	1.6	53
cis 1,2 Dichloroethene	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	<0.085	<0.085	ne	ne
trans 1,2 Dichloroethene	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	<0.085	<0.085	65*	2167*
Vinyl chloride	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	<0.085	<0.085	11	366
Trichlorofluoromethane	**3.8**	**1.1**	**3.9**	**2.1**	**0.86**	**4.2**	**5.6**	**7.7**	**0.23 F**	540	18,000
MEK	**0.24 F**	<0.17	<0.085	**0.23 F**	<0.17	**0.38**	**0.94**	**0.81**	**0.80**	6239*	207969*
Dichlorodifluoromethane	<0.085	<0.17	<0.085	<0.085	**0.85**	**2.1**	**2.9**	**3.7**	**0.43**	88	2933
Acrolein	<0.085	<0.17	<0.085	<0.085	<0.17	**0.25 F**	**0.70**	**0.85**	**0.39**	0.03*	1*
Tetrahydrofuran	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	**0.20 F**	<0.085	<0.085	ne	ne
Carbon tetrachloride	<0.085	<0.17	<0.085	<0.085	<0.17	**0.090 F**	**0.20 F**	**0.11 F**	<0.085	3.1	103
Styrene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.12 F**	**0.37**	**0.24 F**	<0.085	864*	28798*
Chloromethane	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	**13**	<0.085	**11**	190	6333
1-ethyl-4-methyl benzene	<0.085	<0.17	<0.085	<0.085	<0.17	**0.10 F**	**0.34**	**0.15 F**	**0.35**	ne	ne
Chloroform	<0.085	<0.17	**0.12 F**	<0.085	<0.17	<0.085	<0.085	<0.085	<0.085	1.1	36
1,2 Dichloroethane	<0.085	<0.17	<0.085	<0.085	<0.17	<0.085	<0.085	0.82	<0.085	19	633

- All results are listed in ppbV
- ne = no standard established
- Detected compounds shown in bold
- VAL = Indoor Air Standard (exceedances underlined)
- SS VRSL = Subslab Screening level based on WDNR attenuation factor of 0.03 (exceedances shaded)
- * = Standard from USEPA not listed in WDNR guidance



1	1,000	Fuel Oil	Closed - Filled
2	4,000	Kerosene	Removed
3	12,000	Leaded gas	Removed
4	550	Unknown	Removed
5	12,000	Diesel	Removed
6	15,000	Leaded Gas	Removed
7	12,000	Unleaded Gas	Removed
8	10,000	Diesel	In Use
9	10,000	Gasohol	In Use
10	10,000	E85	In Use
11	12,000	Unleaded Gas	In Use
12	1,000	Diesel	Closed-Filled
13	2,000	Kerosene	In Use

LEGEND

♦ - Geoprobe Location

MW-1 ◆ - Monitoring Well

0 20' 40'

1 INCH = 20 FEET
SCALE IS APPROXIMATE

FILE/PATH: D:\PROJECTS\BOBSCITGO\Bob's-basemap.cdr
DATE: 04/21/2011
PREPARED: MDF APPROVED:
SOURCE: FIELD MEASUREMENTS

SEYMOUR ENVIRONMENTAL SERVICES, INC.

SITE LAYOUT and VAPOR SAMPLING POINTS
Bob's Citgo
602 W. Madison Avenue
Milton, Wisconsin

FIGURE 1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Peter Shult, Ph.D., Interim Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535001

Report To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558

Invoice To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558
Customer ID: 13810

Field #: SS-1
Project No: BOB'S CITGO
Collection End: 6/29/2016 10:34:00 AM
Collection Start: 06/29/16 10:02
Collected By: MDF
Date Received: 7/1/2016
Date Reported: 7/13/2016
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SB-SUB SLAB
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Propene	EPA TO-15	ND	ppbv	0.085	0.28
Dichlorodifluoromethane	EPA TO-15	ND	ppbv	0.085	0.28
Chloromethane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichlorotetrafluoroethane	EPA TO-15	ND	ppbv	0.085	0.33
Vinyl chloride	EPA TO-15	ND	ppbv	0.085	0.28
1,3-Butadiene	EPA TO-15	ND	ppbv	0.085	0.28
Bromomethane	EPA TO-15	ND	ppbv	0.085	0.28
Chloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Acrolein	EPA TO-15	ND	ppbv	0.085	0.28
Acetone	EPA TO-15	0.37	ppbv	0.085	0.28
Trichlorofluoromethane	EPA TO-15	3.9	ppbv	0.085	0.28
1,1-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Methylene chloride	EPA TO-15	ND	ppbv	0.085	0.28
Carbon disulfide	EPA TO-15	ND	ppbv	0.085	0.28
Trichlorotrifluoroethane	EPA TO-15	ND	ppbv	0.085	0.28

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WSLH Sample: 263535001

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
trans-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
1,1-Dichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Methyl tert-Butyl ether (MTBE)	EPA TO-15	ND	ppbv	0.085	0.28
Vinyl acetate	EPA TO-15	ND	ppbv	0.085	0.28
Methyl Ethyl Ketone (MEK)	EPA TO-15	ND	ppbv	0.085	0.28
cis-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Hexane	EPA TO-15	ND	ppbv	0.085	0.28
Chloroform	EPA TO-15	0.12F	ppbv	0.085	0.28
Ethyl acetate	EPA TO-15	ND	ppbv	0.085	0.28
Tetrahydrofuran	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
1,1,1-Trichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Benzene	EPA TO-15	ND	ppbv	0.085	0.28
Carbon tetrachloride	EPA TO-15	ND	ppbv	0.085	0.28
Cyclohexane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichloropropane	EPA TO-15	ND	ppbv	0.085	0.28
Bromodichloromethane	EPA TO-15	ND	ppbv	0.085	0.33
Trichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
1,4 Dioxane	EPA TO-15	ND	ppbv	0.085	0.28
n-Heptane	EPA TO-15	ND	ppbv	0.085	0.28
cis-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.085	0.28
4-Methyl-2-pentanone (MIBK)	EPA TO-15	ND	ppbv	0.085	0.28
trans-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.085	0.28
1,1,2-Trichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Toluene	EPA TO-15	ND	ppbv	0.085	0.28
2-Hexanone	EPA TO-15	ND	ppbv	0.085	0.28
Chlorodibromomethane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dibromoethane	EPA TO-15	ND	ppbv	0.085	0.28
Tetrachloroethene	EPA TO-15	1.3	ppbv	0.085	0.28

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WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535001

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Chlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
Ethyl Benzene	EPA TO-15	ND	ppbv	0.085	0.28
m,p-Xylene	EPA TO-15	ND	ppbv	0.17	0.56
Bromoform	EPA TO-15	ND	ppbv	0.085	0.28
Styrene	EPA TO-15	ND	ppbv	0.085	0.28
1,1,2,2-Tetrachloroethane	EPA TO-15	ND	ppbv	0.085	0.28
o-Xylene	EPA TO-15	ND	ppbv	0.085	0.28
1-ethyl-4-methyl benzene	EPA TO-15	ND	ppbv	0.085	0.28
1,3,5-Trimethylbenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2,4-Trimethylbenzene	EPA TO-15	ND	ppbv	0.085	0.28
Benzyl chloride	EPA TO-15	ND	ppbv	0.085	0.28
1,3-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,4-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2,4-Trichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
Hexachlorobutadiene	EPA TO-15	ND	ppbv	0.085	0.28

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

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WSLH Sample: 263535001

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Inorganic Chemistry: Tracy Hanke, Lab Manager, 608-224-6270
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Dave Webb, Lab Manager, 608-224-6200

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WSLH Sample: 263535002

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2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558
Customer ID: 13810

Field #: SS-2
Project No: BOB'S CITGO
Collection End: 6/29/2016 10:45:00 AM
Collection Start: 06/29/16 10:13
Collected By: MDF
Date Received: 7/1/2016
Date Reported: 7/13/2016
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: SB-SUB SLAB
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Propene	EPA TO-15	<0.7	ppbv	0.085	0.28
Interference					
Dichlorodifluoromethane	EPA TO-15	2.1	ppbv	0.085	0.28
Chloromethane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichlorotetrafluoroethane	EPA TO-15	ND	ppbv	0.085	0.33
Vinyl chloride	EPA TO-15	ND	ppbv	0.085	0.28
1,3-Butadiene	EPA TO-15	ND	ppbv	0.085	0.28
Bromomethane	EPA TO-15	ND	ppbv	0.085	0.28
Chloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Acrolein	EPA TO-15	0.25F	ppbv	0.085	0.28
Acetone	EPA TO-15	4.3	ppbv	0.085	0.28
Trichlorofluoromethane	EPA TO-15	4.2	ppbv	0.085	0.28
1,1-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Methylene chloride	EPA TO-15	ND	ppbv	0.085	0.28
Carbon disulfide	EPA TO-15	ND	ppbv	0.085	0.28

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Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Peter Shult, Ph.D., Interim Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535002

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Trichlorotrifluoroethane	EPA TO-15	ND	ppbv	0.085	0.28
trans-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
1,1-Dichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Methyl tert-Butyl ether (MTBE)	EPA TO-15	ND	ppbv	0.085	0.28
Vinyl acetate	EPA TO-15	0.50	ppbv	0.085	0.28
Methyl Ethyl Ketone (MEK)	EPA TO-15	0.38	ppbv	0.085	0.28
cis-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Hexane	EPA TO-15	0.44	ppbv	0.085	0.28
Chloroform	EPA TO-15	ND	ppbv	0.085	0.28
Ethyl acetate	EPA TO-15	ND	ppbv	0.085	0.28
Tetrahydrofuran	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichloroethane	EPA TO-15	0.30	ppbv	0.085	0.28
1,1,1-Trichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Benzene	EPA TO-15	0.27F	ppbv	0.085	0.28
Carbon tetrachloride	EPA TO-15	0.090F	ppbv	0.085	0.28
Cyclohexane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichloropropane	EPA TO-15	ND	ppbv	0.085	0.28
Bromodichloromethane	EPA TO-15	ND	ppbv	0.085	0.33
Trichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
1,4 Dioxane	EPA TO-15	ND	ppbv	0.085	0.28
n-Heptane	EPA TO-15	0.14F	ppbv	0.085	0.28
cis-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.085	0.28
4-Methyl-2-pentanone (MIBK)	EPA TO-15	ND	ppbv	0.085	0.28
trans-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.085	0.28
1,1,2-Trichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Toluene	EPA TO-15	0.70	ppbv	0.085	0.28
2-Hexanone	EPA TO-15	ND	ppbv	0.085	0.28
Chlorodibromomethane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dibromoethane	EPA TO-15	ND	ppbv	0.085	0.28

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Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Peter Shult, Ph.D., Interim Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535002

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Tetrachloroethene	EPA TO-15	0.41	ppbv	0.085	0.28
Chlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
Ethyl Benzene	EPA TO-15	0.15F	ppbv	0.085	0.28
m,p-Xylene	EPA TO-15	0.60	ppbv	0.17	0.56
Bromoform	EPA TO-15	ND	ppbv	0.085	0.28
Styrene	EPA TO-15	0.12F	ppbv	0.085	0.28
1,1,2,2-Tetrachloroethane	EPA TO-15	ND	ppbv	0.085	0.28
o-Xylene	EPA TO-15	0.17F	ppbv	0.085	0.28
1-ethyl-4-methyl benzene	EPA TO-15	0.10F	ppbv	0.085	0.28
1,3,5-Trimethylbenzene	EPA TO-15	0.090F	ppbv	0.085	0.28
1,2,4-Trimethylbenzene	EPA TO-15	0.18F	ppbv	0.085	0.28
Benzyl chloride	EPA TO-15	ND	ppbv	0.085	0.28
1,3-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,4-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2,4-Trichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
Hexachlorobutadiene	EPA TO-15	ND	ppbv	0.085	0.28

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.

The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

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Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Peter Shult, Ph.D., Interim Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535002

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: Tracy Hanke, Lab Manager, 608-224-6270
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Dave Webb, Lab Manager, 608-224-6200

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D.F. Kurtycz, M.D., Medical Director - Peter Shult, Ph.D., Interim Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535003

Report To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558

Invoice To:
SEYMOUR ENV SERVICES
2531 DYRESON RD
P.O. BOX 398
MCFARLAND, WI 53558
Customer ID: 13810

Field #: INDOOR
Project No: BOB'S CITGO
Collection End: 6/30/2016 10:20:00 AM
Collection Start: 06/29/16 10:17
Collected By: MDF
Date Received: 7/1/2016
Date Reported: 7/13/2016
Sample Reason:

ID#:
Sample Location:
Sample Description:
Sample Type: AI-INDOOR AIR
Waterbody:
Point or Outfall:
Sample Depth:
Program Code:
Region Code:
County:

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Propene	EPA TO-15	<9.56	ppbv	0.085	0.28
Interference					
Dichlorodifluoromethane	EPA TO-15	3.7	ppbv	0.085	0.28
Chloromethane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichlorotetrafluoroethane	EPA TO-15	ND	ppbv	0.085	0.33
Vinyl chloride	EPA TO-15	ND	ppbv	0.085	0.28
1,3-Butadiene	EPA TO-15	ND	ppbv	0.085	0.28
Bromomethane	EPA TO-15	ND	ppbv	0.085	0.28
Chloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Acrolein	EPA TO-15	0.85	ppbv	0.085	0.28
Acetone	EPA TO-15	10	ppbv	0.085	0.28
Trichlorofluoromethane	EPA TO-15	7.7	ppbv	0.085	0.28
1,1-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Methylene chloride	EPA TO-15	ND	ppbv	0.085	0.28
Carbon disulfide	EPA TO-15	ND	ppbv	0.085	0.28

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Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535003

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Trichlorotrifluoroethane	EPA TO-15	ND	ppbv	0.085	0.28
trans-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
1,1-Dichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Methyl tert-Butyl ether (MTBE)	EPA TO-15	ND	ppbv	0.085	0.28
Vinyl acetate	EPA TO-15	1.2	ppbv	0.085	0.28
Methyl Ethyl Ketone (MEK)	EPA TO-15	0.81	ppbv	0.085	0.28
cis-1,2-Dichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Hexane	EPA TO-15	1.2	ppbv	0.085	0.28
Chloroform	EPA TO-15	ND	ppbv	0.085	0.28
Ethyl acetate	EPA TO-15	ND	ppbv	0.085	0.28
Tetrahydrofuran	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichloroethane	EPA TO-15	0.82	ppbv	0.085	0.28
1,1,1-Trichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Benzene	EPA TO-15	0.64	ppbv	0.085	0.28
Carbon tetrachloride	EPA TO-15	0.11F	ppbv	0.085	0.28
Cyclohexane	EPA TO-15	0.21F	ppbv	0.085	0.28
1,2-Dichloropropane	EPA TO-15	ND	ppbv	0.085	0.28
Bromodichloromethane	EPA TO-15	ND	ppbv	0.085	0.33
Trichloroethene	EPA TO-15	ND	ppbv	0.085	0.28
1,4 Dioxane	EPA TO-15	ND	ppbv	0.085	0.28
n-Heptane	EPA TO-15	0.40	ppbv	0.085	0.28
cis-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.085	0.28
4-Methyl-2-pentanone (MIBK)	EPA TO-15	ND	ppbv	0.085	0.28
trans-1,3-Dichloropropene	EPA TO-15	ND	ppbv	0.085	0.28
1,1,2-Trichloroethane	EPA TO-15	ND	ppbv	0.085	0.28
Toluene	EPA TO-15	2.0	ppbv	0.085	0.28
2-Hexanone	EPA TO-15	ND	ppbv	0.085	0.28
Chlorodibromomethane	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dibromoethane	EPA TO-15	ND	ppbv	0.085	0.28

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Laboratory Report

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Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007 WI DATCP ID: 105-415

WSLH Sample: 263535003

OC-Volatiles

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 07/06/16 Analysis Date 07/06/16					
Tetrachloroethene	EPA TO-15	ND	ppbv	0.085	0.28
Chlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
Ethyl Benzene	EPA TO-15	0.37	ppbv	0.085	0.28
m,p-Xylene	EPA TO-15	1.5	ppbv	0.17	0.56
Bromoform	EPA TO-15	ND	ppbv	0.085	0.28
Styrene	EPA TO-15	0.24F	ppbv	0.085	0.28
1,1,2,2-Tetrachloroethane	EPA TO-15	ND	ppbv	0.085	0.28
o-Xylene	EPA TO-15	0.40	ppbv	0.085	0.28
1-ethyl-4-methyl benzene	EPA TO-15	0.15F	ppbv	0.085	0.28
1,3,5-Trimethylbenzene	EPA TO-15	0.14F	ppbv	0.085	0.28
1,2,4-Trimethylbenzene	EPA TO-15	0.36	ppbv	0.085	0.28
Benzyl chloride	EPA TO-15	ND	ppbv	0.085	0.28
1,3-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,4-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2-Dichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
1,2,4-Trichlorobenzene	EPA TO-15	ND	ppbv	0.085	0.28
Hexachlorobutadiene	EPA TO-15	ND	ppbv	0.085	0.28

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

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WSLH Sample: 263535003

Responsible Party

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