SAND CREEK CONSULTANTS, Inc.
SM
Environmental and Geological
Scientists and Engineers
151 Mill St. • P.O. Box 218 • Amherst, WI 54406 • Tel. 715.824.5169

August 28, 2017

Mr. Robert Good
PO Box 985
Stevens Point, WI 54481

Re: **Dun-Rite Cleaners**
1008 Union Street
Stevens Point, Wisconsin
WDNR BRRTS No. 0250000577

Subject: Vapor Samples Results

Dear Mr. Good:

The purpose of this letter is to present the results of vapor samples collected from the residence located at 1000 Union Street on June 20, 2017. The sample was collected as part of environmental investigations associated with the Dun-Rite Cleaners site. The investigation is focused on chlorinated volatile organic compounds (VOCs), specifically tetrachloroethene (PCE) and trichloroethene (TCE).

Work Performed

One sample was collected of the ambient air (i.e., typical room air) present in the basement of the residence. Another sample was collected from the soil vapors beneath the basement floor. Both samples were submitted to a laboratory and analyzed for a suite of VOCs.

Sample Results

Current and historic sampling results are summarized on the enclosed **table**. The **laboratory report** for the most recent samples is also enclosed. None of the analyzed substances exceeded the Wisconsin Department of Natural Resources (WDNR) Action Levels or Screening Levels.

The most recent results show PCE and TCE in the basement air at concentrations of approximately 0.40 micrograms per cubic meter (µg/m^3) and approximately 0.44 µg/m^3, respectively. The WDNR Residential Indoor Air Vapor Action Levels for PCE and TCE are 42 µg/m^3 and 2.1 µg/m^3.

PCE and TCE were also detected beneath the basement floor at concentrations of 133 µg/m^3 and approximately 0.92 µg/m^3, respectively. The WDNR Screening Levels for PCE and TCE beneath the floor are 1,399 µg/m^3 and 70 µg/m^3.

In addition to PCE and TCE, the analysis results show detections of other VOCs. These substances are not associated with the Dun-Rite site and are likely due to trace amounts of chemical vapors from products (paints, adhesives, fragrances, etc.) commonly found in homes, or in the outdoor ambient air.

The WDNR screening levels for PCE/TCE are set to evaluate the threat of vapor intrusion and provide threshold concentrations for the substances that are protective of human health over long-term exposure.

Residents who may have questions may contact Ryan Wozniak (608.267.3227) with the Wisconsin Department of Health Services (DHS), who can address any health questions and concerns.

Going Forward

We expect to perform another round of vapor sampling in fall 2017. At that time we will again contact you requesting permission to collect samples of the sub-slab vapors and ambient basement air.

If you have any questions or comments, please contact me via phone at 715.824.5169 or by email at pete.arntsen@sand-creek.com.

Sincerely,

SAND CREEK CONSULTANTS, INC.

Pete Arntsen, MS, PH, PG
Project Manager/Senior Hydrogeologist

Enclosures: Table 1: Residence Vapor Chemistry Results
Laboratory Report

cc/enc: Mr. Ron Hanson/Dun-Rite Cleaners, via email only
Mr. Aaron Kent/Wisconsin Department of Natural Resource, via email only

Table 1: Residence Vapor Chemistry Data

Ambient Air Samples (µg/m^3)

Sample ID	Date	Acetone	Benzene	2-Butanone	Carbon Tetra-chloride	Chloro-form	Chloro-methane	Cyclo-hexane	1,4-Dichlorob enzene	Dichloro-difluoro-methane	cis-1,2-Dichloro-ethene	Ethanol	Ethyl acetate	4-Ethyl-toluene	N-Heptane	N-Hexane	2-Hexanone	Methylen e Chloride	Naph-thalene	2-Propanol	Tetrachloro-ethene (PCE)	Tetra-hydro furan	Toluene	Trichloro-ethene (TCE)
Indoor Air Vapor Action Levels[1]																								
	Non-Residential	--	**16**	--	20	**5.3**	**390**	--	--	**440**	--	--	--	--	--	--	--	**2,600**	**3.6**	--	**180**	--	**22000**	**8.8**
	Residential	--	*3.6*	--	4.7	*1.2*	*94*	--	--	*100*	--	--	--	--	--	--	--	*630*	*0.83*	--	*42*	--	*5,200*	*2.1*
AA304	7/18/2014	22.8	0.63	6.0	<0.99	<1.4	0.84	<1.1	<1.9	2.8	<1.3	59.4	<1.1	<1.6	2.8	1.2	2.3	<5.5	<4.1	<1.9	2.5	<0.93	3.1	<0.85
	3/2/2015	9.7	0.8	1.8	<0.44	<0.25	0.90	0.78	<0.28	2.4	<0.34	13.3	0.82	<0.24	0.61	1.4	<0.30	0.73	<0.36	0.48	35	<0.19	1.9	<0.25
	9/4/2015	80.1	**16.7**	<0.33	<0.28	*1.3*	1.9	44.8	<0.72	2.7	<0.35	61.3	<0.50	8.8	13	21.7	<0.59	18.9	**11.3**	18.6	22	<0.17	105	*3.0*
	11/9/2015	10.2	1.5	1.0 J	<0.29	<0.28	0.72	4.2	<0.74	<0.72	<0.37	22.3	0.93 J	0.85 J	1.6	2.0	<0.61	0.95 J	<0.45	9.0	2.4	<0.18	8.8	<0.41
	4/6/2016	14.2	1.2	2.0 J	<0.27	<0.26	0.74	2.4	<0.69	2.1	<0.34	50.4	1.1	0.72 J	0.93 J	1.9	<0.57	2.0 J	<0.42	5.2	<0.39	<0.17	5.5	0.52 J
	10/5/2016	26.7	*6.2*	5.0	1.1	0.51 J	0.73	7.1	<0.74	2.6	<0.37	66.8	2.3	4.6	5.4	15.2	<0.61	6.3	**12.4**	3.0 J	0.64 J	<0.18	35.3	<0.41
	6/20/2017	5.8 J	1.0	<0.33	<0.28	<0.27	0.64 J	<0.46	<0.72	1.4 J	<0.35	5.1	<0.50	<0.27	0.70 J	1.0 J	<0.59	<0.78	<0.44	<0.35	<0.40	<0.17	4.9	0.44 J

Sub-Slab Vapor Samples (µg/m^3)

Sample ID	Date	Acetone	Benzene	2-Butanone	Carbon Tetrachlor ide	Chlorofor m	Chloro-methane	Cyclo-hexane	1,4-Dichlorob enzene	Dichloro-difluoro-methane	cis-1,2-Dichloro-ethene	Ethanol	Ethyl acetate	4-Ethyltolue ne	N-Heptane	N-Hexane	2-Hexanone	Methylen e Chloride	Naph-thalene	2-Propanol	Tetrachloro-ethene (PCE)	Tetrahydr ofuran	Toluene	Trichloro-ethene (TCE)
Sub-Slab Vapor Screening Levels[2]																								
	Non-Residential	--	**533**	--	**666**	**176**	**12,987**	--	--	**14,652**	--	--	--	--	--	--	--	**86,580**	**120**	--	**5,994**	--	**732,600**	**293**
	Residential	--	*120*	--	*157*	*40*	*3,130*	--	--	*3,330*	--	--	--	--	--	--	--	*20,979*	*28*	--	*1,399*	--	*173,160*	*70*
SSV304	7/18/2014	10.7	<0.73	3.4	<1.4	<1.1	<0.94	<1.6	<2.7	<3.9	<1.8	22.6	<1.6	<2.2	<1.9	<1.6	2.5	<7.9	<6.0	<2.8	13	5.5	3.3	<1.2
	3/2/2015	<2.1	<0.21	0.99	<0.56	<0.31	<0.34	<0.22	<0.35	47.8	<0.34	25.9	<0.22	<0.30	<0.28	<0.18	<0.37	1.1	<0.45	<0.16	11	1.0	<0.24	<0.31
	9/4/2015	278	<0.21	27.2	<0.34	31.3	<0.19	<0.55	25.1	5.1	<0.43	44	17.4	27.3	<0.49	<0.62	11	30	*40.7*	12	137	7.1	55.1	21
	11/9/2015	15.6	<0.17	7.5	<0.27	1.3	<0.15	<0.44	2.1	13.6	<0.33	81.4	<0.48	3.3	<0.39	1.1	1.0 J	0.78 J	*1.6 J*	1.5 J	319	4	3.7	14
	2/16/2016	24.5	0.30 J	13.4	0.21 J	*81.9*	<0.035	<0.087	2.3	12	<0.069	20.5	<0.61	<0.84	<0.70	<0.092	<3.5	<3.0	5.3 J	2.9 J	105	<0.050	3.4	5.7
	10/5/2016	127	1.5	<0.42	1.1 J	0.59 J	0.83	1.2 J	7.2	9.0	<0.45	149	2.2	1.7 J	<0.51	72.6	<0.75	298	6.6	11	52	<0.22	9.9	2.2
	6/20/2017	20.0	1.5	13.4	<0.34	<0.33	<0.19	<0.55	4.1 J	8.5	<0.43	51.3	<0.61	<0.33	1.0 J	<0.62	<0.72	<0.95	<0.53	<0.42	133	3.0	1.3 J	0.92 J

Notes:

µg/m^3: micrograms per cubic meter.

Yellow highlighting indicates most recent results.

Purple highlighting indicates substance of concern at Dun-Rite site

<0.076 = Substance not detected above indicated detection limit.

Bold indicate concentration exceeds Vapor Action Level or Vapor Screening Level for Non-Residential Conditions.

Italics indicate concentration exceeds Vapor Action Level or Vapor Screening Level for Residential Conditions.

J = Analyte was detected but is below the reporting limit. The concentration is estimated.

[1] Vapor Action Levels obtained from the **Indoor Air Vapor Action Levels for Various VOCs Quick Look-up Table Based on June 2015 Regional Screening Level Summary Table.** [http://dnr.wi.gov/topic/Brownfields/documents/vapor/vapor-quick.pdf].

[2] Screening level for Residential/Small Commercial Buildings (dilution factor of 33.3).

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Dunrite
Pace Project No.: 10393175

Sample: AA 304 **Lab ID: 10393175001** Collected: 06/20/17 18:06 Received: 06/22/17 10:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**5.8J**	ug/m3	8.7	1.2	1.44		06/29/17 17:55	67-64-1	
Benzene	**1.0**	ug/m3	0.47	0.18	1.44		06/29/17 17:55	71-43-2	
Benzyl chloride	**<0.24**	ug/m3	1.5	0.24	1.44		06/29/17 17:55	100-44-7	
Bromodichloromethane	**<0.28**	ug/m3	2.0	0.28	1.44		06/29/17 17:55	75-27-4	
Bromoform	**<1.3**	ug/m3	3.0	1.3	1.44		06/29/17 17:55	75-25-2	
Bromomethane	**<0.45**	ug/m3	1.1	0.45	1.44		06/29/17 17:55	74-83-9	
1,3-Butadiene	**<0.25**	ug/m3	0.65	0.25	1.44		06/29/17 17:55	106-99-0	
2-Butanone (MEK)	**<0.33**	ug/m3	4.3	0.33	1.44		06/29/17 17:55	78-93-3	
Carbon disulfide	**<0.15**	ug/m3	0.91	0.15	1.44		06/29/17 17:55	75-15-0	
Carbon tetrachloride	**<0.28**	ug/m3	0.92	0.28	1.44		06/29/17 17:55	56-23-5	
Chlorobenzene	**<0.19**	ug/m3	1.4	0.19	1.44		06/29/17 17:55	108-90-7	
Chloroethane	**<0.28**	ug/m3	0.78	0.28	1.44		06/29/17 17:55	75-00-3	
Chloroform	**<0.27**	ug/m3	1.4	0.27	1.44		06/29/17 17:55	67-66-3	
Chloromethane	**0.64J**	ug/m3	1.5	0.16	1.44		06/29/17 17:55	74-87-3	
Cyclohexane	**<0.46**	ug/m3	1.0	0.46	1.44		06/29/17 17:55	110-82-7	
Dibromochloromethane	**<1.2**	ug/m3	2.5	1.2	1.44		06/29/17 17:55	124-48-1	
1,2-Dibromoethane (EDB)	**<1.1**	ug/m3	2.2	1.1	1.44		06/29/17 17:55	106-93-4	
1,2-Dichlorobenzene	**<0.74**	ug/m3	4.4	0.74	1.44		06/29/17 17:55	95-50-1	
1,3-Dichlorobenzene	**<0.76**	ug/m3	4.4	0.76	1.44		06/29/17 17:55	541-73-1	
1,4-Dichlorobenzene	**<0.72**	ug/m3	4.4	0.72	1.44		06/29/17 17:55	106-46-7	
Dichlorodifluoromethane	**1.4J**	ug/m3	1.5	0.69	1.44		06/29/17 17:55	75-71-8	
1,1-Dichloroethane	**<0.23**	ug/m3	1.2	0.23	1.44		06/29/17 17:55	75-34-3	
1,2-Dichloroethane	**<0.30**	ug/m3	1.2	0.30	1.44		06/29/17 17:55	107-06-2	
1,1-Dichloroethene	**<0.34**	ug/m3	1.2	0.34	1.44		06/29/17 17:55	75-35-4	
cis-1,2-Dichloroethene	**<0.35**	ug/m3	1.2	0.35	1.44		06/29/17 17:55	156-59-2	
trans-1,2-Dichloroethene	**<0.55**	ug/m3	2.9	0.55	1.44		06/29/17 17:55	156-60-5	
1,2-Dichloropropane	**<0.39**	ug/m3	1.4	0.39	1.44		06/29/17 17:55	78-87-5	
cis-1,3-Dichloropropene	**<0.53**	ug/m3	1.3	0.53	1.44		06/29/17 17:55	10061-01-5	
trans-1,3-Dichloropropene	**<0.37**	ug/m3	3.3	0.37	1.44		06/29/17 17:55	10061-02-6	
Dichlorotetrafluoroethane	**<0.45**	ug/m3	2.0	0.45	1.44		06/29/17 17:55	76-14-2	
Ethanol	**5.1**	ug/m3	1.4	0.38	1.44		06/29/17 17:55	64-17-5	
Ethyl acetate	**<0.50**	ug/m3	1.1	0.50	1.44		06/29/17 17:55	141-78-6	
Ethylbenzene	**0.99J**	ug/m3	3.2	0.61	1.44		06/29/17 17:55	100-41-4	
4-Ethyltoluene	**<0.27**	ug/m3	1.4	0.27	1.44		06/29/17 17:55	622-96-8	
n-Heptane	**0.70J**	ug/m3	1.2	0.40	1.44		06/29/17 17:55	142-82-5	
Hexachloro-1,3-butadiene	**<0.94**	ug/m3	7.8	0.94	1.44		06/29/17 17:55	87-68-3	
n-Hexane	**1.0J**	ug/m3	2.6	0.51	1.44		06/29/17 17:55	110-54-3	
2-Hexanone	**<0.59**	ug/m3	6.0	0.59	1.44		06/29/17 17:55	591-78-6	
Methylene Chloride	**<0.78**	ug/m3	12.7	0.78	1.44		06/29/17 17:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.31**	ug/m3	6.0	0.31	1.44		06/29/17 17:55	108-10-1	
Methyl-tert-butyl ether	**<0.44**	ug/m3	5.3	0.44	1.44		06/29/17 17:55	1634-04-4	
Naphthalene	**<0.44**	ug/m3	3.8	0.44	1.44		06/29/17 17:55	91-20-3	
2-Propanol	**<0.35**	ug/m3	3.6	0.35	1.44		06/29/17 17:55	67-63-0	
Propylene	**<0.19**	ug/m3	1.3	0.19	1.44		06/29/17 17:55	115-07-1	
Styrene	**<0.28**	ug/m3	1.3	0.28	1.44		06/29/17 17:55	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.47**	ug/m3	2.0	0.47	1.44		06/29/17 17:55	79-34-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Dunrite
Pace Project No.: 10393175

Sample: AA 304 **Lab ID: 10393175001** Collected: 06/20/17 18:06 Received: 06/22/17 10:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrachloroethene	**<0.40**	ug/m3	2.0	0.40	1.44		06/29/17 17:55	127-18-4	
Tetrahydrofuran	**<0.17**	ug/m3	2.2	0.17	1.44		06/29/17 17:55	109-99-9	
Toluene	**4.9**	ug/m3	2.8	0.22	1.44		06/29/17 17:55	108-88-3	
1,2,4-Trichlorobenzene	**<1.3**	ug/m3	5.4	1.3	1.44		06/29/17 17:55	120-82-1	
1,1,1-Trichloroethane	**<0.36**	ug/m3	1.6	0.36	1.44		06/29/17 17:55	71-55-6	
1,1,2-Trichloroethane	**<0.35**	ug/m3	4.0	0.35	1.44		06/29/17 17:55	79-00-5	
Trichloroethene	**0.44J**	ug/m3	1.6	0.40	1.44		06/29/17 17:55	79-01-6	
Trichlorofluoromethane	**<0.19**	ug/m3	1.6	0.19	1.44		06/29/17 17:55	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.43**	ug/m3	2.3	0.43	1.44		06/29/17 17:55	76-13-1	
1,2,4-Trimethylbenzene	**2.0**	ug/m3	1.4	0.18	1.44		06/29/17 17:55	95-63-6	
1,3,5-Trimethylbenzene	**0.90J**	ug/m3	1.4	0.26	1.44		06/29/17 17:55	108-67-8	
Vinyl acetate	**<0.48**	ug/m3	1.0	0.48	1.44		06/29/17 17:55	108-05-4	
Vinyl chloride	**<0.28**	ug/m3	0.75	0.28	1.44		06/29/17 17:55	75-01-4	
m&p-Xylene	**3.3**	ug/m3	2.5	1.1	1.44		06/29/17 17:55	179601-23-1	
o-Xylene	**1.4J**	ug/m3	3.2	0.51	1.44		06/29/17 17:55	95-47-6	

Sample: SSV 304 **Lab ID: 10393175002** Collected: 06/20/17 09:16 Received: 06/22/17 10:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**20.0**	ug/m3	10.6	1.5	1.75		06/29/17 20:13	67-64-1	
Benzene	**1.5**	ug/m3	0.57	0.21	1.75		06/29/17 20:13	71-43-2	
Benzyl chloride	**<0.29**	ug/m3	1.8	0.29	1.75		06/29/17 20:13	100-44-7	
Bromodichloromethane	**<0.34**	ug/m3	2.4	0.34	1.75		06/29/17 20:13	75-27-4	
Bromoform	**<1.6**	ug/m3	3.7	1.6	1.75		06/29/17 20:13	75-25-2	
Bromomethane	**<0.54**	ug/m3	1.4	0.54	1.75		06/29/17 20:13	74-83-9	
1,3-Butadiene	**<0.31**	ug/m3	0.79	0.31	1.75		06/29/17 20:13	106-99-0	
2-Butanone (MEK)	**13.4**	ug/m3	5.2	0.40	1.75		06/29/17 20:13	78-93-3	
Carbon disulfide	**10.7**	ug/m3	1.1	0.18	1.75		06/29/17 20:13	75-15-0	
Carbon tetrachloride	**<0.34**	ug/m3	1.1	0.34	1.75		06/29/17 20:13	56-23-5	
Chlorobenzene	**<0.23**	ug/m3	1.6	0.23	1.75		06/29/17 20:13	108-90-7	
Chloroethane	**<0.34**	ug/m3	0.94	0.34	1.75		06/29/17 20:13	75-00-3	
Chloroform	**<0.33**	ug/m3	1.7	0.33	1.75		06/29/17 20:13	67-66-3	
Chloromethane	**<0.19**	ug/m3	1.8	0.19	1.75		06/29/17 20:13	74-87-3	
Cyclohexane	**<0.55**	ug/m3	1.2	0.55	1.75		06/29/17 20:13	110-82-7	
Dibromochloromethane	**<1.5**	ug/m3	3.0	1.5	1.75		06/29/17 20:13	124-48-1	
1,2-Dibromoethane (EDB)	**<1.4**	ug/m3	2.7	1.4	1.75		06/29/17 20:13	106-93-4	
1,2-Dichlorobenzene	**2.4J**	ug/m3	5.3	0.90	1.75		06/29/17 20:13	95-50-1	
1,3-Dichlorobenzene	**<0.93**	ug/m3	5.3	0.93	1.75		06/29/17 20:13	541-73-1	
1,4-Dichlorobenzene	**4.1J**	ug/m3	5.3	0.87	1.75		06/29/17 20:13	106-46-7	
Dichlorodifluoromethane	**8.5**	ug/m3	1.8	0.84	1.75		06/29/17 20:13	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/m3	1.4	0.27	1.75		06/29/17 20:13	75-34-3	
1,2-Dichloroethane	**<0.36**	ug/m3	1.4	0.36	1.75		06/29/17 20:13	107-06-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
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ANALYTICAL RESULTS

Project: Dunrite
Pace Project No.: 10393175

Sample: SSV 304 **Lab ID: 10393175002** Collected: 06/20/17 09:16 Received: 06/22/17 10:10 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethene	**<0.42**	ug/m3	1.4	0.42	1.75		06/29/17 20:13	75-35-4	
cis-1,2-Dichloroethene	**<0.43**	ug/m3	1.4	0.43	1.75		06/29/17 20:13	156-59-2	
trans-1,2-Dichloroethene	**<0.67**	ug/m3	3.5	0.67	1.75		06/29/17 20:13	156-60-5	
1,2-Dichloropropane	**<0.47**	ug/m3	1.6	0.47	1.75		06/29/17 20:13	78-87-5	
cis-1,3-Dichloropropene	**<0.65**	ug/m3	1.6	0.65	1.75		06/29/17 20:13	10061-01-5	
trans-1,3-Dichloropropene	**<0.46**	ug/m3	4.0	0.46	1.75		06/29/17 20:13	10061-02-6	
Dichlorotetrafluoroethane	**<0.54**	ug/m3	2.5	0.54	1.75		06/29/17 20:13	76-14-2	
Ethanol	**51.3**	ug/m3	1.7	0.46	1.75		06/29/17 20:13	64-17-5	
Ethyl acetate	**<0.61**	ug/m3	1.3	0.61	1.75		06/29/17 20:13	141-78-6	
Ethylbenzene	**<0.74**	ug/m3	3.9	0.74	1.75		06/29/17 20:13	100-41-4	
4-Ethyltoluene	**<0.33**	ug/m3	1.8	0.33	1.75		06/29/17 20:13	622-96-8	
n-Heptane	**1.0J**	ug/m3	1.5	0.49	1.75		06/29/17 20:13	142-82-5	
Hexachloro-1,3-butadiene	**<1.1**	ug/m3	9.5	1.1	1.75		06/29/17 20:13	87-68-3	
n-Hexane	**<0.62**	ug/m3	3.1	0.62	1.75		06/29/17 20:13	110-54-3	
2-Hexanone	**<0.72**	ug/m3	7.3	0.72	1.75		06/29/17 20:13	591-78-6	
Methylene Chloride	**<0.95**	ug/m3	15.4	0.95	1.75		06/29/17 20:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.38**	ug/m3	7.3	0.38	1.75		06/29/17 20:13	108-10-1	
Methyl-tert-butyl ether	**<0.53**	ug/m3	6.4	0.53	1.75		06/29/17 20:13	1634-04-4	
Naphthalene	**<0.53**	ug/m3	4.7	0.53	1.75		06/29/17 20:13	91-20-3	
2-Propanol	**<0.42**	ug/m3	4.4	0.42	1.75		06/29/17 20:13	67-63-0	
Propylene	**<0.24**	ug/m3	1.5	0.24	1.75		06/29/17 20:13	115-07-1	
Styrene	**3.8**	ug/m3	1.5	0.34	1.75		06/29/17 20:13	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.58**	ug/m3	2.4	0.58	1.75		06/29/17 20:13	79-34-5	
Tetrachloroethene	**133**	ug/m3	2.4	0.49	1.75		06/29/17 20:13	127-18-4	
Tetrahydrofuran	**3.0**	ug/m3	2.6	0.21	1.75		06/29/17 20:13	109-99-9	
Toluene	**1.3J**	ug/m3	3.4	0.27	1.75		06/29/17 20:13	108-88-3	
1,2,4-Trichlorobenzene	**<1.6**	ug/m3	6.6	1.6	1.75		06/29/17 20:13	120-82-1	
1,1,1-Trichloroethane	**<0.43**	ug/m3	1.9	0.43	1.75		06/29/17 20:13	71-55-6	
1,1,2-Trichloroethane	**<0.43**	ug/m3	4.9	0.43	1.75		06/29/17 20:13	79-00-5	
Trichloroethene	**0.92J**	ug/m3	1.9	0.48	1.75		06/29/17 20:13	79-01-6	
Trichlorofluoromethane	**<0.23**	ug/m3	2.0	0.23	1.75		06/29/17 20:13	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.53**	ug/m3	2.8	0.53	1.75		06/29/17 20:13	76-13-1	
1,2,4-Trimethylbenzene	**1.8**	ug/m3	1.7	0.22	1.75		06/29/17 20:13	95-63-6	
1,3,5-Trimethylbenzene	**0.94J**	ug/m3	1.7	0.32	1.75		06/29/17 20:13	108-67-8	
Vinyl acetate	**2.8**	ug/m3	1.3	0.58	1.75		06/29/17 20:13	108-05-4	
Vinyl chloride	**<0.34**	ug/m3	0.91	0.34	1.75		06/29/17 20:13	75-01-4	
m&p-Xylene	**<1.4**	ug/m3	3.1	1.4	1.75		06/29/17 20:13	179601-23-1	
o-Xylene	**<0.61**	ug/m3	3.9	0.61	1.75		06/29/17 20:13	95-47-6	

REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALIFIERS

Project: Dunrite
Pace Project No.: 10393175

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

A3	The sample was analyzed by serial dilution.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.
R1	RPD value was outside control limits.