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Historical Soil Analytical Results/Area Exceeding RCLs

Bostik Findley
2900 West Center Street
Milwaukee, Wisconsin

DRWN: HEP	SCALE: 1" = 55'
CHK'D: LG	DATE: 08-03-04
APP'D: BL	FIGURE I-3

FIGURE 3

Table 1
Soil Analytical Results (Vacant Western Warehouse)
2900 West Center Street, Milwaukee, Wisconsin
Sigma Project No. 18699

Soil Sample Location:	SB-1	SB-2	SB-3	SB-4		SB-5	SB-6	Groundwater Pathway RCL ⁴	Non-Industrial Direct Contact RCL ⁵	Industrial Direct Contact RCL ⁶	
Sample Depth (feet bgs):	4-6	5-7	5-7	8-10	DUP-1	4-6	8-10				
Sample Collection Date:	8/17/23	8/17/23	8/17/23	8/17/23		8/17/23	8/17/23				
Depth to Groundwater (feet bgs):	~6	~10	~6.5	~11		~7	~11				
Native Soil (N) or Fill / Reworked Soil (F):	N	N	N	N		N	N				
Unsaturated/Smear Zone (U) or Saturated (S):	U	U	U	U		U	U				
Photoionization Detector ppm	0.3	0.4	3	0.5		0.3	0.5	NS	NS	NS	
VOCs											
Benzene	mg/kg	<0.010	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	0.0051	1.6	7.07
Bromobenzene	mg/kg	<0.025 +	<0.025 +	<0.029 +	<0.027 +	<0.025 +	<0.026 +	<0.026 +	NS	342	679
Bromodichloromethane	mg/kg	<0.026	<0.026	<0.030	<0.028	<0.026	<0.027	<0.027	0.0003	0.418	1.83
Bromoform	mg/kg	<0.034	<0.033	<0.040	<0.037	<0.034	<0.035	<0.035	0.0023	25.4	113
tert-Butylbenzene	mg/kg	<0.028	<0.028	<0.033	<0.030	<0.028	<0.029	<0.029	NS	183	183
sec-Butylbenzene	mg/kg	<0.028	<0.028	<0.033	<0.030	<0.028	<0.029	<0.029	NS	145	145
n-Butylbenzene	mg/kg	<0.028	<0.027	<0.032	<0.029	<0.027	<0.028	<0.028	NS	108	108
Carbon tetrachloride	mg/kg	<0.027	<0.027	<0.031	<0.029	<0.027	<0.028	<0.028	0.0039	0.916	4.03
Chlorobenzene	mg/kg	<0.027 +	<0.027 +	<0.032 +	<0.029 +	<0.027 +	<0.028 +	<0.028 +	NS	370	761
Chloroethane	mg/kg	<0.036	<0.035	<0.041	<0.038	<0.035	<0.037	<0.036	0.2266	NS	NS
Chloroform	mg/kg	0.028 J,B	0.028 J,B	0.043 J,B	0.038 J,B	<0.026	0.037 J,B	0.086 J,B	0.0033	0.454	1.98
Chloromethane	mg/kg	<0.023	<0.022	<0.026	<0.024	<0.022	<0.023	<0.023	0.0155	159	669
2-Chlorotoluene (o-)	mg/kg	<0.022	<0.022	<0.026	<0.024	<0.022	<0.023	<0.023	NS	907	907
4-Chlorotoluene (p-)	mg/kg	<0.025	<0.024	<0.029	<0.026	<0.025	<0.025	<0.025	NS	253	253
1,2-Dibromo-3-chloropropane	mg/kg	<0.14	<0.14	<0.16	<0.15	<0.14	<0.14	<0.14	0.0002	0.008	0.092
Dibromochloromethane	mg/kg	<0.035	<0.034	<0.040	<0.037	<0.034	<0.035	<0.035	0.032	8.28	38.9
1,4-Dichlorobenzene	mg/kg	<0.026	<0.025	<0.030	<0.027	<0.026	<0.026	<0.026	0.144	3.74	16.4
1,3-Dichlorobenzene	mg/kg	<0.028	<0.028	<0.033	<0.030	<0.028	<0.029	<0.029	1.1528	297	297
1,2-Dichlorobenzene	mg/kg	<0.024	<0.023	<0.027	<0.025	<0.023	<0.024	0.029 J	1.168	376	376
Dichlorodifluoromethane	mg/kg	<0.048	<0.047	<0.055	<0.051	<0.047	<0.049	<0.049	3.0863	126	530
1,2-Dichloroethane	mg/kg	<0.028	<0.027	<0.032	<0.030	<0.027	<0.028	<0.028	0.0028	0.652	2.87
1,1-Dichloroethane	mg/kg	<0.029	<0.028	<0.034	<0.031	<0.029	<0.030	<0.030	0.4834	5.06	22.2
1,1-Dichloroethene	mg/kg	<0.028	<0.027	<0.032	<0.029	<0.027	<0.028	<0.028	0.005	320	1,190
cis-1,2-Dichloroethene	mg/kg	<0.029	<0.028	<0.033	<0.031	<0.029	<0.030	<0.029	0.0412	156	2,340
trans-1,2-Dichloroethene	mg/kg	<0.025	<0.024	<0.029	<0.026	<0.025	<0.025	<0.025	0.0626	1,560	1,850
1,2-Dichloropropane	mg/kg	<0.030	<0.030	<0.035	<0.032	<0.030	<0.031	<0.031	0.0033	3.4	15
1,3-Dichloropropane	mg/kg	<0.026	<0.025	<0.030	<0.027	<0.025	<0.026	<0.026	NS	1,490	1,490
trans-1,3-Dichloropropene	mg/kg	<0.026	<0.025	<0.030	<0.027	<0.025	<0.026	<0.026	0.0003	1,510	1,510
cis-1,3-Dichloropropene	mg/kg	<0.030	<0.029	<0.034	<0.031	<0.029	<0.030	<0.030	0.0003	1,210	1,210
Di-isopropyl Ether	mg/kg	<0.020	<0.019	<0.023	<0.021	<0.019	<0.020	<0.020	NS	2,260	2,260
EDB (1,2-Dibromoethane)	mg/kg	<0.027	<0.027	<0.032	<0.029	<0.027	<0.028	<0.028	0.0000282	0.05	0.221
Ethylbenzene	mg/kg	<0.013	<0.013	<0.015	<0.014	<0.013	<0.013	<0.013	1.57	8.02	35.4
Hexachlorobutadiene	mg/kg	<0.032	<0.031	<0.036	<0.034	<0.031	<0.032	<0.032	NS	1.63	7.19
Isopropylbenzene	mg/kg	<0.027	<0.027	<0.031	<0.029	<0.027	<0.028	<0.028	NS	NS	NS
p-Isopropyltoluene	mg/kg	<0.026	<0.025	<0.030	<0.027	<0.025	<0.026	<0.026	NS	162	162
Methylene chloride	mg/kg	<0.12	<0.11	<0.13	<0.12	<0.11	<0.12	<0.12	0.0026	61.8	1,150
Methyl-tert-butyl-ether	mg/kg	<0.028	<0.027	<0.032	<0.030	<0.028	<0.029	<0.028	0.027	63.8	282
Naphthalene	mg/kg	<0.024	<0.023	<0.027	<0.025	<0.023	<0.024	<0.024	0.6582	5.52	24.1
n-Propylbenzene	mg/kg	<0.029	<0.029	<0.034	<0.031	<0.029	<0.030	<0.030	NS	264	264
1,1,1,2-Tetrachloroethane	mg/kg	<0.028	<0.028	<0.033	<0.030	<0.028	<0.029	<0.029	0.0002	0.81	3.6
1,1,1,2-Tetrachloroethane	mg/kg	<0.033	<0.032	<0.038	<0.035	<0.032	<0.034	<0.033	0.0534	2.78	12.3
Tetrachloroethene (PCE)	mg/kg	0.42 +	<0.026 +	14 +	0.55 +	0.44 +	0.056 J,+	2.2 +	0.0045	33	145
Toluene	mg/kg	<0.010	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	1.1072	818	818
1,2,4-Trichlorobenzene	mg/kg	<0.024	<0.024	<0.028	<0.026	<0.024	<0.025	<0.025	1.1072	24	113
1,2,3-Trichlorobenzene	mg/kg	<0.033	<0.032	<0.037	<0.035	<0.032	<0.033	<0.033	NS	62.6	934
1,1,1-Trichloroethane	mg/kg	<0.027	<0.026	<0.031	<0.029	<0.027	<0.028	0.081	0.1402	640	640
1,1,2-Trichloroethane	mg/kg	<0.025	<0.024	<0.029	<0.027	<0.025	<0.026	<0.025	0.0032	1.59	7.01
Trichloroethene (TCE)	mg/kg	<0.012	<0.011	0.057	0.049	0.044	<0.012	0.56	0.0036	1.3	8.41
Trichlorofluoromethane	mg/kg	<0.030	<0.030	<0.035	<0.032	<0.030	<0.031	<0.031	NS	1,230	1,230
1,2,4-Trimethylbenzene	mg/kg	<0.025	<0.025	<0.029	<0.027	<0.025	<0.026	<0.026	1.3787	219	219
1,3,5-Trimethylbenzene	mg/kg	<0.027	<0.026	<0.031	<0.029	<0.027	<0.028	<0.027		182	182
Vinyl Chloride	mg/kg	<0.019	<0.018	<0.021	<0.020	<0.018	<0.019	<0.019	0.0001	0.067	2.08
Xylenes (total)	mg/kg	<0.016	<0.015	<0.018	<0.017	<0.015	<0.016	<0.016	3.96	260	260
1,1-Dichloropropene	mg/kg	<0.021	<0.021	<0.024	<0.023	<0.021	<0.022	<0.021	NS	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.029	<0.029	<0.034	<0.031	<0.029	<0.030	<0.030	0.0519	0.005	0.109
2,2-Dichloropropane	mg/kg	<0.032	<0.031	<0.036	<0.034	<0.031	<0.032	<0.032	NS	191	191
Bromochloromethane	mg/kg	<0.030	<0.030	<0.035	<0.032	<0.030	<0.031	<0.031	NS	216	906
Bromomethane	mg/kg	<0.056 +	<0.055 +	<0.065 +	<0.060 +	<0.056 +	<0.058 +	<0.057 +	0.0051	9.6	43
Dibromomethane	mg/kg	<0.019	<0.019	<0.022	<0.020	<0.019	<0.020	<0.019	NS	34	143
Styrene	mg/kg	<0.027	<0.027	<0.032	<0.029	<0.027	<0.028	<0.028	0.22	867	867

Notes:

- Unsaturated/smear zone versus saturated soil conditions based on soil moisture conditions recorded on soil boring logs during drilling.
- Analytical units: mg/kg = milligrams per kilogram (equivalent to parts per million, ppm)
- NS = no standard established
- Groundwater Pathway RCL = Residual Contaminant Level for protection of groundwater (dilution factor of 2) as presented on the WDNR's RCL Spreadsheet (dated December 2018) referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014.
- Non-Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at a non-industrial property as presented on the WDNR's RCL Spreadsheet (dated December 2018) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014.
- Industrial Direct Contact RCL = Residual Contaminant Level for protection of direct contact at an industrial property as presented on the WDNR's RCL Spreadsheet (dated December 2018) with default input parameters as referenced in WDNR guidance document PUB-RR-890 "Soil Residual Contaminant Level Determinations Using the US EPA Regional Screening Level Web Calculator", dated June 2014.
- Laboratory flags:
 - "J" = Result is less than the reporting limit, but greater than or equal to the method detection limit and the concentration is an approximate value.
 - "B" = Compound was found in the blank and sample.
 - "+" = Laboratory control sample and/or laboratory control sample duplicate is outside acceptance limits, high biased.
- Methanol blank results: 8/17/23 - Chloroform was detected in the methanol blank at 0.028 J,B mg/kg. Chloroform results in soil samples may be an artifact of the methanol and not indicative of subsurface impacts.
- Exceedances:
 - BOLD** = Concentration greater than Groundwater Pathway RCL
 - []** = Concentration greater than Non-Industrial Direct Contact RCL (any depth)
 - { }** = Concentration greater than Industrial Direct Contact RCL (any depth)

Data entered / updated by: TLS Date: 8/30/23
Data checked by: JMD Date: 8/30/23

Table 2
Sub-Slab Vapor Analytical Results (Vacant Western Warehouse)
2900 West Center Street, Milwaukee, Wisconsin
Sigma Project No. 18699

Sample Type:		Subslab Vapor Samples				Residential Vapor Risk Screening Level ² (AF=0.03)	Small Commercial Vapor Risk Screening Level ³ (AF = 0.03)	Large Commercial / Industrial Vapor Risk Screening Level ⁴ (AF = 0.01)
Sample Identification:		VP-1	VP-2	VP-3	VP-4			
Sample Location:		Unoccupied Warehouse	Unoccupied Warehouse	Unoccupied Warehouse	Unoccupied Warehouse			
Sample Date(s):		8/17/23	8/17/23	8/17/23	8/17/23			
Sampling/Analysis Method:		TO-15	TO-15	TO-15	TO-15			
Sample Duration:		15 min	15 min	15 min	15 min			
VOCs								
Acetone	µg/m ³	820	686	960	869	NS	NS	NS
Benzene	µg/m ³	8.3	3.8	3.0	6.4	120	520	1,600
Benzyl Chloride	µg/m ³	<0.209	<0.209	<0.209	<0.209	19	83	250
Bromodichloromethane	µg/m ³	<0.374	<0.374	<0.374	<0.374	25	110	330
Bromoform	µg/m ³	<0.414	<0.414	<0.414	<0.414	867	3,667	11,000
Bromomethane	µg/m ³	<0.2	<0.2	<0.2	<0.2	173	733	2,200
1,3-Butadiene	µg/m ³	<0.143	<0.143	<0.143	<0.143	31	137	410
2-Butanone (MEK)	µg/m ³	21.2	22.8	24.6	29.2	173,333	733,333	2,200,000
Carbon Disulfide	µg/m ³	8.5	1.12	1.15	2.89	24,333	103,333	310,000
Carbon Tetrachloride	µg/m ³	0.44 J	0.44 J	0.57 J	0.63 J	160	680	2,000
Chlorobenzene	µg/m ³	<0.251	<0.251	<0.251	<0.251	1,733	7,333	22,000
Chloroethane	µg/m ³	0.37 J	<0.159	<0.159	0.34 J	140,000	600,000	1,800,000
Chloroform	µg/m ³	69	13.7	0.49 J	13.3	41	180	530
Chloromethane	µg/m ³	1.11 J	<0.831	<0.831	<0.831	3,100	13,000	39,000
Cyclohexane	µg/m ³	4.8	2.24	2.2	6.3	210,000	866,667	2,600,000
Dibromochloromethane	µg/m ³	<0.376	<0.376	<0.376	<0.376	NS	NS	NS
1,2-Dibromoethane (EDB)	µg/m ³	<0.342	<0.342	<0.342	<0.342	1,567	6.7	20
1,2-Dichlorobenzene	µg/m ³	<0.235	<0.235	<0.235	<0.235	7,000	29,333	88,000
1,3-Dichlorobenzene	µg/m ³	<0.302	<0.302	<0.302	<0.302	NS	NS	NS
1,4-Dichlorobenzene	µg/m ³	0.54 J	0.66 J	0.36 J	0.42 J	87	367	1,100
Dichlorodifluoromethane	µg/m ³	45	2.08	2.18	2.27	3,500	15,000	44,000
1,1-Dichloroethane	µg/m ³	79	11.2	<0.187	3.6	590	2,600	7,700
1,2-Dichloroethane	µg/m ³	<0.24	<0.24	<0.24	<0.24	36	160	470
1,1-Dichloroethene	µg/m ³	0.48 J	<0.21	<0.21	<0.21	7,000	29,000	88,000
cis-1,2-Dichloroethene	µg/m ³	490	119	<0.197	47	1,400	5,800	18,000
trans-1,2-Dichloroethene	µg/m ³	580	80	<0.231	27.1	1,400	5,800	18,000
1,2-Dichloropropane	µg/m ³	<0.28	<0.28	<0.28	<0.28	253	1,100	3,300
cis-1,3-Dichloropropene	µg/m ³	<0.234	<0.234	<0.234	<0.234	233	1,033	3,100
trans-1,3-Dichloropropene	µg/m ³	<0.198	<0.198	<0.198	<0.198	233	1,033	3,100
Dichlorotetrafluoroethane	µg/m ³	<0.446	<0.446	<0.446	<0.446	NS	NS	NS
1,4-Dioxane	µg/m ³	<0.157	<0.157	<0.157	<0.157	187	833	2,500
Ethanol	µg/m ³	2,200	1,630	2,020	2,430	NS	NS	NS
Ethyl Acetate	µg/m ³	<0.176	<0.176	4.8	<0.176	2,433	10,333	31,000
Ethylbenzene	µg/m ³	4.5	4.9	4.5	3.9	370	1,600	4,900
4-Ethyltoluene	µg/m ³	2.06	5.3	1.62	1.67	NS	NS	NS
n-Heptane	µg/m ³	11.5	8.6	6.6	13.4	14,000	60,000	180,000
Hexachloro-1,3-butadiene	µg/m ³	<0.489	<0.222	<0.489	<0.489	43	187	560
n-Hexane	µg/m ³	34	20.8	<15	23	24,333	103,333	310,000
2-Hexanone	µg/m ³	<0.222	<0.222	<0.222	<0.222	1,033	4,333	13,000
Methylene Chloride	µg/m ³	<15	18.7	46	64	21,000	88,000	260,000
4-Methyl-2-Pentanone (MIBK)	µg/m ³	4.6	6.4	5.6	6.1	103,333	433,333	1,300,000
Methyl Methacrylate	µg/m ³	<0.217	<0.217	<0.217	<0.217	24,333	103,333	310,000
Methyl-tert-butyl ether	µg/m ³	<0.16	<0.16	<0.16	<0.16	3,600	16,000	47,000
Naphthalene	µg/m ³	3.09	2.25	1.1 J	0.99 J	28	120	360
2-Propanol	µg/m ³	29.9	42	34	42	7,000	29,333	88,000
Propylene	µg/m ³	<0.079	<0.079	<0.079	<0.079	103,333	433,333	1,300,000
Styrene	µg/m ³	1.91	2.34	2.25	2.04	33,333	146,667	440,000
1,1,2,2-Tetrachloroethane	µg/m ³	<0.325	<0.325	<0.325	<0.325	16	70	210
Tetrachloroethene (PCE)	µg/m ³	[15,300]	{ [22,900] }	158	[7,700]	1,400	5,800	18,000
Tetrahydrofuran	µg/m ³	3.7	4.9	5.7	6.1	70,000	293,333	880,000
Toluene	µg/m ³	14.2	15.1	14.8	20.1	170,000	730,000	2,200,000
1,2,4-Trichlorobenzene	µg/m ³	<0.657	<0.657	<0.657	<0.657	70	293	880
1,1,1-Trichloroethane	µg/m ³	<0.249	350	7.4	228	170,000	730,000	2,200,000
1,1,2-Trichloroethane	µg/m ³	<0.258	<0.258	<0.258	<0.258	60	257	770
Trichloroethene (TCE)	µg/m ³	{ [13,700] }	{ [6,100] }	78	{ [3,400] }	70	290	880
Trichlorofluoromethane	µg/m ³	6.5	29.8	51	3.7	NS	NS	NS
1,1,2-Trichlorotrifluoroethane	µg/m ³	23.1	1.61	0.69 J	1.07 J	173,333	733,333	2,200,000
1,2,4-Trimethylbenzene	µg/m ³	9.7	18.5	8.4	8.0	2,100	8,800	26,000
1,3,5-Trimethylbenzene	µg/m ³	3.4	10.3	2.55	2.7	2,100	8,800	26,000
Vinyl Acetate	µg/m ³	<0.203	<0.203	<0.203	<0.203	7,000	29,333	88,000
Vinyl Chloride	µg/m ³	0.23 J	0.23 J	0.179 J	0.33 J	56	930	2,800
Xylenes, total	µg/m ³	19.4	18.5	17	14.1	3,500	15,000	44,000

Notes:

1. Analytical units: µg/m³ = micrograms per cubic meter

2. Residential Vapor Risk Screening Level = Risk-based concentrations based on VALs for residential air which has been adjusted with an Attenuation Factor of 0.03 for the subslab vapor to ambient air pathway in a residential setting. VALs for residential indoor air based on WDNR publication RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for residential air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and residential air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).

3. Small Commercial Vapor Risk Screening Level = Risk-based concentrations based on VALs for small commercial air which has been adjusted with an Attenuation Factor of 0.03 for the subslab vapor to ambient air pathway in a small commercial setting. VALs for small commercial setting indoor air based on WDNR publication PUB-RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for industrial air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and small commercial air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).

4. Large Commercial / Industrial Vapor Risk Screening Level = Risk-based concentrations based on VALs for large commercial/industrial air which has been adjusted with an Attenuation Factor of 0.01 for the subslab vapor to ambient air pathway in a large commercial/industrial setting. VALs for large commercial / industrial indoor air based on WDNR publication PUB-RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for industrial air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and large commercial / industrial air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).

5. Laboratory flags: J = Analyte detected between Limit of Detection and Limit of Quantification

6. Exceedances: **BOLD** = concentration greater than residential Vapor Risk Screening Level
[] = concentration greater than small commercial Vapor Risk Screening Level
{ } = concentration greater than large commercial / industrial Vapor Risk Screening Level

Data entered / updated by: TLS Date: 8/24/2023
Data checked by: JMD Date: 8/24/2023

Table 3
Sub-Slab Vapor Analytical Results (Jewish Community Pantry)
2900 West Center Street, Milwaukee, Wisconsin
Sigma Project No. 18699

Sample Type:		Sub-Slab Samples			Residential Vapor Risk Screening Level ² (AF=0.03)	Small Commercial Vapor Risk Screening Level ³ (AF = 0.03)	Large Commercial / Industrial Vapor Risk Screening Level ⁴ (AF = 0.01)
Sample Identification:		SS-1	SS-2	SS-3			
Sample Location:		Jewish Community Pantry	Jewish Community Pantry	Jewish Community Pantry			
Sample Date(s):		9/15/23	9/16/23	9/17/23			
Sampling/Analysis Method:		TO-15	TO-15	TO-15			
Sample Duration:		15 min	15 min	15 min			
VOCs							
Acetone	µg/m ³	61	51	56	NS	NS	NS
Benzene	µg/m ³	2.91	1.47	0.99	120	520	1,600
Benzyl Chloride	µg/m ³	<0.209	<0.209	<0.209	19	83	250
Bromodichloromethane	µg/m ³	<0.374	<0.374	<0.374	25	110	330
Bromoform	µg/m ³	<0.414	<0.414	<0.414	867	3,667	11,000
Bromomethane	µg/m ³	<0.2	<0.2	<0.2	173	733	2,200
1,3-Butadiene	µg/m ³	<0.143	<0.143	<0.143	31	137	410
2-Butanone (MEK)	µg/m ³	17.4	19.9	17.9	173,333	733,333	2,200,000
Carbon Disulfide	µg/m ³	7.2	1.43	1.09	24,333	103,333	310,000
Carbon Tetrachloride	µg/m ³	0.5 J	<0.307	0.44 J	160	680	2,000
Chlorobenzene	µg/m ³	<0.251	<0.251	<0.251	1,733	7,333	22,000
Chloroethane	µg/m ³	<0.159	<0.159	<0.159	140,000	600,000	1,800,000
Chloroform	µg/m ³	15.2	1.95	1.22	41	180	530
Chloromethane	µg/m ³	<0.831	<0.831	<0.831	3,100	13,000	39,000
Cyclohexane	µg/m ³	4.4	2.96	0.38 J	210,000	866,667	2,600,000
Dibromochloromethane	µg/m ³	<0.376	<0.376	<0.376	NS	NS	NS
1,2-Dibromoethane (EDB)	µg/m ³	<0.342	<0.342	<0.342	1,567	6.7	20
1,2-Dichlorobenzene	µg/m ³	<0.235	<0.235	<0.235	7,000	29,333	88,000
1,3-Dichlorobenzene	µg/m ³	<0.302	<0.302	<0.302	NS	NS	NS
1,4-Dichlorobenzene	µg/m ³	<0.302	<0.302	<0.302	87	367	1,100
Dichlorodifluoromethane	µg/m ³	2.32	2.52	2.37	3,500	15,000	44,000
1,1-Dichloroethane	µg/m ³	<0.187	<0.187	<0.187	590	2,600	7,700
1,2-Dichloroethane	µg/m ³	<0.24	<0.24	<0.24	36	160	470
1,1-Dichloroethene	µg/m ³	<0.21	<0.21	<0.21	7,000	29,000	88,000
cis-1,2-Dichloroethene	µg/m ³	<0.197	<0.197	<0.197	1,400	5,800	18,000
trans-1,2-Dichloroethene	µg/m ³	0.238 J	<0.231	<0.231	1,400	5,800	18,000
1,2-Dichloropropane	µg/m ³	<0.28	<0.28	<0.28	253	1,100	3,300
cis-1,3-Dichloropropene	µg/m ³	<0.234	<0.234	<0.234	233	1,033	3,100
trans-1,3-Dichloropropene	µg/m ³	<0.198	<0.198	<0.198	233	1,033	3,100
Dichlorotetrafluoroethane	µg/m ³	<0.446	<0.446	<0.446	NS	NS	NS
1,4-Dioxane	µg/m ³	<0.157	<0.157	<0.157	187	833	2,500
Ethanol	µg/m ³	340	281	145	NS	NS	NS
Ethyl Acetate	µg/m ³	5.0	0.86	0.50 J	2,433	10,333	31,000
Ethylbenzene	µg/m ³	3.3	4.7	2.77	370	1,600	4,900
4-Ethyltoluene	µg/m ³	0.98	1.18	0.93	NS	NS	NS
n-Heptane	µg/m ³	3.3	8.5	1.8	14,000	60,000	180,000
Hexachloro-1,3-butadiene	µg/m ³	<0.489	<0.489	<0.489	43	187	560
n-Hexane	µg/m ³	<15	<15	<15	24,333	103,333	310,000
2-Hexanone	µg/m ³	1.31	2.17	0.70 J	1,033	4,333	13,000
Methylene Chloride	µg/m ³	44	38	20.2	21,000	88,000	260,000
4-Methyl-2-Pentanone (MIBK)	µg/m ³	1.72	1.31	0.90	103,333	433,333	1,300,000
Methyl Methacrylate	µg/m ³	<0.217	<0.217	<0.217	24,333	103,333	310,000
Methyl-tert-butyl ether	µg/m ³	<0.16	<0.16	<0.16	3,600	16,000	47,000
Naphthalene	µg/m ³	0.68 J	<0.675	<0.675	28	120	360
2-Propanol	µg/m ³	22.3	19.3	7.9	7,000	29,333	88,000
Propylene	µg/m ³	<0.079	<0.079	<0.079	103,333	433,333	1,300,000
Styrene	µg/m ³	1.62	1.66	1.7	33,333	146,667	440,000
1,1,2,2-Tetrachloroethane	µg/m ³	<0.325	<0.325	<0.325	16	70	210
Tetrachloroethene (PCE)	µg/m ³	2.85	7.5	1.63	1,400	5,800	18,000
Tetrahydrofuran	µg/m ³	5.7	7.8	6.4	70,000	293,333	880,000
Toluene	µg/m ³	14.3	11.2	6.9	170,000	730,000	2,200,000
1,2,4-Trichlorobenzene	µg/m ³	<0.657	<0.657	<0.657	70	293	880
1,1,1-Trichloroethane	µg/m ³	0.82	1.03	<0.249	170,000	730,000	2,200,000
1,1,2-Trichloroethane	µg/m ³	<0.258	<0.258	<0.258	60	257	770
Trichloroethene (TCE)	µg/m ³	0.48 J	0.64 J	0.54 J	70	290	880
Trichlorofluoromethane	µg/m ³	4.8	5.7	1.29	NS	NS	NS
1,1,2-Trichlorotrifluoroethane	µg/m ³	0.54 J	0.54 J	0.61 J	173,333	733,333	2,200,000
1,2,4-Trimethylbenzene	µg/m ³	5.2	5.2	5.0	2,100	8,800	26,000
1,3,5-Trimethylbenzene	µg/m ³	1.52	1.82	1.28	2,100	8,800	26,000
Vinyl Acetate	µg/m ³	<0.203	<0.203	<0.203	7,000	29,333	88,000
Vinyl Chloride	µg/m ³	0.153 J	<0.148	<0.148	56	930	2,800
Xylenes, total	µg/m ³	12	15.8	11	3,500	15,000	44,000

Notes:

- Analytical units: µg/m³ = micrograms per cubic meter
- Residential Vapor Risk Screening Level = Risk-based concentrations based on VALs for **residential** air which has been adjusted with an **Attenuation Factor of 0.03** for the subslab vapor to ambient air pathway in a **residential** setting. VALs for residential indoor air based on WDNR publication RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for residential air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and residential air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).
- Small Commercial Vapor Risk Screening Level = Risk-based concentrations based on VALs for **small commercial** air which has been adjusted with an **Attenuation Factor of 0.03** for the subslab vapor to ambient air pathway in a **small commercial** setting. VALs for small commercial setting indoor air based on WDNR publication PUB-RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for industrial air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and small commercial air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).
- Large Commercial / Industrial Vapor Risk Screening Level = Risk-based concentrations based on VALs for **large commercial/industrial** air which has been adjusted with an **Attenuation Factor of 0.01** for the subslab vapor to ambient air pathway in a **large commercial/industrial** setting. VALs for large commercial / industrial indoor air based on WDNR publication PUB-RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for industrial air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and large commercial / industrial air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).
- Laboratory flags: J = Analyte detected between Limit of Detection and Limit of Quantification
- Exceedances:
 - BOLD** = concentration greater than residential Vapor Risk Screening Level
 - [] = concentration greater than small commercial Vapor Risk Screening Level
 - { } = concentration greater than large commercial / industrial Vapor Risk Screening Level

Data entered / updated by: TLS Date: 9/20/2023
Data checked by: CLE Date: 9/20/2023

Table 4
Indoor and Outdoor Air Analytical Results (Jewish Community Pantry)
2900 West Center Street, Milwaukee, Wisconsin
Sigma Project No. 18699

Sample Type:	Indoor	Indoor	Outdoor	VAL for Residential Indoor Air ²	VAL for Small Commercial Indoor Air ³	VAL for Large Commercial / Industrial Indoor Air ⁴
Sample Identification:	IA-1	IA-2	OA-1			
Sample Date(s):	9/15/23	9/15/23	9/15/23			
Sampling/Analysis Method:	TO-15	TO-15	TO-15			
Sample Duration:	8 hr	8 hr	8 hr			
VOCs						
Acetone	µg/m ³	26.4	24.5	18	NS	NS
Benzene	µg/m ³	0.96	0.99	1.15	3.6	16
Benzyl Chloride	µg/m ³	<0.209	<0.209	<0.209	0.57	2.5
Bromodichloromethane	µg/m ³	<0.374	<0.374	<0.374	0.76	3.3
Bromoform	µg/m ³	<0.414	<0.414	<0.414	26	110
Bromomethane	µg/m ³	<0.2	<0.2	<0.2	5.2	22
1,3-Butadiene	µg/m ³	<0.143	<0.143	<0.143	0.94	4.1
2-Butanone (MEK)	µg/m ³	2.92	2.24	2.18	5,200	22,000
Carbon Disulfide	µg/m ³	0.44 J	0.34 J	<0.138	730	3,100
Carbon Tetrachloride	µg/m ³	0.50 J	0.50 J	0.50 J	4.7	20
Chlorobenzene	µg/m ³	<0.251	<0.251	<0.251	52	220
Chloroethane	µg/m ³	<0.159	<0.159	<0.159	4,200	18,000
Chloroform	µg/m ³	<0.3	0.39 J	<0.3	1.2	5.3
Chloromethane	µg/m ³	1.4 J	1.38 J	1.03 J	94	390
Cyclohexane	µg/m ³	0.48 J	<0.212	0.275 J	6,300	26,000
Dibromochloromethane	µg/m ³	<0.376	<0.376	<0.376	NS	NS
1,2-Dibromoethane (EDB)	µg/m ³	<0.342	<0.342	<0.342	0.047	0.2
1,2-Dichlorobenzene	µg/m ³	<0.235	<0.235	<0.235	210	880
1,3-Dichlorobenzene	µg/m ³	<0.302	<0.302	<0.302	NS	NS
1,4-Dichlorobenzene	µg/m ³	<0.302	<0.302	<0.302	2.6	11
Dichlorodifluoromethane	µg/m ³	2.32	2.32	2.27	100	440
1,1-Dichloroethane	µg/m ³	<0.187	<0.187	<0.187	18	77
1,2-Dichloroethane	µg/m ³	<0.24	<0.24	<0.24	1.1	4.7
1,1-Dichloroethene	µg/m ³	<0.21	<0.21	<0.21	210	880
cis-1,2-Dichloroethene	µg/m ³	<0.197	<0.197	<0.197	42	180
trans-1,2-Dichloroethene	µg/m ³	1.27	1.11	4.1	42	180
1,2-Dichloropropane	µg/m ³	<0.28	<0.28	<0.28	7.6	33
cis-1,3-Dichloropropene	µg/m ³	<0.234	<0.234	<0.234	7.0	31
trans-1,3-Dichloropropene	µg/m ³	<0.198	<0.198	<0.198	7.0	31
Dichlorotetrafluoroethane	µg/m ³	<0.446	<0.446	<0.446	NS	NS
1,4-Dioxane	µg/m ³	<0.157	<0.157	<0.157	NS	NS
Ethanol	µg/m ³	221	222	20.1	NS	NS
Ethyl Acetate	µg/m ³	1.15	2.13	1.12	73	310
Ethylbenzene	µg/m ³	0.61 J	0.61 J	0.39 J	11	49
4-Ethyltoluene	µg/m ³	0.69	0.54 J	<0.214	NS	NS
n-Heptane	µg/m ³	0.82 J	0.82 J	0.74 J	420	1,800
Hexachloro-1,3-butadiene	µg/m ³	<0.489	<0.489	<0.489	1.3	5.6
n-Hexane	µg/m ³	20.1	<15	<15	730	3,100
2-Hexanone	µg/m ³	0.49 J	0.289 J	0.53 J	31	130
Methylene Chloride	µg/m ³	24.1	<15	<15	630	2,600
4-Methyl-2-Pentanone (MIBK)	µg/m ³	0.98	0.82	0.37 J	3,100	13,000
Methyl-tert-butyl ether	µg/m ³	<0.16	<0.16	<0.16	110	470
Naphthalene	µg/m ³	<0.675	<0.675	<0.675	0.83	3.6
2-Propanol	µg/m ³	7.3	7.3	2.48	210	880
Propylene	µg/m ³	<0.079	<0.079	<0.079	3,100	13,000
Styrene	µg/m ³	0.51 J	0.51 J	<0.181	1,000	4,400
1,1,2,2-Tetrachloroethane	µg/m ³	<0.325	<0.325	<0.325	0.48	2.1
Tetrachloroethene (PCE)	µg/m ³	<0.278	<0.278	<0.278	42	180
Tetrahydrofuran	µg/m ³	0.32 J	<0.131	0.68	2,100	8,800
Toluene	µg/m ³	2.86	4.7	4.50	5,200	22,000
1,2,4-Trichlorobenzene	µg/m ³	<0.657	<0.657	<0.657	2.1	8.8
1,1,1-Trichloroethane	µg/m ³	<0.249	<0.249	<0.249	5,200	22,000
1,1,2-Trichloroethane	µg/m ³	<0.258	<0.258	<0.258	1.8	7.7
Trichloroethene (TCE)	µg/m ³	0.48 J	0.75 J	0.54 J	2.1	8.8
Trichlorofluoromethane	µg/m ³	1.85	1.74	1.35	NS	NS
1,1,2-Trichlorotrifluoroethane	µg/m ³	0.61 J	0.61 J	0.61 J	5,200	22,000
1,2,4-Trimethylbenzene	µg/m ³	2.85	2.16	0.83 J	63	260
1,3,5-Trimethylbenzene	µg/m ³	0.69 J	0.54 J	<0.232	63	260
Vinyl Acetate	µg/m ³	<0.203	<0.203	<0.203	210	880
Vinyl Chloride	µg/m ³	<0.148	<0.148	<0.148	1.7	28
Xylenes, total	µg/m ³	2.47	2.38	1.48 J	100	440

Notes:

- Analytical units: µg/m³ = micrograms per cubic meter
- VAL for Residential Indoor Air = Vapor Action Level described in WDNR publication RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for **residential** air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and **residential** air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).
- VAL for Small Commercial Indoor Air = Vapor Action Level described in WDNR publication RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for **industrial** air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and **small commercial** air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).
- VAL for Large Commercial / Industrial Indoor Air = Vapor Action Level described in WDNR publication RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" (dated January 2018) which in turn references EPA Region 3 Risk-Based Concentrations for **industrial** air [Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) May 2023] and **large commercial / industrial** air in August 2023 "Wisconsin Vapor Quick Look-Up Table, Indoor Air Vapor Action Levels And Vapor Risk Screening Levels" publication RR-0136. VAL adjusted to 1-in-100,000 increase in lifetime cancer risk for carcinogens per WDNR publication RR-800; VAL is not adjusted for non-carcinogens (i.e., hazard index = 1).
- Laboratory flags: J = Analyte detected between Limit of Detection and Limit of Quantification
- Exceedances:
 - BOLD** = concentration greater than residential Vapor Action Level
 - [] = concentration greater than small commercial Vapor Action Level
 - { } = concentration greater than large commercial / industrial Vapor Action Level

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