File

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WISCONSIN
DEPT. OF NATURAL RESOURCES

February 5, 2018

File Ref.: 03-11-550304

Mr. Randy J. Hardell
Surface Creation, Inc.
21 West Montello Street
Post Office Box 486
Montello WI 53949

Subject: Need for Additional Site Investigation, H & H Pools & Spas Property, 213 Dewitt Street, Portage, WI

Dear Mr. Hardell:

The results of the investigation reported in the Metco "H & H Pools & Spas – Letter Report" dated January 15, 2018 indicates the need for additional investigation at the H & H Pools & Spas site. Sub slab vapor sampling results for the compounds tetrachloroethylene (6,200 ug/m^3) and trichloroethylene (490 and 580 ug/m$^{3)}$ exceeded the Vapor Risk Screening Levels (VRSLs) for small commercial properties of 6,000 and 290 ug/m^3 respectively. Groundwater sampling results exceeded the enforcement standards for several compounds, including cis-1,2-dichloroethene (up to 47,000 ppb), tetrachloroethene (up to 6,500 ppb) and trichloroethene (up to 1,790 ppb). The groundwater enforcement standards for these compounds are 70, 5 and 5 ppb respectively.

Please direct your consultant to conduct additional vapor sub slab sampling at 100 and 102 East Cook Street, 205, 210 and 212 Dewitt street, in addition to resampling the previous sub slab sample locations. Where VRSLs are exceeded in the sub slab samples direct your consultant to obtain and evaluate indoor air samples. In addition, please direct to your consultant to prepare a workplan for additional site investigation to determine the degree and extent of soil and groundwater contamination at the site. Report the status of the sub slab and indoor air sampling to the Department by February 19, 2018. Submit the supplemental site investigation work plan to the Department by March 7, 2018.

The Department appreciates your efforts to restore the environment. If you have any questions regarding this letter, please contact me via email at lawrence.lester@wisconsin.gov or by telephone at 608-275-3465.

Sincerely,

Lawrence Lester
Hydrogeologist
Remediation and Redevelopment Program

cc: Ron Anderson, Metco
Sadie Derouin, WDNR
Steven L. Martin, WDNR

GROUNDWATER CONTAMINATION MAP CHLORINATED, DEC 13, 2017

H & H POOLS & SPAS

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8879
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Excellence through experience

PORTAGE, WISCONSIN

DRAWN BY: JJ
DATE: 1/19/16

SCALE:
1 INCH = 20 FEET
0 20

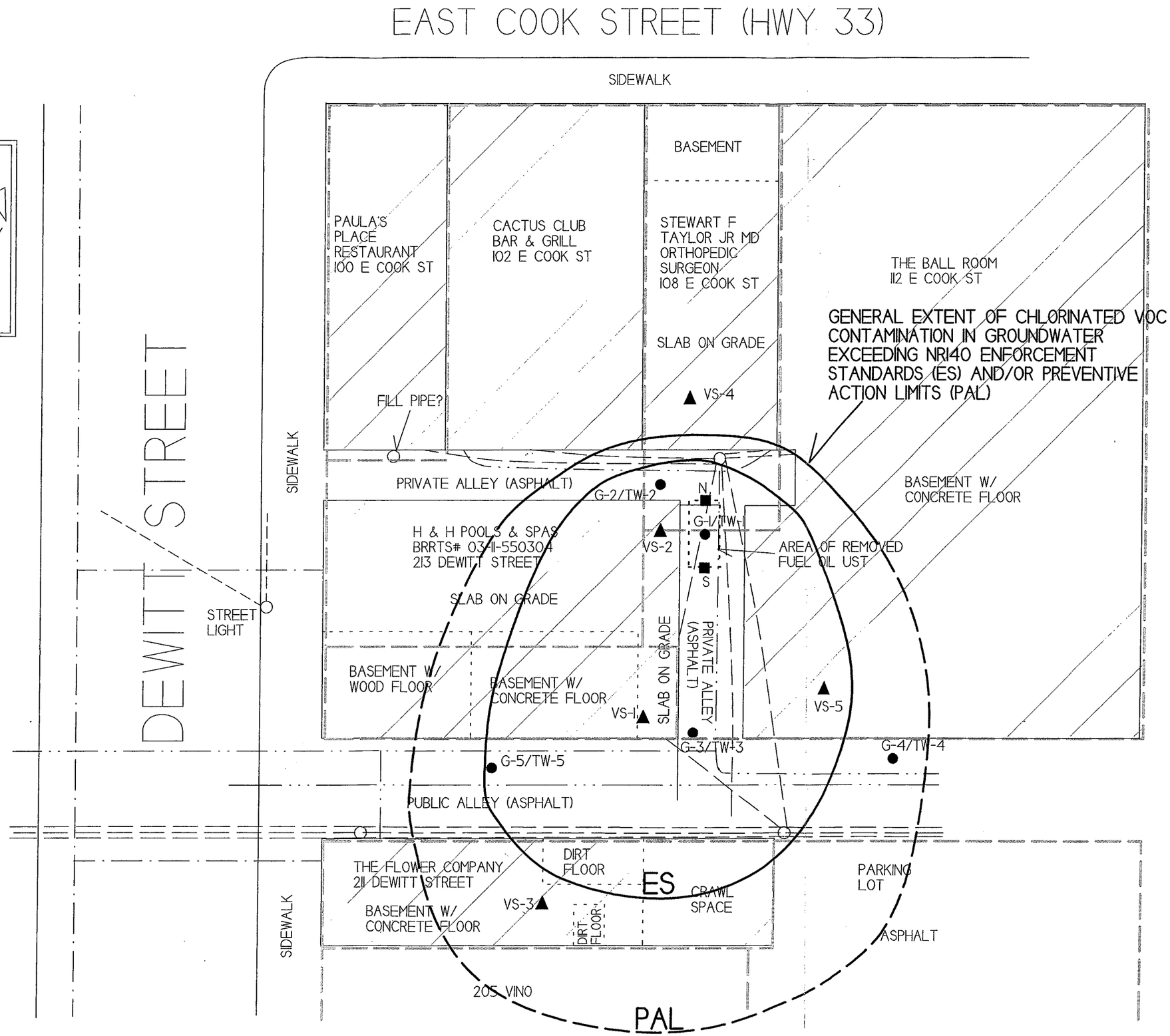
NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

■ = TANK CLOSURE ASSESSMENT SOIL SAMPLE LOCATION

● = GEOPROBE BORING/TEMP WELL LOCATION

▲ = SUB-SLAB VAPOR SAMPLING LOCATION

= PROPERTY LINE
= WATER LINE
= STORM SEWER LINE
= NATURAL GAS
= UNDERGROUND ELECTRIC
= OVERHEAD UTILITIES



A.1 Groundwater Analytical Table
H & H Pools & Spas Site BRRT's #03-11-550304

Well TW-1
PVC Elevation = 0 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	1,1-Dichloro-ethene (ppb)	cis-1,2-Dichloroethene (ppb)	trans-1,2-Dichloroethene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Tetrachchloro-ethene (PCE) (ppb)	Toluene (ppb)	Trichloro-ethene (TCE) (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/12/15	NM	20.70	NS	<46	NS	NS	NS	97	<49	**3600**	NS	<39	NS	**1172**	362
02/11/16	NM	20.19	NS	**8.7**	NS	NS	NS	47	<4.9	**500**	NS	7.6	NS	**486**	161
12/13/17	NM	20.48	NS	<8.5	**32**	**32000**	**830**	40	<41	**700**	**3900**	<33.5	**1790**	**615**	161
ENFORCE MENT STANDARD **ES = Bold**			**15**	**5**	**850**	**70**	**100**	**700**	**60**	**100**	**5**	**800**	**5**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*85*	*7*	*20*	*140*	*12*	*10*	*0.5*	*160*	*0.5*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well TW-2
PVC Elevation = 0 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	1,1-Dichloro-ethene (ppb)	cis-1,2-Dichloroethene (ppb)	trans-1,2-Dichloroethene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Tetrachchloro-ethene (PCE) (ppb)	Toluene (ppb)	Trichloro-ethene (TCE) (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/12/15	NM	21.19	NS	<46	NS	NS	NS	99	<49	**2440**	NS	<39	NS	**814**	385
02/11/16	NM	20.83	NS	**11**	NS	NS	NS	34	<4.9	**490**	NS	15.5	NS	*229*	146
12/13/17	NM	21.47	NS	<42.5	<115	**47000**	**2260**	<50	<205	<542.5	**1030**	<167.5	**220**	<512.5	<487.5
ENFORCE MENT STANDARD **ES = Bold**			**15**	**5**	**7**	**70**	**100**	**700**	**60**	**100**	**5**	**800**	**5**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*0.7*	*7*	*20*	*140*	*12*	*10*	*0.5*	*160*	*0.5*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well TW-3
PVC Elevation = 0 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	1,1-Dichloro-ethene (ppb)	cis-1,2-Dichloroethene (ppb)	trans-1,2-Dichloroethene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Tetrachchloro-ethene (PCE) (ppb)	Toluene (ppb)	Trichloro-ethene (TCE) (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/12/15	NM	18.70	NS	<46	NS	NS	NS	*209*	<49	**1450**	NS	<39	NS	**2030**	343
02/11/16	NM	18.31	NS	**7.1**	NS	NS	NS	14	<0.49	**296**	NS	1.01	NS	95.2	25.8
12/13/17	NM	18.04	NS	**26.4**	<9.2	**15300**	**430**	32	<16.4	**158**	**6500**	<13.4	**580**	*136.6*	52.2
ENFORCE MENT STANDARD **ES = Bold**			**15**	**5**	**7**	**70**	**100**	**700**	**60**	**100**	**5**	**800**	**5**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*0.7*	*7*	*20*	*140*	*12*	*10*	*0.5*	*160*	*0.5*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
H & H Pools & Spas Site BRRT's #03-11-550304

Well TW-4
PVC Elevation = 0 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	1,1-Dichloro-ethene (ppb)	cis-1,2-Dichloroethene (ppb)	trans-1,2-Dichloroethene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Tetrachchloro-ethene (PCE) (ppb)	Toluene (ppb)	Trichloro-ethene (TCE) (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/12/15	NM	NM	NS	<4.4	NS	NS	NS	22.3	<11	**147**	NS	<4.4	NS	*204*	101
02/11/16	NM	16.54	NS	<0.46	NS	NS	NS	32	<0.49	*26.6*	NS	4.0	NS	*213*	112
12/13/17	NM	17.26	NS	0.22	<0.46	*17.2*	0.54	31.6	<0.82	**227**	<0.48	2.93	<0.45	*186*	106
ENFORCE MENT STANDARD ES = **Bold**			**15**	**5**	**7**	**70**	**100**	**700**	**60**	**100**	**5**	**800**	**5**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*0.7*	*7*	*20*	*140*	*12*	*10*	*0.5*	*160*	*0.5*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well TW-5
PVC Elevation = 0 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	1,1-Dichloro-ethene (ppb)	cis-1,2-Dichloroethene (ppb)	trans-1,2-Dichloroethene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Tetrachchloro-ethene (PCE) (ppb)	Toluene (ppb)	Trichloro-ethene (TCE) (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/12/15	NM	18.48	NS	*1.44*	NS	NS	NS	<0.73	<0.49	0.86	NS	0.82	NS	0.75-1.58	1.91-3.31
02/11/16	NM	17.56	NS	<0.46	NS	NS	NS	<0.73	<0.49	0.0275	NS	0.43	NS	<1.51	<2.06
12/13/17	NM	18.35	NS	<0.17	<0.46	3.5	<0.35	<0.2	<0.82	<2.17	**6**	<0.67	*2.08*	<2.05	<1.95
ENFORCE MENT STANDARD ES = **Bold**			**15**	**5**	**7**	**70**	**100**	**700**	**60**	**100**	**5**	**800**	**5**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*0.7*	*7*	*20*	*140*	*12*	*10*	*0.5*	*160*	*0.5*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
H & H Pools & Spas Site BRRT's #03-11-550304

Well Sampling Conducted on:	12/13/17	12/13/17	12/13/17	12/13/17	12/13/17	ENFORCE MENT STANDARD = ES – Bold	*PREVENTIVE ACTION LIMIT = PAL - Italics*
VOC's							
Well Name	**TW-1**	**TW-2**	**TW-3**	**TW-4**	**TW-5**		
Benzene/ppb	< 8.5	< 42.5	**26.4**	0.22 "J"	< 0.17	**5**	*0.5*
Bromobenzene/ppb	< 21.5	< 107.5	< 8.6	< 0.43	< 0.43	==	==
Bromodichloromethane/ppb	< 15.5	< 77.5	< 6.2	< 0.31	< 0.31	**0.6**	*0.06*
Bromoform/ppb	< 24.5	< 122.5	< 9.8	< 0.49	< 0.49	**4.4**	*0.44*
tert-Butylbenzene/ppb	< 19.5	< 97.5	< 7.8	< 0.39	< 0.39	==	==
sec-Butylbenzene/ppb	36 "J"	< 60	4.8 "J"	4.2	< 0.24	==	==
n-Butylbenzene/ppb	100	< 85	13.6 "J"	10.1	< 0.34	==	==
Carbon Tetrachloride/ppb	< 10.5	< 52.5	< 4.2	< 0.21	< 0.21	**5**	*0.5*
Chlorobenzene/ppb	< 13.5	< 67.5	< 5.4	< 0.27	< 0.27	==	==
Chloroethane/ppb	< 25	< 125	< 10	< 0.5	< 0.5	**400**	*80*
Chloroform/ppb	< 48	< 240	< 19.2	< 0.96	< 0.96	**6**	*0.6*
Chloromethane/ppb	< 65	< 325	< 26	< 1.3	< 1.3	**30**	*3*
2-Chlorotoluene/ppb	< 18	< 90	< 7.2	< 0.36	< 0.36	==	==
4-Chlorotoluene/ppb	< 17.5	< 87.5	< 7	< 0.35	< 0.35	==	==
1,2-Dibromo-3-chloropropane/ppb	< 94	< 470	< 37.6	< 1.88	< 1.88	**0.2**	*0.02*
Dibromochloromethane/ppb	< 22.5	< 112.5	< 9	< 0.45	< 0.45	**60**	*6*
1,4-Dichlorobenzene/ppb	< 21	< 105	< 8.4	< 0.42	< 0.42	**75**	*15*
1,3-Dichlorobenzene/ppb	< 22.5	< 112.5	< 9	< 0.45	< 0.45	**600**	*120*
1,2-Dichlorobenzene/ppb	< 17	< 85	< 6.8	< 0.34	< 0.34	**600**	*60*
Dichlorodifluoromethane/ppb	< 19	< 95	< 7.6	< 0.38	< 0.38	**1000**	*200*
1,2-Dichloroethane/ppb	< 22.5	< 112.5	< 9	< 0.45	< 0.45	**5**	*0.5*
1,1-Dichloroethane/ppb	< 21	< 105	< 8.4	< 0.42	< 0.42	**850**	*85*
1,1-Dichloroethene/ppb	**32 "J"**	< 115	< 9.2	< 0.46	< 0.46	**7**	*0.7*
cis-1,2-Dichloroethene/ppb	**32000**	**47000**	**15300**	*17.2*	3.5	**70**	*7*
trans-1,2-Dichloroethene/ppb	**830**	**2260**	**430**	0.54 "J"	< 0.35	**100**	*20*
1,2-Dichloropropane/ppb	< 19.5	< 97.5	< 7.8	< 0.39	< 0.39	**5**	*0.5*
1,3-Dichloropropane/ppb	< 24.5	< 122.5	< 9.8	< 0.49	< 0.49	==	==
trans-1,3-Dichloropropene/ppm	< 21	< 105	< 8.4	< 0.42	< 0.42		
cis-1,3-Dichloropropene/ppm	< 10.5	< 52.5	< 4.2	< 0.21	< 0.21	**0.4**	*0.04*
Di-isopropyl ether/ppb	< 13	< 65	< 5.2	< 0.26	< 0.26	==	==
EDB (1,2-Dibromoethane)/ppb	< 17	< 85	< 6.8	< 0.34	< 0.34	**0.05**	*0.005*
Ethylbenzene/ppb	40	< 50	32	31.6	< 0.2	**700**	*140*
Hexachlorobutadiene/ppb	< 73.5	< 367.5	< 29.4	< 1.47	< 1.47	==	==
Isopropylbenzene/ppb	15.5 "J"	< 72.5	6.8 "J"	6.8	< 0.29	==	==
p-Isopropyltoluene/ppb	56	< 70	< 5.6	6	< 0.28	==	==
Methylene chloride/ppb	< 47	< 235	< 18.8	< 0.94	< 0.94	**5**	*0.5*
Methyl tert-butyl ether (MTBE)/ppb	< 41	< 205	< 16.4	< 0.82	< 0.82	**60**	*12*
Naphthalene/ppb	**700**	< 542.5	**158**	**227**	< 2.17	**100**	*10*
n-Propylbenzene/ppb	34	< 47.5	11.2 "J"	10.4	< 0.19	==	==
1,1,2,2-Tetrachloroethane/ppb	< 34.5	< 172.5	< 13.8	< 0.69	< 0.69	**0.2**	*0.02*
1,1,1,2-Tetrachloroethane/ppb	< 23.5	< 117.5	< 9.4	< 0.47	< 0.47	**70**	*7*
Tetrachloroethene (PCE)/ppb	**3900**	**1030**	**6500**	< 0.48	**6**	**5**	*0.5*
Toluene/ppb	< 33.5	< 167.5	< 13.4	2.93	< 0.67	**800**	*160*
1,2,4-Trichlorobenzene/ppb	< 64.5	< 322.5	< 25.8	< 1.29	< 1.29	**70**	*14*
1,2,3-Trichlorobenzene/ppb	< 41.5	< 207.5	< 16.6	< 0.83	< 0.83	==	==
1,1,1-Trichloroethane/ppb	< 17.5	< 87.5	< 7	< 0.35	< 0.35	**200**	*40*
1,1,2-Trichloroethane/ppb	< 32.5	< 162.5	< 13	< 0.65	< 0.65	**5**	*0.5*
Trichloroethene (TCE)/ppb	**1790**	**220 "J"**	**580**	< 0.45	*2.08*	**5**	*0.5*
Trichlorofluoromethane/ppb	< 32	< 160	< 12.8	< 0.64	< 0.64	==	==
1,2,4-Trimethylbenzene/ppb	**460**	< 285	*110*	*145*	< 1.14		
1,3,5-Trimethylbenzene/ppb	**155**	< 227.5	*26.6 "J"*	*41*	< 0.91	**Total TMB's 480**	*Total TMB's 96*
Vinyl Chloride/ppb	< 9.5	< 47.5	< 3.8	< 0.19	< 0.19	**0.2**	*0.02*
m&p-Xylene/ppb	104 "J"	< 390	42 "J"	54	< 1.56		
o-Xylene/ppb	57 "J"	< 97.5	10.2 "J"	52	< 0.39	**Total Xylenes 2000**	*Total Xylenes 400*

NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.
= = No Exceedences
(ppb) = parts per billion
(ppm) = parts per million
"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation