

From: Jason Powell <jasonp@metcohq.com>
Sent: Monday, January 13, 2020 1:34 PM
To: James, Andrew G - DNR
Subject: A to Z Sales & Service - SSVS & GW Results - Bowler, WI (03-59-190963)
Attachments: 0063_001.pdf; 0061_001.pdf

Categories: awaiting action

Andy, attached are the tables and laboratory reports for the SSVS and most recent round of groundwater sampling. The next round is planned for mid-February.

Any questions let me know.

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.1 Groundwater Analytical Table
A to Z Sales & Service – LGU BRRTS #03-59-190963

Well MW-1 MW-1R 1078.29
PVC Elevation = 1077.48 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/30/18	1065.17	12.31	9.9	4900	4100	<56	880	30600	3150	19000
05/01/18	1064.75	12.73	38.3	4000	4400	<28	580	39000	3510	19200
06/23/19	WELL ABANDONDED DURING EXCAVATION PROJECT									
07/30/19	MW-1 REPLACED MWI MW-1R									
08/27/19	1067.10	11.19	39.2	3500	5800	<28	560	41000	4000	24900
11/19/19	1067.28	11.01	37.6	4300	4100	<48	600	44000	2910	18800
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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 MW-2
PVC Elevation = 1078.86 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/30/18	1065.04	13.82	5.2	810	1710	<14	305	4400	2400	7850
05/01/18	1066.07	12.79	16.4	960	1340	<28	236	4500	1740	6080
08/27/19	1066.48	12.38	7.4	4.4	33	<0.28	5.7	65	50.2	134
11/19/19	1066.55	12.31	10.0	330	1320	<12	315	3600	1990	6200
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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 MW-3
PVC Elevation = 1080.07 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/30/18	1064.75	15.32	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
05/01/18	1065.75	14.32	<0.9	0.54	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
08/27/19	1066.25	13.82	<1.1	<0.22	15.1	<0.28	8.2	1.21	74.1	59.2
11/19/19	1066.33	13.74	<1.1	1.27	65	<0.24	29	2.69	225	322.1
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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
A to Z Sales & Service – LGU BRRTS #03-59-190963

Well MW-4

PVC Elevation = 1078.08 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/30/18	1065.12	12.96	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
05/01/18	1066.23	11.85	1.6	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
08/27/19	1066.66	11.42	<1.1	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
11/19/19	1066.65	11.43	<1.1	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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 MW-5

PVC Elevation = 1075.64 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/30/18	1065.06	10.58	1.3	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
05/01/18	1065.99	9.65	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
08/27/19	1066.42	9.22	<1.1	370	530	<5.6	115	1550	525	1480
11/19/19	1066.50	9.14	<1.1	14.1	0.54	<0.24	<1.3	0.6	0.74-1.41	2.26
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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 MW-6

PVC Elevation = 1078.23 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/30/18	1064.54	13.69	<0.9	770	1240	<14	258	1730	779	3690
05/01/18	1065.45	12.78	<0.9	224	370	<2.8	40	194	182	884
08/27/19	1065.99	12.24	<1.1	630	1710	<5.6	292	6200	1710	7840
11/19/19	1066.12	12.11	<1.1	760	1540	<12	266	3800	1249	5990
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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
A to Z Sales & Service – LGU BRRTS #03-59-190963

Well MW-7

PVC Elevation = 1080.29 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl-benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
08/27/19	1065.61	14.68	<1.1	0.88	<0.26	<0.28	<2.1	<0.19	<1.43	2.39-2.82
11/19/19	1065.73	14.56	<1.1	0.49	<0.29	<0.24	<1.3	<0.29	<1.13	<1.22
ENFORCEMENT STANDARD ES = Bold			15	5	700	60	100	800	480	2000
PREVENTIVE ACTION LIMIT PAL = Italics			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(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.6 Water Level Elevations
A to Z Sales & Service – LGU BRRTS #03-59-190963
Bowler, Wisconsin**

	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
Ground Surface (feet msl)	1077.95	1078.75	1079.26	1080.47	1078.55	1076.12	1078.76	1080.57
PVC top (feet msl)	1077.48	1078.29	1078.86	1080.07	1078.08	1075.64	1078.23	1080.29
Well Depth (feet)	17.00	17.00	19.00	19.00	17.00	16.00	19.00	20.00
Top of screen (feet msl)	1070.95	1071.75	1070.26	1071.47	1071.55	1070.12	1069.76	1070.57
Bottom of screen (feet msl)	1060.95	1061.75	1060.26	1061.47	1061.55	1060.12	1059.76	1060.57

Depth to Water From Top of PVC (feet)

01/30/18	12.31	NI	13.82	15.32	12.96	10.58	13.69	13.69
05/01/18	12.73	NI	12.79	14.32	11.85	9.65	12.78	12.78
08/27/19	A	11.19	12.38	13.82	11.42	9.22	12.24	14.68
11/19/19	A	11.01	12.31	13.74	11.43	9.14	12.11	14.56

Depth to Water From Ground Surface (feet)

01/30/18	12.78	NI	14.22	15.72	13.43	11.06	14.22	13.97
05/01/18	13.20	NI	13.19	14.72	12.32	10.13	13.31	13.06
08/27/19	A	11.65	12.78	14.22	11.89	9.70	12.77	14.96
11/19/19	A	11.47	12.71	14.14	11.90	9.62	12.64	14.84

Groundwater Elevation (feet msl)

01/30/18	1065.17	NI	1065.04	1064.75	1065.12	1065.06	1064.54	1066.60
05/01/18	1064.75	NI	1066.07	1065.75	1066.23	1065.99	1065.45	1067.51
08/27/19	A	1067.10	1066.48	1066.25	1066.66	1066.42	1065.99	1065.61
11/19/19	A	1067.28	1066.55	1066.33	1066.65	1066.50	1066.12	1065.73

CNL = Could Not Locate

A = Abandoned and removed during soil excavation project

NI = Not Installed

A.7 Other

Groundwater NA Indicator Results

A to Z Sales & Service – LGU BRRTS #03-59-190963

Well MW-1/MW-1R

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
01/30/18	0.33	6.60	-94.5	9.48	1469	<0.36	10.2	51.1	4790
05/01/18	0.66	6.77	-13	9.1	423.4	NS	NS	NS	NS
06/23/19	WELL ABANDONED AND REMOVED DURING EXCAVATION PROJECT								
07/30/19	MW-1 REPLACE WITH MW-1R								
08/27/19	1.25	6.43	-83.8	15.3	748	NS	NS	NS	NS
11/19/19	0.99	6.69	-103.7	13.29	756	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million

ns = not sampled

nm = not measured

ORP = Oxidation Reduction Potential

Note: Elevations are presented in feet mean sea level (msl).

Well MW-2

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
01/30/18	0.86	6.74	-102.5	9.41	1483	<0.36	4.26	26.6	2570
05/01/18	1.88	7.08	-41	9.1	732	NS	NS	NS	NS
08/27/19	1.23	7.01	-135.5	12.54	900	NS	NS	NS	NS
11/19/19	0.84	6.92	-82.0	11.62	876	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million

ns = not sampled

nm = not measured

ORP = Oxidation Reduction Potential

Note: Elevations are presented in feet mean sea level (msl).

Well MW-3

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
01/30/18	1.12	7.08	46.3	9.40	1073	0.39	14.0	0.29	390
05/01/18	3.44	7.48	229	9.6	640	NS	NS	NS	NS
08/27/19	1.48	7.19	182.5	11.33	1106	NS	NS	NS	NS
11/19/19	1.04	7.10	203.8	12.12	901	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million

ns = not sampled

nm = not measured

ORP = Oxidation Reduction Potential

Note: Elevations are presented in feet mean sea level (msl).

Well MW-4

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
01/30/18	2.45	7.06	181.4	9.00	479	0.56	9.33	0.57	90.2
05/01/18	6.57	7.41	262	8.7	412.6	NS	NS	NS	NS
08/27/19	4.82	7.05	215.2	13.71	721	NS	NS	NS	NS
11/19/19	4.01	6.98	264.8	12.04	558	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						2	-	-	60

(ppb) = parts per billion (ppm) = parts per million

ns = not sampled

nm = not measured

ORP = Oxidation Reduction Potential

Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
Groundwater NA Indicator Results
A to Z Sales & Service – LGU BRRTS #03-59-190963

Well MW-5

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
01/30/18	3.02	7.01	188.4	8.50	342	2.32	12.5	0.14	43
05/01/18	6.84	7.11	247	6.6	262.1	NS	NS	NS	NS
08/27/19	4.13	6.19	229.1	15.04	398	NS	NS	NS	NS
11/19/19	2.94	6.28	180.8	11.79	256	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

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

Well MW-6

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
01/30/18	3.65	6.78	-120.0	9.44	844	0.45	5.64	2.01	1480
05/01/18	1.59	7.22	21	9.9	482.5	NS	NS	NS	NS
08/27/19	5.36	6.32	165.2	11.9	126	NS	NS	NS	NS
11/19/19	4.27	6.24	189.7	11.35	102	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

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

Well MW-7

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
08/27/19	5.60	6.97	181.0	11.73	479	NS	NS	NS	NS
11/19/19	3.30	7.06	267.8	11.76	385	NS	NS	NS	NS
ENFORCEMENT STANDARD = ES – Bold						10	-	-	300
PREVENTIVE ACTION LIMIT = PAL - Italics						2	-	-	60

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

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

KERRY BRIETICK
 VILLAGE OF BOWLER
 107 W MAIN STREET
 BOWLER, WI 54416

Report Date 03-Dec-19

Project Name A TO Z SALES AND SERVICE

Invoice # E37161

Project #

Lab Code 5037161A
 Sample ID MW-4
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 1.1	ug/L	1.1	3.7	1	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		11/27/2019	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		11/27/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		11/27/2019	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		11/27/2019	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		11/27/2019	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		11/27/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		11/27/2019	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		11/27/2019	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		11/27/2019	CJR	1

Project #

Lab Code 5037161B
 Sample ID MW-3
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 1.1	ug/L	1.1	3.7	1	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	1.27	ug/l	0.32	1.02	1	GRO95/8021		11/22/2019	CJR	1
Ethylbenzene	65	ug/l	0.29	0.94	1	GRO95/8021		11/22/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.24	ug/l	0.24	0.78	1	GRO95/8021		11/22/2019	CJR	1
Naphthalene	29	ug/l	1.3	4.1	1	GRO95/8021		11/22/2019	CJR	1
Toluene	2.69	ug/l	0.29	0.93	1	GRO95/8021		11/22/2019	CJR	1
1,2,4-Trimethylbenzene	175	ug/l	0.46	1.46	1	GRO95/8021		11/22/2019	CJR	1
1,3,5-Trimethylbenzene	50	ug/l	0.67	2.15	1	GRO95/8021		11/22/2019	CJR	1
m&p-Xylene	298	ug/l	0.52	1.67	1	GRO95/8021		11/22/2019	CJR	1
o-Xylene	24.1	ug/l	0.7	2.24	1	GRO95/8021		11/22/2019	CJR	1

Lab Code 5037161C
 Sample ID MW-7
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 1.1	ug/L	1.1	3.7	1	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	0.49 "J"	ug/l	0.32	1.02	1	GRO95/8021		11/21/2019	CJR	1
Ethylbenzene	< 0.29	ug/l	0.29	0.94	1	GRO95/8021		11/21/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.24	ug/l	0.24	0.78	1	GRO95/8021		11/21/2019	CJR	1
Naphthalene	< 1.3	ug/l	1.3	4.1	1	GRO95/8021		11/21/2019	CJR	1
Toluene	< 0.29	ug/l	0.29	0.93	1	GRO95/8021		11/21/2019	CJR	1
1,2,4-Trimethylbenzene	< 0.46	ug/l	0.46	1.46	1	GRO95/8021		11/21/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.67	ug/l	0.67	2.15	1	GRO95/8021		11/21/2019	CJR	1
m&p-Xylene	< 0.52	ug/l	0.52	1.67	1	GRO95/8021		11/21/2019	CJR	1
o-Xylene	< 0.7	ug/l	0.7	2.24	1	GRO95/8021		11/21/2019	CJR	1

Project

Lab Code 5037161D
 Sample ID MW-2
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	10.0	ug/L	1.1	3.7	1	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	330	ug/l	16	51	50	GRO95/8021		11/27/2019	CJR	1
Ethylbenzene	1320	ug/l	14.5	47	50	GRO95/8021		11/27/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 12	ug/l	12	39	50	GRO95/8021		11/27/2019	CJR	1
Naphthalene	315	ug/l	65	205	50	GRO95/8021		11/27/2019	CJR	1
Toluene	3600	ug/l	14.5	46.5	50	GRO95/8021		11/27/2019	CJR	1
1,2,4-Trimethylbenzene	1560	ug/l	23	73	50	GRO95/8021		11/27/2019	CJR	1
1,3,5-Trimethylbenzene	430	ug/l	33.5	107.5	50	GRO95/8021		11/27/2019	CJR	1
m&p-Xylene	4600	ug/l	26	83.5	50	GRO95/8021		11/27/2019	CJR	1
o-Xylene	1600	ug/l	35	112	50	GRO95/8021		11/27/2019	CJR	1

Lab Code 5037161E
 Sample ID MW-5
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 1.1	ug/L	1.1	3.7	1	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	14.1	ug/l	0.32	1.02	1	GRO95/8021		11/26/2019	CJR	1
Ethylbenzene	0.54 "J"	ug/l	0.29	0.94	1	GRO95/8021		11/26/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.24	ug/l	0.24	0.78	1	GRO95/8021		11/26/2019	CJR	1
Naphthalene	< 1.3	ug/l	1.3	4.1	1	GRO95/8021		11/26/2019	CJR	1
Toluene	0.6 "J"	ug/l	0.29	0.93	1	GRO95/8021		11/26/2019	CJR	1
1,2,4-Trimethylbenzene	0.74 "J"	ug/l	0.46	1.46	1	GRO95/8021		11/26/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.67	ug/l	0.67	2.15	1	GRO95/8021		11/26/2019	CJR	1
m&p-Xylene	1.35 "J"	ug/l	0.52	1.67	1	GRO95/8021		11/26/2019	CJR	1
o-Xylene	0.91 "J"	ug/l	0.7	2.24	1	GRO95/8021		11/26/2019	CJR	1

Project #

Lab Code 5037161F
 Sample ID MW-6
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 1.1	ug/L	1.1	3.7	1	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	760	ug/l	16	51	50	GRO95/8021		11/22/2019	CJR	1
Ethylbenzene	1540	ug/l	14.5	47	50	GRO95/8021		11/22/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 12	ug/l	12	39	50	GRO95/8021		11/22/2019	CJR	1
Naphthalene	266	ug/l	65	205	50	GRO95/8021		11/22/2019	CJR	1
Toluene	3800	ug/l	14.5	46.5	50	GRO95/8021		11/22/2019	CJR	1
1,2,4-Trimethylbenzene	990	ug/l	23	73	50	GRO95/8021		11/22/2019	CJR	1
1,3,5-Trimethylbenzene	259	ug/l	33.5	107.5	50	GRO95/8021		11/22/2019	CJR	1
m&p-Xylene	4300	ug/l	26	83.5	50	GRO95/8021		11/22/2019	CJR	1
o-Xylene	1690	ug/l	35	112	50	GRO95/8021		11/22/2019	CJR	1

Lab Code 5037161G
 Sample ID MW-1R
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	37.6	ug/L	2.2	7.4	2	7421		11/22/2019	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	4300	ug/l	64	204	200	GRO95/8021		11/22/2019	CJR	1
Ethylbenzene	4100	ug/l	58	188	200	GRO95/8021		11/22/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 48	ug/l	48	156	200	GRO95/8021		11/22/2019	CJR	1
Naphthalene	600 "J"	ug/l	260	820	200	GRO95/8021		11/22/2019	CJR	1
Toluene	44000	ug/l	58	186	200	GRO95/8021		11/22/2019	CJR	1
1,2,4-Trimethylbenzene	2290	ug/l	92	292	200	GRO95/8021		11/22/2019	CJR	1
1,3,5-Trimethylbenzene	620	ug/l	134	430	200	GRO95/8021		11/22/2019	CJR	1
m&p-Xylene	12900	ug/l	104	334	200	GRO95/8021		11/22/2019	CJR	1
o-Xylene	5900	ug/l	140	448	200	GRO95/8021		11/22/2019	CJR	1

Project #

Lab Code 5037161H
 Sample ID TRIP BLANK
 Sample Matrix Water
 Sample Date 11/19/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.32	ug/l	0.32	1.02	1	GRO95/8021		11/21/2019	CJR	1
Ethylbenzene	< 0.29	ug/l	0.29	0.94	1	GRO95/8021		11/21/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.24	ug/l	0.24	0.78	1	GRO95/8021		11/21/2019	CJR	1
Naphthalene	< 1.3	ug/l	1.3	4.1	1	GRO95/8021		11/21/2019	CJR	1
Toluene	< 0.29	ug/l	0.29	0.93	1	GRO95/8021		11/21/2019	CJR	1
1,2,4-Trimethylbenzene	< 0.46	ug/l	0.46	1.46	1	GRO95/8021		11/21/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.67	ug/l	0.67	2.15	1	GRO95/8021		11/21/2019	CJR	1
m&p-Xylene	< 0.52	ug/l	0.52	1.67	1	GRO95/8021		11/21/2019	CJR	1
o-Xylene	< 0.7	ug/l	0.7	2.24	1	GRO95/8021		11/21/2019	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code **Comment**

1 Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

Michael Ricker

A.4 Vapor Analytical Table
Sub-Slab Sampling Data Table for A to Z Sales & Service
BY METCO

Sub-Slab Sampling conducted on November 19, 2019

WDNR Residential Sub-Slab Vapor Action Levels for Various VOCs Quick Look-Up Table Updated November, 2017 (ug/m³)

Sample ID	SS-1	SS-2	SS-3		
Benzene – ug/m ³	<0.50	<0.45	<0.51	120	c
Carbon Tetrachloride – ug/m ³	NS	NS	NS	160	c
Chloroform – ug/m ³	NS	NS	NS	40	c
Chloromethane – ug/m ³	NS	NS	NS	3100	n
Dichlorodifluoromethane – ug/m ³	NS	NS	NS	3300	n
1,1-Dichloroethane (1,1-DCA) – ug/m ³	NS	NS	NS	600	c
1,2-Dichloroethane (1,2-DCA) – ug/m ³	NS	NS	NS	37	c
1,1-Dichloroethylene (1,1-DCE) – ug/m ³	NS	NS	NS	7000	n
1,2-Dichloroethylene (cis and trans) - ug/m ³	NS	NS	NS	NA	-
Ethylbenzene – ug/m ³	<1.4	<1.2	5.1	370	c
Methylene chloride – ug/m ³	NS	NS	NS	21000	n
Methyl Tert-Butyl Ether (MTBE) – ug/m ³	<5.7	<5.1	<5.8	3700	c
Naphthalene – ug/m ³	<4.1	<3.7	<4.2	28	c
Tetrachloroethylene -ug/m ³	NS	NS	NS	1400	n
Toluene – ug/m ³	5.0	2.9	2.7	170000	n
1,1,1-Trichloroethane – ug/m ³	NS	NS	NS	170000	n
Trichloroethylene – ug/m ³	NS	NS	NS	70	n
Trichlorofluoromethane (Halcarbon 11) – ug/m ³	NS	NS	NS	NA	-
Trimethylbenzene (1,2,4) – ug/m ³	<1.5	<1.4	<1.6	2100	n
Trimethylbenzene (1,3,5) – ug/m ³	<1.5	<1.4	<1.6	2100	n
Vinyl chloride – ug/m ³	NS	NS	NS	57	c
Xylene (total) -ug/m ³	8.7	<3.7	56.1	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

November 26, 2019

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

RE: Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Dear Nicholas Stingl:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2019. 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: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

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: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10500169001	SS-1	Air	11/19/19 11:45	11/20/19 11:30
10500169002	SS-2	Air	11/19/19 12:08	11/20/19 11:30
10500169003	SS-3	Air	11/19/19 12:30	11/20/19 11:30
10500169004	Unused Can 1485	Air		11/20/19 11:30

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SAMPLE ANALYTE COUNT

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10500169001	SS-1	TO-15	MJL	9	PASI-M
10500169002	SS-2	TO-15	MJL	9	PASI-M
10500169003	SS-3	TO-15	MJL	9	PASI-M

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SUMMARY OF DETECTION

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10500169001	SS-1					
TO-15	Toluene	5.0	ug/m3	1.2	11/25/19 18:36	
TO-15	m&p-Xylene	5.9	ug/m3	2.7	11/25/19 18:36	
TO-15	o-Xylene	2.8	ug/m3	1.4	11/25/19 18:36	
10500169002	SS-2					
TO-15	Toluene	2.9	ug/m3	1.1	11/25/19 19:06	
10500169003	SS-3					
TO-15	Ethylbenzene	5.1	ug/m3	1.4	11/25/19 19:36	
TO-15	Toluene	2.7	ug/m3	1.2	11/25/19 19:36	
TO-15	m&p-Xylene	37.2	ug/m3	2.8	11/25/19 19:36	
TO-15	o-Xylene	18.9	ug/m3	1.4	11/25/19 19:36	

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PROJECT NARRATIVE

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Method: TO-15
Description: TO15 MSV AIR (TICS)
Client: Braun Intertec Corporation
Date: November 26, 2019

General Information:

3 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.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: B1910189 A to Z Sales and Serv

Pace Project No.: 10500169

Sample: SS-1 Lab ID: 10500169001 Collected: 11/19/19 11:45 Received: 11/20/19 11:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR (TICS)		Analytical Method: TO-15							
Benzene	ND	ug/m3	0.50	0.24	1.55		11/25/19 18:36	71-43-2	
Ethylbenzene	ND	ug/m3	1.4	0.47	1.55		11/25/19 18:36	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.7	1.0	1.55		11/25/19 18:36	1634-04-4	
Naphthalene	ND	ug/m3	4.1	2.0	1.55		11/25/19 18:36	91-20-3	
Toluene	5.0	ug/m3	1.2	0.54	1.55		11/25/19 18:36	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	1.5	0.70	1.55		11/25/19 18:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	0.62	1.55		11/25/19 18:36	108-67-8	
m&p-Xylene	5.9	ug/m3	2.7	1.1	1.55		11/25/19 18:36	179601-23-1	
o-Xylene	2.8	ug/m3	1.4	0.53	1.55		11/25/19 18:36	95-47-6	

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ANALYTICAL RESULTS

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Sample: SS-2 Lab ID: 10500169002 Collected: 11/19/19 12:08 Received: 11/20/19 11:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR (TICS)		Analytical Method: TO-15							
Benzene	ND	ug/m3	0.45	0.21	1.39		11/25/19 19:06	71-43-2	
Ethylbenzene	ND	ug/m3	1.2	0.42	1.39		11/25/19 19:06	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.1	0.92	1.39		11/25/19 19:06	1634-04-4	
Naphthalene	ND	ug/m3	3.7	1.8	1.39		11/25/19 19:06	91-20-3	
Toluene	2.9	ug/m3	1.1	0.49	1.39		11/25/19 19:06	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	1.4	0.63	1.39		11/25/19 19:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	0.55	1.39		11/25/19 19:06	108-67-8	
m&p-Xylene	ND	ug/m3	2.5	0.97	1.39		11/25/19 19:06	179601-23-1	
o-Xylene	ND	ug/m3	1.2	0.48	1.39		11/25/19 19:06	95-47-6	

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ANALYTICAL RESULTS

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Sample: SS-3 Lab ID: 10500169003 Collected: 11/19/19 12:30 Received: 11/20/19 11:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR (TICS)		Analytical Method: TO-15							
Benzene	ND	ug/m3	0.51	0.24	1.58		11/25/19 19:36	71-43-2	
Ethylbenzene	5.1	ug/m3	1.4	0.48	1.58		11/25/19 19:36	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.8	1.0	1.58		11/25/19 19:36	1634-04-4	
Naphthalene	ND	ug/m3	4.2	2.1	1.58		11/25/19 19:36	91-20-3	
Toluene	2.7	ug/m3	1.2	0.55	1.58		11/25/19 19:36	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	1.6	0.71	1.58		11/25/19 19:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.6	0.63	1.58		11/25/19 19:36	108-67-8	
m&p-Xylene	37.2	ug/m3	2.8	1.1	1.58		11/25/19 19:36	179601-23-1	
o-Xylene	18.9	ug/m3	1.4	0.54	1.58		11/25/19 19:36	95-47-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

QC Batch: 646878 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10500169001, 10500169002, 10500169003

METHOD BLANK: 3481409 Matrix: Air
Associated Lab Samples: 10500169001, 10500169002, 10500169003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	11/25/19 10:17	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	11/25/19 10:17	
Benzene	ug/m3	ND	0.32	11/25/19 10:17	
Ethylbenzene	ug/m3	ND	0.88	11/25/19 10:17	
m&p-Xylene	ug/m3	ND	1.8	11/25/19 10:17	
Methyl-tert-butyl ether	ug/m3	ND	3.7	11/25/19 10:17	
Naphthalene	ug/m3	ND	2.7	11/25/19 10:17	
o-Xylene	ug/m3	ND	0.88	11/25/19 10:17	
Toluene	ug/m3	ND	0.77	11/25/19 10:17	

LABORATORY CONTROL SAMPLE: 3481410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	59.3	119	70-134	
1,3,5-Trimethylbenzene	ug/m3	50	56.4	113	70-132	
Benzene	ug/m3	32.5	34.8	107	70-130	
Ethylbenzene	ug/m3	44.1	53.0	120	67-131	
m&p-Xylene	ug/m3	88.3	104	118	70-132	
Methyl-tert-butyl ether	ug/m3	36.6	43.8	120	70-130	
Naphthalene	ug/m3	53.3	53.7	101	56-130	
o-Xylene	ug/m3	44.1	52.0	118	70-130	
Toluene	ug/m3	38.3	44.4	116	70-130	

SAMPLE DUPLICATE: 3482130

Parameter	Units	10500196001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	1.4	1.4	3	25	
1,3,5-Trimethylbenzene	ug/m3	ND	.63J		25	
Benzene	ug/m3	1.7	1.6	5	25	
Ethylbenzene	ug/m3	2.1	2.1	3	25	
m&p-Xylene	ug/m3	5.4	5.2	4	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	1.8	1.8	3	25	
Toluene	ug/m3	6.9	6.9	1	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: B1910189 A to Z Sales and Serv
Pace Project No.: 10500169

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10500169001	SS-1	TO-15	646878		
10500169002	SS-2	TO-15	646878		
10500169003	SS-3	TO-15	646878		

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AIR: CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fi

WO#: 10500169



10500169

48052

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: <u>Brown Intertec</u>	Report To: <u>Nick Stingl</u>	Attention: <u> </u>
Address: <u>2309 Palace Street</u> <u>La Crosse WI 54603</u>	Copy To: <u> </u>	Company Name: <u> </u>
Email To: <u>nstingl@brownintertec.com</u>	Purchase Order No.: <u>B1910189</u>	Pace Quote Reference: <u> </u>
Phone: <u>608 781 7277</u> Fax: <u> </u>	Project Name: <u>A to Z sales and service</u>	Pace Project Manager/Sales Rep. <u> </u>
Requested Due Date/TAT: <u>std TAT</u>	Project Number: <u>B1910189</u>	Pace Profile #: <u> </u>

Program

UST Superfund Emissions Clean Air Act

Voluntary Clean Up Dry Clean RCRA Other

Location of Sampling by State WI

Reporting Units
 ug/m³ mg/m³
 PPBV PPMV
 Other

Report Level II III IV Other

ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes		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
		MEDIA	CODE			COMPOSITE START		COMPOSITE - ENDGRAB							
		Tedlar Bag	TB			DATE	TIME	DATE	TIME						
1	SS-1	6.0	0.0	11/19/19	11:09	11/19/19	11:45	-28	-3	1633	2404	X	001		
2	SS-2	0.1		11:23		12:08		-30	-3	0726	2428	X	002		
3	SS-3	0.9		11:55		12:30		-28	-4	3522	2378	X	003		
4															
5															
6															
7															
8															
9															
10															
11															
12															

Comments:

"TO-15 Short List (other)"
 = PVOC and Naphthalene

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
<u>Nick Stingl (Brown)</u>	<u>11/19/19</u>	<u>5:15 pm</u>	<u>[Signature]</u>	<u>11/20/19</u>	<u>1130</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: NICK STINGL

SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY) 11/19/19

Temp in °C

Received on ice

Custody Sealed Cooler

Samples Intact

ORIGINAL



Document Name:
Air Sample Condition Upon Receipt
Document No.:
F-MN-A-106-rev.19

Document Revised: 14Oct2019
Page 1 of 1
Issuing Authority:
Pace Minnesota Quality Office

Air Sample Condition
Upon Receipt

Client Name:
Braun Intertec

Project #:

WO#: **10500169**

Courier: Fed Ex UPS USPS Client
 Pace Speedee Commercial Sea Exception

PM: BM2 Due Date: 11/27/19
CLIENT: Braun-BLM

Tracking Number: 1083 0282 2906

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: 1 Date & Initials of Person Examining Contents: 11/20/19 CM

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> Alrbag Filter TDT Passive		11. Individually Certified Cans Y <u>(N)</u> (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
SS-1	1633	2404	-4	+5					
SS-2	0726	2428	-1	+5					
SS-3	3522	2378	-4.5	+5					
UNUSED	1485	2258	-28.5	---					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: BA M

Date: 11/21/19

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

Project No.: Sample ID:
 Project Name: Date:
 Location: Personnel:
Bowler WI

Radon or VOC mitigation system in building? Present Operating **NA**

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 # _____ | |

Vapor Pin® Installation

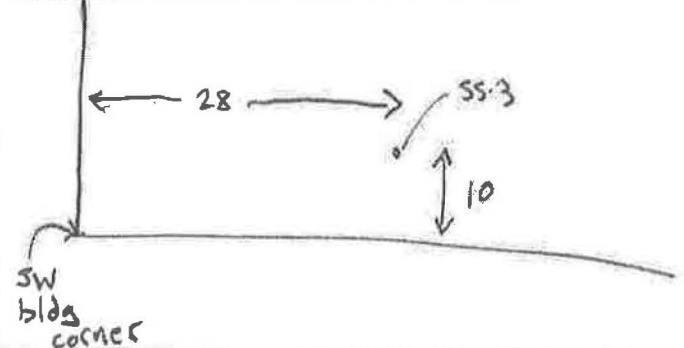
Installation Date:

- Installation Type:
- Temporary
 - Permanent
 - Stainless steel cover
 - Plastic cover

Concrete Thickness (inches):

- Concrete patch (if temporary)

Sketch of pin location with measurements to walls:



Soil Vapor Sampling

Relative sub-slab pressure (±pascals):

- Water dam test passed

- Shut-in test passed

- Purged 200 mL air prior to sampling

Sampling Canister ID:

- 1 Liter
- 6 Liters

Flow Controller ID:

- None
- 200 mL/min

Canister Vacuum on Label ("Hg):

Canister Initial Vacuum ("Hg):

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:

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

Canister Final Vacuum ("Hg):

Collection End Time:

PID Reading (ppm):

Notes: