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August 7, 2024

Leslie Dixon
327 E. Reservoir Condominium Association, Inc.
325-327 East Reservoir Avenue
Milwaukee, Wisconsin 53233

Subject: Site Investigation Sampling Results
BRRTS #02-41-594249

Dear Ms. Dixon:

In accordance with Wisconsin Department of Natural Resources (WDNR) regulation NR 716.14, Terracon Consultants, Inc. (Terracon) is providing the results of environmental samples collected from your property located at 325-327 East Reservoir Avenue, Milwaukee, Wisconsin. The samples were collected between June 21 and July 12, 2024. The sampling activities are part of a site investigation being performed on behalf of 327 E. Reservoir Condominium Association, Inc. in general accordance with Terracon's *Site Investigation Work Plan* dated June 28, 2024. Based on historical site investigations, the contaminants of concern for the investigation are metals, volatile organic compounds (VOCs), including the solvent tetrachloroethene (PCE) and its degradation compounds, polycyclic aromatic hydrocarbons (PAHs), and per- and polyfluoroalkyl substances (PFAS) .

Sampling Results

Terracon collected three 7-day passive air samples in the basements of both units of the condominium building and outside at the approximate locations depicted in Figure 1. Additionally, Terracon installed three sub-slab vapor monitoring points for the purpose of collecting sub-slab vapor samples. Soil and groundwater samples were collected from three soil borings designated P-1 through P-3 at the approximate locations depicted on Figure 1. Two soil samples were collected from each boring at depths of 2 or 3 feet below ground surface (bgs) and above the apparent groundwater table between 16 and 19 feet bgs. After completing the soil sampling, NR 141-compliant groundwater monitoring wells were constructed at each boring location. The monitoring wells were developed and surveyed. Prior to groundwater sample collection, static water level measurements were recorded.

The groundwater elevations/analytical results of the groundwater, soil, sub-slab vapor, and indoor and outdoor air samples are summarized and compared to WDNR standards on the attached tables. The laboratory reports are also attached.

Chromium, benzene, and select PFAS were detected in one or more of the groundwater samples above the laboratory analytical limit of detection (LOD) but below the applicable NR 140, Wisconsin Administrative Code (WAC), enforcement standards (ES). Only two PFAS compounds were detected above their PALS.

Select VOCs were detected above their analytical LODs in the soil samples including trichloroethene (TCE) above the soil to groundwater pathway residual contaminant level (RCL) in soil sample P-2 (3) and benzene above the soil to groundwater pathway RCL in soil sample P-3 (16). One or more polycyclic aromatic hydrocarbons (PAHs) were detected above the analytical LOD in samples P-1 (19), P-2 (18), and P-3 (16), several of which exceed applicable RCLs. One or more metals (cadmium, chromium, and lead) were detected in each of the samples. Lead was detected above its soil to groundwater pathway RCL in samples P-1 (19) and P-2 (18) and above the direct contact non-industrial RCL in P-3 (2).

Select VOCs were detected in the vapor samples above their analytical LODs. PCE and TCE, were not detected above the applicable vapor risk screening levels (VRSLs) or vapor action levels (VALs). However, benzene was detected in indoor air samples 325-B and 327-B above its residential VAL. Naphthalene was detected above its residential VAL in sample 325-B.

Terracon is preparing a supplemental site investigation (SSI) report which will include a conceptual site model and recommendations.

We appreciate your assistance with this matter. If you have any questions or concerns, please contact us at (414) 423-0255 or by email at blaine.schroyer@terracon.com.

Sincerely,
Terracon Consultants, Inc.



Rachel Slonac
Field Geologist



Blaine R. Schroyer, P.E.
Senior Principal/Office Manager

Copy: Linda Michalets, Wisconsin Department of Natural Resources
Sain Loya

Attachments: Figure 1 – Sample Location Map
Table 1 – Groundwater Elevations
Table 2 – Groundwater Analytical Results Summary
Table 3 – Soil Analytical Results Summary – VOCs
Table 4 – Soil Analytical Results Summary – PAHs
Table 5 – Soil Analytical Results Summary – Metals
Table 6 – Sub-Slab Vapor Analytical Test Results Summary
Table 7 – Indoor and Outdoor Air Analytical Test Results Summary
Laboratory Analytical Reports



AERIAL PHOTOGRAPHY PROVIDED BY
MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY,
AND IS NOT INTENDED FOR CONSTRUCTION
PURPOSES

Project Manager: RTS
Drawn by: RTS
Checked by: BRS
Approved by: BRS

Project No. 58247140
Scale: AS SHOWN
File Name: FIG. 3
Date: 6/10/2024

Terracon
4900 S Pennsylvania Ave, Ste 100
Cudahy, WI 53110-1347

SAMPLE LOCATION MAP

BARREL PLATING SERVICES FMR
325-327 East Reservoir Avenue
Milwaukee, WI

FIGURE

1

Table 1
Groundwater Elevations

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Measured Location	Date	Depth to Groundwater*	Reference Elevation	Groundwater Elevation	Screened Interval	Ground Surface Elevation
MW-1	7/10/2024	21.10	649.42	628.32	619.20 - 634.20	649.80
MW-2	7/10/2024	20.37	648.68	628.31	619.15 - 634.15	649.18
MW-3	7/10/2024	13.60	640.62	627.02	613.92 - 628.92	641.20

*Depth to ground water is measured from the top of the monitoring well riser pipe.

*Reference elevation was measured from top of well casing (North rim)

*Well surveying performed 7/10/2024 by Terracon

*Benchmark (BM) was a gas shut-off with an approximate elevation of 655 ft.

Table 2
Groundwater Analytical Results Summary
Detected Compounds Only

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Sample ID	Sample Date	Metals ^a (mg/L)			VOCs ^b (µg/L)					PFAS ^d (ng/L)								
		Cadmium ^c	Chromium	Lead ^c	Tetrachloroethene ^c	Trichloroethene ^c	Benzene	Naphthalene ^c	Toluene ^c	PFBS	PFHxA	PFBA	PFPeA	PFPeS	PFHpA	PFHxS	PFOS	PFOA
NR 140 WAC, PAL ¹		0.5	10	1.5	0.5	0.5	0.5	10	160	90,000	30,000	2,000	NE	NE	NE	4	2	2
NR 140 WAC, ES ²		5	100	15	5	5	5	100	800	450,000	150,000	10,000	NE	NE	NE	40	20	20
MW-1	7/10/2024	<1.3	2.9 J	<6.4	<0.41	<0.32	0.47 J	<1.9	<0.29	1.9 J	24.3	<1.4	<0.92	<1.3	<1.2	<1.2	<2.6	1.6 J
MW-2	7/10/2024	<1.3	<2.5	<6.4	<0.41	<0.32	<0.30	<1.9	<0.29	2.4	8.1	<0.28	<0.19	<0.26	3.0	<0.24	1.3 J	4.0
MW-3	7/10/2024	<1.3	<2.5	<6.4	<0.41	<0.32	<0.30	<1.9	<0.29	5.2	13.9	8.4	9.3	2.0 J	4.7	61.5	1.8 J	17.7

Notes:

J = Estimated concentration between the laboratory method detection limit and reporting limit

mg/L = Miligrams per Liter

µg/L = Micrograms per Liter

ng/L = Nanograms per Liter

PFAS = Per- and Polyfluoroalkyl Substances

VOC = Volatile Organic Compounds

¹ NR 140, Wisconsin Administrative Code (WAC), Preventative Action Limit (PAL), Register, March 2023

² NR 140, WAC, Enforcement Standard (ES), Register, March 2023

^a Metals analyzed by US EPA method 7470

^b Volatile Organic Compounds (VOCs) analyzed by US EPA method 8260

^c Although the compound was not detected above the laboratory method detection limit, results are included in this table for information purposes.

^d The standards listed for PFAS compounds are preliminary criteria developed by the Wisconsin Department of Health. They are are not enforceable at this time.

XX.XX	Exceeds NR 140 PAL
XX.XX	Exceeds NR 140 ES
NE	No established standard

Table 3
Soil Analytical Test Results Summary Table - VOCs
Detected Compounds Only

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Sample ID	Sample Depth (feet)	Matrix (Fill or Native Soil)	Saturated / Unsaturated	Sample Date	PID (ppmv)	Tetrachloroethene ⁴	Trichloroethene	Benzene	Naphthalene	Toluene
Direct Contact Industrial RCL ¹						14,500	8,410	1,600	24,100	818,000
Direct Contact Non-Industrial RCL ²						<u>33,000</u>	<u>1,300</u>	<u>7,070</u>	<u>5,520</u>	<u>818,000</u>
Soil to Groundwater Pathway RCL ³						4.5	3.6	5.1	658.2	1,107.2
P-1 (2)	2	Fill	Unsaturated	7/2/2024	1	<28.0	<27.0	<17.2	<30.3	<18.2
P-1 (19)	19	Fill	Unsaturated	7/2/2024	2	<31.7	<30.6	<19.5	206 J	<20.6
P-2 (3)	3	Fill	Unsaturated	7/1/2024	<1	<23.7	67.2	<14.5	<25.7	<15.4
P-2 (18)	18	Fill	Unsaturated	7/1/2024	<1	<28.3	<27.3	<17.4	133 J	<18.4
P-3 (2)	2	Fill	Unsaturated	7/1/2024	<1	<31.0	<29.9	<19.0	<33.7	<20.2
P-3 (16)	16	Fill	Unsaturated	7/1/2024	<1	<24.5	<23.7	54.4	<26.6	18.6 J

Notes:

Results expressed in micrograms per kilogram (µg/kg)

J = Estimated concentration between the laboratory method detection limit and reporting limit

PID = Photo-Ionization Detector

ppmv = parts per million by volume

RCL = Residual Contaminant Level

VOCs = Volatile Organic Compounds

¹ Industrial RCLs for Direct Contact (March 2017) per Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).

² Non-Industrial RCLs for Direct Contact (March 2017) per Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).

³ Protection of Groundwater RCLs (March 2017) per Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).

⁴ Although tetrachloroethene was not detected above the laboratory method detection limit, results are included in this table for information purposes.

XX.XX	Brown and bold = Exceeds Industrial Direct Contact RCL
<u>XX.XX</u>	Underlined and pink = Exceeds Non-Industrial Direct Contact RCL
<i>XX.XX</i>	Italicized and blue = Exceeds Soil to Groundwater Pathway RCL

Table 4
Soil Analytical Results Summary - PAHs
Detected Compounds Only

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Sample ID	Sample Depth (feet)	Fill/ Native	Sample Date	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Direct Contact Industrial RCL ¹				45,200,000	100,000,000	20,800	2,110	21,100	NE	211,000	2,110,000	2,110	30,100,000	30,100,000	21,100	72,700	3,010,000	24,100	NE	22,600,000
Direct Contact Non-Industrial RCL ²				3,590,000	17,900,000	1,140	115	1,150	NE	11,500	115,000	115	2,390,000	2,390,000	1,150	17,600	239,000	5,520	NE	1,790,000
Soil to Groundwater Pathway RCL ³				NE	196,949	NE	470	478	NE	NE	144	NE	88,878	14,830	NE	NE	NE	658	NE	54,546
P-1 (2)	2	Fill	7/2/2024	<2.6	<2.5	7.1 J	8.1 J	13.1 J	10.0 J	5.6 J	9.3 J	<2.8	13.5 J	<2.4	<4.2	<3.0	<3.0	3.0 J	6.6 J	10.8 J
P-1 (19)	19	Fill	7/2/2024	996 J	3,910	3,430	4,540	5,130	3,960	2,250	4,590	563 J	12,800	1,700 J	2,730	<321	417 J	1,230 J	10,400	10,500
P-2 (3)	3	Fill	7/1/2024	4.7 J	15.4 J	52.1	66.1	77.2	54.1	34.5	61.5	11.4 J	118	3.0 J	39.0	6.9 J	8.9 J	10.0 J	59.4	106
P-2 (18)	18	Fill	7/1/2024	178 J	543	859	1,060	1,150	784	530	1,030	125 J	2,310	220	558	36.3 J	53.3 J	142 J	1,740	2,030
P-3 (2)	2	Fill	7/1/2024	312 J	1,100	1,260	1,300	1,590	1,010	919	1,830	126 J	4,260	270 J	728 J	<114	<114	145 J	3,340	3,720
P-3 (16)	16	Fill	7/1/2024	3.4 J	12.1 J	26.8	38.7	42.5	30.0	19.5	33.2	5.1 J	61.6	4.0 J	21.8	3.2 J	4.8 J	7.9 J	34.7	51.2

Notes:

Results expressed in micrograms per kilogram (µg/kg)
J = Estimated concentration between the laboratory method detection limit and reporting limit
ppmv = Parts per million by volume
PAHs = Polycyclic aromatic hydrocarbons, analyzed by US EPA method 8270E by SIM
RCL = Residual contaminant level

¹ Industrial RCLs for Direct Contact per WDNR PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).
² Non-Industrial RCLs for Direct Contact per WDNR PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).
³ Protection of Groundwater RCLs per WDNR PUB-RR-890, dated January 2014 (WDNR spreadsheet input parameters updated December 2018).

XX.XX	Bold and brown = Exceeds Industrial Direct Contact RCL
XX.XX	Underlined and pink = Exceeds Non-Industrial Direct Contact RCL
XX.XX	Italicized and blue = Exceeds Soil to Groundwater Pathway RCL
NE	No established standard

Table 5
Soil Analytical Results Summary - Metals
Detected Compounds Only

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Sample ID	Sample Depth (Feet)	Fill/ Native	Sample Date	Total Cadmium	Total Chromium ⁵	Total Lead
Direct Contact Industrial RCL ¹				985	100,000	800
<u>Direct Contact Non-Industrial RCL ²</u>				<u>71</u>	<u>100,000</u>	<u>400</u>
<i>Soil to Groundwater Pathway RCL ³</i>				<i>0.752</i>	<i>360,000</i>	<i>27</i>
Statewide Background Threshold Value ⁴				1	44	52
P-1 (2)	2	Fill	7/2/2024	<0.16	16.4	11.7
P-1 (19)	19	Fill	7/2/2024	0.26 J	14.4	270
P-2 (3)	3	Fill	7/1/2024	0.33 J	17.0	41.9
P-2 (18)	18	Fill	7/1/2024	0.18 J	22.7	71.7
P-3 (2)	2	Fill	7/1/2024	0.35 J	247	<u>622</u>
P-3 (16)	16	Fill	7/1/2024	<0.14	13.8	22.8

Notes:

Results expressed in units of milligrams per kilogram (mg/kg)

J = Estimated concentration between the laboratory method detection limit and reporting limit

RCL = Residual contaminant level

¹ Industrial RCLs for Direct Contact per WDNR PUB-RR-890, WDNR spreadsheet input parameters updated December 2018.

² Non-Industrial RCLs for Direct Contact per WDNR PUB-RR-890, WDNR spreadsheet input parameters updated December 2018.

³ Protection of Groundwater RCLs per WDNR PUB-RR-890, WDNR spreadsheet input parameters updated December 2018.

⁴ Wisconsin Department of Natural Resources Statewide Background Threshold Value (BTV), July 2015

⁵ RCLs are for chromium (III) and BTV is for total chromium

XX.XX	Bold and brown = Exceeds Industrial Direct Contact RCL and Background Threshold Value, if established
<u>XX.XX</u>	Underlined and pink = Exceeds Non-Industrial Direct Contact RCL and Background Threshold Value, if established
<i>XX.XX</i>	Italicized and blue = Exceeds Soil to Groundwater Pathway RCL and Background Threshold Value, if established
XX.XX	Bold only = Exceeds BTV

Table 6
Sub-Slab Vapor Analytical Test Results Summary
Detected Compounds Only

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Sample ID	Sample Location	Sample Date	Tetrachloroethene	Trichloroethene	Acetone	Benzene	Carbon Disulfide	Chloroform	Chloromethane	Cyclohexane	trans-1,2- Dichloroethene	Ethanol	Ethylbenzene	4-Ethyltoluene	Dichlorodifluoromethane	Heptane	n-Hexane	Isopropylbenzene	Methylene Chloride	Methyl Butyl Ketone	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Naphthalene	2-Propanol	Propene	Styrene	Tetrahydrofuran	Toluene	1,1,1-Trichloroethane	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2,2,4-Trimethylpentane	m&p-Xylene	o-Xylene
Residential Indoor Air VAL ¹			42	2.1	32,000	3.6	730	1.2	94	6,300	42	NE	11	NE	100	420	730	420	630	3.1	5,200	630	0.83	210	3,100	1,000	2,100	5,200	NE	63	63	NE		100	
Residential VRSL ²			1,400	70	1,100,000	120	210,000	40	3,100	210,000	1,400	NE	370	NE	3,300	14,000	24,000	14,000	21,000	100	170,000	21,000	28	7,000	100,000	35,000	70,000	170,000	NE	2,100	2,100	NE		3,300	
Small Commercial Building Indoor Air VAL ¹			180	8.8	140,000	16	3,100	5.3	390	26,000	180	NE	49	NE	440	1,800	3,100	1,750	2,600	13	22,000	2,600	3.6	880	13,000	4,400	8,800	22,000	NE	260	260	NE		440	
Small Commercial VRSL ²			5,800	290	4,500,000	530	880,000	180	13,000	880,000	5,800	NE	1,600	NE	15,000	60,000	100,000	58,000	87,000	440	730,000	87,000	120	29,000	440,000	150,000	290,000	730,000	NE	8,700	8,700	NE		1,500	
Large Commercial/Industrial Building Indoor Air VAL ¹			180	8.8	140,000	16	3,100	5.3	390	26,000	180	NE	49	NE	440	1,800	3,100	1,750	2,600	13	22,000	2,600	3.6	880	13,000	4,400	8,800	22,000	NE	230	260	NE		440	
Large Commercial/Industrial VRSL ²			18,000	880	14,000,000	1,600	2,600,000	530	39,000	2,600,000	18,000	NE	4,900	NE	44,000	180,000	31,000	180,000	260,000	1,300	220,000	260,000	360	88,000	1,300,000	44,000	880,000	2,200,000	NE	26,000	26,000	NE		44,000	
SS-1	327 E. Reservoir Ave. Wine Cellar	7/12/2024	2.88	1.16 J	23.3	0.719 J	0.349 J	2.29	<0.213	<0.259	<0.267	40.5	1.01 J	<0.384	2.05 J	0.519 J	1.14 J	<0.382	4.44	<0.544	3.10	1.56	<1.83	6.86	1.21	0.442 J	1.19	1.92	<0.400	1.33 J	0.756 J	<0.382	0.986 J	3.08	1.16 J
SS-2	325 E. Reservoir Ave. Basement		6.53	1.63	31.8	0.540 J	<0.317	2.46	34.7	0.314 J	<0.267	42.4	2.56	<0.384	1.90 J	0.822 J	0.874 J	<0.382	0.993 J	1.06 J	4.57	7.45	<1.83	10.4	1.08	<0.335	1.47	2.90	<0.400	1.55	1.19 J	<0.382	0.682 J	6.98	2.36
SS-3	Shared Garage Space		12.0	22.1	14.4	1.49	4.42	2.30	<0.213	0.620 J	24.3	20.0	4.47	0.545 J	1.95 J	1.23 J	1.18 J	0.456 J	<0.340	0.699 J	2.18	7.94	2.44 J	7.82	<0.160	<0.335	<0.216	6.06	0.419 J	2.17	3.08	1.21 J	0.631 J	12.3	4.68

Notes:

Results expressed in micrograms per cubic meter (µg/m³)
Sampling method: 6-Liter Suma Canister, 30-minute grab sample
J = Estimated concentration between the method detection limit and reporting limit
VAL = Vapor Action Level
VRSL = Vapor Risk Screening Level

¹ VAL calculated from generic U.S EPA Screening Level Tables and modified per WDNR Publication RR-800 as the lesser of 1:100,000 lifetime cancer risk or noncancer hazard index of 1

² VRSL is the indoor air Vapor Action Level (VAL) adjusted by applying an attenuation factor of 0.03

³ VRSL is the VAL adjusted for sub-slab vapor to indoor air by applying an attenuation factor of 0.01 for comparison with analytical results.

XX.XX	Blue and italicized values exceed the applicable residential VRSLs (sub-slab vapor and shallow soil gas)
<u>XX.XX</u>	Pink and underlined values exceed the applicable small commercial building VRSLs (sub-slab vapor and shallow soil gas)
XX.XX	Brown and bolded values exceed the applicable large commercial building VRSLs (sub-slab vapor and shallow soil gas)
NE	No established standard

Table 7
Indoor and Outdoor Air Analytical Test Results Summary
Detected Compounds Only

Barrel Plating Services Fmr
325-327 East Reservoir Avenue
Milwaukee, Wisconsin
Terracon Project No. 58247140

Sample ID	Sample Location	Sampling Method	Matrix	Sample Date	Tetrachloroethene	Trichloroethene	Benzene	Ethylbenzene	Isopropylbenzne	Methylene Chloride	Naphthalene	2-Methylnaphthalene	Toluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	o-Xylene	p&m-Xylene
Residential VAL ¹					42	2.1	3.6	11	420	630	0.83	NE	5,200	63	63	100	
Small Commercial VAL ¹					<u>180</u>	<u>8.8</u>	<u>16</u>	<u>49</u>	<u>1,800</u>	<u>2,600</u>	<u>3.6</u>	<u>NE</u>	<u>22,000</u>	<u>260</u>	<u>260</u>	<u>440</u>	
Large Commercial VAL ¹					180	8.8	16	49	1,800	2,600	3.6	NE	22,000	260	260	440	
327-B	327 E. Reservoir Ave. Wine Cellar	Passive Sorbent Sampler	Indoor Air	6/21-6/28/2024	1.98 J	<1.49	6.56	2.34 J	<1.19	5.38	0.724 J	<0.647	22.4	<1.19	<1.19	2.95	7.97
325-B	325 E. Reservoir Ave. Basement	Passive Sorbent Sampler	Indoor Air	6/21-6/28/2024	3.67	<1.49	16.6	6.22	2.75 J	14.2	0.991 J	0.879 J	56.4	1.66 J	6.54	7.53	21.8
OA	Tennis Court	Passive Sorbent Sampler	Outdoor Air	6/21-6/28/2024	<1.20	<1.49	<1.86	<1.16	<1.19	<1.41	<0.615	<0.647	<2.46	<1.19	<1.19	<1.12	<1.12

Notes:
Results expressed in micrograms per cubic meter (µg/m³)
" < " Indicates not detected at or above the reported detection limit (RDL)
J = Estimated concentration between the method detection limit and reporting limit
VAL = Vapor Action Level
¹ VAL calculated from generic U.S EPA Screening Level Tables and modified per WDNR Publication RR-800 as the lesser of 1:100,000 lifetime cancer risk or noncancer hazard index of 1
⁴ Although trichloroethene was not detected above the laboratory method detection limit, results are included in this table for information purposes.

XX.XX	Blue and italicized values exceed the applicable residential VAL
<u>XX.XX</u>	Pink and underlined values exceed the applicable large commercial/industrial building VAL
XX.XX	Brown and bolded values exceed the applicable small commercial VAL
NE	No established standard



July 31, 2024

Blaine Schroyer
Terracon, Inc. - Franklin
4900 S Pennsylvania Ave Ste100
Cudahy, WI 53110

RE: Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280917

Dear Blaine Schroyer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 11, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay
- Pace Analytical Services - Minneapolis

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



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

DoD Certification via A2LA #: 2926.01

EPA Region 8 Tribal Water Systems+Wyoming DW
Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

GMP+ Certification #: GMP050884

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

ISO/IEC 17025 Certification via A2LA #: 2926.01

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: AI-03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Approval: via MN 027-053-137

Minnesota Petrofund Registration #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification (A2LA) #: R-036

North Dakota Certification (MN) #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification (1700) #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification via A2LA #: 2926.01

USDA Permit #: P330-19-00208

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

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40280917001	MW-1	Water	07/10/24 14:25	07/11/24 09:55
40280917002	MW-2	Water	07/10/24 12:55	07/11/24 09:55
40280917003	MW-3	Water	07/10/24 11:55	07/11/24 09:55
40280917004	TRIP BLANK	Water	07/10/24 00:00	07/11/24 09:55
40280917005	FRB-1	Water	07/10/24 13:30	07/11/24 09:55

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40280917001	MW-1	EPA 6010D	SIS	3	PASI-G
		EPA 8260	EIB	64	PASI-G
		ENV-SOP-MIN4-0178	MJL	57	PASI-M
40280917002	MW-2	EPA 6010D	SIS	3	PASI-G
		EPA 8260	EIB	64	PASI-G
		ENV-SOP-MIN4-0178	MJL	57	PASI-M
40280917003	MW-3	EPA 6010D	SIS	3	PASI-G
		EPA 8260	EIB	64	PASI-G
		ENV-SOP-MIN4-0178	MJL	57	PASI-M
40280917004	TRIP BLANK	EPA 8260	EIB	64	PASI-G
40280917005	FRB-1	ENV-SOP-MIN4-0178	MJL	57	PASI-M

PASI-G = Pace Analytical Services - Green Bay

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40280917001	MW-1					
EPA 6010D	Chromium, Dissolved	2.9J	ug/L	10.0	07/18/24 19:13	
EPA 8260	Benzene	0.47J	ug/L	1.0	07/15/24 12:41	
ENV-SOP-MIN4-0178	PFBS	1.9J	ng/L	8.9	07/25/24 13:32	
ENV-SOP-MIN4-0178	PFHxA	24.3	ng/L	10.1	07/25/24 13:32	
ENV-SOP-MIN4-0178	PFOA	1.6J	ng/L	10.1	07/25/24 13:32	
40280917002	MW-2					
ENV-SOP-MIN4-0178	PFBS	2.4	ng/L	1.8	07/25/24 13:39	
ENV-SOP-MIN4-0178	PFHxA	8.1	ng/L	2.0	07/25/24 13:39	
ENV-SOP-MIN4-0178	PFHpA	3.0	ng/L	2.0	07/25/24 13:39	
ENV-SOP-MIN4-0178	PFOS	1.3J	ng/L	1.9	07/25/24 13:39	
ENV-SOP-MIN4-0178	PFOA	4.0	ng/L	2.0	07/25/24 13:39	
40280917003	MW-3					
ENV-SOP-MIN4-0178	PFBS	5.2	ng/L	3.5	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFHxA	13.9	ng/L	4.0	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFBA	8.4	ng/L	4.0	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFPeA	9.3	ng/L	4.0	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFPeS	2.0J	ng/L	3.8	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFHpA	4.7	ng/L	4.0	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFHxS	61.5	ng/L	3.6	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFOS	1.8J	ng/L	3.7	07/25/24 13:46	
ENV-SOP-MIN4-0178	PFOA	17.7	ng/L	4.0	07/25/24 13:46	

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280917

Method: EPA 6010D
Description: 6010D MET ICP, Dissolved
Client: Terracon, Inc. - Milwaukee
Date: July 31, 2024

General Information:

3 samples were analyzed for EPA 6010D by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Method: EPA 8260

Description: 8260 MSV

Client: Terracon, Inc. - Milwaukee

Date: July 31, 2024

General Information:

4 samples were analyzed for EPA 8260 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Method: ENV-SOP-MIN4-0178

Description: WI ID NPW

Client: Terracon, Inc. - Milwaukee

Date: July 31, 2024

General Information:

4 samples were analyzed for ENV-SOP-MIN4-0178 by Pace Analytical Services Minneapolis. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with ENV-SOP-MIN4-0178 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 957809

S0: Surrogate recovery outside laboratory control limits.

- BLANK (Lab ID: 5007023)
 - d3-NMeFOSA (S)
 - d5-NEtFOSA (S)
- FRB-1 (Lab ID: 40280917005)
 - d3-NMeFOSA (S)
 - d5-NEtFOSA (S)
- LCSD (Lab ID: 5007025)
 - d3-NMeFOSA (S)
 - d5-NEtFOSA (S)
- MW-1 (Lab ID: 40280917001)
 - 13C24:2FTS (S)
 - 13C26:2FTS (S)
 - 13C28:2FTS (S)
- MW-2 (Lab ID: 40280917002)
 - 13C24:2FTS (S)
 - 13C26:2FTS (S)
 - 13C28:2FTS (S)
 - 13C4-PFBA (S)
 - d3-NMeFOSA (S)
 - d5-NEtFOSA (S)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Method: ENV-SOP-MIN4-0178

Description: WI ID NPW

Client: Terracon, Inc. - Milwaukee

Date: July 31, 2024

QC Batch: 957809

S0: Surrogate recovery outside laboratory control limits.

- d9-NEtFOSE (S)
- MW-3 (Lab ID: 40280917003)
 - 13C24:2FTS (S)
 - 13C26:2FTS (S)
 - 13C28:2FTS (S)
- d3-NMeFOSA (S)
- d5-NEtFOSA (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

- FRB-1 (Lab ID: 40280917005)
 - 13C28:2FTS (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 957809

R1: RPD value was outside control limits.

- LCSD (Lab ID: 5007025)
 - NMeFOSA

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-1 Lab ID: 40280917001 Collected: 07/10/24 14:25 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D									
Pace Analytical Services - Green Bay									
Cadmium, Dissolved	<1.3	ug/L	5.0	1.3	1		07/18/24 19:13	7440-43-9	
Chromium, Dissolved	2.9J	ug/L	10.0	2.5	1		07/18/24 19:13	7440-47-3	
Lead, Dissolved	<6.4	ug/L	20.0	6.4	1		07/18/24 19:13	7439-92-1	
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	0.47J	ug/L	1.0	0.30	1		07/15/24 12:41	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:41	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		07/15/24 12:41	74-97-5	
Bromodichloromethane	<0.21	ug/L	1.0	0.21	1		07/15/24 12:41	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		07/15/24 12:41	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/15/24 12:41	74-83-9	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 12:41	104-51-8	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		07/15/24 12:41	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		07/15/24 12:41	98-06-6	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/15/24 12:41	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 12:41	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/15/24 12:41	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		07/15/24 12:41	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		07/15/24 12:41	74-87-3	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 12:41	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 12:41	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	5.0	0.36	1		07/15/24 12:41	96-12-8	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/15/24 12:41	124-48-1	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		07/15/24 12:41	106-93-4	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		07/15/24 12:41	74-95-3	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 12:41	95-50-1	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:41	541-73-1	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		07/15/24 12:41	106-46-7	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		07/15/24 12:41	75-71-8	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:41	75-34-3	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/15/24 12:41	107-06-2	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/15/24 12:41	75-35-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/15/24 12:41	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/15/24 12:41	156-60-5	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/15/24 12:41	78-87-5	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:41	142-28-9	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		07/15/24 12:41	594-20-7	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		07/15/24 12:41	563-58-6	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		07/15/24 12:41	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		07/15/24 12:41	10061-02-6	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 12:41	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 12:41	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		07/15/24 12:41	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		07/15/24 12:41	98-82-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-1 Lab ID: 40280917001 Collected: 07/10/24 14:25 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		07/15/24 12:41	99-87-6	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/15/24 12:41	75-09-2	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 12:41	1634-04-4	
Naphthalene	<1.9	ug/L	5.0	1.9	1		07/15/24 12:41	91-20-3	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:41	103-65-1	
Styrene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:41	100-42-5	
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		07/15/24 12:41	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		07/15/24 12:41	79-34-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/15/24 12:41	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/15/24 12:41	108-88-3	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		07/15/24 12:41	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		07/15/24 12:41	120-82-1	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:41	71-55-6	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		07/15/24 12:41	79-00-5	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/15/24 12:41	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		07/15/24 12:41	75-69-4	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		07/15/24 12:41	96-18-4	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		07/15/24 12:41	95-63-6	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:41	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/15/24 12:41	75-01-4	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		07/15/24 12:41	179601-23-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:41	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%	70-130		1		07/15/24 12:41	2199-69-1	
4-Bromofluorobenzene (S)	97	%	70-130		1		07/15/24 12:41	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		07/15/24 12:41	2037-26-5	
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<2.0	ng/L	9.5	2.0	1	07/23/24 14:39	07/25/24 13:32	763051-92-9	
4:2 FTS	<1.8	ng/L	9.4	1.8	1	07/23/24 14:39	07/25/24 13:32	757124-72-4	
6:2 FTS	<2.9	ng/L	9.6	2.9	1	07/23/24 14:39	07/25/24 13:32	27619-97-2	
8:2 FTS	<4.0	ng/L	9.7	4.0	1	07/23/24 14:39	07/25/24 13:32	39108-34-4	
9CI-PF3ONS	<1.8	ng/L	9.4	1.8	1	07/23/24 14:39	07/25/24 13:32	756426-58-1	
ADONA	<1.6	ng/L	9.5	1.6	1	07/23/24 14:39	07/25/24 13:32	919005-14-4	
HFPO-DA	<1.3	ng/L	10.1	1.3	1	07/23/24 14:39	07/25/24 13:32	13252-13-6	
NEtFOSAA	<2.9	ng/L	10.1	2.9	1	07/23/24 14:39	07/25/24 13:32	2991-50-6	
NEtFOSA	<2.3	ng/L	10.1	2.3	1	07/23/24 14:39	07/25/24 13:32	4151-50-2	
NEtFOSE	<3.0	ng/L	10.1	3.0	1	07/23/24 14:39	07/25/24 13:32	1691-99-2	
NMeFOSAA	<3.9	ng/L	10.1	3.9	1	07/23/24 14:39	07/25/24 13:32	2355-31-9	
NMeFOSA	<3.1	ng/L	10.1	3.1	1	07/23/24 14:39	07/25/24 13:32	31506-32-8	
NMeFOSE	<2.4	ng/L	10.1	2.4	1	07/23/24 14:39	07/25/24 13:32	24448-09-7	
PFBS	1.9J	ng/L	8.9	1.0	1	07/23/24 14:39	07/25/24 13:32	375-73-5	
PFDA	<1.3	ng/L	10.1	1.3	1	07/23/24 14:39	07/25/24 13:32	335-76-2	
PFHxA	24.3	ng/L	10.1	1.9	1	07/23/24 14:39	07/25/24 13:32	307-24-4	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-1 Lab ID: 40280917001 Collected: 07/10/24 14:25 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
PFBA	<1.4	ng/L	10.1	1.4	1	07/23/24 14:39	07/25/24 13:32	375-22-4	
PFDS	<2.9	ng/L	9.7	2.9	1	07/23/24 14:39	07/25/24 13:32	335-77-3	
PFDoS	<2.7	ng/L	9.8	2.7	1	07/23/24 14:39	07/25/24 13:32	79780-39-5	
PFHpS	<3.2	ng/L	9.6	3.2	1	07/23/24 14:39	07/25/24 13:32	375-92-8	
PFNS	<2.4	ng/L	9.7	2.4	1	07/23/24 14:39	07/25/24 13:32	68259-12-1	
PFOSA	<2.0	ng/L	10.1	2.0	1	07/23/24 14:39	07/25/24 13:32	754-91-6	
PFPeA	<0.92	ng/L	10.1	0.92	1	07/23/24 14:39	07/25/24 13:32	2706-90-3	
PFPeS	<1.3	ng/L	9.5	1.3	1	07/23/24 14:39	07/25/24 13:32	2706-91-4	
PFDoA	<2.2	ng/L	10.1	2.2	1	07/23/24 14:39	07/25/24 13:32	307-55-1	
PFHpA	<1.2	ng/L	10.1	1.2	1	07/23/24 14:39	07/25/24 13:32	375-85-9	
PFHxS	<1.2	ng/L	9.2	1.2	1	07/23/24 14:39	07/25/24 13:32	355-46-4	
PFNA	<1.1	ng/L	10.1	1.1	1	07/23/24 14:39	07/25/24 13:32	375-95-1	
PFOS	<2.6	ng/L	9.3	2.6	1	07/23/24 14:39	07/25/24 13:32	1763-23-1	
PFOA	1.6J	ng/L	10.1	1.3	1	07/23/24 14:39	07/25/24 13:32	335-67-1	
PFTeDA	<1.8	ng/L	10.1	1.8	1	07/23/24 14:39	07/25/24 13:32	376-06-7	
PFTrDA	<1.4	ng/L	10.1	1.4	1	07/23/24 14:39	07/25/24 13:32	72629-94-8	
PFUnA	<3.2	ng/L	10.1	3.2	1	07/23/24 14:39	07/25/24 13:32	2058-94-8	
Surrogates									
13C4-PFBA (S)	51	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C5-PFPeA (S)	49	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C3-PFBS (S)	64	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C24:2FTS (S)	320	%	25-150		1	07/23/24 14:39	07/25/24 13:32		S0
13C3HFPO-DA (S)	43	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C4-PFHpA (S)	68	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C3-PFHxS (S)	70	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C26:2FTS (S)	301	%	25-150		1	07/23/24 14:39	07/25/24 13:32		S0
13C8-PFOA (S)	66	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C8-PFOS (S)	73	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C9-PFNA (S)	76	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C6-PFDA (S)	89	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C28:2FTS (S)	347	%	25-150		1	07/23/24 14:39	07/25/24 13:32		S0
d3-MeFOSAA (S)	109	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C7-PFUDa (S)	86	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C8-PFOSA (S)	65	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
d5-EtFOSAA (S)	110	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
13C2-PFDaA (S)	86	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
d3-NMeFOSA (S)	12	%	10-150		1	07/23/24 14:39	07/25/24 13:32		
d7-NMeFOSE (S)	47	%	10-150		1	07/23/24 14:39	07/25/24 13:32		
13C2-PFTA (S)	64	%	25-150		1	07/23/24 14:39	07/25/24 13:32		
d9-NEtFOSE (S)	46	%	10-150		1	07/23/24 14:39	07/25/24 13:32		
d5-NEtFOSA (S)	10	%	10-150		1	07/23/24 14:39	07/25/24 13:32		
13C5-PFHxA (S)	71	%	25-150		1	07/23/24 14:39	07/25/24 13:32		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-2 Lab ID: 40280917002 Collected: 07/10/24 12:55 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D									
Pace Analytical Services - Green Bay									
Cadmium, Dissolved	<1.3	ug/L	5.0	1.3	1		07/18/24 19:15	7440-43-9	
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		07/18/24 19:15	7440-47-3	
Lead, Dissolved	<6.4	ug/L	20.0	6.4	1		07/18/24 19:15	7439-92-1	
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.30	ug/L	1.0	0.30	1		07/15/24 12:59	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:59	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		07/15/24 12:59	74-97-5	
Bromodichloromethane	<0.21	ug/L	1.0	0.21	1		07/15/24 12:59	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		07/15/24 12:59	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/15/24 12:59	74-83-9	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 12:59	104-51-8	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		07/15/24 12:59	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		07/15/24 12:59	98-06-6	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/15/24 12:59	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 12:59	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/15/24 12:59	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		07/15/24 12:59	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		07/15/24 12:59	74-87-3	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 12:59	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 12:59	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	5.0	0.36	1		07/15/24 12:59	96-12-8	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/15/24 12:59	124-48-1	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		07/15/24 12:59	106-93-4	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		07/15/24 12:59	74-95-3	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 12:59	95-50-1	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:59	541-73-1	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		07/15/24 12:59	106-46-7	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		07/15/24 12:59	75-71-8	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:59	75-34-3	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/15/24 12:59	107-06-2	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/15/24 12:59	75-35-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/15/24 12:59	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/15/24 12:59	156-60-5	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/15/24 12:59	78-87-5	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:59	142-28-9	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		07/15/24 12:59	594-20-7	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		07/15/24 12:59	563-58-6	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		07/15/24 12:59	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		07/15/24 12:59	10061-02-6	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 12:59	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 12:59	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		07/15/24 12:59	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		07/15/24 12:59	98-82-8	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-2 Lab ID: 40280917002 Collected: 07/10/24 12:55 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		07/15/24 12:59	99-87-6	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/15/24 12:59	75-09-2	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 12:59	1634-04-4	
Naphthalene	<1.9	ug/L	5.0	1.9	1		07/15/24 12:59	91-20-3	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:59	103-65-1	
Styrene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:59	100-42-5	
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		07/15/24 12:59	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		07/15/24 12:59	79-34-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/15/24 12:59	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/15/24 12:59	108-88-3	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		07/15/24 12:59	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		07/15/24 12:59	120-82-1	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:59	71-55-6	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		07/15/24 12:59	79-00-5	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/15/24 12:59	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		07/15/24 12:59	75-69-4	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		07/15/24 12:59	96-18-4	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		07/15/24 12:59	95-63-6	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:59	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/15/24 12:59	75-01-4	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		07/15/24 12:59	179601-23-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:59	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		07/15/24 12:59	2199-69-1	
4-Bromofluorobenzene (S)	97	%	70-130		1		07/15/24 12:59	460-00-4	
Toluene-d8 (S)	98	%	70-130		1		07/15/24 12:59	2037-26-5	
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.41	ng/L	1.9	0.41	1	07/23/24 14:39	07/25/24 13:39	763051-92-9	
4:2 FTS	<0.37	ng/L	1.9	0.37	1	07/23/24 14:39	07/25/24 13:39	757124-72-4	
6:2 FTS	<0.58	ng/L	1.9	0.58	1	07/23/24 14:39	07/25/24 13:39	27619-97-2	
8:2 FTS	<0.80	ng/L	2.0	0.80	1	07/23/24 14:39	07/25/24 13:39	39108-34-4	
9CI-PF3ONS	<0.36	ng/L	1.9	0.36	1	07/23/24 14:39	07/25/24 13:39	756426-58-1	
ADONA	<0.33	ng/L	1.9	0.33	1	07/23/24 14:39	07/25/24 13:39	919005-14-4	
HFPO-DA	<0.26	ng/L	2.0	0.26	1	07/23/24 14:39	07/25/24 13:39	13252-13-6	
NEtFOSAA	<0.58	ng/L	2.0	0.58	1	07/23/24 14:39	07/25/24 13:39	2991-50-6	
NEtFOSA	<0.46	ng/L	2.0	0.46	1	07/23/24 14:39	07/25/24 13:39	4151-50-2	
NEtFOSE	<0.61	ng/L	2.0	0.61	1	07/23/24 14:39	07/25/24 13:39	1691-99-2	
NMeFOSAA	<0.79	ng/L	2.0	0.79	1	07/23/24 14:39	07/25/24 13:39	2355-31-9	
NMeFOSA	<0.64	ng/L	2.0	0.64	1	07/23/24 14:39	07/25/24 13:39	31506-32-8	
NMeFOSE	<0.49	ng/L	2.0	0.49	1	07/23/24 14:39	07/25/24 13:39	24448-09-7	
PFBS	2.4	ng/L	1.8	0.21	1	07/23/24 14:39	07/25/24 13:39	375-73-5	
PFDA	<0.25	ng/L	2.0	0.25	1	07/23/24 14:39	07/25/24 13:39	335-76-2	
PFHxA	8.1	ng/L	2.0	0.38	1	07/23/24 14:39	07/25/24 13:39	307-24-4	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-2 Lab ID: 40280917002 Collected: 07/10/24 12:55 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
PFBA	<0.28	ng/L	2.0	0.28	1	07/23/24 14:39	07/25/24 13:39	375-22-4	
PFDS	<0.58	ng/L	2.0	0.58	1	07/23/24 14:39	07/25/24 13:39	335-77-3	
PFDoS	<0.54	ng/L	2.0	0.54	1	07/23/24 14:39	07/25/24 13:39	79780-39-5	
PFHpS	<0.64	ng/L	1.9	0.64	1	07/23/24 14:39	07/25/24 13:39	375-92-8	
PFNS	<0.48	ng/L	2.0	0.48	1	07/23/24 14:39	07/25/24 13:39	68259-12-1	
PFOSA	<0.40	ng/L	2.0	0.40	1	07/23/24 14:39	07/25/24 13:39	754-91-6	
PFPeA	<0.19	ng/L	2.0	0.19	1	07/23/24 14:39	07/25/24 13:39	2706-90-3	
PFPeS	<0.26	ng/L	1.9	0.26	1	07/23/24 14:39	07/25/24 13:39	2706-91-4	
PFDoA	<0.44	ng/L	2.0	0.44	1	07/23/24 14:39	07/25/24 13:39	307-55-1	
PFHpA	3.0	ng/L	2.0	0.24	1	07/23/24 14:39	07/25/24 13:39	375-85-9	
PFHxS	<0.24	ng/L	1.8	0.24	1	07/23/24 14:39	07/25/24 13:39	355-46-4	
PFNA	<0.21	ng/L	2.0	0.21	1	07/23/24 14:39	07/25/24 13:39	375-95-1	
PFOS	1.3J	ng/L	1.9	0.52	1	07/23/24 14:39	07/25/24 13:39	1763-23-1	
PFOA	4.0	ng/L	2.0	0.27	1	07/23/24 14:39	07/25/24 13:39	335-67-1	
PFTeDA	<0.37	ng/L	2.0	0.37	1	07/23/24 14:39	07/25/24 13:39	376-06-7	
PFTrDA	<0.29	ng/L	2.0	0.29	1	07/23/24 14:39	07/25/24 13:39	72629-94-8	
PFUnA	<0.65	ng/L	2.0	0.65	1	07/23/24 14:39	07/25/24 13:39	2058-94-8	
Surrogates									
13C4-PFBA (S)	23	%	25-150		1	07/23/24 14:39	07/25/24 13:39		S0
13C5-PFPeA (S)	35	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C3-PFBS (S)	56	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C24:2FTS (S)	281	%	25-150		1	07/23/24 14:39	07/25/24 13:39		S0
13C3HFPO-DA (S)	37	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C4-PFHpA (S)	47	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C3-PFHxS (S)	61	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C26:2FTS (S)	229	%	25-150		1	07/23/24 14:39	07/25/24 13:39		S0
13C8-PFOA (S)	42	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C8-PFOS (S)	63	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C9-PFNA (S)	57	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C6-PFDA (S)	74	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C28:2FTS (S)	296	%	25-150		1	07/23/24 14:39	07/25/24 13:39		S0
d3-MeFOSAA (S)	71	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C7-PFUDa (S)	68	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C8-PFOSA (S)	40	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
d5-EtFOSAA (S)	71	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
13C2-PFDaA (S)	54	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
d3-NMeFOSA (S)	2	%	10-150		1	07/23/24 14:39	07/25/24 13:39		S0
d7-NMeFOSE (S)	11	%	10-150		1	07/23/24 14:39	07/25/24 13:39		
13C2-PFTA (S)	27	%	25-150		1	07/23/24 14:39	07/25/24 13:39		
d9-NEtFOSE (S)	9	%	10-150		1	07/23/24 14:39	07/25/24 13:39		S0
d5-NEtFOSA (S)	1	%	10-150		1	07/23/24 14:39	07/25/24 13:39		S0
13C5-PFHxA (S)	56	%	25-150		1	07/23/24 14:39	07/25/24 13:39		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-3 Lab ID: 40280917003 Collected: 07/10/24 11:55 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP, Dissolved									
Analytical Method: EPA 6010D									
Pace Analytical Services - Green Bay									
Cadmium, Dissolved	<1.3	ug/L	5.0	1.3	1		07/18/24 19:16	7440-43-9	
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		07/18/24 19:16	7440-47-3	
Lead, Dissolved	<6.4	ug/L	20.0	6.4	1		07/18/24 19:16	7439-92-1	
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.30	ug/L	1.0	0.30	1		07/15/24 13:16	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 13:16	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		07/15/24 13:16	74-97-5	
Bromodichloromethane	<0.21	ug/L	1.0	0.21	1		07/15/24 13:16	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		07/15/24 13:16	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/15/24 13:16	74-83-9	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 13:16	104-51-8	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		07/15/24 13:16	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		07/15/24 13:16	98-06-6	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/15/24 13:16	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 13:16	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/15/24 13:16	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		07/15/24 13:16	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		07/15/24 13:16	74-87-3	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 13:16	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 13:16	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	5.0	0.36	1		07/15/24 13:16	96-12-8	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/15/24 13:16	124-48-1	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		07/15/24 13:16	106-93-4	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		07/15/24 13:16	74-95-3	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 13:16	95-50-1	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 13:16	541-73-1	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		07/15/24 13:16	106-46-7	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		07/15/24 13:16	75-71-8	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 13:16	75-34-3	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/15/24 13:16	107-06-2	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/15/24 13:16	75-35-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/15/24 13:16	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/15/24 13:16	156-60-5	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/15/24 13:16	78-87-5	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		07/15/24 13:16	142-28-9	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		07/15/24 13:16	594-20-7	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		07/15/24 13:16	563-58-6	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		07/15/24 13:16	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		07/15/24 13:16	10061-02-6	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 13:16	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 13:16	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		07/15/24 13:16	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		07/15/24 13:16	98-82-8	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-3 Lab ID: 40280917003 Collected: 07/10/24 11:55 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		07/15/24 13:16	99-87-6	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/15/24 13:16	75-09-2	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 13:16	1634-04-4	
Naphthalene	<1.9	ug/L	5.0	1.9	1		07/15/24 13:16	91-20-3	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 13:16	103-65-1	
Styrene	<0.36	ug/L	1.0	0.36	1		07/15/24 13:16	100-42-5	
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		07/15/24 13:16	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		07/15/24 13:16	79-34-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/15/24 13:16	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/15/24 13:16	108-88-3	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		07/15/24 13:16	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		07/15/24 13:16	120-82-1	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 13:16	71-55-6	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		07/15/24 13:16	79-00-5	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/15/24 13:16	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		07/15/24 13:16	75-69-4	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		07/15/24 13:16	96-18-4	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		07/15/24 13:16	95-63-6	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 13:16	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/15/24 13:16	75-01-4	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		07/15/24 13:16	179601-23-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		07/15/24 13:16	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		07/15/24 13:16	2199-69-1	
4-Bromofluorobenzene (S)	95	%	70-130		1		07/15/24 13:16	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		07/15/24 13:16	2037-26-5	
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.81	ng/L	3.8	0.81	1	07/23/24 14:39	07/25/24 13:46	763051-92-9	
4:2 FTS	<0.73	ng/L	3.7	0.73	1	07/23/24 14:39	07/25/24 13:46	757124-72-4	
6:2 FTS	<1.1	ng/L	3.8	1.1	1	07/23/24 14:39	07/25/24 13:46	27619-97-2	
8:2 FTS	<1.6	ng/L	3.9	1.6	1	07/23/24 14:39	07/25/24 13:46	39108-34-4	
9CI-PF3ONS	<0.71	ng/L	3.7	0.71	1	07/23/24 14:39	07/25/24 13:46	756426-58-1	
ADONA	<0.64	ng/L	3.8	0.64	1	07/23/24 14:39	07/25/24 13:46	919005-14-4	
HFPO-DA	<0.50	ng/L	4.0	0.50	1	07/23/24 14:39	07/25/24 13:46	13252-13-6	
NEtFOSAA	<1.1	ng/L	4.0	1.1	1	07/23/24 14:39	07/25/24 13:46	2991-50-6	
NEtFOSA	<0.91	ng/L	4.0	0.91	1	07/23/24 14:39	07/25/24 13:46	4151-50-2	
NEtFOSE	<1.2	ng/L	4.0	1.2	1	07/23/24 14:39	07/25/24 13:46	1691-99-2	
NMeFOSAA	<1.6	ng/L	4.0	1.6	1	07/23/24 14:39	07/25/24 13:46	2355-31-9	
NMeFOSA	<1.3	ng/L	4.0	1.3	1	07/23/24 14:39	07/25/24 13:46	31506-32-8	
NMeFOSE	<0.96	ng/L	4.0	0.96	1	07/23/24 14:39	07/25/24 13:46	24448-09-7	
PFBS	5.2	ng/L	3.5	0.41	1	07/23/24 14:39	07/25/24 13:46	375-73-5	
PFDA	<0.50	ng/L	4.0	0.50	1	07/23/24 14:39	07/25/24 13:46	335-76-2	
PFHxA	13.9	ng/L	4.0	0.76	1	07/23/24 14:39	07/25/24 13:46	307-24-4	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: MW-3 Lab ID: 40280917003 Collected: 07/10/24 11:55 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
PFBA	8.4	ng/L	4.0	0.56	1	07/23/24 14:39	07/25/24 13:46	375-22-4	
PFDS	<1.1	ng/L	3.9	1.1	1	07/23/24 14:39	07/25/24 13:46	335-77-3	
PFDoS	<1.1	ng/L	3.9	1.1	1	07/23/24 14:39	07/25/24 13:46	79780-39-5	
PFHpS	<1.3	ng/L	3.8	1.3	1	07/23/24 14:39	07/25/24 13:46	375-92-8	
PFNS	<0.95	ng/L	3.8	0.95	1	07/23/24 14:39	07/25/24 13:46	68259-12-1	
PFOSA	<0.80	ng/L	4.0	0.80	1	07/23/24 14:39	07/25/24 13:46	754-91-6	
PFPeA	9.3	ng/L	4.0	0.37	1	07/23/24 14:39	07/25/24 13:46	2706-90-3	
PFPeS	2.0J	ng/L	3.8	0.51	1	07/23/24 14:39	07/25/24 13:46	2706-91-4	
PFDoA	<0.86	ng/L	4.0	0.86	1	07/23/24 14:39	07/25/24 13:46	307-55-1	
PFHpA	4.7	ng/L	4.0	0.47	1	07/23/24 14:39	07/25/24 13:46	375-85-9	
PFHxS	61.5	ng/L	3.6	0.47	1	07/23/24 14:39	07/25/24 13:46	355-46-4	
PFNA	<0.42	ng/L	4.0	0.42	1	07/23/24 14:39	07/25/24 13:46	375-95-1	
PFOS	1.8J	ng/L	3.7	1.0	1	07/23/24 14:39	07/25/24 13:46	1763-23-1	
PFOA	17.7	ng/L	4.0	0.53	1	07/23/24 14:39	07/25/24 13:46	335-67-1	
PFTeDA	<0.72	ng/L	4.0	0.72	1	07/23/24 14:39	07/25/24 13:46	376-06-7	
PFTrDA	<0.56	ng/L	4.0	0.56	1	07/23/24 14:39	07/25/24 13:46	72629-94-8	
PFUnA	<1.3	ng/L	4.0	1.3	1	07/23/24 14:39	07/25/24 13:46	2058-94-8	
Surrogates									
13C4-PFBA (S)	64	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C5-PFPeA (S)	53	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C3-PFBS (S)	74	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C24:2FTS (S)	183	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		S0
13C3HFPO-DA (S)	56	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C4-PFHpA (S)	80	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C3-PFHxS (S)	77	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C26:2FTS (S)	211	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		S0
13C8-PFOA (S)	69	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C8-PFOS (S)	77	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C9-PFNA (S)	84	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C6-PFDA (S)	87	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C28:2FTS (S)	166	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		S0
d3-MeFOSAA (S)	86	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C7-PFUDa (S)	80	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C8-PFOSA (S)	52	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
d5-EtFOSAA (S)	83	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
13C2-PFDaA (S)	74	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
d3-NMeFOsa (S)	2	%.	10-150		1	07/23/24 14:39	07/25/24 13:46		S0
d7-NMeFOSE (S)	19	%.	10-150		1	07/23/24 14:39	07/25/24 13:46		
13C2-PFTA (S)	58	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		
d9-NEtFOSE (S)	20	%.	10-150		1	07/23/24 14:39	07/25/24 13:46		
d5-NEtFOsa (S)	2	%.	10-150		1	07/23/24 14:39	07/25/24 13:46		S0
13C5-PFHxA (S)	79	%.	25-150		1	07/23/24 14:39	07/25/24 13:46		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: TRIP BLANK Lab ID: 40280917004 Collected: 07/10/24 00:00 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	<0.30	ug/L	1.0	0.30	1		07/15/24 12:06	71-43-2	
Bromobenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:06	108-86-1	
Bromochloromethane	<0.36	ug/L	1.0	0.36	1		07/15/24 12:06	74-97-5	
Bromodichloromethane	<0.21	ug/L	1.0	0.21	1		07/15/24 12:06	75-27-4	
Bromoform	<0.43	ug/L	1.0	0.43	1		07/15/24 12:06	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/15/24 12:06	74-83-9	
n-Butylbenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 12:06	104-51-8	
sec-Butylbenzene	<0.42	ug/L	1.0	0.42	1		07/15/24 12:06	135-98-8	
tert-Butylbenzene	<0.59	ug/L	1.0	0.59	1		07/15/24 12:06	98-06-6	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/15/24 12:06	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/15/24 12:06	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/15/24 12:06	75-00-3	
Chloroform	<0.50	ug/L	5.0	0.50	1		07/15/24 12:06	67-66-3	
Chloromethane	<1.6	ug/L	5.0	1.6	1		07/15/24 12:06	74-87-3	
2-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 12:06	95-49-8	
4-Chlorotoluene	<0.89	ug/L	5.0	0.89	1		07/15/24 12:06	106-43-4	
1,2-Dibromo-3-chloropropane	<0.36	ug/L	5.0	0.36	1		07/15/24 12:06	96-12-8	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/15/24 12:06	124-48-1	
1,2-Dibromoethane (EDB)	<0.31	ug/L	1.0	0.31	1		07/15/24 12:06	106-93-4	
Dibromomethane	<0.99	ug/L	5.0	0.99	1		07/15/24 12:06	74-95-3	
1,2-Dichlorobenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 12:06	95-50-1	
1,3-Dichlorobenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:06	541-73-1	
1,4-Dichlorobenzene	<0.89	ug/L	1.0	0.89	1		07/15/24 12:06	106-46-7	
Dichlorodifluoromethane	<0.46	ug/L	5.0	0.46	1		07/15/24 12:06	75-71-8	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:06	75-34-3	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/15/24 12:06	107-06-2	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/15/24 12:06	75-35-4	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/15/24 12:06	156-59-2	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/15/24 12:06	156-60-5	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/15/24 12:06	78-87-5	
1,3-Dichloropropane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:06	142-28-9	
2,2-Dichloropropane	<0.42	ug/L	1.0	0.42	1		07/15/24 12:06	594-20-7	
1,1-Dichloropropene	<0.41	ug/L	1.0	0.41	1		07/15/24 12:06	563-58-6	
cis-1,3-Dichloropropene	<0.24	ug/L	1.0	0.24	1		07/15/24 12:06	10061-01-5	
trans-1,3-Dichloropropene	<0.27	ug/L	1.0	0.27	1		07/15/24 12:06	10061-02-6	
Diisopropyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 12:06	108-20-3	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/15/24 12:06	100-41-4	
Hexachloro-1,3-butadiene	<2.7	ug/L	5.0	2.7	1		07/15/24 12:06	87-68-3	
Isopropylbenzene (Cumene)	<1.0	ug/L	5.0	1.0	1		07/15/24 12:06	98-82-8	
p-Isopropyltoluene	<1.0	ug/L	5.0	1.0	1		07/15/24 12:06	99-87-6	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/15/24 12:06	75-09-2	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		07/15/24 12:06	1634-04-4	
Naphthalene	<1.9	ug/L	5.0	1.9	1		07/15/24 12:06	91-20-3	
n-Propylbenzene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:06	103-65-1	
Styrene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:06	100-42-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: TRIP BLANK Lab ID: 40280917004 Collected: 07/10/24 00:00 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1,2-Tetrachloroethane	<0.36	ug/L	1.0	0.36	1		07/15/24 12:06	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		07/15/24 12:06	79-34-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/15/24 12:06	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/15/24 12:06	108-88-3	
1,2,3-Trichlorobenzene	<1.0	ug/L	5.0	1.0	1		07/15/24 12:06	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		07/15/24 12:06	120-82-1	
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/15/24 12:06	71-55-6	
1,1,2-Trichloroethane	<0.34	ug/L	1.0	0.34	1		07/15/24 12:06	79-00-5	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/15/24 12:06	79-01-6	
Trichlorofluoromethane	<0.42	ug/L	1.0	0.42	1		07/15/24 12:06	75-69-4	
1,2,3-Trichloropropane	<0.56	ug/L	1.0	0.56	1		07/15/24 12:06	96-18-4	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		07/15/24 12:06	95-63-6	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		07/15/24 12:06	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/15/24 12:06	75-01-4	
m&p-Xylene	<0.70	ug/L	2.0	0.70	1		07/15/24 12:06	179601-23-1	
o-Xylene	<0.35	ug/L	1.0	0.35	1		07/15/24 12:06	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	99	%	70-130		1		07/15/24 12:06	2199-69-1	
4-Bromofluorobenzene (S)	95	%	70-130		1		07/15/24 12:06	460-00-4	
Toluene-d8 (S)	99	%	70-130		1		07/15/24 12:06	2037-26-5	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: FRB-1 Lab ID: 40280917005 Collected: 07/10/24 13:30 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis									
11CI-PF3OUdS	<0.41	ng/L	1.9	0.41	1	07/23/24 14:39	07/25/24 13:53	763051-92-9	
4:2 FTS	<0.37	ng/L	1.9	0.37	1	07/23/24 14:39	07/25/24 13:53	757124-72-4	
6:2 FTS	<0.58	ng/L	1.9	0.58	1	07/23/24 14:39	07/25/24 13:53	27619-97-2	
8:2 FTS	<0.80	ng/L	1.9	0.80	1	07/23/24 14:39	07/25/24 13:53	39108-34-4	
9CI-PF3ONS	<0.36	ng/L	1.9	0.36	1	07/23/24 14:39	07/25/24 13:53	756426-58-1	
ADONA	<0.32	ng/L	1.9	0.32	1	07/23/24 14:39	07/25/24 13:53	919005-14-4	
HFPO-DA	<0.25	ng/L	2.0	0.25	1	07/23/24 14:39	07/25/24 13:53	13252-13-6	
NEtFOSAA	<0.57	ng/L	2.0	0.57	1	07/23/24 14:39	07/25/24 13:53	2991-50-6	
NEtFOSA	<0.46	ng/L	2.0	0.46	1	07/23/24 14:39	07/25/24 13:53	4151-50-2	
NEtFOSE	<0.61	ng/L	2.0	0.61	1	07/23/24 14:39	07/25/24 13:53	1691-99-2	
NMeFOSAA	<0.79	ng/L	2.0	0.79	1	07/23/24 14:39	07/25/24 13:53	2355-31-9	
NMeFOSA	<0.63	ng/L	2.0	0.63	1	07/23/24 14:39	07/25/24 13:53	31506-32-8	
NMeFOSE	<0.49	ng/L	2.0	0.49	1	07/23/24 14:39	07/25/24 13:53	24448-09-7	
PFBS	<0.20	ng/L	1.8	0.20	1	07/23/24 14:39	07/25/24 13:53	375-73-5	
PFDA	<0.25	ng/L	2.0	0.25	1	07/23/24 14:39	07/25/24 13:53	335-76-2	
PFHxA	<0.38	ng/L	2.0	0.38	1	07/23/24 14:39	07/25/24 13:53	307-24-4	
PFBA	<0.28	ng/L	2.0	0.28	1	07/23/24 14:39	07/25/24 13:53	375-22-4	
PFDS	<0.57	ng/L	1.9	0.57	1	07/23/24 14:39	07/25/24 13:53	335-77-3	
PFDoS	<0.54	ng/L	2.0	0.54	1	07/23/24 14:39	07/25/24 13:53	79780-39-5	
PFHpS	<0.64	ng/L	1.9	0.64	1	07/23/24 14:39	07/25/24 13:53	375-92-8	
PFNS	<0.48	ng/L	1.9	0.48	1	07/23/24 14:39	07/25/24 13:53	68259-12-1	
PFOSA	<0.40	ng/L	2.0	0.40	1	07/23/24 14:39	07/25/24 13:53	754-91-6	
PFPeA	<0.18	ng/L	2.0	0.18	1	07/23/24 14:39	07/25/24 13:53	2706-90-3	
PFPeS	<0.26	ng/L	1.9	0.26	1	07/23/24 14:39	07/25/24 13:53	2706-91-4	
PFDoA	<0.44	ng/L	2.0	0.44	1	07/23/24 14:39	07/25/24 13:53	307-55-1	
PFHpA	<0.24	ng/L	2.0	0.24	1	07/23/24 14:39	07/25/24 13:53	375-85-9	
PFHxS	<0.24	ng/L	1.8	0.24	1	07/23/24 14:39	07/25/24 13:53	355-46-4	
PFNA	<0.21	ng/L	2.0	0.21	1	07/23/24 14:39	07/25/24 13:53	375-95-1	
PFOS	<0.51	ng/L	1.9	0.51	1	07/23/24 14:39	07/25/24 13:53	1763-23-1	
PFOA	<0.27	ng/L	2.0	0.27	1	07/23/24 14:39	07/25/24 13:53	335-67-1	
PFTeDA	<0.36	ng/L	2.0	0.36	1	07/23/24 14:39	07/25/24 13:53	376-06-7	
PFTrDA	<0.28	ng/L	2.0	0.28	1	07/23/24 14:39	07/25/24 13:53	72629-94-8	
PFUnA	<0.64	ng/L	2.0	0.64	1	07/23/24 14:39	07/25/24 13:53	2058-94-8	
Surrogates									
13C4-PFBA (S)	97	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C5-PFPeA (S)	92	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C3-PFBS (S)	101	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C24:2FTS (S)	86	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C3HFPO-DA (S)	98	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C4-PFHpA (S)	102	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C3-PFHxS (S)	98	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C26:2FTS (S)	106	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C8-PFOA (S)	101	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C8-PFOS (S)	101	%	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C9-PFNA (S)	111	%	25-150		1	07/23/24 14:39	07/25/24 13:53		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Sample: FRB-1 Lab ID: 40280917005 Collected: 07/10/24 13:30 Received: 07/11/24 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WI ID NPW									
Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178									
Pace Analytical Services - Minneapolis									
Surrogates									
13C6-PFDA (S)	109	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C28:2FTS (S)	169	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		S3
d3-MeFOSAA (S)	101	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C7-PFUdA (S)	100	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C8-PFOSA (S)	83	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
d5-EtFOSAA (S)	102	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
13C2-PFDoA (S)	100	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
d3-NMeFOSA (S)	2	%.	10-150		1	07/23/24 14:39	07/25/24 13:53		S0
d7-NMeFOSE (S)	49	%.	10-150		1	07/23/24 14:39	07/25/24 13:53		
13C2-PFTA (S)	88	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		
d9-NEtFOSE (S)	42	%.	10-150		1	07/23/24 14:39	07/25/24 13:53		
d5-NEtFOSA (S)	2	%.	10-150		1	07/23/24 14:39	07/25/24 13:53		S0
13C5-PFHxA (S)	97	%.	25-150		1	07/23/24 14:39	07/25/24 13:53		

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280917

QC Batch: 479851 Analysis Method: EPA 6010D
QC Batch Method: EPA 6010D Analysis Description: ICP Metals, Trace, Dissolved
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40280917001, 40280917002, 40280917003

METHOD BLANK: 2748183 Matrix: Water
Associated Lab Samples: 40280917001, 40280917002, 40280917003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium, Dissolved	ug/L	<1.3	5.0	07/18/24 18:41	
Chromium, Dissolved	ug/L	<2.5	10.0	07/18/24 18:41	
Lead, Dissolved	ug/L	<6.4	20.0	07/18/24 18:41	

LABORATORY CONTROL SAMPLE: 2748184

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium, Dissolved	ug/L	250	261	104	80-120	
Chromium, Dissolved	ug/L	250	255	102	80-120	
Lead, Dissolved	ug/L	250	263	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2748185 2748186

Parameter	Units	40280901008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium, Dissolved	ug/L	<1.3	250	250	257	259	103	103	75-125	0	20	
Chromium, Dissolved	ug/L	<2.5	250	250	249	248	99	99	75-125	0	20	
Lead, Dissolved	ug/L	<6.4	250	250	254	257	102	103	75-125	1	20	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

QC Batch: 479453

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40280917001, 40280917002, 40280917003, 40280917004

METHOD BLANK: 2746315

Matrix: Water

Associated Lab Samples: 40280917001, 40280917002, 40280917003, 40280917004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.36	1.0	07/15/24 10:03	
1,1,1-Trichloroethane	ug/L	<0.30	1.0	07/15/24 10:03	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	07/15/24 10:03	
1,1,2-Trichloroethane	ug/L	<0.34	1.0	07/15/24 10:03	
1,1-Dichloroethane	ug/L	<0.30	1.0	07/15/24 10:03	
1,1-Dichloroethene	ug/L	<0.58	1.0	07/15/24 10:03	
1,1-Dichloropropene	ug/L	<0.41	1.0	07/15/24 10:03	
1,2,3-Trichlorobenzene	ug/L	<1.0	5.0	07/15/24 10:03	
1,2,3-Trichloropropane	ug/L	<0.56	1.0	07/15/24 10:03	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	07/15/24 10:03	
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	07/15/24 10:03	
1,2-Dibromo-3-chloropropane	ug/L	<0.36	5.0	07/15/24 10:03	
1,2-Dibromoethane (EDB)	ug/L	<0.31	1.0	07/15/24 10:03	
1,2-Dichlorobenzene	ug/L	<0.33	1.0	07/15/24 10:03	
1,2-Dichloroethane	ug/L	<0.29	1.0	07/15/24 10:03	
1,2-Dichloropropane	ug/L	<0.45	1.0	07/15/24 10:03	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	07/15/24 10:03	
1,3-Dichlorobenzene	ug/L	<0.35	1.0	07/15/24 10:03	
1,3-Dichloropropane	ug/L	<0.30	1.0	07/15/24 10:03	
1,4-Dichlorobenzene	ug/L	<0.89	1.0	07/15/24 10:03	
2,2-Dichloropropane	ug/L	<0.42	1.0	07/15/24 10:03	
2-Chlorotoluene	ug/L	<0.89	5.0	07/15/24 10:03	
4-Chlorotoluene	ug/L	<0.89	5.0	07/15/24 10:03	
Benzene	ug/L	<0.30	1.0	07/15/24 10:03	
Bromobenzene	ug/L	<0.36	1.0	07/15/24 10:03	
Bromochloromethane	ug/L	<0.36	1.0	07/15/24 10:03	
Bromodichloromethane	ug/L	<0.21	1.0	07/15/24 10:03	
Bromoform	ug/L	<0.43	1.0	07/15/24 10:03	
Bromomethane	ug/L	<1.2	5.0	07/15/24 10:03	
Carbon tetrachloride	ug/L	<0.37	1.0	07/15/24 10:03	
Chlorobenzene	ug/L	<0.86	1.0	07/15/24 10:03	
Chloroethane	ug/L	<1.4	5.0	07/15/24 10:03	
Chloroform	ug/L	<0.50	5.0	07/15/24 10:03	
Chloromethane	ug/L	<1.6	5.0	07/15/24 10:03	
cis-1,2-Dichloroethene	ug/L	<0.47	1.0	07/15/24 10:03	
cis-1,3-Dichloropropene	ug/L	<0.24	1.0	07/15/24 10:03	
Dibromochloromethane	ug/L	<2.6	5.0	07/15/24 10:03	
Dibromomethane	ug/L	<0.99	5.0	07/15/24 10:03	
Dichlorodifluoromethane	ug/L	<0.46	5.0	07/15/24 10:03	
Diisopropyl ether	ug/L	<1.1	5.0	07/15/24 10:03	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

METHOD BLANK: 2746315

Matrix: Water

Associated Lab Samples: 40280917001, 40280917002, 40280917003, 40280917004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.33	1.0	07/15/24 10:03	
Hexachloro-1,3-butadiene	ug/L	<2.7	5.0	07/15/24 10:03	
Isopropylbenzene (Cumene)	ug/L	<1.0	5.0	07/15/24 10:03	
m&p-Xylene	ug/L	<0.70	2.0	07/15/24 10:03	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	07/15/24 10:03	
Methylene Chloride	ug/L	<0.32	5.0	07/15/24 10:03	
n-Butylbenzene	ug/L	<0.86	1.0	07/15/24 10:03	
n-Propylbenzene	ug/L	<0.35	1.0	07/15/24 10:03	
Naphthalene	ug/L	<1.9	5.0	07/15/24 10:03	
o-Xylene	ug/L	<0.35	1.0	07/15/24 10:03	
p-Isopropyltoluene	ug/L	<1.0	5.0	07/15/24 10:03	
sec-Butylbenzene	ug/L	<0.42	1.0	07/15/24 10:03	
Styrene	ug/L	<0.36	1.0	07/15/24 10:03	
tert-Butylbenzene	ug/L	<0.59	1.0	07/15/24 10:03	
Tetrachloroethene	ug/L	<0.41	1.0	07/15/24 10:03	
Toluene	ug/L	<0.29	1.0	07/15/24 10:03	
trans-1,2-Dichloroethene	ug/L	<0.53	1.0	07/15/24 10:03	
trans-1,3-Dichloropropene	ug/L	<0.27	1.0	07/15/24 10:03	
Trichloroethene	ug/L	<0.32	1.0	07/15/24 10:03	
Trichlorofluoromethane	ug/L	<0.42	1.0	07/15/24 10:03	
Vinyl chloride	ug/L	<0.17	1.0	07/15/24 10:03	
1,2-Dichlorobenzene-d4 (S)	%	98	70-130	07/15/24 10:03	
4-Bromofluorobenzene (S)	%	94	70-130	07/15/24 10:03	
Toluene-d8 (S)	%	97	70-130	07/15/24 10:03	

LABORATORY CONTROL SAMPLE: 2746316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	59.7	119	70-132	
1,1,2,2-Tetrachloroethane	ug/L	50	44.3	89	70-130	
1,1,2-Trichloroethane	ug/L	50	47.2	94	70-130	
1,1-Dichloroethane	ug/L	50	48.8	98	70-130	
1,1-Dichloroethene	ug/L	50	52.7	105	73-140	
1,2,4-Trichlorobenzene	ug/L	50	50.3	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.5	93	58-130	
1,2-Dibromoethane (EDB)	ug/L	50	49.1	98	70-130	
1,2-Dichlorobenzene	ug/L	50	53.7	107	70-130	
1,2-Dichloroethane	ug/L	50	48.2	96	70-130	
1,2-Dichloropropane	ug/L	50	50.5	101	77-127	
1,3-Dichlorobenzene	ug/L	50	55.5	111	70-130	
1,4-Dichlorobenzene	ug/L	50	55.4	111	70-130	
Benzene	ug/L	50	51.6	103	70-130	
Bromodichloromethane	ug/L	50	53.4	107	70-130	
Bromoform	ug/L	50	48.5	97	70-130	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

LABORATORY CONTROL SAMPLE: 2746316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	55.7	111	22-141	
Carbon tetrachloride	ug/L	50	62.5	125	70-135	
Chlorobenzene	ug/L	50	56.6	113	70-130	
Chloroethane	ug/L	50	53.1	106	59-141	
Chloroform	ug/L	50	49.6	99	80-124	
Chloromethane	ug/L	50	51.4	103	29-150	
cis-1,2-Dichloroethene	ug/L	50	51.8	104	70-130	
cis-1,3-Dichloropropene	ug/L	50	52.5	105	70-130	
Dibromochloromethane	ug/L	50	48.9	98	70-130	
Dichlorodifluoromethane	ug/L	50	60.6	121	10-147	
Ethylbenzene	ug/L	50	57.2	114	80-125	
Isopropylbenzene (Cumene)	ug/L	50	60.8	122	70-130	
m&p-Xylene	ug/L	100	114	114	70-130	
Methyl-tert-butyl ether	ug/L	50	44.0	88	64-131	
Methylene Chloride	ug/L	50	56.0	112	70-137	
o-Xylene	ug/L	50	55.1	110	70-130	
Styrene	ug/L	50	58.6	117	70-130	
Tetrachloroethene	ug/L	50	56.9	114	70-130	
Toluene	ug/L	50	54.0	108	80-120	
trans-1,2-Dichloroethene	ug/L	50	52.5	105	70-131	
trans-1,3-Dichloropropene	ug/L	50	47.6	95	70-130	
Trichloroethene	ug/L	50	55.5	111	70-130	
Trichlorofluoromethane	ug/L	50	57.2	114	69-141	
Vinyl chloride	ug/L	50	52.7	105	51-145	
1,2-Dichlorobenzene-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2746317 2746318

Parameter	Units	40280901008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.30	50	50	55.1	59.8	110	120	70-132	8	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	41.1	46.0	82	92	70-131	11	20	
1,1,2-Trichloroethane	ug/L	<0.34	50	50	43.2	46.8	86	94	70-130	8	20	
1,1-Dichloroethane	ug/L	<0.30	50	50	45.2	49.5	90	99	70-131	9	20	
1,1-Dichloroethene	ug/L	<0.58	50	50	48.8	53.2	98	106	69-146	8	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	46.3	50.9	93	102	70-130	10	20	
1,2-Dibromo-3-chloropropane	ug/L	<0.36	50	50	41.0	45.2	82	90	56-130	10	20	
1,2-Dibromoethane (EDB)	ug/L	<0.31	50	50	45.5	49.5	91	99	70-130	8	20	
1,2-Dichlorobenzene	ug/L	<0.33	50	50	49.4	54.7	99	109	70-130	10	20	
1,2-Dichloroethane	ug/L	<0.29	50	50	45.1	48.7	90	97	70-130	8	20	
1,2-Dichloropropane	ug/L	<0.45	50	50	45.3	51.0	91	102	77-129	12	20	
1,3-Dichlorobenzene	ug/L	<0.35	50	50	51.1	56.6	102	113	70-130	10	20	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2746317 2746318											
Parameter	Units	40280901008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	<0.89	50	50	50.8	57.2	102	114	70-130	12	20
Benzene	ug/L	<0.30	50	50	47.8	52.7	96	105	70-130	10	20
Bromodichloromethane	ug/L	<0.21	50	50	49.2	54.9	98	110	70-130	11	20
Bromoform	ug/L	<0.43	50	50	45.9	49.9	92	100	70-130	8	20
Bromomethane	ug/L	<1.2	50	50	55.0	62.0	110	124	12-159	12	26
Carbon tetrachloride	ug/L	<0.37	50	50	57.7	63.6	115	127	70-135	10	20
Chlorobenzene	ug/L	<0.86	50	50	52.3	56.1	105	112	70-130	7	20
Chloroethane	ug/L	<1.4	50	50	47.4	54.4	95	109	56-143	14	20
Chloroform	ug/L	<0.50	50	50	45.8	51.2	92	102	80-126	11	20
Chloromethane	ug/L	<1.6	50	50	45.3	50.8	91	102	22-156	11	20
cis-1,2-Dichloroethene	ug/L	89.7	50	50	130	137	82	95	70-130	5	20
cis-1,3-Dichloropropene	ug/L	<0.24	50	50	47.3	52.8	95	106	70-130	11	20
Dibromochloromethane	ug/L	<2.6	50	50	44.3	49.4	89	99	70-130	11	20
Dichlorodifluoromethane	ug/L	<0.46	50	50	51.2	56.2	102	112	10-147	9	20
Ethylbenzene	ug/L	<0.33	50	50	53.6	57.5	107	115	80-126	7	20
Isopropylbenzene (Cumene)	ug/L	<1.0	50	50	57.4	61.0	115	122	70-130	6	20
m&p-Xylene	ug/L	<0.70	100	100	106	115	106	115	70-130	8	20
Methyl-tert-butyl ether	ug/L	<1.1	50	50	40.0	43.2	80	86	64-136	8	20
Methylene Chloride	ug/L	<0.32	50	50	51.3	57.3	103	115	70-137	11	20
o-Xylene	ug/L	<0.35	50	50	50.6	55.8	101	112	70-130	10	20
Styrene	ug/L	<0.36	50	50	54.7	58.6	109	117	70-133	7	20
Tetrachloroethene	ug/L	<0.41	50	50	53.1	56.5	106	113	70-131	6	20
Toluene	ug/L	<0.29	50	50	49.5	54.0	99	108	80-121	9	20
trans-1,2-Dichloroethene	ug/L	7.7	50	50	56.6	61.9	98	108	70-135	9	20
trans-1,3-Dichloropropene	ug/L	<0.27	50	50	44.2	48.8	88	98	70-130	10	20
Trichloroethene	ug/L	0.85J	50	50	52.4	58.4	103	115	70-130	11	20
Trichlorofluoromethane	ug/L	<0.42	50	50	57.7	63.1	115	126	67-142	9	20
Vinyl chloride	ug/L	2.6	50	50	50.8	54.2	96	103	45-147	7	20
1,2-Dichlorobenzene-d4 (S)	%						97	97	70-130		
4-Bromofluorobenzene (S)	%						96	97	70-130		
Toluene-d8 (S)	%						101	99	70-130		

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

QC Batch: 957809 Analysis Method: ENV-SOP-MIN4-0178
QC Batch Method: ENV-SOP-MIN4-0178 Analysis Description: WI ID NPW
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 40280917001, 40280917002, 40280917003, 40280917005

METHOD BLANK: 5007023 Matrix: Water
Associated Lab Samples: 40280917001, 40280917002, 40280917003, 40280917005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	<0.41	1.9	07/25/24 13:03	
4:2 FTS	ng/L	<0.37	1.9	07/25/24 13:03	
6:2 FTS	ng/L	<0.58	1.9	07/25/24 13:03	
8:2 FTS	ng/L	<0.81	2.0	07/25/24 13:03	
9CI-PF3ONS	ng/L	<0.36	1.9	07/25/24 13:03	
ADONA	ng/L	<0.33	1.9	07/25/24 13:03	
HFPO-DA	ng/L	<0.26	2.0	07/25/24 13:03	
NEtFOSA	ng/L	<0.46	2.0	07/25/24 13:03	
NEtFOSAA	ng/L	<0.58	2.0	07/25/24 13:03	
NEtFOSE	ng/L	<0.61	2.0	07/25/24 13:03	
NMeFOSA	ng/L	<0.64	2.0	07/25/24 13:03	
NMeFOSAA	ng/L	<0.80	2.0	07/25/24 13:03	
NMeFOSE	ng/L	<0.49	2.0	07/25/24 13:03	
PFBA	ng/L	<0.29	2.0	07/25/24 13:03	
PFBS	ng/L	<0.21	1.8	07/25/24 13:03	
PFDA	ng/L	<0.26	2.0	07/25/24 13:03	
PFDaA	ng/L	<0.44	2.0	07/25/24 13:03	
PFDoS	ng/L	<0.54	2.0	07/25/24 13:03	
PFDS	ng/L	<0.58	2.0	07/25/24 13:03	
PFHpA	ng/L	<0.24	2.0	07/25/24 13:03	
PFHpS	ng/L	<0.64	1.9	07/25/24 13:03	
PFHxA	ng/L	<0.39	2.0	07/25/24 13:03	
PFHxS	ng/L	<0.24	1.9	07/25/24 13:03	
PFNA	ng/L	<0.21	2.0	07/25/24 13:03	
PFNS	ng/L	<0.48	2.0	07/25/24 13:03	
PFOA	ng/L	<0.27	2.0	07/25/24 13:03	
PFOS	ng/L	<0.52	1.9	07/25/24 13:03	
PFOSA	ng/L	<0.41	2.0	07/25/24 13:03	
PFPeA	ng/L	<0.19	2.0	07/25/24 13:03	
PFPeS	ng/L	<0.26	1.9	07/25/24 13:03	
PFTeDA	ng/L	<0.37	2.0	07/25/24 13:03	
PFTTrDA	ng/L	<0.29	2.0	07/25/24 13:03	
PFUnA	ng/L	<0.65	2.0	07/25/24 13:03	
13C2-PFDaA (S)	%	98	25-150	07/25/24 13:03	
13C2-PFTA (S)	%	85	25-150	07/25/24 13:03	
13C24:2FTS (S)	%	113	25-150	07/25/24 13:03	
13C26:2FTS (S)	%	107	25-150	07/25/24 13:03	
13C28:2FTS (S)	%	109	25-150	07/25/24 13:03	
13C3-PFBS (S)	%	104	25-150	07/25/24 13:03	
13C3-PFHxS (S)	%	96	25-150	07/25/24 13:03	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

METHOD BLANK: 5007023

Matrix: Water

Associated Lab Samples: 40280917001, 40280917002, 40280917003, 40280917005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C3HFPO-DA (S)	%.	101	25-150	07/25/24 13:03	
13C4-PFBA (S)	%.	101	25-150	07/25/24 13:03	
13C4-PFHpA (S)	%.	102	25-150	07/25/24 13:03	
13C5-PFHxA (S)	%.	97	25-150	07/25/24 13:03	
13C5-PFPeA (S)	%.	98	25-150	07/25/24 13:03	
13C6-PFDA (S)	%.	99	25-150	07/25/24 13:03	
13C7-PFUDa (S)	%.	92	25-150	07/25/24 13:03	
13C8-PFOA (S)	%.	98	25-150	07/25/24 13:03	
13C8-PFOS (S)	%.	90	25-150	07/25/24 13:03	
13C8-PFOSA (S)	%.	87	25-150	07/25/24 13:03	
13C9-PFNA (S)	%.	103	25-150	07/25/24 13:03	
d3-MeFOSAA (S)	%.	96	25-150	07/25/24 13:03	
d3-NMeFOSA (S)	%.	18	20-150	07/25/24 13:03	S0
d5-EtFOSAA (S)	%.	88	25-150	07/25/24 13:03	
d5-NEtFOSA (S)	%.	16	20-150	07/25/24 13:03	S0
d7-NMeFOSE (S)	%.	76	20-150	07/25/24 13:03	
d9-NEtFOSE (S)	%.	68	20-150	07/25/24 13:03	

LABORATORY CONTROL SAMPLE & LCSD: 5007024

5007025

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11Cl-PF3OUdS	ng/L	3.8	3.2	3.7	86	98	50-150	13	30	
4:2 FTS	ng/L	3.7	3.6	4.0	97	106	50-150	9	30	
6:2 FTS	ng/L	3.8	4.5	3.6	117	97	50-150	20	30	
8:2 FTS	ng/L	3.8	3.9	3.5	102	92	50-150	11	30	
9Cl-PF3ONS	ng/L	3.7	3.6	3.7	95	100	50-150	5	30	
ADONA	ng/L	3.8	3.7	3.9	99	105	50-150	5	30	
HFPO-DA	ng/L	4	3.8	3.7	95	94	50-150	2	30	
NEtFOSA	ng/L	4	3.5	3.6	87	90	50-150	3	30	
NEtFOSAA	ng/L	4	3.8	3.9	94	99	50-150	5	30	
NEtFOSE	ng/L	4	3.6	3.9	90	99	50-150	9	30	
NMeFOSA	ng/L	4	3.4	2.4	84	61	50-150	32	30	R1
NMeFOSAA	ng/L	4	4.0	3.7	100	92	50-150	9	30	
NMeFOSE	ng/L	4	4.0	3.2	100	81	50-150	21	30	
PFBA	ng/L	4	3.6	3.8	89	96	50-150	7	30	
PFBS	ng/L	3.5	3.2	3.4	92	98	50-150	6	30	
PFDA	ng/L	4	3.9	4.0	98	100	50-150	2	30	
PFDoA	ng/L	4	3.8	3.6	96	90	50-150	7	30	
PFDoS	ng/L	3.9	3.1	3.1	79	80	50-150	0	30	
PFDS	ng/L	3.8	3.1	3.6	81	95	50-150	15	30	
PFHpA	ng/L	4	3.6	3.8	90	95	50-150	5	30	
PFHpS	ng/L	3.8	3.7	4.0	97	106	50-150	9	30	
PFHxA	ng/L	4	3.8	3.9	94	99	50-150	5	30	
PFHxS	ng/L	3.7	3.3	3.6	90	99	50-150	8	30	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

LABORATORY CONTROL SAMPLE & LCSD: 5007024			5007025							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFNA	ng/L	4	3.7	3.5	93	89	50-150	5	30	
PFNS	ng/L	3.8	3.3	3.5	86	91	50-150	5	30	
PFOA	ng/L	4	3.9	4.0	97	102	50-150	4	30	
PFOS	ng/L	3.7	3.3	3.7	88	100	50-150	12	30	
PFOSA	ng/L	4	4.0	3.9	101	99	50-150	3	30	
PFPeA	ng/L	4	3.8	4.0	96	102	50-150	5	30	
PFPeS	ng/L	3.8	3.6	3.6	95	97	50-150	1	30	
PFTeDA	ng/L	4	3.6	3.8	89	95	50-150	6	30	
PFTrDA	ng/L	4	3.8	3.6	95	91	50-150	5	30	
PFUnA	ng/L	4	3.6	3.6	90	90	50-150	1	30	
13C2-PFDoA (S)	%.				94	96	25-150			
13C2-PFTA (S)	%.				89	82	25-150			
13C24:2FTS (S)	%.				106	94	25-150			
13C26:2FTS (S)	%.				104	107	25-150			
13C28:2FTS (S)	%.				99	103	25-150			
13C3-PFBS (S)	%.				101	99	25-150			
13C3-PFHxS (S)	%.				93	95	25-150			
13C3HFPO-DA (S)	%.				95	97	25-150			
13C4-PFBA (S)	%.				97	98	25-150			
13C4-PFHpA (S)	%.				98	100	25-150			
13C5-PFHxA (S)	%.				95	94	25-150			
13C5-PFPeA (S)	%.				94	94	25-150			
13C6-PFDA (S)	%.				92	97	25-150			
13C7-PFUdA (S)	%.				90	93	25-150			
13C8-PFOA (S)	%.				95	95	25-150			
13C8-PFOS (S)	%.				92	92	25-150			
13C8-PFOSA (S)	%.				91	77	25-150			
13C9-PFNA (S)	%.				101	103	25-150			
d3-MeFOSAA (S)	%.				91	95	25-150			
d3-NMeFOSA (S)	%.				56	4	20-150			S0
d5-EtFOSAA (S)	%.				88	88	25-150			
d5-NEtFOSA (S)	%.				51	4	20-150			S0
d7-NMeFOSE (S)	%.				87	51	20-150			
d9-NEtFOSE (S)	%.				86	41	20-150			

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QUALIFIERS

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280917

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 - The reported result is an estimated value.

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.

DL - Adjusted Method Detection Limit.

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 - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

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.

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280917

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40280917001	MW-1	EPA 6010D	479851		
40280917002	MW-2	EPA 6010D	479851		
40280917003	MW-3	EPA 6010D	479851		
40280917001	MW-1	EPA 8260	479453		
40280917002	MW-2	EPA 8260	479453		
40280917003	MW-3	EPA 8260	479453		
40280917004	TRIP BLANK	EPA 8260	479453		
40280917001	MW-1	ENV-SOP-MIN4-0178	957809	ENV-SOP-MIN4-0178	958808
40280917002	MW-2	ENV-SOP-MIN4-0178	957809	ENV-SOP-MIN4-0178	958808
40280917003	MW-3	ENV-SOP-MIN4-0178	957809	ENV-SOP-MIN4-0178	958808
40280917005	FRB-1	ENV-SOP-MIN4-0178	957809	ENV-SOP-MIN4-0178	958808

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Effective Date: 8/16/2022

Client Name: Terracon

Sample Preservation Receipt Form

Project # 40280917

All containers needing preservation have been checked and noted below.

☒ Yes ☐ No ☐ N/ALab Lot# of pH paper: 1000134

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

Initial when completed: NK 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	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JG9U	JG9U	WG9U	WPFU	SP5T	ZPLC	GN 1	GN 2						
001									2		1					3																	2.5 / 5
002									2		1					3																	2.5 / 5
003									2		1					3																	2.5 / 5
004																2																	2.5 / 5
005									2																								2.5 / 5
006																																	2.5 / 5
007																																	2.5 / 5
008																																	2.5 / 5
009																																	2.5 / 5
010																																	2.5 / 5
011																																	2.5 / 5
012																																	2.5 / 5
013																																	2.5 / 5
014																																	2.5 / 5
015																																	2.5 / 5
016																																	2.5 / 5
017																																	2.5 / 5
018																																	2.5 / 5
019																																	2.5 / 5
020																																	2.5 / 5

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	VG9C	40 mL clear ascorbic w/ HCl	JG9U	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WG9U	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG5U	100 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH + Zn	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres					GN 1	
						GN 2	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Terracon

Courier: ☒ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Walto
☐ Client ☐ Pace Other: _____

Tracking #: _____

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 - 134 Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Meltwater Only

Cooler Temperature Uncorr: 3.0 /Corr: 3.0

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 if shipped on Dry Ice.

Person examining contents:

Date: 7/11/24 /Initials: NK

Labeled By Initials: PAL

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☐ Yes ☒ No ☐ N/A	2. <u>proj. #</u>
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No	5.
- DI VOA Samples frozen upon receipt	☐ Yes ☐ No	Date/Time:
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:		8.
For Analysis: ☒ Yes ☐ No MS/MSD: ☐ Yes ☒ No ☐ N/A		
Correct Containers Used:	☒ Yes ☐ No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace		
Containers Intact:	☒ Yes ☐ No	10.
Filtered volume received for Dissolved tests	☒ Yes ☐ No ☐ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	13.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased): <u>522</u>		

Client Notification/ Resolution:

If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logi

Page 2 of 2



August 02, 2024

Blaine Schroyer
Terracon, Inc. - Franklin
4900 S Pennsylvania Ave Ste100
Cudahy, WI 53110

RE: Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

Dear Blaine Schroyer:

Enclosed are the analytical results for sample(s) received by the laboratory on July 03, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

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

South Carolina Certification #: 83006001

Texas Certification #: T104704529-21-8

Virginia VELAP Certification ID: 11873

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-21-00008

Federal Fish & Wildlife Permit #: 51774A

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SAMPLE SUMMARY

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40280627001	P-1 (2)	Solid	07/02/24 10:20	07/03/24 09:45
40280627002	P-1 (19)	Solid	07/02/24 11:20	07/03/24 09:45
40280627003	P-2 (3)	Solid	07/01/24 13:25	07/03/24 09:45
40280627004	P-2 (18)	Solid	07/01/24 14:25	07/03/24 09:45
40280627005	P-3 (2)	Solid	07/01/24 08:30	07/03/24 09:45
40280627006	P-3 (16)	Solid	07/01/24 09:30	07/03/24 09:45
40280627007	MEOH BLANK	Solid	07/01/24 00:00	07/03/24 09:45

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SAMPLE ANALYTE COUNT

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40280627001	P-1 (2)	EPA 6010D	SIS	3	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	GRF	1	PASI-G
40280627002	P-1 (19)	EPA 6010D	SIS	3	PASI-G
		EPA 6010D	SIS	1	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	ALD	64	PASI-G
40280627003	P-2 (3)	ASTM D2974-87	GRF	1	PASI-G
		EPA 6010D	SIS	3	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	ALD	64	PASI-G
40280627004	P-2 (18)	ASTM D2974-87	GRF	1	PASI-G
		EPA 6010D	SIS	3	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
		EPA 8260	ALD	64	PASI-G
40280627005	P-3 (2)	ASTM D2974-87	GRF	1	PASI-G
		EPA 6010D	SIS	3	PASI-G
		EPA 6010D	SIS	2	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
40280627006	P-3 (16)	EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	GRF	1	PASI-G
		EPA 6010D	SIS	3	PASI-G
		EPA 8270E by SIM	RJN	20	PASI-G
40280627007	MEOH BLANK	EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	GRF	1	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	GRF	1	PASI-G

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40280627001	P-1 (2)					
EPA 6010D	Chromium	16.4	mg/kg	1.2	07/10/24 20:40	
EPA 6010D	Lead	11.7	mg/kg	2.4	07/10/24 20:40	
EPA 8270E by SIM	Benzo(a)anthracene	7.1J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Benzo(a)pyrene	8.1J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Benzo(b)fluoranthene	13.1J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Benzo(g,h,i)perylene	10.0J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Benzo(k)fluoranthene	5.6J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Chrysene	9.3J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Fluoranthene	13.5J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Naphthalene	3.0J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Phenanthrene	6.6J	ug/kg	20.4	07/15/24 11:19	
EPA 8270E by SIM	Pyrene	10.8J	ug/kg	20.4	07/15/24 11:19	
ASTM D2974-87	Percent Moisture	18.1	%	0.10	07/05/24 15:53	
40280627002	P-1 (19)					
EPA 6010D	Cadmium	0.26J	mg/kg	0.62	07/10/24 20:42	
EPA 6010D	Chromium	14.4	mg/kg	1.2	07/10/24 20:42	
EPA 6010D	Lead	270	mg/kg	2.5	07/10/24 20:42	
EPA 8270E by SIM	Acenaphthene	996J	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Anthracene	3910	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Benzo(a)anthracene	3430	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Benzo(a)pyrene	4540	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Benzo(b)fluoranthene	5130	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Benzo(g,h,i)perylene	3960	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Benzo(k)fluoranthene	2250	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Chrysene	4590	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Dibenz(a,h)anthracene	563J	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Fluoranthene	12800	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Fluorene	1700J	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	2730	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	2-Methylnaphthalene	417J	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Naphthalene	1230J	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Phenanthrene	10400	ug/kg	2200	07/15/24 17:28	
EPA 8270E by SIM	Pyrene	10500	ug/kg	2200	07/15/24 17:28	
EPA 8260	Naphthalene	206J	ug/kg	409	07/10/24 18:12	
ASTM D2974-87	Percent Moisture	24.1	%	0.10	07/05/24 15:53	
40280627003	P-2 (3)					
EPA 6010D	Cadmium	0.33J	mg/kg	0.56	07/10/24 20:45	
EPA 6010D	Chromium	17.0	mg/kg	1.1	07/10/24 20:45	
EPA 6010D	Lead	41.9	mg/kg	2.2	07/10/24 20:45	
EPA 8270E by SIM	Acenaphthene	4.7J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Anthracene	15.4J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Benzo(a)anthracene	52.1	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Benzo(a)pyrene	66.1	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Benzo(b)fluoranthene	77.2	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Benzo(g,h,i)perylene	54.1	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Benzo(k)fluoranthene	34.5	ug/kg	18.6	07/11/24 17:33	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40280627003	P-2 (3)					
EPA 8270E by SIM	Chrysene	61.5	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Dibenz(a,h)anthracene	11.4J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Fluoranthene	118	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Fluorene	3.0J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	39.0	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	1-Methylnaphthalene	6.9J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	2-Methylnaphthalene	8.9J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Naphthalene	10.0J	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Phenanthrene	59.4	ug/kg	18.6	07/11/24 17:33	
EPA 8270E by SIM	Pyrene	106	ug/kg	18.6	07/11/24 17:33	
EPA 8260	Trichloroethene	67.2	ug/kg	61.1	07/10/24 07:26	
ASTM D2974-87	Percent Moisture	10.0	%	0.10	07/05/24 15:53	
40280627004	P-2 (18)					
EPA 6010D	Cadmium	0.18J	mg/kg	0.59	07/10/24 20:47	
EPA 6010D	Chromium	22.7	mg/kg	1.2	07/10/24 20:47	
EPA 6010D	Lead	71.7	mg/kg	2.4	07/10/24 20:47	
EPA 8270E by SIM	Acenaphthene	178J	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Anthracene	543	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Benzo(a)anthracene	859	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Benzo(a)pyrene	1060	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Benzo(b)fluoranthene	1150	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Benzo(g,h,i)perylene	784	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Benzo(k)fluoranthene	530	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Chrysene	1030	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Dibenz(a,h)anthracene	125J	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Fluoranthene	2310	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Fluorene	220	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	558	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	1-Methylnaphthalene	36.3J	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	2-Methylnaphthalene	53.3J	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Naphthalene	142J	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Phenanthrene	1740	ug/kg	205	07/11/24 20:38	
EPA 8270E by SIM	Pyrene	2030	ug/kg	205	07/11/24 20:38	
EPA 8260	Naphthalene	133J	ug/kg	365	07/10/24 07:46	
ASTM D2974-87	Percent Moisture	18.7	%	0.10	07/05/24 15:53	
40280627005	P-3 (2)					
EPA 6010D	Cadmium	0.35J	mg/kg	0.56	07/10/24 20:49	
EPA 6010D	Chromium	247	mg/kg	1.1	07/10/24 20:49	
EPA 6010D	Lead	622	mg/kg	2.2	07/10/24 20:49	
EPA 6010D	Chromium	0.25	mg/L	0.010	07/30/24 19:07	
EPA 6010D	Lead	0.027	mg/L	0.020	07/30/24 19:07	
EPA 8270E by SIM	Acenaphthene	312J	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Anthracene	1100	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Benzo(a)anthracene	1260	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Benzo(a)pyrene	1300	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Benzo(b)fluoranthene	1590	ug/kg	782	07/15/24 16:26	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40280627005	P-3 (2)					
EPA 8270E by SIM	Benzo(g,h,i)perylene	1010	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Benzo(k)fluoranthene	919	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Chrysene	1830	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Dibenz(a,h)anthracene	126J	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Fluoranthene	4260	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Fluorene	270J	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	728J	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Naphthalene	145J	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Phenanthrene	3340	ug/kg	782	07/15/24 16:26	
EPA 8270E by SIM	Pyrene	3720	ug/kg	782	07/15/24 16:26	
ASTM D2974-87	Percent Moisture	14.6	%	0.10	07/05/24 15:53	
40280627006	P-3 (16)					
EPA 6010D	Chromium	13.8	mg/kg	1.1	07/10/24 20:51	
EPA 6010D	Lead	22.8	mg/kg	2.1	07/10/24 20:51	
EPA 8270E by SIM	Acenaphthene	3.4J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Anthracene	12.1J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Benzo(a)anthracene	26.8	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Benzo(a)pyrene	38.7	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Benzo(b)fluoranthene	42.5	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Benzo(g,h,i)perylene	30.0	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Benzo(k)fluoranthene	19.5	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Chrysene	33.2	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Dibenz(a,h)anthracene	5.1J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Fluoranthene	61.6	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Fluorene	4.0J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Indeno(1,2,3-cd)pyrene	21.8	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	1-Methylnaphthalene	3.2J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	2-Methylnaphthalene	4.8J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Naphthalene	7.9J	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Phenanthrene	34.7	ug/kg	18.9	07/11/24 17:49	
EPA 8270E by SIM	Pyrene	51.2	ug/kg	18.9	07/11/24 17:49	
EPA 8260	Benzene	54.4	ug/kg	25.3	07/10/24 08:06	
EPA 8260	Toluene	18.6J	ug/kg	63.3	07/10/24 08:06	
ASTM D2974-87	Percent Moisture	11.7	%	0.10	07/05/24 15:53	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

Method: EPA 6010D
Description: 6010D MET ICP
Client: Terracon, Inc. - Milwaukee
Date: August 02, 2024

General Information:

6 samples were analyzed for EPA 6010D by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3050B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

Method: EPA 6010D
Description: 6010D MET ICP, TCLP
Client: Terracon, Inc. - Milwaukee
Date: August 02, 2024

General Information:

2 samples were analyzed for EPA 6010D by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3015A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Method: EPA 8270E by SIM

Description: 8270E MSSV PAH by SIM

Client: Terracon, Inc. - Milwaukee

Date: August 02, 2024

General Information:

6 samples were analyzed for EPA 8270E by SIM by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 479344

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- P-1 (19) (Lab ID: 40280627002)
 - 2-Fluorobiphenyl (S)
 - Terphenyl-d14 (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

Method: EPA 8260
Description: 8260 MSV Med Level Normal List
Client: Terracon, Inc. - Milwaukee
Date: August 02, 2024

General Information:

7 samples were analyzed for EPA 8260 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

QC Batch: 479176

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- BLANK (Lab ID: 2743976)
 - 1,3,5-Trimethylbenzene
- P-1 (19) (Lab ID: 40280627002)
 - 1,3,5-Trimethylbenzene
- P-1 (2) (Lab ID: 40280627001)
 - 1,3,5-Trimethylbenzene

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 479049

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

- P-2 (18) (Lab ID: 40280627004)
 - 1,2-Dichlorobenzene-d4 (S)
 - 4-Bromofluorobenzene (S)

QC Batch: 479176

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

- P-1 (19) (Lab ID: 40280627002)
 - Toluene-d8 (S)

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Method: EPA 8260

Description: 8260 MSV Med Level Normal List

Client: Terracon, Inc. - Milwaukee

Date: August 02, 2024

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 479049

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40280627006

R1: RPD value was outside control limits.

- MSD (Lab ID: 2743489)
 - 1,1-Dichloroethene
 - Carbon tetrachloride
 - Dichlorodifluoromethane
 - Trichlorofluoromethane
 - Vinyl chloride

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-1 (2) Lab ID: 40280627001 Collected: 07/02/24 10:20 Received: 07/03/24 09:45 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
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Cadmium	<0.16	mg/kg	0.59	0.16	1	07/08/24 07:32	07/10/24 20:40	7440-43-9	
Chromium	16.4	mg/kg	1.2	0.33	1	07/08/24 07:32	07/10/24 20:40	7440-47-3	
Lead	11.7	mg/kg	2.4	0.71	1	07/08/24 07:32	07/10/24 20:40	7439-92-1	

8270E MSSV PAH by SIM

Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546

Pace Analytical Services - Green Bay

Acenaphthene	<2.6	ug/kg	20.4	2.6	1	07/12/24 07:40	07/15/24 11:19	83-32-9	
Acenaphthylene	<2.6	ug/kg	20.4	2.6	1	07/12/24 07:40	07/15/24 11:19	208-96-8	
Anthracene	<2.5	ug/kg	20.4	2.5	1	07/12/24 07:40	07/15/24 11:19	120-12-7	
Benzo(a)anthracene	7.1J	ug/kg	20.4	2.6	1	07/12/24 07:40	07/15/24 11:19	56-55-3	
Benzo(a)pyrene	8.1J	ug/kg	20.4	2.3	1	07/12/24 07:40	07/15/24 11:19	50-32-8	
Benzo(b)fluoranthene	13.1J	ug/kg	20.4	2.8	1	07/12/24 07:40	07/15/24 11:19	205-99-2	
Benzo(g,h,i)perylene	10.0J	ug/kg	20.4	3.6	1	07/12/24 07:40	07/15/24 11:19	191-24-2	
Benzo(k)fluoranthene	5.6J	ug/kg	20.4	2.6	1	07/12/24 07:40	07/15/24 11:19	207-08-9	
Chrysene	9.3J	ug/kg	20.4	3.8	1	07/12/24 07:40	07/15/24 11:19	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	20.4	2.8	1	07/12/24 07:40	07/15/24 11:19	53-70-3	
Fluoranthene	13.5J	ug/kg	20.4	2.4	1	07/12/24 07:40	07/15/24 11:19	206-44-0	
Fluorene	<2.4	ug/kg	20.4	2.4	1	07/12/24 07:40	07/15/24 11:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<4.2	ug/kg	20.4	4.2	1	07/12/24 07:40	07/15/24 11:19	193-39-5	
1-Methylnaphthalene	<3.0	ug/kg	20.4	3.0	1	07/12/24 07:40	07/15/24 11:19	90-12-0	
2-Methylnaphthalene	<3.0	ug/kg	20.4	3.0	1	07/12/24 07:40	07/15/24 11:19	91-57-6	
Naphthalene	3.0J	ug/kg	20.4	2.0	1	07/12/24 07:40	07/15/24 11:19	91-20-3	
Phenanthrene	6.6J	ug/kg	20.4	2.3	1	07/12/24 07:40	07/15/24 11:19	85-01-8	
Pyrene	10.8J	ug/kg	20.4	3.0	1	07/12/24 07:40	07/15/24 11:19	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	68	%	39-120		1	07/12/24 07:40	07/15/24 11:19	321-60-8	
Terphenyl-d14 (S)	62	%	36-120		1	07/12/24 07:40	07/15/24 11:19	1718-51-0	

8260 MSV Med Level Normal List

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Pace Analytical Services - Green Bay

Benzene	<17.2	ug/kg	28.8	17.2	1	07/10/24 09:06	07/10/24 17:52	71-43-2	
Bromobenzene	<28.1	ug/kg	72.1	28.1	1	07/10/24 09:06	07/10/24 17:52	108-86-1	
Bromochloromethane	<19.8	ug/kg	72.1	19.8	1	07/10/24 09:06	07/10/24 17:52	74-97-5	
Bromodichloromethane	<17.2	ug/kg	72.1	17.2	1	07/10/24 09:06	07/10/24 17:52	75-27-4	
Bromoform	<317	ug/kg	360	317	1	07/10/24 09:06	07/10/24 17:52	75-25-2	
Bromomethane	<101	ug/kg	360	101	1	07/10/24 09:06	07/10/24 17:52	74-83-9	
n-Butylbenzene	<33.0	ug/kg	72.1	33.0	1	07/10/24 09:06	07/10/24 17:52	104-51-8	
sec-Butylbenzene	<24.7	ug/kg	72.1	24.7	1	07/10/24 09:06	07/10/24 17:52	135-98-8	
tert-Butylbenzene	<22.6	ug/kg	72.1	22.6	1	07/10/24 09:06	07/10/24 17:52	98-06-6	
Carbon tetrachloride	<15.9	ug/kg	72.1	15.9	1	07/10/24 09:06	07/10/24 17:52	56-23-5	
Chlorobenzene	<8.6	ug/kg	72.1	8.6	1	07/10/24 09:06	07/10/24 17:52	108-90-7	
Chloroethane	<30.4	ug/kg	360	30.4	1	07/10/24 09:06	07/10/24 17:52	75-00-3	
Chloroform	<51.6	ug/kg	360	51.6	1	07/10/24 09:06	07/10/24 17:52	67-66-3	
Chloromethane	<27.4	ug/kg	72.1	27.4	1	07/10/24 09:06	07/10/24 17:52	74-87-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-1 (2) Lab ID: 40280627001 Collected: 07/02/24 10:20 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
2-Chlorotoluene	<23.4	ug/kg	72.1	23.4	1	07/10/24 09:06	07/10/24 17:52	95-49-8	
4-Chlorotoluene	<27.4	ug/kg	72.1	27.4	1	07/10/24 09:06	07/10/24 17:52	106-43-4	
1,2-Dibromo-3-chloropropane	<55.9	ug/kg	360	55.9	1	07/10/24 09:06	07/10/24 17:52	96-12-8	
Dibromochloromethane	<246	ug/kg	360	246	1	07/10/24 09:06	07/10/24 17:52	124-48-1	
1,2-Dibromoethane (EDB)	<19.8	ug/kg	72.1	19.8	1	07/10/24 09:06	07/10/24 17:52	106-93-4	
Dibromomethane	<21.3	ug/kg	72.1	21.3	1	07/10/24 09:06	07/10/24 17:52	74-95-3	
1,2-Dichlorobenzene	<22.3	ug/kg	72.1	22.3	1	07/10/24 09:06	07/10/24 17:52	95-50-1	
1,3-Dichlorobenzene	<19.8	ug/kg	72.1	19.8	1	07/10/24 09:06	07/10/24 17:52	541-73-1	
1,4-Dichlorobenzene	<19.8	ug/kg	72.1	19.8	1	07/10/24 09:06	07/10/24 17:52	106-46-7	
Dichlorodifluoromethane	<31.0	ug/kg	72.1	31.0	1	07/10/24 09:06	07/10/24 17:52	75-71-8	
1,1-Dichloroethane	<18.5	ug/kg	72.1	18.5	1	07/10/24 09:06	07/10/24 17:52	75-34-3	
1,2-Dichloroethane	<16.6	ug/kg	72.1	16.6	1	07/10/24 09:06	07/10/24 17:52	107-06-2	
1,1-Dichloroethene	<23.9	ug/kg	72.1	23.9	1	07/10/24 09:06	07/10/24 17:52	75-35-4	
cis-1,2-Dichloroethene	<15.4	ug/kg	72.1	15.4	1	07/10/24 09:06	07/10/24 17:52	156-59-2	
trans-1,2-Dichloroethene	<15.8	ug/kg	72.1	15.8	1	07/10/24 09:06	07/10/24 17:52	156-60-5	
1,2-Dichloropropane	<17.2	ug/kg	72.1	17.2	1	07/10/24 09:06	07/10/24 17:52	78-87-5	
1,3-Dichloropropane	<15.7	ug/kg	72.1	15.7	1	07/10/24 09:06	07/10/24 17:52	142-28-9	
2,2-Dichloropropane	<19.5	ug/kg	72.1	19.5	1	07/10/24 09:06	07/10/24 17:52	594-20-7	
1,1-Dichloropropene	<23.4	ug/kg	72.1	23.4	1	07/10/24 09:06	07/10/24 17:52	563-58-6	
cis-1,3-Dichloropropene	<47.6	ug/kg	360	47.6	1	07/10/24 09:06	07/10/24 17:52	10061-01-5	
trans-1,3-Dichloropropene	<206	ug/kg	360	206	1	07/10/24 09:06	07/10/24 17:52	10061-02-6	
Diisopropyl ether	<17.9	ug/kg	72.1	17.9	1	07/10/24 09:06	07/10/24 17:52	108-20-3	
Ethylbenzene	<17.2	ug/kg	72.1	17.2	1	07/10/24 09:06	07/10/24 17:52	100-41-4	
Hexachloro-1,3-butadiene	<143	ug/kg	360	143	1	07/10/24 09:06	07/10/24 17:52	87-68-3	
Isopropylbenzene (Cumene)	<19.5	ug/kg	72.1	19.5	1	07/10/24 09:06	07/10/24 17:52	98-82-8	
p-Isopropyltoluene	<24.5	ug/kg	72.1	24.5	1	07/10/24 09:06	07/10/24 17:52	99-87-6	
Methylene Chloride	<20.0	ug/kg	72.1	20.0	1	07/10/24 09:06	07/10/24 17:52	75-09-2	
Methyl-tert-butyl ether	<21.2	ug/kg	72.1	21.2	1	07/10/24 09:06	07/10/24 17:52	1634-04-4	
Naphthalene	<30.3	ug/kg	360	30.3	1	07/10/24 09:06	07/10/24 17:52	91-20-3	
n-Propylbenzene	<17.3	ug/kg	72.1	17.3	1	07/10/24 09:06	07/10/24 17:52	103-65-1	
Styrene	<18.5	ug/kg	72.1	18.5	1	07/10/24 09:06	07/10/24 17:52	100-42-5	
1,1,1,2-Tetrachloroethane	<17.3	ug/kg	72.1	17.3	1	07/10/24 09:06	07/10/24 17:52	630-20-6	
1,1,2,2-Tetrachloroethane	<26.1	ug/kg	72.1	26.1	1	07/10/24 09:06	07/10/24 17:52	79-34-5	
Tetrachloroethene	<28.0	ug/kg	72.1	28.0	1	07/10/24 09:06	07/10/24 17:52	127-18-4	
Toluene	<18.2	ug/kg	72.1	18.2	1	07/10/24 09:06	07/10/24 17:52	108-88-3	
1,2,3-Trichlorobenzene	<80.3	ug/kg	360	80.3	1	07/10/24 09:06	07/10/24 17:52	87-61-6	
1,2,4-Trichlorobenzene	<59.4	ug/kg	360	59.4	1	07/10/24 09:06	07/10/24 17:52	120-82-1	
1,1,1-Trichloroethane	<18.5	ug/kg	72.1	18.5	1	07/10/24 09:06	07/10/24 17:52	71-55-6	
1,1,2-Trichloroethane	<26.2	ug/kg	72.1	26.2	1	07/10/24 09:06	07/10/24 17:52	79-00-5	
Trichloroethene	<27.0	ug/kg	72.1	27.0	1	07/10/24 09:06	07/10/24 17:52	79-01-6	
Trichlorofluoromethane	<20.9	ug/kg	72.1	20.9	1	07/10/24 09:06	07/10/24 17:52	75-69-4	
1,2,3-Trichloropropane	<35.0	ug/kg	72.1	35.0	1	07/10/24 09:06	07/10/24 17:52	96-18-4	
1,2,4-Trimethylbenzene	<21.5	ug/kg	72.1	21.5	1	07/10/24 09:06	07/10/24 17:52	95-63-6	
1,3,5-Trimethylbenzene	<23.2	ug/kg	72.1	23.2	1	07/10/24 09:06	07/10/24 17:52	108-67-8	v1

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-1 (2) Lab ID: 40280627001 Collected: 07/02/24 10:20 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Vinyl chloride	<14.6	ug/kg	72.1	14.6	1	07/10/24 09:06	07/10/24 17:52	75-01-4	
m&p-Xylene	<30.4	ug/kg	144	30.4	1	07/10/24 09:06	07/10/24 17:52	179601-23-1	
o-Xylene	<21.6	ug/kg	72.1	21.6	1	07/10/24 09:06	07/10/24 17:52	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	133	%	67-144		1	07/10/24 09:06	07/10/24 17:52	2199-69-1	
4-Bromofluorobenzene (S)	130	%	72-142		1	07/10/24 09:06	07/10/24 17:52	460-00-4	
Toluene-d8 (S)	134	%	70-139		1	07/10/24 09:06	07/10/24 17:52	2037-26-5	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	18.1	%	0.10	0.10	1		07/05/24 15:53		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-1 (19) Lab ID: 40280627002 Collected: 07/02/24 11:20 Received: 07/03/24 09:45 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
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Cadmium	0.26J	mg/kg	0.62	0.16	1	07/08/24 07:32	07/10/24 20:42	7440-43-9	
Chromium	14.4	mg/kg	1.2	0.34	1	07/08/24 07:32	07/10/24 20:42	7440-47-3	
Lead	270	mg/kg	2.5	0.74	1	07/08/24 07:32	07/10/24 20:42	7439-92-1	

6010D MET ICP, TCLP									
Analytical Method: EPA 6010D Preparation Method: EPA 3015A									
Leachate Method/Date: EPA 1311; 07/29/24 15:07									
Pace Analytical Services - Green Bay									
Lead	<0.0059	mg/L	0.020	0.0059	1	07/30/24 15:20	07/30/24 19:05	7439-92-1	

8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	996J	ug/kg	2200	285	100	07/12/24 07:40	07/15/24 17:28	83-32-9	
Acenaphthylene	<277	ug/kg	2200	277	100	07/12/24 07:40	07/15/24 17:28	208-96-8	
Anthracene	3910	ug/kg	2200	273	100	07/12/24 07:40	07/15/24 17:28	120-12-7	
Benzo(a)anthracene	3430	ug/kg	2200	284	100	07/12/24 07:40	07/15/24 17:28	56-55-3	
Benzo(a)pyrene	4540	ug/kg	2200	250	100	07/12/24 07:40	07/15/24 17:28	50-32-8	
Benzo(b)fluoranthene	5130	ug/kg	2200	305	100	07/12/24 07:40	07/15/24 17:28	205-99-2	
Benzo(g,h,i)perylene	3960	ug/kg	2200	386	100	07/12/24 07:40	07/15/24 17:28	191-24-2	
Benzo(k)fluoranthene	2250	ug/kg	2200	281	100	07/12/24 07:40	07/15/24 17:28	207-08-9	
Chrysene	4590	ug/kg	2200	415	100	07/12/24 07:40	07/15/24 17:28	218-01-9	
Dibenz(a,h)anthracene	563J	ug/kg	2200	304	100	07/12/24 07:40	07/15/24 17:28	53-70-3	
Fluoranthene	12800	ug/kg	2200	260	100	07/12/24 07:40	07/15/24 17:28	206-44-0	
Fluorene	1700J	ug/kg	2200	264	100	07/12/24 07:40	07/15/24 17:28	86-73-7	
Indeno(1,2,3-cd)pyrene	2730	ug/kg	2200	458	100	07/12/24 07:40	07/15/24 17:28	193-39-5	
1-Methylnaphthalene	<321	ug/kg	2200	321	100	07/12/24 07:40	07/15/24 17:28	90-12-0	
2-Methylnaphthalene	417J	ug/kg	2200	321	100	07/12/24 07:40	07/15/24 17:28	91-57-6	
Naphthalene	1230J	ug/kg	2200	214	100	07/12/24 07:40	07/15/24 17:28	91-20-3	
Phenanthrene	10400	ug/kg	2200	252	100	07/12/24 07:40	07/15/24 17:28	85-01-8	
Pyrene	10500	ug/kg	2200	323	100	07/12/24 07:40	07/15/24 17:28	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	0	%	39-120		100	07/12/24 07:40	07/15/24 17:28	321-60-8	S4
Terphenyl-d14 (S)	0	%	36-120		100	07/12/24 07:40	07/15/24 17:28	1718-51-0	S4

8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<19.5	ug/kg	32.7	19.5	1	07/10/24 09:06	07/10/24 18:12	71-43-2	
Bromobenzene	<31.9	ug/kg	81.8	31.9	1	07/10/24 09:06	07/10/24 18:12	108-86-1	
Bromochloromethane	<22.4	ug/kg	81.8	22.4	1	07/10/24 09:06	07/10/24 18:12	74-97-5	
Bromodichloromethane	<19.5	ug/kg	81.8	19.5	1	07/10/24 09:06	07/10/24 18:12	75-27-4	
Bromoform	<360	ug/kg	409	360	1	07/10/24 09:06	07/10/24 18:12	75-25-2	
Bromomethane	<115	ug/kg	409	115	1	07/10/24 09:06	07/10/24 18:12	74-83-9	
n-Butylbenzene	<37.4	ug/kg	81.8	37.4	1	07/10/24 09:06	07/10/24 18:12	104-51-8	
sec-Butylbenzene	<28.1	ug/kg	81.8	28.1	1	07/10/24 09:06	07/10/24 18:12	135-98-8	
tert-Butylbenzene	<25.7	ug/kg	81.8	25.7	1	07/10/24 09:06	07/10/24 18:12	98-06-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-1 (19) Lab ID: 40280627002 Collected: 07/02/24 11:20 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Carbon tetrachloride	<18.0	ug/kg	81.8	18.0	1	07/10/24 09:06	07/10/24 18:12	56-23-5	
Chlorobenzene	<9.8	ug/kg	81.8	9.8	1	07/10/24 09:06	07/10/24 18:12	108-90-7	
Chloroethane	<34.5	ug/kg	409	34.5	1	07/10/24 09:06	07/10/24 18:12	75-00-3	
Chloroform	<58.5	ug/kg	409	58.5	1	07/10/24 09:06	07/10/24 18:12	67-66-3	
Chloromethane	<31.1	ug/kg	81.8	31.1	1	07/10/24 09:06	07/10/24 18:12	74-87-3	
2-Chlorotoluene	<26.5	ug/kg	81.8	26.5	1	07/10/24 09:06	07/10/24 18:12	95-49-8	
4-Chlorotoluene	<31.1	ug/kg	81.8	31.1	1	07/10/24 09:06	07/10/24 18:12	106-43-4	
1,2-Dibromo-3-chloropropane	<63.5	ug/kg	409	63.5	1	07/10/24 09:06	07/10/24 18:12	96-12-8	
Dibromochloromethane	<279	ug/kg	409	279	1	07/10/24 09:06	07/10/24 18:12	124-48-1	
1,2-Dibromoethane (EDB)	<22.4	ug/kg	81.8	22.4	1	07/10/24 09:06	07/10/24 18:12	106-93-4	
Dibromomethane	<24.2	ug/kg	81.8	24.2	1	07/10/24 09:06	07/10/24 18:12	74-95-3	
1,2-Dichlorobenzene	<25.3	ug/kg	81.8	25.3	1	07/10/24 09:06	07/10/24 18:12	95-50-1	
1,3-Dichlorobenzene	<22.4	ug/kg	81.8	22.4	1	07/10/24 09:06	07/10/24 18:12	541-73-1	
1,4-Dichlorobenzene	<22.4	ug/kg	81.8	22.4	1	07/10/24 09:06	07/10/24 18:12	106-46-7	
Dichlorodifluoromethane	<35.2	ug/kg	81.8	35.2	1	07/10/24 09:06	07/10/24 18:12	75-71-8	
1,1-Dichloroethane	<20.9	ug/kg	81.8	20.9	1	07/10/24 09:06	07/10/24 18:12	75-34-3	
1,2-Dichloroethane	<18.8	ug/kg	81.8	18.8	1	07/10/24 09:06	07/10/24 18:12	107-06-2	
1,1-Dichloroethene	<27.1	ug/kg	81.8	27.1	1	07/10/24 09:06	07/10/24 18:12	75-35-4	
cis-1,2-Dichloroethene	<17.5	ug/kg	81.8	17.5	1	07/10/24 09:06	07/10/24 18:12	156-59-2	
trans-1,2-Dichloroethene	<17.9	ug/kg	81.8	17.9	1	07/10/24 09:06	07/10/24 18:12	156-60-5	
1,2-Dichloropropane	<19.5	ug/kg	81.8	19.5	1	07/10/24 09:06	07/10/24 18:12	78-87-5	
1,3-Dichloropropane	<17.8	ug/kg	81.8	17.8	1	07/10/24 09:06	07/10/24 18:12	142-28-9	
2,2-Dichloropropane	<22.1	ug/kg	81.8	22.1	1	07/10/24 09:06	07/10/24 18:12	594-20-7	
1,1-Dichloropropene	<26.5	ug/kg	81.8	26.5	1	07/10/24 09:06	07/10/24 18:12	563-58-6	
cis-1,3-Dichloropropene	<54.0	ug/kg	409	54.0	1	07/10/24 09:06	07/10/24 18:12	10061-01-5	
trans-1,3-Dichloropropene	<234	ug/kg	409	234	1	07/10/24 09:06	07/10/24 18:12	10061-02-6	
Diisopropyl ether	<20.3	ug/kg	81.8	20.3	1	07/10/24 09:06	07/10/24 18:12	108-20-3	
Ethylbenzene	<19.5	ug/kg	81.8	19.5	1	07/10/24 09:06	07/10/24 18:12	100-41-4	
Hexachloro-1,3-butadiene	<163	ug/kg	409	163	1	07/10/24 09:06	07/10/24 18:12	87-68-3	
Isopropylbenzene (Cumene)	<22.1	ug/kg	81.8	22.1	1	07/10/24 09:06	07/10/24 18:12	98-82-8	
p-Isopropyltoluene	<27.8	ug/kg	81.8	27.8	1	07/10/24 09:06	07/10/24 18:12	99-87-6	
Methylene Chloride	<22.7	ug/kg	81.8	22.7	1	07/10/24 09:06	07/10/24 18:12	75-09-2	
Methyl-tert-butyl ether	<24.0	ug/kg	81.8	24.0	1	07/10/24 09:06	07/10/24 18:12	1634-04-4	
Naphthalene	206J	ug/kg	409	34.4	1	07/10/24 09:06	07/10/24 18:12	91-20-3	
n-Propylbenzene	<19.6	ug/kg	81.8	19.6	1	07/10/24 09:06	07/10/24 18:12	103-65-1	
Styrene	<20.9	ug/kg	81.8	20.9	1	07/10/24 09:06	07/10/24 18:12	100-42-5	
1,1,1,2-Tetrachloroethane	<19.6	ug/kg	81.8	19.6	1	07/10/24 09:06	07/10/24 18:12	630-20-6	
1,1,2,2-Tetrachloroethane	<29.6	ug/kg	81.8	29.6	1	07/10/24 09:06	07/10/24 18:12	79-34-5	
Tetrachloroethene	<31.7	ug/kg	81.8	31.7	1	07/10/24 09:06	07/10/24 18:12	127-18-4	
Toluene	<20.6	ug/kg	81.8	20.6	1	07/10/24 09:06	07/10/24 18:12	108-88-3	
1,2,3-Trichlorobenzene	<91.1	ug/kg	409	91.1	1	07/10/24 09:06	07/10/24 18:12	87-61-6	
1,2,4-Trichlorobenzene	<67.4	ug/kg	409	67.4	1	07/10/24 09:06	07/10/24 18:12	120-82-1	
1,1,1-Trichloroethane	<20.9	ug/kg	81.8	20.9	1	07/10/24 09:06	07/10/24 18:12	71-55-6	
1,1,2-Trichloroethane	<29.8	ug/kg	81.8	29.8	1	07/10/24 09:06	07/10/24 18:12	79-00-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-1 (19) Lab ID: 40280627002 Collected: 07/02/24 11:20 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Trichloroethene	<30.6	ug/kg	81.8	30.6	1	07/10/24 09:06	07/10/24 18:12	79-01-6	
Trichlorofluoromethane	<23.7	ug/kg	81.8	23.7	1	07/10/24 09:06	07/10/24 18:12	75-69-4	
1,2,3-Trichloropropane	<39.7	ug/kg	81.8	39.7	1	07/10/24 09:06	07/10/24 18:12	96-18-4	
1,2,4-Trimethylbenzene	<24.4	ug/kg	81.8	24.4	1	07/10/24 09:06	07/10/24 18:12	95-63-6	
1,3,5-Trimethylbenzene	<26.3	ug/kg	81.8	26.3	1	07/10/24 09:06	07/10/24 18:12	108-67-8	v1
Vinyl chloride	<16.5	ug/kg	81.8	16.5	1	07/10/24 09:06	07/10/24 18:12	75-01-4	
m&p-Xylene	<34.5	ug/kg	164	34.5	1	07/10/24 09:06	07/10/24 18:12	179601-23-1	
o-Xylene	<24.5	ug/kg	81.8	24.5	1	07/10/24 09:06	07/10/24 18:12	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	137	%	67-144		1	07/10/24 09:06	07/10/24 18:12	2199-69-1	
4-Bromofluorobenzene (S)	134	%	72-142		1	07/10/24 09:06	07/10/24 18:12	460-00-4	
Toluene-d8 (S)	144	%	70-139		1	07/10/24 09:06	07/10/24 18:12	2037-26-5	S3
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	24.1	%	0.10	0.10	1		07/05/24 15:53		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-2 (3) Lab ID: 40280627003 Collected: 07/01/24 13:25 Received: 07/03/24 09:45 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
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Cadmium	0.33J	mg/kg	0.56	0.15	1	07/08/24 07:32	07/10/24 20:45	7440-43-9	
Chromium	17.0	mg/kg	1.1	0.31	1	07/08/24 07:32	07/10/24 20:45	7440-47-3	
Lead	41.9	mg/kg	2.2	0.67	1	07/08/24 07:32	07/10/24 20:45	7439-92-1	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	4.7J	ug/kg	18.6	2.4	1	07/11/24 08:12	07/11/24 17:33	83-32-9	
Acenaphthylene	<2.3	ug/kg	18.6	2.3	1	07/11/24 08:12	07/11/24 17:33	208-96-8	
Anthracene	15.4J	ug/kg	18.6	2.3	1	07/11/24 08:12	07/11/24 17:33	120-12-7	
Benzo(a)anthracene	52.1	ug/kg	18.6	2.4	1	07/11/24 08:12	07/11/24 17:33	56-55-3	
Benzo(a)pyrene	66.1	ug/kg	18.6	2.1	1	07/11/24 08:12	07/11/24 17:33	50-32-8	
Benzo(b)fluoranthene	77.2	ug/kg	18.6	2.6	1	07/11/24 08:12	07/11/24 17:33	205-99-2	
Benzo(g,h,i)perylene	54.1	ug/kg	18.6	3.3	1	07/11/24 08:12	07/11/24 17:33	191-24-2	
Benzo(k)fluoranthene	34.5	ug/kg	18.6	2.4	1	07/11/24 08:12	07/11/24 17:33	207-08-9	
Chrysene	61.5	ug/kg	18.6	3.5	1	07/11/24 08:12	07/11/24 17:33	218-01-9	
Dibenz(a,h)anthracene	11.4J	ug/kg	18.6	2.6	1	07/11/24 08:12	07/11/24 17:33	53-70-3	
Fluoranthene	118	ug/kg	18.6	2.2	1	07/11/24 08:12	07/11/24 17:33	206-44-0	
Fluorene	3.0J	ug/kg	18.6	2.2	1	07/11/24 08:12	07/11/24 17:33	86-73-7	
Indeno(1,2,3-cd)pyrene	39.0	ug/kg	18.6	3.9	1	07/11/24 08:12	07/11/24 17:33	193-39-5	
1-Methylnaphthalene	6.9J	ug/kg	18.6	2.7	1	07/11/24 08:12	07/11/24 17:33	90-12-0	
2-Methylnaphthalene	8.9J	ug/kg	18.6	2.7	1	07/11/24 08:12	07/11/24 17:33	91-57-6	
Naphthalene	10.0J	ug/kg	18.6	1.8	1	07/11/24 08:12	07/11/24 17:33	91-20-3	
Phenanthrene	59.4	ug/kg	18.6	2.1	1	07/11/24 08:12	07/11/24 17:33	85-01-8	
Pyrene	106	ug/kg	18.6	2.7	1	07/11/24 08:12	07/11/24 17:33	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	73	%	39-120		1	07/11/24 08:12	07/11/24 17:33	321-60-8	
Terphenyl-d14 (S)	71	%	36-120		1	07/11/24 08:12	07/11/24 17:33	1718-51-0	
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<14.5	ug/kg	24.4	14.5	1	07/09/24 07:30	07/10/24 07:26	71-43-2	
Bromobenzene	<23.8	ug/kg	61.1	23.8	1	07/09/24 07:30	07/10/24 07:26	108-86-1	
Bromochloromethane	<16.7	ug/kg	61.1	16.7	1	07/09/24 07:30	07/10/24 07:26	74-97-5	
Bromodichloromethane	<14.5	ug/kg	61.1	14.5	1	07/09/24 07:30	07/10/24 07:26	75-27-4	
Bromoform	<269	ug/kg	306	269	1	07/09/24 07:30	07/10/24 07:26	75-25-2	
Bromomethane	<85.7	ug/kg	306	85.7	1	07/09/24 07:30	07/10/24 07:26	74-83-9	
n-Butylbenzene	<28.0	ug/kg	61.1	28.0	1	07/09/24 07:30	07/10/24 07:26	104-51-8	
sec-Butylbenzene	<21.0	ug/kg	61.1	21.0	1	07/09/24 07:30	07/10/24 07:26	135-98-8	
tert-Butylbenzene	<19.2	ug/kg	61.1	19.2	1	07/09/24 07:30	07/10/24 07:26	98-06-6	
Carbon tetrachloride	<13.4	ug/kg	61.1	13.4	1	07/09/24 07:30	07/10/24 07:26	56-23-5	
Chlorobenzene	<7.3	ug/kg	61.1	7.3	1	07/09/24 07:30	07/10/24 07:26	108-90-7	
Chloroethane	<25.8	ug/kg	306	25.8	1	07/09/24 07:30	07/10/24 07:26	75-00-3	
Chloroform	<43.8	ug/kg	306	43.8	1	07/09/24 07:30	07/10/24 07:26	67-66-3	
Chloromethane	<23.2	ug/kg	61.1	23.2	1	07/09/24 07:30	07/10/24 07:26	74-87-3	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-2 (3) Lab ID: 40280627003 Collected: 07/01/24 13:25 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
2-Chlorotoluene	<19.8	ug/kg	61.1	19.8	1	07/09/24 07:30	07/10/24 07:26	95-49-8	
4-Chlorotoluene	<23.2	ug/kg	61.1	23.2	1	07/09/24 07:30	07/10/24 07:26	106-43-4	
1,2-Dibromo-3-chloropropane	<47.4	ug/kg	306	47.4	1	07/09/24 07:30	07/10/24 07:26	96-12-8	
Dibromochloromethane	<209	ug/kg	306	209	1	07/09/24 07:30	07/10/24 07:26	124-48-1	
1,2-Dibromoethane (EDB)	<16.7	ug/kg	61.1	16.7	1	07/09/24 07:30	07/10/24 07:26	106-93-4	
Dibromomethane	<18.1	ug/kg	61.1	18.1	1	07/09/24 07:30	07/10/24 07:26	74-95-3	
1,2-Dichlorobenzene	<18.9	ug/kg	61.1	18.9	1	07/09/24 07:30	07/10/24 07:26	95-50-1	
1,3-Dichlorobenzene	<16.7	ug/kg	61.1	16.7	1	07/09/24 07:30	07/10/24 07:26	541-73-1	
1,4-Dichlorobenzene	<16.7	ug/kg	61.1	16.7	1	07/09/24 07:30	07/10/24 07:26	106-46-7	
Dichlorodifluoromethane	<26.3	ug/kg	61.1	26.3	1	07/09/24 07:30	07/10/24 07:26	75-71-8	
1,1-Dichloroethane	<15.6	ug/kg	61.1	15.6	1	07/09/24 07:30	07/10/24 07:26	75-34-3	
1,2-Dichloroethane	<14.1	ug/kg	61.1	14.1	1	07/09/24 07:30	07/10/24 07:26	107-06-2	
1,1-Dichloroethene	<20.3	ug/kg	61.1	20.3	1	07/09/24 07:30	07/10/24 07:26	75-35-4	
cis-1,2-Dichloroethene	<13.1	ug/kg	61.1	13.1	1	07/09/24 07:30	07/10/24 07:26	156-59-2	
trans-1,2-Dichloroethene	<13.4	ug/kg	61.1	13.4	1	07/09/24 07:30	07/10/24 07:26	156-60-5	
1,2-Dichloropropane	<14.5	ug/kg	61.1	14.5	1	07/09/24 07:30	07/10/24 07:26	78-87-5	
1,3-Dichloropropane	<13.3	ug/kg	61.1	13.3	1	07/09/24 07:30	07/10/24 07:26	142-28-9	
2,2-Dichloropropane	<16.5	ug/kg	61.1	16.5	1	07/09/24 07:30	07/10/24 07:26	594-20-7	
1,1-Dichloropropene	<19.8	ug/kg	61.1	19.8	1	07/09/24 07:30	07/10/24 07:26	563-58-6	
cis-1,3-Dichloropropene	<40.3	ug/kg	306	40.3	1	07/09/24 07:30	07/10/24 07:26	10061-01-5	
trans-1,3-Dichloropropene	<175	ug/kg	306	175	1	07/09/24 07:30	07/10/24 07:26	10061-02-6	
Diisopropyl ether	<15.2	ug/kg	61.1	15.2	1	07/09/24 07:30	07/10/24 07:26	108-20-3	
Ethylbenzene	<14.5	ug/kg	61.1	14.5	1	07/09/24 07:30	07/10/24 07:26	100-41-4	
Hexachloro-1,3-butadiene	<121	ug/kg	306	121	1	07/09/24 07:30	07/10/24 07:26	87-68-3	
Isopropylbenzene (Cumene)	<16.5	ug/kg	61.1	16.5	1	07/09/24 07:30	07/10/24 07:26	98-82-8	
p-Isopropyltoluene	<20.8	ug/kg	61.1	20.8	1	07/09/24 07:30	07/10/24 07:26	99-87-6	
Methylene Chloride	<17.0	ug/kg	61.1	17.0	1	07/09/24 07:30	07/10/24 07:26	75-09-2	
Methyl-tert-butyl ether	<18.0	ug/kg	61.1	18.0	1	07/09/24 07:30	07/10/24 07:26	1634-04-4	
Naphthalene	<25.7	ug/kg	306	25.7	1	07/09/24 07:30	07/10/24 07:26	91-20-3	
n-Propylbenzene	<14.7	ug/kg	61.1	14.7	1	07/09/24 07:30	07/10/24 07:26	103-65-1	
Styrene	<15.6	ug/kg	61.1	15.6	1	07/09/24 07:30	07/10/24 07:26	100-42-5	
1,1,1,2-Tetrachloroethane	<14.7	ug/kg	61.1	14.7	1	07/09/24 07:30	07/10/24 07:26	630-20-6	
1,1,2,2-Tetrachloroethane	<22.1	ug/kg	61.1	22.1	1	07/09/24 07:30	07/10/24 07:26	79-34-5	
Tetrachloroethene	<23.7	ug/kg	61.1	23.7	1	07/09/24 07:30	07/10/24 07:26	127-18-4	
Toluene	<15.4	ug/kg	61.1	15.4	1	07/09/24 07:30	07/10/24 07:26	108-88-3	
1,2,3-Trichlorobenzene	<68.1	ug/kg	306	68.1	1	07/09/24 07:30	07/10/24 07:26	87-61-6	
1,2,4-Trichlorobenzene	<50.4	ug/kg	306	50.4	1	07/09/24 07:30	07/10/24 07:26	120-82-1	
1,1,1-Trichloroethane	<15.6	ug/kg	61.1	15.6	1	07/09/24 07:30	07/10/24 07:26	71-55-6	
1,1,2-Trichloroethane	<22.2	ug/kg	61.1	22.2	1	07/09/24 07:30	07/10/24 07:26	79-00-5	
Trichloroethene	67.2	ug/kg	61.1	22.9	1	07/09/24 07:30	07/10/24 07:26	79-01-6	
Trichlorofluoromethane	<17.7	ug/kg	61.1	17.7	1	07/09/24 07:30	07/10/24 07:26	75-69-4	
1,2,3-Trichloropropane	<29.7	ug/kg	61.1	29.7	1	07/09/24 07:30	07/10/24 07:26	96-18-4	
1,2,4-Trimethylbenzene	<18.2	ug/kg	61.1	18.2	1	07/09/24 07:30	07/10/24 07:26	95-63-6	
1,3,5-Trimethylbenzene	<19.7	ug/kg	61.1	19.7	1	07/09/24 07:30	07/10/24 07:26	108-67-8	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-2 (3) Lab ID: 40280627003 Collected: 07/01/24 13:25 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Vinyl chloride	<12.3	ug/kg	61.1	12.3	1	07/09/24 07:30	07/10/24 07:26	75-01-4	
m&p-Xylene	<25.8	ug/kg	122	25.8	1	07/09/24 07:30	07/10/24 07:26	179601-23-1	
o-Xylene	<18.3	ug/kg	61.1	18.3	1	07/09/24 07:30	07/10/24 07:26	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	131	%	67-144		1	07/09/24 07:30	07/10/24 07:26	2199-69-1	
4-Bromofluorobenzene (S)	133	%	72-142		1	07/09/24 07:30	07/10/24 07:26	460-00-4	
Toluene-d8 (S)	128	%	70-139		1	07/09/24 07:30	07/10/24 07:26	2037-26-5	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	10.0	%	0.10	0.10	1		07/05/24 15:53		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-2 (18) Lab ID: 40280627004 Collected: 07/01/24 14:25 Received: 07/03/24 09:45 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
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Cadmium	0.18J	mg/kg	0.59	0.16	1	07/08/24 07:32	07/10/24 20:47	7440-43-9	
Chromium	22.7	mg/kg	1.2	0.33	1	07/08/24 07:32	07/10/24 20:47	7440-47-3	
Lead	71.7	mg/kg	2.4	0.71	1	07/08/24 07:32	07/10/24 20:47	7439-92-1	

8270E MSSV PAH by SIM

Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546

Pace Analytical Services - Green Bay

Acenaphthene	178J	ug/kg	205	26.6	10	07/11/24 08:12	07/11/24 20:38	83-32-9	
Acenaphthylene	<25.9	ug/kg	205	25.9	10	07/11/24 08:12	07/11/24 20:38	208-96-8	
Anthracene	543	ug/kg	205	25.5	10	07/11/24 08:12	07/11/24 20:38	120-12-7	
Benzo(a)anthracene	859	ug/kg	205	26.5	10	07/11/24 08:12	07/11/24 20:38	56-55-3	
Benzo(a)pyrene	1060	ug/kg	205	23.3	10	07/11/24 08:12	07/11/24 20:38	50-32-8	
Benzo(b)fluoranthene	1150	ug/kg	205	28.5	10	07/11/24 08:12	07/11/24 20:38	205-99-2	
Benzo(g,h,i)perylene	784	ug/kg	205	36.0	10	07/11/24 08:12	07/11/24 20:38	191-24-2	
Benzo(k)fluoranthene	530	ug/kg	205	26.2	10	07/11/24 08:12	07/11/24 20:38	207-08-9	
Chrysene	1030	ug/kg	205	38.7	10	07/11/24 08:12	07/11/24 20:38	218-01-9	
Dibenz(a,h)anthracene	125J	ug/kg	205	28.4	10	07/11/24 08:12	07/11/24 20:38	53-70-3	
Fluoranthene	2310	ug/kg	205	24.3	10	07/11/24 08:12	07/11/24 20:38	206-44-0	
Fluorene	220	ug/kg	205	24.6	10	07/11/24 08:12	07/11/24 20:38	86-73-7	
Indeno(1,2,3-cd)pyrene	558	ug/kg	205	42.8	10	07/11/24 08:12	07/11/24 20:38	193-39-5	
1-Methylnaphthalene	36.3J	ug/kg	205	30.0	10	07/11/24 08:12	07/11/24 20:38	90-12-0	
2-Methylnaphthalene	53.3J	ug/kg	205	30.0	10	07/11/24 08:12	07/11/24 20:38	91-57-6	
Naphthalene	142J	ug/kg	205	20.0	10	07/11/24 08:12	07/11/24 20:38	91-20-3	
Phenanthrene	1740	ug/kg	205	23.5	10	07/11/24 08:12	07/11/24 20:38	85-01-8	
Pyrene	2030	ug/kg	205	30.2	10	07/11/24 08:12	07/11/24 20:38	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	60	%	39-120		10	07/11/24 08:12	07/11/24 20:38	321-60-8	
Terphenyl-d14 (S)	63	%	36-120		10	07/11/24 08:12	07/11/24 20:38	1718-51-0	

8260 MSV Med Level Normal List

Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B

Pace Analytical Services - Green Bay

Benzene	<17.4	ug/kg	29.2	17.4	1	07/09/24 07:30	07/10/24 07:46	71-43-2	
Bromobenzene	<28.5	ug/kg	73.0	28.5	1	07/09/24 07:30	07/10/24 07:46	108-86-1	
Bromochloromethane	<20.0	ug/kg	73.0	20.0	1	07/09/24 07:30	07/10/24 07:46	74-97-5	
Bromodichloromethane	<17.4	ug/kg	73.0	17.4	1	07/09/24 07:30	07/10/24 07:46	75-27-4	
Bromoform	<321	ug/kg	365	321	1	07/09/24 07:30	07/10/24 07:46	75-25-2	
Bromomethane	<102	ug/kg	365	102	1	07/09/24 07:30	07/10/24 07:46	74-83-9	
n-Butylbenzene	<33.4	ug/kg	73.0	33.4	1	07/09/24 07:30	07/10/24 07:46	104-51-8	
sec-Butylbenzene	<25.1	ug/kg	73.0	25.1	1	07/09/24 07:30	07/10/24 07:46	135-98-8	
tert-Butylbenzene	<22.9	ug/kg	73.0	22.9	1	07/09/24 07:30	07/10/24 07:46	98-06-6	
Carbon tetrachloride	<16.1	ug/kg	73.0	16.1	1	07/09/24 07:30	07/10/24 07:46	56-23-5	
Chlorobenzene	<8.7	ug/kg	73.0	8.7	1	07/09/24 07:30	07/10/24 07:46	108-90-7	
Chloroethane	<30.8	ug/kg	365	30.8	1	07/09/24 07:30	07/10/24 07:46	75-00-3	
Chloroform	<52.3	ug/kg	365	52.3	1	07/09/24 07:30	07/10/24 07:46	67-66-3	
Chloromethane	<27.7	ug/kg	73.0	27.7	1	07/09/24 07:30	07/10/24 07:46	74-87-3	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-2 (18) Lab ID: 40280627004 Collected: 07/01/24 14:25 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
2-Chlorotoluene	<23.7	ug/kg	73.0	23.7	1	07/09/24 07:30	07/10/24 07:46	95-49-8	
4-Chlorotoluene	<27.7	ug/kg	73.0	27.7	1	07/09/24 07:30	07/10/24 07:46	106-43-4	
1,2-Dibromo-3-chloropropane	<56.7	ug/kg	365	56.7	1	07/09/24 07:30	07/10/24 07:46	96-12-8	
Dibromochloromethane	<250	ug/kg	365	250	1	07/09/24 07:30	07/10/24 07:46	124-48-1	
1,2-Dibromoethane (EDB)	<20.0	ug/kg	73.0	20.0	1	07/09/24 07:30	07/10/24 07:46	106-93-4	
Dibromomethane	<21.6	ug/kg	73.0	21.6	1	07/09/24 07:30	07/10/24 07:46	74-95-3	
1,2-Dichlorobenzene	<22.6	ug/kg	73.0	22.6	1	07/09/24 07:30	07/10/24 07:46	95-50-1	
1,3-Dichlorobenzene	<20.0	ug/kg	73.0	20.0	1	07/09/24 07:30	07/10/24 07:46	541-73-1	
1,4-Dichlorobenzene	<20.0	ug/kg	73.0	20.0	1	07/09/24 07:30	07/10/24 07:46	106-46-7	
Dichlorodifluoromethane	<31.4	ug/kg	73.0	31.4	1	07/09/24 07:30	07/10/24 07:46	75-71-8	
1,1-Dichloroethane	<18.7	ug/kg	73.0	18.7	1	07/09/24 07:30	07/10/24 07:46	75-34-3	
1,2-Dichloroethane	<16.8	ug/kg	73.0	16.8	1	07/09/24 07:30	07/10/24 07:46	107-06-2	
1,1-Dichloroethene	<24.2	ug/kg	73.0	24.2	1	07/09/24 07:30	07/10/24 07:46	75-35-4	
cis-1,2-Dichloroethene	<15.6	ug/kg	73.0	15.6	1	07/09/24 07:30	07/10/24 07:46	156-59-2	
trans-1,2-Dichloroethene	<16.0	ug/kg	73.0	16.0	1	07/09/24 07:30	07/10/24 07:46	156-60-5	
1,2-Dichloropropane	<17.4	ug/kg	73.0	17.4	1	07/09/24 07:30	07/10/24 07:46	78-87-5	
1,3-Dichloropropane	<15.9	ug/kg	73.0	15.9	1	07/09/24 07:30	07/10/24 07:46	142-28-9	
2,2-Dichloropropane	<19.7	ug/kg	73.0	19.7	1	07/09/24 07:30	07/10/24 07:46	594-20-7	
1,1-Dichloropropene	<23.7	ug/kg	73.0	23.7	1	07/09/24 07:30	07/10/24 07:46	563-58-6	
cis-1,3-Dichloropropene	<48.2	ug/kg	365	48.2	1	07/09/24 07:30	07/10/24 07:46	10061-01-5	
trans-1,3-Dichloropropene	<209	ug/kg	365	209	1	07/09/24 07:30	07/10/24 07:46	10061-02-6	
Diisopropyl ether	<18.1	ug/kg	73.0	18.1	1	07/09/24 07:30	07/10/24 07:46	108-20-3	
Ethylbenzene	<17.4	ug/kg	73.0	17.4	1	07/09/24 07:30	07/10/24 07:46	100-41-4	
Hexachloro-1,3-butadiene	<145	ug/kg	365	145	1	07/09/24 07:30	07/10/24 07:46	87-68-3	
Isopropylbenzene (Cumene)	<19.7	ug/kg	73.0	19.7	1	07/09/24 07:30	07/10/24 07:46	98-82-8	
p-Isopropyltoluene	<24.8	ug/kg	73.0	24.8	1	07/09/24 07:30	07/10/24 07:46	99-87-6	
Methylene Chloride	<20.3	ug/kg	73.0	20.3	1	07/09/24 07:30	07/10/24 07:46	75-09-2	
Methyl-tert-butyl ether	<21.5	ug/kg	73.0	21.5	1	07/09/24 07:30	07/10/24 07:46	1634-04-4	
Naphthalene	133J	ug/kg	365	30.7	1	07/09/24 07:30	07/10/24 07:46	91-20-3	
n-Propylbenzene	<17.5	ug/kg	73.0	17.5	1	07/09/24 07:30	07/10/24 07:46	103-65-1	
Styrene	<18.7	ug/kg	73.0	18.7	1	07/09/24 07:30	07/10/24 07:46	100-42-5	
1,1,1,2-Tetrachloroethane	<17.5	ug/kg	73.0	17.5	1	07/09/24 07:30	07/10/24 07:46	630-20-6	
1,1,2,2-Tetrachloroethane	<26.4	ug/kg	73.0	26.4	1	07/09/24 07:30	07/10/24 07:46	79-34-5	
Tetrachloroethene	<28.3	ug/kg	73.0	28.3	1	07/09/24 07:30	07/10/24 07:46	127-18-4	
Toluene	<18.4	ug/kg	73.0	18.4	1	07/09/24 07:30	07/10/24 07:46	108-88-3	
1,2,3-Trichlorobenzene	<81.4	ug/kg	365	81.4	1	07/09/24 07:30	07/10/24 07:46	87-61-6	
1,2,4-Trichlorobenzene	<60.2	ug/kg	365	60.2	1	07/09/24 07:30	07/10/24 07:46	120-82-1	
1,1,1-Trichloroethane	<18.7	ug/kg	73.0	18.7	1	07/09/24 07:30	07/10/24 07:46	71-55-6	
1,1,2-Trichloroethane	<26.6	ug/kg	73.0	26.6	1	07/09/24 07:30	07/10/24 07:46	79-00-5	
Trichloroethene	<27.3	ug/kg	73.0	27.3	1	07/09/24 07:30	07/10/24 07:46	79-01-6	
Trichlorofluoromethane	<21.2	ug/kg	73.0	21.2	1	07/09/24 07:30	07/10/24 07:46	75-69-4	
1,2,3-Trichloropropane	<35.5	ug/kg	73.0	35.5	1	07/09/24 07:30	07/10/24 07:46	96-18-4	
1,2,4-Trimethylbenzene	<21.8	ug/kg	73.0	21.8	1	07/09/24 07:30	07/10/24 07:46	95-63-6	
1,3,5-Trimethylbenzene	<23.5	ug/kg	73.0	23.5	1	07/09/24 07:30	07/10/24 07:46	108-67-8	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-2 (18) Lab ID: 40280627004 Collected: 07/01/24 14:25 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Vinyl chloride	<14.8	ug/kg	73.0	14.8	1	07/09/24 07:30	07/10/24 07:46	75-01-4	
m&p-Xylene	<30.8	ug/kg	146	30.8	1	07/09/24 07:30	07/10/24 07:46	179601-23-1	
o-Xylene	<21.9	ug/kg	73.0	21.9	1	07/09/24 07:30	07/10/24 07:46	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	147	%	67-144		1	07/09/24 07:30	07/10/24 07:46	2199-69-1	S3
4-Bromofluorobenzene (S)	149	%	72-142		1	07/09/24 07:30	07/10/24 07:46	460-00-4	S3
Toluene-d8 (S)	139	%	70-139		1	07/09/24 07:30	07/10/24 07:46	2037-26-5	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	18.7	%	0.10	0.10	1		07/05/24 15:53		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-3 (2) Lab ID: 40280627005 Collected: 07/01/24 08:30 Received: 07/03/24 09:45 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
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Cadmium	0.35J	mg/kg	0.56	0.15	1	07/08/24 07:32	07/10/24 20:49	7440-43-9	
Chromium	247	mg/kg	1.1	0.31	1	07/08/24 07:32	07/10/24 20:49	7440-47-3	
Lead	622	mg/kg	2.2	0.67	1	07/08/24 07:32	07/10/24 20:49	7439-92-1	
6010D MET ICP, TCLP									
Analytical Method: EPA 6010D Preparation Method: EPA 3015A									
Leachate Method/Date: EPA 1311; 07/29/24 15:07									
Pace Analytical Services - Green Bay									
Chromium	0.25	mg/L	0.010	0.0025	1	07/30/24 15:20	07/30/24 19:07	7440-47-3	
Lead	0.027	mg/L	0.020	0.0059	1	07/30/24 15:20	07/30/24 19:07	7439-92-1	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	312J	ug/kg	782	101	40	07/11/24 08:12	07/15/24 16:26	83-32-9	
Acenaphthylene	<98.6	ug/kg	782	98.6	40	07/11/24 08:12	07/15/24 16:26	208-96-8	
Anthracene	1100	ug/kg	782	97.0	40	07/11/24 08:12	07/15/24 16:26	120-12-7	
Benzo(a)anthracene	1260	ug/kg	782	101	40	07/11/24 08:12	07/15/24 16:26	56-55-3	
Benzo(a)pyrene	1300	ug/kg	782	88.8	40	07/11/24 08:12	07/15/24 16:26	50-32-8	
Benzo(b)fluoranthene	1590	ug/kg	782	109	40	07/11/24 08:12	07/15/24 16:26	205-99-2	
Benzo(g,h,i)perylene	1010	ug/kg	782	137	40	07/11/24 08:12	07/15/24 16:26	191-24-2	
Benzo(k)fluoranthene	919	ug/kg	782	99.9	40	07/11/24 08:12	07/15/24 16:26	207-08-9	
Chrysene	1830	ug/kg	782	147	40	07/11/24 08:12	07/15/24 16:26	218-01-9	
Dibenz(a,h)anthracene	126J	ug/kg	782	108	40	07/11/24 08:12	07/15/24 16:26	53-70-3	
Fluoranthene	4260	ug/kg	782	92.5	40	07/11/24 08:12	07/15/24 16:26	206-44-0	
Fluorene	270J	ug/kg	782	93.7	40	07/11/24 08:12	07/15/24 16:26	86-73-7	
Indeno(1,2,3-cd)pyrene	728J	ug/kg	782	163	40	07/11/24 08:12	07/15/24 16:26	193-39-5	
1-Methylnaphthalene	<114	ug/kg	782	114	40	07/11/24 08:12	07/15/24 16:26	90-12-0	
2-Methylnaphthalene	<114	ug/kg	782	114	40	07/11/24 08:12	07/15/24 16:26	91-57-6	
Naphthalene	145J	ug/kg	782	76.2	40	07/11/24 08:12	07/15/24 16:26	91-20-3	
Phenanthrene	3340	ug/kg	782	89.5	40	07/11/24 08:12	07/15/24 16:26	85-01-8	
Pyrene	3720	ug/kg	782	115	40	07/11/24 08:12	07/15/24 16:26	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	52	%	39-120		40	07/11/24 08:12	07/15/24 16:26	321-60-8	
Terphenyl-d14 (S)	47	%	36-120		40	07/11/24 08:12	07/15/24 16:26	1718-51-0	
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<19.0	ug/kg	32.0	19.0	1	07/09/24 07:30	07/10/24 09:48	71-43-2	
Bromobenzene	<31.2	ug/kg	80.0	31.2	1	07/09/24 07:30	07/10/24 09:48	108-86-1	
Bromochloromethane	<21.9	ug/kg	80.0	21.9	1	07/09/24 07:30	07/10/24 09:48	74-97-5	
Bromodichloromethane	<19.0	ug/kg	80.0	19.0	1	07/09/24 07:30	07/10/24 09:48	75-27-4	
Bromoform	<352	ug/kg	400	352	1	07/09/24 07:30	07/10/24 09:48	75-25-2	
Bromomethane	<112	ug/kg	400	112	1	07/09/24 07:30	07/10/24 09:48	74-83-9	
n-Butylbenzene	<36.6	ug/kg	80.0	36.6	1	07/09/24 07:30	07/10/24 09:48	104-51-8	
sec-Butylbenzene	<27.5	ug/kg	80.0	27.5	1	07/09/24 07:30	07/10/24 09:48	135-98-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-3 (2) Lab ID: 40280627005 Collected: 07/01/24 08:30 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
tert-Butylbenzene	<25.1	ug/kg	80.0	25.1	1	07/09/24 07:30	07/10/24 09:48	98-06-6	
Carbon tetrachloride	<17.6	ug/kg	80.0	17.6	1	07/09/24 07:30	07/10/24 09:48	56-23-5	
Chlorobenzene	<9.6	ug/kg	80.0	9.6	1	07/09/24 07:30	07/10/24 09:48	108-90-7	
Chloroethane	<33.8	ug/kg	400	33.8	1	07/09/24 07:30	07/10/24 09:48	75-00-3	
Chloroform	<57.3	ug/kg	400	57.3	1	07/09/24 07:30	07/10/24 09:48	67-66-3	
Chloromethane	<30.4	ug/kg	80.0	30.4	1	07/09/24 07:30	07/10/24 09:48	74-87-3	
2-Chlorotoluene	<25.9	ug/kg	80.0	25.9	1	07/09/24 07:30	07/10/24 09:48	95-49-8	
4-Chlorotoluene	<30.4	ug/kg	80.0	30.4	1	07/09/24 07:30	07/10/24 09:48	106-43-4	
1,2-Dibromo-3-chloropropane	<62.1	ug/kg	400	62.1	1	07/09/24 07:30	07/10/24 09:48	96-12-8	
Dibromochloromethane	<273	ug/kg	400	273	1	07/09/24 07:30	07/10/24 09:48	124-48-1	
1,2-Dibromoethane (EDB)	<21.9	ug/kg	80.0	21.9	1	07/09/24 07:30	07/10/24 09:48	106-93-4	
Dibromomethane	<23.7	ug/kg	80.0	23.7	1	07/09/24 07:30	07/10/24 09:48	74-95-3	
1,2-Dichlorobenzene	<24.8	ug/kg	80.0	24.8	1	07/09/24 07:30	07/10/24 09:48	95-50-1	
1,3-Dichlorobenzene	<21.9	ug/kg	80.0	21.9	1	07/09/24 07:30	07/10/24 09:48	541-73-1	
1,4-Dichlorobenzene	<21.9	ug/kg	80.0	21.9	1	07/09/24 07:30	07/10/24 09:48	106-46-7	
Dichlorodifluoromethane	<34.4	ug/kg	80.0	34.4	1	07/09/24 07:30	07/10/24 09:48	75-71-8	
1,1-Dichloroethane	<20.5	ug/kg	80.0	20.5	1	07/09/24 07:30	07/10/24 09:48	75-34-3	
1,2-Dichloroethane	<18.4	ug/kg	80.0	18.4	1	07/09/24 07:30	07/10/24 09:48	107-06-2	
1,1-Dichloroethene	<26.6	ug/kg	80.0	26.6	1	07/09/24 07:30	07/10/24 09:48	75-35-4	
cis-1,2-Dichloroethene	<17.1	ug/kg	80.0	17.1	1	07/09/24 07:30	07/10/24 09:48	156-59-2	
trans-1,2-Dichloroethene	<17.5	ug/kg	80.0	17.5	1	07/09/24 07:30	07/10/24 09:48	156-60-5	
1,2-Dichloropropane	<19.0	ug/kg	80.0	19.0	1	07/09/24 07:30	07/10/24 09:48	78-87-5	
1,3-Dichloropropane	<17.4	ug/kg	80.0	17.4	1	07/09/24 07:30	07/10/24 09:48	142-28-9	
2,2-Dichloropropane	<21.6	ug/kg	80.0	21.6	1	07/09/24 07:30	07/10/24 09:48	594-20-7	
1,1-Dichloropropene	<25.9	ug/kg	80.0	25.9	1	07/09/24 07:30	07/10/24 09:48	563-58-6	
cis-1,3-Dichloropropene	<52.8	ug/kg	400	52.8	1	07/09/24 07:30	07/10/24 09:48	10061-01-5	
trans-1,3-Dichloropropene	<229	ug/kg	400	229	1	07/09/24 07:30	07/10/24 09:48	10061-02-6	
Diisopropyl ether	<19.8	ug/kg	80.0	19.8	1	07/09/24 07:30	07/10/24 09:48	108-20-3	
Ethylbenzene	<19.0	ug/kg	80.0	19.0	1	07/09/24 07:30	07/10/24 09:48	100-41-4	
Hexachloro-1,3-butadiene	<159	ug/kg	400	159	1	07/09/24 07:30	07/10/24 09:48	87-68-3	
Isopropylbenzene (Cumene)	<21.6	ug/kg	80.0	21.6	1	07/09/24 07:30	07/10/24 09:48	98-82-8	
p-Isopropyltoluene	<27.2	ug/kg	80.0	27.2	1	07/09/24 07:30	07/10/24 09:48	99-87-6	
Methylene Chloride	<22.2	ug/kg	80.0	22.2	1	07/09/24 07:30	07/10/24 09:48	75-09-2	
Methyl-tert-butyl ether	<23.5	ug/kg	80.0	23.5	1	07/09/24 07:30	07/10/24 09:48	1634-04-4	
Naphthalene	<33.7	ug/kg	400	33.7	1	07/09/24 07:30	07/10/24 09:48	91-20-3	
n-Propylbenzene	<19.2	ug/kg	80.0	19.2	1	07/09/24 07:30	07/10/24 09:48	103-65-1	
Styrene	<20.5	ug/kg	80.0	20.5	1	07/09/24 07:30	07/10/24 09:48	100-42-5	
1,1,1,2-Tetrachloroethane	<19.2	ug/kg	80.0	19.2	1	07/09/24 07:30	07/10/24 09:48	630-20-6	
1,1,2,2-Tetrachloroethane	<29.0	ug/kg	80.0	29.0	1	07/09/24 07:30	07/10/24 09:48	79-34-5	
Tetrachloroethene	<31.0	ug/kg	80.0	31.0	1	07/09/24 07:30	07/10/24 09:48	127-18-4	
Toluene	<20.2	ug/kg	80.0	20.2	1	07/09/24 07:30	07/10/24 09:48	108-88-3	
1,2,3-Trichlorobenzene	<89.1	ug/kg	400	89.1	1	07/09/24 07:30	07/10/24 09:48	87-61-6	
1,2,4-Trichlorobenzene	<65.9	ug/kg	400	65.9	1	07/09/24 07:30	07/10/24 09:48	120-82-1	
1,1,1-Trichloroethane	<20.5	ug/kg	80.0	20.5	1	07/09/24 07:30	07/10/24 09:48	71-55-6	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-3 (2) Lab ID: 40280627005 Collected: 07/01/24 08:30 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
1,1,2-Trichloroethane	<29.1	ug/kg	80.0	29.1	1	07/09/24 07:30	07/10/24 09:48	79-00-5	
Trichloroethene	<29.9	ug/kg	80.0	29.9	1	07/09/24 07:30	07/10/24 09:48	79-01-6	
Trichlorofluoromethane	<23.2	ug/kg	80.0	23.2	1	07/09/24 07:30	07/10/24 09:48	75-69-4	
1,2,3-Trichloropropane	<38.9	ug/kg	80.0	38.9	1	07/09/24 07:30	07/10/24 09:48	96-18-4	
1,2,4-Trimethylbenzene	<23.8	ug/kg	80.0	23.8	1	07/09/24 07:30	07/10/24 09:48	95-63-6	
1,3,5-Trimethylbenzene	<25.8	ug/kg	80.0	25.8	1	07/09/24 07:30	07/10/24 09:48	108-67-8	
Vinyl chloride	<16.2	ug/kg	80.0	16.2	1	07/09/24 07:30	07/10/24 09:48	75-01-4	
m&p-Xylene	<33.8	ug/kg	160	33.8	1	07/09/24 07:30	07/10/24 09:48	179601-23-1	
o-Xylene	<24.0	ug/kg	80.0	24.0	1	07/09/24 07:30	07/10/24 09:48	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	142	%	67-144		1	07/09/24 07:30	07/10/24 09:48	2199-69-1	
4-Bromofluorobenzene (S)	139	%	72-142		1	07/09/24 07:30	07/10/24 09:48	460-00-4	
Toluene-d8 (S)	128	%	70-139		1	07/09/24 07:30	07/10/24 09:48	2037-26-5	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	14.6	%	0.10	0.10	1		07/05/24 15:53		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-3 (16) Lab ID: 40280627006 Collected: 07/01/24 09:30 Received: 07/03/24 09:45 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
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Cadmium	<0.14	mg/kg	0.54	0.14	1	07/08/24 07:32	07/10/24 20:51	7440-43-9	
Chromium	13.8	mg/kg	1.1	0.30	1	07/08/24 07:32	07/10/24 20:51	7440-47-3	
Lead	22.8	mg/kg	2.1	0.64	1	07/08/24 07:32	07/10/24 20:51	7439-92-1	
8270E MSSV PAH by SIM									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	3.4J	ug/kg	18.9	2.5	1	07/11/24 08:12	07/11/24 17:49	83-32-9	
Acenaphthylene	<2.4	ug/kg	18.9	2.4	1	07/11/24 08:12	07/11/24 17:49	208-96-8	
Anthracene	12.1J	ug/kg	18.9	2.3	1	07/11/24 08:12	07/11/24 17:49	120-12-7	
Benzo(a)anthracene	26.8	ug/kg	18.9	2.4	1	07/11/24 08:12	07/11/24 17:49	56-55-3	
Benzo(a)pyrene	38.7	ug/kg	18.9	2.2	1	07/11/24 08:12	07/11/24 17:49	50-32-8	
Benzo(b)fluoranthene	42.5	ug/kg	18.9	2.6	1	07/11/24 08:12	07/11/24 17:49	205-99-2	
Benzo(g,h,i)perylene	30.0	ug/kg	18.9	3.3	1	07/11/24 08:12	07/11/24 17:49	191-24-2	
Benzo(k)fluoranthene	19.5	ug/kg	18.9	2.4	1	07/11/24 08:12	07/11/24 17:49	207-08-9	
Chrysene	33.2	ug/kg	18.9	3.6	1	07/11/24 08:12	07/11/24 17:49	218-01-9	
Dibenz(a,h)anthracene	5.1J	ug/kg	18.9	2.6	1	07/11/24 08:12	07/11/24 17:49	53-70-3	
Fluoranthene	61.6	ug/kg	18.9	2.2	1	07/11/24 08:12	07/11/24 17:49	206-44-0	
Fluorene	4.0J	ug/kg	18.9	2.3	1	07/11/24 08:12	07/11/24 17:49	86-73-7	
Indeno(1,2,3-cd)pyrene	21.8	ug/kg	18.9	3.9	1	07/11/24 08:12	07/11/24 17:49	193-39-5	
1-Methylnaphthalene	3.2J	ug/kg	18.9	2.8	1	07/11/24 08:12	07/11/24 17:49	90-12-0	
2-Methylnaphthalene	4.8J	ug/kg	18.9	2.8	1	07/11/24 08:12	07/11/24 17:49	91-57-6	
Naphthalene	7.9J	ug/kg	18.9	1.8	1	07/11/24 08:12	07/11/24 17:49	91-20-3	
Phenanthrene	34.7	ug/kg	18.9	2.2	1	07/11/24 08:12	07/11/24 17:49	85-01-8	
Pyrene	51.2	ug/kg	18.9	2.8	1	07/11/24 08:12	07/11/24 17:49	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	61	%	39-120		1	07/11/24 08:12	07/11/24 17:49	321-60-8	
Terphenyl-d14 (S)	60	%	36-120		1	07/11/24 08:12	07/11/24 17:49	1718-51-0	
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	54.4	ug/kg	25.3	15.1	1	07/09/24 07:30	07/10/24 08:06	71-43-2	
Bromobenzene	<24.7	ug/kg	63.3	24.7	1	07/09/24 07:30	07/10/24 08:06	108-86-1	
Bromochloromethane	<17.3	ug/kg	63.3	17.3	1	07/09/24 07:30	07/10/24 08:06	74-97-5	
Bromodichloromethane	<15.1	ug/kg	63.3	15.1	1	07/09/24 07:30	07/10/24 08:06	75-27-4	
Bromoform	<278	ug/kg	316	278	1	07/09/24 07:30	07/10/24 08:06	75-25-2	
Bromomethane	<88.7	ug/kg	316	88.7	1	07/09/24 07:30	07/10/24 08:06	74-83-9	
n-Butylbenzene	<29.0	ug/kg	63.3	29.0	1	07/09/24 07:30	07/10/24 08:06	104-51-8	
sec-Butylbenzene	<21.7	ug/kg	63.3	21.7	1	07/09/24 07:30	07/10/24 08:06	135-98-8	
tert-Butylbenzene	<19.9	ug/kg	63.3	19.9	1	07/09/24 07:30	07/10/24 08:06	98-06-6	
Carbon tetrachloride	<13.9	ug/kg	63.3	13.9	1	07/09/24 07:30	07/10/24 08:06	56-23-5	R1
Chlorobenzene	<7.6	ug/kg	63.3	7.6	1	07/09/24 07:30	07/10/24 08:06	108-90-7	
Chloroethane	<26.7	ug/kg	316	26.7	1	07/09/24 07:30	07/10/24 08:06	75-00-3	
Chloroform	<45.3	ug/kg	316	45.3	1	07/09/24 07:30	07/10/24 08:06	67-66-3	
Chloromethane	<24.0	ug/kg	63.3	24.0	1	07/09/24 07:30	07/10/24 08:06	74-87-3	

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-3 (16) Lab ID: 40280627006 Collected: 07/01/24 09:30 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
2-Chlorotoluene	<20.5	ug/kg	63.3	20.5	1	07/09/24 07:30	07/10/24 08:06	95-49-8	
4-Chlorotoluene	<24.0	ug/kg	63.3	24.0	1	07/09/24 07:30	07/10/24 08:06	106-43-4	
1,2-Dibromo-3-chloropropane	<49.1	ug/kg	316	49.1	1	07/09/24 07:30	07/10/24 08:06	96-12-8	
Dibromochloromethane	<216	ug/kg	316	216	1	07/09/24 07:30	07/10/24 08:06	124-48-1	
1,2-Dibromoethane (EDB)	<17.3	ug/kg	63.3	17.3	1	07/09/24 07:30	07/10/24 08:06	106-93-4	
Dibromomethane	<18.7	ug/kg	63.3	18.7	1	07/09/24 07:30	07/10/24 08:06	74-95-3	
1,2-Dichlorobenzene	<19.6	ug/kg	63.3	19.6	1	07/09/24 07:30	07/10/24 08:06	95-50-1	
1,3-Dichlorobenzene	<17.3	ug/kg	63.3	17.3	1	07/09/24 07:30	07/10/24 08:06	541-73-1	
1,4-Dichlorobenzene	<17.3	ug/kg	63.3	17.3	1	07/09/24 07:30	07/10/24 08:06	106-46-7	
Dichlorodifluoromethane	<27.2	ug/kg	63.3	27.2	1	07/09/24 07:30	07/10/24 08:06	75-71-8	R1
1,1-Dichloroethane	<16.2	ug/kg	63.3	16.2	1	07/09/24 07:30	07/10/24 08:06	75-34-3	
1,2-Dichloroethane	<14.6	ug/kg	63.3	14.6	1	07/09/24 07:30	07/10/24 08:06	107-06-2	
1,1-Dichloroethene	<21.0	ug/kg	63.3	21.0	1	07/09/24 07:30	07/10/24 08:06	75-35-4	R1
cis-1,2-Dichloroethene	<13.5	ug/kg	63.3	13.5	1	07/09/24 07:30	07/10/24 08:06	156-59-2	
trans-1,2-Dichloroethene	<13.8	ug/kg	63.3	13.8	1	07/09/24 07:30	07/10/24 08:06	156-60-5	
1,2-Dichloropropane	<15.1	ug/kg	63.3	15.1	1	07/09/24 07:30	07/10/24 08:06	78-87-5	
1,3-Dichloropropane	<13.8	ug/kg	63.3	13.8	1	07/09/24 07:30	07/10/24 08:06	142-28-9	
2,2-Dichloropropane	<17.1	ug/kg	63.3	17.1	1	07/09/24 07:30	07/10/24 08:06	594-20-7	
1,1-Dichloropropene	<20.5	ug/kg	63.3	20.5	1	07/09/24 07:30	07/10/24 08:06	563-58-6	
cis-1,3-Dichloropropene	<41.8	ug/kg	316	41.8	1	07/09/24 07:30	07/10/24 08:06	10061-01-5	
trans-1,3-Dichloropropene	<181	ug/kg	316	181	1	07/09/24 07:30	07/10/24 08:06	10061-02-6	
Diisopropyl ether	<15.7	ug/kg	63.3	15.7	1	07/09/24 07:30	07/10/24 08:06	108-20-3	
Ethylbenzene	<15.1	ug/kg	63.3	15.1	1	07/09/24 07:30	07/10/24 08:06	100-41-4	
Hexachloro-1,3-butadiene	<126	ug/kg	316	126	1	07/09/24 07:30	07/10/24 08:06	87-68-3	
Isopropylbenzene (Cumene)	<17.1	ug/kg	63.3	17.1	1	07/09/24 07:30	07/10/24 08:06	98-82-8	
p-Isopropyltoluene	<21.5	ug/kg	63.3	21.5	1	07/09/24 07:30	07/10/24 08:06	99-87-6	
Methylene Chloride	<17.6	ug/kg	63.3	17.6	1	07/09/24 07:30	07/10/24 08:06	75-09-2	
Methyl-tert-butyl ether	<18.6	ug/kg	63.3	18.6	1	07/09/24 07:30	07/10/24 08:06	1634-04-4	
Naphthalene	<26.6	ug/kg	316	26.6	1	07/09/24 07:30	07/10/24 08:06	91-20-3	
n-Propylbenzene	<15.2	ug/kg	63.3	15.2	1	07/09/24 07:30	07/10/24 08:06	103-65-1	
Styrene	<16.2	ug/kg	63.3	16.2	1	07/09/24 07:30	07/10/24 08:06	100-42-5	
1,1,1,2-Tetrachloroethane	<15.2	ug/kg	63.3	15.2	1	07/09/24 07:30	07/10/24 08:06	630-20-6	
1,1,2,2-Tetrachloroethane	<22.9	ug/kg	63.3	22.9	1	07/09/24 07:30	07/10/24 08:06	79-34-5	
Tetrachloroethene	<24.5	ug/kg	63.3	24.5	1	07/09/24 07:30	07/10/24 08:06	127-18-4	
Toluene	18.6J	ug/kg	63.3	15.9	1	07/09/24 07:30	07/10/24 08:06	108-88-3	
1,2,3-Trichlorobenzene	<70.5	ug/kg	316	70.5	1	07/09/24 07:30	07/10/24 08:06	87-61-6	
1,2,4-Trichlorobenzene	<52.1	ug/kg	316	52.1	1	07/09/24 07:30	07/10/24 08:06	120-82-1	
1,1,1-Trichloroethane	<16.2	ug/kg	63.3	16.2	1	07/09/24 07:30	07/10/24 08:06	71-55-6	
1,1,2-Trichloroethane	<23.0	ug/kg	63.3	23.0	1	07/09/24 07:30	07/10/24 08:06	79-00-5	
Trichloroethene	<23.7	ug/kg	63.3	23.7	1	07/09/24 07:30	07/10/24 08:06	79-01-6	
Trichlorofluoromethane	<18.3	ug/kg	63.3	18.3	1	07/09/24 07:30	07/10/24 08:06	75-69-4	R1
1,2,3-Trichloropropane	<30.7	ug/kg	63.3	30.7	1	07/09/24 07:30	07/10/24 08:06	96-18-4	
1,2,4-Trimethylbenzene	<18.9	ug/kg	63.3	18.9	1	07/09/24 07:30	07/10/24 08:06	95-63-6	
1,3,5-Trimethylbenzene	<20.4	ug/kg	63.3	20.4	1	07/09/24 07:30	07/10/24 08:06	108-67-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: P-3 (16) Lab ID: 40280627006 Collected: 07/01/24 09:30 Received: 07/03/24 09:45 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
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Vinyl chloride	<12.8	ug/kg	63.3	12.8	1	07/09/24 07:30	07/10/24 08:06	75-01-4	R1
m&p-Xylene	<26.7	ug/kg	127	26.7	1	07/09/24 07:30	07/10/24 08:06	179601-23-1	
o-Xylene	<19.0	ug/kg	63.3	19.0	1	07/09/24 07:30	07/10/24 08:06	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	124	%	67-144		1	07/09/24 07:30	07/10/24 08:06	2199-69-1	
4-Bromofluorobenzene (S)	123	%	72-142		1	07/09/24 07:30	07/10/24 08:06	460-00-4	
Toluene-d8 (S)	118	%	70-139		1	07/09/24 07:30	07/10/24 08:06	2037-26-5	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	11.7	%	0.10	0.10	1		07/05/24 15:53		

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: MEOH BLANK Lab ID: 40280627007 Collected: 07/01/24 00:00 Received: 07/03/24 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Benzene	<11.9	ug/kg	20.0	11.9	1	07/09/24 07:30	07/10/24 07:06	71-43-2	
Bromobenzene	<19.5	ug/kg	50.0	19.5	1	07/09/24 07:30	07/10/24 07:06	108-86-1	
Bromochloromethane	<13.7	ug/kg	50.0	13.7	1	07/09/24 07:30	07/10/24 07:06	74-97-5	
Bromodichloromethane	<11.9	ug/kg	50.0	11.9	1	07/09/24 07:30	07/10/24 07:06	75-27-4	
Bromoform	<220	ug/kg	250	220	1	07/09/24 07:30	07/10/24 07:06	75-25-2	
Bromomethane	<70.1	ug/kg	250	70.1	1	07/09/24 07:30	07/10/24 07:06	74-83-9	
n-Butylbenzene	<22.9	ug/kg	50.0	22.9	1	07/09/24 07:30	07/10/24 07:06	104-51-8	
sec-Butylbenzene	<17.2	ug/kg	50.0	17.2	1	07/09/24 07:30	07/10/24 07:06	135-98-8	
tert-Butylbenzene	<15.7	ug/kg	50.0	15.7	1	07/09/24 07:30	07/10/24 07:06	98-06-6	
Carbon tetrachloride	<11.0	ug/kg	50.0	11.0	1	07/09/24 07:30	07/10/24 07:06	56-23-5	
Chlorobenzene	<6.0	ug/kg	50.0	6.0	1	07/09/24 07:30	07/10/24 07:06	108-90-7	
Chloroethane	<21.1	ug/kg	250	21.1	1	07/09/24 07:30	07/10/24 07:06	75-00-3	
Chloroform	<35.8	ug/kg	250	35.8	1	07/09/24 07:30	07/10/24 07:06	67-66-3	
Chloromethane	<19.0	ug/kg	50.0	19.0	1	07/09/24 07:30	07/10/24 07:06	74-87-3	
2-Chlorotoluene	<16.2	ug/kg	50.0	16.2	1	07/09/24 07:30	07/10/24 07:06	95-49-8	
4-Chlorotoluene	<19.0	ug/kg	50.0	19.0	1	07/09/24 07:30	07/10/24 07:06	106-43-4	
1,2-Dibromo-3-chloropropane	<38.8	ug/kg	250	38.8	1	07/09/24 07:30	07/10/24 07:06	96-12-8	
Dibromochloromethane	<171	ug/kg	250	171	1	07/09/24 07:30	07/10/24 07:06	124-48-1	
1,2-Dibromoethane (EDB)	<13.7	ug/kg	50.0	13.7	1	07/09/24 07:30	07/10/24 07:06	106-93-4	
Dibromomethane	<14.8	ug/kg	50.0	14.8	1	07/09/24 07:30	07/10/24 07:06	74-95-3	
1,2-Dichlorobenzene	<15.5	ug/kg	50.0	15.5	1	07/09/24 07:30	07/10/24 07:06	95-50-1	
1,3-Dichlorobenzene	<13.7	ug/kg	50.0	13.7	1	07/09/24 07:30	07/10/24 07:06	541-73-1	
1,4-Dichlorobenzene	<13.7	ug/kg	50.0	13.7	1	07/09/24 07:30	07/10/24 07:06	106-46-7	
Dichlorodifluoromethane	<21.5	ug/kg	50.0	21.5	1	07/09/24 07:30	07/10/24 07:06	75-71-8	
1,1-Dichloroethane	<12.8	ug/kg	50.0	12.8	1	07/09/24 07:30	07/10/24 07:06	75-34-3	
1,2-Dichloroethane	<11.5	ug/kg	50.0	11.5	1	07/09/24 07:30	07/10/24 07:06	107-06-2	
1,1-Dichloroethene	<16.6	ug/kg	50.0	16.6	1	07/09/24 07:30	07/10/24 07:06	75-35-4	
cis-1,2-Dichloroethene	<10.7	ug/kg	50.0	10.7	1	07/09/24 07:30	07/10/24 07:06	156-59-2	
trans-1,2-Dichloroethene	<10.9	ug/kg	50.0	10.9	1	07/09/24 07:30	07/10/24 07:06	156-60-5	
1,2-Dichloropropane	<11.9	ug/kg	50.0	11.9	1	07/09/24 07:30	07/10/24 07:06	78-87-5	
1,3-Dichloropropane	<10.9	ug/kg	50.0	10.9	1	07/09/24 07:30	07/10/24 07:06	142-28-9	
2,2-Dichloropropane	<13.5	ug/kg	50.0	13.5	1	07/09/24 07:30	07/10/24 07:06	594-20-7	
1,1-Dichloropropene	<16.2	ug/kg	50.0	16.2	1	07/09/24 07:30	07/10/24 07:06	563-58-6	
cis-1,3-Dichloropropene	<33.0	ug/kg	250	33.0	1	07/09/24 07:30	07/10/24 07:06	10061-01-5	
trans-1,3-Dichloropropene	<143	ug/kg	250	143	1	07/09/24 07:30	07/10/24 07:06	10061-02-6	
Diisopropyl ether	<12.4	ug/kg	50.0	12.4	1	07/09/24 07:30	07/10/24 07:06	108-20-3	
Ethylbenzene	<11.9	ug/kg	50.0	11.9	1	07/09/24 07:30	07/10/24 07:06	100-41-4	
Hexachloro-1,3-butadiene	<99.4	ug/kg	250	99.4	1	07/09/24 07:30	07/10/24 07:06	87-68-3	
Isopropylbenzene (Cumene)	<13.5	ug/kg	50.0	13.5	1	07/09/24 07:30	07/10/24 07:06	98-82-8	
p-Isopropyltoluene	<17.0	ug/kg	50.0	17.0	1	07/09/24 07:30	07/10/24 07:06	99-87-6	
Methylene Chloride	<13.9	ug/kg	50.0	13.9	1	07/09/24 07:30	07/10/24 07:06	75-09-2	
Methyl-tert-butyl ether	<14.7	ug/kg	50.0	14.7	1	07/09/24 07:30	07/10/24 07:06	1634-04-4	
Naphthalene	<21.0	ug/kg	250	21.0	1	07/09/24 07:30	07/10/24 07:06	91-20-3	
n-Propylbenzene	<12.0	ug/kg	50.0	12.0	1	07/09/24 07:30	07/10/24 07:06	103-65-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Sample: MEOH BLANK Lab ID: 40280627007 Collected: 07/01/24 00:00 Received: 07/03/24 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
Pace Analytical Services - Green Bay									
Styrene	<12.8	ug/kg	50.0	12.8	1	07/09/24 07:30	07/10/24 07:06	100-42-5	
1,1,1,2-Tetrachloroethane	<12.0	ug/kg	50.0	12.0	1	07/09/24 07:30	07/10/24 07:06	630-20-6	
1,1,2,2-Tetrachloroethane	<18.1	ug/kg	50.0	18.1	1	07/09/24 07:30	07/10/24 07:06	79-34-5	
Tetrachloroethene	<19.4	ug/kg	50.0	19.4	1	07/09/24 07:30	07/10/24 07:06	127-18-4	
Toluene	<12.6	ug/kg	50.0	12.6	1	07/09/24 07:30	07/10/24 07:06	108-88-3	
1,2,3-Trichlorobenzene	<55.7	ug/kg	250	55.7	1	07/09/24 07:30	07/10/24 07:06	87-61-6	
1,2,4-Trichlorobenzene	<41.2	ug/kg	250	41.2	1	07/09/24 07:30	07/10/24 07:06	120-82-1	
1,1,1-Trichloroethane	<12.8	ug/kg	50.0	12.8	1	07/09/24 07:30	07/10/24 07:06	71-55-6	
1,1,2-Trichloroethane	<18.2	ug/kg	50.0	18.2	1	07/09/24 07:30	07/10/24 07:06	79-00-5	
Trichloroethene	<18.7	ug/kg	50.0	18.7	1	07/09/24 07:30	07/10/24 07:06	79-01-6	
Trichlorofluoromethane	<14.5	ug/kg	50.0	14.5	1	07/09/24 07:30	07/10/24 07:06	75-69-4	
1,2,3-Trichloropropane	<24.3	ug/kg	50.0	24.3	1	07/09/24 07:30	07/10/24 07:06	96-18-4	
1,2,4-Trimethylbenzene	<14.9	ug/kg	50.0	14.9	1	07/09/24 07:30	07/10/24 07:06	95-63-6	
1,3,5-Trimethylbenzene	<16.1	ug/kg	50.0	16.1	1	07/09/24 07:30	07/10/24 07:06	108-67-8	
Vinyl chloride	<10.1	ug/kg	50.0	10.1	1	07/09/24 07:30	07/10/24 07:06	75-01-4	
m&p-Xylene	<21.1	ug/kg	100	21.1	1	07/09/24 07:30	07/10/24 07:06	179601-23-1	
o-Xylene	<15.0	ug/kg	50.0	15.0	1	07/09/24 07:30	07/10/24 07:06	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	109	%	67-144		1	07/09/24 07:30	07/10/24 07:06	2199-69-1	
4-Bromofluorobenzene (S)	111	%	72-142		1	07/09/24 07:30	07/10/24 07:06	460-00-4	
Toluene-d8 (S)	103	%	70-139		1	07/09/24 07:30	07/10/24 07:06	2037-26-5	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

QC Batch:	478852	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3050B	Analysis Description:	6010D MET
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40280627001, 40280627002, 40280627003, 40280627004, 40280627005, 40280627006

METHOD BLANK: 2742755 Matrix: Solid
Associated Lab Samples: 40280627001, 40280627002, 40280627003, 40280627004, 40280627005, 40280627006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cadmium	mg/kg	<0.13	0.50	07/10/24 20:05	
Chromium	mg/kg	<0.28	1.0	07/10/24 20:05	
Lead	mg/kg	<0.60	2.0	07/10/24 20:05	

LABORATORY CONTROL SAMPLE: 2742756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cadmium	mg/kg	25	26.7	107	80-120	
Chromium	mg/kg	25	26.4	106	80-120	
Lead	mg/kg	25	27.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2742757 2742758

Parameter	Units	40280528002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/kg	<0.16	30.2	30.2	31.9	31.9	105	105	75-125	0	20	
Chromium	mg/kg	15.4	30.2	30.2	50.5	51.2	116	119	75-125	1	20	
Lead	mg/kg	7.9	30.2	30.2	43.0	40.2	116	107	75-125	7	20	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

QC Batch:	480717	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3015A	Analysis Description:	6010D MET TCLP
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40280627002, 40280627005

METHOD BLANK: 2753121 Matrix: Water

Associated Lab Samples: 40280627002, 40280627005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	mg/L	<0.0025	0.010	07/30/24 18:42	
Lead	mg/L	<0.0059	0.020	07/30/24 18:42	

METHOD BLANK: 2752441 Matrix: Solid

Associated Lab Samples: 40280627002, 40280627005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	mg/L	<0.0025	0.010	07/30/24 19:18	
Lead	mg/L	<0.0059	0.020	07/30/24 19:18	

METHOD BLANK: 2752442 Matrix: Solid

Associated Lab Samples: 40280627002, 40280627005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium	mg/L	<0.0025	0.010	07/30/24 19:22	
Lead	mg/L	<0.0059	0.020	07/30/24 19:22	

LABORATORY CONTROL SAMPLE: 2753122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium	mg/L	0.28	0.28	99	80-120	
Lead	mg/L	0.28	0.29	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2753123 2753124

Parameter	Units	40281261001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	<0.0051	0.28	0.28	0.27	0.28	97	99	75-125	2	20	
Lead	mg/L	<0.012	0.28	0.28	0.28	0.29	99	100	75-125	2	20	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

MATRIX SPIKE SAMPLE:		2753125					
Parameter	Units	40281688003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium	mg/L	<0.0025	0.28	0.28	100	75-125	
Lead	mg/L	0.0062J	0.28	0.29	104	75-125	

MATRIX SPIKE SAMPLE:		2753126					
Parameter	Units	40281725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium	mg/L	0.0027J	0.28	0.28	99	75-125	
Lead	mg/L	<0.0059	0.28	0.29	102	75-125	

MATRIX SPIKE SAMPLE:		2753127					
Parameter	Units	40281725003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium	mg/L	<0.013	0.28	0.29	100	75-125	
Lead	mg/L	<0.030	0.28	0.30	104	75-125	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

QC Batch: 479049

Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B

Analysis Description: 8260 MSV Med Level Normal List

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40280627003, 40280627004, 40280627005, 40280627006, 40280627007

METHOD BLANK: 2743486

Matrix: Solid

Associated Lab Samples: 40280627003, 40280627004, 40280627005, 40280627006, 40280627007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	07/09/24 10:36	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	07/09/24 10:36	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	07/09/24 10:36	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	07/09/24 10:36	
1,1-Dichloroethane	ug/kg	<12.8	50.0	07/09/24 10:36	
1,1-Dichloroethene	ug/kg	<16.6	50.0	07/09/24 10:36	
1,1-Dichloropropene	ug/kg	<16.2	50.0	07/09/24 10:36	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	07/09/24 10:36	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	07/09/24 10:36	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	07/09/24 10:36	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	07/09/24 10:36	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	07/09/24 10:36	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	07/09/24 10:36	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	07/09/24 10:36	
1,2-Dichloroethane	ug/kg	<11.5	50.0	07/09/24 10:36	
1,2-Dichloropropane	ug/kg	<11.9	50.0	07/09/24 10:36	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	07/09/24 10:36	
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	07/09/24 10:36	
1,3-Dichloropropane	ug/kg	<10.9	50.0	07/09/24 10:36	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	07/09/24 10:36	
2,2-Dichloropropane	ug/kg	<13.5	50.0	07/09/24 10:36	
2-Chlorotoluene	ug/kg	<16.2	50.0	07/09/24 10:36	
4-Chlorotoluene	ug/kg	<19.0	50.0	07/09/24 10:36	
Benzene	ug/kg	<11.9	20.0	07/09/24 10:36	
Bromobenzene	ug/kg	<19.5	50.0	07/09/24 10:36	
Bromochloromethane	ug/kg	<13.7	50.0	07/09/24 10:36	
Bromodichloromethane	ug/kg	<11.9	50.0	07/09/24 10:36	
Bromoform	ug/kg	<220	250	07/09/24 10:36	
Bromomethane	ug/kg	<70.1	250	07/09/24 10:36	
Carbon tetrachloride	ug/kg	<11.0	50.0	07/09/24 10:36	
Chlorobenzene	ug/kg	<6.0	50.0	07/09/24 10:36	
Chloroethane	ug/kg	<21.1	250	07/09/24 10:36	
Chloroform	ug/kg	<35.8	250	07/09/24 10:36	
Chloromethane	ug/kg	<19.0	50.0	07/09/24 10:36	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	07/09/24 10:36	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	07/09/24 10:36	
Dibromochloromethane	ug/kg	<171	250	07/09/24 10:36	
Dibromomethane	ug/kg	<14.8	50.0	07/09/24 10:36	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	07/09/24 10:36	
Diisopropyl ether	ug/kg	<12.4	50.0	07/09/24 10:36	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

METHOD BLANK: 2743486

Matrix: Solid

Associated Lab Samples: 40280627003, 40280627004, 40280627005, 40280627006, 40280627007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	07/09/24 10:36	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	07/09/24 10:36	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	07/09/24 10:36	
m&p-Xylene	ug/kg	<21.1	100	07/09/24 10:36	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	07/09/24 10:36	
Methylene Chloride	ug/kg	<13.9	50.0	07/09/24 10:36	
n-Butylbenzene	ug/kg	<22.9	50.0	07/09/24 10:36	
n-Propylbenzene	ug/kg	<12.0	50.0	07/09/24 10:36	
Naphthalene	ug/kg	<21.0	250	07/09/24 10:36	
o-Xylene	ug/kg	<15.0	50.0	07/09/24 10:36	
p-Isopropyltoluene	ug/kg	<17.0	50.0	07/09/24 10:36	
sec-Butylbenzene	ug/kg	<17.2	50.0	07/09/24 10:36	
Styrene	ug/kg	<12.8	50.0	07/09/24 10:36	
tert-Butylbenzene	ug/kg	<15.7	50.0	07/09/24 10:36	
Tetrachloroethene	ug/kg	<19.4	50.0	07/09/24 10:36	
Toluene	ug/kg	<12.6	50.0	07/09/24 10:36	
trans-1,2-Dichloroethene	ug/kg	<10.9	50.0	07/09/24 10:36	
trans-1,3-Dichloropropene	ug/kg	<143	250	07/09/24 10:36	
Trichloroethene	ug/kg	<18.7	50.0	07/09/24 10:36	
Trichlorofluoromethane	ug/kg	<14.5	50.0	07/09/24 10:36	
Vinyl chloride	ug/kg	<10.1	50.0	07/09/24 10:36	
1,2-Dichlorobenzene-d4 (S)	%	112	67-144	07/09/24 10:36	
4-Bromofluorobenzene (S)	%	113	72-142	07/09/24 10:36	
Toluene-d8 (S)	%	112	70-139	07/09/24 10:36	

LABORATORY CONTROL SAMPLE: 2743487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2600	104	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2970	119	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2670	107	70-130	
1,1-Dichloroethane	ug/kg	2500	2640	106	70-130	
1,1-Dichloroethene	ug/kg	2500	2380	95	77-122	
1,2,4-Trichlorobenzene	ug/kg	2500	2660	106	66-125	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2810	112	66-130	
1,2-Dibromoethane (EDB)	ug/kg	2500	2550	102	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2770	111	70-130	
1,2-Dichloroethane	ug/kg	2500	2630	105	70-130	
1,2-Dichloropropane	ug/kg	2500	2640	106	80-121	
1,3-Dichlorobenzene	ug/kg	2500	2770	111	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2870	115	70-130	
Benzene	ug/kg	2500	2620	105	70-130	
Bromodichloromethane	ug/kg	2500	2730	109	70-130	
Bromoform	ug/kg	2500	2300	92	67-130	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

LABORATORY CONTROL SAMPLE: 2743487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	2620	105	25-150	
Carbon tetrachloride	ug/kg	2500	2540	102	72-136	
Chlorobenzene	ug/kg	2500	2680	107	70-130	
Chloroethane	ug/kg	2500	2560	102	20-178	
Chloroform	ug/kg	2500	2610	104	80-120	
Chloromethane	ug/kg	2500	2640	105	45-123	
cis-1,2-Dichloroethene	ug/kg	2500	2530	101	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2740	110	70-130	
Dibromochloromethane	ug/kg	2500	2610	104	70-130	
Dichlorodifluoromethane	ug/kg	2500	2030	81	14-106	
Ethylbenzene	ug/kg	2500	2750	110	80-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2800	112	70-130	
m&p-Xylene	ug/kg	5000	5530	111	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2420	97	70-130	
Methylene Chloride	ug/kg	2500	2620	105	70-130	
o-Xylene	ug/kg	2500	2790	112	70-130	
Styrene	ug/kg	2500	2930	117	70-130	
Tetrachloroethene	ug/kg	2500	2490	100	70-130	
Toluene	ug/kg	2500	2680	107	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2550	102	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2840	114	70-130	
Trichloroethene	ug/kg	2500	2640	106	70-130	
Trichlorofluoromethane	ug/kg	2500	2340	94	49-141	
Vinyl chloride	ug/kg	2500	2290	92	59-120	
1,2-Dichlorobenzene-d4 (S)	%			112	67-144	
4-Bromofluorobenzene (S)	%			121	72-142	
Toluene-d8 (S)	%			109	70-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2743488

2743489

Parameter	Units	40280627006		MS		MSD		MS	MSD	% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Conc.	Result	Result						
1,1,1-Trichloroethane	ug/kg	<16.2	1270	1270	1270	928	1110	73	88	56-130	18	20			
1,1,2,2-Tetrachloroethane	ug/kg	<22.9	1270	1270	1270	1350	1390	107	110	70-133	3	20			
1,1,2-Trichloroethane	ug/kg	<23.0	1270	1270	1270	1290	1350	102	107	70-130	5	20			
1,1-Dichloroethane	ug/kg	<16.2	1270	1270	1270	1150	1260	91	100	70-130	9	20			
1,1-Dichloroethene	ug/kg	<21.0	1270	1270	1270	720	912	57	72	52-122	24	20	R1		
1,2,4-Trichlorobenzene	ug/kg	<52.1	1270	1270	1270	1180	1220	93	97	66-136	4	20			
1,2-Dibromo-3-chloropropane	ug/kg	<49.1	1270	1270	1270	1270	1230	100	97	59-131	3	23			
1,2-Dibromoethane (EDB)	ug/kg	<17.3	1270	1270	1270	1160	1250	91	98	70-130	7	20			
1,2-Dichlorobenzene	ug/kg	<19.6	1270	1270	1270	1300	1330	102	105	70-130	3	20			
1,2-Dichloroethane	ug/kg	<14.6	1270	1270	1270	1240	1320	98	104	70-130	6	20			
1,2-Dichloropropane	ug/kg	<15.1	1270	1270	1270	1230	1310	97	104	77-121	7	20			
1,3-Dichlorobenzene	ug/kg	<17.3	1270	1270	1270	1270	1340	100	106	70-130	5	20			

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2743488				2743489								
			MS	MSD								
	40280627006		Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,4-Dichlorobenzene	ug/kg	<17.3	1270	1270	1330	1360	105	107	70-130	2	20	
Benzene	ug/kg	54.4	1270	1270	1250	1340	95	101	70-130	7	20	
Bromodichloromethane	ug/kg	<15.1	1270	1270	1210	1310	96	104	70-130	8	20	
Bromoform	ug/kg	<278	1270	1270	1010	1070	80	85	67-130	6	20	
Bromomethane	ug/kg	<88.7	1270	1270	1040	1010	82	80	25-150	2	20	
Carbon tetrachloride	ug/kg	<13.9	1270	1270	751	1020	59	81	48-136	30	20	R1
Chlorobenzene	ug/kg	<7.6	1270	1270	1250	1350	98	107	70-130	8	20	
Chloroethane	ug/kg	<26.7	1270	1270	942	1070	74	85	20-178	13	23	
Chloroform	ug/kg	<45.3	1270	1270	1190	1270	94	101	80-120	6	20	
Chloromethane	ug/kg	<24.0	1270	1270	785	834	62	66	23-132	6	20	
cis-1,2-Dichloroethene	ug/kg	<13.5	1270	1270	1150	1240	91	98	70-130	7	20	
cis-1,3-Dichloropropene	ug/kg	<41.8	1270	1270	1230	1280	97	101	70-130	4	20	
Dibromochloromethane	ug/kg	<216	1270	1270	1160	1190	92	94	70-130	2	20	
Dichlorodifluoromethane	ug/kg	<27.2	1270	1270	205	326	16	26	10-106	45	34	R1
Ethylbenzene	ug/kg	<15.1	1270	1270	1220	1320	96	104	80-120	8	20	
Isopropylbenzene (Cumene)	ug/kg	<17.1	1270	1270	1130	1300	89	102	70-130	14	20	
m&p-Xylene	ug/kg	<26.7	2530	2530	2450	2670	97	106	70-130	9	20	
Methyl-tert-butyl ether	ug/kg	<18.6	1270	1270	1150	1190	91	94	67-130	3	20	
Methylene Chloride	ug/kg	<17.6	1270	1270	1200	1260	95	100	70-130	5	20	
o-Xylene	ug/kg	<19.0	1270	1270	1260	1350	99	107	70-130	7	20	
Styrene	ug/kg	<16.2	1270	1270	1340	1400	106	111	70-130	4	20	
Tetrachloroethene	ug/kg	<24.5	1270	1270	898	1040	71	82	70-130	14	20	
Toluene	ug/kg	18.6J	1270	1270	1230	1340	96	105	80-120	9	20	
trans-1,2-Dichloroethene	ug/kg	<13.8	1270	1270	1010	1130	80	89	70-130	12	20	
trans-1,3-Dichloropropene	ug/kg	<181	1270	1270	1180	1270	94	101	70-130	7	20	
Trichloroethene	ug/kg	<23.7	1270	1270	1090	1220	86	97	70-130	11	20	
Trichlorofluoromethane	ug/kg	<18.3	1270	1270	541	819	43	65	21-141	41	28	R1
Vinyl chloride	ug/kg	<12.8	1270	1270	588	743	47	59	29-120	23	20	R1
1,2-Dichlorobenzene-d4 (S)	%						119	117	67-144			
4-Bromofluorobenzene (S)	%						132	130	72-142			
Toluene-d8 (S)	%						122	125	70-139			

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

QC Batch: 479176

Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B

Analysis Description: 8260 MSV Med Level Normal List

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40280627001, 40280627002

METHOD BLANK: 2743976

Matrix: Solid

Associated Lab Samples: 40280627001, 40280627002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<12.0	50.0	07/10/24 15:35	
1,1,1-Trichloroethane	ug/kg	<12.8	50.0	07/10/24 15:35	
1,1,2,2-Tetrachloroethane	ug/kg	<18.1	50.0	07/10/24 15:35	
1,1,2-Trichloroethane	ug/kg	<18.2	50.0	07/10/24 15:35	
1,1-Dichloroethane	ug/kg	<12.8	50.0	07/10/24 15:35	
1,1-Dichloroethene	ug/kg	<16.6	50.0	07/10/24 15:35	
1,1-Dichloropropene	ug/kg	<16.2	50.0	07/10/24 15:35	
1,2,3-Trichlorobenzene	ug/kg	<55.7	250	07/10/24 15:35	
1,2,3-Trichloropropane	ug/kg	<24.3	50.0	07/10/24 15:35	
1,2,4-Trichlorobenzene	ug/kg	<41.2	250	07/10/24 15:35	
1,2,4-Trimethylbenzene	ug/kg	<14.9	50.0	07/10/24 15:35	
1,2-Dibromo-3-chloropropane	ug/kg	<38.8	250	07/10/24 15:35	
1,2-Dibromoethane (EDB)	ug/kg	<13.7	50.0	07/10/24 15:35	
1,2-Dichlorobenzene	ug/kg	<15.5	50.0	07/10/24 15:35	
1,2-Dichloroethane	ug/kg	<11.5	50.0	07/10/24 15:35	
1,2-Dichloropropane	ug/kg	<11.9	50.0	07/10/24 15:35	
1,3,5-Trimethylbenzene	ug/kg	<16.1	50.0	07/10/24 15:35	v1
1,3-Dichlorobenzene	ug/kg	<13.7	50.0	07/10/24 15:35	
1,3-Dichloropropane	ug/kg	<10.9	50.0	07/10/24 15:35	
1,4-Dichlorobenzene	ug/kg	<13.7	50.0	07/10/24 15:35	
2,2-Dichloropropane	ug/kg	<13.5	50.0	07/10/24 15:35	
2-Chlorotoluene	ug/kg	<16.2	50.0	07/10/24 15:35	
4-Chlorotoluene	ug/kg	<19.0	50.0	07/10/24 15:35	
Benzene	ug/kg	<11.9	20.0	07/10/24 15:35	
Bromobenzene	ug/kg	<19.5	50.0	07/10/24 15:35	
Bromochloromethane	ug/kg	<13.7	50.0	07/10/24 15:35	
Bromodichloromethane	ug/kg	<11.9	50.0	07/10/24 15:35	
Bromoform	ug/kg	<220	250	07/10/24 15:35	
Bromomethane	ug/kg	<70.1	250	07/10/24 15:35	
Carbon tetrachloride	ug/kg	<11.0	50.0	07/10/24 15:35	
Chlorobenzene	ug/kg	<6.0	50.0	07/10/24 15:35	
Chloroethane	ug/kg	<21.1	250	07/10/24 15:35	
Chloroform	ug/kg	<35.8	250	07/10/24 15:35	
Chloromethane	ug/kg	<19.0	50.0	07/10/24 15:35	
cis-1,2-Dichloroethene	ug/kg	<10.7	50.0	07/10/24 15:35	
cis-1,3-Dichloropropene	ug/kg	<33.0	250	07/10/24 15:35	
Dibromochloromethane	ug/kg	<171	250	07/10/24 15:35	
Dibromomethane	ug/kg	<14.8	50.0	07/10/24 15:35	
Dichlorodifluoromethane	ug/kg	<21.5	50.0	07/10/24 15:35	
Diisopropyl ether	ug/kg	<12.4	50.0	07/10/24 15:35	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

METHOD BLANK: 2743976

Matrix: Solid

Associated Lab Samples: 40280627001, 40280627002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/kg	<11.9	50.0	07/10/24 15:35	
Hexachloro-1,3-butadiene	ug/kg	<99.4	250	07/10/24 15:35	
Isopropylbenzene (Cumene)	ug/kg	<13.5	50.0	07/10/24 15:35	
m&p-Xylene	ug/kg	<21.1	100	07/10/24 15:35	
Methyl-tert-butyl ether	ug/kg	<14.7	50.0	07/10/24 15:35	
Methylene Chloride	ug/kg	<13.9	50.0	07/10/24 15:35	
n-Butylbenzene	ug/kg	<22.9	50.0	07/10/24 15:35	
n-Propylbenzene	ug/kg	<12.0	50.0	07/10/24 15:35	
Naphthalene	ug/kg	<21.0	250	07/10/24 15:35	
o-Xylene	ug/kg	<15.0	50.0	07/10/24 15:35	
p-Isopropyltoluene	ug/kg	<17.0	50.0	07/10/24 15:35	
sec-Butylbenzene	ug/kg	<17.2	50.0	07/10/24 15:35	
Styrene	ug/kg	<12.8	50.0	07/10/24 15:35	
tert-Butylbenzene	ug/kg	<15.7	50.0	07/10/24 15:35	
Tetrachloroethene	ug/kg	<19.4	50.0	07/10/24 15:35	
Toluene	ug/kg	<12.6	50.0	07/10/24 15:35	
trans-1,2-Dichloroethene	ug/kg	<10.9	50.0	07/10/24 15:35	
trans-1,3-Dichloropropene	ug/kg	<143	250	07/10/24 15:35	
Trichloroethene	ug/kg	<18.7	50.0	07/10/24 15:35	
Trichlorofluoromethane	ug/kg	<14.5	50.0	07/10/24 15:35	
Vinyl chloride	ug/kg	<10.1	50.0	07/10/24 15:35	
1,2-Dichlorobenzene-d4 (S)	%	103	67-144	07/10/24 15:35	
4-Bromofluorobenzene (S)	%	103	72-142	07/10/24 15:35	
Toluene-d8 (S)	%	103	70-139	07/10/24 15:35	

LABORATORY CONTROL SAMPLE: 2743977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2650	106	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2420	97	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2430	97	70-130	
1,1-Dichloroethane	ug/kg	2500	2800	112	70-130	
1,1-Dichloroethene	ug/kg	2500	2470	99	77-122	
1,2,4-Trichlorobenzene	ug/kg	2500	2250	90	66-125	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2590	104	66-130	
1,2-Dibromoethane (EDB)	ug/kg	2500	2390	96	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2470	99	70-130	
1,2-Dichloroethane	ug/kg	2500	2640	106	70-130	
1,2-Dichloropropane	ug/kg	2500	2490	100	80-121	
1,3-Dichlorobenzene	ug/kg	2500	2500	100	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2460	98	70-130	
Benzene	ug/kg	2500	2530	101	70-130	
Bromodichloromethane	ug/kg	2500	2610	104	70-130	
Bromoform	ug/kg	2500	2250	90	67-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

LABORATORY CONTROL SAMPLE: 2743977

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/kg	2500	2690	107	25-150	
Carbon tetrachloride	ug/kg	2500	2750	110	72-136	
Chlorobenzene	ug/kg	2500	2560	102	70-130	
Chloroethane	ug/kg	2500	2500	100	20-178	
Chloroform	ug/kg	2500	2460	99	80-120	
Chloromethane	ug/kg	2500	2300	92	45-123	
cis-1,2-Dichloroethene	ug/kg	2500	2510	101	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2550	102	70-130	
Dibromochloromethane	ug/kg	2500	2380	95	70-130	
Dichlorodifluoromethane	ug/kg	2500	2010	80	14-106	
Ethylbenzene	ug/kg	2500	2520	101	80-120	
Isopropylbenzene (Cumene)	ug/kg	2500	2580	103	70-130	
m&p-Xylene	ug/kg	5000	5000	100	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2370	95	70-130	
Methylene Chloride	ug/kg	2500	2460	98	70-130	
o-Xylene	ug/kg	2500	2420	97	70-130	
Styrene	ug/kg	2500	2610	104	70-130	
Tetrachloroethene	ug/kg	2500	2360	94	70-130	
Toluene	ug/kg	2500	2410	96	80-120	
trans-1,2-Dichloroethene	ug/kg	2500	2540	101	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2460	98	70-130	
Trichloroethene	ug/kg	2500	2610	105	70-130	
Trichlorofluoromethane	ug/kg	2500	2510	100	49-141	
Vinyl chloride	ug/kg	2500	2230	89	59-120	
1,2-Dichlorobenzene-d4 (S)	%			102	67-144	
4-Bromofluorobenzene (S)	%			103	72-142	
Toluene-d8 (S)	%			103	70-139	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2743981

2743982

Parameter	Units	40280667006		MS		MSD		MS	MSD	% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Conc.	Result	Result						
1,1,1-Trichloroethane	ug/kg	<16.2	1270	1270	1270	1090	1140	86	90	56-130		4	20		
1,1,2,2-Tetrachloroethane	ug/kg	<23.0	1270	1270	1270	1180	1170	93	92	70-133		1	20		
1,1,2-Trichloroethane	ug/kg	<23.1	1270	1270	1270	1280	1280	101	101	70-130		0	20		
1,1-Dichloroethane	ug/kg	<16.2	1270	1270	1270	1200	1210	94	95	70-130		1	20		
1,1-Dichloroethene	ug/kg	<21.1	1270	1270	1270	934	961	74	76	52-122		3	20		
1,2,4-Trichlorobenzene	ug/kg	<52.2	1270	1270	1270	1310	1230	103	97	66-136		6	20		
1,2-Dibromo-3-chloropropane	ug/kg	<49.2	1270	1270	1270	1290	1210	102	96	59-131		7	23		
1,2-Dibromoethane (EDB)	ug/kg	<17.4	1270	1270	1270	1350	1300	106	103	70-130		3	20		
1,2-Dichlorobenzene	ug/kg	<19.7	1270	1270	1270	1350	1330	106	105	70-130		1	20		
1,2-Dichloroethane	ug/kg	<14.6	1270	1270	1270	1290	1300	102	102	70-130		0	20		
1,2-Dichloropropane	ug/kg	<15.1	1270	1270	1270	1180	1160	93	92	77-121		1	20		
1,3-Dichlorobenzene	ug/kg	<17.4	1270	1270	1270	1320	1290	104	102	70-130		2	20		

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2743981 2743982											
Parameter	Units	40280667006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1,4-Dichlorobenzene	ug/kg	<17.4	1270	1270	1330	1270	105	100	70-130	4	20
Benzene	ug/kg	<15.1	1270	1270	1230	1230	97	97	70-130	0	20
Bromodichloromethane	ug/kg	<15.1	1270	1270	1210	1280	96	101	70-130	5	20
Bromoform	ug/kg	<279	1270	1270	1110	1140	88	90	67-130	3	20
Bromomethane	ug/kg	<88.9	1270	1270	1000	1060	79	84	25-150	6	20
Carbon tetrachloride	ug/kg	<13.9	1270	1270	1130	1130	89	89	48-136	0	20
Chlorobenzene	ug/kg	<7.6	1270	1270	1280	1310	101	103	70-130	2	20
Chloroethane	ug/kg	<26.8	1270	1270	997	946	79	75	20-178	5	23
Chloroform	ug/kg	<45.4	1270	1270	1290	1310	102	103	80-120	1	20
Chloromethane	ug/kg	<24.1	1270	1270	740	740	58	58	23-132	0	20
cis-1,2-Dichloroethene	ug/kg	<13.6	1270	1270	1180	1190	93	94	70-130	1	20
cis-1,3-Dichloropropene	ug/kg	<41.8	1270	1270	1200	1180	95	93	70-130	2	20
Dibromochloromethane	ug/kg	<217	1270	1270	1250	1270	98	100	70-130	1	20
Dichlorodifluoromethane	ug/kg	<27.3	1270	1270	345	320	27	25	10-106	8	34
Ethylbenzene	ug/kg	<15.1	1270	1270	1250	1230	98	97	80-120	2	20
Isopropylbenzene (Cumene)	ug/kg	<17.1	1270	1270	1270	1260	100	99	70-130	1	20
m&p-Xylene	ug/kg	<26.8	2540	2540	2550	2520	101	99	70-130	1	20
Methyl-tert-butyl ether	ug/kg	<18.6	1270	1270	1090	1170	86	92	67-130	7	20
Methylene Chloride	ug/kg	<17.6	1270	1270	1150	1230	91	97	70-130	6	20
o-Xylene	ug/kg	<19.0	1270	1270	1300	1290	102	102	70-130	0	20
Styrene	ug/kg	<16.2	1270	1270	1310	1330	103	105	70-130	2	20
Tetrachloroethene	ug/kg	<24.6	1270	1270	1110	1200	88	95	70-130	8	20
Toluene	ug/kg	<16.0	1270	1270	1210	1220	95	96	80-120	1	20
trans-1,2-Dichloroethene	ug/kg	<13.9	1270	1270	1140	1120	90	88	70-130	3	20
trans-1,3-Dichloropropene	ug/kg	<181	1270	1270	1250	1290	98	101	70-130	3	20
Trichloroethene	ug/kg	<23.7	1270	1270	1220	1220	96	96	70-130	0	20
Trichlorofluoromethane	ug/kg	<18.4	1270	1270	867	900	68	71	21-141	4	28
Vinyl chloride	ug/kg	<12.8	1270	1270	725	715	57	56	29-120	1	20
1,2-Dichlorobenzene-d4 (S)	%						121	124	67-144		
4-Bromofluorobenzene (S)	%						129	124	72-142		
Toluene-d8 (S)	%						126	127	70-139		

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

QC Batch: 479245

Analysis Method: EPA 8270E by SIM

QC Batch Method: EPA 3546

Analysis Description: 8270E/3546 MSSV PAH by SIM

Laboratory: Pace Analytical Services - Green Bay

Associated Lab Samples: 40280627003, 40280627004, 40280627005, 40280627006

METHOD BLANK: 2744472

Matrix: Solid

Associated Lab Samples: 40280627003, 40280627004, 40280627005, 40280627006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	07/11/24 10:25	
2-Methylnaphthalene	ug/kg	<2.4	16.7	07/11/24 10:25	
Acenaphthene	ug/kg	<2.2	16.7	07/11/24 10:25	
Acenaphthylene	ug/kg	<2.1	16.7	07/11/24 10:25	
Anthracene	ug/kg	<2.1	16.7	07/11/24 10:25	
Benzo(a)anthracene	ug/kg	<2.2	16.7	07/11/24 10:25	
Benzo(a)pyrene	ug/kg	<1.9	16.7	07/11/24 10:25	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	07/11/24 10:25	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	07/11/24 10:25	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	07/11/24 10:25	
Chrysene	ug/kg	<3.1	16.7	07/11/24 10:25	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	07/11/24 10:25	
Fluoranthene	ug/kg	<2.0	16.7	07/11/24 10:25	
Fluorene	ug/kg	<2.0	16.7	07/11/24 10:25	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	07/11/24 10:25	
Naphthalene	ug/kg	<1.6	16.7	07/11/24 10:25	
Phenanthrene	ug/kg	<1.9	16.7	07/11/24 10:25	
Pyrene	ug/kg	<2.5	16.7	07/11/24 10:25	
2-Fluorobiphenyl (S)	%	78	39-120	07/11/24 10:25	
Terphenyl-d14 (S)	%	80	36-120	07/11/24 10:25	

LABORATORY CONTROL SAMPLE: 2744473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	268	80	62-120	
2-Methylnaphthalene	ug/kg	333	268	81	61-120	
Acenaphthene	ug/kg	333	290	87	66-120	
Acenaphthylene	ug/kg	333	288	87	63-120	
Anthracene	ug/kg	333	320	96	72-120	
Benzo(a)anthracene	ug/kg	333	267	80	64-120	
Benzo(a)pyrene	ug/kg	333	292	88	76-120	
Benzo(b)fluoranthene	ug/kg	333	309	93	62-120	
Benzo(g,h,i)perylene	ug/kg	333	368	111	73-120	
Benzo(k)fluoranthene	ug/kg	333	332	100	69-120	
Chrysene	ug/kg	333	321	96	70-120	
Dibenz(a,h)anthracene	ug/kg	333	332	100	72-120	
Fluoranthene	ug/kg	333	296	89	71-120	
Fluorene	ug/kg	333	295	89	68-120	
Indeno(1,2,3-cd)pyrene	ug/kg	333	320	96	72-120	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

LABORATORY CONTROL SAMPLE: 2744473

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	333	273	82	60-120	
Phenanthrene	ug/kg	333	277	83	66-120	
Pyrene	ug/kg	333	290	87	65-120	
2-Fluorobiphenyl (S)	%			82	39-120	
Terphenyl-d14 (S)	%			80	36-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2744474 2744475

Parameter	Units	40280570002		MS		MSD		MS		MSD		% Rec		Max	
		Result	Conc.	Spike Conc.	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/kg	<2.9	399	399	399	255	261	64	66	50-120	2	34			
2-Methylnaphthalene	ug/kg	<2.9	399	399	399	258	264	65	66	48-120	2	29			
Acenaphthene	ug/kg	<2.6	399	399	399	273	287	69	72	51-120	5	26			
Acenaphthylene	ug/kg	<2.5	399	399	399	273	287	69	72	49-120	5	22			
Anthracene	ug/kg	<2.5	399	399	399	295	310	74	78	52-120	5	25			
Benzo(a)anthracene	ug/kg	<2.6	399	399	399	255	264	64	66	47-120	4	37			
Benzo(a)pyrene	ug/kg	<2.3	399	399	399	299	327	75	82	53-120	9	33			
Benzo(b)fluoranthene	ug/kg	<2.8	399	399	399	290	308	73	77	43-120	6	43			
Benzo(g,h,i)perylene	ug/kg	<3.5	399	399	399	342	352	86	88	38-120	3	36			
Benzo(k)fluoranthene	ug/kg	<2.6	399	399	399	320	331	80	83	49-120	3	30			
Chrysene	ug/kg	<3.8	399	399	399	299	318	75	80	45-120	6	28			
Dibenz(a,h)anthracene	ug/kg	<2.8	399	399	399	316	330	79	83	41-120	5	33			
Fluoranthene	ug/kg	<2.4	399	399	399	282	287	71	72	50-120	2	43			
Fluorene	ug/kg	<2.4	399	399	399	279	296	70	74	47-120	6	27			
Indeno(1,2,3-cd)pyrene	ug/kg	<4.2	399	399	399	301	314	76	79	35-120	4	33			
Naphthalene	ug/kg	<1.9	399	399	399	268	277	67	70	42-120	3	26			
Phenanthrene	ug/kg	<2.3	399	399	399	270	278	68	70	45-120	3	24			
Pyrene	ug/kg	<2.9	399	399	399	268	275	67	69	42-120	2	41			
2-Fluorobiphenyl (S)	%							61	64	39-120					
Terphenyl-d14 (S)	%							59	62	36-120					

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

QC Batch:	479344	Analysis Method:	EPA 8270E by SIM
QC Batch Method:	EPA 3546	Analysis Description:	8270E/3546 MSSV PAH by SIM
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40280627001, 40280627002

METHOD BLANK: 2745208 Matrix: Solid

Associated Lab Samples: 40280627001, 40280627002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	07/15/24 09:46	
2-Methylnaphthalene	ug/kg	<2.4	16.7	07/15/24 09:46	
Acenaphthene	ug/kg	<2.2	16.7	07/15/24 09:46	
Acenaphthylene	ug/kg	<2.1	16.7	07/15/24 09:46	
Anthracene	ug/kg	<2.1	16.7	07/15/24 09:46	
Benzo(a)anthracene	ug/kg	<2.2	16.7	07/15/24 09:46	
Benzo(a)pyrene	ug/kg	<1.9	16.7	07/15/24 09:46	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	07/15/24 09:46	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	07/15/24 09:46	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	07/15/24 09:46	
Chrysene	ug/kg	<3.2	16.7	07/15/24 09:46	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	07/15/24 09:46	
Fluoranthene	ug/kg	<2.0	16.7	07/15/24 09:46	
Fluorene	ug/kg	<2.0	16.7	07/15/24 09:46	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	07/15/24 09:46	
Naphthalene	ug/kg	<1.6	16.7	07/15/24 09:46	
Phenanthrene	ug/kg	<1.9	16.7	07/15/24 09:46	
Pyrene	ug/kg	<2.5	16.7	07/15/24 09:46	
2-Fluorobiphenyl (S)	%	78	39-120	07/15/24 09:46	
Terphenyl-d14 (S)	%	79	36-120	07/15/24 09:46	

LABORATORY CONTROL SAMPLE: 2745209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	250	75	62-120	
2-Methylnaphthalene	ug/kg	333	255	76	61-120	
Acenaphthene	ug/kg	333	276	83	66-120	
Acenaphthylene	ug/kg	333	273	82	63-120	
Anthracene	ug/kg	333	309	93	72-120	
Benzo(a)anthracene	ug/kg	333	259	78	64-120	
Benzo(a)pyrene	ug/kg	333	288	86	76-120	
Benzo(b)fluoranthene	ug/kg	333	296	89	62-120	
Benzo(g,h,i)perylene	ug/kg	333	361	108	73-120	
Benzo(k)fluoranthene	ug/kg	333	339	102	69-120	
Chrysene	ug/kg	333	316	95	70-120	
Dibenz(a,h)anthracene	ug/kg	333	323	97	72-120	
Fluoranthene	ug/kg	333	288	87	71-120	
Fluorene	ug/kg	333	281	84	68-120	
Indeno(1,2,3-cd)pyrene	ug/kg	333	314	94	72-120	

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QUALITY CONTROL DATA

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

LABORATORY CONTROL SAMPLE: 2745209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/kg	333	259	78	60-120	
Phenanthrene	ug/kg	333	265	79	66-120	
Pyrene	ug/kg	333	274	82	65-120	
2-Fluorobiphenyl (S)	%			77	39-120	
Terphenyl-d14 (S)	%			75	36-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2745210 2745211

Parameter	Units	40280649013		MS		MSD		MS		MSD		% Rec		Max	
		Result	Conc.	Spike Conc.	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Limits	RPD	RPD	Qual
1-Methylnaphthalene	ug/kg	<2.8	378	377	377	221	264	58	70	50-120	18	34			
2-Methylnaphthalene	ug/kg	<2.8	378	377	377	220	263	58	70	48-120	18	29			
Acenaphthene	ug/kg	<2.5	378	377	377	233	280	62	74	51-120	18	26			
Acenaphthylene	ug/kg	<2.4	378	377	377	232	278	61	74	49-120	18	22			
Anthracene	ug/kg	<2.3	378	377	377	256	313	68	83	52-120	20	25			
Benzo(a)anthracene	ug/kg	<2.4	378	377	377	212	251	56	66	47-120	17	37			
Benzo(a)pyrene	ug/kg	<2.1	378	377	377	223	274	59	72	53-120	20	33			
Benzo(b)fluoranthene	ug/kg	<2.6	378	377	377	242	287	64	76	43-120	17	43			
Benzo(g,h,i)perylene	ug/kg	<3.3	378	377	377	282	334	75	88	38-120	17	36			
Benzo(k)fluoranthene	ug/kg	<2.4	378	377	377	277	331	73	88	49-120	18	30			
Chrysene	ug/kg	<3.6	378	377	377	262	313	69	83	45-120	18	28			
Dibenz(a,h)anthracene	ug/kg	<2.6	378	377	377	253	300	67	79	41-120	17	33			
Fluoranthene	ug/kg	<2.2	378	377	377	240	286	64	76	50-120	17	43			
Fluorene	ug/kg	<2.3	378	377	377	234	281	62	75	47-120	18	27			
Indeno(1,2,3-cd)pyrene	ug/kg	<3.9	378	377	377	246	292	65	77	35-120	17	33			
Naphthalene	ug/kg	<1.8	378	377	377	228	271	60	72	42-120	17	26			
Phenanthrene	ug/kg	<2.2	378	377	377	216	259	57	69	45-120	18	24			
Pyrene	ug/kg	<2.8	378	377	377	227	265	60	70	42-120	15	41			
2-Fluorobiphenyl (S)	%							57	68	39-120					
Terphenyl-d14 (S)	%							54	63	36-120					

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: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

QC Batch:	478896	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Samples:	40280627001, 40280627002, 40280627003, 40280627004, 40280627005, 40280627006		

SAMPLE DUPLICATE: 2742942

Parameter	Units	40280639007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.6	16.4	1	10	

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



QUALIFIERS

Project: 58247140 FMR BARREL PLATING
Pace Project No.: 40280627

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 - The reported result is an estimated value.
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.
DL - Adjusted Method Detection Limit.
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 - Analyte was not detected and is reported as less than the LOD or as defined by the customer.
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.

ANALYTE QUALIFIERS

R1	RPD value was outside control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58247140 FMR BARREL PLATING

Pace Project No.: 40280627

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40280627001	P-1 (2)	EPA 3050B	478852	EPA 6010D	479020
40280627002	P-1 (19)	EPA 3050B	478852	EPA 6010D	479020
40280627003	P-2 (3)	EPA 3050B	478852	EPA 6010D	479020
40280627004	P-2 (18)	EPA 3050B	478852	EPA 6010D	479020
40280627005	P-3 (2)	EPA 3050B	478852	EPA 6010D	479020
40280627006	P-3 (16)	EPA 3050B	478852	EPA 6010D	479020
40280627002	P-1 (19)	EPA 3015A	480717	EPA 6010D	480739
40280627005	P-3 (2)	EPA 3015A	480717	EPA 6010D	480739
40280627001	P-1 (2)	EPA 3546	479344	EPA 8270E by SIM	479379
40280627002	P-1 (19)	EPA 3546	479344	EPA 8270E by SIM	479379
40280627003	P-2 (3)	EPA 3546	479245	EPA 8270E by SIM	479297
40280627004	P-2 (18)	EPA 3546	479245	EPA 8270E by SIM	479297
40280627005	P-3 (2)	EPA 3546	479245	EPA 8270E by SIM	479297
40280627006	P-3 (16)	EPA 3546	479245	EPA 8270E by SIM	479297
40280627001	P-1 (2)	EPA 5035/5030B	479176	EPA 8260	479178
40280627002	P-1 (19)	EPA 5035/5030B	479176	EPA 8260	479178
40280627003	P-2 (3)	EPA 5035/5030B	479049	EPA 8260	479071
40280627004	P-2 (18)	EPA 5035/5030B	479049	EPA 8260	479071
40280627005	P-3 (2)	EPA 5035/5030B	479049	EPA 8260	479071
40280627006	P-3 (16)	EPA 5035/5030B	479049	EPA 8260	479071
40280627007	MEOH BLANK	EPA 5035/5030B	479049	EPA 8260	479071
40280627001	P-1 (2)	ASTM D2974-87	478896		
40280627002	P-1 (19)	ASTM D2974-87	478896		
40280627003	P-2 (3)	ASTM D2974-87	478896		
40280627004	P-2 (18)	ASTM D2974-87	478896		
40280627005	P-3 (2)	ASTM D2974-87	478896		
40280627006	P-3 (16)	ASTM D2974-87	478896		

REPORT OF LABORATORY ANALYSIS

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Effective Date: 8/16/2022

Client Name: Terracon

Sample Preservation Receipt Form

Project #

40280627

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	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	BP2Z	VG9C	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN 1	GN 2					
001																																2.5 / 5
002																																2.5 / 5
003																																2.5 / 5
004																																2.5 / 5
005																																2.5 / 5
006																																2.5 / 5
007																																2.5 / 5
008																																2.5 / 5
009																																2.5 / 5
010																																2.5 / 5
011																																2.5 / 5
012																																2.5 / 5
013																																2.5 / 5
014																																2.5 / 5
015																																2.5 / 5
016																																2.5 / 5
017																																2.5 / 5
018																																2.5 / 5
019																																2.5 / 5
020																																2.5 / 5

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	VG9C	40 mL clear ascorbic w/ HCl	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG5U	100 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH + Zn	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres					GN 1	
						GN 2	

Page 1 of 2

Sample Condition Upon Receipt Form (SCUR)

Project #:

Client Name: Terracon

Courier: ☒ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Walto
☐ Client ☐ Pace Other: _____

WO#: **40280627**



Tracking #: _____

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 - 136 Type of Ice: Wet Blue Dry None ☐ Meltwater Only

Cooler Temperature Uncorr: 2.5 /Corr: 2.5

Temp Blank Present: ☒ yes ☐ no

Biological Tissue is Frozen: ☐ yes ☐ no

Person examining contents:

Date: 7/3/24 /Initials: GF

Labeled By Initials: GF

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No	5.
- DI VOA Samples frozen upon receipt	☐ Yes ☐ No	Date/Time:
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:		8.
For Analysis: ☒ Yes ☐ No MS/MSD: ☐ Yes ☒ No ☐ N/A		
Correct Containers Used:	☒ Yes ☐ No	9.
Correct Type: <u>Pace Green Bay</u> , Pace IR, Non-Pace		
Containers Intact:	☒ Yes ☐ No	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	13.
Trip Blank Custody Seals Present	☐ Yes ☒ No ☐ 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: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample log

Page 2 of 2

Terracon - Franklin, WI

Sample Delivery Group: L1756404

Samples Received: 07/13/2024

Project Number:

Description:

Report To: Rachel Slonac
4900 South Pennsylvania Ave
Suite 100
Cudahy, WI 53110

Entire Report Reviewed By:



Jennifer A McCurdy
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.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
SS-1 L1756404-01	5
SS-2 L1756404-02	7
SS-3 L1756404-03	9
Qc: Quality Control Summary	11
Volatile Organic Compounds (MS) by Method TO-15	11
Gl: Glossary of Terms	15
Al: Accreditations & Locations	16
Sc: Sample Chain of Custody	17

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

SAMPLE SUMMARY

SS-1 L1756404-01 Air

Collected by
Rachel Slonac

Collected date/time
07/12/24 13:44

Received date/time
07/13/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2322708	1	07/14/24 15:59	07/14/24 15:59	GH	Mt. Juliet, TN

SS-2 L1756404-02 Air

Collected by
Rachel Slonac

Collected date/time
07/12/24 13:37

Received date/time
07/13/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2322708	1	07/14/24 16:26	07/14/24 16:26	GH	Mt. Juliet, TN

SS-3 L1756404-03 Air

Collected by
Rachel Slonac

Collected date/time
07/12/24 13:32

Received date/time
07/13/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2322708	1	07/14/24 16:54	07/14/24 16:54	GH	Mt. Juliet, TN

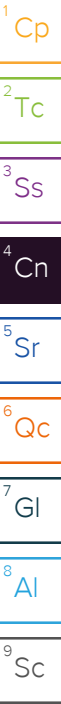


CASE NARRATIVE

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.



Jennifer A McCurdy
Project Manager



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL	RDL	Result	Qualifier	Dilution	Batch
			ug/m3	ug/m3	ug/m3			
Acetone	67-64-1	58.10	1.39	4.63	23.3		1	WG2322708
Benzene	71-43-2	78.10	0.228	0.760	0.719	J	1	WG2322708
Benzyl Chloride	100-44-7	127	0.311	1.03	U		1	WG2322708
Bromodichloromethane	75-27-4	164	0.471	1.57	U		1	WG2322708
Bromoform	75-25-2	253	0.757	2.52	U		1	WG2322708
Bromomethane	74-83-9	94.90	0.381	1.27	U		1	WG2322708
1,3-Butadiene	106-99-0	54.10	0.230	0.768	U		1	WG2322708
Carbon disulfide	75-15-0	76.10	0.317	1.06	0.349	J	1	WG2322708
Carbon tetrachloride	56-23-5	154	0.461	1.54	U		1	WG2322708
Chlorobenzene	108-90-7	113	0.385	1.28	U		1	WG2322708
Chloroethane	75-00-3	64.50	0.263	0.876	U		1	WG2322708
Chloroform	67-66-3	119	0.349	1.16	2.29		1	WG2322708
Chloromethane	74-87-3	50.50	0.213	0.708	U		1	WG2322708
Cyclohexane	110-82-7	84.20	0.259	0.864	U		1	WG2322708
Dibromochloromethane	124-48-1	208	0.618	2.06	U		1	WG2322708
1,2-Dibromoethane	106-93-4	188	0.554	1.85	U		1	WG2322708
1,2-Dichlorobenzene	95-50-1	147	0.770	2.57	U		1	WG2322708
1,3-Dichlorobenzene	541-73-1	147	1.09	3.65	U		1	WG2322708
1,4-Dichlorobenzene	106-46-7	147	0.335	1.12	U		1	WG2322708
1,2-Dichloroethane	107-06-2	99	0.283	0.943	U		1	WG2322708
1,1-Dichloroethane	75-34-3	98	0.290	0.966	U		1	WG2322708
1,1-Dichloroethene	75-35-4	96.90	0.302	1.01	U		1	WG2322708
cis-1,2-Dichloroethene	156-59-2	96.90	0.311	1.03	U		1	WG2322708
trans-1,2-Dichloroethene	156-60-5	96.90	0.267	0.888	U		1	WG2322708
1,2-Dichloropropane	78-87-5	113	0.351	1.17	U		1	WG2322708
cis-1,3-Dichloropropene	10061-01-5	111	0.313	1.04	U		1	WG2322708
trans-1,3-Dichloropropene	10061-02-6	111	0.331	1.10	U		1	WG2322708
Ethanol	64-17-5	46.10	0.500	1.66	40.5		1	WG2322708
Ethylbenzene	100-41-4	106	0.362	1.21	1.01	J	1	WG2322708
4-Ethyltoluene	622-96-8	120	0.384	1.28	U		1	WG2322708
Ethyl acetate	141-78-6	88	0.360	1.20	U		1	WG2322708
Trichlorofluoromethane	75-69-4	137.40	0.460	1.53	1.33	J	1	WG2322708
Dichlorodifluoromethane	75-71-8	120.92	0.678	2.26	2.05	J	1	WG2322708
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.608	2.02	U		1	WG2322708
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.622	2.08	U		1	WG2322708
Heptane	142-82-5	100	0.425	1.42	0.519	J	1	WG2322708
Hexachloro-1,3-butadiene	87-68-3	261	1.12	3.74	U		1	WG2322708
n-Hexane	110-54-3	86.20	0.726	2.42	1.14	J	1	WG2322708
Isopropylbenzene	98-82-8	120.20	0.382	1.27	U		1	WG2322708
Methylene Chloride	75-09-2	84.90	0.340	1.13	4.44		1	WG2322708
Methyl Butyl Ketone	591-78-6	100	0.544	1.81	U		1	WG2322708
2-Butanone (MEK)	78-93-3	72.10	0.240	0.799	3.10		1	WG2322708
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.313	1.04	1.56		1	WG2322708
Methyl methacrylate	80-62-6	100.12	0.359	1.20	U		1	WG2322708
MTBE	1634-04-4	88.10	0.233	0.778	U		1	WG2322708
Naphthalene	91-20-3	128	1.83	6.13	U		1	WG2322708
2-Propanol	67-63-0	60.10	0.649	2.16	6.86		1	WG2322708
Propene	115-07-1	42.10	0.160	0.536	1.21		1	WG2322708
Styrene	100-42-5	104	0.335	1.12	0.442	J	1	WG2322708
1,1,2,2-Tetrachloroethane	79-34-5	168	0.511	1.70	U		1	WG2322708
Tetrachloroethylene	127-18-4	166	0.553	1.84	2.88		1	WG2322708
Tetrahydrofuran	109-99-9	72.10	0.216	0.722	1.19		1	WG2322708
Toluene	108-88-3	92.10	0.328	1.09	1.92		1	WG2322708
1,2,4-Trichlorobenzene	120-82-1	181	1.10	3.65	U		1	WG2322708
1,1,1-Trichloroethane	71-55-6	133	0.400	1.33	U		1	WG2322708
1,1,2-Trichloroethane	79-00-5	133	0.422	1.40	U		1	WG2322708

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.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
Trichloroethylene	79-01-6	131	0.364	1.22	1.16	J	1	WG2322708
1,2,4-Trimethylbenzene	95-63-6	120	0.375	1.25	0.756	J	1	WG2322708
1,3,5-Trimethylbenzene	108-67-8	120	0.382	1.28	U		1	WG2322708
2,2,4-Trimethylpentane	540-84-1	114.22	0.621	2.07	0.986	J	1	WG2322708
Vinyl chloride	75-01-4	62.50	0.243	0.808	U		1	WG2322708
Vinyl Bromide	593-60-2	106.95	0.373	1.24	U		1	WG2322708
Vinyl acetate	108-05-4	86.10	0.408	1.36	U		1	WG2322708
Xylenes, Total	1330-20-7	106.16	0.586	1.95	4.25		1	WG2322708
m&p-Xylene	179601-23-1	106	0.585	1.95	3.08		1	WG2322708
o-Xylene	95-47-6	106	0.359	1.20	1.16	J	1	WG2322708
(S) 1,4-Bromofluorobenzene	460-00-4	175			97.9		60.0-140	WG2322708

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.	MDL	RDL	Result	Qualifier	Dilution	Batch
			ug/m3	ug/m3	ug/m3			
Acetone	67-64-1	58.10	1.39	4.63	31.8		1	WG2322708
Benzene	71-43-2	78.10	0.228	0.760	0.540	J	1	WG2322708
Benzyl Chloride	100-44-7	127	0.311	1.03	U		1	WG2322708
Bromodichloromethane	75-27-4	164	0.471	1.57	U		1	WG2322708
Bromoform	75-25-2	253	0.757	2.52	U		1	WG2322708
Bromomethane	74-83-9	94.90	0.381	1.27	U		1	WG2322708
1,3-Butadiene	106-99-0	54.10	0.230	0.768	U		1	WG2322708
Carbon disulfide	75-15-0	76.10	0.317	1.06	U		1	WG2322708
Carbon tetrachloride	56-23-5	154	0.461	1.54	U		1	WG2322708
Chlorobenzene	108-90-7	113	0.385	1.28	U		1	WG2322708
Chloroethane	75-00-3	64.50	0.263	0.876	U		1	WG2322708
Chloroform	67-66-3	119	0.349	1.16	2.46		1	WG2322708
Chloromethane	74-87-3	50.50	0.213	0.708	34.7		1	WG2322708
Cyclohexane	110-82-7	84.20	0.259	0.864	0.314	J	1	WG2322708
Dibromochloromethane	124-48-1	208	0.618	2.06	U		1	WG2322708
1,2-Dibromoethane	106-93-4	188	0.554	1.85	U		1	WG2322708
1,2-Dichlorobenzene	95-50-1	147	0.770	2.57	U		1	WG2322708
1,3-Dichlorobenzene	541-73-1	147	1.09	3.65	U		1	WG2322708
1,4-Dichlorobenzene	106-46-7	147	0.335	1.12	U		1	WG2322708
1,2-Dichloroethane	107-06-2	99	0.283	0.943	U		1	WG2322708
1,1-Dichloroethane	75-34-3	98	0.290	0.966	U		1	WG2322708
1,1-Dichloroethene	75-35-4	96.90	0.302	1.01	U		1	WG2322708
cis-1,2-Dichloroethene	156-59-2	96.90	0.311	1.03	U		1	WG2322708
trans-1,2-Dichloroethene	156-60-5	96.90	0.267	0.888	U		1	WG2322708
1,2-Dichloropropane	78-87-5	113	0.351	1.17	U		1	WG2322708
cis-1,3-Dichloropropene	10061-01-5	111	0.313	1.04	U		1	WG2322708
trans-1,3-Dichloropropene	10061-02-6	111	0.331	1.10	U		1	WG2322708
Ethanol	64-17-5	46.10	0.500	1.66	42.4		1	WG2322708
Ethylbenzene	100-41-4	106	0.362	1.21	2.56		1	WG2322708
4-Ethyltoluene	622-96-8	120	0.384	1.28	U		1	WG2322708
Ethyl acetate	141-78-6	88	0.360	1.20	U		1	WG2322708
Trichlorofluoromethane	75-69-4	137.40	0.460	1.53	1.55		1	WG2322708
Dichlorodifluoromethane	75-71-8	120.92	0.678	2.26	1.90	J	1	WG2322708
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.608	2.02	U		1	WG2322708
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.622	2.08	U		1	WG2322708
Heptane	142-82-5	100	0.425	1.42	0.822	J	1	WG2322708
Hexachloro-1,3-butadiene	87-68-3	261	1.12	3.74	U		1	WG2322708
n-Hexane	110-54-3	86.20	0.726	2.42	0.874	J	1	WG2322708
Isopropylbenzene	98-82-8	120.20	0.382	1.27	U		1	WG2322708
Methylene Chloride	75-09-2	84.90	0.340	1.13	0.993	J	1	WG2322708
Methyl Butyl Ketone	591-78-6	100	0.544	1.81	1.06	J	1	WG2322708
2-Butanone (MEK)	78-93-3	72.10	0.240	0.799	4.57		1	WG2322708
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.313	1.04	7.45		1	WG2322708
Methyl methacrylate	80-62-6	100.12	0.359	1.20	U		1	WG2322708
MTBE	1634-04-4	88.10	0.233	0.778	U		1	WG2322708
Naphthalene	91-20-3	128	1.83	6.13	U		1	WG2322708
2-Propanol	67-63-0	60.10	0.649	2.16	10.4		1	WG2322708
Propene	115-07-1	42.10	0.160	0.536	1.08		1	WG2322708
Styrene	100-42-5	104	0.335	1.12	U		1	WG2322708
1,1,2,2-Tetrachloroethane	79-34-5	168	0.511	1.70	U		1	WG2322708
Tetrachloroethylene	127-18-4	166	0.553	1.84	6.53		1	WG2322708
Tetrahydrofuran	109-99-9	72.10	0.216	0.722	1.47		1	WG2322708
Toluene	108-88-3	92.10	0.328	1.09	2.90		1	WG2322708
1,2,4-Trichlorobenzene	120-82-1	181	1.10	3.65	U		1	WG2322708
1,1,1-Trichloroethane	71-55-6	133	0.400	1.33	U		1	WG2322708
1,1,2-Trichloroethane	79-00-5	133	0.422	1.40	U		1	WG2322708



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
Trichloroethylene	79-01-6	131	0.364	1.22	1.63		1	WG2322708
1,2,4-Trimethylbenzene	95-63-6	120	0.375	1.25	1.19	J	1	WG2322708
1,3,5-Trimethylbenzene	108-67-8	120	0.382	1.28	U		1	WG2322708
2,2,4-Trimethylpentane	540-84-1	114.22	0.621	2.07	0.682	J	1	WG2322708
Vinyl chloride	75-01-4	62.50	0.243	0.808	U		1	WG2322708
Vinyl Bromide	593-60-2	106.95	0.373	1.24	U		1	WG2322708
Vinyl acetate	108-05-4	86.10	0.408	1.36	U		1	WG2322708
Xylenes, Total	1330-20-7	106.16	0.586	1.95	9.34		1	WG2322708
m&p-Xylene	179601-23-1	106	0.585	1.95	6.98		1	WG2322708
o-Xylene	95-47-6	106	0.359	1.20	2.36		1	WG2322708
(S) 1,4-Bromofluorobenzene	460-00-4	175			98.1		60.0-140	WG2322708

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.39	4.63	14.4		1	WG2322708
Benzene	71-43-2	78.10	0.228	0.760	1.49		1	WG2322708
Benzyl Chloride	100-44-7	127	0.311	1.03	U		1	WG2322708
Bromodichloromethane	75-27-4	164	0.471	1.57	U		1	WG2322708
Bromoform	75-25-2	253	0.757	2.52	U		1	WG2322708
Bromomethane	74-83-9	94.90	0.381	1.27	U		1	WG2322708
1,3-Butadiene	106-99-0	54.10	0.230	0.768	U		1	WG2322708
Carbon disulfide	75-15-0	76.10	0.317	1.06	4.42		1	WG2322708
Carbon tetrachloride	56-23-5	154	0.461	1.54	U		1	WG2322708
Chlorobenzene	108-90-7	113	0.385	1.28	U		1	WG2322708
Chloroethane	75-00-3	64.50	0.263	0.876	U		1	WG2322708
Chloroform	67-66-3	119	0.349	1.16	2.30		1	WG2322708
Chloromethane	74-87-3	50.50	0.213	0.708	U		1	WG2322708
Cyclohexane	110-82-7	84.20	0.259	0.864	0.620	J	1	WG2322708
Dibromochloromethane	124-48-1	208	0.618	2.06	U		1	WG2322708
1,2-Dibromoethane	106-93-4	188	0.554	1.85	U		1	WG2322708
1,2-Dichlorobenzene	95-50-1	147	0.770	2.57	U		1	WG2322708
1,3-Dichlorobenzene	541-73-1	147	1.09	3.65	U		1	WG2322708
1,4-Dichlorobenzene	106-46-7	147	0.335	1.12	U		1	WG2322708
1,2-Dichloroethane	107-06-2	99	0.283	0.943	U		1	WG2322708
1,1-Dichloroethane	75-34-3	98	0.290	0.966	U		1	WG2322708
1,1-Dichloroethene	75-35-4	96.90	0.302	1.01	U		1	WG2322708
cis-1,2-Dichloroethene	156-59-2	96.90	0.311	1.03	U		1	WG2322708
trans-1,2-Dichloroethene	156-60-5	96.90	0.267	0.888	24.3		1	WG2322708
1,2-Dichloropropane	78-87-5	113	0.351	1.17	U		1	WG2322708
cis-1,3-Dichloropropene	10061-01-5	111	0.313	1.04	U		1	WG2322708
trans-1,3-Dichloropropene	10061-02-6	111	0.331	1.10	U		1	WG2322708
Ethanol	64-17-5	46.10	0.500	1.66	20.0		1	WG2322708
Ethylbenzene	100-41-4	106	0.362	1.21	4.47		1	WG2322708
4-Ethyltoluene	622-96-8	120	0.384	1.28	0.545	J	1	WG2322708
Ethyl acetate	141-78-6	88	0.360	1.20	U		1	WG2322708
Trichlorofluoromethane	75-69-4	137.40	0.460	1.53	2.17		1	WG2322708
Dichlorodifluoromethane	75-71-8	120.92	0.678	2.26	1.95	J	1	WG2322708
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.608	2.02	U		1	WG2322708
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.622	2.08	U		1	WG2322708
Heptane	142-82-5	100	0.425	1.42	1.23	J	1	WG2322708
Hexachloro-1,3-butadiene	87-68-3	261	1.12	3.74	U		1	WG2322708
n-Hexane	110-54-3	86.20	0.726	2.42	1.18	J	1	WG2322708
Isopropylbenzene	98-82-8	120.20	0.382	1.27	0.456	J	1	WG2322708
Methylene Chloride	75-09-2	84.90	0.340	1.13	U		1	WG2322708
Methyl Butyl Ketone	591-78-6	100	0.544	1.81	0.699	J	1	WG2322708
2-Butanone (MEK)	78-93-3	72.10	0.240	0.799	2.18		1	WG2322708
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.313	1.04	7.94		1	WG2322708
Methyl methacrylate	80-62-6	100.12	0.359	1.20	U		1	WG2322708
MTBE	1634-04-4	88.10	0.233	0.778	U		1	WG2322708
Naphthalene	91-20-3	128	1.83	6.13	2.44	J	1	WG2322708
2-Propanol	67-63-0	60.10	0.649	2.16	7.82		1	WG2322708
Propene	115-07-1	42.10	0.160	0.536	U		1	WG2322708
Styrene	100-42-5	104	0.335	1.12	U		1	WG2322708
1,1,2,2-Tetrachloroethane	79-34-5	168	0.511	1.70	U		1	WG2322708
Tetrachloroethylene	127-18-4	166	0.553	1.84	12.0		1	WG2322708
Tetrahydrofuran	109-99-9	72.10	0.216	0.722	U		1	WG2322708
Toluene	108-88-3	92.10	0.328	1.09	6.06		1	WG2322708
1,2,4-Trichlorobenzene	120-82-1	181	1.10	3.65	U		1	WG2322708
1,1,1-Trichloroethane	71-55-6	133	0.400	1.33	0.419	J	1	WG2322708
1,1,2-Trichloroethane	79-00-5	133	0.422	1.40	U		1	WG2322708

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.	MDL ug/m3	RDL ug/m3	Result ug/m3	Qualifier	Dilution	Batch
Trichloroethylene	79-01-6	131	0.364	1.22	22.1		1	WG2322708
1,2,4-Trimethylbenzene	95-63-6	120	0.375	1.25	3.08		1	WG2322708
1,3,5-Trimethylbenzene	108-67-8	120	0.382	1.28	1.21	J	1	WG2322708
2,2,4-Trimethylpentane	540-84-1	114.22	0.621	2.07	0.631	J	1	WG2322708
Vinyl chloride	75-01-4	62.50	0.243	0.808	U		1	WG2322708
Vinyl Bromide	593-60-2	106.95	0.373	1.24	U		1	WG2322708
Vinyl acetate	108-05-4	86.10	0.408	1.36	U		1	WG2322708
Xylenes, Total	1330-20-7	106.16	0.586	1.95	17.0		1	WG2322708
m&p-Xylene	179601-23-1	106	0.585	1.95	12.3		1	WG2322708
o-Xylene	95-47-6	106	0.359	1.20	4.68		1	WG2322708
(S) 1,4-Bromofluorobenzene	460-00-4	175			96.9		60.0-140	WG2322708

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4094509-2 07/14/24 12:33

Analyte	MB Result ug/m3	MB Qualifier	MB MDL ug/m3	MB RDL ug/m3
Acetone	U		1.39	2.97
Benzene	U		0.228	0.639
Benzyl Chloride	U		0.311	1.04
Bromodichloromethane	U		0.471	1.34
Bromoform	U		0.757	6.21
Bromomethane	U		0.381	0.776
1,3-Butadiene	U		0.230	4.43
Carbon disulfide	U		0.317	1.24
Carbon tetrachloride	U		0.461	1.26
Chlorobenzene	U		0.385	0.924
Chloroethane	U		0.263	0.528
Chloroform	U		0.349	0.973
Chloromethane	U		0.213	0.413
Cyclohexane	U		0.259	0.689
Dibromochloromethane	U		0.618	1.70
1,2-Dibromoethane	U		0.554	1.54
1,2-Dichlorobenzene	U		0.770	1.20
1,3-Dichlorobenzene	U		1.09	1.20
1,4-Dichlorobenzene	U		0.335	1.20
1,2-Dichloroethane	U		0.283	0.810
1,1-Dichloroethane	U		0.290	0.802
1,1-Dichloroethene	U		0.302	0.793
cis-1,2-Dichloroethene	U		0.311	0.793
trans-1,2-Dichloroethene	U		0.267	0.793
1,2-Dichloropropane	U		0.351	0.924
cis-1,3-Dichloropropene	U		0.313	0.908
trans-1,3-Dichloropropene	U		0.331	0.908
Ethanol	U		0.500	4.71
Ethylbenzene	U		0.362	0.867
4-Ethyltoluene	U		0.384	0.982
Ethyl acetate	U		0.360	2.27
Trichlorofluoromethane	U		0.460	1.12
Dichlorodifluoromethane	U		0.678	0.989
1,1,2-Trichlorotrifluoroethane	U		0.608	1.53
1,2-Dichlorotetrafluoroethane	U		0.622	1.40
Heptane	U		0.425	0.818
Hexachloro-1,3-butadiene	U		1.12	6.73
n-Hexane	U		0.726	2.22
Isopropylbenzene	U		0.382	0.983
Methylene Chloride	U		0.340	0.694

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4094509-2 07/14/24 12:33

Analyte	MB Result ug/m3	MB Qualifier	MB MDL ug/m3	MB RDL ug/m3
Methyl Butyl Ketone	U		0.544	5.11
2-Butanone (MEK)	U		0.240	3.69
4-Methyl-2-pentanone (MIBK)	U		0.313	5.12
Methyl methacrylate	U		0.359	0.819
MTBE	U		0.233	0.721
Naphthalene	U		1.83	3.30
2-Propanol	U		0.649	3.07
Propene	U		0.160	2.15
Styrene	U		0.335	1.70
1,1,2,2-Tetrachloroethane	U		0.511	1.37
Tetrachloroethylene	U		0.553	1.36
Tetrahydrofuran	U		0.216	0.590
Toluene	U		0.328	1.88
1,2,4-Trichlorobenzene	U		1.10	4.66
1,1,1-Trichloroethane	U		0.400	1.09
1,1,2-Trichloroethane	U		0.422	1.09
Trichloroethylene	U		0.364	1.07
1,2,4-Trimethylbenzene	U		0.375	0.982
1,3,5-Trimethylbenzene	U		0.382	0.982
2,2,4-Trimethylpentane	U		0.621	0.934
Vinyl chloride	U		0.243	0.511
Vinyl Bromide	U		0.373	0.875
Vinyl acetate	U		0.408	2.22
Xylenes, Total	U		0.586	2.61
m&p-Xylene	U		0.585	1.73
o-Xylene	U		0.359	0.867
(S) 1,4-Bromofluorobenzene	96.5			60.0-140

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R4094509-1 07/14/24 12:05 • (LCSD) R4094509-3 07/14/24 14:31

Analyte	Spike Amount ug/m3	LCS Result ug/m3	LCSD Result ug/m3	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	8.91	6.89	6.72	77.3	75.5	70.0-130			2.44	25
Benzene	12.0	11.7	12.0	97.6	100	70.0-130			2.70	25
Benzyl Chloride	19.5	20.7	20.6	106	106	70.0-152			0.504	25
Bromodichloromethane	25.2	24.9	26.0	98.9	103	70.0-130			4.22	25
Bromoform	38.8	40.0	41.4	103	107	70.0-130			3.30	25
Bromomethane	14.6	12.4	12.5	85.3	85.6	70.0-130			0.312	25

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

(LCS) R4094509-1 07/14/24 12:05 • (LCSD) R4094509-3 07/14/24 14:31

Analyte	Spike Amount ug/m3	LCS Result ug/m3	LCSD Result ug/m3	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,3-Butadiene	8.30	6.57	6.53	79.2	78.7	70.0-130			0.676	25
Carbon disulfide	23.3	18.8	19.1	80.4	81.9	70.0-130			1.81	25
Carbon tetrachloride	23.6	24.0	23.9	102	101	70.0-130			0.526	25
Chlorobenzene	17.3	17.5	18.7	101	108	70.0-130			6.39	25
Chloroethane	9.89	7.76	7.94	78.4	80.3	70.0-130			2.35	25
Chloroform	18.3	18.3	18.6	100	102	70.0-130			1.85	25
Chloromethane	7.75	6.22	5.87	80.3	75.7	70.0-130			5.81	25
Cyclohexane	12.9	13.2	13.2	102	102	70.0-130			0.261	25
Dibromochloromethane	31.9	33.4	34.5	105	108	70.0-130			3.01	25
1,2-Dibromoethane	28.8	29.7	31.1	103	108	70.0-130			4.80	25
1,2-Dichlorobenzene	22.5	23.9	24.2	106	107	70.0-130			1.25	25
1,3-Dichlorobenzene	22.5	24.1	24.5	107	109	70.0-130			1.73	25
1,4-Dichlorobenzene	22.5	24.2	25.0	107	111	70.0-130			3.42	25
1,2-Dichloroethane	15.2	14.8	15.5	97.3	102	70.0-130			4.55	25
1,1-Dichloroethane	15.0	15.2	15.1	101	100	70.0-130			0.795	25
1,1-Dichloroethene	14.9	12.0	12.2	80.5	82.1	70.0-130			1.97	25
cis-1,2-Dichloroethene	14.9	14.6	14.5	98.1	97.9	70.0-130			0.272	25
trans-1,2-Dichloroethene	14.9	14.2	14.4	95.5	97.1	70.0-130			1.66	25
1,2-Dichloropropane	17.3	17.4	17.9	100	103	70.0-130			3.14	25
cis-1,3-Dichloropropene	17.0	17.2	18.2	101	107	70.0-130			5.39	25
trans-1,3-Dichloropropene	17.0	17.4	17.6	102	103	70.0-130			1.30	25
Ethanol	7.07	4.51	5.28	63.7	74.7	55.0-148	U		15.8	25
Ethylbenzene	16.3	16.3	16.5	100	102	70.0-130			1.32	25
4-Ethyltoluene	18.4	19.2	19.6	105	107	70.0-130			2.02	25
Ethyl acetate	13.5	13.2	13.2	97.9	97.9	70.0-130			0.000	25
Trichlorofluoromethane	21.1	18.0	18.4	85.6	87.5	70.0-130			2.16	25
Dichlorodifluoromethane	18.5	17.5	16.7	94.1	90.1	64.0-139			4.34	25
1,1,2-Trichlorotrifluoroethane	28.7	23.8	24.9	82.9	86.7	70.0-130			4.40	25
1,2-Dichlorotetrafluoroethane	26.2	22.5	22.3	85.9	85.1	70.0-130			0.936	25
Heptane	15.3	14.5	14.8	94.4	96.8	70.0-130			2.51	25
Hexachloro-1,3-butadiene	40.0	41.7	44.0	104	110	70.0-151			5.23	25
n-Hexane	13.2	12.9	13.1	97.6	99.2	70.0-130			1.63	25
Isopropylbenzene	18.4	18.9	19.4	102	105	70.0-130			2.82	25
Methylene Chloride	13.0	9.76	10.2	74.9	78.7	70.0-130			4.86	25
Methyl Butyl Ketone	15.3	15.8	16.1	103	105	70.0-149			1.80	25
2-Butanone (MEK)	11.1	10.9	11.2	98.1	101	70.0-130			2.95	25
4-Methyl-2-pentanone (MIBK)	15.4	15.6	15.9	101	103	70.0-139			2.08	25
Methyl methacrylate	15.4	15.6	16.1	101	105	70.0-130			3.36	25
MTBE	13.5	13.2	13.2	97.6	97.6	70.0-130			0.000	25
Naphthalene	19.6	20.6	22.2	105	113	70.0-159			7.57	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R4094509-1 07/14/24 12:05 • (LCSD) R4094509-3 07/14/24 14:31

Analyte	Spike Amount ug/m3	LCS Result ug/m3	LCSD Result ug/m3	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
2-Propanol	9.22	7.13	7.28	77.3	78.9	70.0-139			2.05	25
Propene	6.46	6.04	6.15	93.6	95.2	64.0-144			1.69	25
Styrene	31.9	33.9	34.3	106	108	70.0-130			1.25	25
1,1,2,2-Tetrachloroethane	25.8	26.9	27.6	105	107	70.0-130			2.27	25
Tetrachloroethylene	25.5	26.8	28.1	105	110	70.0-130			4.95	25
Tetrahydrofuran	11.1	11.1	11.0	101	99.2	70.0-137			1.34	25
Toluene	14.1	12.3	13.4	86.9	94.9	70.0-130			8.80	25
1,2,4-Trichlorobenzene	27.8	30.2	32.4	109	117	70.0-160			7.09	25
1,1,1-Trichloroethane	20.4	20.5	20.9	101	102	70.0-130			1.84	25
1,1,2-Trichloroethane	20.4	21.1	22.2	103	109	70.0-130			5.27	25
Trichloroethylene	20.1	20.4	21.3	101	106	70.0-130			4.38	25
1,2,4-Trimethylbenzene	18.4	19.1	19.3	104	105	70.0-130			0.766	25
1,3,5-Trimethylbenzene	18.4	18.9	19.4	103	106	70.0-130			2.56	25
2,2,4-Trimethylpentane	17.5	17.3	17.7	98.9	101	70.0-130			2.13	25
Vinyl chloride	9.59	7.90	7.44	82.4	77.6	70.0-130			6.00	25
Vinyl Bromide	16.4	13.8	14.1	84.3	85.9	70.0-130			1.88	25
Vinyl acetate	13.2	12.2	12.0	92.5	91.2	70.0-130			1.45	25
Xylenes, Total	49.1	48.2	49.9	98.2	102	70.0-130			3.54	25
m&p-Xylene	32.5	31.7	32.9	97.5	101	70.0-130			3.89	25
o-Xylene	16.3	16.2	16.9	99.7	104	70.0-130			3.93	25
(S) 1,4-Bromofluorobenzene				99.5	98.3	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

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.

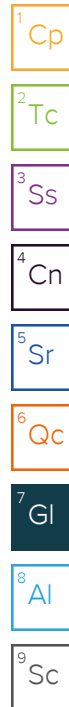
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

MDL	Method Detection Limit.
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.
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ACCREDITATIONS & LOCATIONS

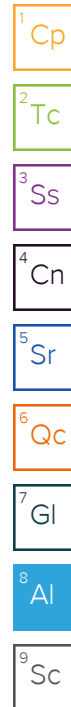
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	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 ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

* 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 Analytical.



Pace® Location Requested (City/State):		Air CHAIN-OF-CUSTODY Analytical Request Document				LAB USE ONLY- Affix Workorder/Login Label Here									
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields						 Scan QR code for instructions									
Company Name: Terracon - Franklin, WI		Contact/Report To: Rachel Slonac				M149									
Street Address: 4900 South Pennsylvania Ave		Phone #: 414-209-7643													
City, State Zip:		E-Mail: rachel.slonac@terracon.com													
Customer Project #:		Cc E-Mail:													
Project Name:		Invoice to:													
Site Collection Info/Facility ID (as applicable): TERRAFWI-SUMMA		Purchase Order # (if applicable):				AN 6/14/24									
Time Zone Collected: ☐ AK ☐ PT ☐ MT ☒ CT ☐ ET		Quote #:													
Data Deliverables:		Regulatory Program (CAA, RCRA, etc.) as applicable:				TERRAFWI									
☐ Level II ☐ Level III ☐ Level IV ☐ EQUIS ☐ Other		Rush (Pre-approval required): 2 Day 3 day 5 day Other													
Date Results Requested: Standard		Permit # as applicable:													
		Units for Reporting: ug/m³ PPBV mg/m³ PPMV													
* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)						TERRAFWI									
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Beacon Environmental

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 240618R01

Laboratory Work Order: 0007843

Project Description:

Barrel Plating Services fmr 58247140
Milwaukee, WI

Prepared for:

Rachel Slonac

Terracon

4900 South Pennsylvania Ave, Ste 100

Cudahy, WI 53110

Ryan W. Schneider
Senior Project Manager

July 10, 2024

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

Table of Contents

Cover Page	1
Sample Summary	3
Case Narrative	4
Analytical Results	5
Summary of Compound Detections	6
Data Summary Table	7
Detailed Analytical Results	8
0007843-01 - 327-B	9
0007843-02 - 325-B	10
0007843-03 - OA	11
QC Summaries	12
Additional QC Information	21
Sample Result Calculations	22
Equation	25
LOD/MRL Calculation Table	26
Certifications	29
Notes and Definitions	30
Sample Management Records	31
Chain of Custody	32



CERTIFICATE OF ANALYSIS

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Terracon 4900 South Pennsylvania Ave, Ste 100 Cudahy, WI 53110	Site Name: Barrel Plating Services fmr 58247140 Site Location: Milwaukee, WI Project Manager: Rachel Slonac	Beacon Proposal: 240618R01 Lab Work Order: 0007843 Reported: 07/10/2024
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Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0007843-01 Sampler Type:	327-B Beacon Passive Sampler	07/01/2024	TO-17 (Passive)	Indoor Air
0007843-02 Sampler Type:	325-B Beacon Passive Sampler	07/01/2024	TO-17 (Passive)	Indoor Air
0007843-03 Sampler Type:	OA Beacon Passive Sampler	07/01/2024	TO-17 (Passive)	Ambient Air

Project Completeness	
Samples Received:	3
Samples Analyzed:	3

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Case Narrative

Beacon Environmental provided thermally conditioned Beacon Samplers for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in $\mu\text{g}/\text{m}^3$. Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

Reporting Limits (RLs) for EPA Method TO-17

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

Calibration Verification

All continuing calibration verification (CCV) values are within $\pm 30\%$ of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

Internal Standards and Surrogates

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

Blank Contamination

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

Laboratory Control Samples

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

Discussion

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Analytical Results

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Summary of Compound Detections- Concentration

Lab Sample ID 0007843-01	327-B	Method: TO-17 (Passive)
	Indoor Air	

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Methylene Chloride	75-09-2	5.38		2.503	2.81	1.41	Kb24070108.D
Benzene	71-43-2	6.56		4.676	4.64	1.86	Kb24070108.D
Toluene	108-88-3	22.4		7.532	6.15	2.46	Kb24070108.D
Tetrachloroethene	127-18-4	1.98	J	8.068	2.40	1.20	Kb24070108.D
Ethylbenzene	100-41-4	2.34	J	8.998	2.89	1.16	Kb24070108.D
p & m-Xylene	179601-23-1	7.97		9.105	2.80	1.12	Kb24070108.D
o-Xylene	95-47-6	2.95		9.407	2.80	1.12	Kb24070108.D
Naphthalene	91-20-3	0.724	J	12.062	1.23	0.615	Kb24070108.D

Lab Sample ID 0007843-02	325-B	Method: TO-17 (Passive)
	Indoor Air	

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Methylene Chloride	75-09-2	14.2		2.503	2.81	1.41	Kb24070109.D
Benzene	71-43-2	16.6		4.677	4.64	1.86	Kb24070109.D
Toluene	108-88-3	56.4		7.532	6.15	2.46	Kb24070109.D
Tetrachloroethene	127-18-4	3.67		8.068	2.40	1.20	Kb24070109.D
Ethylbenzene	100-41-4	6.22		8.998	2.89	1.16	Kb24070109.D
p & m-Xylene	179601-23-1	21.8		9.106	2.80	1.12	Kb24070109.D
o-Xylene	95-47-6	7.53		9.407	2.80	1.12	Kb24070109.D
Isopropylbenzene	98-82-8	2.75	J	9.689	2.96	1.19	Kb24070109.D
1,3,5-Trimethylbenzene	108-67-8	1.66	J	10.13	2.96	1.19	Kb24070109.D
1,2,4-Trimethylbenzene	95-63-6	6.54		10.384	2.96	1.19	Kb24070109.D
Naphthalene	91-20-3	0.991	J	12.066	1.23	0.615	Kb24070109.D
2-Methylnaphthalene	91-57-6	0.879	J	12.767	1.29	0.647	Kb24070109.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110**Site Name:** Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac**Beacon Proposal:** 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024***Data Summary Table- Concentration***

Compound	Frequency	LOD ($\mu\text{g}/\text{m}^3$)	Max Value ($\mu\text{g}/\text{m}^3$)
Methylene Chloride	2	1.41	14.2
Benzene	2	1.86	16.6
Toluene	2	2.46	56.4
Tetrachloroethene	2	1.20	3.67
Ethylbenzene	2	1.16	6.22
p & m-Xylene	2	1.12	21.8
o-Xylene	2	1.12	7.53
Isopropylbenzene	1	1.19	2.75
1,3,5-Trimethylbenzene	1	1.19	1.66
1,2,4-Trimethylbenzene	1	1.19	6.54
Naphthalene	2	0.615	0.991
2-Methylnaphthalene	1	0.647	0.879

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Detailed Analytical Results

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Lab Sample ID: 0007843-01	327-B	Method: TO-17 (Passive)
	Indoor Air	

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.607	U	0.607	1.21	07/01/2024 16:54	Kb24070108.D
1,1-Dichloroethene	75-35-4	<1.49	U	1.49	2.98	07/01/2024 16:54	Kb24070108.D
Methylene Chloride	75-09-2	5.38		1.41	2.81	07/01/2024 16:54	Kb24070108.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.553	U	0.553	1.11	07/01/2024 16:54	Kb24070108.D
trans-1,2-Dichloroethene	156-60-5	<1.12	U	1.12	2.24	07/01/2024 16:54	Kb24070108.D
Methyl-t-butyl ether	1634-04-4	<1.97	U	1.97	4.92	07/01/2024 16:54	Kb24070108.D
1,1-Dichloroethane	75-34-3	<0.579	U	0.579	1.16	07/01/2024 16:54	Kb24070108.D
cis-1,2-Dichloroethene	156-59-2	<0.928	U	0.928	1.86	07/01/2024 16:54	Kb24070108.D
Chloroform	67-66-3	<1.41	U	1.41	2.81	07/01/2024 16:54	Kb24070108.D
1,2-Dichloroethane	107-06-2	<0.879	U	0.879	1.76	07/01/2024 16:54	Kb24070108.D
1,1,1-Trichloroethane	71-55-6	<0.469	U	0.469	0.937	07/01/2024 16:54	Kb24070108.D
Carbon Tetrachloride	56-23-5	<1.14	U	1.14	2.29	07/01/2024 16:54	Kb24070108.D
Benzene	71-43-2	6.56		1.86	4.64	07/01/2024 16:54	Kb24070108.D
Trichloroethene	79-01-6	<1.49	U	1.49	2.98	07/01/2024 16:54	Kb24070108.D
1,4-Dioxane	123-91-1	<1.20	U	1.20	2.40	07/01/2024 16:54	Kb24070108.D
1,1,2-Trichloroethane	79-00-5	<1.49	U	1.49	2.98	07/01/2024 16:54	Kb24070108.D
Toluene	108-88-3	22.4		2.46	6.15	07/01/2024 16:54	Kb24070108.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26	U	1.26	2.52	07/01/2024 16:54	Kb24070108.D
Tetrachloroethene	127-18-4	1.98	J	1.20	2.40	07/01/2024 16:54	Kb24070108.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20	U	1.20	2.40	07/01/2024 16:54	Kb24070108.D
Chlorobenzene	108-90-7	<0.579	U	0.579	1.16	07/01/2024 16:54	Kb24070108.D
Ethylbenzene	100-41-4	2.34	J	1.16	2.89	07/01/2024 16:54	Kb24070108.D
p & m-Xylene	179601-23-1	7.97		1.12	2.80	07/01/2024 16:54	Kb24070108.D
o-Xylene	95-47-6	2.95		1.12	2.80	07/01/2024 16:54	Kb24070108.D
1,2,3-Trichloropropane	96-18-4	<0.656	U	0.656	1.31	07/01/2024 16:54	Kb24070108.D
Isopropylbenzene	98-82-8	<1.19	U	1.19	2.96	07/01/2024 16:54	Kb24070108.D
1,3,5-Trimethylbenzene	108-67-8	<1.19	U	1.19	2.96	07/01/2024 16:54	Kb24070108.D
1,2,4-Trimethylbenzene	95-63-6	<1.19	U	1.19	2.96	07/01/2024 16:54	Kb24070108.D
1,3-Dichlorobenzene	541-73-1	<0.656	U	0.656	1.31	07/01/2024 16:54	Kb24070108.D
1,4-Dichlorobenzene	106-46-7	<0.656	U	0.656	1.31	07/01/2024 16:54	Kb24070108.D
1,2-Dichlorobenzene	95-50-1	<0.656	U	0.656	1.31	07/01/2024 16:54	Kb24070108.D
1,2,4-Trichlorobenzene	120-82-1	<1.26	U	1.26	2.52	07/01/2024 16:54	Kb24070108.D
Naphthalene	91-20-3	0.724	J	0.615	1.23	07/01/2024 16:54	Kb24070108.D
1,2,3-Trichlorobenzene	87-61-6	<1.26	U	1.26	2.52	07/01/2024 16:54	Kb24070108.D
2-Methylnaphthalene	91-57-6	<0.647	U	0.647	1.29	07/01/2024 16:54	Kb24070108.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	96.1%	70-130			07/01/2024 16:54	Kb24070108.D
Surrogate: Toluene-d8	2037-26-5	103%	70-130			07/01/2024 16:54	Kb24070108.D
Surrogate: Bromofluorobenzene	460-00-4	99.3%	70-130			07/01/2024 16:54	Kb24070108.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Lab Sample ID: 0007843-02	325-B	Method: TO-17 (Passive)
Indoor Air		

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.607	U	0.607	1.21	07/01/2024 17:23	Kb24070109.D
1,1-Dichloroethene	75-35-4	<1.49	U	1.49	2.98	07/01/2024 17:23	Kb24070109.D
Methylene Chloride	75-09-2	14.2		1.41	2.81	07/01/2024 17:23	Kb24070109.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.553	U	0.553	1.11	07/01/2024 17:23	Kb24070109.D
trans-1,2-Dichloroethene	156-60-5	<1.12	U	1.12	2.24	07/01/2024 17:23	Kb24070109.D
Methyl-t-butyl ether	1634-04-4	<1.97	U	1.97	4.92	07/01/2024 17:23	Kb24070109.D
1,1-Dichloroethane	75-34-3	<0.579	U	0.579	1.16	07/01/2024 17:23	Kb24070109.D
cis-1,2-Dichloroethene	156-59-2	<0.928	U	0.928	1.86	07/01/2024 17:23	Kb24070109.D
Chloroform	67-66-3	<1.41	U	1.41	2.81	07/01/2024 17:23	Kb24070109.D
1,2-Dichloroethane	107-06-2	<0.879	U	0.879	1.76	07/01/2024 17:23	Kb24070109.D
1,1,1-Trichloroethane	71-55-6	<0.469	U	0.469	0.937	07/01/2024 17:23	Kb24070109.D
Carbon Tetrachloride	56-23-5	<1.14	U	1.14	2.29	07/01/2024 17:23	Kb24070109.D
Benzene	71-43-2	16.6		1.86	4.64	07/01/2024 17:23	Kb24070109.D
Trichloroethene	79-01-6	<1.49	U	1.49	2.98	07/01/2024 17:23	Kb24070109.D
1,4-Dioxane	123-91-1	<1.20	U	1.20	2.40	07/01/2024 17:23	Kb24070109.D
1,1,2-Trichloroethane	79-00-5	<1.49	U	1.49	2.98	07/01/2024 17:23	Kb24070109.D
Toluene	108-88-3	56.4		2.46	6.15	07/01/2024 17:23	Kb24070109.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26	U	1.26	2.52	07/01/2024 17:23	Kb24070109.D
Tetrachloroethene	127-18-4	3.67		1.20	2.40	07/01/2024 17:23	Kb24070109.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20	U	1.20	2.40	07/01/2024 17:23	Kb24070109.D
Chlorobenzene	108-90-7	<0.579	U	0.579	1.16	07/01/2024 17:23	Kb24070109.D
Ethylbenzene	100-41-4	6.22		1.16	2.89	07/01/2024 17:23	Kb24070109.D
p & m-Xylene	179601-23-1	21.8		1.12	2.80	07/01/2024 17:23	Kb24070109.D
o-Xylene	95-47-6	7.53		1.12	2.80	07/01/2024 17:23	Kb24070109.D
1,2,3-Trichloropropane	96-18-4	<0.656	U	0.656	1.31	07/01/2024 17:23	Kb24070109.D
Isopropylbenzene	98-82-8	2.75	J	1.19	2.96	07/01/2024 17:23	Kb24070109.D
1,3,5-Trimethylbenzene	108-67-8	1.66	J	1.19	2.96	07/01/2024 17:23	Kb24070109.D
1,2,4-Trimethylbenzene	95-63-6	6.54		1.19	2.96	07/01/2024 17:23	Kb24070109.D
1,3-Dichlorobenzene	541-73-1	<0.656	U	0.656	1.31	07/01/2024 17:23	Kb24070109.D
1,4-Dichlorobenzene	106-46-7	<0.656	U	0.656	1.31	07/01/2024 17:23	Kb24070109.D
1,2-Dichlorobenzene	95-50-1	<0.656	U	0.656	1.31	07/01/2024 17:23	Kb24070109.D
1,2,4-Trichlorobenzene	120-82-1	<1.26	U	1.26	2.52	07/01/2024 17:23	Kb24070109.D
Naphthalene	91-20-3	0.991	J	0.615	1.23	07/01/2024 17:23	Kb24070109.D
1,2,3-Trichlorobenzene	87-61-6	<1.26	U	1.26	2.52	07/01/2024 17:23	Kb24070109.D
2-Methylnaphthalene	91-57-6	0.879	J	0.647	1.29	07/01/2024 17:23	Kb24070109.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	95.9%	70-130			07/01/2024 17:23	Kb24070109.D
Surrogate: Toluene-d8	2037-26-5	104%	70-130			07/01/2024 17:23	Kb24070109.D
Surrogate: Bromofluorobenzene	460-00-4	98.5%	70-130			07/01/2024 17:23	Kb24070109.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Lab Sample ID: 0007843-03	OA	Method: TO-17 (Passive)
Ambient Air		

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.607	U	0.607	1.21	07/01/2024 17:52	Kb24070110.D
1,1-Dichloroethene	75-35-4	<1.49	U	1.49	2.98	07/01/2024 17:52	Kb24070110.D
Methylene Chloride	75-09-2	<1.41	U	1.41	2.81	07/01/2024 17:52	Kb24070110.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.553	U	0.553	1.11	07/01/2024 17:52	Kb24070110.D
trans-1,2-Dichloroethene	156-60-5	<1.12	U	1.12	2.24	07/01/2024 17:52	Kb24070110.D
Methyl-t-butyl ether	1634-04-4	<1.97	U	1.97	4.92	07/01/2024 17:52	Kb24070110.D
1,1-Dichloroethane	75-34-3	<0.579	U	0.579	1.16	07/01/2024 17:52	Kb24070110.D
cis-1,2-Dichloroethene	156-59-2	<0.928	U	0.928	1.86	07/01/2024 17:52	Kb24070110.D
Chloroform	67-66-3	<1.41	U	1.41	2.81	07/01/2024 17:52	Kb24070110.D
1,2-Dichloroethane	107-06-2	<0.879	U	0.879	1.76	07/01/2024 17:52	Kb24070110.D
1,1,1-Trichloroethane	71-55-6	<0.469	U	0.469	0.937	07/01/2024 17:52	Kb24070110.D
Carbon Tetrachloride	56-23-5	<1.14	U	1.14	2.29	07/01/2024 17:52	Kb24070110.D
Benzene	71-43-2	<1.86	U	1.86	4.64	07/01/2024 17:52	Kb24070110.D
Trichloroethene	79-01-6	<1.49	U	1.49	2.98	07/01/2024 17:52	Kb24070110.D
1,4-Dioxane	123-91-1	<1.20	U	1.20	2.40	07/01/2024 17:52	Kb24070110.D
1,1,2-Trichloroethane	79-00-5	<1.49	U	1.49	2.98	07/01/2024 17:52	Kb24070110.D
Toluene	108-88-3	<2.46	U	2.46	6.15	07/01/2024 17:52	Kb24070110.D
1,2-Dibromoethane (EDB)	106-93-4	<1.26	U	1.26	2.52	07/01/2024 17:52	Kb24070110.D
Tetrachloroethene	127-18-4	<1.20	U	1.20	2.40	07/01/2024 17:52	Kb24070110.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.20	U	1.20	2.40	07/01/2024 17:52	Kb24070110.D
Chlorobenzene	108-90-7	<0.579	U	0.579	1.16	07/01/2024 17:52	Kb24070110.D
Ethylbenzene	100-41-4	<1.16	U	1.16	2.89	07/01/2024 17:52	Kb24070110.D
p & m-Xylene	179601-23-1	<1.12	U	1.12	2.80	07/01/2024 17:52	Kb24070110.D
o-Xylene	95-47-6	<1.12	U	1.12	2.80	07/01/2024 17:52	Kb24070110.D
1,2,3-Trichloropropane	96-18-4	<0.656	U	0.656	1.31	07/01/2024 17:52	Kb24070110.D
Isopropylbenzene	98-82-8	<1.19	U	1.19	2.96	07/01/2024 17:52	Kb24070110.D
1,3,5-Trimethylbenzene	108-67-8	<1.19	U	1.19	2.96	07/01/2024 17:52	Kb24070110.D
1,2,4-Trimethylbenzene	95-63-6	<1.19	U	1.19	2.96	07/01/2024 17:52	Kb24070110.D
1,3-Dichlorobenzene	541-73-1	<0.656	U	0.656	1.31	07/01/2024 17:52	Kb24070110.D
1,4-Dichlorobenzene	106-46-7	<0.656	U	0.656	1.31	07/01/2024 17:52	Kb24070110.D
1,2-Dichlorobenzene	95-50-1	<0.656	U	0.656	1.31	07/01/2024 17:52	Kb24070110.D
1,2,4-Trichlorobenzene	120-82-1	<1.26	U	1.26	2.52	07/01/2024 17:52	Kb24070110.D
Naphthalene	91-20-3	<0.615	U	0.615	1.23	07/01/2024 17:52	Kb24070110.D
1,2,3-Trichlorobenzene	87-61-6	<1.26	U	1.26	2.52	07/01/2024 17:52	Kb24070110.D
2-Methylnaphthalene	91-57-6	<0.647	U	0.647	1.29	07/01/2024 17:52	Kb24070110.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	93.6%	70-130			07/01/2024 17:52	Kb24070110.D
Surrogate: Toluene-d8	2037-26-5	106%	70-130			07/01/2024 17:52	Kb24070110.D
Surrogate: Bromofluorobenzene	460-00-4	99.1%	70-130			07/01/2024 17:52	Kb24070110.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

QC Information/Summary

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24D099 - Instrument: K System - File ID: Ka24043022.D

B24D099-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	51.8	10	5	ng	50.0		104	70-130			
1,1-Dichloroethene	48.7	10	5	ng	50.0		97.5	70-130			
Methylene Chloride	50.6	10	5	ng	50.0		101	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	51.0	10	5	ng	50.0		102	70-130			
trans-1,2-Dichloroethene	51.7	10	5	ng	50.0		103	70-130			
Methyl-t-butyl ether	47.9	25	10	ng	50.0		95.8	70-130			
1,1-Dichloroethane	50.4	10	5	ng	50.0		101	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Chloroform	50.6	10	5	ng	50.0		101	70-130			
1,2-Dichloroethane	50.2	10	5	ng	50.0		100	70-130			
1,1,1-Trichloroethane	50.7	10	5	ng	50.0		101	70-130			
Carbon Tetrachloride	51.0	10	5	ng	50.0		102	70-130			
Benzene	46.8	25	10	ng	50.0		93.6	70-130			
Trichloroethene	50.6	10	5	ng	50.0		101	70-130			
1,4-Dioxane	45.4	10	5	ng	50.0		90.8	70-130			
1,1,2-Trichloroethane	55.0	10	5	ng	50.0		110	70-130			
Toluene	41.9	25	10	ng	50.0		83.8	70-130			
1,2-Dibromoethane (EDB)	48.9	10	5	ng	50.0		97.8	70-130			
Tetrachloroethene	50.8	10	5	ng	50.0		102	70-130			
1,1,1,2-Tetrachloroethane	49.9	10	5	ng	50.0		99.8	70-130			
Chlorobenzene	50.3	10	5	ng	50.0		101	70-130			
Ethylbenzene	52.5	25	10	ng	50.0		105	70-130			
p & m-Xylene	52.4	25	10	ng	50.0		105	70-130			
o-Xylene	50.6	25	10	ng	50.0		101	70-130			
1,2,3-Trichloropropane	46.9	10	5	ng	50.0		93.8	70-130			
Isopropylbenzene	50.5	25	10	ng	50.0		101	70-130			
1,3,5-Trimethylbenzene	49.1	25	10	ng	50.0		98.2	70-130			
1,2,4-Trimethylbenzene	48.8	25	10	ng	50.0		97.5	70-130			
1,3-Dichlorobenzene	49.8	10	5	ng	50.0		99.5	70-130			
1,4-Dichlorobenzene	49.7	10	5	ng	50.0		99.4	70-130			
1,2-Dichlorobenzene	49.6	10	5	ng	50.0		99.1	70-130			
1,2,4-Trichlorobenzene	48.3	10	5	ng	50.0		96.6	70-130			
Naphthalene	49.8	10	5	ng	50.0		99.7	70-130			
1,2,3-Trichlorobenzene	49.9	10	5	ng	50.0		99.7	70-130			
2-Methylnaphthalene	49.7	10	5	ng	50.0		99.4	70-130			
Surrogate: 1,2-DCA-d4	50.3			ng	50.0		101	70-130			
Surrogate: Toluene-d8	50.0			ng	50.0		100	70-130			
Surrogate: Bromofluorobenzene	48.1			ng	50.0		96.2	70-130			

Terracon
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Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24D099 - Instrument: K System - File ID: Ka24043024.D

B24D099-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
1,1-Dichloroethene	<5	10	5	ng							U
Methylene Chloride	<5	10	5	ng							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
Methyl-t-butyl ether	<10	25	10	ng							U
1,1-Dichloroethane	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Chloroform	<5	10	5	ng							U
1,2-Dichloroethane	<5	10	5	ng							U
1,1,1-Trichloroethane	<5	10	5	ng							U
Carbon Tetrachloride	<5	10	5	ng							U
Benzene	<10	25	10	ng							U
Trichloroethene	<5	10	5	ng							U
1,4-Dioxane	<5	10	5	ng							U
1,1,2-Trichloroethane	<5	10	5	ng							U
Toluene	<10	25	10	ng							U
1,2-Dibromoethane (EDB)	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
1,1,1,2-Tetrachloroethane	<5	10	5	ng							U
Chlorobenzene	<5	10	5	ng							U
Ethylbenzene	<10	25	10	ng							U
p & m-Xylene	<10	25	10	ng							U
o-Xylene	<10	25	10	ng							U
1,2,3-Trichloropropane	<5	10	5	ng							U
Isopropylbenzene	<10	25	10	ng							U
1,3,5-Trimethylbenzene	<10	25	10	ng							U
1,2,4-Trimethylbenzene	<10	25	10	ng							U
1,3-Dichlorobenzene	<5	10	5	ng							U
1,4-Dichlorobenzene	<5	10	5	ng							U
1,2-Dichlorobenzene	<5	10	5	ng							U
1,2,4-Trichlorobenzene	<5	10	5	ng							U
Naphthalene	<5	10	5	ng							U
1,2,3-Trichlorobenzene	<5	10	5	ng							U
2-Methylnaphthalene	<5	10	5	ng							U
Surrogate: 1,2-DCA-d4	102			ng	100		102	70-130			
Surrogate: Toluene-d8	103			ng	100		103	70-130			
Surrogate: Bromofluorobenzene	94.5			ng	100		94.5	70-130			

Terracon
4900 South Pennsylvania Ave, Ste 100
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Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G005 - Batch: 24G0006 - Instrument: K System - File ID: Kb24070102.D

24G0006-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	57.5	10	5	ng	50.0		115	70-130			
1,1-Dichloroethene	47.6	10	5	ng	50.0		95.3	70-130			
Methylene Chloride	53.6	10	5	ng	50.0		107	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	49.4	10	5	ng	50.0		98.7	70-130			
trans-1,2-Dichloroethene	51.3	10	5	ng	50.0		103	70-130			
Methyl-t-butyl ether	49.0	25	10	ng	50.0		98.1	70-130			
1,1-Dichloroethane	51.9	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	50.1	10	5	ng	50.0		100	70-130			
Chloroform	50.8	10	5	ng	50.0		102	70-130			
1,2-Dichloroethane	50.2	10	5	ng	50.0		100	70-130			
1,1,1-Trichloroethane	53.6	10	5	ng	50.0		107	70-130			
Carbon Tetrachloride	56.4	10	5	ng	50.0		113	70-130			
Benzene	43.7	25	10	ng	50.0		87.4	70-130			
Trichloroethene	48.9	10	5	ng	50.0		97.7	70-130			
1,4-Dioxane	48.3	10	5	ng	50.0		96.5	70-130			
1,1,2-Trichloroethane	45.2	10	5	ng	50.0		90.3	70-130			
Toluene	49.8	25	10	ng	50.0		99.7	70-130			
1,2-Dibromoethane (EDB)	53.5	10	5	ng	50.0		107	70-130			
Tetrachloroethene	45.9	10	5	ng	50.0		91.8	70-130			
1,1,1,2-Tetrachloroethane	55.7	10	5	ng	50.0		111	70-130			
Chlorobenzene	46.8	10	5	ng	50.0		93.6	70-130			
Ethylbenzene	52.5	25	10	ng	50.0		105	70-130			
p & m-Xylene	52.4	25	10	ng	50.0		105	70-130			
o-Xylene	50.5	25	10	ng	50.0		101	70-130			
1,2,3-Trichloropropane	51.7	10	5	ng	50.0		103	70-130			
Isopropylbenzene	51.5	25	10	ng	50.0		103	70-130			
1,3,5-Trimethylbenzene	52.3	25	10	ng	50.0		105	70-130			
1,2,4-Trimethylbenzene	50.6	25	10	ng	50.0		101	70-130			
1,3-Dichlorobenzene	48.4	10	5	ng	50.0		96.7	70-130			
1,4-Dichlorobenzene	47.1	10	5	ng	50.0		94.2	70-130			
1,2-Dichlorobenzene	47.5	10	5	ng	50.0		95.0	70-130			
1,2,4-Trichlorobenzene	47.1	10	5	ng	50.0		94.3	70-130			
Naphthalene	48.3	10	5	ng	50.0		96.5	70-130			
1,2,3-Trichlorobenzene	47.6	10	5	ng	50.0		95.2	70-130			
2-Methylnaphthalene	52.6	10	5	ng	50.0		105	70-130			
Surrogate: 1,2-DCA-d4	49.1			ng	50.0		98.3	70-130			
Surrogate: Toluene-d8	54.3			ng	50.0		109	70-130			
Surrogate: Bromofluorobenzene	48.4			ng	50.0		96.8	70-130			

Terracon
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Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G005 - Batch: 24G0006 - Instrument: K System - File ID: Kb24070103.D

24G0006-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.607	1.21	0.607	µg/m³							U
1,1-Dichloroethene	<1.49	2.98	1.49	µg/m³							U
Methylene Chloride	<1.41	2.81	1.41	µg/m³							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<0.553	1.11	0.553	µg/m³							U
trans-1,2-Dichloroethene	<1.12	2.24	1.12	µg/m³							U
Methyl-t-butyl ether	<1.97	4.92	1.97	µg/m³							U
1,1-Dichloroethane	<0.579	1.16	0.579	µg/m³							U
cis-1,2-Dichloroethene	<0.928	1.86	0.928	µg/m³							U
Chloroform	<1.41	2.81	1.41	µg/m³							U
1,2-Dichloroethane	<0.879	1.76	0.879	µg/m³							U
1,1,1-Trichloroethane	<0.469	0.937	0.469	µg/m³							U
Carbon Tetrachloride	<1.14	2.29	1.14	µg/m³							U
Benzene	<1.86	4.64	1.86	µg/m³							U
Trichloroethene	<1.49	2.98	1.49	µg/m³							U
1,4-Dioxane	<1.20	2.40	1.20	µg/m³							U
1,1,2-Trichloroethane	<1.49	2.98	1.49	µg/m³							U
Toluene	<2.46	6.15	2.46	µg/m³							U
1,2-Dibromoethane (EDB)	<1.26	2.52	1.26	µg/m³							U
Tetrachloroethene	<1.20	2.40	1.20	µg/m³							U
1,1,1,2-Tetrachloroethane	<1.20	2.40	1.20	µg/m³							U
Chlorobenzene	<0.579	1.16	0.579	µg/m³							U
Ethylbenzene	<1.16	2.89	1.16	µg/m³							U
p & m-Xylene	<1.12	2.80	1.12	µg/m³							U
o-Xylene	<1.12	2.80	1.12	µg/m³							U
1,2,3-Trichloropropane	<0.656	1.31	0.656	µg/m³							U
Isopropylbenzene	<1.19	2.96	1.19	µg/m³							U
1,3,5-Trimethylbenzene	<1.19	2.96	1.19	µg/m³							U
1,2,4-Trimethylbenzene	<1.19	2.96	1.19	µg/m³							U
1,3-Dichlorobenzene	<0.656	1.31	0.656	µg/m³							U
1,4-Dichlorobenzene	<0.656	1.31	0.656	µg/m³							U
1,2-Dichlorobenzene	<0.656	1.31	0.656	µg/m³							U
1,2,4-Trichlorobenzene	<1.26	2.52	1.26	µg/m³							U
Naphthalene	<0.615	1.23	0.615	µg/m³							U
1,2,3-Trichlorobenzene	<1.26	2.52	1.26	µg/m³							U
2-Methylnaphthalene	<0.647	1.29	0.647	µg/m³							U
Surrogate: 1,2-DCA-d4	98.2			ng	100		98.2	70-130			
Surrogate: Toluene-d8	109			ng	100		109	70-130			
Surrogate: Bromofluorobenzene	95.4			ng	100		95.4	70-130			

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Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G005 - Instrument: K System - File ID: Kb24070104.D

B24G005-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.4	10	5	ng	50.0		96.7	70-130			
1,1-Dichloroethene	49.7	10	5	ng	50.0		99.3	70-130			
Methylene Chloride	54.6	10	5	ng	50.0		109	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	49.1	10	5	ng	50.0		98.1	70-130			
trans-1,2-Dichloroethene	53.8	10	5	ng	50.0		108	70-130			
Methyl-t-butyl ether	47.4	25	10	ng	50.0		94.8	70-130			
1,1-Dichloroethane	53.8	10	5	ng	50.0		108	70-130			
cis-1,2-Dichloroethene	51.2	10	5	ng	50.0		102	70-130			
Chloroform	52.7	10	5	ng	50.0		105	70-130			
1,2-Dichloroethane	51.8	10	5	ng	50.0		104	70-130			
1,1,1-Trichloroethane	54.8	10	5	ng	50.0		110	70-130			
Carbon Tetrachloride	58.6	10	5	ng	50.0		117	70-130			
Benzene	43.4	25	10	ng	50.0		86.8	70-130			
Trichloroethene	49.9	10	5	ng	50.0		99.8	70-130			
1,4-Dioxane	48.6	10	5	ng	50.0		97.1	70-130			
1,1,2-Trichloroethane	46.0	10	5	ng	50.0		91.9	70-130			
Toluene	59.9	25	10	ng	50.0		120	70-130			
1,2-Dibromoethane (EDB)	54.7	10	5	ng	50.0		109	70-130			
Tetrachloroethene	47.5	10	5	ng	50.0		95.0	70-130			
1,1,1,2-Tetrachloroethane	57.1	10	5	ng	50.0		114	70-130			
Chlorobenzene	48.0	10	5	ng	50.0		95.9	70-130			
Ethylbenzene	53.7	25	10	ng	50.0		107	70-130			
p & m-Xylene	53.8	25	10	ng	50.0		108	70-130			
o-Xylene	51.7	25	10	ng	50.0		103	70-130			
1,2,3-Trichloropropane	54.3	10	5	ng	50.0		109	70-130			
Isopropylbenzene	53.1	25	10	ng	50.0		106	70-130			
1,3,5-Trimethylbenzene	52.9	25	10	ng	50.0		106	70-130			
1,2,4-Trimethylbenzene	52.1	25	10	ng	50.0		104	70-130			
1,3-Dichlorobenzene	48.6	10	5	ng	50.0		97.3	70-130			
1,4-Dichlorobenzene	48.4	10	5	ng	50.0		96.9	70-130			
1,2-Dichlorobenzene	48.1	10	5	ng	50.0		96.1	70-130			
1,2,4-Trichlorobenzene	47.1	10	5	ng	50.0		94.3	70-130			
Naphthalene	49.2	10	5	ng	50.0		98.3	70-130			
1,2,3-Trichlorobenzene	47.9	10	5	ng	50.0		95.9	70-130			
2-Methylnaphthalene	50.3	10	5	ng	50.0		101	70-130			
Surrogate: 1,2-DCA-d4	48.5			ng	50.0		97.1	70-130			
Surrogate: Toluene-d8	54.1			ng	50.0		108	70-130			
Surrogate: Bromofluorobenzene	48.0			ng	50.0		96.0	70-130			

Terracon
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Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G005 - Instrument: K System - File ID: Kb24070111.D

B24G005-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	61.9	10	5	ng	50.0		124	70-130			
1,1-Dichloroethene	48.1	10	5	ng	50.0		96.1	70-130			
Methylene Chloride	52.9	10	5	ng	50.0		106	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	50.9	10	5	ng	50.0		102	70-130			
trans-1,2-Dichloroethene	51.9	10	5	ng	50.0		104	70-130			
Methyl-t-butyl ether	49.5	25	10	ng	50.0		98.9	70-130			
1,1-Dichloroethane	51.6	10	5	ng	50.0		103	70-130			
cis-1,2-Dichloroethene	49.9	10	5	ng	50.0		99.8	70-130			
Chloroform	51.1	10	5	ng	50.0		102	70-130			
1,2-Dichloroethane	50.2	10	5	ng	50.0		100	70-130			
1,1,1-Trichloroethane	53.7	10	5	ng	50.0		107	70-130			
Carbon Tetrachloride	57.3	10	5	ng	50.0		115	70-130			
Benzene	42.8	25	10	ng	50.0		85.5	70-130			
Trichloroethene	49.1	10	5	ng	50.0		98.3	70-130			
1,4-Dioxane	48.6	10	5	ng	50.0		97.2	70-130			
1,1,2-Trichloroethane	44.5	10	5	ng	50.0		89.0	70-130			
Toluene	46.6	25	10	ng	50.0		93.2	70-130			
1,2-Dibromoethane (EDB)	53.1	10	5	ng	50.0		106	70-130			
Tetrachloroethene	46.2	10	5	ng	50.0		92.4	70-130			
1,1,1,2-Tetrachloroethane	57.2	10	5	ng	50.0		114	70-130			
Chlorobenzene	46.9	10	5	ng	50.0		93.9	70-130			
Ethylbenzene	52.6	25	10	ng	50.0		105	70-130			
p & m-Xylene	53.2	25	10	ng	50.0		106	70-130			
o-Xylene	51.4	25	10	ng	50.0		103	70-130			
1,2,3-Trichloropropane	51.3	10	5	ng	50.0		103	70-130			
Isopropylbenzene	52.3	25	10	ng	50.0		105	70-130			
1,3,5-Trimethylbenzene	52.7	25	10	ng	50.0		105	70-130			
1,2,4-Trimethylbenzene	51.5	25	10	ng	50.0		103	70-130			
1,3-Dichlorobenzene	47.7	10	5	ng	50.0		95.5	70-130			
1,4-Dichlorobenzene	46.3	10	5	ng	50.0		92.5	70-130			
1,2-Dichlorobenzene	46.7	10	5	ng	50.0		93.3	70-130			
1,2,4-Trichlorobenzene	46.1	10	5	ng	50.0		92.2	70-130			
Naphthalene	47.1	10	5	ng	50.0		94.1	70-130			
1,2,3-Trichlorobenzene	46.8	10	5	ng	50.0		93.6	70-130			
2-Methylnaphthalene	49.3	10	5	ng	50.0		98.6	70-130			
Surrogate: 1,2-DCA-d4	48.8			ng	50.0		97.7	70-130			
Surrogate: Toluene-d8	54.5			ng	50.0		109	70-130			
Surrogate: Bromofluorobenzene	48.9			ng	50.0		97.9	70-130			

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Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G005 - Instrument: K System - File ID: Kb24070112.D

B24G005-CCB1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
1,1-Dichloroethene	<5	10	5	ng							U
Methylene Chloride	<5	10	5	ng							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
Methyl-t-butyl ether	<10	25	10	ng							U
1,1-Dichloroethane	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Chloroform	<5	10	5	ng							U
1,2-Dichloroethane	<5	10	5	ng							U
1,1,1-Trichloroethane	<5	10	5	ng							U
Carbon Tetrachloride	<5	10	5	ng							U
Benzene	<10	25	10	ng							U
Trichloroethene	<5	10	5	ng							U
1,4-Dioxane	<5	10	5	ng							U
1,1,2-Trichloroethane	<5	10	5	ng							U
Toluene	<10	25	10	ng							U
1,2-Dibromoethane (EDB)	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
1,1,1,2-Tetrachloroethane	<5	10	5	ng							U
Chlorobenzene	<5	10	5	ng							U
Ethylbenzene	<10	25	10	ng							U
p & m-Xylene	<10	25	10	ng							U
o-Xylene	<10	25	10	ng							U
1,2,3-Trichloropropane	<5	10	5	ng							U
Isopropylbenzene	<10	25	10	ng							U
1,3,5-Trimethylbenzene	<10	25	10	ng							U
1,2,4-Trimethylbenzene	<10	25	10	ng							U
1,3-Dichlorobenzene	<5	10	5	ng							U
1,4-Dichlorobenzene	<5	10	5	ng							U
1,2-Dichlorobenzene	<5	10	5	ng							U
1,2,4-Trichlorobenzene	<5	10	5	ng							U
Naphthalene	<5	10	5	ng							U
1,2,3-Trichlorobenzene	<5	10	5	ng							U
2-Methylnaphthalene	<5	10	5	ng							U
Surrogate: 1,2-DCA-d4	99.3			ng	100		99.3	70-130			
Surrogate: Toluene-d8	110			ng	100		110	70-130			
Surrogate: Bromofluorobenzene	94.8			ng	100		94.8	70-130			

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Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

TO-17 (Passive) - LCS/LCSD RPD Quality Control Summary

LCS: 24G0006-BS1 File ID: Kb24070102.D

Analyzed: 7/1/24 8:57

LCSD: B24G005-ICV1 File ID: Kb24070104.D

Analyzed: 7/1/24 9:24

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	57.51	115.02	50	48.36	96.70	70-130	17.29	30	
1,1-Dichloroethene	75-35-4	47.64	95.28	50	49.67	99.30	70-130	4.17	30	
Methylene Chloride	75-09-2	53.56	107.12	50	54.62	109.00	70-130	1.96	30	
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	49.35	98.7	50	49.05	98.10	70-130	0.61	30	
trans-1,2-Dichloroethene	156-60-5	51.27	102.54	50	53.79	108.00	70-130	4.80	30	
Methyl-t-butyl ether	1634-04-4	49.03	98.06	50	47.39	94.80	70-130	3.40	30	
1,1-Dichloroethane	75-34-3	51.92	103.84	50	53.79	108.00	70-130	3.54	30	
cis-1,2-Dichloroethene	156-59-2	50.08	100.16	50	51.21	102.00	70-130	2.23	30	
Chloroform	67-66-3	50.82	101.64	50	52.68	105.00	70-130	3.59	30	
1,2-Dichloroethane	107-06-2	50.21	100.42	50	51.77	104.00	70-130	3.06	30	
1,1,1-Trichloroethane	71-55-6	53.59	107.18	50	54.77	110.00	70-130	2.18	30	
Carbon Tetrachloride	56-23-5	56.39	112.78	50	58.6	117.00	70-130	3.84	30	
Benzene	71-43-2	43.68	87.36	50	43.41	86.80	70-130	0.62	30	
Trichloroethene	79-01-6	48.85	97.7	50	49.9	99.80	70-130	2.13	30	
1,4-Dioxane	123-91-1	48.27	96.54	50	48.56	97.10	70-130	0.60	30	
1,1,2-Trichloroethane	79-00-5	45.15	90.3	50	45.95	91.90	70-130	1.76	30	
Toluene	108-88-3	49.83	99.66	50	59.93	120.00	70-130	18.40	30	
1,2-Dibromoethane (EDB)	106-93-4	53.48	106.96	50	54.72	109.00	70-130	2.29	30	
Tetrachloroethene	127-18-4	45.90	91.8	50	47.48	95.00	70-130	3.38	30	
1,1,1,2-Tetrachloroethane	630-20-6	55.74	111.48	50	57.14	114.00	70-130	2.48	30	
Chlorobenzene	108-90-7	46.82	93.64	50	47.97	95.90	70-130	2.43	30	
Ethylbenzene	100-41-4	52.46	104.92	50	53.65	107.00	70-130	2.24	30	
p & m-Xylene	179601-23-1	52.39	104.78	50	53.82	108.00	70-130	2.69	30	
o-Xylene	95-47-6	50.46	100.92	50	51.74	103.00	70-130	2.50	30	
1,2,3-Trichloropropane	96-18-4	51.68	103.36	50	54.29	109.00	70-130	4.93	30	
Isopropylbenzene	98-82-8	51.49	102.98	50	53.06	106.00	70-130	3.00	30	
1,3,5-Trimethylbenzene	108-67-8	52.28	104.56	50	52.91	106.00	70-130	1.20	30	
1,2,4-Trimethylbenzene	95-63-6	50.61	101.22	50	52.1	104.00	70-130	2.90	30	
1,3-Dichlorobenzene	541-73-1	48.36	96.72	50	48.63	97.30	70-130	0.56	30	
1,4-Dichlorobenzene	106-46-7	47.11	94.22	50	48.44	96.90	70-130	2.78	30	
1,2-Dichlorobenzene	95-50-1	47.49	94.98	50	48.05	96.10	70-130	1.17	30	
1,2,4-Trichlorobenzene	120-82-1	47.14	94.28	50	47.14	94.30	70-130	0.00	30	
Naphthalene	91-20-3	48.25	96.5	50	49.16	98.30	70-130	1.87	30	
1,2,3-Trichlorobenzene	87-61-6	47.60	95.2	50	47.94	95.90	70-130	0.71	30	
2-Methylnaphthalene	91-57-6	52.60	105.2	50	50.25	101.00	70-130	4.57	30	

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Additional QC Information

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m ³	File ID
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Lab ID: 0007843-01

Sample Name: 327-B

Σ Temp (°C): 21.40

Vinyl Chloride	10,080	1.00	0.817	U	U	Kb24070108.D
1,1-Dichloroethene	10,080	1.00	0.333	U	U	Kb24070108.D
Methylene Chloride	10,080	1.00	0.353 ^g	19.15	5.38	Kb24070108.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,080	1.00	0.897 ^g	U	U	Kb24070108.D
trans-1,2-Dichloroethene	10,080	1.00	0.444	U	U	Kb24070108.D
Methyl-t-butyl ether	10,080	1.00	0.504 ^g	U	U	Kb24070108.D
1,1,1-Dichloroethane	10,080	1.00	0.857	U	U	Kb24070108.D
cis-1,2-Dichloroethene	10,080	1.00	0.534	U	U	Kb24070108.D
Chloroform	10,080	1.00	0.353 ^g	U	U	Kb24070108.D
1,2-Dichloroethane	10,080	1.00	0.565	U	U	Kb24070108.D
1,1,1,1-Tetrachloroethane	10,080	1.00	1.059	U	U	Kb24070108.D
Carbon Tetrachloride	10,080	1.00	0.434 ^g	U	U	Kb24070108.D
Benzene	10,080	1.00	0.534	35.34	6.56	Kb24070108.D
Trichloroethene	10,080	1.00	0.333	U	U	Kb24070108.D
1,4-Dioxane	10,080	1.00	0.413 ^g	U	U	Kb24070108.D
1,1,2-Trichloroethane	10,080	1.00	0.333 ^g	U	U	Kb24070108.D
Toluene	10,080	1.00	0.403	90.87	22.4	Kb24070108.D
1,2-Dibromoethane (EDB)	10,080	1.00	0.393 ^g	U	U	Kb24070108.D
Tetrachloroethene	10,080	1.00	0.413	8.25	1.98	Kb24070108.D
1,1,1,2-Tetrachloroethane	10,080	1.00	0.413 ^g	U	U	Kb24070108.D
Chlorobenzene	10,080	1.00	0.857 ^g	U	U	Kb24070108.D
Ethylbenzene	10,080	1.00	0.857	20.18	2.34	Kb24070108.D
p & m-Xylene	10,080	1.00	0.887	71.24	7.97	Kb24070108.D
o-Xylene	10,080	1.00	0.887	26.36	2.95	Kb24070108.D
1,2,3-Trichloropropane	10,080	1.00	0.756 ^g	U	U	Kb24070108.D
Isopropylbenzene	10,080	1.00	0.837 ^g	U	U	Kb24070108.D
1,3,5-Trimethylbenzene	10,080	1.00	0.837 ^g	U	U	Kb24070108.D
1,2,4-Trimethylbenzene	10,080	1.00	0.837 ^g	U	U	Kb24070108.D
1,3-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070108.D
1,4-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070108.D
1,2-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070108.D
1,2,4-Trichlorobenzene	10,080	1.00	0.393 ^g	U	U	Kb24070108.D
Naphthalene	10,080	1.00	0.807 ^g	5.89	0.724	Kb24070108.D
1,2,3-Trichlorobenzene	10,080	1.00	0.393 ^g	U	U	Kb24070108.D
2-Methylnaphthalene	10,080	1.00	0.766 ^g	U	U	Kb24070108.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m ³	File ID
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Lab ID: 0007843-02

Sample Name: 325-B

̄ Temp (°C): 21.40

Vinyl Chloride	10,080	1.00	0.817	U	U	Kb24070109.D
1,1-Dichloroethene	10,080	1.00	0.333	U	U	Kb24070109.D
Methylene Chloride	10,080	1.00	0.353 ^g	50.42	14.2	Kb24070109.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,080	1.00	0.897 ^g	U	U	Kb24070109.D
trans-1,2-Dichloroethene	10,080	1.00	0.444	U	U	Kb24070109.D
Methyl-t-butyl ether	10,080	1.00	0.504 ^g	U	U	Kb24070109.D
1,1,1-Dichloroethane	10,080	1.00	0.857	U	U	Kb24070109.D
cis-1,2-Dichloroethene	10,080	1.00	0.534	U	U	Kb24070109.D
Chloroform	10,080	1.00	0.353 ^g	U	U	Kb24070109.D
1,2-Dichloroethane	10,080	1.00	0.565	U	U	Kb24070109.D
1,1,1,1-Tetrachloroethane	10,080	1.00	1.059	U	U	Kb24070109.D
Carbon Tetrachloride	10,080	1.00	0.434 ^g	U	U	Kb24070109.D
Benzene	10,080	1.00	0.534	89.49	16.6	Kb24070109.D
Trichloroethene	10,080	1.00	0.333	U	U	Kb24070109.D
1,4-Dioxane	10,080	1.00	0.413 ^g	U	U	Kb24070109.D
1,1,2-Trichloroethane	10,080	1.00	0.333 ^g	U	U	Kb24070109.D
Toluene	10,080	1.00	0.403	229.39	56.4	Kb24070109.D
1,2-Dibromoethane (EDB)	10,080	1.00	0.393 ^g	U	U	Kb24070109.D
Tetrachloroethene	10,080	1.00	0.413	15.28	3.67	Kb24070109.D
1,1,1,2-Tetrachloroethane	10,080	1.00	0.413 ^g	U	U	Kb24070109.D
Chlorobenzene	10,080	1.00	0.857 ^g	U	U	Kb24070109.D
Ethylbenzene	10,080	1.00	0.857	53.72	6.22	Kb24070109.D
p & m-Xylene	10,080	1.00	0.887	195.39	21.8	Kb24070109.D
o-Xylene	10,080	1.00	0.887	67.33	7.53	Kb24070109.D
1,2,3-Trichloropropane	10,080	1.00	0.756 ^g	U	U	Kb24070109.D
Isopropylbenzene	10,080	1.00	0.837 ^g	23.16	2.75	Kb24070109.D
1,3,5-Trimethylbenzene	10,080	1.00	0.837 ^g	14.04	1.66	Kb24070109.D
1,2,4-Trimethylbenzene	10,080	1.00	0.837 ^g	55.20	6.54	Kb24070109.D
1,3-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070109.D
1,4-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070109.D
1,2-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070109.D
1,2,4-Trichlorobenzene	10,080	1.00	0.393 ^g	U	U	Kb24070109.D
Naphthalene	10,080	1.00	0.807 ^g	8.06	0.991	Kb24070109.D
1,2,3-Trichlorobenzene	10,080	1.00	0.393 ^g	U	U	Kb24070109.D
2-Methylnaphthalene	10,080	1.00	0.766 ^g	6.79	0.879	Kb24070109.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m ³	File ID
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Lab ID: 0007843-03

Sample Name: OA

Σ Temp (°C): 21.40

Vinyl Chloride	10,080	1.00	0.817	U	U	Kb24070110.D
1,1-Dichloroethene	10,080	1.00	0.333	U	U	Kb24070110.D
Methylene Chloride	10,080	1.00	0.353 ^g	U	U	Kb24070110.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,080	1.00	0.897 ^g	U	U	Kb24070110.D
trans-1,2-Dichloroethene	10,080	1.00	0.444	U	U	Kb24070110.D
Methyl-t-butyl ether	10,080	1.00	0.504 ^g	U	U	Kb24070110.D
1,1,1-Dichloroethane	10,080	1.00	0.857	U	U	Kb24070110.D
cis-1,2-Dichloroethene	10,080	1.00	0.534	U	U	Kb24070110.D
Chloroform	10,080	1.00	0.353 ^g	U	U	Kb24070110.D
1,2-Dichloroethane	10,080	1.00	0.565	U	U	Kb24070110.D
1,1,1-Trichloroethane	10,080	1.00	1.059	U	U	Kb24070110.D
Carbon Tetrachloride	10,080	1.00	0.434 ^g	U	U	Kb24070110.D
Benzene	10,080	1.00	0.534	U	U	Kb24070110.D
Trichloroethene	10,080	1.00	0.333	U	U	Kb24070110.D
1,4-Dioxane	10,080	1.00	0.413 ^g	U	U	Kb24070110.D
1,1,2-Trichloroethane	10,080	1.00	0.333 ^g	U	U	Kb24070110.D
Toluene	10,080	1.00	0.403	U	U	Kb24070110.D
1,2-Dibromoethane (EDB)	10,080	1.00	0.393 ^g	U	U	Kb24070110.D
Tetrachloroethene	10,080	1.00	0.413	U	U	Kb24070110.D
1,1,1,2-Tetrachloroethane	10,080	1.00	0.413 ^g	U	U	Kb24070110.D
Chlorobenzene	10,080	1.00	0.857 ^g	U	U	Kb24070110.D
Ethylbenzene	10,080	1.00	0.857	U	U	Kb24070110.D
p & m-Xylene	10,080	1.00	0.887	U	U	Kb24070110.D
o-Xylene	10,080	1.00	0.887	U	U	Kb24070110.D
1,2,3-Trichloropropane	10,080	1.00	0.756 ^g	U	U	Kb24070110.D
Isopropylbenzene	10,080	1.00	0.837 ^g	U	U	Kb24070110.D
1,3,5-Trimethylbenzene	10,080	1.00	0.837 ^g	U	U	Kb24070110.D
1,2,4-Trimethylbenzene	10,080	1.00	0.837 ^g	U	U	Kb24070110.D
1,3-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070110.D
1,4-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070110.D
1,2-Dichlorobenzene	10,080	1.00	0.756 ^g	U	U	Kb24070110.D
1,2,4-Trichlorobenzene	10,080	1.00	0.393 ^g	U	U	Kb24070110.D
Naphthalene	10,080	1.00	0.807 ^g	U	U	Kb24070110.D
1,2,3-Trichlorobenzene	10,080	1.00	0.393 ^g	U	U	Kb24070110.D
2-Methylnaphthalene	10,080	1.00	0.766 ^g	U	U	Kb24070110.D

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110**Site Name:** Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac**Beacon Proposal:** 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left(\frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

where: C = concentration ($\mu\text{g}/\text{m}^3$)
M = mass (ng)
DF = dilution factor
U_c = uptake rate (ml/min), corrected
t = sampling time (minutes)
U = compound specific uptake rate
T_u = uptake rate study temperature
T_s = sample average temperature

Note: T_u is 16.65°C^g = Uptake rate determined using Graham's Law of Diffusion.

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Method Detection and Reporting Limit Calculations (Concentration) TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0007843-01	Sample Name: 327-B	̄ Temp (°C): 21.40
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Vinyl Chloride	10,080	1.00	0.817	10.00	5.00	1.21	0.607
1,1-Dichloroethene	10,080	1.00	0.333	10.00	5.00	2.98	1.49
Methylene Chloride	10,080	1.00	0.353	10.00	5.00	2.81	1.41
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,080	1.00	0.897	10.00	5.00	1.11	0.553
trans-1,2-Dichloroethene	10,080	1.00	0.444	10.00	5.00	2.24	1.12
Methyl-t-butyl ether	10,080	1.00	0.504	25.00	10.00	4.92	1.97
1,1-Dichloroethane	10,080	1.00	0.857	10.00	5.00	1.16	0.579
cis-1,2-Dichloroethene	10,080	1.00	0.534	10.00	5.00	1.86	0.928
Chloroform	10,080	1.00	0.353	10.00	5.00	2.81	1.41
1,2-Dichloroethane	10,080	1.00	0.565	10.00	5.00	1.76	0.879
1,1,1-Trichloroethane	10,080	1.00	1.059	10.00	5.00	0.937	0.469
Carbon Tetrachloride	10,080	1.00	0.434	10.00	5.00	2.29	1.14
Benzene	10,080	1.00	0.534	25.00	10.00	4.64	1.86
Trichloroethene	10,080	1.00	0.333	10.00	5.00	2.98	1.49
1,4-Dioxane	10,080	1.00	0.413	10.00	5.00	2.40	1.20
1,1,2-Trichloroethane	10,080	1.00	0.333	10.00	5.00	2.98	1.49
Toluene	10,080	1.00	0.403	25.00	10.00	6.15	2.46
1,2-Dibromoethane (EDB)	10,080	1.00	0.393	10.00	5.00	2.52	1.26
Tetrachloroethene	10,080	1.00	0.413	10.00	5.00	2.40	1.20
1,1,1,2-Tetrachloroethane	10,080	1.00	0.413	10.00	5.00	2.40	1.20
Chlorobenzene	10,080	1.00	0.857	10.00	5.00	1.16	0.579
Ethylbenzene	10,080	1.00	0.857	25.00	10.00	2.89	1.16
p & m-Xylene	10,080	1.00	0.887	25.00	10.00	2.80	1.12
o-Xylene	10,080	1.00	0.887	25.00	10.00	2.80	1.12
1,2,3-Trichloropropane	10,080	1.00	0.756	10.00	5.00	1.31	0.656
Isopropylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,3,5-Trimethylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,2,4-Trimethylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,3-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,4-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,2-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,2,4-Trichlorobenzene	10,080	1.00	0.393	10.00	5.00	2.52	1.26
Naphthalene	10,080	1.00	0.807	10.00	5.00	1.23	0.615
1,2,3-Trichlorobenzene	10,080	1.00	0.393	10.00	5.00	2.52	1.26
2-Methylnaphthalene	10,080	1.00	0.766	10.00	5.00	1.29	0.647

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Method Detection and Reporting Limit Calculations (Concentration) TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0007843-02	Sample Name: 325-B	̄ Temp (°C): 21.40
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Vinyl Chloride	10,080	1.00	0.817	10.00	5.00	1.21	0.607
1,1-Dichloroethene	10,080	1.00	0.333	10.00	5.00	2.98	1.49
Methylene Chloride	10,080	1.00	0.353	10.00	5.00	2.81	1.41
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,080	1.00	0.897	10.00	5.00	1.11	0.553
trans-1,2-Dichloroethene	10,080	1.00	0.444	10.00	5.00	2.24	1.12
Methyl-t-butyl ether	10,080	1.00	0.504	25.00	10.00	4.92	1.97
1,1-Dichloroethane	10,080	1.00	0.857	10.00	5.00	1.16	0.579
cis-1,2-Dichloroethene	10,080	1.00	0.534	10.00	5.00	1.86	0.928
Chloroform	10,080	1.00	0.353	10.00	5.00	2.81	1.41
1,2-Dichloroethane	10,080	1.00	0.565	10.00	5.00	1.76	0.879
1,1,1-Trichloroethane	10,080	1.00	1.059	10.00	5.00	0.937	0.469
Carbon Tetrachloride	10,080	1.00	0.434	10.00	5.00	2.29	1.14
Benzene	10,080	1.00	0.534	25.00	10.00	4.64	1.86
Trichloroethene	10,080	1.00	0.333	10.00	5.00	2.98	1.49
1,4-Dioxane	10,080	1.00	0.413	10.00	5.00	2.40	1.20
1,1,2-Trichloroethane	10,080	1.00	0.333	10.00	5.00	2.98	1.49
Toluene	10,080	1.00	0.403	25.00	10.00	6.15	2.46
1,2-Dibromoethane (EDB)	10,080	1.00	0.393	10.00	5.00	2.52	1.26
Tetrachloroethene	10,080	1.00	0.413	10.00	5.00	2.40	1.20
1,1,1,2-Tetrachloroethane	10,080	1.00	0.413	10.00	5.00	2.40	1.20
Chlorobenzene	10,080	1.00	0.857	10.00	5.00	1.16	0.579
Ethylbenzene	10,080	1.00	0.857	25.00	10.00	2.89	1.16
p & m-Xylene	10,080	1.00	0.887	25.00	10.00	2.80	1.12
o-Xylene	10,080	1.00	0.887	25.00	10.00	2.80	1.12
1,2,3-Trichloropropane	10,080	1.00	0.756	10.00	5.00	1.31	0.656
Isopropylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,3,5-Trimethylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,2,4-Trimethylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,3-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,4-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,2-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,2,4-Trichlorobenzene	10,080	1.00	0.393	10.00	5.00	2.52	1.26
Naphthalene	10,080	1.00	0.807	10.00	5.00	1.23	0.615
1,2,3-Trichlorobenzene	10,080	1.00	0.393	10.00	5.00	2.52	1.26
2-Methylnaphthalene	10,080	1.00	0.766	10.00	5.00	1.29	0.647

Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110

Site Name: Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac

Beacon Proposal: 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024

Method Detection and Reporting Limit Calculations (Concentration) TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0007843-03	Sample Name: OA	̄ Temp (°C): 21.40
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Vinyl Chloride	10,080	1.00	0.817	10.00	5.00	1.21	0.607
1,1-Dichloroethene	10,080	1.00	0.333	10.00	5.00	2.98	1.49
Methylene Chloride	10,080	1.00	0.353	10.00	5.00	2.81	1.41
1,1,2-Trichlorotrifluoroethane (Fr.113)	10,080	1.00	0.897	10.00	5.00	1.11	0.553
trans-1,2-Dichloroethene	10,080	1.00	0.444	10.00	5.00	2.24	1.12
Methyl-t-butyl ether	10,080	1.00	0.504	25.00	10.00	4.92	1.97
1,1-Dichloroethane	10,080	1.00	0.857	10.00	5.00	1.16	0.579
cis-1,2-Dichloroethene	10,080	1.00	0.534	10.00	5.00	1.86	0.928
Chloroform	10,080	1.00	0.353	10.00	5.00	2.81	1.41
1,2-Dichloroethane	10,080	1.00	0.565	10.00	5.00	1.76	0.879
1,1,1-Trichloroethane	10,080	1.00	1.059	10.00	5.00	0.937	0.469
Carbon Tetrachloride	10,080	1.00	0.434	10.00	5.00	2.29	1.14
Benzene	10,080	1.00	0.534	25.00	10.00	4.64	1.86
Trichloroethene	10,080	1.00	0.333	10.00	5.00	2.98	1.49
1,4-Dioxane	10,080	1.00	0.413	10.00	5.00	2.40	1.20
1,1,2-Trichloroethane	10,080	1.00	0.333	10.00	5.00	2.98	1.49
Toluene	10,080	1.00	0.403	25.00	10.00	6.15	2.46
1,2-Dibromoethane (EDB)	10,080	1.00	0.393	10.00	5.00	2.52	1.26
Tetrachloroethene	10,080	1.00	0.413	10.00	5.00	2.40	1.20
1,1,1,2-Tetrachloroethane	10,080	1.00	0.413	10.00	5.00	2.40	1.20
Chlorobenzene	10,080	1.00	0.857	10.00	5.00	1.16	0.579
Ethylbenzene	10,080	1.00	0.857	25.00	10.00	2.89	1.16
p & m-Xylene	10,080	1.00	0.887	25.00	10.00	2.80	1.12
o-Xylene	10,080	1.00	0.887	25.00	10.00	2.80	1.12
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1,2,4-Trimethylbenzene	10,080	1.00	0.837	25.00	10.00	2.96	1.19
1,3-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,4-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,2-Dichlorobenzene	10,080	1.00	0.756	10.00	5.00	1.31	0.656
1,2,4-Trichlorobenzene	10,080	1.00	0.393	10.00	5.00	2.52	1.26
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Terracon
4900 South Pennsylvania Ave, Ste 100
Cudahy, WI 53110**Site Name:** Barrel Plating Services fmr 58247140
Site Location: Milwaukee, WI
Project Manager: Rachel Slonac**Beacon Proposal:** 240618R01
Lab Work Order: 0007843
Reported: 07/10/2024*Laboratory Certification List*

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	12/30/2024	
Colorado	MD010912023	Colorado Division of Oil and Public Safety	11/23/2024	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAP	12097	New York Department of Health	04/01/2025	
Utah-NELAP	MD010912024-15	Utah Department of Health	12/31/2024	
Washington State	C1085	The State of Washington Department of Ecology	05/23/2025	

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Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside ± 0.06 control limits)
VISL	EPA Vapor Intrusion Screening Level
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
Ø	Compound not on scope of accreditation and analyzed with a one-point calibration

Sample/Sample Receipt Qualifiers and Notes:

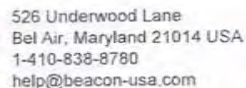
J	Value reported below limit of quantitation (LOQ).
U	Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

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Sample Management Records



CHAIN-OF-CUSTODY

Pg 1 of 1