



April 17, 2020

Mr. Michael Schmoller  
DNR Service Center  
3911 Fish Hatchery Road  
Fitchburg, Wisconsin 53711

Reference: 0441161

Subject: 910 Mayer LLC, Madison, Wisconsin – 910 Mayer – Site Update  
Former Spice Room - BRRTS Activity # 02-13-580723  
Former Ethylene Dichloride Tanks - BRRTS Activity # 02-13-580721

ERM completed additional site investigation activities at the 910 Mayer property located in Madison, Wisconsin. The scope of the additional site investigation was consistent with the discussions with the Wisconsin Department of Natural Resources (WDNR) on 12 December 2019.

This letter is provided to:

1. Provide updated site investigation information related to the former ethylene dichloride (EDC) above ground storage tanks (ASTs).
2. Provide updated site investigation information related to the former Spice Room.
3. Request WDNR formal review of site investigation data and response that Site Investigation is complete (response requested within 30 days).
4. Request WDNR determination and formal response that soils in the EDC area are not considered hazardous waste if excavated (response requested within 30 days).

The information attached to this letter supplements the information previously provided in the Remediation Technology Screening reports dated 9 December 2019. Although this submittal has been provided electronically, review fee payments for each of these requests has been mailed to WDNR with a cover letter indicating the BRRTS numbers each payment (check) is associated with.

#### **Former Ethylene Dichloride Above Ground Storage Tanks (BRRTs#02-13-580721)**

Two former EDC ASTs were located in the unpaved grassed area south of Building 59. To evaluate conditions nearer the southern property, ERM installed three groundwater monitoring wells (TS-MW-20A, TS-MW-20B and TS-MW-20C). TS-MW-20A was installed to evaluate shallow groundwater (20 - 25 feet below ground surface [fbgs]), TS-MW-20B to evaluate intermediate groundwater (90 - 100 fbgs), and TS-MW-20C (160 - 165 fbgs) to evaluate groundwater in the silty clay between the intermediate and deep groundwater aquifers.

The locations of the wells are shown on **Figure 7**. The soil boring logs and well construction forms are provided as **Attachment A**. Following well development and sampling, groundwater samples

and a waste characterization soil sample from TW-MW-20C were submitted to Pace Analytical of Green Bay, Wisconsin and laboratory analytical results are provided as **Attachment B**. Laboratory analytical results were compared to WDNR criteria (as specified in WAC NR140 and NR720) and **Table 2** and **Figure 7** of the Remediation Technology Screening were updated and are attached.

The results indicate that concentrations of EDC were not detected at concentrations exceeding the NR140 Enforcement Standard in all three monitoring wells at the TS-MW-20 cluster. This indicates that the EDC plume is at a low concentration at the southern property boundary and active remediation of groundwater is not required in this area. The lateral extent of the EDC plume in intermediate groundwater has been further defined and does not appear to be migrating off-Site. Based on this information, the proposed remedy for groundwater deeper than 30 feet below ground surface (bgs) is monitored natural attenuation. The focus of active remedial efforts will be for shallow soils and groundwater less than 30 feet from the former EDC tank area.

As discussed in the meeting with WDNR on December 12, 2019, the WDNR agrees that the Site Investigation is complete. Form 4400-237 is provided in **Attachment C** and requests a letter be provided to 910 Mayer to confirm this understanding. 910 Mayer also requests that determination be made that EDC in soil and groundwater is non-hazardous as presented in **Attachment D**.

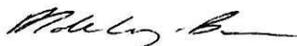
#### **Former Spice Room in Building 43 (BRRTs#02-13-580723)**

A former spice room was located in Building 43. As preparation for a soil vapor extraction pilot test and to evaluate conditions in the northern portion of Building 43, ERM installed 11 sub-slab soil gas sampling locations (VP-21 through VP-32), three soil vapor probes (SP-01 through SP-03, screens set from 4.0 to 4.5 fbgs), and three soil vapor extraction wells (SVE-01 through SVE-03). These locations are shown on **Figure 4**. Soil vapor samples were submitted to Pace Analytical of Green Bay, Wisconsin and laboratory analytical results are provided as **Attachment B**. Laboratory analytical results were compared to WDNR criteria (as specified in NR700 – using the WI Vapor Quick Look-Up Table) and **Table 3** is updated with the results. In addition, **Figure 4** of the Remediation Technology Screening was updated and is attached.

The results indicate that concentrations of TCE exceeding the industrial vapor risk screening level (VRSL) are present in the northern portion of Building 43. ERM adjusted one soil vapor extraction (SVE) location [SVE-03] to be located in the northern portion of Building 43 for pilot testing purposes. The results of the pilot testing will be provided in a separate communication. The focus of remedial efforts in Building 43 will be on evaluating the efficacy of SVE or sub-slab depressurization to address the sub-slab vapor concentrations. As discussed in the meeting with WDNR on December 12, 2019, the WDNR agrees that the Site Investigation is complete. Form 4400-237 is provided in **Attachment C** and requests a letter be provided to 910 Mayer to confirm this understanding.

Please let us know if you have any questions or would like to schedule a call to discuss.

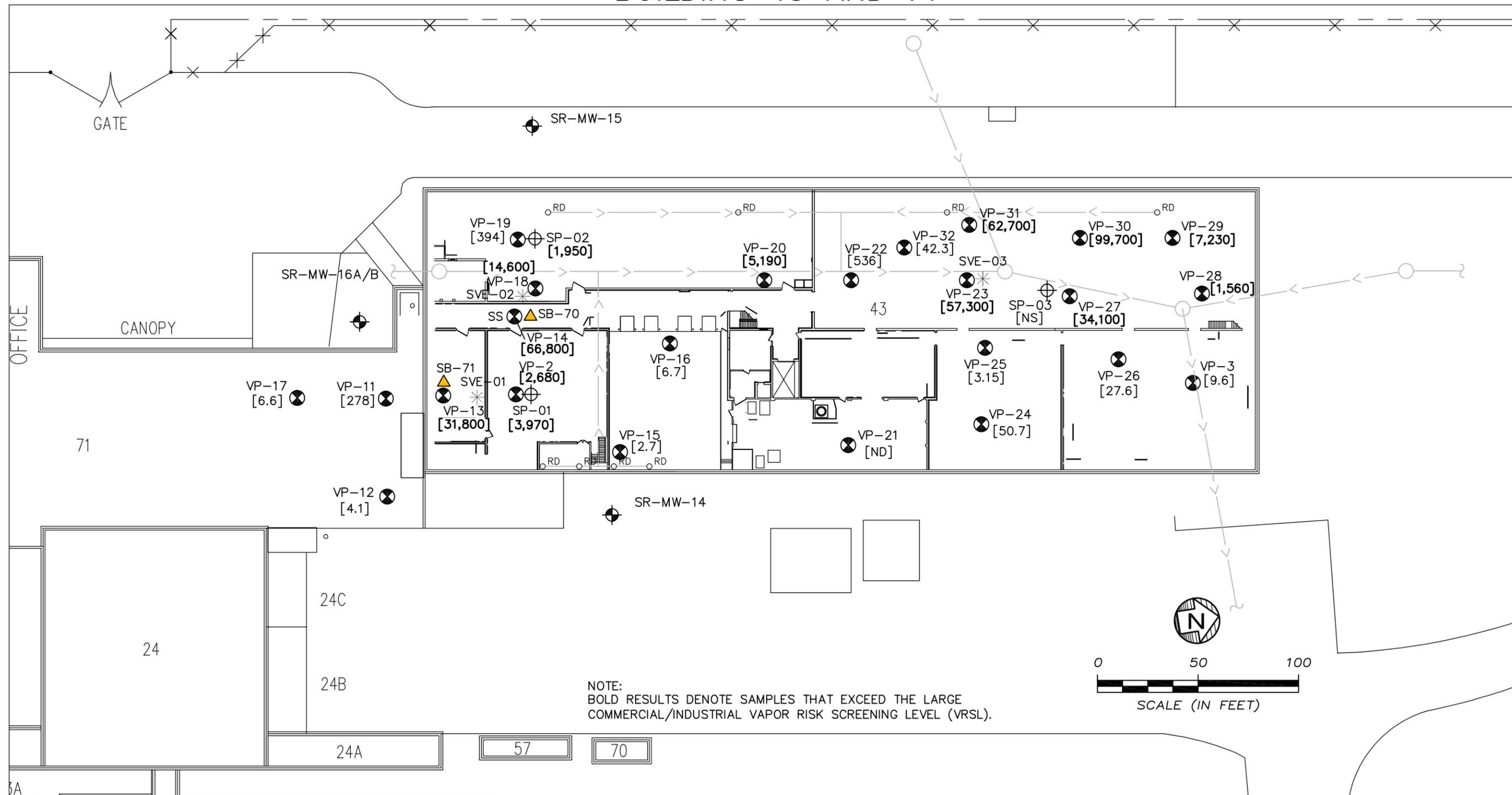
Yours sincerely



David de Courcy-Bower P.E.  
Partner

## FIGURES

# TCE SUB-SLAB SAMPLE RESULTS BUILDING 43 AND 71



### LEGEND

- ⊗ SUB-SLAB LOCATION
- [927] TCE SOIL GAS RESULTS (MICROGRAMS PER CUBIC METER -  $\mu\text{g}/\text{m}^3$ )
- \* SOIL VAPOR EXTRACTION WELL
- ⊕ SOIL VAPOR PROBES
- >— STORM SEWER
- STORM MANHOLE
- <sup>RD</sup> ROOF DRAIN
- ⊕ MONITORING WELL
- ▲ SOIL BORING

Drawn By GML
CADD Review FGB
Date Drawn/Rev'd 8/14/17 - 4/9/20

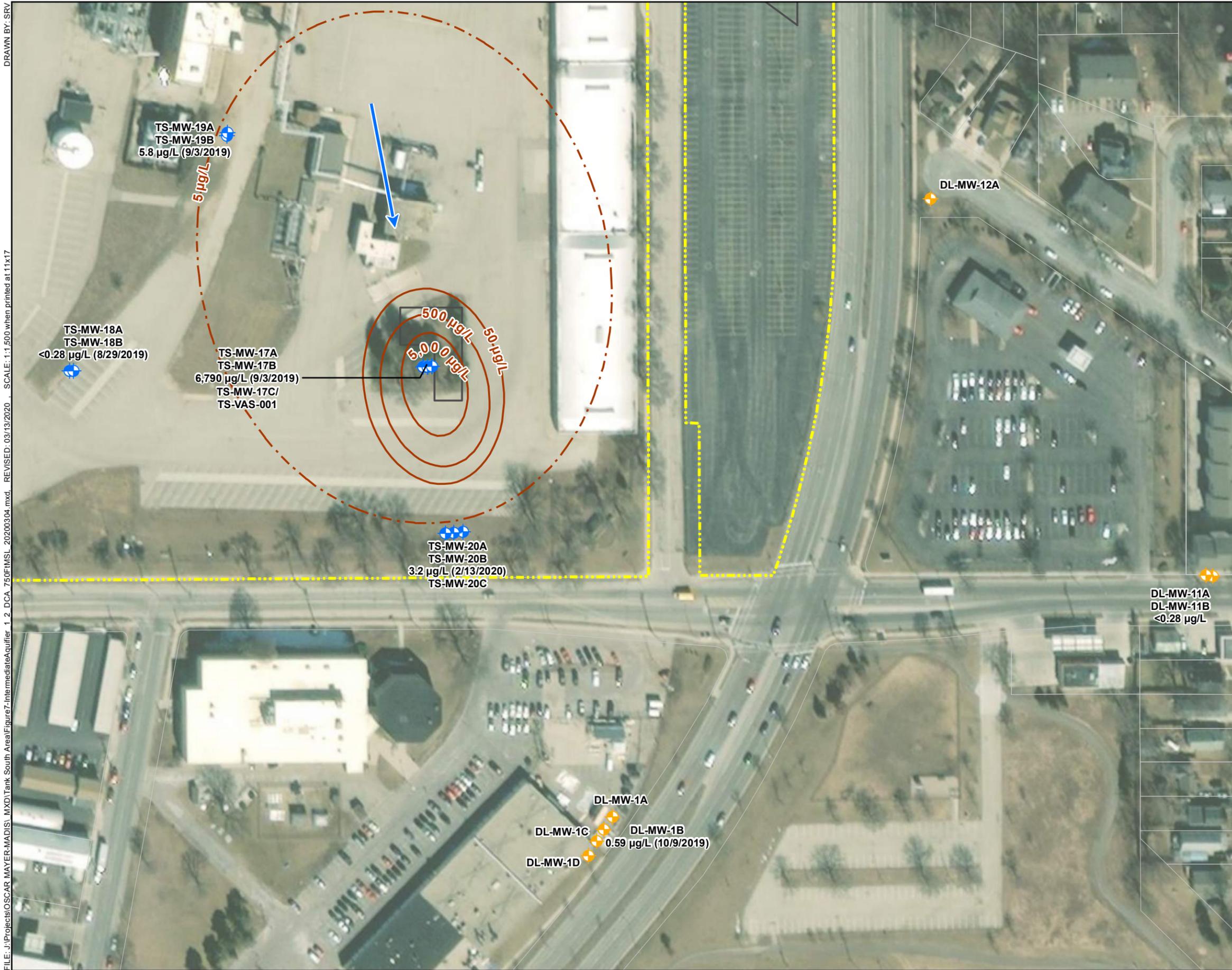


**910 MAYER LLC**

910 MAYER AVENUE  
MADISON, WISCONSIN

**Environmental Resources Management**

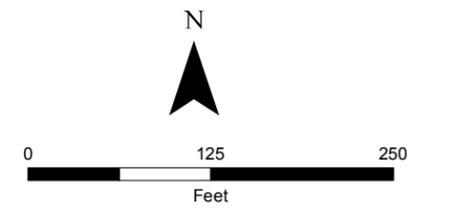
CHK'D RP
0441161
FIGURE 4



- Legend**
- Demetral Landfill Monitoring Well Location
  - Monitoring Well Location
  - Intermediate Aquifer 1,2-DCA Contour (Dashed where inferred)
  - Groundwater Flow Direction
  - Historical Site Feature
  - 910 Mayer Properties (Main Site)

**Notes:**

1. µg/L - micrograms per kilogram
2. AMSL - above mean sea level
3. Intermediate groundwater contour depicted at an elevation of 750 ft above mean sea level (amsl).



**Figure 7**  
**1,2-DCA Concentration Contour Map**  
**Intermediate Groundwater**  
**Tank South Area**  
 910 Mayer LLC  
 910 Mayer Avenue  
 Madison, Wisconsin

Environmental Resources Management  
 www.erm.com

## TABLES

**TABLE 2 - Groundwater Sampling Results**

<b>BRRTS # 02-13-580721</b>
<b>SITE NAME:</b> Oscar Mayer Facility
<b>SITE ADDRESS:</b> 910 Mayer Avenue Madison, WI 53704

		Location ID		TS-MW-17A	TS-MW-17A	TS-MW-17B	TS-MW-17B	TS-MW-17B
		Sample Date	Sample Type	05/09/2019	09/03/2019	05/10/2019	09/03/2019	09/03/2019
		PAL	ES	N	N	N	N	FD
				4-14 ft	4-14 ft	93-98 ft	93-98 ft	93-98 ft
<b>VOCs</b>								
1,1,1,2-Tetrachloroethane	ug/L	7	70	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
1,1,1-Trichloroethane	ug/L	40	200	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,1,2,2-Tetrachloroethane	ug/L	0.02	0.2	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,1,2-Trichloroethane	ug/L	0.5	5	<i>0.68 J</i>	< 0.55	<i>2.0 J</i>	<i>2.2 J</i>	<i>1.9 J</i>
1,1-Dichloroethane	ug/L	85	850	< 0.27	0.45 J	< 0.27	< 0.27	< 0.27
1,1-Dichloroethene	ug/L	0.7	7	< 0.24	0.69 J	0.43 J	< 0.24	< 0.24
1,1-Dichloropropene	ug/L	NS	NS	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
1,2,3-Trichlorobenzene	ug/L	NS	NS	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,2,3-Trichloropropane	ug/L	12	60	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
1,2,4-Trichlorobenzene	ug/L	14	70	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95
1,2,4-Trimethylbenzene	ug/L	96	480	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84
1,2-Dibromo-3-chloropropane	ug/L	0.02	0.2	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,2-Dichlorobenzene	ug/L	60	600	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
1,2-Dichloroethane	ug/L	0.5	<b>5</b>	<b>8240</b>	<b>12200</b>	<b>5550</b>	<b>6790</b>	<b>6600</b>
1,2-Dichloropropane	ug/L	0.5	5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,3,5-Trimethylbenzene	ug/L	96	480	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,3-Dichlorobenzene	ug/L	120	600	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichloropropane	ug/L	NS	NS	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
1,4-Dichlorobenzene	ug/L	15	75	< 0.94	< 0.94	< 0.94	< 0.94	< 0.94
2,2-Dichloropropane	ug/L	NS	NS	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
4-Chlorotoluene	ug/L	NS	NS	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76
4-Isopropyltoluene	ug/L	NS	NS	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
Benzene	ug/L	0.5	5	<i>1.6</i>	< 0.25	< 0.25	< 0.25	< 0.25
Bromobenzene	ug/L	NS	NS	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Bromodichloromethane	ug/L	0.06	<b>0.6</b>	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Bromoform	ug/L	0.44	4.4	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Carbon tetrachloride	ug/L	0.5	5	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
Chlorobenzene	ug/L	20	100	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
Chlorobromomethane	ug/L	NS	NS	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Chloroethane	ug/L	80	400	< 1.3	2.3 J	< 1.3	< 1.3	< 1.3
Chloroform	ug/L	0.6	6	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
cis-1,2-Dichloroethene	ug/L	7	70	1.3	3.7	0.50 J	0.50 J	0.40 J
cis-1,3-Dichloropropene	ug/L	0.04	NS	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6
Dibromochloromethane	ug/L	6	60	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
Dibromomethane	ug/L	NS	NS	< 0.94	< 0.94	< 0.94	< 0.94	< 0.94
Dichlorodifluoromethane (Freon 12)	ug/L	200	1000	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	ug/L	140	700	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Ethylene dibromide	ug/L	0.005	0.05	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
Hexachlorobutadiene	ug/L	NS	NS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Isopropyl ether	ug/L	NS	NS	9.7	< 1.9	< 1.9	< 1.9	< 1.9
Isopropylbenzene (Cumene)	ug/L	NS	NS	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
m,p-Xylenes	ug/L	NS	NS	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
Methyl bromide	ug/L	1	10	< 0.97	< 0.97	< 0.97	< 0.97	< 0.97
Methyl chloride	ug/L	3	30	< 2.2	2.5 J	< 2.2	<i>3.5 J</i>	< 2.2
Methyl tert-butyl ether	ug/L	12	60	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Methylene chloride	ug/L	0.5	5	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58
Naphthalene	ug/L	10	100	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	ug/L	NS	NS	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/L	NS	NS	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
o-Chlorotoluene (2-chlorotoluene)	ug/L	NS	NS	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93
o-Xylene	ug/L	NS	NS	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
sec-Butylbenzene	ug/L	NS	NS	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85
Styrene	ug/L	10	100	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
tert-Butylbenzene	ug/L	NS	NS	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Tetrachloroethene	ug/L	0.5	5	<i>0.56 J</i>	1.5	< 0.33	< 0.33	< 0.33
Toluene	ug/L	160	800	< 0.17	0.53 J	< 0.17	< 0.17	< 0.17
trans-1,2-Dichloroethene	ug/L	20	100	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
trans-1,3-Dichloropropene	ug/L	0.04	0.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
Trichloroethene	ug/L	0.5	5	<i>1.7</i>	4.8	<i>0.75 J</i>	<i>1.0</i>	<i>0.87 J</i>
Trichlorofluoromethane (Freon 11)	ug/L	698	3490	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
Vinyl chloride	ug/L	0.02	<b>0.2</b>	<b>13.5</b>	<b>25.6</b>	< 0.17	< 0.17	<b>0.23 J</b>

**Notes:**

Results reported in micrograms per liter (ug/L).

*Italicized* values exceed the Chapter NR140 Preventive Action Limit (PAL)

**Bold** values exceed the Chapter NR140 Enforcement Standard (ES)

NS = No established standard

J = Estimated concentration at or above the limit of detection and below the limit of quantitation.

N = Normal sample

FD = Field duplicate sample

**TABLE 2 - Groundwater Sampling Results**

<b>BRRTS # 02-13-580721</b>
<b>SITE NAME:</b> Oscar Mayer Facility
<b>SITE ADDRESS:</b> 910 Mayer Avenue Madison, WI 53704

		Location ID		TS-MW-17C	TS-MW-17C	TS-MW-18A	TS-MW-18B	TS-MW-19A
		Sample Date	Sample Type	05/10/2019	09/03/2019	08/29/2019	08/29/2019	09/03/2019
		PAL	ES	N	N	N	N	N
				250-255 ft	250-255 ft	10 -25 ft	95-100 ft	10-25 ft
<b>VOCs</b>								
1,1,1,2-Tetrachloroethane	ug/L	7	70	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
1,1,1-Trichloroethane	ug/L	40	200	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,1,2,2-Tetrachloroethane	ug/L	0.02	0.2	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,1,2-Trichloroethane	ug/L	0.5	5	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
1,1-Dichloroethane	ug/L	85	850	< 0.27	< 0.27	< 0.27	< 0.27	1.8
1,1-Dichloroethene	ug/L	0.7	7	< 0.24	< 0.24	< 0.24	< 0.24	0.29 J
1,1-Dichloropropene	ug/L	NS	NS	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
1,2,3-Trichlorobenzene	ug/L	NS	NS	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,2,3-Trichloropropane	ug/L	12	60	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
1,2,4-Trichlorobenzene	ug/L	14	70	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95
1,2,4-Trimethylbenzene	ug/L	96	480	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84
1,2-Dibromo-3-chloropropane	ug/L	0.02	0.2	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,2-Dichlorobenzene	ug/L	60	600	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
1,2-Dichloroethane	ug/L	0.5	<b>5</b>	<b>30.3</b>	<b>11.7</b>	< 0.28	< 0.28	< 0.28
1,2-Dichloropropane	ug/L	0.5	5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,3,5-Trimethylbenzene	ug/L	96	480	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,3-Dichlorobenzene	ug/L	120	600	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichloropropane	ug/L	NS	NS	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
1,4-Dichlorobenzene	ug/L	15	75	< 0.94	< 0.94	< 0.94	< 0.94	< 0.94
2,2-Dichloropropane	ug/L	NS	NS	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
4-Chlorotoluene	ug/L	NS	NS	< 0.76	< 0.76	< 0.76	< 0.76	< 0.76
4-Isopropyltoluene	ug/L	NS	NS	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
Benzene	ug/L	0.5	5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Bromobenzene	ug/L	NS	NS	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Bromodichloromethane	ug/L	0.06	<b>0.6</b>	<b>2.2</b>	< 0.36	< 0.36	< 0.36	< 0.36
Bromoform	ug/L	0.44	4.4	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Carbon tetrachloride	ug/L	0.5	5	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
Chlorobenzene	ug/L	20	100	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
Chlorobromomethane	ug/L	NS	NS	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Chloroethane	ug/L	80	400	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Chloroform	ug/L	0.6	6	2.2 J	< 1.3	< 1.3	< 1.3	< 1.3
cis-1,2-Dichloroethene	ug/L	7	70	< 0.27	0.45 J	< 0.27	< 0.27	41.0
cis-1,3-Dichloropropene	ug/L	0.04	NS	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6
Dibromochloromethane	ug/L	6	60	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
Dibromomethane	ug/L	NS	NS	< 0.94	< 0.94	< 0.94	< 0.94	< 0.94
Dichlorodifluoromethane (Freon 12)	ug/L	200	1000	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	ug/L	140	700	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Ethylene dibromide	ug/L	0.005	0.05	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
Hexachlorobutadiene	ug/L	NS	NS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Isopropyl ether	ug/L	NS	NS	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
Isopropylbenzene (Cumene)	ug/L	NS	NS	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39
m,p-Xylenes	ug/L	NS	NS	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
Methyl bromide	ug/L	1	10	< 0.97	< 0.97	< 0.97	< 0.97	< 0.97
Methyl chloride	ug/L	3	30	< 2.2	< 2.2	< 2.2	< 2.2	4.1 J
Methyl tert-butyl ether	ug/L	12	60	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Methylene chloride	ug/L	0.5	5	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58
Naphthalene	ug/L	10	100	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	ug/L	NS	NS	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/L	NS	NS	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
o-Chlorotoluene (2-chlorotoluene)	ug/L	NS	NS	< 0.93	< 0.93	< 0.93	< 0.93	< 0.93
o-Xylene	ug/L	NS	NS	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
sec-Butylbenzene	ug/L	NS	NS	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85
Styrene	ug/L	10	100	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
tert-Butylbenzene	ug/L	NS	NS	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Tetrachloroethene	ug/L	0.5	5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	ug/L	160	800	< 0.17	< 0.17 ,HS	< 0.17	0.21 J	0.21 J
trans-1,2-Dichloroethene	ug/L	20	100	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
trans-1,3-Dichloropropene	ug/L	0.04	0.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
Trichloroethene	ug/L	0.5	5	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Trichlorofluoromethane (Freon 11)	ug/L	698	3490	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
Vinyl chloride	ug/L	0.02	<b>0.2</b>	< 0.17	< 0.17	< 0.17	< 0.17	<b>2.1</b>

**Notes:**

Results reported in micrograms per liter (ug/L).

*Italicized* values exceed the Chapter NR140 Preventive Action Limit (PAL)

**Bold** values exceed the Chapter NR140 Enforcement Standard (ES)

NS = No established standard

J = Estimated concentration at or above the limit of detection and below the limit of quantitation.

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**TABLE 2 - Groundwater Sampling Results**

<b>BRRTS # 02-13-580721</b>
<b>SITE NAME:</b> Oscar Mayer Facility
<b>SITE ADDRESS:</b> 910 Mayer Avenue Madison, WI 53704

		Location ID		TS-MW-19B	TS-MW-20A	TS-MW-20B	TS-MW-20C
		Sample Date	Sample Type	09/03/2019	02/13/2020	02/13/2020	02/21/2020
		PAL	ES	N	N	N	N
		Screen Interval		82-87 ft	10-25 ft	90-100 ft	160-165 ft
<b>VOCs</b>							
1,1,1,2-Tetrachloroethane	ug/L	7	70	< 0.27	< 0.27	< 0.27	< 0.27
1,1,1-Trichloroethane	ug/L	40	200	< 0.24	< 0.24	< 0.24	< 0.24
1,1,2,2-Tetrachloroethane	ug/L	0.02	0.2	< 0.28	< 0.28	< 0.28	< 0.28
1,1,2-Trichloroethane	ug/L	0.5	5	< 0.55	< 0.55	< 0.55	< 0.55
1,1-Dichloroethane	ug/L	85	850	7.5	< 0.27	0.32 J	< 0.27
1,1-Dichloroethene	ug/L	0.7	7	< 0.24	< 0.24	0.92 J	< 0.24
1,1-Dichloropropene	ug/L	NS	NS	< 0.54	< 0.54	< 0.54	< 0.54
1,2,3-Trichlorobenzene	ug/L	NS	NS	< 0.63	< 0.63	< 0.63	< 2.2
1,2,3-Trichloropropane	ug/L	12	60	< 0.59	< 0.59	< 0.59	< 0.59
1,2,4-Trichlorobenzene	ug/L	14	70	< 0.95	< 0.95	< 0.95	< 0.95
1,2,4-Trimethylbenzene	ug/L	96	480	< 0.84	< 0.84	< 0.84	< 0.84
1,2-Dibromo-3-chloropropane	ug/L	0.02	0.2	< 1.8	< 1.8	< 1.8	< 1.8
1,2-Dichlorobenzene	ug/L	60	600	< 0.71	< 0.71	< 0.71	< 0.71
1,2-Dichloroethane	ug/L	0.5	<b>5</b>	<b>5.8</b>	< 0.28	3.2	< 0.28
1,2-Dichloropropane	ug/L	0.5	5	< 0.28	< 0.28	< 0.28	< 0.28
1,3,5-Trimethylbenzene	ug/L	96	480	< 0.87	< 0.87	< 0.87	< 0.87
1,3-Dichlorobenzene	ug/L	120	600	< 0.63	< 0.63	< 0.63	< 0.63
1,3-Dichloropropane	ug/L	NS	NS	< 0.83	< 0.83	< 0.83	< 0.83
1,4-Dichlorobenzene	ug/L	15	75	< 0.94	< 0.94	< 0.94	< 0.94
2,2-Dichloropropane	ug/L	NS	NS	< 2.3	< 2.3	< 2.3	< 2.3
4-Chlorotoluene	ug/L	NS	NS	< 0.76	< 0.76	< 0.76	< 0.76
4-Isopropyltoluene	ug/L	NS	NS	< 0.80	< 0.80	< 0.80	< 0.80
Benzene	ug/L	0.5	5	< 0.25	< 0.25	0.43 J	< 0.25
Bromobenzene	ug/L	NS	NS	< 0.24	< 0.24	< 0.24	< 0.24
Bromodichloromethane	ug/L	0.06	<b>0.6</b>	< 0.36	< 0.36	< 0.36	< 0.36
Bromoform	ug/L	0.44	4.4	< 4.0	< 4.0	< 4.0	< 4.0
Carbon tetrachloride	ug/L	0.5	5	< 0.17	< 0.17	< 0.17	< 1.6
Chlorobenzene	ug/L	20	100	< 0.71	< 0.71	< 0.71	< 0.71
Chlorobromomethane	ug/L	NS	NS	< 0.36	< 0.36	< 0.36	< 0.36
Chloroethane	ug/L	80	400	< 1.3	< 1.3	< 1.3	< 1.3
Chloroform	ug/L	0.6	6	< 1.3	< 1.3	< 1.3	< 1.3
cis-1,2-Dichloroethene	ug/L	7	70	6.3	< 0.27	6.3	< 0.27
cis-1,3-Dichloropropene	ug/L	0.04	NS	< 3.6	< 3.6	< 3.6	< 3.6
Dibromochloromethane	ug/L	6	60	< 2.6	< 2.6	< 2.6	< 2.6
Dibromomethane	ug/L	NS	NS	< 0.94	< 0.94	< 0.94	< 0.94
Dichlorodifluoromethane (Freon 12)	ug/L	200	1000	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	ug/L	140	700	< 0.22	< 0.22	< 0.22	0.38 J
Ethylene dibromide	ug/L	0.005	0.05	< 0.83	< 0.83	< 0.83	< 0.83
Hexachlorobutadiene	ug/L	NS	NS	< 1.2	< 1.2	< 1.2	< 1.5
Isopropyl ether	ug/L	NS	NS	< 1.9	2.7 J	< 1.9	< 1.9
Isopropylbenzene (Cumene)	ug/L	NS	NS	< 0.39	< 0.39	< 0.39	< 1.7
m,p-Xylenes	ug/L	NS	NS	< 0.47	< 0.47	< 0.47	< 0.47
Methyl bromide	ug/L	1	10	< 0.97	< 0.97	< 0.97	< 0.97
Methyl chloride	ug/L	3	30	< 2.2	< 2.2	< 2.2	< 2.2
Methyl tert-butyl ether	ug/L	12	60	< 1.2	< 1.2	< 1.2	< 1.2
Methylene chloride	ug/L	0.5	5	< 0.58	< 0.58	< 0.58	< 0.58
Naphthalene	ug/L	10	100	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	ug/L	NS	NS	< 0.71	< 0.71	< 0.71	< 0.71
n-Propylbenzene	ug/L	NS	NS	< 0.81	< 0.81	< 0.81	< 0.81
o-Chlorotoluene (2-chlorotoluene)	ug/L	NS	NS	< 0.93	< 0.93	< 0.93	< 0.93
o-Xylene	ug/L	NS	NS	< 0.26	< 0.26	< 0.26	< 0.26
sec-Butylbenzene	ug/L	NS	NS	< 0.85	< 0.85	< 0.85	< 0.85
Styrene	ug/L	10	100	< 0.47	< 0.47	< 0.47	< 3.0
tert-Butylbenzene	ug/L	NS	NS	< 0.30	< 0.30	< 0.30	< 0.30
Tetrachloroethene	ug/L	0.5	5	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	ug/L	160	800	0.22 J	< 0.17	1.5 J	2.0
trans-1,2-Dichloroethene	ug/L	20	100	< 1.1	< 1.1	1.4 J	< 1.1
trans-1,3-Dichloropropene	ug/L	0.04	0.4	< 4.4	< 4.4	< 4.4	< 4.4
Trichloroethene	ug/L	0.5	5	< 0.26	< 0.26	2.5	< 0.26
Trichlorofluoromethane (Freon 11)	ug/L	698	3490	< 0.21	< 0.21	< 0.21	< 0.21
Vinyl chloride	ug/L	0.02	<b>0.2</b>	< 0.17	< 0.17	<b>7.0</b>	< 0.17

**Notes:**

Results reported in micrograms per liter (ug/L).

*Italicized* values exceed the Chapter NR140 Preventive Action Limit (PAL)

**Bold** values exceed the Chapter NR140 Enforcement Standard (ES)

NS = No established standard

J = Estimated concentration at or above the limit of detection and below the limit of quantitation.

N = Normal sample

FD = Field duplicate sample

**TABLE 3 - Subslab Soil Vapor Sampling Results**

<b>BRRTS # 02-13-580723</b>
<b>SITE NAME:</b> Former Spice Room - 910 Mayer Facility
<b>SITE ADDRESS:</b> 910 Mayer Avenue Madison, WI 53704

					Location ID	VP-02	VP-03	VP-11	VP-12	VP-13	VP-14	VP-15	VP-16
					Date	02/12/2019	8/2/2017	02/12/2019	02/12/2019	02/12/2019	02/12/2019	02/12/2019	02/12/2019
					Sample Type	N	N	N	N	N	N	N	N
Parameter	Units	Residential VRSL	Small Commerical VRSL	Large Commercial/Industrial									
Trichloroethene	ug/m3	<i>70</i>	<b>290</b>	<u>880</u>	<u>2680</u>	9.6	278	4.1	<b><u>31800</u></b>	<b><u>66800</u></b>	2.7	6.7	

**Notes:**

Results reported in micrograms per cubic meter (ug/m3).

Underlined values exceed the Large Commercial/Industrial Vapor Risk Screening Levels

**Bold** values exceed Small Commercial Vapor Risk Screening Levels

*Italicized* values exceed the Residential Vapor Risk Screening Level

N = Normal sample

**TABLE 3 - Subslab Soil Vapor Sampling Results**

<b>BRRTS # 02-13-580723</b>
<b>SITE NAME:</b> Former Spice Room - 910 Mayer Facility
<b>SITE ADDRESS:</b> 910 Mayer Avenue Madison, WI 53704

					Location ID	VP-17	VP-18	VP-19	VP-20	VP-21	VP-22	VP-23	VP-24	VP-25
					Date	02/12/2019	02/12/2019	02/12/2019	02/12/2019	01/27/2020	01/27/2020	01/27/2020	01/27/2020	02/24/2020
					Sample Type	N	N	N	N	N	N	N	N	N
Parameter	Units	Residential VRSL	Small Commerical VRSL	Large Commercial/Industrial										
Trichloroethene	ug/m3	70	290	<u>880</u>	6.6	<u>14600</u>	<b>394</b>	<u>5190</u>	< 0.975 U	<b>536</b>	<u>57300</u>	50.7	3.15	

**Notes:**

Results reported in micrograms per cubic meter (ug/m3).

Underlined values exceed the Large Commercial/Industrial Vapor Risk Screening Levels

**Bold** values exceed Small Commercial Vapor Risk Screening Levels

*Italicized* values exceed the Residential Vapor Risk Screening Level

N = Normal sample

**TABLE 3 - Subslab Soil Vapor Sampling Results**

<b>BRRTS # 02-13-580723</b>
<b>SITE NAME:</b> Former Spice Room - 910 Mayer Facility
<b>SITE ADDRESS:</b> 910 Mayer Avenue Madison, WI 53704

					Location ID	VP-26	VP-27	VP-28	VP-29	VP-30	VP-31	VP-32	SP-01	SP-02
					Date	02/24/2020	02/24/2020	02/24/2020	02/21/2020	02/21/2020	02/21/2020	02/21/2020	02/24/2020	02/24/2020
					Sample Type	N	N	N	N	N	N	N	N	N
Parameter	Units	Residential VRSL	Small Commercial VRSL	Large Commercial/Industrial										
Trichloroethene	ug/m3	70	290	<u>880</u>	27.6	<b><u>34100</u></b>	<b><u>1560</u></b>	<b><u>7230</u></b>	<b><u>99700</u></b>	<b><u>62700</u></b>	42.3	<b><u>3970</u></b>	<b><u>1950</u></b>	

**Notes:**

Results reported in micrograms per cubic meter (ug/m3).

Underlined values exceed the Large Commercial/Industrial Vapor Risk Screening Levels

**Bold** values exceed Small Commercial Vapor Risk Screening Levels

*Italicized* values exceed the Residential Vapor Risk Screening Level

N = Normal sample

## **ATTACHMENT A**

## **SOIL BORING LOGS AND CONSTRUCTION LOGS**



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20A**

ERM PROJECT # 0441161

SHEET 1 OF 1

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/12/2020  
FINISH 02/12/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 25 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) ▼  
DEPTH TO WATER (FINAL) ▼ 5.46 ft 02/12/2020

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA		
					SAMPLE TYPE	RECOVERY	Observations / Remarks
5	[Fill. Till like material with clay, silt, sand, gravel, and cobbles. Consistent with past borings in this area of the Site.]						
	[Fill with anthropogenic debris: bricks, stone, wood, glass, and plastic in a matrix of brown clay and silt.]	4.5					
	[Black peat with organic material.]	6					
	(CL) [Gray clay with some silt.]	8					
10			CL				
15							
20	(SP) [Light brown, fine grained, well sorted, sand with trace silt.]	20.5					
			SP				
25	(SP) [Light brown, very fine grained, well sorted, sand with trace silt.]	24					
		25	SP				

REMARKS:  
Well TS-MW-20A is in a nested well cluster with TS-MW-20C. TS-MW-20A was blind drilled, and the geologic Description was taken from TS-MW-20C. Groundwater lab analysis is for 1,2-dichloroethane (ethylene dichloride).

LAB ANALYSIS:

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20B**

ERM PROJECT # 0441161

SHEET 1 OF 2

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/12/2020  
FINISH 02/12/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 100 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) ▼  
DEPTH TO WATER (FINAL) ▼ 5.75 ft 02/12/2020

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA		
					SAMPLE TYPE	RECOVERY	Observations / Remarks
5	[Fill. Till like material with clay, silt, sand, gravel, and cobbles. Consistent with past borings in this area of the Site.]	4.5		[Cross-hatched pattern]			
	[Fill with anthropogenic debris: bricks, stone, wood, glass, and plastic in a matrix of brown clay and silt.]	6		[Dotted pattern]			
	[Black peat with organic material.]	8		[Horizontal line pattern]			
10	(CL) [Gray clay with some silt.]		CL	[Vertical line pattern]			
15							
20	(SP) [Light brown, fine grained, well sorted, sand with trace silt.]	20.5	SP	[Dotted pattern]			
25	(SP) [Light brown, very fine grained, well sorted, sand with trace silt.]	24	SP	[Dotted pattern]			
30	(MLS) [Light brown silt with fine sand and some gravel and clay.]	27	MLS	[Vertical line pattern]			
35	(SP-SM) [Light brown, very fine, well sorted sand with silt and trace clay and gravel.]	32	SP-SM	[Dotted pattern]			
40							
45							
50	(SP) [Light brown, fine grained, well sorted sand with trace gravel.]	35	SP	[Dotted pattern]			

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20

REMARKS:  
Well TS-MW-20B is in a nested well cluster with TS-MW-20C. TS-MW-20B was blind drilled, and the geologic Description was taken from TS-MW-20C. Groundwater lab analysis is for 1,2-dichloroethane (ethylene dichloride).

LAB ANALYSIS:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20B**

ERM PROJECT # 0441161

SHEET 2 OF 2

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/12/2020  
FINISH 02/12/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 100 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) ▼  
DEPTH TO WATER (FINAL) ▽ 5.75 ft 02/12/2020

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA		
					SAMPLE TYPE	RECOVERY	Observations / Remarks
55	(SP) [Light brown, fine grianed, well sorted sand with trace gravel.](Continued)		SP				
60	(SP) [Light brown, very fine sand with trace gravel.]	61					
65			SP				
70							
75							
80	(SP-SM) [Light brown, very fine sand with trace gravel and silt.]	79	SP-SM				
85							
90							
95	(MLS) [Light gray-brown, silt with some sand and clay.]	94.5	MLS				
100		100					

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20

REMARKS:  
Well TS-MW-20B is in a nested well cluster with TS-MW-20C. TS-MW-20B was blind drilled, and the geologic Description was taken from TS-MW-20C. Groundwater lab analysis is for 1,2-dichloroethane (ethylene dichloride).

LAB ANALYSIS:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161

SHEET 1 OF 4

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 165 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) 9 ft 02/11/2020  
DEPTH TO WATER (FINAL) 4.44 ft 02/12/2020

DEPTH	ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA			Observations / Remarks
						SAMPLE TYPE	RECOVERY	PID (ppm) 11.2 eV Lamp	
		[Fill. Till like material with clay, silt, sand, gravel, and cobbles. Consistent with past borings in this area of the Site.]							
5		[Fill with anthropogenic debris: bricks, stone, wood, glass, and plastic in a matrix of brown clay and silt.]	4.5			60/60			
		[Black peat with organic material.]	6					0.6	
		(CL) [Gray clay with some silt.]	8					0	
10				CL		35/120		0	
15						44/60		0	
20		(SP) [Light brown, fine grained, well sorted, sand with trace silt.]	20.5	SP		60/60		0	Soil: <25 ug/kg [(21-23ft)]
25		(SP) [Light brown, very fine grained, well sorted, sand with trace silt.]	24	SP		60/60		0	
		(MLS) [Light brown silt with fine sand and some gravel and clay.]	27	MLS		37/60		0	
30								0	
		(SP-SM) [Light brown, very fine, well sorted sand with silt and trace clay and gravel.]	32	SP-SM		53/60		0	
35			35					0	
		(SP) [Light brown, fine grained, well sorted sand with trace gravel.]		SP		35/60		0	
40								0	
						40/60		0	
45								0	
						40/60		0	
50								0	

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

LAB ANALYSIS:

Grab Sample Undisturbed Sample

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161

SHEET 2 OF 4

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 165 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) ▼ 9 ft 02/11/2020  
DEPTH TO WATER (FINAL) ▼ 4.44 ft 02/12/2020

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA			Observations / Remarks
					SAMPLE TYPE	RECOVERY	PID (ppm) 11.2 eV Lamp	
55	(SP) [Light brown, fine grianed, well sorted sand with trace gravel.](Continued)		SP		43/60	0		
60		61			46/60	0		
65	(SP) [Light brown, very fine sand with trace gravel.]		SP		40/60	0		
70					45/60	0		
75					43/60	0		
80	(SP-SM) [Light brown, very fine sand with trace gravel and silt.]	79			44/60	0		
85			SP-SM		46/60	0		
90					46/60	0		
95	(MLS) [Light gray-brown, silt with some sand and clay.]	94.5			48/60	0		
100			MLS		40/60	0		

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

LAB ANALYSIS:

Grab Sample      Undisturbed Sample

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161

SHEET 3 OF 4

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 165 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) ▼ 9 ft 02/11/2020  
DEPTH TO WATER (FINAL) ▼ 4.44 ft 02/12/2020

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA			Observations / Remarks
					SAMPLE TYPE	RECOVERY	PID (ppm) 11.2 eV Lamp	
105	(MLS) [Light gray-brown, silt with some sand and clay.](Continued)		MLS			48/60	0	
110						48/60	0	
115						48/60	0	
120	(MH) [Light gray silt and clay. Medium plasticity. Grades finer grained with depth.]	115	MH			38/60	0	
125						52/60	0	
130						60/60	0	
135						55/60	0	
140						60/60	0	
145						55/60	0	
150						55/60	0	
						55/60	0	
						55/60	0	
						55/60	0	

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

Grab Sample      Undisturbed Sample

LAB ANALYSIS:

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161

SHEET 4 OF 4

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

HORIZONTAL DATUM  
NORTHING  
EASTING  
VERTICAL DATUM ELEVATION

BOREHOLE DEPTH 165 ft  
BOREHOLE DIAMETER 6 in  
DEPTH TO WATER (INITIAL) ▼ 9 ft 02/11/2020  
DEPTH TO WATER (FINAL) ▼ 4.44 ft 02/12/2020

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	SAMPLING DATA			Observations / Remarks
					SAMPLE TYPE	RECOVERY	PID (ppm) 11.2 eV Lamp	
155	(MH) [Light gray silt and clay. Medium plasticity. Grades finer grained with depth.](Continued)		MH				0	
160	(CL-ML) [Light gray silty clay. Medium to high plasticity. Grades finer grained with depth.]	158				60/60	0	
165			CL-ML			48/60	0	Groundwater: <0.28 [(160-165ft)]
170						48/60	0	
175		175				55/60	0	
180							0	
185							0	
190							0	
195							0	
200							0	

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

Grab Sample      Undisturbed Sample

LAB ANALYSIS:

BORING LOG TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20A**

ERM PROJECT # 0441161

SHEET 1 OF 1

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

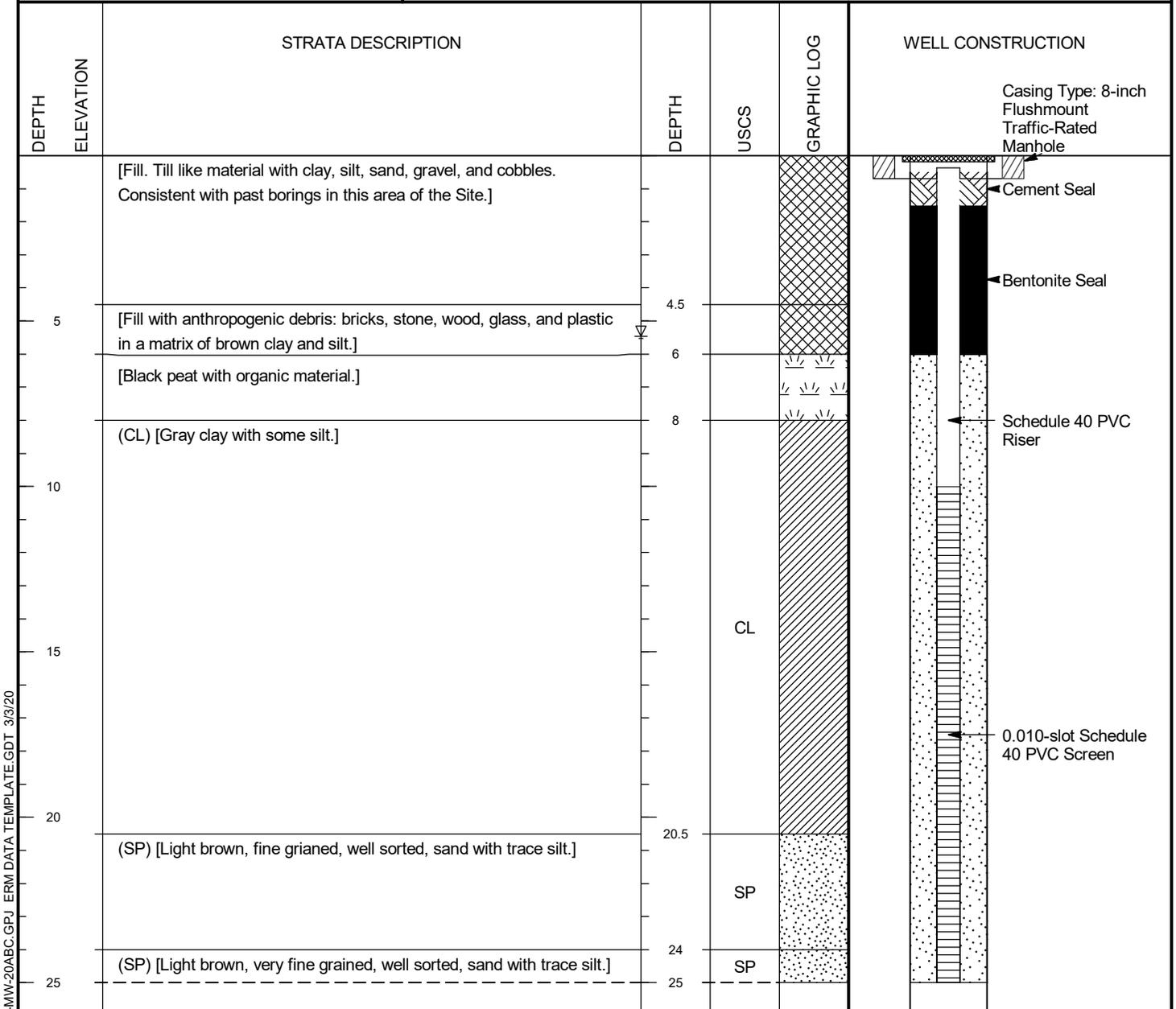
ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/12/2020  
FINISH 02/12/2020

GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION	
Riser	Screen
Material: Schedule 40 PVC	Schedule 40 PVC, 0.010-slot
Diameter (ID): 2-inch	2-inch
Coupling: Threaded	Threaded

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 0.677 hours  
Gals. Purged: 110

Well Permit #: No permit required.



WELL CONSTRUCTION TS-MW-20ABC.GPJ | ERM DATA TEMPLATE.GDT 3/3/20

REMARKS:  
Well TS-MW-20A is in a nested well cluster with TS-MW-20C. TS-MW-20A was blind drilled, and the geologic Description was taken from TS-MW-20C. Groundwater lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20B**

ERM PROJECT # 0441161

SHEET 1 OF 2

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

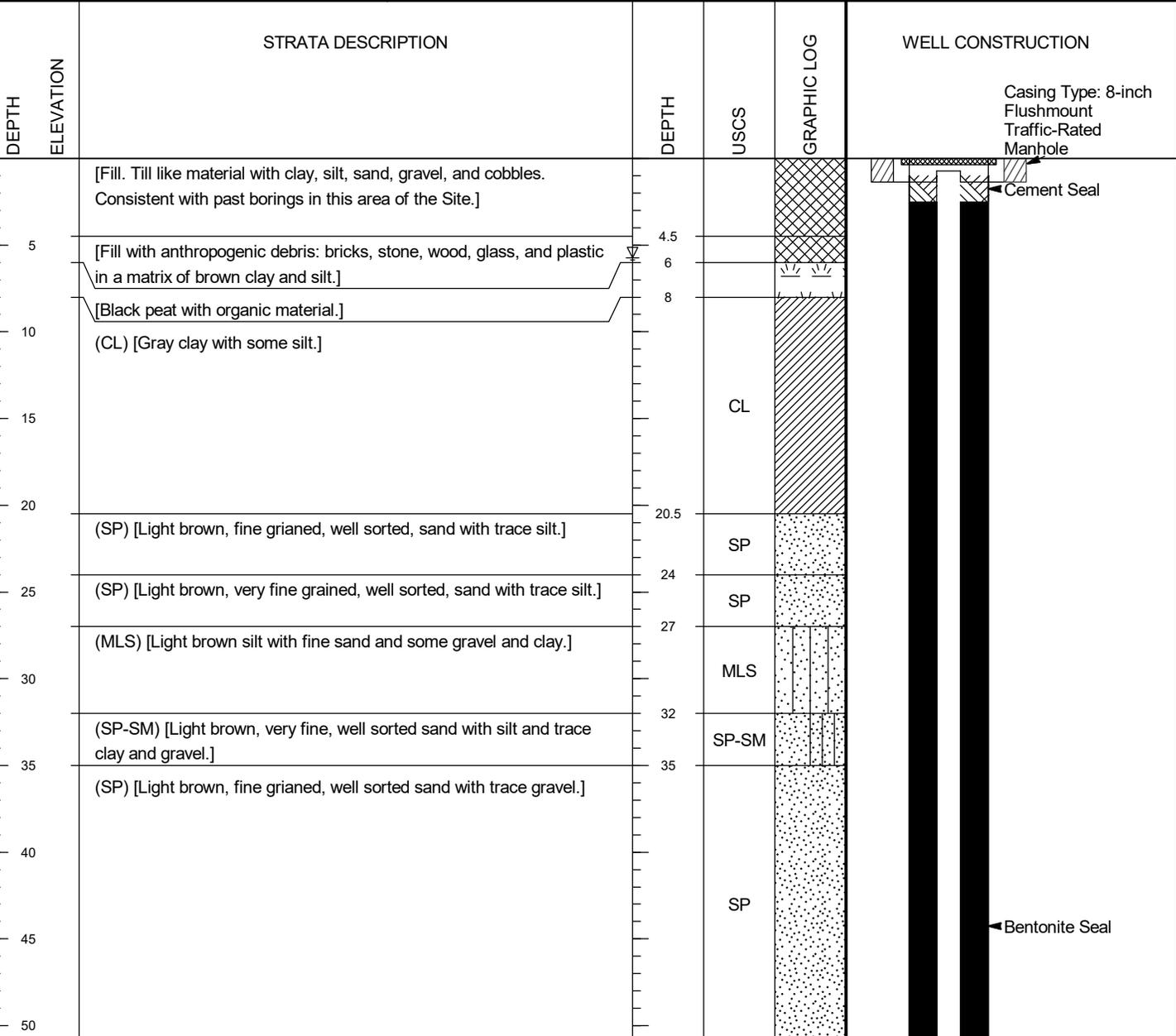
ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/12/2020  
FINISH 02/12/2020

GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION  
Riser Screen  
Material: Schedule 40 PVC Schedule 40 PVC, 0.010-slot  
Diameter (ID): 2-inch 2-inch  
Coupling: Threaded Threaded  
Well Permit #: No permit required.

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 1.25 hours  
Gals. Purged: 208

WELL CONSTRUCTION TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



REMARKS:  
Well TS-MW-20B is in a nested well cluster with TS-MW-20C. TS-MW-20B was blind drilled, and the geologic Description was taken from TS-MW-20C. Groundwater lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20B**

ERM PROJECT # 0441161

SHEET 2 OF 2

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/12/2020  
FINISH 02/12/2020

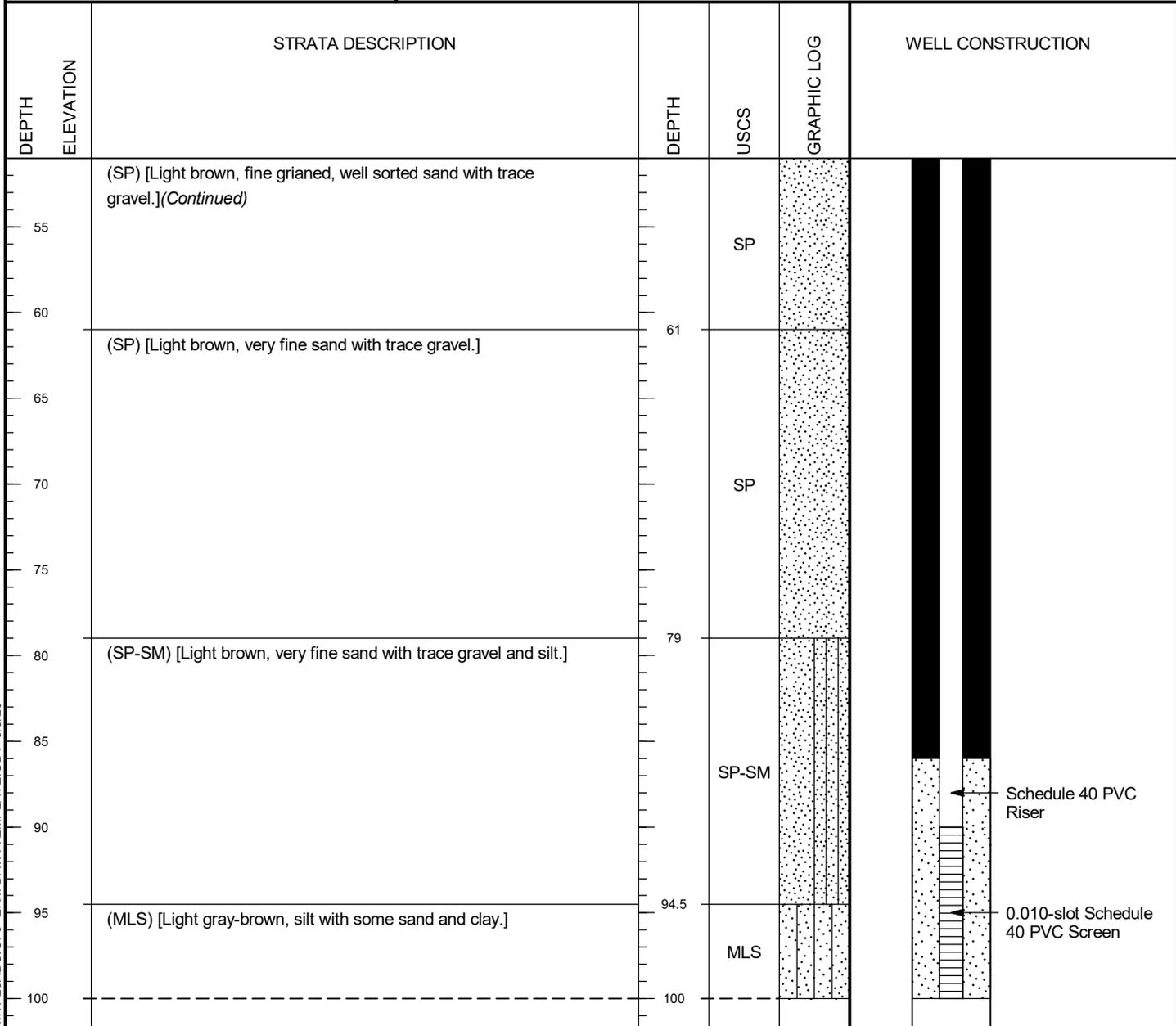
GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION  
Riser Screen  
Material: Schedule 40 PVC Schedule 40 PVC, 0.010-slot  
Diameter (ID): 2-inch 2-inch  
Coupling: Threaded Threaded

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 1.25 hours  
Gals. Purged: 208

Well Permit #: No permit required.

WELL CONSTRUCTION TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20



REMARKS:  
Well TS-MW-20B is in a nested well cluster with TS-MW-20C. TS-MW-20B was blind drilled, and the geologic Description was taken from TS-MW-20C. Groundwater lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161

SHEET 1 OF 4

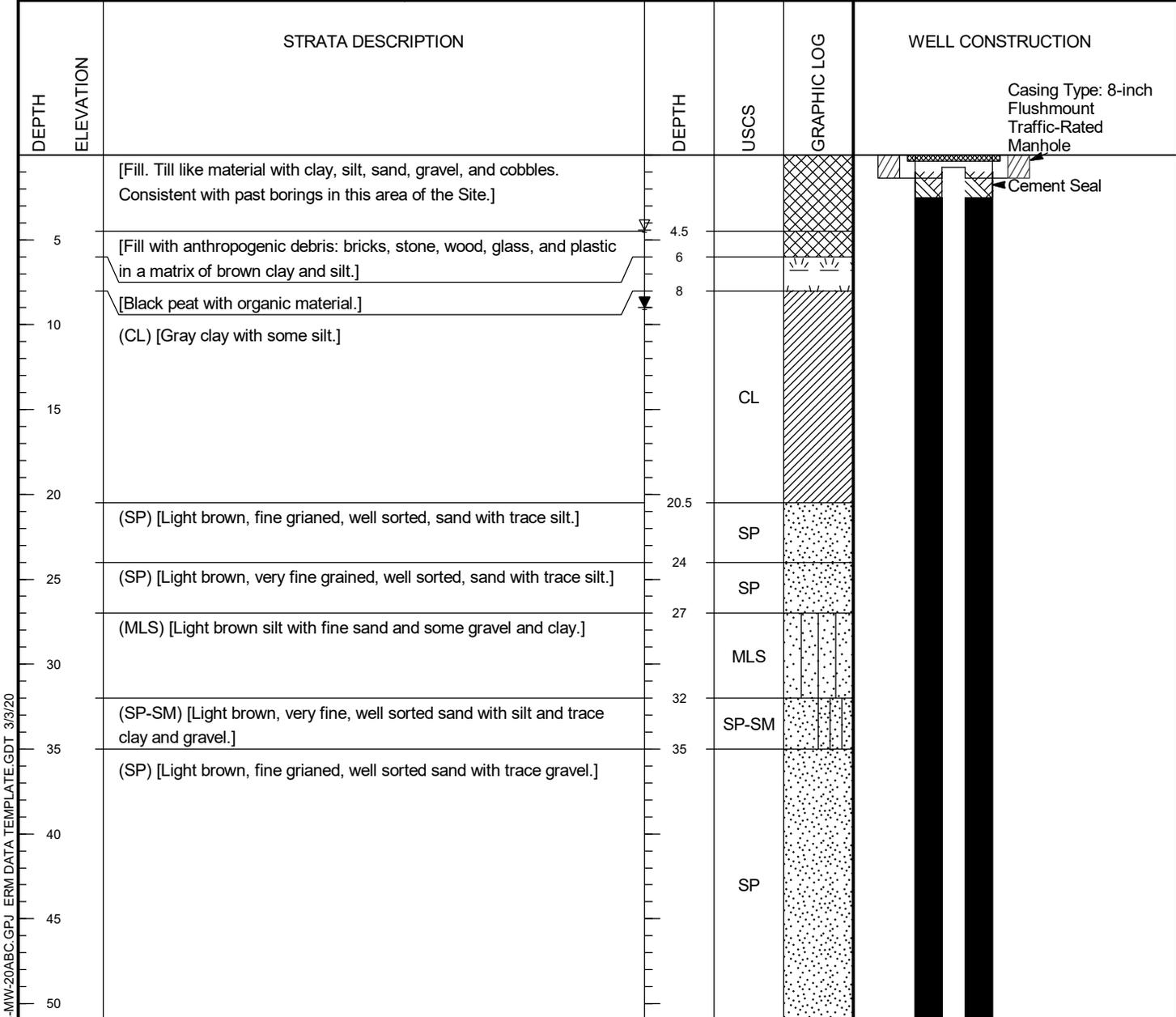
DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION  
Riser Screen  
Material: Schedule 80 PVC Schedule 80 PVC, 0.010-slot  
Diameter (ID): 2-inch 2-inch  
Coupling: Threaded Threaded  
Well Permit #: No permit required.

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 1.33 hours  
Gals. Purged: 35



WELL CONSTRUCTION TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161  
SHEET 2 OF 4

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION  
Riser Screen  
Material: Schedule 80 PVC Schedule 80 PVC, 0.010-slot  
Diameter (ID): 2-inch 2-inch  
Coupling: Threaded Threaded

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 1.33 hours  
Gals. Purged: 35

Well Permit #: No permit required.

WELL CONSTRUCTION TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	WELL CONSTRUCTION
55	(SP) [Light brown, fine grained, well sorted sand with trace gravel.](Continued)		SP		
61	(SP) [Light brown, very fine sand with trace gravel.]		SP		
79	(SP-SM) [Light brown, very fine sand with trace gravel and silt.]		SP-SM		
94.5	(MLS) [Light gray-brown, silt with some sand and clay.]		MLS		

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:



PROJECT: 910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**  
ERM PROJECT # 0441161  
SHEET 3 OF 4

DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION  
Riser Screen  
Material: Schedule 80 PVC Schedule 80 PVC, 0.010-slot  
Diameter (ID): 2-inch 2-inch  
Coupling: Threaded Threaded  
Well Permit #: No permit required.

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 1.33 hours  
Gals. Purged: 35

DEPTH ELEVATION	STRATA DESCRIPTION	DEPTH	USCS	GRAPHIC LOG	WELL CONSTRUCTION
105	(MLS) [Light gray-brown, silt with some sand and clay.](Continued)		MLS		
115	(MH) [Light gray silt and clay. Medium plasticity. Grades finer grained with depth.]	115	MH		
120					
125					
130					
135					
140					
145					
150					

WELL CONSTRUCTION TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:



PROJECT:  
910 Mayer LLC.  
Former Oscar-Mayer Plant

BORING # **TS-MW-20C**

ERM PROJECT # 0441161

SHEET 4 OF 4

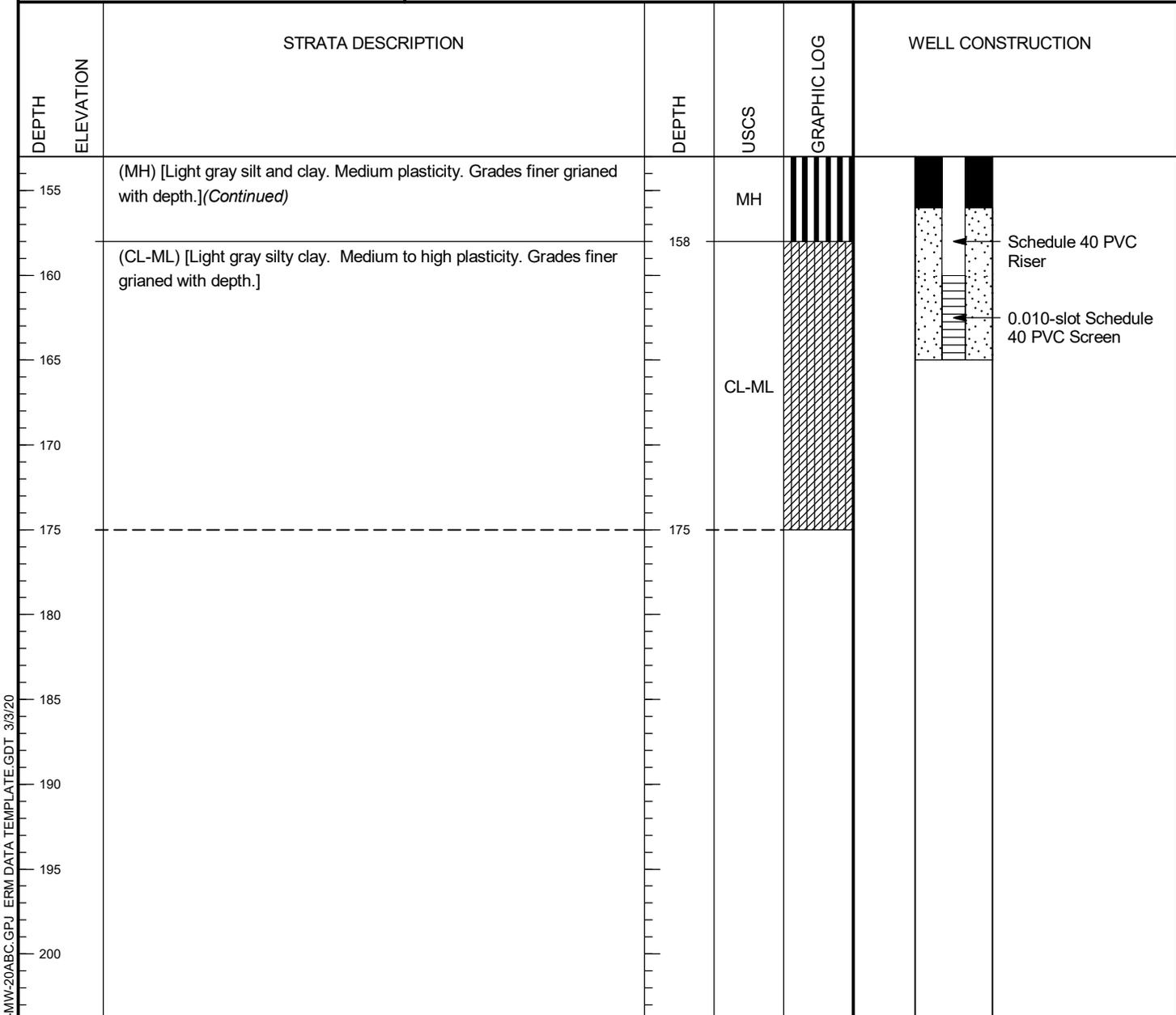
DRILLING CONTRACTOR Cascade Drilling  
Wausau, WI  
DRILLING FOREMAN Ben Price  
DRILLING METHOD Sonic  
DRILLING EQUIPMENT Sonic - Truck Mounted

ERM REPRESENTATIVE Ryan Plath  
OFFICE LOCATION Milwaukee, WI  
DATE: START 02/11/2020  
FINISH 02/11/2020

GEOGRAPHIC COORDINATES  
( )  
NORTHING  
EASTING  
ELEVATION

WELL CONSTRUCTION  
Riser Screen  
Material: Schedule 80 PVC Schedule 80 PVC, 0.010-slot  
Diameter (ID): 2-inch 2-inch  
Coupling: Threaded Threaded  
Well Permit #: No permit required.

WELL DEVELOPMENT  
Method: Surge and Pump - mechanical  
Duration: 1.33 hours  
Gals. Purged: 35



WELL CONSTRUCTION TS-MW-20ABC.GPJ ERM DATA TEMPLATE.GDT 3/3/20

REMARKS:  
Groundwater and soil lab analysis is for 1,2-dichloroethane (ethylene dichloride).

WELL INSTALLATION NOTES:

## **ATTACHMENT B**

## **ANALYTICAL DATA**

February 18, 2020

Ryan Plath  
ERM, INC.  
700 W. Virginia Street  
Suite 601  
Milwaukee, WI 53204

RE: Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

Dear Ryan Plath:

Enclosed are the analytical results for sample(s) received by the laboratory on February 12, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tod Noltemeyer for  
Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Andrew DeWitt, ERM, Inc.  
David deCourcy-Bower, ERM, Inc.



## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203276

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203276

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40203276001	TS-MW-20C-SO-21-23-20200210	Solid	02/10/20 14:20	02/12/20 11:12

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203276

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40203276001	TS-MW-20C-SO-21-23-20200210	EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	AH	1	PASI-G

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

Sample: **TS-MW-20C-SO-21-23-20200210** Lab ID: **40203276001** Collected: 02/10/20 14:20 Received: 02/12/20 11:12 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	02/17/20 09:45	02/17/20 16:54	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	02/17/20 09:45	02/17/20 16:54	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	02/17/20 09:45	02/17/20 16:54	74-83-9	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	02/17/20 09:45	02/17/20 16:54	104-51-8	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	02/17/20 09:45	02/17/20 16:54	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	02/17/20 09:45	02/17/20 16:54	98-06-6	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	02/17/20 09:45	02/17/20 16:54	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	02/17/20 09:45	02/17/20 16:54	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	02/17/20 09:45	02/17/20 16:54	74-87-3	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	02/17/20 09:45	02/17/20 16:54	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	02/17/20 09:45	02/17/20 16:54	106-43-4	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	02/17/20 09:45	02/17/20 16:54	96-12-8	W
Dibromochloromethane	<229	ug/kg	763	229	1	02/17/20 09:45	02/17/20 16:54	124-48-1	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	106-93-4	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	74-95-3	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	95-50-1	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	541-73-1	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	106-46-7	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-71-8	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	02/17/20 09:45	02/17/20 16:54	156-60-5	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	78-87-5	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	142-28-9	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	594-20-7	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	563-58-6	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	02/17/20 09:45	02/17/20 16:54	10061-01-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	02/17/20 09:45	02/17/20 16:54	10061-02-6	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	02/17/20 09:45	02/17/20 16:54	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	98-82-8	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	02/17/20 09:45	02/17/20 16:54	99-87-6	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	02/17/20 09:45	02/17/20 16:54	75-09-2	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	1634-04-4	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1	02/17/20 09:45	02/17/20 16:54	91-20-3	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	103-65-1	W

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MAYER  
 Pace Project No.: 40203276

Sample: **TS-MW-20C-SO-21-23-20200210** Lab ID: **40203276001** Collected: 02/10/20 14:20 Received: 02/12/20 11:12 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Styrene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	100-42-5	W
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	630-20-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	79-34-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	02/17/20 09:45	02/17/20 16:54	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	108-88-3	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	02/17/20 09:45	02/17/20 16:54	87-61-6	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	02/17/20 09:45	02/17/20 16:54	120-82-1	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-69-4	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	02/17/20 09:45	02/17/20 16:54	96-18-4	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	108-67-8	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	75-01-4	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	02/17/20 09:45	02/17/20 16:54	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	02/17/20 09:45	02/17/20 16:54	95-47-6	W
<b>Surrogates</b>									
Dibromofluoromethane (S)	89	%	57-146		1	02/17/20 09:45	02/17/20 16:54	1868-53-7	
Toluene-d8 (S)	84	%	64-134		1	02/17/20 09:45	02/17/20 16:54	2037-26-5	
4-Bromofluorobenzene (S)	77	%	54-126		1	02/17/20 09:45	02/17/20 16:54	460-00-4	
<b>Percent Moisture</b>		Analytical Method: ASTM D2974-87							
Percent Moisture	19.3	%	0.10	0.10	1		02/17/20 09:51		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

QC Batch: 347900 Analysis Method: EPA 8260  
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List  
Associated Lab Samples: 40203276001

METHOD BLANK: 2017336 Matrix: Solid  
Associated Lab Samples: 40203276001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<7.8	50.0	02/17/20 11:53	
1,1,1-Trichloroethane	ug/kg	<13.5	50.0	02/17/20 11:53	
1,1,2,2-Tetrachloroethane	ug/kg	<15.7	52.0	02/17/20 11:53	
1,1,2-Trichloroethane	ug/kg	<15.7	52.0	02/17/20 11:53	
1,1-Dichloroethane	ug/kg	<13.5	50.0	02/17/20 11:53	
1,1-Dichloroethene	ug/kg	<11.8	50.0	02/17/20 11:53	
1,1-Dichloropropene	ug/kg	<10.7	50.0	02/17/20 11:53	
1,2,3-Trichlorobenzene	ug/kg	<47.3	158	02/17/20 11:53	
1,2,3-Trichloropropane	ug/kg	<37.4	125	02/17/20 11:53	
1,2,4-Trichlorobenzene	ug/kg	<41.7	250	02/17/20 11:53	
1,2,4-Trimethylbenzene	ug/kg	<18.1	60.0	02/17/20 11:53	
1,2-Dibromo-3-chloropropane	ug/kg	<237	789	02/17/20 11:53	
1,2-Dibromoethane (EDB)	ug/kg	<17.0	57.0	02/17/20 11:53	
1,2-Dichlorobenzene	ug/kg	<13.1	50.0	02/17/20 11:53	
1,2-Dichloroethane	ug/kg	<13.8	50.0	02/17/20 11:53	
1,2-Dichloropropane	ug/kg	<13.5	50.0	02/17/20 11:53	
1,3,5-Trimethylbenzene	ug/kg	<16.0	53.0	02/17/20 11:53	
1,3-Dichlorobenzene	ug/kg	<13.0	50.0	02/17/20 11:53	
1,3-Dichloropropane	ug/kg	<11.0	50.0	02/17/20 11:53	
1,4-Dichlorobenzene	ug/kg	<12.0	50.0	02/17/20 11:53	
2,2-Dichloropropane	ug/kg	<15.7	52.0	02/17/20 11:53	
2-Chlorotoluene	ug/kg	<19.3	64.0	02/17/20 11:53	
4-Chlorotoluene	ug/kg	<19.3	64.0	02/17/20 11:53	
Benzene	ug/kg	<12.5	42.0	02/17/20 11:53	
Bromobenzene	ug/kg	<18.5	62.0	02/17/20 11:53	
Bromochloromethane	ug/kg	<20.9	70.0	02/17/20 11:53	
Bromodichloromethane	ug/kg	<10.0	50.0	02/17/20 11:53	
Bromoform	ug/kg	<21.6	72.0	02/17/20 11:53	
Bromomethane	ug/kg	<63.8	250	02/17/20 11:53	
Carbon tetrachloride	ug/kg	<7.5	50.0	02/17/20 11:53	
Chlorobenzene	ug/kg	<16.8	56.0	02/17/20 11:53	
Chloroethane	ug/kg	<46.4	250	02/17/20 11:53	
Chloroform	ug/kg	<47.5	250	02/17/20 11:53	
Chloromethane	ug/kg	<24.0	80.0	02/17/20 11:53	
cis-1,2-Dichloroethene	ug/kg	<14.8	50.0	02/17/20 11:53	
cis-1,3-Dichloropropene	ug/kg	<42.3	141	02/17/20 11:53	
Dibromochloromethane	ug/kg	<229	763	02/17/20 11:53	
Dibromomethane	ug/kg	<17.7	59.0	02/17/20 11:53	
Dichlorodifluoromethane	ug/kg	<21.7	72.0	02/17/20 11:53	
Diisopropyl ether	ug/kg	<14.0	50.0	02/17/20 11:53	
Ethylbenzene	ug/kg	<14.5	50.0	02/17/20 11:53	

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203276

METHOD BLANK: 2017336

Matrix: Solid

Associated Lab Samples: 40203276001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	<68.7	229	02/17/20 11:53	
Isopropylbenzene (Cumene)	ug/kg	<17.7	59.0	02/17/20 11:53	
m&p-Xylene	ug/kg	<32.4	108	02/17/20 11:53	
Methyl-tert-butyl ether	ug/kg	<16.2	54.0	02/17/20 11:53	
Methylene Chloride	ug/kg	<26.3	88.0	02/17/20 11:53	
n-Butylbenzene	ug/kg	<30.0	100	02/17/20 11:53	
n-Propylbenzene	ug/kg	<17.8	59.0	02/17/20 11:53	
Naphthalene	ug/kg	<27.3	91.0	02/17/20 11:53	
o-Xylene	ug/kg	<18.1	60.0	02/17/20 11:53	
p-Isopropyltoluene	ug/kg	<21.7	72.0	02/17/20 11:53	
sec-Butylbenzene	ug/kg	<21.5	72.0	02/17/20 11:53	
Styrene	ug/kg	<12.3	50.0	02/17/20 11:53	
tert-Butylbenzene	ug/kg	<18.7	62.0	02/17/20 11:53	
Tetrachloroethene	ug/kg	<38.7	129	02/17/20 11:53	
Toluene	ug/kg	<13.1	50.0	02/17/20 11:53	
trans-1,2-Dichloroethene	ug/kg	<20.2	67.0	02/17/20 11:53	
trans-1,3-Dichloropropene	ug/kg	<22.2	74.0	02/17/20 11:53	
Trichloroethene	ug/kg	<12.8	50.0	02/17/20 11:53	
Trichlorofluoromethane	ug/kg	<19.6	65.0	02/17/20 11:53	
Vinyl chloride	ug/kg	<14.5	50.0	02/17/20 11:53	
4-Bromofluorobenzene (S)	%	89	54-126	02/17/20 11:53	
Dibromofluoromethane (S)	%	100	57-146	02/17/20 11:53	
Toluene-d8 (S)	%	96	64-134	02/17/20 11:53	

LABORATORY CONTROL SAMPLE: 2017337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2390	96	70-132	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2720	109	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2490	99	70-130	
1,1-Dichloroethane	ug/kg	2500	2750	110	70-130	
1,1-Dichloroethene	ug/kg	2500	2330	93	77-126	
1,2,4-Trichlorobenzene	ug/kg	2500	2180	87	66-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2280	91	54-129	
1,2-Dibromoethane (EDB)	ug/kg	2500	2400	96	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2570	103	70-130	
1,2-Dichloroethane	ug/kg	2500	2330	93	70-134	
1,2-Dichloropropane	ug/kg	2500	2680	107	74-124	
1,3-Dichlorobenzene	ug/kg	2500	2560	102	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2510	100	70-130	
Benzene	ug/kg	2500	2720	109	70-130	
Bromodichloromethane	ug/kg	2500	2420	97	70-130	
Bromoform	ug/kg	2500	2010	81	47-115	
Bromomethane	ug/kg	2500	1820	73	64-165	

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

LABORATORY CONTROL SAMPLE: 2017337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	2500	2410	96	70-131	
Chlorobenzene	ug/kg	2500	2430	97	70-130	
Chloroethane	ug/kg	2500	2310	92	28-197	
Chloroform	ug/kg	2500	2530	101	80-131	
Chloromethane	ug/kg	2500	2140	86	45-118	
cis-1,2-Dichloroethene	ug/kg	2500	2560	102	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2500	100	70-130	
Dibromochloromethane	ug/kg	2500	2390	95	70-130	
Dichlorodifluoromethane	ug/kg	2500	1120	45	38-108	
Ethylbenzene	ug/kg	2500	2400	96	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2340	94	70-130	
m&p-Xylene	ug/kg	5000	4930	99	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2320	93	70-130	
Methylene Chloride	ug/kg	2500	2640	106	70-130	
o-Xylene	ug/kg	2500	2480	99	70-130	
Styrene	ug/kg	2500	2540	102	70-130	
Tetrachloroethene	ug/kg	2500	2240	90	70-130	
Toluene	ug/kg	2500	2540	102	80-121	
trans-1,2-Dichloroethene	ug/kg	2500	2430	97	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2160	86	70-130	
Trichloroethene	ug/kg	2500	2470	99	70-130	
Trichlorofluoromethane	ug/kg	2500	2080	83	81-141	
Vinyl chloride	ug/kg	2500	1990	80	68-121	
4-Bromofluorobenzene (S)	%			93	54-126	
Dibromofluoromethane (S)	%			103	57-146	
Toluene-d8 (S)	%			98	64-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2017338 2017339

Parameter	Units	2017338		2017339		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40203396010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
1,1,1-Trichloroethane	ug/kg	ND	1530	1560	1270	1380	83	89	64-132	9	20	
1,1,2,2-Tetrachloroethane	ug/kg	ND	1530	1560	1510	1660	99	106	70-132	9	20	
1,1,2-Trichloroethane	ug/kg	ND	1530	1560	1420	1490	93	95	70-130	5	20	
1,1-Dichloroethane	ug/kg	ND	1530	1560	1470	1620	96	104	70-130	10	20	
1,1-Dichloroethene	ug/kg	ND	1530	1560	1170	1360	76	87	65-126	15	21	
1,2,4-Trichlorobenzene	ug/kg	ND	1530	1560	1410	1400	92	90	66-139	0	20	
1,2-Dibromo-3-chloropropane	ug/kg	ND	1530	1560	1240	1260	81	81	47-146	2	23	
1,2-Dibromoethane (EDB)	ug/kg	ND	1530	1560	1290	1460	84	94	70-130	13	20	
1,2-Dichlorobenzene	ug/kg	ND	1530	1560	1470	1630	96	105	70-130	10	20	
1,2-Dichloroethane	ug/kg	ND	1530	1560	1290	1450	84	93	70-136	12	20	
1,2-Dichloropropane	ug/kg	ND	1530	1560	1500	1590	98	102	74-124	6	20	
1,3-Dichlorobenzene	ug/kg	ND	1530	1560	1400	1540	92	99	70-130	9	20	
1,4-Dichlorobenzene	ug/kg	ND	1530	1560	1470	1650	96	106	70-130	12	20	

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2017338												2017339											
Parameter	Units	40203396010		MS	MSD	MS		MSD		% Rec Limits	RPD	Max RPD	Qual										
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec														
Benzene	ug/kg	1.4 mg/kg	1530	1560	1980	3440	38	131	70-130	54	20	M1,R1											
Bromodichloromethane	ug/kg	ND	1530	1560	1290	1400	84	90	70-130	8	20												
Bromoform	ug/kg	ND	1530	1560	1130	1210	74	78	47-129	7	20												
Bromomethane	ug/kg	ND	1530	1560	955	1070	62	69	41-180	12	20												
Carbon tetrachloride	ug/kg	ND	1530	1560	1270	1380	83	88	58-133	8	20												
Chlorobenzene	ug/kg	ND	1530	1560	1350	1500	88	97	70-130	11	20												
Chloroethane	ug/kg	ND	1530	1560	1290	1410	85	91	28-197	9	20												
Chloroform	ug/kg	ND	1530	1560	1370	1470	90	95	80-131	7	20												
Chloromethane	ug/kg	ND	1530	1560	1080	1190	71	77	26-118	10	20												
cis-1,2-Dichloroethene	ug/kg	ND	1530	1560	1360	1500	89	96	70-130	10	20												
cis-1,3-Dichloropropene	ug/kg	ND	1530	1560	1320	1370	87	88	70-130	4	20												
Dibromochloromethane	ug/kg	ND	1530	1560	1240	1360	81	87	67-130	9	20												
Dichlorodifluoromethane	ug/kg	ND	1530	1560	498	558	33	36	12-108	11	29												
Ethylbenzene	ug/kg	ND	1530	1560	1330	1670	84	105	80-122	22	20	R1											
Isopropylbenzene (Cumene)	ug/kg	ND	1530	1560	1250	1370	82	88	70-130	9	20												
m&p-Xylene	ug/kg	ND	3060	3110	2770	3650	87	114	70-130	27	20	R1											
Methyl-tert-butyl ether	ug/kg	ND	1530	1560	1240	1380	81	89	70-130	11	20												
Methylene Chloride	ug/kg	ND	1530	1560	1420	1540	93	99	70-130	8	20												
o-Xylene	ug/kg	75.2	1530	1560	1420	2040	88	126	70-130	36	20	R1											
Styrene	ug/kg	ND	1530	1560	1350	1520	88	98	70-130	12	20												
Tetrachloroethene	ug/kg	ND	1530	1560	1220	1350	80	86	70-130	10	20												
Toluene	ug/kg	0.32 mg/kg	1530	1560	2040	5040	112	303	80-121	85	20	M1,R1											
trans-1,2-Dichloroethene	ug/kg	ND	1530	1560	1330	1450	87	93	70-130	9	20												
trans-1,3-Dichloropropene	ug/kg	ND	1530	1560	1170	1280	77	82	70-130	9	20												
Trichloroethene	ug/kg	ND	1530	1560	1370	1500	90	96	70-130	9	20												
Trichlorofluoromethane	ug/kg	ND	1530	1560	1150	1200	75	77	60-141	4	26												
Vinyl chloride	ug/kg	ND	1530	1560	1010	1120	66	72	46-121	10	20												
4-Bromofluorobenzene (S)	%						88	91	54-126														
Dibromofluoromethane (S)	%						93	92	57-146														
Toluene-d8 (S)	%						90	94	64-134														

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

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QC Batch: 347887	Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87	Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40203276001	

---

SAMPLE DUPLICATE: 2017307

Parameter	Units	40203194001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.8	6.7	2	10	

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## QUALIFIERS

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203276

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### 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-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

W Non-detect results are reported on a wet weight basis.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203276

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40203276001	TS-MW-20C-SO-21-23-20200210	EPA 5035/5030B	347900	EPA 8260	347903
40203276001	TS-MW-20C-SO-21-23-20200210	ASTM D2974-87	347887		

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: ERM  
 Branch/Location: Milwaukee  
 Project Contact: Ryan Plath  
 Phone: 847-348-4500  
 Project Number: 044161  
 Project Name: Former Oscar Mayer  
 Project State: WI  
 Sampled By (Print): Ryan Plath  
 Sampled By (Sign): [Signature]  
 PO #: \_\_\_\_\_ Regulatory Program: WDNR



UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

Page 1 of

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# CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)\*

Y/N	N	N								
Pick Letter	F	A								
Analyses Requested	VOCs	Dry weight								
	X	X								

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	TS-MW-20C-50-21-23-2020	2-10-20	1420	S

Quote #: \_\_\_\_\_  
 Mail To Contact: \_\_\_\_\_  
 Mail To Company: \_\_\_\_\_  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: ERM-NORTH DIVISION  
 Invoice To Company: payable@erm.com  
 Invoice To Address: Ryan.Plath@erm.com  
 Invoice To Phone: \_\_\_\_\_

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_

Transmit Prelim Rush Results by (complete what you want): \_\_\_\_\_

Email #1: Ryan.Plath@erm.com  
 Email #2: Andrew.Dewitt@erm.com  
 Telephone: David DeCarry Bowers@erm.com  
 Fax: \_\_\_\_\_

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: <u>[Signature]</u>	Date/Time: <u>2-11-2020 1438</u>
Relinquished By: <u>[Signature]</u>	Date/Time: <u>2/11/20 1438</u>
Relinquished By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____

Received By: <u>[Signature]</u>	Date/Time: <u>2/11/20 1438</u>
Received By: <u>[Signature]</u>	Date/Time: <u>2-12-20 1112</u>
Received By: _____	Date/Time: _____
Received By: _____	Date/Time: _____

PACE Project No. 40203276

Receipt Temp = ROT °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present  
 Intact / Not Intact

### Sample Preservation Receipt Form

Client Name: ERM

Project # 40203276

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)							
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU								SP5T	ZPLC	GN				
001																																					2.5 / 5 / 10
002																																					2.5 / 5 / 10
003																																					2.5 / 5 / 10
004																																					2.5 / 5 / 10
005																																					2.5 / 5 / 10
006																																					2.5 / 5 / 10
007																																					2.5 / 5 / 10
008																																					2.5 / 5 / 10
009																																					2.5 / 5 / 10
010																																					2.5 / 5 / 10
011																																					2.5 / 5 / 10
012																																					2.5 / 5 / 10
013																																					2.5 / 5 / 10
014																																					2.5 / 5 / 10
015																																					2.5 / 5 / 10
016																																					2.5 / 5 / 10
017																																					2.5 / 5 / 10
018																																					2.5 / 5 / 10
019																																					2.5 / 5 / 10
020																																					2.5 / 5 / 10

Exceptions to preservation check:  VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_

Headspace in VOA Vials (>6mm) :  Yes  No  N/A \*If yes look in headspace column

<b>AG1U</b> 1 liter amber glass	<b>BP1U</b> 1 liter plastic unpres	<b>DG9A</b> 40 mL amber ascorbic	<b>JGFU</b> 4 oz amber jar unpres
<b>AG1H</b> 1 liter amber glass HCL	<b>BP2N</b> 500 mL plastic HNO3	<b>DG9T</b> 40 mL amber Na Thio	<b>WGFU</b> 4 oz clear jar unpres
<b>AG4S</b> 125 mL amber glass H2SO4	<b>BP2Z</b> 500 mL plastic NaOH, Znact	<b>VG9U</b> 40 mL clear vial unpres	<b>WPFU</b> 4 oz plastic jar unpres
<b>AG4U</b> 120 mL amber glass unpres	<b>BP3U</b> 250 mL plastic unpres	<b>VG9H</b> 40 mL clear vial HCL	
<b>AG5U</b> 100 mL amber glass unpres	<b>BP3B</b> 250 mL plastic NaOH	<b>VG9M</b> 40 mL clear vial MeOH	<b>SP5T</b> 120 mL plastic Na Thiosulfate
<b>AG2S</b> 500 mL amber glass H2SO4	<b>BP3N</b> 250 mL plastic HNO3	<b>VG9D</b> 40 mL clear vial DI	<b>ZPLC</b> ziploc bag
<b>BG3U</b> 250 mL clear glass unpres	<b>BP3S</b> 250 mL plastic H2SO4		<b>GN:</b>

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 25Apr2018
	Document No.: <b>F-GB-C-031-Rev.07</b>	Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project # \_\_\_\_\_

WO#: 40203276



40203276

**Client Name:** ERM

**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

**Tracking #:** MR 2/12/20

**Custody Seal on Cooler/Box Present:**  yes  no    **Seals intact:**  yes  no

**Custody Seal on Samples Present:**  yes  no    **Seals intact:**  yes  no

**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other plastic bags, foam VOA holder MR 2-12-20

**Thermometer Used** SR - n/a    **Type of Ice:**  Wet  Blue  Dry  None     Samples on ice, cooling process has begun

**Cooler Temperature**    Uncorr: 6.0°C    ICorr: 6.0°C

**Temp Blank Present:**  yes  no MR 2-12-20    **Biological Tissue is Frozen:**  yes  no

**Person examining contents:**  
 Date: MR 2-12-20  
 Initials: MR

Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>PO #, page #, mail to info, invoice phone MR 2-12-20</u>
Sampler Name & 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.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
<b>Short Hold Time Analysis (&lt;72hr):</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
<b>Rush Turn Around Time Requested:</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
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 <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis    Matrix: <u>S</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** CHMZ for DM    **Date:** 2/12/20

February 19, 2020

Ryan Plath  
ERM, INC.  
700 W. Virginia Street  
Suite 601  
Milwaukee, WI 53204

RE: Project: 0441161 FORMER OSCAR MEYER  
Pace Project No.: 40203425

Dear Ryan Plath:

Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tod Noltemeyer for  
Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Andrew DeWitt, ERM, Inc.  
David deCourcy-Bower, ERM, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40203425001	TS-MW-20B-WG-20200213	Water	02/13/20 13:45	02/15/20 08:35
40203425002	TB-01-WQ-20200213	Water	02/13/20 15:30	02/15/20 08:35
40203425003	TS-MW-20A-WG-20200213	Water	02/13/20 15:45	02/15/20 08:35

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### SAMPLE ANALYTE COUNT

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40203425001	TS-MW-20B-WG-20200213	EPA 8260	HNW	64	PASI-G
40203425002	TB-01-WQ-20200213	EPA 8260	HNW	64	PASI-G
40203425003	TS-MW-20A-WG-20200213	EPA 8260	HNW	64	PASI-G

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

**Sample: TS-MW-20B-WG-20200213**    **Lab ID: 40203425001**    Collected: 02/13/20 13:45    Received: 02/15/20 08:35    Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/18/20 14:20	630-20-6	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/18/20 14:20	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/18/20 14:20	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/18/20 14:20	79-00-5	
1,1-Dichloroethane	0.32J	ug/L	1.0	0.27	1		02/18/20 14:20	75-34-3	
1,1-Dichloroethene	0.92J	ug/L	1.0	0.24	1		02/18/20 14:20	75-35-4	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/18/20 14:20	563-58-6	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/18/20 14:20	87-61-6	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/18/20 14:20	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/18/20 14:20	120-82-1	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/18/20 14:20	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/18/20 14:20	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/18/20 14:20	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 14:20	95-50-1	
1,2-Dichloroethane	3.2	ug/L	1.0	0.28	1		02/18/20 14:20	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/18/20 14:20	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/18/20 14:20	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/18/20 14:20	541-73-1	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/18/20 14:20	142-28-9	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/18/20 14:20	106-46-7	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/18/20 14:20	594-20-7	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/18/20 14:20	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/18/20 14:20	106-43-4	
Benzene	0.43J	ug/L	1.0	0.25	1		02/18/20 14:20	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/18/20 14:20	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/18/20 14:20	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/18/20 14:20	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/18/20 14:20	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/18/20 14:20	74-83-9	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/18/20 14:20	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 14:20	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/18/20 14:20	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/18/20 14:20	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/18/20 14:20	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/18/20 14:20	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/18/20 14:20	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/18/20 14:20	75-71-8	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/18/20 14:20	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/18/20 14:20	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/18/20 14:20	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		02/18/20 14:20	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/18/20 14:20	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/18/20 14:20	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/18/20 14:20	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		02/18/20 14:20	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/18/20 14:20	127-18-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

**Sample: TS-MW-20B-WG-20200213**    **Lab ID: 40203425001**    Collected: 02/13/20 13:45    Received: 02/15/20 08:35    Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Toluene	<b>1.5J</b>	ug/L	5.0	0.17	1		02/18/20 14:20	108-88-3	
Trichloroethene	<b>2.5</b>	ug/L	1.0	0.26	1		02/18/20 14:20	79-01-6	
Trichlorofluoromethane	<b>&lt;0.21</b>	ug/L	1.0	0.21	1		02/18/20 14:20	75-69-4	
Vinyl chloride	<b>7.0</b>	ug/L	1.0	0.17	1		02/18/20 14:20	75-01-4	
cis-1,2-Dichloroethene	<b>6.3</b>	ug/L	1.0	0.27	1		02/18/20 14:20	156-59-2	
cis-1,3-Dichloropropene	<b>&lt;3.6</b>	ug/L	12.1	3.6	1		02/18/20 14:20	10061-01-5	
m&p-Xylene	<b>&lt;0.47</b>	ug/L	2.0	0.47	1		02/18/20 14:20	179601-23-1	
n-Butylbenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		02/18/20 14:20	104-51-8	
n-Propylbenzene	<b>&lt;0.81</b>	ug/L	5.0	0.81	1		02/18/20 14:20	103-65-1	
o-Xylene	<b>&lt;0.26</b>	ug/L	1.0	0.26	1		02/18/20 14:20	95-47-6	
p-Isopropyltoluene	<b>&lt;0.80</b>	ug/L	2.7	0.80	1		02/18/20 14:20	99-87-6	
sec-Butylbenzene	<b>&lt;0.85</b>	ug/L	5.0	0.85	1		02/18/20 14:20	135-98-8	
tert-Butylbenzene	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		02/18/20 14:20	98-06-6	
trans-1,2-Dichloroethene	<b>1.4J</b>	ug/L	3.6	1.1	1		02/18/20 14:20	156-60-5	
trans-1,3-Dichloropropene	<b>&lt;4.4</b>	ug/L	14.6	4.4	1		02/18/20 14:20	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		02/18/20 14:20	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		02/18/20 14:20	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1		02/18/20 14:20	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

**Sample: TB-01-WQ-20200213**      **Lab ID: 40203425002**      Collected: 02/13/20 15:30      Received: 02/15/20 08:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/18/20 12:27	630-20-6	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/18/20 12:27	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/18/20 12:27	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/18/20 12:27	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		02/18/20 12:27	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/18/20 12:27	75-35-4	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/18/20 12:27	563-58-6	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/18/20 12:27	87-61-6	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/18/20 12:27	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/18/20 12:27	120-82-1	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/18/20 12:27	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/18/20 12:27	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/18/20 12:27	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 12:27	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/18/20 12:27	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/18/20 12:27	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/18/20 12:27	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/18/20 12:27	541-73-1	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/18/20 12:27	142-28-9	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/18/20 12:27	106-46-7	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/18/20 12:27	594-20-7	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/18/20 12:27	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/18/20 12:27	106-43-4	
Benzene	<0.25	ug/L	1.0	0.25	1		02/18/20 12:27	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/18/20 12:27	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/18/20 12:27	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/18/20 12:27	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/18/20 12:27	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/18/20 12:27	74-83-9	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/18/20 12:27	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 12:27	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/18/20 12:27	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/18/20 12:27	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/18/20 12:27	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/18/20 12:27	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/18/20 12:27	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/18/20 12:27	75-71-8	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/18/20 12:27	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/18/20 12:27	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/18/20 12:27	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		02/18/20 12:27	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/18/20 12:27	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/18/20 12:27	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/18/20 12:27	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		02/18/20 12:27	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/18/20 12:27	127-18-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

**Sample: TB-01-WQ-20200213**      **Lab ID: 40203425002**      Collected: 02/13/20 15:30      Received: 02/15/20 08:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Toluene	<0.17	ug/L	5.0	0.17	1		02/18/20 12:27	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/18/20 12:27	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/18/20 12:27	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		02/18/20 12:27	75-01-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		02/18/20 12:27	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/18/20 12:27	10061-01-5	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/18/20 12:27	179601-23-1	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 12:27	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/18/20 12:27	103-65-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/18/20 12:27	95-47-6	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/18/20 12:27	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/18/20 12:27	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		02/18/20 12:27	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		02/18/20 12:27	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/18/20 12:27	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	97	%	70-130		1		02/18/20 12:27	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		02/18/20 12:27	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		02/18/20 12:27	2037-26-5	

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

Sample: TS-MW-20A-WG-20200213 Lab ID: 40203425003 Collected: 02/13/20 15:45 Received: 02/15/20 08:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/18/20 15:09	630-20-6	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/18/20 15:09	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/18/20 15:09	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/18/20 15:09	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		02/18/20 15:09	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/18/20 15:09	75-35-4	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/18/20 15:09	563-58-6	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		02/18/20 15:09	87-61-6	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/18/20 15:09	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/18/20 15:09	120-82-1	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/18/20 15:09	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/18/20 15:09	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/18/20 15:09	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 15:09	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/18/20 15:09	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/18/20 15:09	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/18/20 15:09	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/18/20 15:09	541-73-1	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/18/20 15:09	142-28-9	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/18/20 15:09	106-46-7	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/18/20 15:09	594-20-7	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/18/20 15:09	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/18/20 15:09	106-43-4	
Benzene	<0.25	ug/L	1.0	0.25	1		02/18/20 15:09	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/18/20 15:09	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/18/20 15:09	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/18/20 15:09	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/18/20 15:09	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/18/20 15:09	74-83-9	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		02/18/20 15:09	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 15:09	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/18/20 15:09	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/18/20 15:09	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/18/20 15:09	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/18/20 15:09	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/18/20 15:09	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/18/20 15:09	75-71-8	
Diisopropyl ether	2.7J	ug/L	6.3	1.9	1		02/18/20 15:09	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		02/18/20 15:09	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		02/18/20 15:09	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		02/18/20 15:09	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/18/20 15:09	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/18/20 15:09	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/18/20 15:09	91-20-3	
Styrene	<0.47	ug/L	1.6	0.47	1		02/18/20 15:09	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/18/20 15:09	127-18-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

**Sample: TS-MW-20A-WG-20200213**    **Lab ID: 40203425003**    Collected: 02/13/20 15:45    Received: 02/15/20 08:35    Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Toluene	<0.17	ug/L	5.0	0.17	1		02/18/20 15:09	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/18/20 15:09	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/18/20 15:09	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		02/18/20 15:09	75-01-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		02/18/20 15:09	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/18/20 15:09	10061-01-5	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/18/20 15:09	179601-23-1	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/18/20 15:09	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/18/20 15:09	103-65-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/18/20 15:09	95-47-6	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/18/20 15:09	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/18/20 15:09	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		02/18/20 15:09	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		02/18/20 15:09	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/18/20 15:09	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	97	%	70-130		1		02/18/20 15:09	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		02/18/20 15:09	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		02/18/20 15:09	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MEYER  
Pace Project No.: 40203425

QC Batch: 347938 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40203425001, 40203425002, 40203425003

METHOD BLANK: 2017440 Matrix: Water  
Associated Lab Samples: 40203425001, 40203425002, 40203425003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	02/18/20 07:57	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	02/18/20 07:57	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	02/18/20 07:57	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	02/18/20 07:57	
1,1-Dichloroethane	ug/L	<0.27	1.0	02/18/20 07:57	
1,1-Dichloroethene	ug/L	<0.24	1.0	02/18/20 07:57	
1,1-Dichloropropene	ug/L	<0.54	1.8	02/18/20 07:57	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	02/18/20 07:57	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	02/18/20 07:57	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	02/18/20 07:57	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	02/18/20 07:57	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	02/18/20 07:57	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	02/18/20 07:57	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	02/18/20 07:57	
1,2-Dichloroethane	ug/L	<0.28	1.0	02/18/20 07:57	
1,2-Dichloropropane	ug/L	<0.28	1.0	02/18/20 07:57	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	02/18/20 07:57	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	02/18/20 07:57	
1,3-Dichloropropane	ug/L	<0.83	2.8	02/18/20 07:57	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	02/18/20 07:57	
2,2-Dichloropropane	ug/L	<2.3	7.6	02/18/20 07:57	
2-Chlorotoluene	ug/L	<0.93	5.0	02/18/20 07:57	
4-Chlorotoluene	ug/L	<0.76	2.5	02/18/20 07:57	
Benzene	ug/L	<0.25	1.0	02/18/20 07:57	
Bromobenzene	ug/L	<0.24	1.0	02/18/20 07:57	
Bromochloromethane	ug/L	<0.36	5.0	02/18/20 07:57	
Bromodichloromethane	ug/L	<0.36	1.2	02/18/20 07:57	
Bromoform	ug/L	<4.0	13.2	02/18/20 07:57	
Bromomethane	ug/L	<0.97	5.0	02/18/20 07:57	
Carbon tetrachloride	ug/L	<0.17	1.0	02/18/20 07:57	
Chlorobenzene	ug/L	<0.71	2.4	02/18/20 07:57	
Chloroethane	ug/L	<1.3	5.0	02/18/20 07:57	
Chloroform	ug/L	<1.3	5.0	02/18/20 07:57	
Chloromethane	ug/L	<2.2	7.3	02/18/20 07:57	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	02/18/20 07:57	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	02/18/20 07:57	
Dibromochloromethane	ug/L	<2.6	8.7	02/18/20 07:57	
Dibromomethane	ug/L	<0.94	3.1	02/18/20 07:57	
Dichlorodifluoromethane	ug/L	<0.50	5.0	02/18/20 07:57	
Diisopropyl ether	ug/L	<1.9	6.3	02/18/20 07:57	
Ethylbenzene	ug/L	<0.22	1.0	02/18/20 07:57	

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MEYER  
Pace Project No.: 40203425

METHOD BLANK: 2017440 Matrix: Water  
Associated Lab Samples: 40203425001, 40203425002, 40203425003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	02/18/20 07:57	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	02/18/20 07:57	
m&p-Xylene	ug/L	<0.47	2.0	02/18/20 07:57	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	02/18/20 07:57	
Methylene Chloride	ug/L	<0.58	5.0	02/18/20 07:57	
n-Butylbenzene	ug/L	<0.71	2.4	02/18/20 07:57	
n-Propylbenzene	ug/L	<0.81	5.0	02/18/20 07:57	
Naphthalene	ug/L	<1.2	5.0	02/18/20 07:57	
o-Xylene	ug/L	<0.26	1.0	02/18/20 07:57	
p-Isopropyltoluene	ug/L	<0.80	2.7	02/18/20 07:57	
sec-Butylbenzene	ug/L	<0.85	5.0	02/18/20 07:57	
Styrene	ug/L	<0.47	1.6	02/18/20 07:57	
tert-Butylbenzene	ug/L	<0.30	1.0	02/18/20 07:57	
Tetrachloroethene	ug/L	<0.33	1.1	02/18/20 07:57	
Toluene	ug/L	<0.17	5.0	02/18/20 07:57	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	02/18/20 07:57	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	02/18/20 07:57	
Trichloroethene	ug/L	<0.26	1.0	02/18/20 07:57	
Trichlorofluoromethane	ug/L	<0.21	1.0	02/18/20 07:57	
Vinyl chloride	ug/L	<0.17	1.0	02/18/20 07:57	
4-Bromofluorobenzene (S)	%	96	70-130	02/18/20 07:57	
Dibromofluoromethane (S)	%	105	70-130	02/18/20 07:57	
Toluene-d8 (S)	%	103	70-130	02/18/20 07:57	

LABORATORY CONTROL SAMPLE: 2017441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.6	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.7	103	70-130	
1,1,2-Trichloroethane	ug/L	50	53.5	107	70-130	
1,1-Dichloroethane	ug/L	50	56.0	112	73-150	
1,1-Dichloroethene	ug/L	50	49.2	98	73-138	
1,2,4-Trichlorobenzene	ug/L	50	50.1	100	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.0	88	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	48.3	97	70-130	
1,2-Dichlorobenzene	ug/L	50	51.2	102	70-130	
1,2-Dichloroethane	ug/L	50	56.2	112	75-140	
1,2-Dichloropropane	ug/L	50	59.5	119	73-135	
1,3-Dichlorobenzene	ug/L	50	51.3	103	70-130	
1,4-Dichlorobenzene	ug/L	50	52.2	104	70-130	
Benzene	ug/L	50	54.2	108	70-130	
Bromodichloromethane	ug/L	50	56.1	112	70-130	
Bromoform	ug/L	50	48.4	97	68-129	
Bromomethane	ug/L	50	46.8	94	18-159	

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MEYER  
Pace Project No.: 40203425

LABORATORY CONTROL SAMPLE: 2017441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	55.7	111	70-130	
Chlorobenzene	ug/L	50	53.6	107	70-130	
Chloroethane	ug/L	50	50.0	100	53-147	
Chloroform	ug/L	50	53.5	107	74-136	
Chloromethane	ug/L	50	40.9	82	29-115	
cis-1,2-Dichloroethene	ug/L	50	50.7	101	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.4	99	70-130	
Dibromochloromethane	ug/L	50	51.3	103	70-130	
Dichlorodifluoromethane	ug/L	50	56.6	113	10-130	
Ethylbenzene	ug/L	50	54.5	109	80-124	
Isopropylbenzene (Cumene)	ug/L	50	53.6	107	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	44.3	89	54-137	
Methylene Chloride	ug/L	50	48.9	98	73-138	
o-Xylene	ug/L	50	51.9	104	70-130	
Styrene	ug/L	50	53.2	106	70-130	
Tetrachloroethene	ug/L	50	53.4	107	70-130	
Toluene	ug/L	50	52.9	106	80-126	
trans-1,2-Dichloroethene	ug/L	50	49.2	98	73-145	
trans-1,3-Dichloropropene	ug/L	50	45.2	90	70-130	
Trichloroethene	ug/L	50	56.5	113	70-130	
Trichlorofluoromethane	ug/L	50	63.9	128	76-147	
Vinyl chloride	ug/L	50	50.4	101	51-120	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			104	70-130	
Toluene-d8 (S)	%			102	70-130	

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: 0441161 FORMER OSCAR MEYER

Pace Project No.: 40203425

---

### 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-G Pace Analytical Services - Green Bay

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 0441161 FORMER OSCAR MEYER  
Pace Project No.: 40203425

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40203425001	TS-MW-20B-WG-20200213	EPA 8260	347938		
40203425002	TB-01-WQ-20200213	EPA 8260	347938		
40203425003	TS-MW-20A-WG-20200213	EPA 8260	347938		

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: **ERM**  
 Branch/Location: **Milwaukee**  
 Project Contact: **RYAN PLOTH**  
 Phone: **847-848-4500**  
 Project Number: **0441161**  
 Project Name: **Former Oscar Mayer**  
 Project State: **WI**  
 Sampled By (Print): **RYAN PLOTH**  
 Sampled By (Sign): *[Signature]*  
 PO #: \_\_\_\_\_ Regulatory Program: **WDNR**



UPPER MIDWEST REGION  
 MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1  
 45003425  
 Page 16 of 18

### CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)\*

Y/N	Pick Letter	Analyses Requested	Matrix	DATE	TIME	MATRIX
N	B	VOCs (SW 846 method 8200B)	GW	2/13/2020	1345	GW
			GW	2/13/2020	1530	GW
			GW	2/13/2020	1545	GW
			GW			

Quote #: \_\_\_\_\_  
 Mail To Contact: \_\_\_\_\_  
 Mail To Company: \_\_\_\_\_  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: **ERM-North Division**  
 Invoice To Company: **Accounts Payable@erm.com**  
 Invoice To Address: **ryan.ploth@erm.com**  
 Invoice To Phone: \_\_\_\_\_

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX
001	PS-MW-208-WG-20200213	2/13/2020	1345	GW
002	TB-01-WQ-20200213	2/13/2020	1530	GW
003	PS-MW-20A-WG-20200213	2/13/2020	1545	GW
	<del>PS-MW-20C-WG-202002</del>			<del>GW</del>

**CLIENT COMMENTS**  
 \_\_\_\_\_

**LAB COMMENTS (Lab Use Only)**  
 MR 7-15-20

**Profile #**  
 \_\_\_\_\_

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_  
 Transmit Prelim Rush Results by (complete what you want): \_\_\_\_\_  
 Email #1: **ryan.ploth@erm.com**  
 Email #2: **Andrew.Dewitt@erm.com**  
 Telephone: **David.Pecunsky.Bauer@erm.com**  
 Fax: \_\_\_\_\_  
 Samples on HOLD are subject to special pricing and release of liability

Relinquished By: *[Signature]* Date/Time: **2/14/2020 8:14**  
 Relinquished By: *[Signature]* Date/Time: **2/14/2020 8:14**  
 Relinquished By: *[Signature]* Date/Time: **2/15/2020 8:35**  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: *[Signature]* Date/Time: **2/14/2020 8:14**  
 Received By: *[Signature]* Date/Time: **2/15/2020 8:35**  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. **45003425**  
 Receipt Temp = **RA** °C  
 Sample Receipt pH **OK / Adjusted**  
 Cooler Custody Seal Present / **Not Present** Intact / Not Intact

# Sample Preservation Receipt Form

Pace Analytical Services, LLC  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: ERM

Project # 46203425

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/Time:

Pace Lab #	Glass							Plastic						Vials				Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤	pH after adjusted	Volume (mL)						
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU								SP5T	ZPLC	GN			
001																																				2.5 / 5 / 10
002																																				2.5 / 5 / 10
003																																				2.5 / 5 / 10
004																																				2.5 / 5 / 10
005																																				2.5 / 5 / 10
006																																				2.5 / 5 / 10
007																																				2.5 / 5 / 10
008																																				2.5 / 5 / 10
009																																				2.5 / 5 / 10
010																																				2.5 / 5 / 10
011																																				2.5 / 5 / 10
012																																				2.5 / 5 / 10
013																																				2.5 / 5 / 10
014																																				2.5 / 5 / 10
015																																				2.5 / 5 / 10
016																																				2.5 / 5 / 10
017																																				2.5 / 5 / 10
018																																				2.5 / 5 / 10
019																																				2.5 / 5 / 10
020																																				2.5 / 5 / 10

Exceptions to preservation check:  VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm)  Yes  No  N/A \*If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiostulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

**Sample Condition Upon Receipt Form (SCUR)**

Client Name: ERM Project # **WO# : 40203425**  
 Courier:  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_  
 Tracking #: MR 2-15-20



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no  
 Custody Seal on Samples Present:  yes  no Seals intact:  yes  no  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer Used SR - 83 Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun  
 Cooler Temperature Uncorr: ROT Corr: ROT

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no  
 Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C.

Person examining contents:  
 Date: 2-15-20  
 Initials: BR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1. <u>2-15-20 BR</u>
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>no more information, work to address, none.</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>PU # MR 2-15-20</u>
Sampler Name & 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.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<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:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
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 <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**Client Notification/ Resolution:**  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ If checked, see attached form for additional comments   
 Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Project Manager Review: AMZ for DM Date: 2/15/20

February 25, 2020

Ryan Plath  
ERM, INC.  
700 W. Virginia Street  
Suite 601  
Milwaukee, WI 53204

RE: Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203702

Dear Ryan Plath:

Enclosed are the analytical results for sample(s) received by the laboratory on February 22, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Andrew DeWitt, ERM, Inc.  
David deCourcy-Bower, ERM, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

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### **Pace Analytical Services Green Bay**

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
40203702001	TS-TB-01-WQ-20200221	Water	02/21/20 14:50	02/22/20 08:00
40203702002	TS-MW-20C-WG-20200221	Water	02/21/20 15:10	02/22/20 08:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

---

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40203702001	TS-TB-01-WQ-20200221	EPA 8260	HNW	64	PASI-G
40203702002	TS-MW-20C-WG-20200221	EPA 8260	HNW	64	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

Sample: **TS-TB-01-WQ-20200221** Lab ID: **40203702001** Collected: 02/21/20 14:50 Received: 02/22/20 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/24/20 12:20	630-20-6	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/24/20 12:20	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/24/20 12:20	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/24/20 12:20	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		02/24/20 12:20	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/24/20 12:20	75-35-4	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/24/20 12:20	563-58-6	
1,2,3-Trichlorobenzene	<2.2	ug/L	7.4	2.2	1		02/24/20 12:20	87-61-6	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/24/20 12:20	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/25/20 08:15	120-82-1	HS
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/24/20 12:20	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/24/20 12:20	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/24/20 12:20	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/24/20 12:20	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/24/20 12:20	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/24/20 12:20	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/24/20 12:20	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/24/20 12:20	541-73-1	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/24/20 12:20	142-28-9	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/24/20 12:20	106-46-7	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/24/20 12:20	594-20-7	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/24/20 12:20	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/24/20 12:20	106-43-4	
Benzene	<0.25	ug/L	1.0	0.25	1		02/24/20 12:20	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/24/20 12:20	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/24/20 12:20	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/24/20 12:20	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/24/20 12:20	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/24/20 12:20	74-83-9	
Carbon tetrachloride	<1.6	ug/L	5.5	1.6	1		02/24/20 12:20	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/24/20 12:20	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/24/20 12:20	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/24/20 12:20	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/24/20 12:20	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/24/20 12:20	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/24/20 12:20	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/24/20 12:20	75-71-8	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/24/20 12:20	108-20-3	
Ethylbenzene	<0.32	ug/L	1.1	0.32	1		02/24/20 12:20	100-41-4	
Hexachloro-1,3-butadiene	<1.5	ug/L	4.9	1.5	1		02/24/20 12:20	87-68-3	
Isopropylbenzene (Cumene)	<1.7	ug/L	5.6	1.7	1		02/24/20 12:20	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/24/20 12:20	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/24/20 12:20	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/24/20 12:20	91-20-3	
Styrene	<3.0	ug/L	10.0	3.0	1		02/24/20 12:20	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/24/20 12:20	127-18-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

**Sample:** TS-TB-01-WQ-20200221    **Lab ID:** 40203702001    Collected: 02/21/20 14:50    Received: 02/22/20 08:00    Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Toluene	<0.27	ug/L	0.90	0.27	1		02/24/20 12:20	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/24/20 12:20	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/24/20 12:20	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		02/24/20 12:20	75-01-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		02/24/20 12:20	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/24/20 12:20	10061-01-5	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/24/20 12:20	179601-23-1	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/24/20 12:20	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/24/20 12:20	103-65-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/24/20 12:20	95-47-6	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/24/20 12:20	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/24/20 12:20	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		02/24/20 12:20	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		02/24/20 12:20	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/24/20 12:20	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	84	%	70-130		1		02/24/20 12:20	460-00-4	HS,pH
Dibromofluoromethane (S)	115	%	70-130		1		02/24/20 12:20	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1		02/24/20 12:20	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MAYER

Sample Project No.: 40203702

Sample: **TS-MW-20C-WG-20200221** Lab ID: **40203702002** Collected: 02/21/20 15:10 Received: 02/22/20 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		02/25/20 07:53	630-20-6	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		02/25/20 07:53	71-55-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		02/25/20 07:53	79-34-5	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		02/25/20 07:53	79-00-5	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		02/25/20 07:53	75-34-3	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		02/25/20 07:53	75-35-4	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		02/25/20 07:53	563-58-6	
1,2,3-Trichlorobenzene	<2.2	ug/L	7.4	2.2	1		02/25/20 07:53	87-61-6	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		02/25/20 07:53	96-18-4	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		02/25/20 07:53	120-82-1	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		02/25/20 07:53	95-63-6	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		02/25/20 07:53	96-12-8	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		02/25/20 07:53	106-93-4	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		02/25/20 07:53	95-50-1	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		02/25/20 07:53	107-06-2	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		02/25/20 07:53	78-87-5	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		02/25/20 07:53	108-67-8	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		02/25/20 07:53	541-73-1	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		02/25/20 07:53	142-28-9	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		02/25/20 07:53	106-46-7	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		02/25/20 07:53	594-20-7	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		02/25/20 07:53	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		02/25/20 07:53	106-43-4	
Benzene	<0.25	ug/L	1.0	0.25	1		02/25/20 07:53	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		02/25/20 07:53	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		02/25/20 07:53	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		02/25/20 07:53	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		02/25/20 07:53	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		02/25/20 07:53	74-83-9	
Carbon tetrachloride	<1.6	ug/L	5.5	1.6	1		02/25/20 07:53	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		02/25/20 07:53	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		02/25/20 07:53	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		02/25/20 07:53	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		02/25/20 07:53	74-87-3	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		02/25/20 07:53	124-48-1	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		02/25/20 07:53	74-95-3	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		02/25/20 07:53	75-71-8	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		02/25/20 07:53	108-20-3	
Ethylbenzene	0.38J	ug/L	1.1	0.32	1		02/25/20 07:53	100-41-4	
Hexachloro-1,3-butadiene	<1.5	ug/L	4.9	1.5	1		02/25/20 07:53	87-68-3	
Isopropylbenzene (Cumene)	<1.7	ug/L	5.6	1.7	1		02/25/20 07:53	98-82-8	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		02/25/20 07:53	1634-04-4	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		02/25/20 07:53	75-09-2	
Naphthalene	<1.2	ug/L	5.0	1.2	1		02/25/20 08:37	91-20-3	
Styrene	<3.0	ug/L	10.0	3.0	1		02/25/20 07:53	100-42-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		02/25/20 07:53	127-18-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203702

**Sample: TS-MW-20C-WG-20200221**    **Lab ID: 40203702002**    Collected: 02/21/20 15:10    Received: 02/22/20 08:00    Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Toluene	2.0	ug/L	0.90	0.27	1		02/25/20 07:53	108-88-3	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		02/25/20 07:53	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		02/25/20 07:53	75-69-4	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		02/25/20 07:53	75-01-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		02/25/20 07:53	156-59-2	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		02/25/20 07:53	10061-01-5	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		02/25/20 07:53	179601-23-1	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		02/25/20 07:53	104-51-8	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		02/25/20 07:53	103-65-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		02/25/20 07:53	95-47-6	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		02/25/20 07:53	99-87-6	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		02/25/20 07:53	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		02/25/20 07:53	98-06-6	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		02/25/20 07:53	156-60-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		02/25/20 07:53	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	87	%	70-130		1		02/25/20 07:53	460-00-4	
Dibromofluoromethane (S)	114	%	70-130		1		02/25/20 07:53	1868-53-7	
Toluene-d8 (S)	102	%	70-130		1		02/25/20 07:53	2037-26-5	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203702

QC Batch: 348356 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40203702001, 40203702002

METHOD BLANK: 2019571 Matrix: Water  
Associated Lab Samples: 40203702001, 40203702002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	02/24/20 09:02	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	02/24/20 09:02	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	02/24/20 09:02	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	02/24/20 09:02	
1,1-Dichloroethane	ug/L	<0.27	1.0	02/24/20 09:02	
1,1-Dichloroethene	ug/L	<0.24	1.0	02/24/20 09:02	
1,1-Dichloropropene	ug/L	<0.54	1.8	02/24/20 09:02	
1,2,3-Trichlorobenzene	ug/L	<2.2	7.4	02/24/20 09:02	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	02/24/20 09:02	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	02/24/20 09:02	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	02/24/20 09:02	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	02/24/20 09:02	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	02/24/20 09:02	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	02/24/20 09:02	
1,2-Dichloroethane	ug/L	<0.28	1.0	02/24/20 09:02	
1,2-Dichloropropane	ug/L	<0.28	1.0	02/24/20 09:02	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	02/24/20 09:02	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	02/24/20 09:02	
1,3-Dichloropropane	ug/L	<0.83	2.8	02/24/20 09:02	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	02/24/20 09:02	
2,2-Dichloropropane	ug/L	<2.3	7.6	02/24/20 09:02	
2-Chlorotoluene	ug/L	<0.93	5.0	02/24/20 09:02	
4-Chlorotoluene	ug/L	<0.76	2.5	02/24/20 09:02	
Benzene	ug/L	<0.25	1.0	02/24/20 09:02	
Bromobenzene	ug/L	<0.24	1.0	02/24/20 09:02	
Bromochloromethane	ug/L	<0.36	5.0	02/24/20 09:02	
Bromodichloromethane	ug/L	<0.36	1.2	02/24/20 09:02	
Bromoform	ug/L	<4.0	13.2	02/24/20 09:02	
Bromomethane	ug/L	<0.97	5.0	02/24/20 09:02	
Carbon tetrachloride	ug/L	<1.6	5.5	02/24/20 09:02	
Chlorobenzene	ug/L	<0.71	2.4	02/24/20 09:02	
Chloroethane	ug/L	<1.3	5.0	02/24/20 09:02	
Chloroform	ug/L	<1.3	5.0	02/24/20 09:02	
Chloromethane	ug/L	<2.2	7.3	02/24/20 09:02	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	02/24/20 09:02	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	02/24/20 09:02	
Dibromochloromethane	ug/L	<2.6	8.7	02/24/20 09:02	
Dibromomethane	ug/L	<0.94	3.1	02/24/20 09:02	
Dichlorodifluoromethane	ug/L	<0.50	5.0	02/24/20 09:02	
Diisopropyl ether	ug/L	<1.9	6.3	02/24/20 09:02	
Ethylbenzene	ug/L	<0.32	1.1	02/24/20 09:02	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

METHOD BLANK: 2019571

Matrix: Water

Associated Lab Samples: 40203702001, 40203702002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.5	4.9	02/24/20 09:02	
Isopropylbenzene (Cumene)	ug/L	<1.7	5.6	02/24/20 09:02	
m&p-Xylene	ug/L	<0.47	2.0	02/24/20 09:02	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	02/24/20 09:02	
Methylene Chloride	ug/L	<0.58	5.0	02/24/20 09:02	
n-Butylbenzene	ug/L	<0.71	2.4	02/24/20 09:02	
n-Propylbenzene	ug/L	<0.81	5.0	02/24/20 09:02	
Naphthalene	ug/L	<1.2	5.0	02/24/20 09:02	
o-Xylene	ug/L	<0.26	1.0	02/24/20 09:02	
p-Isopropyltoluene	ug/L	<0.80	2.7	02/24/20 09:02	
sec-Butylbenzene	ug/L	<0.85	5.0	02/24/20 09:02	
Styrene	ug/L	<3.0	10.0	02/24/20 09:02	
tert-Butylbenzene	ug/L	<0.30	1.0	02/24/20 09:02	
Tetrachloroethene	ug/L	<0.33	1.1	02/24/20 09:02	
Toluene	ug/L	<0.27	0.90	02/24/20 09:02	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	02/24/20 09:02	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	02/24/20 09:02	
Trichloroethene	ug/L	<0.26	1.0	02/24/20 09:02	
Trichlorofluoromethane	ug/L	<0.21	1.0	02/24/20 09:02	
Vinyl chloride	ug/L	<0.17	1.0	02/24/20 09:02	
4-Bromofluorobenzene (S)	%	88	70-130	02/24/20 09:02	
Dibromofluoromethane (S)	%	109	70-130	02/24/20 09:02	
Toluene-d8 (S)	%	102	70-130	02/24/20 09:02	

LABORATORY CONTROL SAMPLE: 2019572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	52.3	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.5	103	70-130	
1,1,2-Trichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethane	ug/L	50	53.8	108	73-150	
1,1-Dichloroethene	ug/L	50	52.3	105	73-138	
1,2,4-Trichlorobenzene	ug/L	50	37.4	75	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	42.5	85	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	48.7	97	70-130	
1,2-Dichlorobenzene	ug/L	50	46.5	93	70-130	
1,2-Dichloroethane	ug/L	50	47.2	94	75-140	
1,2-Dichloropropane	ug/L	50	46.8	94	73-135	
1,3-Dichlorobenzene	ug/L	50	46.9	94	70-130	
1,4-Dichlorobenzene	ug/L	50	49.3	99	70-130	
Benzene	ug/L	50	58.2	116	70-130	
Bromodichloromethane	ug/L	50	46.8	94	70-130	
Bromoform	ug/L	50	48.8	98	68-129	
Bromomethane	ug/L	50	37.3	75	18-159	

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203702

LABORATORY CONTROL SAMPLE: 2019572

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	53.2	106	70-130	
Chlorobenzene	ug/L	50	50.3	101	70-130	
Chloroethane	ug/L	50	59.4	119	53-147	
Chloroform	ug/L	50	52.5	105	74-136	
Chloromethane	ug/L	50	31.7	63	29-115	
cis-1,2-Dichloroethene	ug/L	50	51.3	103	70-130	
cis-1,3-Dichloropropene	ug/L	50	45.4	91	70-130	
Dibromochloromethane	ug/L	50	49.5	99	70-130	
Dichlorodifluoromethane	ug/L	50	31.8	64	10-130	
Ethylbenzene	ug/L	50	52.3	105	80-124	
Isopropylbenzene (Cumene)	ug/L	50	51.6	103	70-130	
m&p-Xylene	ug/L	100	108	108	70-130	
Methyl-tert-butyl ether	ug/L	50	48.2	96	54-137	
Methylene Chloride	ug/L	50	55.4	111	73-138	
o-Xylene	ug/L	50	51.1	102	70-130	
Styrene	ug/L	50	52.4	105	70-130	
Tetrachloroethene	ug/L	50	48.9	98	70-130	
Toluene	ug/L	50	51.4	103	80-126	
trans-1,2-Dichloroethene	ug/L	50	52.0	104	73-145	
trans-1,3-Dichloropropene	ug/L	50	46.8	94	70-130	
Trichloroethene	ug/L	50	48.0	96	70-130	
Trichlorofluoromethane	ug/L	50	66.1	132	76-147	
Vinyl chloride	ug/L	50	40.6	81	51-120	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			98	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2019585 2019586

Parameter	Units	2019585		2019586		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40203707001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
1,1,1-Trichloroethane	ug/L	<0.24	50	50	57.4	59.9	115	120	70-130	4	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	57.0	59.8	114	120	70-130	5	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	55.7	56.5	111	113	70-137	1	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	57.6	60.5	115	121	73-153	5	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	54.3	57.5	109	115	73-138	6	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	41.3	45.1	83	90	70-130	9	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	44.6	47.1	89	94	58-129	5	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	53.6	55.6	107	111	70-130	4	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	51.2	53.7	102	107	70-130	5	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	50.9	54.4	102	109	75-140	7	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	49.6	51.2	99	102	71-138	3	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	51.1	54.3	102	109	70-130	6	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	53.1	56.5	106	113	70-130	6	20	

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 0441161 FORMER OSCAR MAYER  
Pace Project No.: 40203702

Parameter	Units	2019585			2019586			% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		40203707001	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Benzene	ug/L	<0.25	50	50	63.8	66.9	128	134	70-130	5	20	M1		
Bromodichloromethane	ug/L	<0.36	50	50	50.5	52.4	101	105	70-130	4	20			
Bromoform	ug/L	<4.0	50	50	55.9	58.5	112	117	68-129	5	20			
Bromomethane	ug/L	<0.97	50	50	39.2	42.5	78	85	15-170	8	20			
Carbon tetrachloride	ug/L	<1.6	50	50	58.1	60.1	116	120	70-130	3	20			
Chlorobenzene	ug/L	<0.71	50	50	55.4	56.9	111	114	70-130	3	20			
Chloroethane	ug/L	<1.3	50	50	64.0	67.0	128	134	51-148	5	20			
Chloroform	ug/L	<1.3	50	50	56.7	59.3	113	119	74-136	4	20			
Chloromethane	ug/L	<2.2	50	50	36.1	37.8	72	76	23-115	5	20			
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	55.9	58.1	112	116	70-131	4	20			
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	49.1	52.2	98	104	70-130	6	20			
Dibromochloromethane	ug/L	<2.6	50	50	54.5	56.6	109	113	70-130	4	20			
Dichlorodifluoromethane	ug/L	<0.50	50	50	35.1	36.8	70	74	10-132	5	20			
Ethylbenzene	ug/L	<0.32	50	50	57.3	59.3	115	119	80-125	3	20			
Isopropylbenzene (Cumene)	ug/L	<1.7	50	50	56.9	60.2	114	120	70-130	6	20			
m&p-Xylene	ug/L	<0.47	100	100	120	124	120	124	70-130	3	20			
Methyl-tert-butyl ether	ug/L	<1.2	50	50	53.3	55.3	107	111	51-145	4	20			
Methylene Chloride	ug/L	<0.58	50	50	60.2	61.3	120	123	73-140	2	20			
o-Xylene	ug/L	<0.26	50	50	56.6	57.8	113	116	70-130	2	20			
Styrene	ug/L	<3.0	50	50	57.2	60.4	114	121	70-130	5	20			
Tetrachloroethene	ug/L	<0.33	50	50	54.1	56.2	108	112	70-130	4	20			
Toluene	ug/L	<0.27	50	50	56.2	57.7	112	115	80-131	3	20			
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	58.2	58.6	116	117	73-148	1	20			
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	51.5	54.0	103	108	70-130	5	20			
Trichloroethene	ug/L	<0.26	50	50	50.0	52.2	100	104	70-130	4	20			
Trichlorofluoromethane	ug/L	<0.21	50	50	74.0	77.7	148	155	74-147	5	20	M1		
Vinyl chloride	ug/L	<0.17	50	50	44.2	46.0	88	92	41-129	4	20			
4-Bromofluorobenzene (S)	%						100	99	70-130			HS		
Dibromofluoromethane (S)	%						97	99	70-130					
Toluene-d8 (S)	%						101	102	70-130					

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

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### 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-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 0441161 FORMER OSCAR MAYER

Pace Project No.: 40203702

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40203702001	TS-TB-01-WQ-20200221	EPA 8260	348356		
40203702002	TS-MW-20C-WG-20200221	EPA 8260	348356		

### REPORT OF LABORATORY ANALYSIS

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# Sample Preservation Receipt Form

Pace Analytical Services, LLC  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: ECLS

Project # 40203702

Page 16 of 17

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/Time:

Pace Lab #	Glass							Plastic					Vials					Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)				
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC								GN			
001																																			2.5 / 5 / 10
002																																			2.5 / 5 / 10
003																																			2.5 / 5 / 10
004																																			2.5 / 5 / 10
005																																			2.5 / 5 / 10
006																																			2.5 / 5 / 10
007																																			2.5 / 5 / 10
008																																			2.5 / 5 / 10
009																																			2.5 / 5 / 10
010																																			2.5 / 5 / 10
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012																																			2.5 / 5 / 10
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014																																			2.5 / 5 / 10
015																																			2.5 / 5 / 10
016																																			2.5 / 5 / 10
017																																			2.5 / 5 / 10
018																																			2.5 / 5 / 10
019																																			2.5 / 5 / 10
020																																			2.5 / 5 / 10

Talos

Exceptions to preservation check:  VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm) :  Yes  No  N/A \*If yes look in headspace column

<b>AG1U</b> 1 liter amber glass	<b>BP1U</b> 1 liter plastic unpres	<b>VG9A</b> 40 mL clear ascorbic	<b>JGFU</b> 4 oz amber jar unpres
<b>BG1U</b> 1 liter clear glass	<b>BP3U</b> 250 mL plastic unpres	<b>DG9T</b> 40 mL amber Na Thio	<b>JG9U</b> 9 oz amber jar unpres
<b>AG1H</b> 1 liter amber glass HCL	<b>BP3B</b> 250 mL plastic NaOH	<b>VG9U</b> 40 mL clear vial unpres	<b>WGFU</b> 4 oz clear jar unpres
<b>AG4S</b> 125 mL amber glass H2SO4	<b>BP3N</b> 250 mL plastic HNO3	<b>VG9H</b> 40 mL clear vial HCL	<b>WPFU</b> 4 oz plastic jar unpres
<b>AG4U</b> 120 mL amber glass unpres	<b>BP3S</b> 250 mL plastic H2SO4	<b>VG9M</b> 40 mL clear vial MeOH	<b>SP5T</b> 120 mL plastic Na Thiosulfate
<b>AG5U</b> 100 mL amber glass unpres		<b>VG9D</b> 40 mL clear vial DI	<b>ZPLC</b> ziploc bag
<b>AG2S</b> 500 mL amber glass H2SO4			<b>GN</b>
<b>BG3U</b> 250 mL clear glass unpres			



Document Name: Sample Condition Upon Receipt (SCUR)  
Document No.: F-GB-C-031-Rev.07

Document Revised: 25Apr2018  
Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: ECCS

WO#: **40203702**



Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 Client  Pace Other: \_\_\_\_\_

Tracking #: 1695 022020

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used SR - NA Type of Ice:  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: LOF / Corr: \_\_\_\_\_

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:  
Date: 2/22/20  
Initials: W

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<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:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
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 <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: AR BOV DM

Date: 2/22/2020

## Environmental Resources Management, Inc.

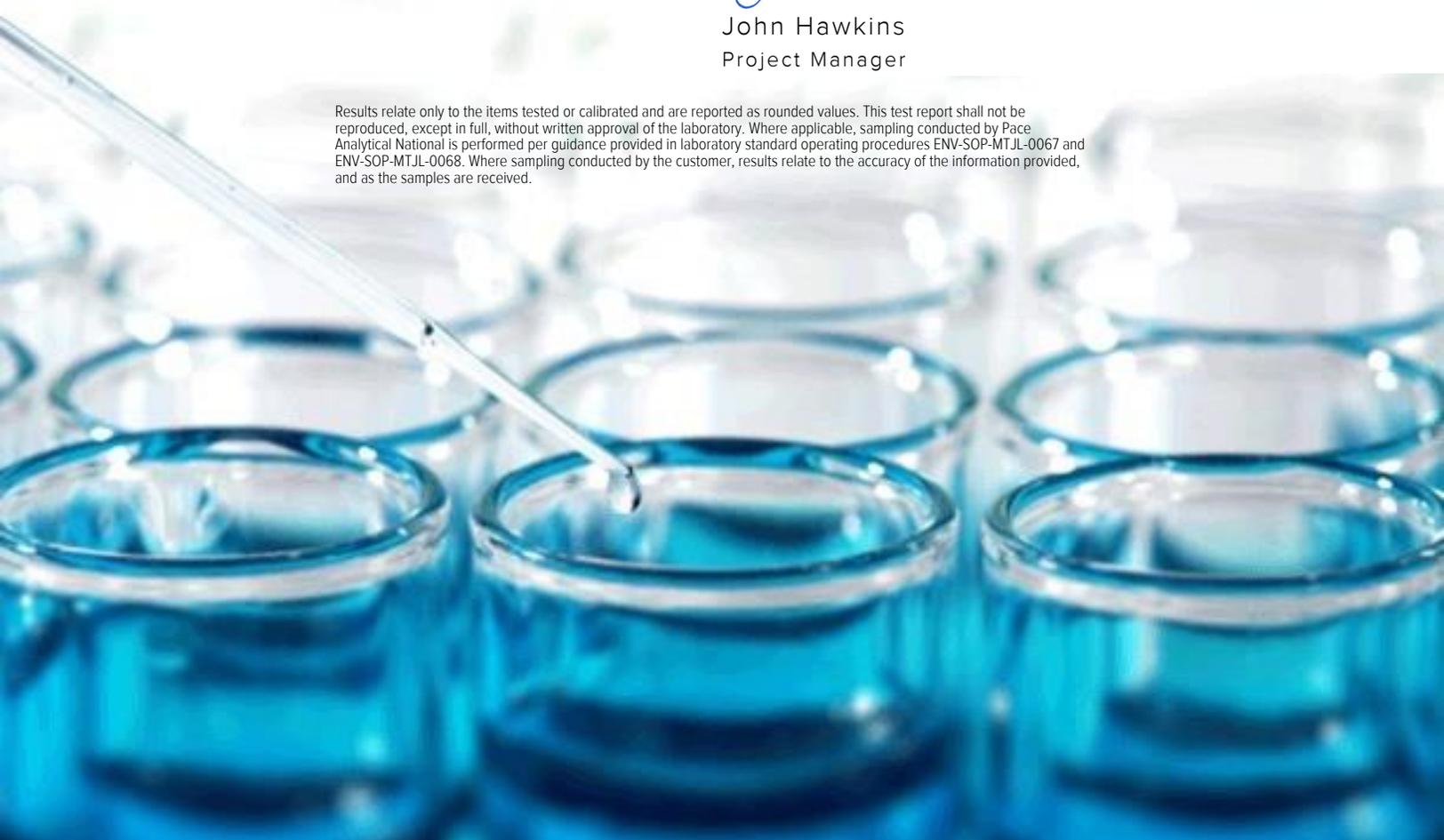
Sample Delivery Group: L1183798  
Samples Received: 01/29/2020  
Project Number: 0441161  
Description: 910 Mayer Ave Madison WI  
Site: 910 MAYER  
Report To: Andrew DeWitt  
3352 128th Avenue  
Holland, MI 49424

Entire Report Reviewed By:



John Hawkins  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	<b>1</b> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	<b>2</b> Tc
<b>Ss: Sample Summary</b>	<b>3</b>	<b>3</b> Ss
<b>Cn: Case Narrative</b>	<b>4</b>	<b>4</b> Cn
<b>Sr: Sample Results</b>	<b>5</b>	<b>5</b> Sr
VP-21-AF-20200127 L1183798-01	<b>5</b>	
VP-22-AF-20200127 L1183798-02	<b>7</b>	
VP-23-AF-20200127 L1183798-03	<b>9</b>	
VP-24-AF-20200127 L1183798-04	<b>11</b>	
<b>Qc: Quality Control Summary</b>	<b>13</b>	<b>6</b> Qc
Volatile Organic Compounds (MS) by Method TO-15	<b>13</b>	
<b>Gl: Glossary of Terms</b>	<b>19</b>	<b>7</b> Gl
<b>Al: Accreditations &amp; Locations</b>	<b>20</b>	<b>8</b> Al
<b>Sc: Sample Chain of Custody</b>	<b>21</b>	<b>9</b> Sc

# SAMPLE SUMMARY

## VP-21-AF-20200127 L1183798-01 Air

Collected by  
Duncan Favill

Collected date/time  
01/27/20 16:03

Received date/time  
01/29/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1419659	1	01/30/20 17:41	01/30/20 17:41	AMH	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

## VP-22-AF-20200127 L1183798-02 Air

Collected by  
Duncan Favill

Collected date/time  
01/27/20 16:21

Received date/time  
01/29/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1419659	1	01/30/20 18:19	01/30/20 18:19	AMH	Mt. Juliet, TN

## VP-23-AF-20200127 L1183798-03 Air

Collected by  
Duncan Favill

Collected date/time  
01/27/20 16:14

Received date/time  
01/29/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1419659	1	01/30/20 18:56	01/30/20 18:56	AMH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1420825	100	02/01/20 21:52	02/01/20 21:52	CAW	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1421233	200	02/02/20 14:21	02/02/20 14:21	MBF	Mt. Juliet, TN

## VP-24-AF-20200127 L1183798-04 Air

Collected by  
Duncan Favill

Collected date/time  
01/27/20 16:34

Received date/time  
01/29/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1419659	1	01/30/20 19:34	01/30/20 19:34	AMH	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	21.6	51.3		1	WG1419659
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1419659
Benzene	71-43-2	78.10	0.153	0.489	0.648	2.07		1	WG1419659
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1419659
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1419659
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1419659
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1419659
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1419659
Carbon disulfide	75-15-0	76.10	0.181	0.563	0.359	1.12		1	WG1419659
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1419659
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1419659
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1419659
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1419659
Chloromethane	74-87-3	50.50	0.181	0.374	0.548	1.13		1	WG1419659
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1419659
Cyclohexane	110-82-7	84.20	0.178	0.613	3.20	11.0		1	WG1419659
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1419659
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1419659
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1419659
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1419659
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1419659
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1419659
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1419659
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1419659
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1419659
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1419659
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1419659
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1419659
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1419659
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1419659
Ethanol	64-17-5	46.10	0.277	0.522	12.3	23.2		1	WG1419659
Ethylbenzene	100-41-4	106	0.169	0.733	1.90	8.24		1	WG1419659
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1419659
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	1.66	9.33		1	WG1419659
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	11.5	56.9		1	WG1419659
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1419659
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1419659
Heptane	142-82-5	100	0.209	0.855	4.87	19.9		1	WG1419659
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1419659
n-Hexane	110-54-3	86.20	0.152	0.536	9.04	31.9		1	WG1419659
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1419659
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1419659
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1419659
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1419659
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1419659
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1419659
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1419659
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1419659
2-Propanol	67-63-0	60.10	0.294	0.723	0.698	1.72		1	WG1419659
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1419659
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1419659
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1419659
Tetrachloroethylene	127-18-4	166	0.166	1.13	ND	ND		1	WG1419659
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1419659
Toluene	108-88-3	92.10	0.166	0.625	1.51	5.69		1	WG1419659
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1419659

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1419659</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1419659</a>
Trichloroethylene	79-01-6	131	0.182	0.975	ND	ND		1	<a href="#">WG1419659</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.338	1.66		1	<a href="#">WG1419659</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1419659</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1419659</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1419659</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1419659</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1419659</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	6.01	26.1		1	<a href="#">WG1419659</a>
o-Xylene	95-47-6	106	0.211	0.915	1.69	7.33		1	<a href="#">WG1419659</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				<a href="#">WG1419659</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Unknown-01	000071-36-3	74	0.000	0.000	11.1	33.6	JN	1	<a href="#">WG1419659</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	18.9	44.9		1	WG1419659
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1419659
Benzene	71-43-2	78.10	0.153	0.489	0.974	3.11		1	WG1419659
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1419659
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1419659
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1419659
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1419659
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1419659
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1419659
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1419659
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1419659
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1419659
Chloroform	67-66-3	119	0.191	0.930	0.697	3.39		1	WG1419659
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1419659
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1419659
Cyclohexane	110-82-7	84.20	0.178	0.613	0.917	3.16		1	WG1419659
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1419659
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1419659
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1419659
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1419659
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1419659
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1419659
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1419659
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1419659
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1419659
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1419659
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1419659
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1419659
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1419659
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1419659
Ethanol	64-17-5	46.10	0.277	0.522	12.6	23.8		1	WG1419659
Ethylbenzene	100-41-4	106	0.169	0.733	0.476	2.06		1	WG1419659
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1419659
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.366	2.06		1	WG1419659
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	21.8	108		1	WG1419659
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1419659
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1419659
Heptane	142-82-5	100	0.209	0.855	0.630	2.58		1	WG1419659
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1419659
n-Hexane	110-54-3	86.20	0.152	0.536	0.568	2.00		1	WG1419659
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1419659
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1419659
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1419659
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	1.45	4.28		1	WG1419659
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1419659
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1419659
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1419659
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1419659
2-Propanol	67-63-0	60.10	0.294	0.723	1.46	3.59		1	WG1419659
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1419659
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1419659
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1419659
Tetrachloroethylene	127-18-4	166	0.166	1.13	4.98	33.8		1	WG1419659
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1419659
Toluene	108-88-3	92.10	0.166	0.625	1.22	4.60		1	WG1419659
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1419659

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1419659</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1419659</a>
Trichloroethylene	79-01-6	131	0.182	0.975	100	536		1	<a href="#">WG1419659</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.444	2.18		1	<a href="#">WG1419659</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1419659</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1419659</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1419659</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1419659</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1419659</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.707	3.07		1	<a href="#">WG1419659</a>
o-Xylene	95-47-6	106	0.211	0.915	0.306	1.33		1	<a href="#">WG1419659</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.9				<a href="#">WG1419659</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Unknown-01	000075-68-3	100	0.000	0.000	19.3	78.9	JN	1	<a href="#">WG1419659</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	12.8	30.4		1	WG1419659
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1419659
Benzene	71-43-2	78.10	0.153	0.489	5.21	16.6		1	WG1419659
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1419659
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1419659
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1419659
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1419659
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1419659
Carbon disulfide	75-15-0	76.10	0.181	0.563	0.968	3.01		1	WG1419659
Carbon tetrachloride	56-23-5	154	0.195	1.23	3.65	23.0		1	WG1419659
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1419659
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1419659
Chloroform	67-66-3	119	0.191	0.930	22.9	111		1	WG1419659
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1419659
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1419659
Cyclohexane	110-82-7	84.20	0.178	0.613	1.82	6.27		1	WG1419659
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1419659
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1419659
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1419659
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1419659
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1419659
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1419659
1,1-Dichloroethane	75-34-3	98	0.171	0.685	0.275	1.10		1	WG1419659
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1419659
cis-1,2-Dichloroethene	156-59-2	96.90	13.0	51.5	1880	7450		100	WG1420825
trans-1,2-Dichloroethene	156-60-5	96.90	15.5	61.4	147	583		100	WG1420825
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1419659
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1419659
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1419659
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1419659
Ethanol	64-17-5	46.10	0.277	0.522	9.10	17.2		1	WG1419659
Ethylbenzene	100-41-4	106	0.169	0.733	0.533	2.31		1	WG1419659
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1419659
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.442	2.48		1	WG1419659
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	14.2	70.2		1	WG1419659
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1419659
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1419659
Heptane	142-82-5	100	0.209	0.855	1.64	6.71		1	WG1419659
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1419659
n-Hexane	110-54-3	86.20	0.152	0.536	2.28	8.04		1	WG1419659
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1419659
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.330	1.15		1	WG1419659
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1419659
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1419659
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1419659
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1419659
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1419659
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1419659
2-Propanol	67-63-0	60.10	0.294	0.723	0.906	2.23		1	WG1419659
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1419659
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1419659
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1419659
Tetrachloroethylene	127-18-4	166	0.166	1.13	1.95	13.2		1	WG1419659
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1419659
Toluene	108-88-3	92.10	0.166	0.625	1.43	5.39		1	WG1419659
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1419659

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1419659</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1419659</a>
Trichloroethylene	79-01-6	131	36.4	195	10700	57300		200	<a href="#">WG1421233</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.551	2.70		1	<a href="#">WG1419659</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1419659</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1419659</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1419659</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1419659</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1419659</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.667	2.89		1	<a href="#">WG1419659</a>
o-Xylene	95-47-6	106	0.211	0.915	0.305	1.32		1	<a href="#">WG1419659</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.8				<a href="#">WG1419659</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.9				<a href="#">WG1420825</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG1421233</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ppbv	ppbv	ppbv			
Unknown-01	000075-21-8	44	0.000	0.000	82.4	148	JN	1	<a href="#">WG1419659</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	23.2	55.1		1	WG1419659
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1419659
Benzene	71-43-2	78.10	0.153	0.489	0.330	1.05		1	WG1419659
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1419659
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1419659
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1419659
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1419659
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1419659
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1419659
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1419659
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1419659
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1419659
Chloroform	67-66-3	119	0.191	0.930	1.02	4.96		1	WG1419659
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1419659
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1419659
Cyclohexane	110-82-7	84.20	0.178	0.613	1.17	4.03		1	WG1419659
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1419659
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1419659
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1419659
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1419659
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1419659
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1419659
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1419659
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1419659
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	1.53	6.06		1	WG1419659
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1419659
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1419659
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1419659
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1419659
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1419659
Ethanol	64-17-5	46.10	0.277	0.522	13.6	25.6		1	WG1419659
Ethylbenzene	100-41-4	106	0.169	0.733	0.406	1.76		1	WG1419659
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1419659
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	1.11	6.24		1	WG1419659
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	4.95	24.5		1	WG1419659
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1419659
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1419659
Heptane	142-82-5	100	0.209	0.855	0.650	2.66		1	WG1419659
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1419659
n-Hexane	110-54-3	86.20	0.152	0.536	0.666	2.35		1	WG1419659
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1419659
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1419659
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1419659
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	3.04	8.96		1	WG1419659
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1419659
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1419659
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1419659
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1419659
2-Propanol	67-63-0	60.10	0.294	0.723	7.63	18.8		1	WG1419659
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1419659
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1419659
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1419659
Tetrachloroethylene	127-18-4	166	0.166	1.13	48.2	327		1	WG1419659
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	0.348	1.03		1	WG1419659
Toluene	108-88-3	92.10	0.166	0.625	1.15	4.33		1	WG1419659
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1419659

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1419659</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1419659</a>
Trichloroethylene	79-01-6	131	0.182	0.975	9.46	50.7		1	<a href="#">WG1419659</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.251	1.23		1	<a href="#">WG1419659</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1419659</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1419659</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1419659</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1419659</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1419659</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.692	3.00		1	<a href="#">WG1419659</a>
o-Xylene	95-47-6	106	0.211	0.915	0.232	1.01		1	<a href="#">WG1419659</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.3				<a href="#">WG1419659</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Unknown-01	000075-07-0	44	0.000	0.000	228	410	JN	1	<a href="#">WG1419659</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Method Blank (MB)

(MB) R3495521-3 01/30/20 09:39

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	0.190
Allyl Chloride	U		0.0546	0.182
Benzene	U		0.0460	0.153
Benzyl Chloride	U		0.0598	0.199
Bromodichloromethane	U		0.0436	0.145
Bromoform	U		0.0786	0.262
Bromomethane	U		0.0609	0.203
1,3-Butadiene	U		0.0563	0.188
Carbon disulfide	U		0.0544	0.181
Carbon tetrachloride	U		0.0585	0.195
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.163
Chloroform	U		0.0574	0.191
Chloromethane	U		0.0544	0.181
2-Chlorotoluene	U		0.0605	0.202
Cyclohexane	U		0.0534	0.178
Dibromochloromethane	U		0.0494	0.165
1,2-Dibromoethane	U		0.0185	0.0617
1,2-Dichlorobenzene	U		0.0603	0.201
1,3-Dichlorobenzene	U		0.0597	0.199
1,4-Dichlorobenzene	U		0.0557	0.186
1,2-Dichloroethane	U		0.0616	0.205
1,1-Dichloroethane	U		0.0514	0.171
1,1-Dichloroethene	U		0.0490	0.163
cis-1,2-Dichloroethene	U		0.0389	0.130
trans-1,2-Dichloroethene	U		0.0464	0.155
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.196
trans-1,3-Dichloropropene	U		0.0435	0.145
1,4-Dioxane	U		0.0554	0.185
Ethylbenzene	U		0.0506	0.169
4-Ethyltoluene	U		0.0666	0.222
Trichlorofluoromethane	U		0.0673	0.224
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.229
1,2-Dichlorotetrafluoroethane	U		0.0458	0.153
Heptane	U		0.0626	0.209
Hexachloro-1,3-butadiene	U		0.0656	0.219
n-Hexane	U		0.0457	0.152
Isopropylbenzene	U		0.0563	0.188

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3495521-3 01/30/20 09:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0465	0.155
Methyl Butyl Ketone	U		0.0682	0.227
2-Butanone (MEK)	U		0.0493	0.164
4-Methyl-2-pentanone (MIBK)	U		0.0650	0.217
Methyl Methacrylate	U		0.0773	0.258
MTBE	U		0.0505	0.168
Naphthalene	U		0.154	0.513
2-Propanol	U		0.0882	0.294
Propene	0.169	U	0.0932	0.311
Styrene	U		0.0465	0.155
1,1,2,2-Tetrachloroethane	U		0.0576	0.192
Tetrachloroethylene	U		0.0497	0.166
Tetrahydrofuran	U		0.0508	0.169
Toluene	U		0.0499	0.166
1,2,4-Trichlorobenzene	U		0.148	0.493
1,1,1-Trichloroethane	U		0.0665	0.222
1,1,2-Trichloroethane	U		0.0287	0.0957
Trichloroethylene	U		0.0545	0.182
1,2,4-Trimethylbenzene	U		0.0483	0.161
1,3,5-Trimethylbenzene	U		0.0631	0.210
2,2,4-Trimethylpentane	U		0.0456	0.152
Vinyl chloride	U		0.0457	0.152
Vinyl Bromide	U		0.0727	0.242
Vinyl acetate	U		0.0639	0.213
m&p-Xylene	U		0.0946	0.315
o-Xylene	U		0.0633	0.211
Ethanol	U		0.0832	0.277
(S) 1,4-Bromofluorobenzene	94.0			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R3495521-3 01/30/20 09:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL	CAS #
	ppbv		ppbv	ppbv	

Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3495521-1 01/30/20 08:24 • (LCSD) R3495521-2 01/30/20 09:02

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.04	3.93	108	105	55.0-148			2.76	25
Propene	3.75	3.60	3.84	96.0	102	64.0-144			6.45	25
Dichlorodifluoromethane	3.75	4.13	4.39	110	117	64.0-139			6.10	25
1,2-Dichlorotetrafluoroethane	3.75	4.07	4.19	109	112	70.0-130			2.91	25
Chloromethane	3.75	3.75	3.84	100	102	70.0-130			2.37	25
Vinyl chloride	3.75	4.05	4.12	108	110	70.0-130			1.71	25
1,3-Butadiene	3.75	3.81	3.90	102	104	70.0-130			2.33	25
Bromomethane	3.75	4.04	4.02	108	107	70.0-130			0.496	25
Chloroethane	3.75	4.13	4.10	110	109	70.0-130			0.729	25
Trichlorofluoromethane	3.75	4.28	4.17	114	111	70.0-130			2.60	25
1,1,2-Trichlorotrifluoroethane	3.75	4.05	4.07	108	109	70.0-130			0.493	25
1,1-Dichloroethene	3.75	3.82	3.98	102	106	70.0-130			4.10	25
1,1-Dichloroethane	3.75	4.02	4.00	107	107	70.0-130			0.499	25
Acetone	3.75	3.84	3.99	102	106	70.0-130			3.83	25
2-Propanol	3.75	3.88	3.78	103	101	70.0-139			2.61	25
Carbon disulfide	3.75	3.95	4.00	105	107	70.0-130			1.26	25
Methylene Chloride	3.75	3.75	3.78	100	101	70.0-130			0.797	25
MTBE	3.75	3.85	3.89	103	104	70.0-130			1.03	25
trans-1,2-Dichloroethene	3.75	3.96	3.92	106	105	70.0-130			1.02	25
n-Hexane	3.75	3.88	3.83	103	102	70.0-130			1.30	25
Vinyl acetate	3.75	3.86	3.82	103	102	70.0-130			1.04	25
Methyl Ethyl Ketone	3.75	3.86	3.67	103	97.9	70.0-130			5.05	25
cis-1,2-Dichloroethene	3.75	4.02	4.01	107	107	70.0-130			0.249	25
Chloroform	3.75	3.97	4.08	106	109	70.0-130			2.73	25
Cyclohexane	3.75	3.96	4.01	106	107	70.0-130			1.25	25
1,1,1-Trichloroethane	3.75	4.09	4.08	109	109	70.0-130			0.245	25
Carbon tetrachloride	3.75	4.04	4.11	108	110	70.0-130			1.72	25
Benzene	3.75	3.95	4.03	105	107	70.0-130			2.01	25
1,2-Dichloroethane	3.75	3.88	4.08	103	109	70.0-130			5.03	25
Heptane	3.75	3.86	3.93	103	105	70.0-130			1.80	25
Trichloroethylene	3.75	4.01	3.96	107	106	70.0-130			1.25	25
1,2-Dichloropropane	3.75	3.98	4.01	106	107	70.0-130			0.751	25
1,4-Dioxane	3.75	4.08	3.98	109	106	70.0-140			2.48	25
Bromodichloromethane	3.75	4.04	4.06	108	108	70.0-130			0.494	25
cis-1,3-Dichloropropene	3.75	3.98	4.01	106	107	70.0-130			0.751	25
4-Methyl-2-pentanone (MIBK)	3.75	3.85	3.79	103	101	70.0-139			1.57	25
Toluene	3.75	3.91	3.90	104	104	70.0-130			0.256	25
trans-1,3-Dichloropropene	3.75	4.02	4.00	107	107	70.0-130			0.499	25
1,1,2-Trichloroethane	3.75	4.02	4.07	107	109	70.0-130			1.24	25
Tetrachloroethylene	3.75	4.03	4.07	107	109	70.0-130			0.988	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3495521-1 01/30/20 08:24 • (LCSD) R3495521-2 01/30/20 09:02

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl Butyl Ketone	3.75	4.05	4.01	108	107	70.0-149			0.993	25
Dibromochloromethane	3.75	4.08	4.13	109	110	70.0-130			1.22	25
1,2-Dibromoethane	3.75	4.09	4.05	109	108	70.0-130			0.983	25
Chlorobenzene	3.75	4.12	4.04	110	108	70.0-130			1.96	25
Ethylbenzene	3.75	3.94	3.97	105	106	70.0-130			0.759	25
m&p-Xylene	7.50	8.02	8.03	107	107	70.0-130			0.125	25
o-Xylene	3.75	3.95	3.98	105	106	70.0-130			0.757	25
Styrene	3.75	4.11	4.16	110	111	70.0-130			1.21	25
Bromoform	3.75	4.14	4.13	110	110	70.0-130			0.242	25
1,1,2,2-Tetrachloroethane	3.75	3.98	3.98	106	106	70.0-130			0.000	25
4-Ethyltoluene	3.75	4.15	4.11	111	110	70.0-130			0.969	25
1,3,5-Trimethylbenzene	3.75	4.11	4.16	110	111	70.0-130			1.21	25
1,2,4-Trimethylbenzene	3.75	4.19	4.15	112	111	70.0-130			0.959	25
1,3-Dichlorobenzene	3.75	4.31	4.28	115	114	70.0-130			0.698	25
1,4-Dichlorobenzene	3.75	4.36	4.28	116	114	70.0-130			1.85	25
Benzyl Chloride	3.75	4.38	4.27	117	114	70.0-152			2.54	25
1,2-Dichlorobenzene	3.75	4.24	4.21	113	112	70.0-130			0.710	25
1,2,4-Trichlorobenzene	3.75	4.44	4.47	118	119	70.0-160			0.673	25
Hexachloro-1,3-butadiene	3.75	4.08	4.16	109	111	70.0-151			1.94	25
Naphthalene	3.75	4.40	4.46	117	119	70.0-159			1.35	25
Allyl Chloride	3.75	3.92	3.82	105	102	70.0-130			2.58	25
2-Chlorotoluene	3.75	4.15	4.10	111	109	70.0-130			1.21	25
Methyl Methacrylate	3.75	3.95	3.93	105	105	70.0-130			0.508	25
Tetrahydrofuran	3.75	3.72	3.69	99.2	98.4	70.0-137			0.810	25
2,2,4-Trimethylpentane	3.75	3.94	3.91	105	104	70.0-130			0.764	25
Vinyl Bromide	3.75	4.15	4.13	111	110	70.0-130			0.483	25
Isopropylbenzene	3.75	4.04	4.07	108	109	70.0-130			0.740	25
(S) 1,4-Bromofluorobenzene				99.1	99.5	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3496133-3 02/01/20 07:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
cis-1,2-Dichloroethene	U		0.0389	0.130
trans-1,2-Dichloroethene	U		0.0464	0.155
(S) 1,4-Bromofluorobenzene	97.3			60.0-140

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3496133-1 02/01/20 06:10 • (LCSD) R3496133-2 02/01/20 06:53

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
trans-1,2-Dichloroethene	3.75	4.15	4.00	111	107	70.0-130			3.68	25
cis-1,2-Dichloroethene	3.75	3.71	3.55	98.9	94.7	70.0-130			4.41	25
(S) 1,4-Bromofluorobenzene				95.9	99.3	60.0-140				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3496304-3 02/02/20 10:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Trichloroethylene	U		0.0545	0.182
<i>(S) 1,4-Bromofluorobenzene</i>	98.7			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3496304-1 02/02/20 08:52 • (LCSD) R3496304-2 02/02/20 09:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Trichloroethylene	3.75	4.29	4.23	114	113	70.0-130			1.41	25
<i>(S) 1,4-Bromofluorobenzene</i>				95.2	93.5	60.0-140				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
N	The analyte is tentatively identified and the associated numerical value may not be consistent with the actual concentration present in the sample.





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

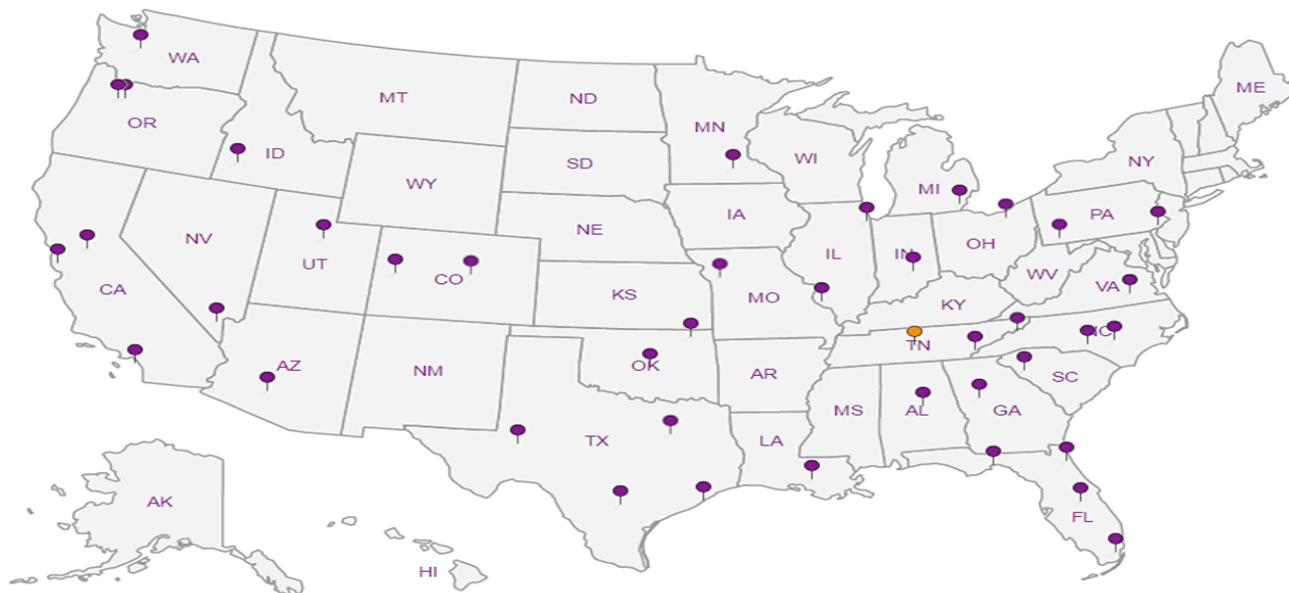
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Environmental Resources Management, Inc.

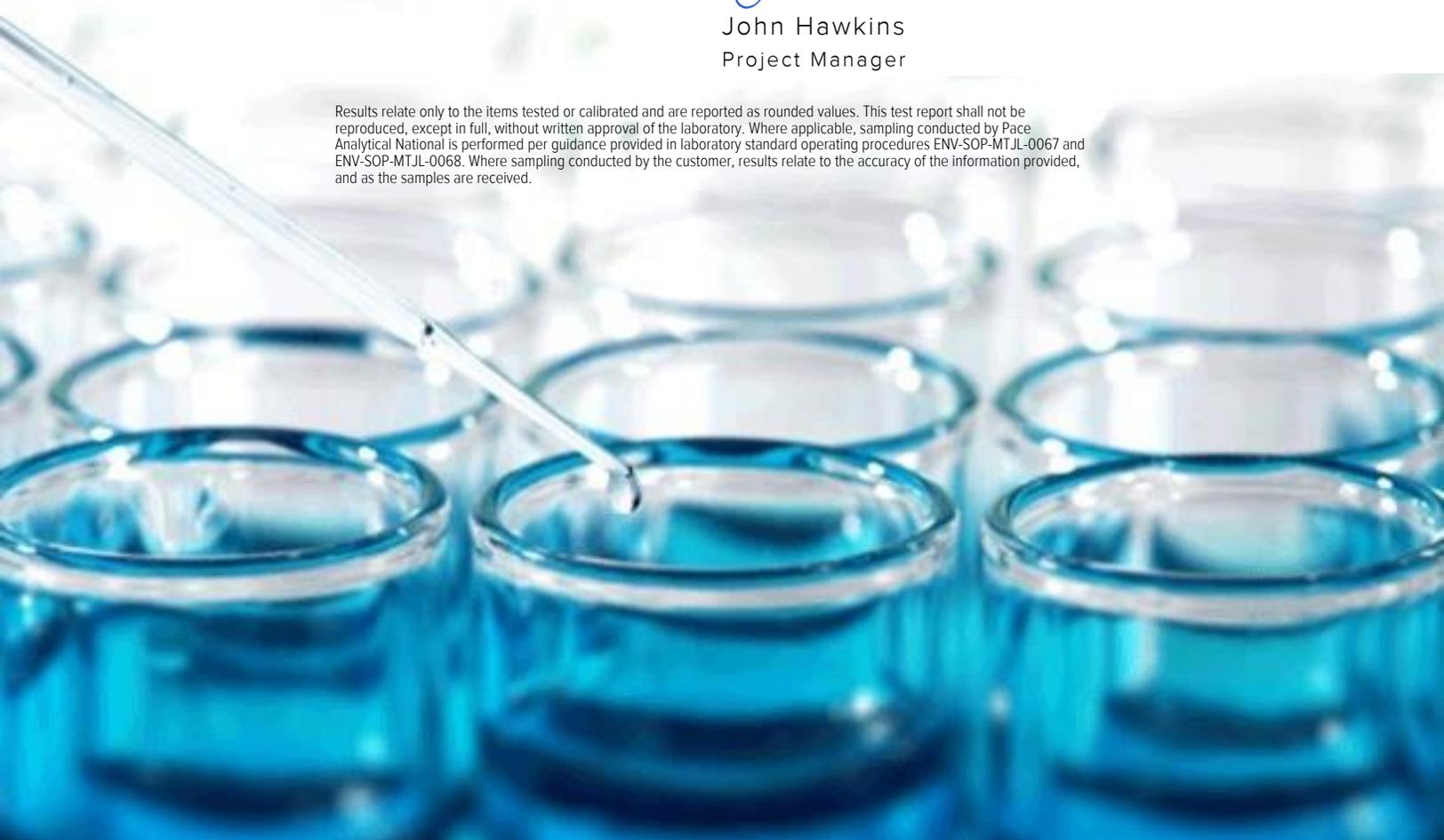
Sample Delivery Group: L1192736  
Samples Received: 02/25/2020  
Project Number: 0441161  
Description: 910 Mayer Ave - Madison, WI  
Site: FORMER OSGR MAYER  
Report To: Andrew DeWitt / Ryan Plath  
3352 128th Avenue  
Holland, MI 49424

Entire Report Reviewed By:



John Hawkins  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





<b>Cp: Cover Page</b>	<b>1</b>	<b>1</b> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<b>2</b> Tc
<b>Cn: Case Narrative</b>	<b>5</b>	
<b>Sr: Sample Results</b>	<b>6</b>	<b>3</b> Ss
SR-VP-32-AF-20200221 L1192736-01	<b>6</b>	
SR-VP-31-AF-20200221 L1192736-02	<b>8</b>	<b>4</b> Cn
SR-VP-30-AF-20200221 L1192736-03	<b>10</b>	<b>5</b> Sr
SR-VP-29-AF-20200221 L1192736-04	<b>12</b>	
SR-VP-28-AF-20200221 L1192736-05	<b>14</b>	<b>6</b> Qc
SR-VP-27-AF-20200221 L1192736-06	<b>16</b>	
SR-VP-26-AF-20200221 L1192736-07	<b>18</b>	<b>7</b> Gl
SR-VP-25-AF-20200224 L1192736-08	<b>20</b>	<b>8</b> Al
SR-SP-02-SV-20200221 L1192736-09	<b>22</b>	
SR-SP-01-SV-20200224 L1192736-10	<b>24</b>	<b>9</b> Sc
<b>Qc: Quality Control Summary</b>	<b>26</b>	
Volatile Organic Compounds (MS) by Method TO-15	<b>26</b>	
<b>Gl: Glossary of Terms</b>	<b>32</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>33</b>	
<b>Sc: Sample Chain of Custody</b>	<b>34</b>	

# SAMPLE SUMMARY



SR-VP-32-AF-20200221 L1192736-01 Air Collected by Ryan Plath    Collected date/time 02/21/20 09:09    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 16:48	02/27/20 16:48	DAH	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

SR-VP-31-AF-20200221 L1192736-02 Air Collected by Ryan Plath    Collected date/time 02/21/20 09:32    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 17:31	02/27/20 17:31	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	200	02/28/20 17:45	02/28/20 17:45	DAH	Mt. Juliet, TN

SR-VP-30-AF-20200221 L1192736-03 Air Collected by Ryan Plath    Collected date/time 02/21/20 09:59    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 18:14	02/27/20 18:14	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	100	02/28/20 18:25	02/28/20 18:25	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1436391	400	03/01/20 21:00	03/01/20 21:00	CAW	Mt. Juliet, TN

SR-VP-29-AF-20200221 L1192736-04 Air Collected by Ryan Plath    Collected date/time 02/21/20 10:17    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 18:57	02/27/20 18:57	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	100	02/28/20 19:04	02/28/20 19:04	DAH	Mt. Juliet, TN

SR-VP-28-AF-20200221 L1192736-05 Air Collected by Ryan Plath    Collected date/time 02/24/20 09:13    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 19:39	02/27/20 19:39	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	20	02/28/20 19:44	02/28/20 19:44	DAH	Mt. Juliet, TN

SR-VP-27-AF-20200221 L1192736-06 Air Collected by Ryan Plath    Collected date/time 02/24/20 10:00    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 20:23	02/27/20 20:23	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	20	02/28/20 20:24	02/28/20 20:24	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1436391	400	03/01/20 21:36	03/01/20 21:36	CAW	Mt. Juliet, TN

SR-VP-26-AF-20200221 L1192736-07 Air Collected by Ryan Plath    Collected date/time 02/24/20 10:18    Received date/time 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 21:06	02/27/20 21:06	DAH	Mt. Juliet, TN

# SAMPLE SUMMARY



SR-VP-25-AF-20200224 L1192736-08 Air

Collected by: Ryan Plath  
 Collected date/time: 02/24/20 10:40  
 Received date/time: 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 21:49	02/27/20 21:49	DAH	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

SR-SP-02-SV-20200221 L1192736-09 Air

Collected by: Ryan Plath  
 Collected date/time: 02/24/20 14:14  
 Received date/time: 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 22:32	02/27/20 22:32	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	10	02/28/20 21:05	02/28/20 21:05	DAH	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

SR-SP-01-SV-20200224 L1192736-10 Air

Collected by: Ryan Plath  
 Collected date/time: 02/24/20 14:34  
 Received date/time: 02/25/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1434891	1	02/27/20 23:15	02/27/20 23:15	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1435569	20	02/28/20 21:45	02/28/20 21:45	DAH	Mt. Juliet, TN

7 Gl

8 Al

9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	97.9	233		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	0.509	1.63		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	1.99	6.19		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	0.516	2.51		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	0.899	3.10		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	67.6	127		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	0.412	1.79		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	0.313	1.54		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	1.28	7.19		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	47.2	233		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	0.492	2.01		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	0.944	3.33		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	3.26	9.61		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	2.90	7.13		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	0.738	5.01		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	1.14	4.29		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp  
2 Tc  
3 Ss  
4 Cn  
5 Sr  
6 Qc  
7 Gl  
8 Al  
9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	0.182	0.975	7.90	42.3		1	<a href="#">WG1434891</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.559	2.74		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.529	2.29		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	0.290	1.26		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG1434891</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Hexadecane	000544-76-3	226	0.000	0.000	2.35	21.7	JN	1	<a href="#">WG1434891</a>
Undecane, 3-Methyl-	001002-43-3	170	0.000	0.000	2.10	14.6	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 02/21/20 09:32

L1192736

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	89.8	213		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	3.78	12.1		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	2.27	7.07		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	17.8	86.6		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	0.731	2.52		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	26.0	103	365	1450		200	WG1435569
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	43.5	172		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	94.8	179		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	0.535	2.32		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	2.13	12.0		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	39.0	193		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.508	1.76		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	5.15	12.7		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	6.45	43.8		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	1.42	5.35		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCOUNT:

Environmental Resources Management, Inc.

PROJECT:

0441161

SDG:

L1192736

DATE/TIME:

03/03/20 14:06

PAGE:

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	36.4	195	11700	62700		200	<a href="#">WG1435569</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.209	1.03		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.459	1.99		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	0.222	0.962		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.3				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.6				<a href="#">WG1435569</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ppbv	ppbv	ppbv			
Ethane, 1-Chloro-1,1-Difluoro-	000075-68-3	100	0.000	0.000	12.9	52.8	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	81.4	193		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	9.35	29.9		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	0.311	0.968		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	0.269	1.69		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	11.1	54.0		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	1.03	3.55		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	13.0	51.5	837	3320		100	WG1435569
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	73.5	291		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	27.7	52.2	297	560		100	WG1435569
Ethylbenzene	100-41-4	106	0.169	0.733	0.469	2.03		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.990	5.56		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	1.82	9.00		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	4.96	12.2		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	7.52	51.1		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	1.07	4.03		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	72.8	390	18600	99700		400	<a href="#">WG1436391</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.173	0.849		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.421	1.83		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.5				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG1435569</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.6				<a href="#">WG1436391</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ppbv	ppbv	ppbv			
Unknown-01	000075-68-3	100	0.000	0.000	10.1	41.3	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	49.6	118		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	1.24	3.96		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	1.48	7.20		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	0.342	1.18		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	0.465	1.84		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	66.2	125		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	0.241	1.04		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	2.30	12.9		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	9.20	45.5		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	ND	ND		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	9.03	61.3		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	0.550	2.07		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	18.2	97.5	1350	7230		100	<a href="#">WG1435569</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	ND	ND		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	ND	ND		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.8				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.0				<a href="#">WG1435569</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ppbv	ppbv	ppbv			
Ethane, 1-Chloro-1,1-Difluoro-	000075-68-3	100	0.000	0.000	19.1	78.1	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	33.8	80.3		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	0.923	2.95		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	0.532	2.59		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	76.6	144		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	ND	ND		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	2.50	14.0		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	21.5	106		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.201	0.698		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	3.14	7.72		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	3.32	22.5	299	2030		20	WG1435569
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	0.233	0.878		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	3.64	19.5	291	1560		20	<a href="#">WG1435569</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	ND	ND		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	ND	ND		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.2				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		89.9				<a href="#">WG1435569</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Ethane, 1-Chloro-1,1-Difluoro-	000075-68-3	100	0.000	0.000	13.7	56.0	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	35.6	84.6		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	7.88	25.2		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	2.41	11.7		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	0.635	2.19		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	2.60	10.3	509	2020		20	WG1435569
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	64.9	257		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	74.6	141		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	ND	ND		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.719	4.04		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	5.07	25.1		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	2.94	7.23		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	3.96	26.9		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	0.373	1.41		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	72.8	390	6370	34100		400	<a href="#">WG1436391</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	ND	ND		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	ND	ND		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.4				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.5				<a href="#">WG1435569</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.1				<a href="#">WG1436391</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Carbon Dioxide	000124-38-9	44	0.000	0.000	58.0	104	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	15.8	37.5		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	0.704	2.25		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	1.54	5.30		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	50.8	95.8		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	ND	ND		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	ND	ND		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	6.33	31.3		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	1.09	4.46		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	4.91	17.3		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	2.31	5.68		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	4.75	32.2		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	0.342	1.29		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	0.182	0.975	5.15	27.6		1	<a href="#">WG1434891</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	ND	ND		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	ND	ND		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.7				<a href="#">WG1434891</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Unknown-01	003557-49-1	281	0.000	0.000	12.5	144	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	22.5	53.5		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	1.55	4.95		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	5.60	19.3		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	32.7	61.7		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	0.206	0.893		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	ND	ND		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	20.1	99.4		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	3.01	12.3		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	9.24	32.6		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	2.23	6.58		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	1.94	4.77		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	ND	ND		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	0.725	2.73		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	0.182	0.975	0.587	3.15		1	<a href="#">WG1434891</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.253	1.24		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	0.345	1.50		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	0.252	1.09		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		112				<a href="#">WG1434891</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Unknown-01	000075-28-5	58	0.000	0.000	10.3	24.4	JN	1	<a href="#">WG1434891</a>

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	1.76	4.18	B	1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	2.56	8.18		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	6.24	19.4		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	0.941	4.58		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	0.196	0.777		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	ND	ND		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	16.2	70.2		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	8.87	43.5		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	1.07	6.01		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	3.85	15.7		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	3.22	11.4		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	1.08	5.31		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	ND	ND		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	ND	ND		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	13.1	55.7		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	17.8	121		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	1.66	6.25	144	542		10	WG1435569
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	1.82	9.75	364	1950		10	<a href="#">WG1435569</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	6.91	33.9		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	2.48	12.2		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	1.99	9.30		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	58.8	255		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	14.3	62.0		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.4				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				<a href="#">WG1435569</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ppbv	Result ppbv	Result ppbv	Qualifier	Dilution	Batch
Benzene, 1-Chloro-4-(Trifluorometh	000098-56-6	180	0.000	0.000	18.3	135	JN	1	<a href="#">WG1434891</a>

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	0.190	0.451	55.2	131		1	WG1434891
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1434891
Benzene	71-43-2	78.10	0.153	0.489	0.357	1.14		1	WG1434891
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1434891
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1434891
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1434891
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1434891
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1434891
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1434891
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1434891
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1434891
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1434891
Chloroform	67-66-3	119	0.191	0.930	0.487	2.37		1	WG1434891
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1434891
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1434891
Cyclohexane	110-82-7	84.20	0.178	0.613	0.315	1.08		1	WG1434891
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1434891
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1434891
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1434891
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1434891
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1434891
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1434891
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1434891
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1434891
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1434891
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1434891
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1434891
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1434891
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1434891
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1434891
Ethanol	64-17-5	46.10	0.277	0.522	ND	ND		1	WG1434891
Ethylbenzene	100-41-4	106	0.169	0.733	1.29	5.59		1	WG1434891
4-Ethyltoluene	622-96-8	120	0.222	1.09	1.37	6.72		1	WG1434891
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	2.50	14.0		1	WG1434891
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	4.94	24.4		1	WG1434891
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1434891
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1434891
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1434891
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1434891
n-Hexane	110-54-3	86.20	0.152	0.536	ND	ND		1	WG1434891
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1434891
Methylene Chloride	75-09-2	84.90	0.155	0.538	ND	ND		1	WG1434891
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1434891
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	6.03	17.8		1	WG1434891
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	1.40	5.73		1	WG1434891
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1434891
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1434891
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1434891
2-Propanol	67-63-0	60.10	0.294	0.723	ND	ND		1	WG1434891
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1434891
Styrene	100-42-5	104	0.155	0.659	1.25	5.32		1	WG1434891
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1434891
Tetrachloroethylene	127-18-4	166	0.166	1.13	0.878	5.96		1	WG1434891
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1434891
Toluene	108-88-3	92.10	0.166	0.625	5.21	19.6		1	WG1434891
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1434891

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	<a href="#">WG1434891</a>
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	<a href="#">WG1434891</a>
Trichloroethylene	79-01-6	131	3.64	19.5	741	3970		20	<a href="#">WG1435569</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	1.52	7.46		1	<a href="#">WG1434891</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	0.438	2.15		1	<a href="#">WG1434891</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	<a href="#">WG1434891</a>
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	<a href="#">WG1434891</a>
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	<a href="#">WG1434891</a>
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	<a href="#">WG1434891</a>
m&p-Xylene	1330-20-7	106	0.315	1.37	4.89	21.2		1	<a href="#">WG1434891</a>
o-Xylene	95-47-6	106	0.211	0.915	1.30	5.64		1	<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.2				<a href="#">WG1434891</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.2				<a href="#">WG1435569</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (MS) by Method TO-15 - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ppbv	ppbv	ppbv			
Unknown-01	000075-68-3	100	0.000	0.000	27.6	113	JN	1	<a href="#">WG1434891</a>

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Method Blank (MB)

(MB) R3503622-3 02/27/20 10:53

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	0.342		0.0569	0.190
Allyl Chloride	U		0.0546	0.182
Benzene	U		0.0460	0.153
Benzyl Chloride	U		0.0598	0.199
Bromodichloromethane	U		0.0436	0.145
Bromoform	U		0.0786	0.262
Bromomethane	U		0.0609	0.203
1,3-Butadiene	U		0.0563	0.188
Carbon disulfide	U		0.0544	0.181
Carbon tetrachloride	U		0.0585	0.195
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.163
Chloroform	U		0.0574	0.191
Chloromethane	U		0.0544	0.181
2-Chlorotoluene	U		0.0605	0.202
Cyclohexane	U		0.0534	0.178
Dibromochloromethane	U		0.0494	0.165
1,2-Dibromoethane	U		0.0185	0.0617
1,2-Dichlorobenzene	U		0.0603	0.201
1,3-Dichlorobenzene	U		0.0597	0.199
1,4-Dichlorobenzene	0.0641	U	0.0557	0.186
1,2-Dichloroethane	U		0.0616	0.205
1,1-Dichloroethane	U		0.0514	0.171
1,1-Dichloroethene	U		0.0490	0.163
cis-1,2-Dichloroethene	U		0.0389	0.130
trans-1,2-Dichloroethene	U		0.0464	0.155
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.196
trans-1,3-Dichloropropene	U		0.0435	0.145
1,4-Dioxane	U		0.0554	0.185
Ethylbenzene	U		0.0506	0.169
4-Ethyltoluene	U		0.0666	0.222
Trichlorofluoromethane	U		0.0673	0.224
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.229
1,2-Dichlorotetrafluoroethane	U		0.0458	0.153
Heptane	U		0.0626	0.209
Hexachloro-1,3-butadiene	U		0.0656	0.219
n-Hexane	U		0.0457	0.152
Isopropylbenzene	U		0.0563	0.188

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3503622-3 02/27/20 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0465	0.155
Methyl Butyl Ketone	U		0.0682	0.227
2-Butanone (MEK)	U		0.0493	0.164
4-Methyl-2-pentanone (MIBK)	U		0.0650	0.217
Methyl Methacrylate	U		0.0773	0.258
MTBE	U		0.0505	0.168
Naphthalene	U		0.154	0.513
2-Propanol	U		0.0882	0.294
Propene	0.309	U	0.0932	0.311
Styrene	U		0.0465	0.155
1,1,2,2-Tetrachloroethane	U		0.0576	0.192
Tetrachloroethylene	U		0.0497	0.166
Tetrahydrofuran	U		0.0508	0.169
Toluene	U		0.0499	0.166
1,2,4-Trichlorobenzene	U		0.148	0.493
1,1,1-Trichloroethane	U		0.0665	0.222
1,1,2-Trichloroethane	U		0.0287	0.0957
Trichloroethylene	U		0.0545	0.182
1,2,4-Trimethylbenzene	U		0.0483	0.161
1,3,5-Trimethylbenzene	U		0.0631	0.210
2,2,4-Trimethylpentane	U		0.0456	0.152
Vinyl chloride	U		0.0457	0.152
Vinyl Bromide	U		0.0727	0.242
Vinyl acetate	U		0.0639	0.213
m&p-Xylene	U		0.0946	0.315
o-Xylene	U		0.0633	0.211
Ethanol	U		0.0832	0.277
(S) 1,4-Bromofluorobenzene	96.9			60.0-140

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R3503622-3 02/27/20 10:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL	CAS #
	ppbv		ppbv	ppbv	

Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3503622-1 02/27/20 09:28 • (LCSD) R3503622-2 02/27/20 10:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethanol	3.75	4.11	3.88	110	103	55.0-148			5.76	25
Propene	3.75	3.88	3.83	103	102	64.0-144			1.30	25
Dichlorodifluoromethane	3.75	4.29	4.30	114	115	64.0-139			0.233	25
1,2-Dichlorotetrafluoroethane	3.75	4.24	4.32	113	115	70.0-130			1.87	25
Chloromethane	3.75	4.18	4.24	111	113	70.0-130			1.43	25
Vinyl chloride	3.75	4.15	4.30	111	115	70.0-130			3.55	25
1,3-Butadiene	3.75	3.97	3.91	106	104	70.0-130			1.52	25
Bromomethane	3.75	4.14	4.18	110	111	70.0-130			0.962	25
Chloroethane	3.75	4.13	4.13	110	110	70.0-130			0.000	25
Trichlorofluoromethane	3.75	4.21	4.24	112	113	70.0-130			0.710	25
1,1,2-Trichlorotrifluoroethane	3.75	4.13	4.21	110	112	70.0-130			1.92	25
1,1-Dichloroethene	3.75	4.10	4.23	109	113	70.0-130			3.12	25
1,1-Dichloroethane	3.75	3.99	4.20	106	112	70.0-130			5.13	25
Acetone	3.75	4.14	4.25	110	113	70.0-130			2.62	25
2-Propanol	3.75	3.91	4.05	104	108	70.0-139			3.52	25
Carbon disulfide	3.75	3.86	3.99	103	106	70.0-130			3.31	25
Methylene Chloride	3.75	4.08	4.27	109	114	70.0-130			4.55	25
MTBE	3.75	3.87	3.91	103	104	70.0-130			1.03	25
trans-1,2-Dichloroethene	3.75	4.03	4.16	107	111	70.0-130			3.17	25
n-Hexane	3.75	4.04	4.05	108	108	70.0-130			0.247	25
Vinyl acetate	3.75	3.93	3.70	105	98.7	70.0-130			6.03	25
Methyl Ethyl Ketone	3.75	3.94	3.85	105	103	70.0-130			2.31	25
cis-1,2-Dichloroethene	3.75	3.61	3.68	96.3	98.1	70.0-130			1.92	25
Chloroform	3.75	4.17	4.13	111	110	70.0-130			0.964	25
Cyclohexane	3.75	4.09	4.08	109	109	70.0-130			0.245	25
1,1,1-Trichloroethane	3.75	4.09	4.19	109	112	70.0-130			2.42	25
Carbon tetrachloride	3.75	4.11	4.12	110	110	70.0-130			0.243	25
Benzene	3.75	4.05	4.09	108	109	70.0-130			0.983	25
1,2-Dichloroethane	3.75	4.14	4.13	110	110	70.0-130			0.242	25
Heptane	3.75	3.21	3.13	85.6	83.5	70.0-130			2.52	25
Trichloroethylene	3.75	4.08	4.12	109	110	70.0-130			0.976	25
1,2-Dichloropropane	3.75	4.06	4.01	108	107	70.0-130			1.24	25
1,4-Dioxane	3.75	4.07	4.15	109	111	70.0-140			1.95	25
Bromodichloromethane	3.75	4.10	4.12	109	110	70.0-130			0.487	25
cis-1,3-Dichloropropene	3.75	4.02	4.01	107	107	70.0-130			0.249	25
4-Methyl-2-pentanone (MIBK)	3.75	3.95	4.14	105	110	70.0-139			4.70	25
Toluene	3.75	3.98	4.00	106	107	70.0-130			0.501	25
trans-1,3-Dichloropropene	3.75	4.01	4.00	107	107	70.0-130			0.250	25
1,1,2-Trichloroethane	3.75	4.07	4.08	109	109	70.0-130			0.245	25
Tetrachloroethylene	3.75	4.14	4.18	110	111	70.0-130			0.962	25

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3503622-1 02/27/20 09:28 • (LCSD) R3503622-2 02/27/20 10:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Methyl Butyl Ketone	3.75	3.96	4.21	106	112	70.0-149			6.12	25
Dibromochloromethane	3.75	4.16	4.19	111	112	70.0-130			0.719	25
1,2-Dibromoethane	3.75	4.10	4.13	109	110	70.0-130			0.729	25
Chlorobenzene	3.75	4.07	4.20	109	112	70.0-130			3.14	25
Ethylbenzene	3.75	4.14	4.21	110	112	70.0-130			1.68	25
m&p-Xylene	7.50	8.35	8.51	111	113	70.0-130			1.90	25
o-Xylene	3.75	4.05	4.17	108	111	70.0-130			2.92	25
Styrene	3.75	4.19	4.29	112	114	70.0-130			2.36	25
Bromoform	3.75	4.24	4.37	113	117	70.0-130			3.02	25
1,1,2,2-Tetrachloroethane	3.75	4.34	4.51	116	120	70.0-130			3.84	25
4-Ethyltoluene	3.75	4.65	4.74	124	126	70.0-130			1.92	25
1,3,5-Trimethylbenzene	3.75	4.33	4.64	115	124	70.0-130			6.91	25
1,2,4-Trimethylbenzene	3.75	4.33	4.60	115	123	70.0-130			6.05	25
1,3-Dichlorobenzene	3.75	4.41	4.64	118	124	70.0-130			5.08	25
1,4-Dichlorobenzene	3.75	4.56	4.77	122	127	70.0-130			4.50	25
Benzyl Chloride	3.75	3.34	3.58	89.1	95.5	70.0-152			6.94	25
1,2-Dichlorobenzene	3.75	4.50	4.75	120	127	70.0-130			5.41	25
1,2,4-Trichlorobenzene	3.75	4.20	4.49	112	120	70.0-160			6.67	25
Hexachloro-1,3-butadiene	3.75	4.52	4.77	121	127	70.0-151			5.38	25
Naphthalene	3.75	4.35	4.65	116	124	70.0-159			6.67	25
Allyl Chloride	3.75	4.24	4.13	113	110	70.0-130			2.63	25
2-Chlorotoluene	3.75	4.37	4.58	117	122	70.0-130			4.69	25
Methyl Methacrylate	3.75	3.38	3.50	90.1	93.3	70.0-130			3.49	25
Tetrahydrofuran	3.75	3.88	3.95	103	105	70.0-137			1.79	25
2,2,4-Trimethylpentane	3.75	4.04	4.05	108	108	70.0-130			0.247	25
Vinyl Bromide	3.75	4.19	4.23	112	113	70.0-130			0.950	25
Isopropylbenzene	3.75	4.24	4.34	113	116	70.0-130			2.33	25
(S) 1,4-Bromofluorobenzene				98.9	102	60.0-140				

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3504105-3 02/28/20 10:26

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
cis-1,2-Dichloroethene	U		0.0389	0.130
Tetrachloroethylene	U		0.0497	0.166
Toluene	U		0.0499	0.166
Trichloroethylene	U		0.0545	0.182
Ethanol	U		0.0832	0.277
(S) 1,4-Bromofluorobenzene	95.1			60.0-140

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3504105-1 02/28/20 09:02 • (LCSD) R3504105-2 02/28/20 09:45

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	4.19	4.14	112	110	55.0-148			1.20	25
cis-1,2-Dichloroethene	3.75	3.65	3.69	97.3	98.4	70.0-130			1.09	25
Trichloroethylene	3.75	4.23	4.20	113	112	70.0-130			0.712	25
Toluene	3.75	4.11	4.10	110	109	70.0-130			0.244	25
Tetrachloroethylene	3.75	4.20	4.27	112	114	70.0-130			1.65	25
(S) 1,4-Bromofluorobenzene				102	102	60.0-140				

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3504372-3 03/01/20 09:47

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Trichloroethylene	U		0.0545	0.182
(S) 1,4-Bromofluorobenzene	94.9			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3504372-1 03/01/20 08:31 • (LCSD) R3504372-2 03/01/20 09:10

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Trichloroethylene	3.75	4.46	4.35	119	116	70.0-130			2.50	25
(S) 1,4-Bromofluorobenzene				96.1	98.1	60.0-140				

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
N	The analyte is tentatively identified and the associated numerical value may not be consistent with the actual concentration present in the sample.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.  
 \* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

## State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	90010	South Carolina	84004
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana <sup>1</sup>	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

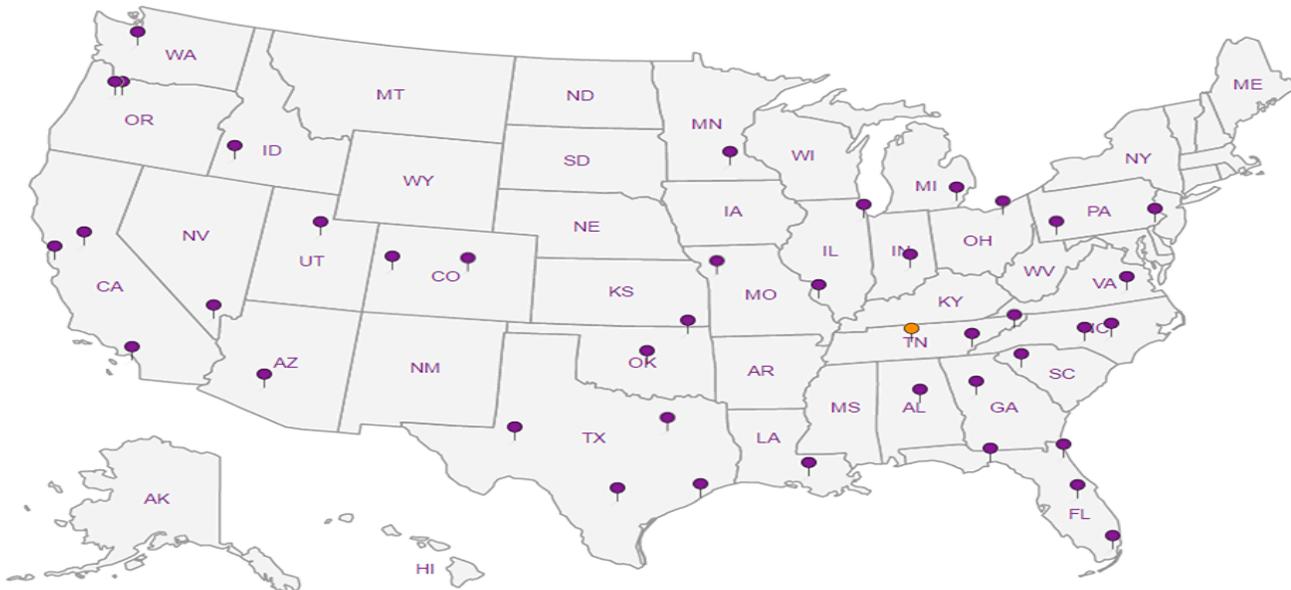
## Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

## Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



**ATTACHMENT C**

**FORM 4400-237**

**Notice:** Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

## Definitions

**"Property"** refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

**"Liability Clarification"** refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

**"Technical Assistance"** refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

**"Post-closure modification"** refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

## Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

**Do not use this form if one of the following applies:**

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

## Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

Page 2 of 7

## Section 1. Contact and Recipient Information

### Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Hassler	First Robert	MI	Organization/ Business Name 910 Mayer, LLC
Mailing Address 15 Reservoir Road		City White Plains	State NY
Phone # (include area code) (914) 719-6076		Fax # (include area code)	Email rhassler@reichbrothers.com
		ZIP Code 10603	

The requester listed above: (select all that apply)

- Is currently the owner
  Is considering selling the Property  
 Is renting or leasing the Property
  Is considering acquiring the Property  
 Is a lender with a mortgagee interest in the Property  
 Other. Explain the status of the Property with respect to the applicant:

### Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Hasstler	First Robert	MI W	Organization/ Business Name 910 Mayer, LLC
Mailing Address 15 Reservoir Road		City White Plains	State NY
Phone # (include area code) (914) 719-6076		Fax # (include area code)	Email rhassler@reichbrothers.com
		ZIP Code 10603	

### Environmental Consultant (if applicable)

Contact Last Name de Courcy-Bower	First David	MI T	Organization/ Business Name Environmental Resources Management
Mailing Address 700 W. Virginia Street, Suite 601		City Milwaukee	State WI
Phone # (include area code) (414) 977-4705		Fax # (include area code)	Email david.decourcybower@erm.com
		ZIP Code 53204	

## Section 2. Property Information

Property Name 910 Mayer Ave - Former Ethylene Dichloride Tank	FID No. (if known) 113004650
BRRTS No. (if known) 02-13-580721	Parcel Identification Number 251/0810-313-0101-3
Street Address 910 Oscar Avenue	City Madison
County Dane	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Madison
Property is composed of: <input checked="" type="radio"/> Single tax parcel <input type="radio"/> Multiple tax parcels	Property Size Acres 48
	State WI
	ZIP Code 53704

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

Page 3 of 7

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No  Yes

Date requested by: \_\_\_\_\_

Reason: \_\_\_\_\_

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

**Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:**

**Section 3. Technical Assistance or Post-Closure Modifications;**

**Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

## Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
  - Include a fee of \$300 for sites with residual soil contamination; and
  - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**

## Section 4. Request for Liability Clarification

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. **[Numbers in brackets are for DNR Use]**

"Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the real Property, and/or the personal Property and fixtures;
- (2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;
- (3) the date the environmental assessment was conducted by the lender;
- (4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.
- (5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.
- (6) a copy of the Property deed with the correct legal description; and,
- (7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).
- (8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292.21(1)(c)2., h.-i., Wis. Stats.:
  - h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.
  - i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

"Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the Property;
- (2) the date of Property acquisition by the representative;
- (3) the means by which the Property was acquired;
- (4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;
- (5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and
- (6) a copy of the Property deed with the correct legal description.

Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

- hazardous substances spills - s. 292.11(9)(e), Wis. Stats. [649];
- Perceived environmental contamination - [649];
- hazardous waste - s. 292.24 (2), Wis. Stats. [649]; and/or
- solid waste - s. 292.23 (2), Wis. Stats. [649].

❖ **Include a fee of \$700, a summary of the environmental liability clarification being requested, and the following:**

- (1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).
- (2) current and proposed ownership status of the Property;
- (3) date and means by which the Property was acquired by the LGU, where applicable;
- (4) a map and the ¼, ¼ section location of the Property;
- (5) summary of current uses of the Property;
- (6) intended or potential use(s) of the Property;
- (7) descriptions of other investigations that have taken place on the Property; and
- (8) (for solid waste clarifications) a summary of the license history of the facility.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 4. Request for Liability Clarification (cont.)

Lease liability clarification - s. 292.55, Wis. Stats. [646]

❖ **Include a fee of \$700 for a single Property, or \$1400 for multiple Properties and the information listed below:**

- (1) a copy of the proposed lease;
- (2) the name of the current owner of the Property and the person who will lease the Property;
- (3) a description of the lease holder's association with any persons who have possession, control, or caused a discharge of a hazardous substance on the Property;
- (4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;
- (5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and
- (6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below.

❖ **Include a fee of \$700 and an adequate summary of relevant environmental work to date.**

No Action Required (NAR) - NR 716.05, [682]

❖ **Include a fee of \$700.**

Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has been conducted; the assessment reports should be submitted with this form. This is not a closure letter.

Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]

❖ **Include a fee of \$700.**

- Include a copy of any closure documents if a state agency other than DNR approved the closure.

Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR. 910 Mayer requests that the WDNR provide a letter indicating that the Site Investigation is completed as discussed in the meeting on December 12, 2019. In addition, 910 Mayer requests a contained out determination for ethylene dichloride.

## Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: [dnr.wi.gov/topic/Brownfields/Igu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/Igu.html#tabx4).

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

- Phase I Environmental Site Assessment Report - Date: \_\_\_\_\_
- Phase II Environmental Site Assessment Report - Date: \_\_\_\_\_
- Legal Description of Property (required for all liability requests and specialized agreements)
- Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater     Soil     Sediment     Other medium - Describe: Sub-Slab

Date of Collection: \_\_\_\_\_

- A copy of the closure letter and submittal materials
- Draft tax cancellation agreement
- Draft agreement for assignment of tax foreclosure judgment
- Other report(s) or information - Describe: Site Investigation Information Previously Submitted to WDNR

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

- Yes - Date (if known): \_\_\_\_\_
- No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:  
[dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).

## Section 7. Certification by the Person who completed this form

- I am the person submitting this request (requester)
- I prepared this request for: \_\_\_\_\_  
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

  
\_\_\_\_\_  
Signature

4/17/2019  
\_\_\_\_\_  
Date Signed

Partner  
\_\_\_\_\_  
Title

+1 414 977-4705  
\_\_\_\_\_  
Telephone Number (include area code)

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

### DNR NORTHERN REGION

Attn: RR Program Assistant  
Department of Natural Resources  
223 E Steinfest Rd Antigo, WI 54409

### DNR NORTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay WI 54313

### DNR SOUTH CENTRAL REGION

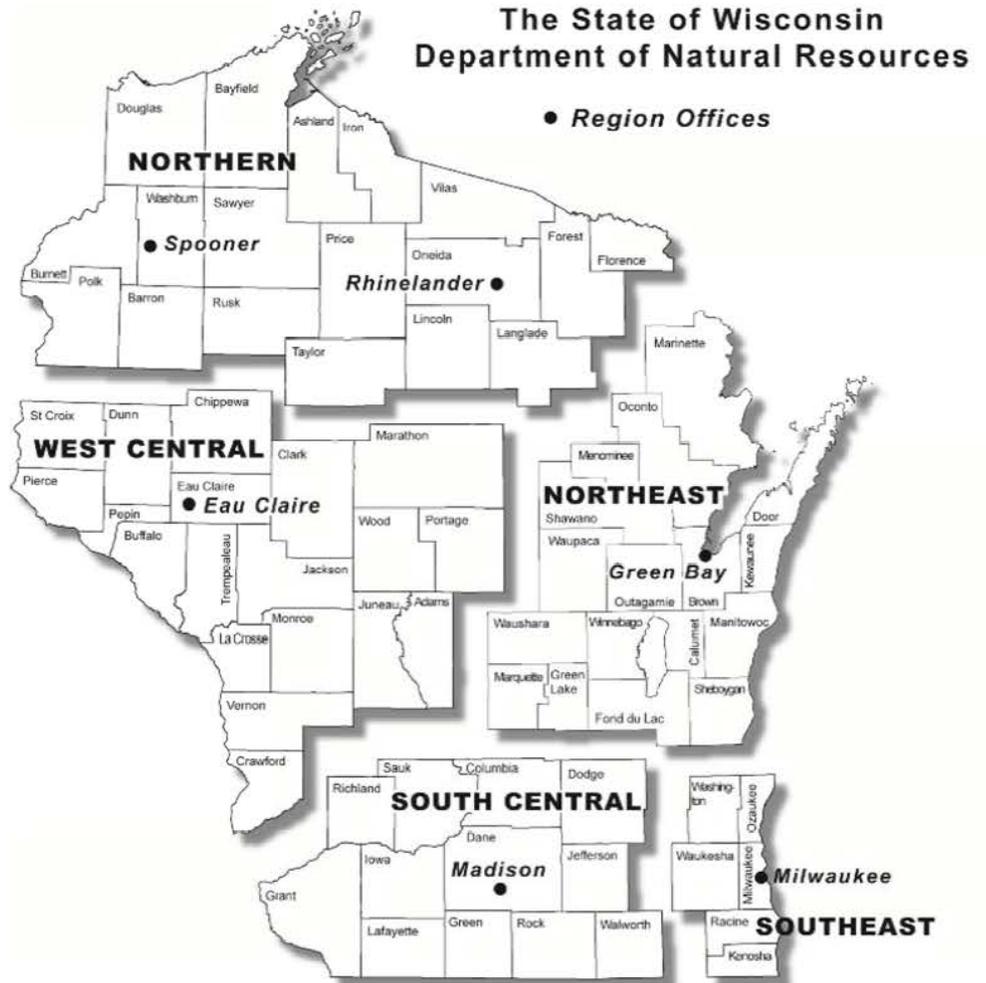
Attn: RR Program Assistant  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg WI 53711

### DNR SOUTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee WI 53212

### DNR WEST CENTRAL REGION

Attn: RR Program Assistant  
Department of Natural Resources  
1300 Clairemont Ave.  
Eau Claire WI 54702



*Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.*

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

**Notice:** Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

## Definitions

**"Property"** refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

**"Liability Clarification"** refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

**"Technical Assistance"** refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

**"Post-closure modification"** refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

## Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

**Do not use this form if one of the following applies:**

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

## Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 1. Contact and Recipient Information

### Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Hassler	First Robert	MI	Organization/ Business Name 910 Mayer, LLC
Mailing Address 15 Reservoir Road		City White Plains	State NY
		ZIP Code 10603	
Phone # (include area code) (914) 719-6076	Fax # (include area code)	Email rhassler@reichbrothers.com	

The requester listed above: (select all that apply)

- Is currently the owner
  Is considering selling the Property  
 Is renting or leasing the Property
  Is considering acquiring the Property  
 Is a lender with a mortgagee interest in the Property  
 Other. Explain the status of the Property with respect to the applicant:

### Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Hasstler	First Robert	MI W	Organization/ Business Name 910 Mayer, LLC
Mailing Address 15 Reservoir Road		City White Plains	State NY
		ZIP Code 10603	
Phone # (include area code) (914) 719-6076	Fax # (include area code)	Email rhassler@reichbrothers.com	

### Environmental Consultant (if applicable)

Contact Last Name de Courcy-Bower	First David	MI T	Organization/ Business Name Environmental Resources Management
Mailing Address 700 W. Virginia Street, Suite 601		City Milwaukee	State WI
		ZIP Code 53204	
Phone # (include area code) (414) 977-4705	Fax # (include area code)	Email david.decourcybower@erm.com	

## Section 2. Property Information

Property Name 910 Mayer Ave - Former Spice Room		FID No. (if known) 113004650
BRRTS No. (if known) 02-13-580723		Parcel Identification Number 251/0810-313-0101-3
Street Address 910 Oscar Avenue		City Madison
		State WI
		ZIP Code 53704
County Dane	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Madison	Property is composed of: <input checked="" type="radio"/> Single tax parcel <input type="radio"/> Multiple tax parcels
		Property Size Acres 48

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No  Yes

Date requested by: \_\_\_\_\_

Reason: \_\_\_\_\_

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

**Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:**

**Section 3. Technical Assistance or Post-Closure Modifications;**

**Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

## Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
  - Include a fee of \$300 for sites with residual soil contamination; and
  - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**

## Section 4. Request for Liability Clarification

Select the type of liability clarification requested. Use the available space given or attach information, explanations, or specific questions that you need answered in DNR's reply. Complete Sections 6 and 7 of this form. **[Numbers in brackets are for DNR Use]**

"Lender" liability exemption clarification - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the real Property, and/or the personal Property and fixtures;
- (2) an environmental assessment, in accordance with s. 292.21, Wis. Stats.;
- (3) the date the environmental assessment was conducted by the lender;
- (4) the date of the Property acquisition; for foreclosure actions, include a copy of the signed and dated court order confirming the sheriff's sale.
- (5) documentation showing how the Property was acquired and the steps followed under the appropriate state statutes.
- (6) a copy of the Property deed with the correct legal description; and,
- (7) the Lender Liability Exemption Environmental Assessment Tracking Form (Form 4400-196).
- (8) If no sampling was done, please provide reasoning as to why it was **not** conducted. Include this either in the accompanying environmental assessment or as an attachment to this form, and cite language in s. 292.21(1)(c)2., h.-i., Wis. Stats.:
  - h. The collection and analysis of representative samples of soil or other materials in the ground that are suspected of being contaminated based on observations made during a visual inspection of the real Property or based on aerial photographs, or other information available to the lender, including stained or discolored soil or other materials in the ground and including soil or materials in the ground in areas with dead or distressed vegetation. The collection and analysis shall identify contaminants in the soil or other materials in the ground and shall quantify concentrations.
  - i. The collection and analysis of representative samples of unknown wastes or potentially hazardous substances found on the real Property and the determination of concentrations of hazardous waste and hazardous substances found in tanks, drums or other containers or in piles or lagoons on the real Property.

"Representative" liability exemption clarification (e.g. trustees, receivers, etc.) - s. 292.21, Wis. Stats. [686]

❖ **Include a fee of \$700.**

Provide the following documentation:

- (1) ownership status of the Property;
- (2) the date of Property acquisition by the representative;
- (3) the means by which the Property was acquired;
- (4) documentation that the representative has no beneficial interest in any entity that owns, possesses, or controls the Property;
- (5) documentation that the representative has not caused any discharge of a hazardous substance on the Property; and
- (6) a copy of the Property deed with the correct legal description.

Clarification of local governmental unit (LGU) liability exemption at sites with: (select all that apply)

- hazardous substances spills - s. 292.11(9)(e), Wis. Stats. [649];
- Perceived environmental contamination - [649];
- hazardous waste - s. 292.24 (2), Wis. Stats. [649]; and/or
- solid waste - s. 292.23 (2), Wis. Stats. [649].

❖ **Include a fee of \$700, a summary of the environmental liability clarification being requested, and the following:**

- (1) clear supporting documentation showing the acquisition method used, and the steps followed under the appropriate state statute(s).
- (2) current and proposed ownership status of the Property;
- (3) date and means by which the Property was acquired by the LGU, where applicable;
- (4) a map and the ¼, ¼ section location of the Property;
- (5) summary of current uses of the Property;
- (6) intended or potential use(s) of the Property;
- (7) descriptions of other investigations that have taken place on the Property; and
- (8) (for solid waste clarifications) a summary of the license history of the facility.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 4. Request for Liability Clarification (cont.)

Lease liability clarification - s. 292.55, Wis. Stats. [646]

❖ **Include a fee of \$700 for a single Property, or \$1400 for multiple Properties and the information listed below:**

- (1) a copy of the proposed lease;
- (2) the name of the current owner of the Property and the person who will lease the Property;
- (3) a description of the lease holder's association with any persons who have possession, control, or caused a discharge of a hazardous substance on the Property;
- (4) map(s) showing the Property location and any suspected or known sources of contamination detected on the Property;
- (5) a description of the intended use of the Property by the lease holder, with reference to the maps to indicate which areas will be used. Explain how the use will not interfere with any future investigation or cleanup at the Property; and
- (6) all reports or investigations (e.g. Phase I and Phase II Environmental Assessments and/or Site Investigation Reports conducted under s. NR 716, Wis. Adm. Code) that identify areas of the Property where a discharge has occurred.

General or other environmental liability clarification - s. 292.55, Wis. Stats. [682] - Explain your request below.

❖ **Include a fee of \$700 and an adequate summary of relevant environmental work to date.**

No Action Required (NAR) - NR 716.05, [682]

❖ **Include a fee of \$700.**

Use where an environmental discharge has or has not occurred, and applicant wants a DNR determination that no further assessment or clean-up work is required. Usually this is requested after a Phase I and Phase II environmental assessment has been conducted; the assessment reports should be submitted with this form. This is not a closure letter.

Clarify the liability associated with a "closed" Property - s. 292.55, Wis. Stats. [682]

❖ **Include a fee of \$700.**

- Include a copy of any closure documents if a state agency other than DNR approved the closure.

Use this space or attach additional sheets to provide necessary information, explanations or specific questions to be answered by the DNR. 910 Mayer requests that the WDNR provide a letter indicating that the Site Investigation is completed as discussed in the meeting on December 12, 2019.

## Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: [dnr.wi.gov/topic/Brownfields/Igu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/Igu.html#tabx4).

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description.

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 12/18)

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## Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

- Phase I Environmental Site Assessment Report - Date: \_\_\_\_\_
- Phase II Environmental Site Assessment Report - Date: \_\_\_\_\_
- Legal Description of Property (required for all liability requests and specialized agreements)
- Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater     Soil     Sediment     Other medium - Describe: Sub-Slab

Date of Collection: \_\_\_\_\_

- A copy of the closure letter and submittal materials
- Draft tax cancellation agreement
- Draft agreement for assignment of tax foreclosure judgment
- Other report(s) or information - Describe: Site Investigation Information Previously Submitted to WDNR

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

- Yes - Date (if known): \_\_\_\_\_
- No

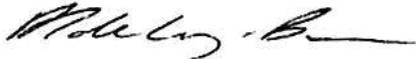
Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:  
[dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).

## Section 7. Certification by the Person who completed this form

- I am the person submitting this request (requester)
- I prepared this request for: \_\_\_\_\_

Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.



4/17/2020

Signature

Date Signed

Partner

+1 414 977-4705

Title

Telephone Number (include area code)

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

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## Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

### DNR NORTHERN REGION

Attn: RR Program Assistant  
Department of Natural Resources  
223 E Steinfest Rd Antigo, WI 54409

### DNR NORTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay WI 54313

### DNR SOUTH CENTRAL REGION

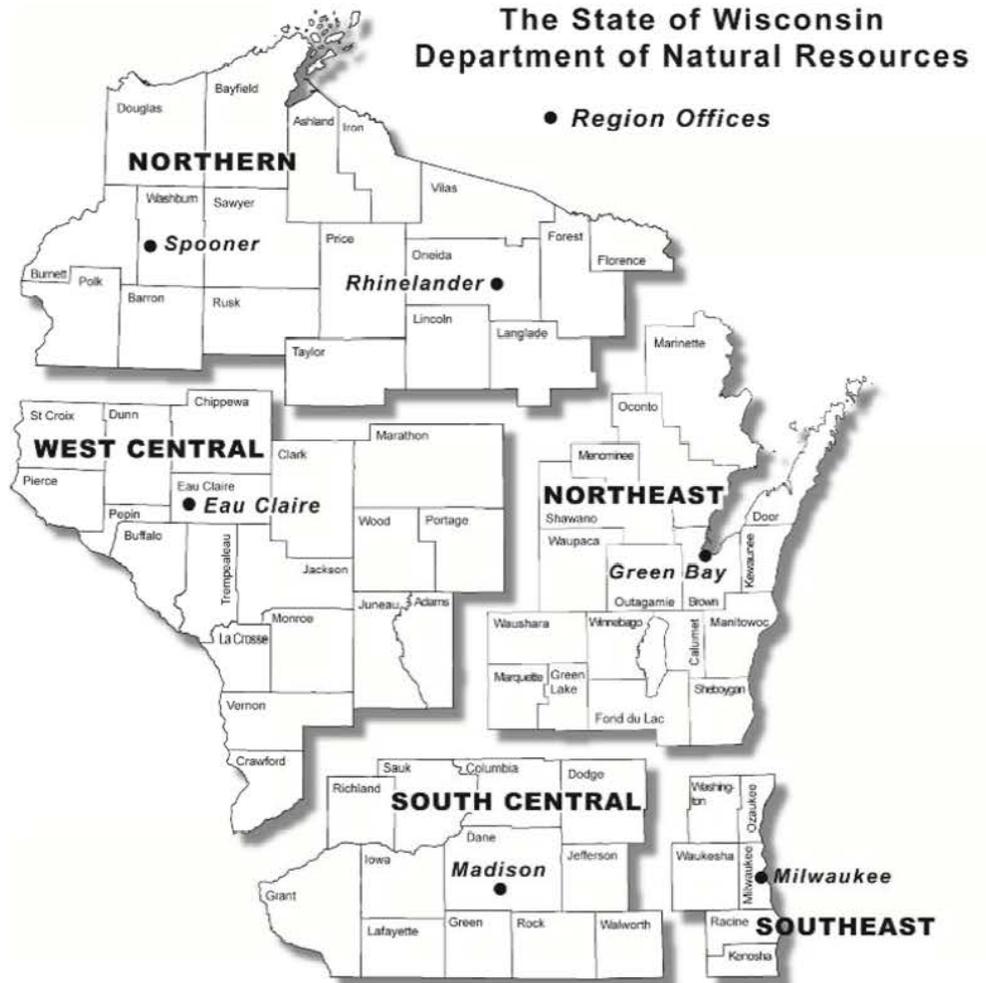
Attn: RR Program Assistant  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg WI 53711

### DNR SOUTHEAST REGION

Attn: RR Program Assistant  
Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee WI 53212

### DNR WEST CENTRAL REGION

Attn: RR Program Assistant  
Department of Natural Resources  
1300 Clairemont Ave.  
Eau Claire WI 54702



*Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.*

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

## ATTACHMENT D

## WASTE DETERMINATION REQUEST

**Notice:** This voluntary form is intended as an aid for use by Generators and Responsible Parties in determining whether *contaminated soil or groundwater and wastes* encountered or generated during the remediation of contaminated sites in Wisconsin are or would be listed or characteristic hazardous wastes subject to regulation under ch. 291, Wis. Stats. and chs. NR 600 to 690, Wis. Adm. Code. There are no penalties for failure to provide information requested. Personally identifiable information collected will be used for program management. Wisconsin's Open Records law requires the Department to provide this information upon request [ss. 19.31 - 19.69, Wis. Stats.].

Listing determinations are often particularly difficult in the remedial context because the listings are generally identified by the sources of the hazardous wastes rather than the concentrations of various hazardous constituents. Therefore, analytical testing alone, without information on a waste's source, will not generally produce information that will conclusively indicate whether a given waste is a listed hazardous waste. Generators and Responsible Parties should use available site information such as material safety data sheets (MSDS's), manifests, vouchers, bills of lading, sales and inventory records, accident reports, spill reports, inspection reports, and other available information. It may also be necessary to conduct interviews of current or former personnel who would have knowledge of the processes and hazardous materials used including waste handling or past spills in an effort to ascertain the sources of wastes or contaminants.

Where a person makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste and, therefore, provided the material in question does not exhibit a characteristic of hazardous waste, RCRA requirements do not apply.

Generator Information	
Generator's Name 910 Mayer, LLC	Preparer's Name David de Courcy-Bower
Address 910 Oscar Ave	Address 700 W. Virginia Street, Ste. 601
City, State and ZIP Code Madison, WI 53704	City, State and ZIP Code Milwaukee, WI 53204
Telephone Number 914-719-6076	Telephone Number 414-977-4705
Site Information	
Site Name 910 Mayer, LLC	Other name(s) site is known by
Address 910 Oscar Ave	County Dane
Located in the City, Town or Village ZIP Code Madison, WI 53704	
Hazardous Waste Determination Information Reviewed	
Listed Hazardous Waste Determination	
Manifests reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available	Vouchers reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available
Bills of lading reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available	Sales and inventory records reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available
Material safety data sheets <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available	Accident reports reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available
Spill reports reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available	Inspection reports reviewed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available
DNR's case files reviewed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input type="checkbox"/> None Available	Interviewed current and/or former employees who are likely to know about the use and/or disposal of the chemical or waste of concern (not just managers). <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None Found <input checked="" type="checkbox"/> None Available

**Remediation Site  
Hazardous Waste Determination**

Form 4430-019 (R 4/03)

Page 2 of 2

**Hazardous Waste Determination Information Reviewed (continued)**

Other information considered (provide description)

Yes

No

None Found

None Available

See attached letter.

**Characteristic Hazardous Waste Determination**

Identified location(s)

See Section 4 of the attached letter.

Testing results

See Section 4 of the attached letter.

**Certification**

I certify that the information documented above in the "Information reviewed to make a hazardous waste determination" section was developed and used as part of a good faith effort to make a hazardous waste determination. Reasonable diligence was used in collecting the information, evaluating the information, and using the compiled information. I certify that this document is true and correct to the best of my knowledge, and that I have authority to make this certification.

Name and Title

Signature

Date



April 17, 2020

Mr. Michael Schmoller  
DNR Service Center  
3911 Fish Hatchery Road  
Fitchburg, Wisconsin 53711

Reference: 0441161

Subject: 910 Mayer LLC, Madison, Wisconsin – Updated Site Investigation Data (Attachment D)  
Non-Hazardous Waste Determination Request  
Former Ethylene Dichloride Tank - BRRTS Activity # 02-13-580721

## 1 Site Background

The former Oscar-Mayer Site (Site) began operation as a meat packing facility in 1916 before Oscar Mayer purchased the operating company in 1918. In 1981, Oscar Mayer was purchased by General Foods, which was subsequently acquired by Philip Morris in 1985. Under Philip Morris' ownership, the Facility operated under the names Kraft General Foods, Inc., Kraft Foods, Inc., and finally Kraft Foods Group. H.J. Heinz Co. purchased Kraft Foods Group in 2015, and operated as a meat processing and packaging plant under the Kraft Heinz name until closure in 2017. 910 Mayer, LLC purchased the property from Kraft Heinz in 2017 and has since cleared the majority of processing equipment and began renovating select portions of the Site for new uses. ERM conducted All Appropriate Inquiry and prepared a Phase I Environmental Site Assessment (ESA) to support the property purchase. The information pertaining this waste determination request is summarized below; no other potentially relevant information was available.

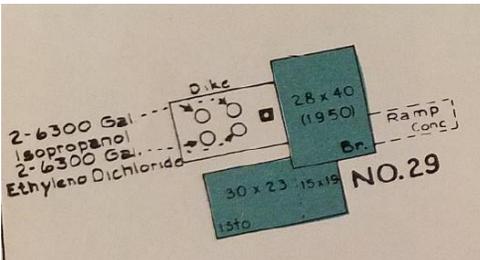
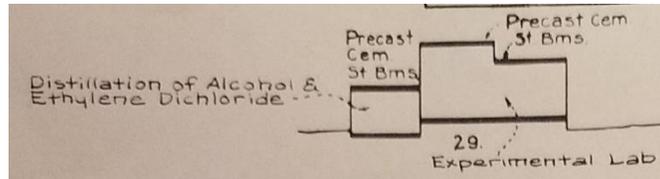
## 2 Former Site Activities

While operating as a meat processing facility, the Site received meats in raw form, additives including flavorings, spices and colorings, and condiments that were stored in refrigerators, freezers, non-climate controlled warehouses. Other food raw materials including corn syrup, salt, potassium lactate and sodium lactate were stored in ASTs located north of the processing plant. The raw meats and additives were processed and packaged into meat products including hotdogs, sausages, salami and bologna. The Site also functioned as a distribution center for condiments.

Former operations at the facility included the use of various chemicals, including solvents, petroleum products, acids and maintenance-related products to support food/meat preparation and packaging processes. Stock pens were previously present on the western portion of the Site to house hogs and cattle, which were slaughtered on site until the early 1980s. Site records also indicate that experimental laboratory activities previously occurred on site, and that these activities included the use of ethylene dichloride (EDC, aka 1,2-dichloroethane) and alcohol.

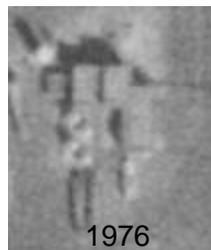
### 3 Former Experimental Laboratory Activities

Very limited information is available regarding the operations of a former “Experimental Laboratory” (Lab) on the south end of the 910 Mayer property. The building was constructed sometime between 1937 and 1949 and demolished sometime between 1980 and 1986 based on aerial photography. The only operational information is provided on the Factory Mutual Engineering Association map dated 7-8-59. The cross-section of the Lab building indicates operations included the distillation of EDC and Alcohol.



Based on the 1959 map, the former Lab had four above ground storage tanks (ASTs) adjacent to the Lab building (Building No.29). Two of the ASTs are depicted as containing EDC and two containing Isopropanol. The presence of a dike indicates that the tanks were ASTs.

Review of historic aerial photography indicates that in 1976 only two of the four ASTs remained, and that by 1980 all of the ASTs had been removed from adjacent to Building 29. This indicates that the use of the EDC ASTs occurred before 1980. As such, the use of EDC pre-dates adoption of the Resource Conservation and Recovery Act (RCRA).



No additional information was available regarding the operations of the former Building 29 or uses of EDC, alcohol or other solvents. Based on the limited information available, it appears that EDC was stored, processed and used along with alcohol within the experimental lab. No further information is available regarding historic waste generation activities.

### 4 Sampling Activities

As part of subsurface investigation activities, 27 soil samples were collected in the vicinity of the former EDC ASTs and Building 29. Soil samples were submitted for analysis of volatile organic compounds (VOCs). Analytical results were previously provided to WDNR as Table 1 and sample locations on Figure 3 of the Remedial Technology Screening. VOCs detected in soils above WDNR criteria included chloroform, EDC, methylene chloride, tetrachloroethene, trichloroethene, 1,1,2-trichloroethane and vinyl chloride. This indicates that the solvent release may have included a mixture of different compounds, including compounds that were not known to be stored or used within or near Building 29. Of the 27 soil samples collected and analyzed 4 samples contained detections of EDC.

						Location ID	SB-13	SB-14	SB-15	TS-MW-17C
						Sample Date	7/28/2017	7/28/2017	7/28/2017	4/15/2019
						Sample Depth	1.5-2 ft	3-4 ft	5-7 ft	2.5-3.5 ft
		Non-Industrial Direct Contact		Industrial Direct Contact		NR140				
Parameter	Unit	RCL	Basis	RCL	Basis	Soil to Groundwater (DF 2)				
1,2-Dichloroethane	mg/kg	0.652	ca	<b>2.87</b>	ca	<u>0.002840</u>	<u>0.0405</u>	<b>18.2</b>	<b>382</b>	<u>0.0946</u>

**Notes:**

**Bold** values exceed an industrial direct contact RCL

Underlined values exceed the NR140 Migration from Soil to Groundwater Standard, dilution factor 2.

ca = carcinogen

Based on these results, an additional soil boring TS-SB-72 was installed at the same location as SB-15. A soil sample was collected from 7-8 feet bgs, the interval with the highest photo-ionization detector reading. The sample was submitted to Pace Analytical for analysis of toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs). Soil analysis indicated an EDC TCLP concentration of 0.0075 mg/l which is below the TCLP regulatory level of 0.5 mg/l.

## 5 Non-Hazardous Waste Determination Request

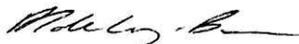
After a good faith effort of reviewing site historical data, the source of 1,2-Dichloroethane present in the soil and groundwater is not known. Because the source of contamination is not known, it is believed that waste soil and groundwater, would not be listed hazardous wastes when generated. The basis for this determination is referenced in Part II, Section A of the WDNR's 2014 *Guidance for Hazardous Waste Remediation* document:

“Where a facility owner/operator makes a good faith effort to determine if the material is a listed hazardous waste but cannot make such a determination because documentation regarding the source of contamination, contaminant or waste is unavailable or inconclusive, one may assume the source, contaminant or waste is not a listed hazardous waste.”

Furthermore, based on the TCLP results from a representative sample at the location believed to be representative of the source area, we believe the soil is not a characteristic waste when excavated.

Please let us know if you have any questions or would like to schedule a call to discuss.

Yours sincerely,



David de Courcy-Bower P.E.  
Partner