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COUNTY CLERK

Susan Sandvick
Douglas County Clerk
1313 Belknap Street, Room 101
Superior, WI 54880

Arcadis U.S., Inc.
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Suite 600C
Minneapolis, MN 55401
United States
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Date: April 30, 2025
Subject: 2024 Crawford Creek Floodplain Sampling Results

Dear Ms. Sandvick,

Thank you for your cooperation in the U.S. Environmental Protection Agency (EPA) and Beazer East, Inc.'s (Beazer) sampling of your property (Parcel ID TS 030-01309-00) in 2024. Sampling was conducted to further investigate the presence and extent of polycyclic aromatic hydrocarbons and dioxins/furans in Crawford Creek floodplain materials from historical wood-treating operations at the former Koppers Inc. facility. Attached to this letter are a map (Figure 1) and data table (Table 1) that summarize the results of the 2024 sampling. Figure 1 shows the sample locations and names that can be cross-referenced with Table 1 to see the results for each location.

If you have any questions, please don't hesitate to contact me.

Sincerely,
Arcadis U.S., Inc.

TS0300130900

David Bessingpas

David Bessingpas
Account Leader / Certified Project Manager

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CC. Crawford White, USEPA
Jane Patarcity, Beazer
David Klatt, Jacobs
Stu Messur, Anchor QEA

Enclosures:

Figure 1 – 2024 Floodplain Sample Locations – Douglas County Parcel
Table 1 – 2024 Floodplain Sample Analytical Data Summary – Douglas County Parcel

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C17 0-0.5 5/29/2024	SO-C17 0.5-1 5/29/2024	SO-C17 1-2 5/29/2024	SO-C17 2-4 5/29/2024	SO-C18 0-0.5 5/29/2024	SO-C18 0.5-1 5/29/2024	SO-C18 1-2 5/29/2024	SO-C18 2-4 5/29/2024	SO-C19 0-0.5 5/29/2024	SO-C19 0.5-1 5/29/2024
Semivolatile Organic Compounds											
1-Methylnaphthalene	mg/kg	0.1 U	0.28 U	0.091 U	0.022 J	0.063 J	0.031 J	0.058 J	0.17	0.11 U	0.096 U
2-Methylnaphthalene	mg/kg	0.1 U	0.094 J	0.022 J	0.05 J	0.25	0.062 J	0.13	0.35	0.11 U	0.096 U
Acenaphthene	mg/kg	0.1 U	0.081 J	0.091 U	0.032 J	0.42	0.067 J	0.077 J	0.19	0.11 U	0.096 U
Acenaphthylene	mg/kg	0.032 J	1.5	0.051 J	0.093 U	0.066 J	0.039 J	0.11	0.57	0.034 J	0.43
Anthracene	mg/kg	0.028 J	1.9	0.055 J	0.093 U	5.2	0.2	0.13	0.85	0.046 J	0.73
Benzo(a)anthracene	mg/kg	0.1 U	0.6	0.091 U	0.093 U	0.39	0.091 J	0.094	0.24	0.11 U	0.22
Benzo(a)pyrene	mg/kg	0.047 J	1.8	0.049 J	0.093 U	0.25	0.083 J	0.22	1.7	0.11 U	0.36
Benzo(b)fluoranthene	mg/kg	0.056 J	1.8	0.059 J	0.093 U	0.32	0.12	0.21	1.4	0.054 J	0.53
Benzo(g,h,i)perylene	mg/kg	0.09 J	9.9	0.34	0.073 J	0.23	0.14	0.41	3.6	0.094 J	2.3
Benzo(k)fluoranthene	mg/kg	0.1 U	0.82	0.027 J	0.093 U	0.15	0.04 J	0.1	0.44	0.11 U	0.16
Chrysene	mg/kg	0.066 J	1.4	0.091 U	0.093 U	0.7	0.2	0.21	0.49	0.11 U	0.28
Dibenzo(a,h)anthracene	mg/kg	0.1 U	1.3	0.091 U	0.093 U	0.095 U	0.092 U	0.091 U	0.49	0.11 U	0.29
Fluoranthene	mg/kg	0.036 J	0.63	0.091 U	0.093 U	1.6	0.24	0.18	0.3	0.11 U	0.13
Fluorene	mg/kg	0.1 U	0.2 J	0.091 U	0.093 U	1.1	0.075 J	0.056 J	0.14	0.11 U	0.067 J
Indeno(1,2,3-cd)pyrene	mg/kg	0.06 J	6.6	0.22	0.059 J	0.18	0.1	0.29	2.6	0.11 U	1.2
Naphthalene	mg/kg	0.12	0.61	0.23	0.29	0.5	0.39	0.83	2.4	0.11	0.044 J
Phenanthrene	mg/kg	0.1 U	0.2 J	0.091 U	0.093 U	3.2	0.29	0.16	0.13	0.11 U	0.059 J
Pyrene	mg/kg	0.041 J	1	0.091 U	0.093 U	1.2	0.21	0.18	0.64	0.11 U	0.23
Total PAHs-16 (ND=0)	mg/kg	0.576	30.3	1.03	0.454	15.5	2.29	3.26	16.2	0.338	7.03
Total PAHs-16 (ND=1/2 DL)	mg/kg	0.876	30.3	1.4	1.01	15.6	2.33	3.3	16.2	0.943	7.08
BaP-TE (ND=0)	mg/kg	0.0587	4.01	0.0772	0.0059	0.341	0.115	0.281	2.62	0.0054	0.847
BaP-TE (ND=1/2 DL)	mg/kg	0.114	4.01	0.127	0.109	0.389	0.161	0.326	2.62	0.127	0.847
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	ng/kg	1,430	23,400 D	255	21.2	412 J	393	5,830	4,120	48,100 D	105,000 D
1,2,3,4,6,7,8-HpCDF	ng/kg	375	6,880	68.5	4.77 J	113	104	1,800	1,190	10,900	22,900 D
1,2,3,4,7,8,9-HpCDF	ng/kg	41.0	715	7.63 J	1.82 U	10.1 J	12.6	183	82.3	781	1,040
1,2,3,4,7,8-HxCDD	ng/kg	5.21 J	76.2	2.05 U	1.26 U	2.23 U	2.81 J	14.6	5.89 J	82.2	124
1,2,3,4,7,8-HxCDF	ng/kg	52.5	838	7.16 J	0.726 U	14.0	16.0	205	73.0	608	338
1,2,3,6,7,8-HxCDD	ng/kg	47.4	740	8.93 J	1.28 U	13.3	15.5	168	107	1,060	2,190
1,2,3,6,7,8-HxCDF	ng/kg	11.3 J	169	1.75 U	0.752 U	3.22 UX	3.46 UX	45.7	11.5	120	64.7
1,2,3,7,8,9-HxCDD	ng/kg	12.4	168	2.33 U	1.24 U	5.10 J	5.01 J	29.3	19.1	162	253
1,2,3,7,8,9-HxCDF	ng/kg	13.8	188	2.57 UX	1.23 U	2.36 J	4.02 J	35.1	10.1 J	54.3	29.0
1,2,3,7,8-PeCDD	ng/kg	1.93 UX	21.4	1.23 U	0.689 U	1.22 U	1.59 U	6.43 J	3.45 J	16.5	15.5
1,2,3,7,8-PeCDF	ng/kg	4.32 J	52.2	0.797 U	0.446 U	0.826 UX	0.936 UX	13.2	2.82 J	28.1	7.61 J
2,3,4,6,7,8-HxCDF	ng/kg	19.6	241	1.94 UX	0.882 U	2.11 J	3.33 J	26.1	19.6	107	59.2
2,3,4,7,8-PeCDF	ng/kg	8.12 J	109	1.31 UX	0.264 UX	2.32 J	2.60 UX	34.8	8.64 J	63.8	14.1
2,3,7,8-TCDD	ng/kg	0.501 U	2.07 UX	0.609 U	0.312 U	0.564 U	0.592 U	0.795 UX	0.682 U	1.27 UX	1.38 UX
2,3,7,8-TCDF	ng/kg	0.845 UX	7.39	0.542 U	0.326 U	0.449 U	0.561 U	2.19	0.792 J	3.42	1.33 J
OCDD	ng/kg	17,800	318,000 D	3,260	219	5,710	5,840	93,100 D	61,800 D	669,000 D	1,500,000 D
OCDF	ng/kg	1,460	26,400	299	19.5 J	423	411	7,640	6,170	61,200 D	159,000 D
Total HpCDD	ng/kg	3,450	55,300	552	43.7	891 J	920	13,600	8,720	80,600	173,000
Total HpCDF	ng/kg	2,330	40,200	373	24.2	603	620	11,300	7,150	56,600	116,000
Total HxCDD	ng/kg	273	3,780	48.8	2.34 J	80.1	83.8	837	467	5,240	11,100
Total HxCDF	ng/kg	1,000	14,500	129	7.33 J	207	265	3,790	1,720	12,500	17,600
Total PeCDD	ng/kg	9.08 J	169	6.88 J	0.689 U	5.76 J	5.42 J	47.6	14.4	131	217
Total PeCDF	ng/kg	91.5	1,100	6.09 J	0.839 J	17.8	20.2	302	90.4	794	454
Total TCDD	ng/kg	2.03 J	10.3	7.02	0.312 U	1.23 UX	1.22 J	3.84	2.31	9.08	9.02
Total TCDF	ng/kg	4.06	48.1	1.16 J	0.326 U	0.918 J	1.06 J	8.03	1.61 J	28.0	32.1
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	43	712	5.99	0.331	11.6	11.6	178	105	1,070	2,110
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	44.3	713	7.68	1.27	12.8	13.3	179	105	1,070	2,110
Miscellaneous											
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C19 1-2 5/29/2024	SO-C19 2-4 5/29/2024	SO-C20 0-0.5 5/29/2024	SO-C20 0.5-1 5/29/2024	SO-C20 1-2 5/29/2024	SO-C20 2-2.7 5/29/2024	SO-C20 2.7-4 5/29/2024	SO-C21 0-0.5 5/14/2024	SO-C21 0.5-1 5/14/2024
Semivolatile Organic Compounds										
1-Methylnaphthalene	mg/kg	0.091 U	0.092 U	0.096 U	0.039 J	0.084 J	0.55	990 J	0.093 U [0.093 U]	0.091 U
2-Methylnaphthalene	mg/kg	0.091 U	0.092 U	0.096 U	0.081 J	0.17	0.99	2,100 J	0.093 U [0.093 U]	0.091 U
Acenaphthene	mg/kg	0.091 U	0.092 U	0.096 U	0.041 J	0.074 J	1.1	2,800 J	0.093 U [0.028 J]	0.091 U
Acenaphthylene	mg/kg	0.091 U	0.092 U	0.053 J	0.081 J	0.13	1.2	86 J	0.13 [0.18]	0.31
Anthracene	mg/kg	0.091 U	0.092 U	0.079 J	0.078 J	0.15	2.7	2,700 J	0.19 J [0.63 J]	0.31
Benzo(a)anthracene	mg/kg	0.091 U	0.092 U	0.068 J	0.067 J	0.11	1.3	800 J	0.15 [0.16]	0.19
Benzo(a)pyrene	mg/kg	0.091 U	0.092 U	0.13	0.21	0.25	6.7	300 J	0.25 [0.32]	0.46
Benzo(b)fluoranthene	mg/kg	0.091 U	0.092 U	0.14	0.19	0.3	6.6	410 J	0.41 [0.45]	0.57
Benzo(g,h,i)perylene	mg/kg	0.091 U	0.092 U	0.21	0.36	0.56	6.1	69 J	0.59 [0.73]	1.4
Benzo(k)fluoranthene	mg/kg	0.091 U	0.092 U	0.065 J	0.13	0.082 J	2.1	180 J	0.098 [0.12]	0.19
Chrysene	mg/kg	0.091 U	0.092 U	0.37	0.28	0.29	4.3	850 J	0.45 J [1.6 J]	0.53
Dibenzo(a,h)anthracene	mg/kg	0.091 U	0.092 U	0.096 U	0.096 U	0.091 U	1.2	96 UJ	0.12 [0.11]	0.23
Fluoranthene	mg/kg	0.091 U	0.092 U	0.049 J	0.077 J	0.13	1.9	4,100 J	0.14 [0.2]	0.21
Fluorene	mg/kg	0.091 U	0.092 U	0.096 U	0.02 J	0.03 J	0.89	2,400 J	0.035 J [0.061 J]	0.042 J
Indeno(1,2,3-cd)pyrene	mg/kg	0.091 U	0.092 U	0.14	0.23	0.42	5.6	79 J	0.41 [0.52]	0.99
Naphthalene	mg/kg	0.091 U	0.092 U	0.096 U	0.56	1.1	4.8	6,800 J	0.037 J [0.072 J]	0.07 J
Phenanthrene	mg/kg	0.091 U	0.092 U	0.096 U	0.048 J	0.063 J	2.1	7,400 J	0.08 J [0.1]	0.087 J
Pyrene	mg/kg	0.091 U	0.092 U	0.04 J	0.086 J	0.14	1.5	3,100 J	0.14 [0.18]	0.23
Total PAHs-16 (ND=0)	mg/kg	ND	ND	1.34	2.46	3.83	50.1	32,100	3.23 [5.46]	5.82
Total PAHs-16 (ND=1/2 DL)	mg/kg	0.728	0.736	1.58	2.51	3.87	50.1	32,100	3.28 [5.46]	5.86
BaP-TE (ND=0)	mg/kg	ND	ND	0.166	0.26	0.334	9.28	432	0.468 [0.546]	0.867
BaP-TE (ND=1/2 DL)	mg/kg	0.105	0.106	0.214	0.308	0.38	9.28	480	0.468 [0.546]	0.867
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans										
1,2,3,4,6,7,8-HpCDD	ng/kg	1,110	3,250	1,210	531	627	28,600 D	518,000 D	563 [502]	1,420
1,2,3,4,6,7,8-HpCDF	ng/kg	247	933	341	141	177	8,420	19,100	151 [118]	369
1,2,3,4,7,8,9-HpCDF	ng/kg	21.2	69.7	30.2	15.3	20.0	1,010	999	17.9 [11.9 J]	34.8
1,2,3,4,7,8-HxCDD	ng/kg	3.34 J	9.05 J	2.56 J	1.80 J	2.63 J	81.8	326	2.97 J [2.43 UX]	5.35 J
1,2,3,4,7,8-HxCDF	ng/kg	15.8	70.7	28.9	18.5	22.6	1,610	569	18.8 [14.3]	31.9
1,2,3,6,7,8-HxCDD	ng/kg	26.2	87.2	26.8	16.4	19.2	859	4,070	18.0 [15.8]	44.1
1,2,3,6,7,8-HxCDF	ng/kg	3.93 J	15.4	6.18 J	4.33 UX	4.42 J	317	126	4.40 J [3.10 J]	7.50 J
1,2,3,7,8,9-HxCDD	ng/kg	5.73 J	17.0	6.32 J	4.07 J	4.62 J	185	1,290	5.85 J [5.01 UX]	11.8 J
1,2,3,7,8,9-HxCDF	ng/kg	2.73 UX	7.34 J	2.43 J	3.95 J	6.43 J	486	91.9	3.74 J [2.41 J]	3.97 UX
1,2,3,7,8-PeCDD	ng/kg	1.61 U	2.07 UX	1.26 UX	0.714 U	1.14 UX	30.0	21.9 J	1.52 J [1.03 UX]	2.29 J
1,2,3,7,8-PeCDF	ng/kg	1.77 J	5.42 J	1.74 J	1.46 UX	1.98 UX	148	12.6 J	1.85 J [0.927 UX]	1.89 U
2,3,4,6,7,8-HxCDF	ng/kg	5.37 J	12.9	4.26 J	7.07 J	7.32 J	563	165	4.01 J [2.53 J]	3.91 J
2,3,4,7,8-PeCDF	ng/kg	2.73 J	9.82 J	3.82 J	3.77 J	5.75 J	370	39.9	2.55 J [2.37 J]	6.01 J
2,3,7,8-TCDD	ng/kg	0.722 U	0.706 UX	0.465 UX	0.380 U	0.497 U	2.51 UX	3.74 J	0.619 U [0.408 UX]	0.684 U
2,3,7,8-TCDF	ng/kg	0.602 J	0.539 UX	0.344 J	0.366 U	0.472 UX	24.7	3.02 J	0.429 U [0.350 U]	0.706 U
OCDD	ng/kg	14,400	36,400 D	17,500	7,140	9,490	397,000 D	3,150,000 D	8,360 [7,570]	18,700
OCDF	ng/kg	1,180	3,670	1,330	617	650	27,000	91,400 D	587 [473]	1,790
Total HpCDD	ng/kg	2,240	6,530	2,470	1,180	1,430	74,100	1,090,000	1,240 [1,090]	3,020
Total HpCDF	ng/kg	1,440	4,780	1,630	874	952	54,200	105,000	897 [720]	2,420
Total HxCDD	ng/kg	158	449	139	95.4	116	5,790	64,200	115 [91.6]	259
Total HxCDF	ng/kg	393	1,370	473	349	395	28,400	18,300	352 [262]	764
Total PeCDD	ng/kg	4.14 J	11.9 J	4.47 J	4.53 J	7.73 J	249	410	5.92 J [11.4 J]	10.4 J
Total PeCDF	ng/kg	30.4	107	33.9	28.9	42.6	2,890	646	25.6 [25.9]	60.8
Total TCDD	ng/kg	5.09	0.706 UX	0.423 J	1.67 UX	1.31 UX	7.26	41.3	3.84 [5.09]	1.56 J
Total TCDF	ng/kg	2.27 J	2.69	1.06 J	0.366 U	3.31	183	65.4	1.28 UX [0.285 J]	2.62
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	25.4	79.6	30.4	15.5	19.7	1,070	7,060	18.1 [13.3]	38.9
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	26.7	81	31.3	16.3	20.6	1,070	7,060	18.5 [14.4]	39.5
Miscellaneous										
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA [NA]	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C21 1-2 5/14/2024	SO-C21 2-2.6 5/14/2024	SO-C21 2.6-4 5/14/2024	SO-C22 0-0.5 5/29/2024	SO-C22 0.5-1 5/29/2024	SO-C22 1-2 5/29/2024	SO-C22 2-4 5/29/2024	SO-C23 0-0.5 5/29/2024	SO-C23 0.5-1 5/29/2024
Semivolatile Organic Compounds										
1-Methylnaphthalene	mg/kg	0.027 J	0.094 U	130 J	0.1 U	0.094 U	0.091 U [0.091 U]	0.088 U	0.038 J	0.1 U
2-Methylnaphthalene	mg/kg	0.065 J	0.094 U	230 DJ	0.1 U	0.094 U	0.022 J [0.091 U]	0.088 U	0.055 J	0.029 J
Acenaphthene	mg/kg	0.063 J	0.094 U	670 DJ	0.1 U	0.094 U	0.041 J [0.091 U]	0.088 U	0.031 J	0.1 U
Acenaphthylene	mg/kg	1.3	0.26	19 J	0.023 J	0.094 U	0.87 J [0.23 J]	0.058 J	0.12	0.28
Anthracene	mg/kg	1.2	0.3	280 DJ	0.1 U	0.027 J	1.4 J [0.34 J]	0.08 J	0.17	0.5
Benzo(a)anthracene	mg/kg	0.69	0.096	270 DJ	0.1 U	0.094 U	0.32 [0.11]	0.088 U	0.069 J	0.16
Benzo(a)pyrene	mg/kg	3.4	0.3	140 J	0.044 J	0.048 J	0.93 J [0.2 J]	0.066 J	0.15	0.51
Benzo(b)fluoranthene	mg/kg	3.7	0.38	180 DJ	0.053 J	0.055 J	0.85 J [0.24 J]	0.084 J	0.22	0.63
Benzo(g,h,i)perylene	mg/kg	6.2	0.97	58 J	0.071 J	0.098	5.7 J [1.4 J]	0.4	0.41	1.2
Benzo(k)fluoranthene	mg/kg	0.97	0.065 J	55 J	0.1 U	0.094 U	0.3 [0.099]	0.088 U	0.094 J	0.14
Chrysene	mg/kg	2.3	0.21	290 DJ	0.079 J	0.072 J	0.6 J [0.15 J]	0.088 U	0.15	0.36
Dibenzo(a,h)anthracene	mg/kg	1.1	0.14	18 J	0.1 U	0.094 U	0.57 J [0.15 J]	0.088 U	0.11 U	0.2
Fluoranthene	mg/kg	0.64	0.13	1,600 DJ	0.041 J	0.043 J	0.7 J [0.11 J]	0.029 J	0.11	0.21
Fluorene	mg/kg	0.16	0.049 J	420 DJ	0.1 U	0.094 U	0.13 [0.038 J]	0.088 U	0.035 J	0.057 J
Indeno(1,2,3-cd)pyrene	mg/kg	4.7	0.78	55 J	0.053 J	0.056 J	3 J [0.67 J]	0.18	0.25	0.72
Naphthalene	mg/kg	0.2	0.037 J	740 DJ	0.1 U	0.094 U	0.067 J [0.091 U]	0.088 U	0.66	0.24
Phenanthrene	mg/kg	0.29	0.061 J	1,300 DJ	0.1 U	0.094 U	0.2 [0.037 J]	0.088 U	0.072 J	0.09 J
Pyrene	mg/kg	1.6	0.15	1,000 DJ	0.037 J	0.042 J	0.7 J [0.16 J]	0.039 J	0.12	0.35
Total PAHs-16 (ND=0)	mg/kg	28.5	3.93	7,100	0.401	0.441	16.4 [3.93]	0.936	2.66	5.65
Total PAHs-16 (ND=1/2 DL)	mg/kg	28.5	3.98	7,100	0.801	0.817	16.4 [4.03]	1.29	2.72	5.7
BaP-TE (ND=0)	mg/kg	5.42	0.566	209	0.0547	0.0592	1.92 [0.453]	0.0924	0.205	0.863
BaP-TE (ND=1/2 DL)	mg/kg	5.42	0.566	209	0.11	0.111	1.92 [0.453]	0.141	0.26	0.863
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans										
1,2,3,4,6,7,8-HpCDD	ng/kg	5,950	20,300 D	39,300 D	234	998	3,450 J [2,020 J]	654	23,200 D	14,700
1,2,3,4,6,7,8-HpCDF	ng/kg	1,780 J	5,530	8,210	50.6	241	881 [541]	158	6,330	4,410
1,2,3,4,7,8,9-HpCDF	ng/kg	148	572 J	533	6.17 J	25.5	78.4 [49.5]	13.2	443	298
1,2,3,4,7,8-HxCDD	ng/kg	22.2	69.7	50.8	1.13 UX	4.45 J	8.30 J [5.50 J]	1.88 J	47.2	32.1
1,2,3,4,7,8-HxCDF	ng/kg	151	667 J	374	6.03 J	26.4	79.1 [56.7]	11.2 J	324	179
1,2,3,6,7,8-HxCDD	ng/kg	165	614 J	831	5.99 J	30.7	87.8 J [51.5 J]	17.1	531	371
1,2,3,6,7,8-HxCDF	ng/kg	31.9	124	70.1	1.05 U	6.67 J	16.8 [12.8]	2.35 J	66.6	36.4
1,2,3,7,8,9-HxCDD	ng/kg	50.4	157	142	2.43 J	6.56 UX	18.1 [12.3]	3.74 J	105	71.6
1,2,3,7,8,9-HxCDF	ng/kg	18.1	63.5	14.7 J	1.53 J	6.94 J	15.0 [5.94 J]	1.47 J	30.5	17.8
1,2,3,7,8-PeCDD	ng/kg	8.00 J	31.0	13.5 J	0.927 U	1.01 J	2.39 UX [2.24 J]	0.675 J	11.1 J	7.82 J
1,2,3,7,8-PeCDF	ng/kg	8.73 J	36.8	19.3 J	0.493 UX	2.11 J	6.49 J [4.51 J]	0.836 J	13.9	7.27 J
2,3,4,6,7,8-HxCDF	ng/kg	22.6	94.8	46.3	0.916 J	9.26 J	17.2 [9.22 J]	2.51 J	50.8	28.8
2,3,4,7,8-PeCDF	ng/kg	11.5 J	64.8	30.7	1.05 UX	5.02 J	16.8 [9.84 J]	1.06 J	35.2	16.1
2,3,7,8-TCDD	ng/kg	1.81 UX	6.38	2.61 UX	0.267 UX	0.357 UX	0.526 UX [0.362 UX]	0.312 U	1.30 UX	0.807 UX
2,3,7,8-TCDF	ng/kg	1.22 J	3.93	2.67 UX	0.331 U	0.383 UX	1.38 J [0.786 J]	0.336 U	2.12 J	1.14 J
OCDD	ng/kg	100,000 D	373,000 D	668,000 D	3,460	12,300	48,900 DJ [25,600 J]	8,690	286,000 D	197,000 D
OCDF	ng/kg	6,760	19,100	41,300	181	895	3,830 J [2,000 J]	727	27,500	20,500
Total HpCDD	ng/kg	12,400	44,500	52,600	503	2,060	7,150 J [4,100 J]	1,340	36,900	26,400
Total HpCDF	ng/kg	7,960	28,200	49,800	294	1,350	5,080 J [2,740 J]	910	30,000	21,200
Total HxCDD	ng/kg	943	3,780	3,280	39.3	162	471 J [269 J]	85.0	2,230	1,530
Total HxCDF	ng/kg	2,410	9,730	7,830	106	503	1,810 J [931 J]	239	6,710	4,320
Total PeCDD	ng/kg	77.7	301	107	1.95 J	9.52 J	24.0 [22.7]	5.81 J	78.3	50.2
Total PeCDF	ng/kg	221	932	519	11.0 J	52.1	167 J [94.4 J]	19.1	455	273
Total TCDD	ng/kg	11.3	119	35.7	3.29	5.13	4.71 [6.40]	4.77	4.27	7.85
Total TCDF	ng/kg	11.6	47.5	23.6	0.745 J	2.92 UX	5.39 [6.65]	0.336 U	20.0	14.4
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	169	619	869	5.69	27.6	89.5 [55.2]	16.1	532	346
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	170	619	871	6.58	28.2	91 [55.4]	16.3	532	346
Miscellaneous										
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA [NA]	NA	NA	NA

See Notes on Page 25.

Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C23 1-2 5/29/2024	SO-C23 2-4 5/29/2024	SO-C24 0-0.5 5/15/2024	SO-C24 0.5-1 5/15/2024	SO-C24 1-1.7 5/15/2024	SO-C24 1.7-2.3 5/15/2024	SO-C24 2.3-3.3 5/15/2024	SO-C24 3.3-4 5/15/2024	SO-C25 0-0.5 5/28/2024	SO-C25 0.5-1 5/28/2024
Semivolatile Organic Compounds											
1-Methylnaphthalene	mg/kg	0.089 U	0.091 U	0.1 U	0.096 U	0.1 U	0.3 U	0.022 J	0.053 J	0.11 U	0.046 J
2-Methylnaphthalene	mg/kg	0.089 U	0.091 U	0.1 U	0.096 U	0.1 U	0.12 J	0.047 J	0.095 U	0.038 J	0.088 J
Acenaphthene	mg/kg	0.089 U	0.091 U	0.1 U	0.096 U	0.1 U	0.2 J	0.15	0.23	0.11 U	0.051 J
Acenaphthylene	mg/kg	0.089 U	0.091 U	0.07 J	0.24	0.062 J	2.4	0.42	0.069 J	0.029 J	0.14
Anthracene	mg/kg	0.089 U	0.091 U	0.07 J	0.25	0.071 J	4.8	1.3	0.31	0.068 J	0.14
Benzo(a)anthracene	mg/kg	0.089 U	0.091 U	0.1 U	0.082 J	0.1 U	4.3	3.6	0.57	0.11 U	0.083 J
Benzo(a)pyrene	mg/kg	0.089 U	0.091 U	0.094 J	0.39	0.1	16	3.7	0.54	0.084 J	0.22
Benzo(b)fluoranthene	mg/kg	0.089 U	0.091 U	0.12	0.34	0.11	19	5	0.71	0.12	0.23
Benzo(g,h,i)perylene	mg/kg	0.089 U	0.091 U	0.24	0.84	0.23	11	1.8	0.27	0.14	0.64
Benzo(k)fluoranthene	mg/kg	0.089 U	0.091 U	0.037 J	0.11	0.1 U	5.4	1.6	0.24	0.046 J	0.099
Chrysene	mg/kg	0.089 U	0.091 U	0.15	0.28	0.088 J	14	4.9	0.83	0.19	0.24
Dibenzo(a,h)anthracene	mg/kg	0.089 U	0.091 U	0.1 U	0.14	0.1 U	2.9	0.54	0.11	0.11 U	0.087 J
Fluoranthene	mg/kg	0.089 U	0.028 J	0.046 J	0.076 J	0.034 J	2.9	9.2	1.3	0.067 J	0.14
Fluorene	mg/kg	0.089 U	0.091 U	0.1 U	0.096 U	0.1 U	0.38	0.23	0.14	0.11 U	0.034 J
Indeno(1,2,3-cd)pyrene	mg/kg	0.089 U	0.091 U	0.16	0.6	0.16	9.8	1.8	0.25	0.096 J	0.4
Naphthalene	mg/kg	0.18	0.095	0.1 U	0.025 J	0.1 U	0.55	0.27	0.2	0.4	1.1
Phenanthrene	mg/kg	0.089 U	0.05 J	0.1 U	0.038 J	0.1 U	0.68	1.1	0.37	0.028 J	0.06 J
Pyrene	mg/kg	0.089 U	0.091 U	0.067 J	0.14	0.042 J	1.4	8.1	1.3	0.053 J	0.14
Total PAHs-16 (ND=0)	mg/kg	0.18	0.173	1.05	3.55	0.897	95.7	43.7	7.44	1.32	3.8
Total PAHs-16 (ND=1/2 DL)	mg/kg	0.848	0.765	1.35	3.65	1.25	95.7	43.7	7.44	1.54	3.8
BaP-TE (ND=0)	mg/kg	ND	ND	0.123	0.634	0.127	22.3	5.3	0.806	0.106	0.38
BaP-TE (ND=1/2 DL)	mg/kg	0.103	0.105	0.178	0.634	0.183	22.3	5.3	0.806	0.167	0.38
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	ng/kg	39.2	76.4	1,140	11,800	57,400 D	75,600 D	1,570	580	866	6,930
1,2,3,4,6,7,8-HpCDF	ng/kg	11.6 J	23.6	315	3,560 D	16,500 DJ	18,400 DJ	479	166	168	1,940
1,2,3,4,7,8,9-HpCDF	ng/kg	1.38 U	2.52 J	23.2	239	1,540	1,120	27.5	9.60 UX	14.7	141
1,2,3,4,7,8-HxCDD	ng/kg	0.965 U	1.63 U	4.24 U	24.2 UX	138	127	4.57 U	3.20 U	2.13 J	11.9 UX
1,2,3,4,7,8-HxCDF	ng/kg	0.807 UX	1.57 J	20.8	165	1,920	875	10.1 UX	5.43 J	14.7	148
1,2,3,6,7,8-HxCDD	ng/kg	1.60 J	2.40 J	31.5	352	1,600	2,040	44.2	15.6 UX	16.4	161
1,2,3,6,7,8-HxCDF	ng/kg	0.890 U	1.40 U	5.10 J	32.2	338	177	2.63 J	1.91 U	3.51 J	27.7
1,2,3,7,8,9-HxCDD	ng/kg	1.06 U	1.74 U	8.09 J	61.5	307	312	6.44 UX	3.27 U	4.08 J	29.8
1,2,3,7,8,9-HxCDF	ng/kg	1.29 U	2.07 U	4.04 J	15.0	246	62.4 UX	3.40 U	2.46 U	2.34 J	7.26 J
1,2,3,7,8-PeCDD	ng/kg	0.739 U	1.04 U	1.74 U	8.85 J	46.1	34.3	3.30 U	1.86 U	0.966 J	3.77 J
1,2,3,7,8-PeCDF	ng/kg	0.495 U	0.602 U	1.32 U	8.88 J	65.7	36.0	2.29 U	1.34 U	1.31 J	7.16 J
2,3,4,6,7,8-HxCDF	ng/kg	0.931 U	1.50 U	5.31 J	27.5	542	128	1.74 UX	1.15 UX	3.55 J	13.9
2,3,4,7,8-PeCDF	ng/kg	0.416 U	0.556 U	2.47 J	17.6	177	81.6	2.35 U	1.36 U	2.43 J	19.0
2,3,7,8-TCDD	ng/kg	0.311 U	0.392 U	1.13 U	1.82 U	4.29	4.47	2.03 J	0.863 U	0.285 UX	0.687 UX
2,3,7,8-TCDF	ng/kg	0.276 U	0.403 U	0.781 U	0.884 UX	5.59	3.59 UX	0.752 U	0.560 U	0.346 J	1.09 UX
OCDD	ng/kg	447	1,000	18,500	171,000 D	988,000 D	860,000 D	19,900	7,880	13,100	122,000 D
OCDF	ng/kg	45.2	94.4 J	1,410	17,500	74,200 D	107,000 D	2,640	971	676	8,390
Total HpCDD	ng/kg	72.9	144	2,250	22,300	94,300	119,000	2,900	1,050	1,720	13,900
Total HpCDF	ng/kg	48.9	116	1,560	18,700	82,100	101,000	2,330	826	880	9,090
Total HxCDD	ng/kg	4.25 J	10.3 J	147	1,430	6,280	9,090	99.8	20.0	94.5	766
Total HxCDF	ng/kg	11.9 J	30.5	398	4,090	25,900	22,100	386	143	241	2,390
Total PeCDD	ng/kg	1.17 J	1.21 UX	4.53 J	46.6	217	250	3.30 U	1.86 U	6.37 J	31.7
Total PeCDF	ng/kg	1.63 U	2.29 J	25.4	235	2,410	1,360	8.37 J	5.28 J	22.0	188
Total TCDD	ng/kg	3.47	1.24 UX	1.13 U	1.82 U	13.3	14.7	2.03 J	0.863 U	3.71	2.89
Total TCDF	ng/kg	0.806 U	0.403 U	1.01 J	12.7	96.3	55.4	0.854 UX	0.533 J	1.12 J	3.50
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	0.816	1.75	29	292	1,690	1,670	34.2	10.7	21.1	178
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	1.73	3	30.7	294	1,690	1,670	37.6	13.7	21.2	179
Miscellaneous											
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C25 1-2 5/28/2024	SO-C25 2-4 5/28/2024	SO-C26 0-0.5 5/14/2024	SO-C26 0.5-1 5/14/2024	SO-C26 1-1.8 5/14/2024	SO-C26 1.8-2 5/14/2024	SO-C26 2-4 5/14/2024	SO-C27 0-0.5 5/28/2024	SO-C27 0.5-1 5/28/2024
Semivolatile Organic Compounds										
1-Methylnaphthalene	mg/kg	0.077 J	65 J	0.1 U [0.092 U]	0.093 U	0.78	130	700	0.099 U	0.093 U
2-Methylnaphthalene	mg/kg	0.15	130 J	0.1 U [0.092 U]	0.093 U	0.74	110	1,300	0.099 U	0.047 J
Acenaphthene	mg/kg	0.13	310 J	0.1 U [0.092 U]	0.093 U	6	1,600	2,300	0.099 U	0.029 J
Acenaphthylene	mg/kg	1.6	6.2 J	0.1 U [0.092 U]	0.093 U	0.86	54	17	0.036 J	0.22
Anthracene	mg/kg	2.3	75 J	0.1 U [0.092 U]	0.041 J	5	1,500	750	0.043 J	0.23
Benzo(a)anthracene	mg/kg	1.1	76 J	0.1 U [0.092 U]	0.093 U	2	590	480	0.099 U	0.13
Benzo(a)pyrene	mg/kg	4.7	36 J	0.1 U [0.092 U]	0.053 J	2.3	230	180	0.076 J	0.32
Benzo(b)fluoranthene	mg/kg	4.2	44 J	0.047 J [0.081 J]	0.079 J	2	300	280	0.098 J	0.37
Benzo(g,h,i)perylene	mg/kg	8	16 J	0.057 J [0.053 J]	0.12	4.4	77	45	0.17	1.1
Benzo(k)fluoranthene	mg/kg	1.4	20 J	0.1 U [0.092 U]	0.093 U	0.8	140	75	0.099 U	0.13
Chrysene	mg/kg	3	71 J	0.13 [0.084 J]	0.13	2.5	740	470	0.23	0.52
Dibenzo(a,h)anthracene	mg/kg	1.4	6.8 J	0.1 U [0.092 U]	0.093 U	0.71	27	16	0.099 U	0.16
Fluoranthene	mg/kg	1	430 J	0.039 J [0.052 J]	0.053 J	12	3,400	3,000	0.052 J	0.18
Fluorene	mg/kg	0.24	190 J	0.1 U [0.092 U]	0.093 U	4.1	650	1,600	0.099 U	0.03 J
Indeno(1,2,3-cd)pyrene	mg/kg	6.1	14 J	0.1 U [0.092 U]	0.062 J	3.2	74	45	0.1	0.74
Naphthalene	mg/kg	1.6	530 J	0.1 U [0.092 U]	0.093 U	0.58	150	5,000	0.099 U	0.39
Phenanthrene	mg/kg	0.37	540 J	0.1 U [0.092 U]	0.026 J	12	1,200	5,100	0.099 U	0.073 J
Pyrene	mg/kg	1.2	310 J	0.1 U [0.092 U]	0.051 J	7.9	2,500	2,100	0.047 J	0.18
Total PAHs-16 (ND=0)	mg/kg	38.3	2,680	0.273 [0.27]	0.615	66.4	13,200	21,500	0.852	4.8
Total PAHs-16 (ND=1/2 DL)	mg/kg	38.3	2,680	0.873 [0.822]	0.941	66.4	13,200	21,500	1.2	4.8
BaP-TE (ND=0)	mg/kg	7.26	56.5	0.00483 [0.00818]	0.0672	3.74	356	278	0.096	0.606
BaP-TE (ND=1/2 DL)	mg/kg	7.26	56.5	0.115 [0.11]	0.119	3.74	356	278	0.151	0.606
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans										
1,2,3,4,6,7,8-HpCDD	ng/kg	22,300 D	8,730	374 J [633 J]	551	50,100 D	157,000	17,700	444	3,180 J
1,2,3,4,6,7,8-HpCDF	ng/kg	5,490	2,700	109 J [189 J]	165	16,800 D	48,400	5,350	131	856 J
1,2,3,4,7,8,9-HpCDF	ng/kg	449	195	10.0 J [18.3]	17.3	1,160	2,310	326	12.3	67.9 J
1,2,3,4,7,8-HxCDD	ng/kg	36.1	27.2	1.94 J [3.90 U]	2.17 U	113	131 J	69.7 U	1.53 U	7.84 J
1,2,3,4,7,8-HxCDF	ng/kg	459	224	12.1 J [18.1]	18.2	845	850	101 UX	11.1 J	74.0 J
1,2,3,6,7,8-HxCDD	ng/kg	484	246	12.1 J [17.9]	18.9	1,440	4,190	448	12.1 J	81.1 J
1,2,3,6,7,8-HxCDF	ng/kg	84.9	46.3	2.68 J [4.68 J]	3.90 J	161	167 J	60.7 U	2.11 J	15.1
1,2,3,7,8,9-HxCDD	ng/kg	75.4	62.7	2.42 U [5.89 J]	5.48 J	294	455	61.1 U	2.92 J	16.7
1,2,3,7,8,9-HxCDF	ng/kg	26.5	27.3	2.58 U [2.96 U]	3.66 J	67.4	148 U	74.7 U	1.76 UX	7.29 J
1,2,3,7,8-PeCDD	ng/kg	10.1 J	8.29 UX	1.80 UX [1.99 U]	1.71 U	45.1	62.8 U	68.4 U	0.658 UX	2.77 J
1,2,3,7,8-PeCDF	ng/kg	20.1	10.6 J	1.20 UX [2.28 UX]	1.36 U	26.3	49.1 U	39.3 U	0.978 J	4.65 J
2,3,4,6,7,8-HxCDF	ng/kg	52.5	46.9	2.37 UX [4.11 J]	2.16 J	57.9	122 UX	70.3 U	2.48 J	9.00 J
2,3,4,7,8-PeCDF	ng/kg	55.6	18.7	2.75 UX [2.61 UX]	4.50 J	117	44.4 U	34.3 U	1.77 J	10.4 J
2,3,7,8-TCDD	ng/kg	1.23 UX	1.41 UX	0.760 UX [0.585 U]	0.626 U	1.82 UX	18.3 U	19.4 U	0.351 U	0.513 UX
2,3,7,8-TCDF	ng/kg	2.55	2.13	0.557 U [0.616 U]	0.682 U	3.47 UX	18.7 U	31.8 U	0.309 U	0.890 J
OCDD	ng/kg	380,000 D	93,300 D	4,710 J [8,320 J]	6,530	763,000 D	1,800,000	201,000	7,620	46,800 DJ
OCDF	ng/kg	23,200	10,700	395 J [713 J]	592	97,600 D	295,000	32,500	562	3,580 J
Total HpCDD	ng/kg	40,600	16,500	810 [1,310]	1,200	119,000	278,000	31,600	920	6,590
Total HpCDF	ng/kg	25,700	12,300	528 [858]	886	98,800	272,000	29,900	593	4,730
Total HxCDD	ng/kg	2,310	1,180	42.2 [54.7]	101	5,970	13,500	1,400	62.8	423
Total HxCDF	ng/kg	6,810	3,330	173 [269]	302	19,800	40,100	4,240	162	1,370
Total PeCDD	ng/kg	75.6	38.1	5.18 UX [4.88 UX]	3.13 J	198	62.8 U	68.4 U	5.85 J	23.0
Total PeCDF	ng/kg	556	325	16.0 [22.7]	29.4	1,200	600	70.6 J	16.3	115
Total TCDD	ng/kg	8.28	9.35	1.60 J [1.50 UX]	0.626 U	1.93 J	18.3 U	19.4 U	5.79	3.78
Total TCDF	ng/kg	21.1	28.1	1.60 J [1.20 J]	0.933 UX	75.2	35.9 J	31.8 U	0.618 J	5.99
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	553	222	9.34 [16.2]	16	1,320	3,280	349	12	83.4
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	553	226	11.5 [18.3]	17.4	1,320	3,350	422	12.6	83.6
Miscellaneous										
Total Organic Carbon	mg/kg	NA	NA	NA [NA]	NA	NA	NA	NA	NA	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C27 1-2 5/28/2024	SO-C27 2-4 5/28/2024	SO-C28 0-0.5 6/13/2024	SO-C28 0.5-1 6/13/2024	SO-C28 1-2 6/13/2024	SO-C28 2-2.3 6/13/2024	SO-C28 2.3-4 6/13/2024	SO-C29 0-0.5 6/13/2024	SO-C29 0.5-1 6/13/2024
Semivolatile Organic Compounds										
1-Methylnaphthalene	mg/kg	0.17 J	250 J	0.095 U	0.095 U	0.093 U	8.3 J	120 J	0.096 U	0.095 U
2-Methylnaphthalene	mg/kg	0.41	490 J	0.095 U	0.095 U	0.093 U	14 J	250 J	0.028 J	0.095 U
Acenaphthene	mg/kg	0.27 J	1,100 DJ	0.095 U	0.095 U	0.093 U	37 J	460 J	0.096 U	0.095 U
Acenaphthylene	mg/kg	3.4	26 J	0.095 U	0.042 J	0.15	4.8 J	2.9 J	0.051 J	0.16
Anthracene	mg/kg	7.3	1,200 DJ	0.095 U	0.06 J	0.21	11 J	67 J	1	0.2
Benzo(a)anthracene	mg/kg	1.1	250 J	0.095 U	0.061 J	0.12	42 J	91 J	0.071 J	0.085 J
Benzo(a)pyrene	mg/kg	7.1	110 J	0.14	0.091 J	0.31	93 J	39 J	0.13	0.21
Benzo(b)fluoranthene	mg/kg	5.5	130 J	0.12	0.094 J	0.3	120 J	60 J	0.15	0.26
Benzo(g,h,i)perylene	mg/kg	19	39 J	0.13	0.31	1.5	47 J	18 J	0.21	0.66
Benzo(k)fluoranthene	mg/kg	1.7	64 J	0.045 J	0.053 J	0.081 J	31 J	19 J	0.045 J	0.057 J
Chrysene	mg/kg	8.4	390 J	0.11	0.2	0.18	81 J	65 J	0.32	0.36
Dibenzo(a,h)anthracene	mg/kg	3	13 J	0.095 U	0.095 U	0.15	13 J	4 J	0.096 U	0.088 J
Fluoranthene	mg/kg	1.2	1,800 DJ	0.036 J	0.044 J	0.097	70 J	440 J	0.097	0.14
Fluorene	mg/kg	0.59	850 DJ	0.095 U	0.095 U	0.093 U	23 J	260 J	0.14	0.042 J
Indeno(1,2,3-cd)pyrene	mg/kg	13	33 J	0.096	0.2	0.88	43 J	15 J	0.16	0.41
Naphthalene	mg/kg	4.4	2,900 DJ	0.095 U	0.095 U	0.033 J	38 J	1,500 DJ	0.084 J	0.054 J
Phenanthrene	mg/kg	0.78	2,400 DJ	0.095 U	0.027 J	0.04 J	76 J	1,000 DJ	0.27	0.082 J
Pyrene	mg/kg	1.7	1,200 DJ	0.095 U	0.048 J	0.14	59 J	370 J	0.083 J	0.11
Total PAHs-16 (ND=0)	mg/kg	78.4	12,500	0.677	1.23	4.19	789	4,410	2.81	2.92
Total PAHs-16 (ND=1/2 DL)	mg/kg	78.4	12,500	1.1	1.42	4.28	789	4,410	2.91	2.97
BaP-TE (ND=0)	mg/kg	12.1	165	0.162	0.127	0.591	127	59.9	0.169	0.374
BaP-TE (ND=1/2 DL)	mg/kg	12.1	165	0.214	0.175	0.591	127	59.9	0.217	0.374
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans										
1,2,3,4,6,7,8-HpCDD	ng/kg	62,900 D	91,400 D	980	2,530 J	24,100 D	50,500 D	2,480	1,370	4,210
1,2,3,4,6,7,8-HpCDF	ng/kg	8,380	31,800 D	167 J	674 J	7,130	4,120 J	342	363	1,050
1,2,3,4,7,8,9-HpCDF	ng/kg	562	1,620	14.5	56.7 J	515	184	18.9 J	31.3	87.0
1,2,3,4,7,8-HxCDD	ng/kg	61.7	121	3.12 U	7.19 J	45.6	19.1	3.41 U	2.57 U	14.5
1,2,3,4,7,8-HxCDF	ng/kg	423	870	14.4	56.5 J	343	60.3	7.95 J	31.1	90.2
1,2,3,6,7,8-HxCDD	ng/kg	878	2,000	20.1	63.2 J	688	456	41.5	2.68 U	112
1,2,3,6,7,8-HxCDF	ng/kg	80.4	144	3.22 J	11.7 J	63.2	12.5	2.13 U	7.00 J	20.7
1,2,3,7,8,9-HxCDD	ng/kg	182	315	4.34 UX	15.4	114	74.8	10.9 J	9.95 J	28.7
1,2,3,7,8,9-HxCDF	ng/kg	37.1	66.1	2.94 J	7.25 J	40.3	3.10 UX	2.85 U	2.35 J	10.0 J
1,2,3,7,8-PeCDD	ng/kg	17.2	24.4	4.83 UX	3.62 UX	12.4	4.44 J	1.59 U	10.5 UX	10.9 UX
1,2,3,7,8-PeCDF	ng/kg	17.7	7.00 J	1.55 U	3.76 J	11.7 J	0.854 J	0.963 U	2.72 J	6.50 J
2,3,4,6,7,8-HxCDF	ng/kg	72.2	165	4.08 J	9.25 J	60.5	11.3 UX	1.29 J	3.42 J	13.2
2,3,4,7,8-PeCDF	ng/kg	47.9	16.2 J	2.21 UX	7.52 J	40.4	2.45 UX	0.878 U	4.53 UX	13.8
2,3,7,8-TCDD	ng/kg	1.72 UX	1.85 UX	0.937 U	0.805 UX	1.29 UX	1.62 UX	0.824 U	0.827 U	1.20 J
2,3,7,8-TCDF	ng/kg	2.65	0.609 U	0.720 U	0.659 J	1.82 J	0.565 U	0.965 U	0.822 U	1.09 J
OCDD	ng/kg	695,000 D	1,120,000 D	12,400	39,100 DJ	360,000 D	808,000 D	26,800	20,200	58,700 D
OCDF	ng/kg	48,300 D	161,000 D	689 J	2,490 J	35,300 D	22,500	2,030	1,620	4,700
Total HpCDD	ng/kg	95,600	133,000	1,810	5,100	45,700	84,900	4,250	2,690	8,130
Total HpCDF	ng/kg	43,700	131,000	717	3,590	45,700	23,100	2,050	1,610	4,850
Total HxCDD	ng/kg	4,380	7,110	100	334	3,140	2,850	206	133	558
Total HxCDF	ng/kg	9,770	22,000	202	1,000	9,650	2,970	270	446	1,430
Total PeCDD	ng/kg	103	93.6	5.50 J	10.4 J	68.1	57.2	2.98 J	6.87 J	20.1
Total PeCDF	ng/kg	654	895	17.6	88.9	600	81.4	10.6 J	31.4	136
Total TCDD	ng/kg	12.1	7.60	1.52 J	3.37	9.95	22.5	1.96 J	2.25 UX	3.89
Total TCDF	ng/kg	36.2	48.4	0.841 UX	2.91	24.5	24.1	4.82	0.822 U	6.93
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	1,150	2,030	20	64.6	597	864	43.2	29.7	107
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	1,150	2,030	23.7	66.8	597	866	45	36.3	113
Miscellaneous										
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:		SO-C29 1-2 6/13/2024	SO-C29 2-4 6/13/2024	SO-C30 0-0.5 6/13/2024	SO-C30 0.5-1 6/13/2024	SO-C30 1-2 6/13/2024	SO-C30 2-4 6/13/2024	SO-C31 0-0.5 5/15/2024	SO-C31 0.5-1.2 5/15/2024
Semivolatile Organic Compounds									
1-Methylnaphthalene	mg/kg	0.96 U [0.96 U]	0.097 U	0.095 U	0.094 U	0.096 U	59	0.096 U	0.1 U [0.094 U]
2-Methylnaphthalene	mg/kg	0.96 U [0.61 J]	0.097 U	0.095 U	0.094 U	0.096 U	130	0.096 U	0.1 U [0.094 U]
Acenaphthene	mg/kg	0.96 U [0.96 U]	0.25	0.095 U	0.094 U	0.096 U	230 D	0.096 U	0.1 U [0.094 U]
Acenaphthylene	mg/kg	2.3 [3.6]	0.11	0.1	0.12	0.35	4.8	0.057 J	0.095 J [0.22]
Anthracene	mg/kg	9.6 J [85 J]	0.55	0.1	0.095	0.34	180	0.066 J	0.15 [0.36]
Benzo(a)anthracene	mg/kg	1.4 J [8.9 J]	2.1	0.051 J	0.048 J	0.1	66	0.053 J	0.065 J [0.14]
Benzo(a)pyrene	mg/kg	7.9 J [17 J]	1.1	0.19	0.17	0.7	29	0.13	0.2 [0.33]
Benzo(b)fluoranthene	mg/kg	7.8 J [18 J]	1.4	0.21	0.19	0.63	40	0.18	0.2 [0.35]
Benzo(g,h,i)perylene	mg/kg	12 [15]	0.55	0.45	0.46	1.9	9	0.43	0.71 J [1.3 J]
Benzo(k)fluoranthene	mg/kg	2 J [6.6 J]	0.46	0.096	0.058 J	0.18	15	0.061 J	0.052 J [0.095]
Chrysene	mg/kg	19 J [140 J]	2.1	0.15	0.16	0.28	100	0.13	0.099 J [0.21]
Dibenzo(a,h)anthracene	mg/kg	1.7 [2.6]	0.13	0.074 J	0.071 J	0.26	3.1	0.096 U	0.089 J [0.16]
Fluoranthene	mg/kg	0.81 J [2.4]	8.5	0.079 J	0.076 J	0.13	340 D	0.051 J	0.039 J [0.096]
Fluorene	mg/kg	0.45 J [2.1]	0.31	0.095 U	0.094 U	0.052 J	160	0.096 U	0.1 U [0.037 J]
Indeno(1,2,3-cd)pyrene	mg/kg	9.2 [13]	0.46	0.34	0.33	1.3	8.5	0.25	0.45 J [0.93 J]
Naphthalene	mg/kg	0.96 U [1]	0.097 U	0.095 U	0.094 U	0.06 J	540 D	0.034 J	0.021 J [0.047 J]
Phenanthrene	mg/kg	0.64 J [3.4]	1.9	0.05 J	0.031 J	0.071 J	440 D	0.027 J	0.1 U [0.059 J]
Pyrene	mg/kg	1.1 [3.3]	6.6	0.077 J	0.068 J	0.15	240 D	0.068 J	0.085 J [0.15]
Total PAHs-16 (ND=0)	mg/kg	75.9 [322]	26.5	1.97	1.88	6.5	2,410	1.54	2.26 [4.48]
Total PAHs-16 (ND=1/2 DL)	mg/kg	76.9 [322]	26.6	2.11	2.02	6.55	2,410	1.68	2.41 [4.53]
BaP-TE (ND=0)	mg/kg	11.5 [23.8]	1.63	0.325	0.299	1.17	43.8	0.179	0.361 [0.633]
BaP-TE (ND=1/2 DL)	mg/kg	11.5 [23.8]	1.63	0.325	0.299	1.17	43.8	0.227	0.361 [0.633]
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans									
1,2,3,4,6,7,8-HpCDD	ng/kg	10,400 [10,300]	550	673	3,490	20,800 D	90,600 D	282	2,530 [3,970]
1,2,3,4,6,7,8-HpCDF	ng/kg	2,960 [2,920]	148	180	918	5,300	9,220	67.9	461 J [1,160 J]
1,2,3,4,7,8,9-HpCDF	ng/kg	232 [244]	13.5	16.8	91.6	510	664	7.30 J	52.1 J [93.4 J]
1,2,3,4,7,8-HxCDD	ng/kg	29.6 [28.5]	2.75 U	3.02 UX	10.5 J	63.5	69.5	1.39 J	9.36 J [12.4]
1,2,3,4,7,8-HxCDF	ng/kg	225 [259]	13.5	17.6	92.9	560	607	5.53 J	56.2 J [98.2 J]
1,2,3,6,7,8-HxCDD	ng/kg	273 [284]	16.3	20.6	104	594	1,020	8.53 J	60.6 J [115 J]
1,2,3,6,7,8-HxCDF	ng/kg	46.3 [56.1]	2.88 UX	3.31 UX	21.0	128	116	1.22 J	12.9 [20.8]
1,2,3,7,8,9-HxCDD	ng/kg	70.4 [62.9]	2.97 J	5.87 UX	23.2	148	224	2.31 J	20.3 [28.4]
1,2,3,7,8,9-HxCDF	ng/kg	27.6 [37.8]	2.42 J	2.96 J	11.2 J	72.3	61.2	0.772 UX	7.54 J [12.6]
1,2,3,7,8-PeCDD	ng/kg	21.2 UX [18.4 UX]	6.56 UX	7.23 UX	11.6 UX	27.6 UX	30.6 UX	0.840 U	3.21 UX [3.92 J]
1,2,3,7,8-PeCDF	ng/kg	11.6 J [16.7]	2.29 UX	1.19 UX	7.56 J	56.6	29.7	0.900 J	3.82 J [5.40 J]
2,3,4,6,7,8-HxCDF	ng/kg	33.0 [38.1]	2.61 UX	5.73 J	15.6	91.6	94.7	1.32 J	7.44 J [19.8]
2,3,4,7,8-PeCDF	ng/kg	32.3 [40.4]	4.00 J	2.01 UX	17.4	120	80.7	1.16 J	5.70 J [10.8 J]
2,3,7,8-TCDD	ng/kg	2.00 J [0.830 U]	0.902 U	0.901 U	0.929 U	1.49 UX	2.98 UX	0.377 UX	0.549 UX [0.612 UX]
2,3,7,8-TCDF	ng/kg	1.41 J [2.00 J]	0.652 U	0.654 U	1.13 J	7.75	4.87 J	0.308 UX	0.674 UX [0.335 U]
OCDD	ng/kg	156,000 D [161,000 D]	7,410	10,700	43,400 D	279,000 D	1,100,000 D	3,820	34,900 D [52,900 D]
OCDF	ng/kg	12,700 [12,000]	568	731	3,850	20,500	44,300	309	1,660 J [4,410]
Total HpCDD	ng/kg	20,700 [20,700]	1,110	1,350	6,870	40,300	187,000	603	5,030 [7,430]
Total HpCDF	ng/kg	13,700 [13,400]	657	794	4,430	23,100	44,000	405	2,450 J [5,160]
Total HxCDD	ng/kg	1,300 [1,280]	45.2	98.3	498	2,680	7,590	52.9	382 J [471]
Total HxCDF	ng/kg	3,620 [3,860]	213	242	1,500	8,390	10,400	120	980 J [1,460]
Total PeCDD	ng/kg	85.0 [59.3]	4.75 J	18.2 UX	23.4	67.6	131	10.2 J	23.4 [10.3 J]
Total PeCDF	ng/kg	314 [367]	24.9	20.2	134	838	723	13.8	102 [114]
Total TCDD	ng/kg	12.0 [6.43]	1.91 UX	2.40 UX	1.77 J	9.50	10.5	7.24	6.45 [3.20]
Total TCDF	ng/kg	16.0 [7.87]	0.794 J	1.10 UX	4.63	49.3	43.2	0.700 J+	3.43 [3.88]
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	269 [276]	14.2	16.8	92.6	560	1,590	7.22	60.7 [107]
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	280 [286]	18.4	21.8	98.8	575	1,610	7.88	62.6 [108]
Miscellaneous									
Total Organic Carbon	mg/kg	NA [NA]	NA	NA	NA	NA	NA	NA	NA [NA]

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C31 1.2-1.5 5/15/2024	SO-C31 1.5-2 5/15/2024	SO-C31 2-3.3 5/15/2024	SO-C31 3.3-4 5/15/2024	SO-C33 0-0.5 5/14/2024	SO-C33 0.5-1 5/14/2024	SO-C33 1-2 5/14/2024	SO-C33 2-4 5/14/2024	SO-C34 0-0.5 5/28/2024	SO-C34 0.5-1 5/28/2024
Semivolatile Organic Compounds											
1-Methylnaphthalene	mg/kg	2 U	0.045 J	0.93 U	41	0.1 U	0.098 U	0.088 U	0.096 U	0.096 J	0.096 U
2-Methylnaphthalene	mg/kg	2 U	0.094	0.93 U	73	0.1 U	0.098 U	0.088 U	0.096 U	0.18	0.096 U
Acenaphthene	mg/kg	1.2 J	0.14	2.3	220 D	0.1 U	0.098 U	0.088 U	0.096 U	0.071 J	0.096 U
Acenaphthylene	mg/kg	27	1.6	0.78 J	1.5	0.1 U	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Anthracene	mg/kg	26	1.5	2.1	35	0.1 U	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Benzo(a)anthracene	mg/kg	5.5	0.5	13	35	0.05 J	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Benzo(a)pyrene	mg/kg	74	5.6	9.1	14	0.06 J	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Benzo(b)fluoranthene	mg/kg	61	6	13	19	0.074 J	0.024 J	0.088 U	0.096 U	0.11 U	0.096 U
Benzo(g,h,i)perylene	mg/kg	120	11	4.5	4.8	0.045 J	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Benzo(k)fluoranthene	mg/kg	16	1.3	3.5	6.6	0.034 J	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Chrysene	mg/kg	16	1.4	14	29	0.058 J	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Dibenzo(a,h)anthracene	mg/kg	22	1.8	0.93 U	1.5	0.1 U	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Fluoranthene	mg/kg	5.9	0.51	49	280 D	0.087 J	0.039 J	0.088 U	0.096 U	0.11 U	0.096 U
Fluorene	mg/kg	3.4	0.19	2	160 D	0.1 U	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Indeno(1,2,3-cd)pyrene	mg/kg	99	9.5	3.9	4.4	0.1 U	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Naphthalene	mg/kg	2.3	0.4	0.93 U	290 D	0.1 U	0.098 U	0.088 U	0.096 U	2.8	0.073 J
Phenanthrene	mg/kg	2	0.21	9.4	510 D	0.032 J	0.098 U	0.088 U	0.096 U	0.11 U	0.096 U
Pyrene	mg/kg	4.7	0.34	41	220 D	0.085 J	0.034 J	0.088 U	0.096 U	0.11 U	0.096 U
Total PAHs-16 (ND=0)	mg/kg	486	42	168	1,830	0.525	0.097	ND	ND	2.87	0.073
Total PAHs-16 (ND=1/2 DL)	mg/kg	486	42	169	1,830	0.875	0.734	0.704	0.768	3.64	0.793
BaP-TE (ND=0)	mg/kg	113	9.01	12.1	21.4	0.0728	0.0024	ND	ND	ND	ND
BaP-TE (ND=1/2 DL)	mg/kg	113	9.01	12.6	21.4	0.128	0.111	0.102	0.111	0.127	0.111
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	ng/kg	10,100	891	266	166	171	16.0	2.48 U	2.34 U	25.0	0.883 UX
1,2,3,4,6,7,8-HpCDF	ng/kg	2,300	120	43.6	30.5	54.2	4.51 UX	1.27 U	1.56 U	6.90 J	0.389 U
1,2,3,4,7,8,9-HpCDF	ng/kg	149	9.63 J	2.82 UX	2.22 J	4.71 J	1.99 U	1.98 U	2.34 U	0.818 U	0.558 U
1,2,3,4,7,8-HxCDD	ng/kg	18.3	1.66 J	0.955 U	0.802 U	2.74 U	2.34 U	2.11 U	2.38 U	0.711 U	0.543 U
1,2,3,4,7,8-HxCDF	ng/kg	146	9.92 J	2.78 J	1.70 J	4.39 J	1.53 U	1.08 U	1.07 U	0.488 U	0.358 U
1,2,3,6,7,8-HxCDD	ng/kg	205	19.1	5.66 J	4.17 J	4.74 UX	2.25 U	2.05 U	2.38 U	0.715 U	0.576 U
1,2,3,6,7,8-HxCDF	ng/kg	24.0	1.86 J	0.661 U	0.593 U	1.64 U	1.62 U	1.14 U	1.14 U	0.486 U	0.378 U
1,2,3,7,8,9-HxCDD	ng/kg	33.7	5.59 UX	1.35 J	1.19 J	2.84 U	2.35 U	2.10 U	2.31 U	0.607 UX	0.614 U
1,2,3,7,8,9-HxCDF	ng/kg	7.05 J	0.925 J	1.02 U	0.877 U	2.31 U	2.19 U	1.46 U	1.42 U	0.734 U	0.554 U
1,2,3,7,8-PeCDD	ng/kg	4.86 J	0.895 J	0.616 U	0.505 U	2.31 U	3.07 U	2.45 U	2.30 U	0.509 J	0.486 U
1,2,3,7,8-PeCDF	ng/kg	4.76 J	0.384 UX	0.320 U	0.345 J	1.85 U	2.23 U	1.75 U	1.89 U	0.187 UX	0.273 U
2,3,4,6,7,8-HxCDF	ng/kg	16.4	1.17 J	0.469 UX	0.575 J	1.76 UX	1.70 U	1.29 U	1.22 U	0.552 U	0.411 U
2,3,4,7,8-PeCDF	ng/kg	16.9	1.48 UX	0.286 UX	0.262 U	1.61 U	1.83 U	1.51 U	1.74 U	0.320 J	0.247 U
2,3,7,8-TCDD	ng/kg	2.78 UX	0.602 UX	0.246 U	0.246 U	0.884 U	1.04 U	0.810 U	0.783 U	0.249 U	0.205 UX
2,3,7,8-TCDF	ng/kg	1.16 J	0.336 U	0.254 U	0.267 U	0.696 U	0.933 U	0.700 U	0.686 U	0.304 UX	0.258 U
OCDD	ng/kg	202,000 D	8,240	3,110	1,570	1,810	180	19.1 J	10.8 U	220	6.64 J
OCDF	ng/kg	10,700	519	209	151	207	18.5 J	4.65 U	8.71 U	22.8	0.697 J
Total HpCDD	ng/kg	22,800	1,600	494	310	325	30.7	1.89 UX	2.34 U	47.3	1.08 J
Total HpCDF	ng/kg	11,400	636	231	172	225	14.5	1.98 U	2.34 U	24.8	0.558 U
Total HxCDD	ng/kg	1,030	107	32.8	30.1	25.3 UX	2.35 U	2.11 U	2.38 U	2.90 J	0.614 U
Total HxCDF	ng/kg	2,660	164	49.2	34.4	61.3	6.35 J	1.46 U	1.42 U	7.65 J	0.554 U
Total PeCDD	ng/kg	52.5	14.4	6.08 J	13.9	2.31 U	3.07 U	2.45 U	2.30 U	1.17 J	0.437 UX
Total PeCDF	ng/kg	225	13.8	5.20 J	2.51 J	5.60 J	2.23 U	1.75 U	1.89 U	2.00 J	0.273 U
Total TCDD	ng/kg	19.8	10.4	4.71	15.4	0.884 U	1.04 U	0.810 U	0.783 U	0.342 J	0.205 UX
Total TCDF	ng/kg	42.7	4.25	2.36 J	2.83 UB	1.72 UX	0.933 U	0.700 U	0.686 U	0.684 J	0.258 U
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	245	17.2	5.07	3.28	3.34	0.22	0.00573	ND	0.997	0.0022
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	246	18	5.73	3.82	6.05	3.36	2.51	2.5	1.36	0.583
Miscellaneous											
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:		SO-C34 1-2 5/28/2024	SO-C34 2-4 5/28/2024	SO-C35 0-0.5 5/28/2024	SO-C35 0.5-1 5/28/2024	SO-C35 1-2 5/28/2024	SO-C35 2-4 5/28/2024	SO-C37 0-0.5 5/15/2024	SO-C37 0.5-1 5/15/2024	SO-C37 1-2 5/15/2024	SO-C37 2-4 5/15/2024
Semivolatile Organic Compounds											
1-Methylnaphthalene	mg/kg	0.091 U	0.091 U	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
2-Methylnaphthalene	mg/kg	0.091 U	0.034 J	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.028 J	0.091 U	0.092 U	0.09 U
Acenaphthene	mg/kg	0.091 U	0.041 J	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Acenaphthylene	mg/kg	0.091 U	0.091 U	0.032 J	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Anthracene	mg/kg	0.091 U	0.091 U	0.044 J	0.094 U	0.093 U [0.092 U]	0.09 U	0.036 J	0.091 U	0.092 U	0.09 U
Benzo(a)anthracene	mg/kg	0.091 U	0.091 U	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Benzo(a)pyrene	mg/kg	0.091 U	0.091 U	0.078 J	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Benzo(b)fluoranthene	mg/kg	0.091 U	0.091 U	0.17	0.094 U	0.093 U [0.092 U]	0.09 U	0.08 J	0.091 U	0.092 U	0.09 U
Benzo(g,h,i)perylene	mg/kg	0.091 U	0.091 U	0.1	0.094 U	0.093 U [0.092 U]	0.09 U	0.095 J	0.091 U	0.092 U	0.09 U
Benzo(k)fluoranthene	mg/kg	0.091 U	0.091 U	0.06 J	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Chrysene	mg/kg	0.091 U	0.091 U	0.09 J	0.094 U	0.093 U [0.092 U]	0.09 U	0.07 J	0.091 U	0.092 U	0.09 U
Dibenzo(a,h)anthracene	mg/kg	0.091 U	0.091 U	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Fluoranthene	mg/kg	0.091 U	0.091 U	0.11	0.094 U	0.093 U [0.092 U]	0.09 U	0.036 J	0.091 U	0.092 U	0.09 U
Fluorene	mg/kg	0.091 U	0.091 U	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.091 U	0.091 U	0.081 J	0.094 U	0.093 U [0.092 U]	0.09 U	0.11 U	0.091 U	0.092 U	0.09 U
Naphthalene	mg/kg	0.12	0.39	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.036 J	0.091 U	0.092 U	0.09 U
Phenanthrene	mg/kg	0.03 J	0.091 U	0.1 U	0.094 U	0.093 U [0.092 U]	0.09 U	0.034 J	0.091 U	0.092 U	0.09 U
Pyrene	mg/kg	0.091 U	0.091 U	0.13	0.094 U	0.093 U [0.092 U]	0.09 U	0.04 J	0.091 U	0.092 U	0.09 U
Total PAHs-16 (ND=0)	mg/kg	0.15	0.431	0.895	ND	ND	ND	0.427	ND	ND	ND
Total PAHs-16 (ND=1/2 DL)	mg/kg	0.787	1.07	1.2	0.752	0.744 [0.736]	0.72	0.867	0.728	0.736	0.72
BaP-TE (ND=0)	mg/kg	ND	ND	0.104	ND	ND	ND	0.00807	ND	ND	ND
BaP-TE (ND=1/2 DL)	mg/kg	0.105	0.105	0.159	0.109	0.107 [0.106]	0.104	0.13	0.105	0.106	0.104
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans											
1,2,3,4,6,7,8-HpCDD	ng/kg	1.14 J	0.868 J	89.3	14.6	1.06 UX [2.55 J]	1.19 J	347	23.6	1.68 UX	12.8
1,2,3,4,6,7,8-HpCDF	ng/kg	0.601 J	0.405 U	26.4	4.27 J	0.391 UX [0.817 J]	0.530 U	117	6.61 J	0.743 J	3.16 J
1,2,3,4,7,8,9-HpCDF	ng/kg	0.441 U	0.547 U	1.57 U	1.53 U	0.735 U [1.22 U]	0.821 U	11.3 J	1.80 U	1.51 U	2.20 U
1,2,3,4,7,8-HxCDD	ng/kg	0.472 U	0.580 U	2.99 J	0.981 U	0.737 U [0.712 U]	0.750 U	2.55 U	2.43 U	2.47 U	2.27 U
1,2,3,4,7,8-HxCDF	ng/kg	0.333 U	0.309 U	1.96 J	0.747 U	0.436 U [0.440 U]	0.502 U	12.5 UX	1.03 U	0.952 U	1.17 U
1,2,3,6,7,8-HxCDD	ng/kg	0.494 U	0.561 U	1.39 U	1.02 U	0.752 U [0.689 U]	0.758 U	9.32 UX	2.53 U	2.30 U	2.09 U
1,2,3,6,7,8-HxCDF	ng/kg	0.349 U	0.325 U	0.730 J	0.781 U	0.405 U [0.432 U]	0.527 U	3.04 J	1.11 U	1.03 U	1.29 U
1,2,3,7,8,9-HxCDD	ng/kg	0.512 U	0.653 U	1.30 UX	1.01 U	0.757 U [0.733 U]	0.731 U	2.59 UX	2.73 U	2.55 U	2.45 U
1,2,3,7,8,9-HxCDF	ng/kg	0.534 U	0.490 U	1.09 U	1.12 U	0.576 U [0.608 U]	0.684 U	1.46 J	1.45 U	1.25 U	1.62 U
1,2,3,7,8-PeCDD	ng/kg	0.452 U	0.666 U	0.540 J	0.413 U	0.450 U [0.445 U]	0.464 U	1.73 U	1.84 U	2.01 U	1.88 U
1,2,3,7,8-PeCDF	ng/kg	0.237 U	0.255 U	0.593 J	0.312 U	0.328 UX [0.250 U]	0.346 U	1.39 U	1.36 U	1.39 U	1.22 U
2,3,4,6,7,8-HxCDF	ng/kg	0.390 U	0.383 U	0.807 UX	0.869 U	0.494 U [0.512 U]	0.560 U	1.77 J	1.19 U	1.07 U	1.37 U
2,3,4,7,8-PeCDF	ng/kg	0.207 U	0.225 U	0.679 U	0.312 U	0.327 U [0.265 U]	0.299 U	2.44 UX	1.20 U	1.15 U	1.21 U
2,3,7,8-TCDD	ng/kg	0.181 U	0.333 UX	0.229 U	0.235 U	0.240 U [0.230 U]	0.343 U	1.23 U	0.928 U	1.13 U	1.10 U
2,3,7,8-TCDF	ng/kg	0.230 U	0.262 U	0.378 J	0.273 U	0.242 U [0.259 J]	0.314 U	0.794 U	0.652 U	0.713 U	0.744 U
OCDD	ng/kg	5.13 J	5.28 J	997	164	9.16 UX [20.6 J]	7.85 UB	4,760	330	13.2 UX	166
OCDF	ng/kg	0.493 J	0.901 U	114	16.0 J	1.84 U [2.47 UX]	1.12 U	376	20.9 J	3.70 U	11.2 J
Total HpCDD	ng/kg	1.14 J	0.868 J	168	27.0	1.99 UX [4.86 J]	1.19 J	720	49.5	3.26 UX	26.1
Total HpCDF	ng/kg	0.601 J	0.336 J	107	17.5	0.852 UX [0.817 J]	0.821 U	479	24.9	2.01 J	13.0
Total HxCDD	ng/kg	0.502 J	0.653 U	16.6	1.08 J	0.757 U [0.582 J]	1.54 UX	18.5	2.53 J	2.55 U	3.17 J
Total HxCDF	ng/kg	0.480 J	0.383 U	28.6	3.94 UX	0.576 U [0.608 U]	0.684 U	152	8.01 J	0.810 J	4.13 UX
Total PeCDD	ng/kg	0.452 U	0.531 UX	1.45 J	0.413 U	0.565 UX [0.506 UX]	3.27 J	1.73 U	1.84 U	2.01 U	3.20 UX
Total PeCDF	ng/kg	0.406 UX	0.420 J	6.55 J	1.27 UX	0.521 J [0.680 UX]	0.568 UX	10.8 J	1.36 U	1.39 U	1.22 U
Total TCDD	ng/kg	0.181 U	0.252 UX	2.01 J	0.358 J	0.240 U [0.230 U]	2.16 J	1.23 U	0.928 U	1.13 U	1.10 U
Total TCDF	ng/kg	0.230 U	0.235 UX	2.21 J	0.302 J	0.242 U [0.259 J]	0.314 U	2.25 U	0.652 U	0.713 U	0.744 U
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	0.0191	0.0103	2.65	0.243	[0.658]	0.0119	6.92	0.407	0.00743	0.213
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	0.538	0.73	3.11	0.966	0.632 [0.66]	0.715	10.2	2.66	2.41	2.56
Miscellaneous											
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA [NA]	NA	NA	NA	NA	NA

See Notes on Page 25.

**Table 1 - 2024 Floodplain Sample Analytical Data Summary - Douglas County Parcel
Crawford Creek/Tributary GLLA Project
Superior, WI**



Location ID: Sample Depth (Feet): Date Collected:	Units	SO-C38 0-0.5 5/15/2024	SO-C38 0.5-1 5/15/2024	SO-C38 1-2 5/15/2024	SO-C38 2-4 5/15/2024	SO-C39 0-0.5 5/13/2024	SO-C39 0.5-1 5/13/2024	SO-C39 1-2 5/13/2024	SO-C39 2-4 5/13/2024	SO-C40 0-0.5 5/15/2024	SO-C40 0.5-1 5/15/2024	SO-C40 1-2 5/15/2024
Semivolatile Organic Compounds												
1-Methylnaphthalene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
2-Methylnaphthalene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
Acenaphthene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
Acenaphthylene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.099 J	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
Anthracene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.15	0.088 U	0.091 U	0.089 U	0.035 J	0.098 U	0.1 U
Benzo(a)anthracene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.12	0.098 U	0.1 U
Benzo(a)pyrene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11	0.098 U	0.1 U
Benzo(b)fluoranthene	mg/kg	0.094 J	0.089 U	0.088 U	0.089 U	0.27	0.088 U	0.091 U	0.089 U	0.1 J	0.098 U	0.1 U
Benzo(g,h,i)perylene	mg/kg	0.067 J	0.089 U	0.088 U	0.089 U	0.46	0.088 U	0.091 U	0.089 U	0.084 J	0.098 U	0.1 U
Benzo(k)fluoranthene	mg/kg	0.043 J	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.093 J	0.098 U	0.1 U
Chrysene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.14	0.098 U	0.1 U
Dibenzo(a,h)anthracene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
Fluoranthene	mg/kg	0.092 J	0.041 J	0.088 U	0.089 U	0.049 J	0.088 U	0.091 U	0.089 U	0.22	0.038 J	0.1 U
Fluorene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.34	0.088 U	0.091 U	0.089 U	0.061 J	0.098 U	0.1 U
Naphthalene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.11 U	0.098 U	0.1 U
Phenanthrene	mg/kg	0.12 U	0.089 U	0.088 U	0.089 U	0.13 U	0.088 U	0.091 U	0.089 U	0.074 J	0.098 U	0.1 U
Pyrene	mg/kg	0.086 J	0.033 J	0.088 U	0.089 U	0.1 J	0.088 U	0.091 U	0.089 U	0.19	0.034 J	0.1 U
Total PAHs-16 (ND=0)	mg/kg	0.382	0.074	ND	ND	1.47	ND	ND	ND	1.23	0.072	ND
Total PAHs-16 (ND=1/2 DL)	mg/kg	1.04	0.697	0.704	0.712	2.05	0.704	0.728	0.712	1.5	0.758	0.8
BaP-TE (ND=0)	mg/kg	0.00983	ND	ND	ND	0.061	ND	ND	ND	0.139	ND	ND
BaP-TE (ND=1/2 DL)	mg/kg	0.142	0.103	0.102	0.103	0.198	0.102	0.105	0.103	0.194	0.113	0.116
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dioxins/Furans												
1,2,3,4,6,7,8-HpCDD	ng/kg	150	11.3 J	1.86 U	1.71 U	630	13.0	4.35 J	1.34 J	137	3.94 J	2.07 U
1,2,3,4,6,7,8-HpCDF	ng/kg	49.1	3.25 J	1.05 U	0.840 U	154	4.20 J	1.40 UX	0.570 J	46.0	1.28 U	0.926 U
1,2,3,4,7,8,9-HpCDF	ng/kg	4.47 J	1.54 U	1.54 U	1.15 U	11.4 J	0.360 UX	0.441 U	0.545 U	4.17 J	1.55 U	1.45 U
1,2,3,4,7,8-HxCDD	ng/kg	1.94 U	1.52 U	1.92 U	1.40 U	2.21 J	0.509 U	0.462 U	0.642 U	2.20 U	1.86 U	2.00 U
1,2,3,4,7,8-HxCDF	ng/kg	4.87 J	0.866 U	1.06 U	0.799 U	9.66 J	0.464 J	0.359 U	0.440 U	5.05 J	0.927 U	0.846 U
1,2,3,6,7,8-HxCDD	ng/kg	1.97 U	1.54 U	1.82 U	1.36 U	15.0	0.454 UX	0.513 U	0.742 U	4.83 J	1.90 U	2.01 U
1,2,3,6,7,8-HxCDF	ng/kg	2.18 J	0.921 U	1.05 U	0.880 U	2.45 J	0.321 U	0.364 U	0.464 U	1.40 J	0.980 U	0.872 U
1,2,3,7,8,9-HxCDD	ng/kg	2.06 UX	1.54 U	1.96 U	1.46 U	4.59 J	0.496 U	0.485 U	0.699 U	2.29 U	1.84 U	2.11 U
1,2,3,7,8,9-HxCDF	ng/kg	1.65 U	1.16 U	1.36 U	1.06 U	0.575 UX	0.481 U	0.527 U	0.684 U	0.945 J	1.38 U	1.14 U
1,2,3,7,8-PeCDD	ng/kg	2.11 U	1.75 U	2.46 U	1.39 U	0.951 J	0.285 U	0.397 U	0.612 U	1.76 U	1.74 UX	1.40 U
1,2,3,7,8-PeCDF	ng/kg	0.686 U	1.23 U	1.55 U	1.19 U	0.585 U	0.392 U	0.329 U	0.407 U	1.25 U	1.28 UX	0.998 U
2,3,4,6,7,8-HxCDF	ng/kg	2.26 UX	1.01 U	1.23 U	0.948 U	2.86 J	0.384 U	0.405 U	0.490 U	1.77 J	1.07 U	0.964 U
2,3,4,7,8-PeCDF	ng/kg	1.26 U	1.01 U	1.43 U	0.920 U	0.967 J	0.317 U	0.283 U	0.338 U	1.16 U	1.16 U	0.824 U
2,3,7,8-TCDD	ng/kg	1.18 U	0.669 U	0.784 U	0.691 U	0.719 U	0.360 U	0.402 U	0.604 U	1.00 U	0.976 U	0.798 U
2,3,7,8-TCDF	ng/kg	0.787 U	0.562 U	0.634 U	0.563 U	0.522 U	0.239 U	0.258 U	0.353 U	0.753 U	0.573 U	0.533 U
OCDD	ng/kg	1,620	96.5	8.91 UX	5.96 UX	7,600	153	47.1	11.7 J	2,030	36.9	6.04 UX
OCDF	ng/kg	157	10.6 J	3.96 U	2.93 U	689	18.6 J	5.73 UX	0.772 UX	168	4.00 U	2.76 U
Total HpCDD	ng/kg	298	22.6	1.86 U	1.71 U	1,160	24.0	8.28 J	3.02 J	286	3.94 J	2.07 U
Total HpCDF	ng/kg	182	12.7	1.54 U	1.15 U	704	17.6	6.03 UX	0.570 J	199	1.28 UX	1.45 U
Total HxCDD	ng/kg	12.0 J	1.06 UX	1.96 U	1.46 U	79.7	2.16 UX	0.565 J	0.883 UX	13.0	1.90 U	2.11 U
Total HxCDF	ng/kg	63.3	1.74 J	1.36 U	1.06 U	163	3.75 J	1.75 UX	0.381 UX	65.9	0.571 UX	1.14 U
Total PeCDD	ng/kg	2.11 U	1.75 U	2.46 U	1.39 U	6.01 J	0.285 U	0.397 U	0.612 U	1.76 U	1.74 U	1.40 U
Total PeCDF	ng/kg	6.91 J	1.23 U	1.55 U	1.19 U	9.16 J	0.451 UX	0.205 UX	0.249 J	5.22 J	1.28 U	0.998 U
Total TCDD	ng/kg	1.18 U	0.669 U	0.784 U	0.691 U	4.92	0.360 U	0.402 U	0.604 U	1.00 U	0.976 U	0.798 U
Total TCDF	ng/kg	1.71 J	1.55 J	1.23 UX	0.563 U	3.87	0.239 U	0.258 U	0.353 U	2.09 J	1.74 U	0.338 UX
2,3,7,8-TCDD TEQ (ND=0)	ng/kg	3.27	0.178	ND	ND	15.4	0.27	0.0576	0.0226	3.93	0.0505	ND
2,3,7,8-TCDD TEQ (ND=1/2 DL)	ng/kg	5.65	2.02	2.44	1.64	15.8	0.792	0.683	0.916	5.77	2.14	1.78
Miscellaneous												
Total Organic Carbon	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 25.