

TABLE 1
TOTAL ORGANIC CARBON AND BULK PROPERTY SAMPLING RESULTS
FEBRUARY 27 - 29, 2008
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

SAMPLE ID	TOC Result (weight %)	Specific Gravity	Moisture Content (weight %)	Atterberg Limits		
				Liquid Limit	Plastic Limit	Plasticity Index
LPMR-S-1-0-0.5	1.9	NA	NA	NA	NA	NA
LPMR-S-1-0.5-2	0.52	2.67	27.7	Non plastic		
LPMR-S-2-0-0.5	8.3	NA	NA	NA	NA	NA
LPMR-S-2-2.5-7	0.7	NA	NA	NA	NA	NA
LPMR-S-3-0-0.5	9.8	NA	NA	NA	NA	NA
LPMR-S-3-0.5-2	6.4	NA	NA	NA	NA	NA
LPMR-S-3-4-6	1.8	NA	NA	NA	NA	NA
LPMR-S-4-0-0.5	7.3	NA	NA	NA	NA	NA
LPMR-S-4-4.5-5.5X	6.8	NA	NA	NA	NA	NA
LPMR-S-4-4.5-5.5	7.3	NA	NA	NA	NA	NA
LPMR-S-4-7.5-9	1.5	NA	NA	NA	NA	NA
LPMR-S-5-0-0.5	4.2	NA	NA	NA	NA	NA
LPMR-S-5-1-2.5	9.96	2.41	62.7	39	28	11
LPMR-S-5-8-9	0.5	NA	NA	NA	NA	NA
LPMR-S-6-0-0.5	10.9	NA	NA	NA	NA	NA
LPMR-S-6-1-2	10	NA	NA	NA	NA	NA
LPMR-S-6-4-6	0.7	NA	NA	NA	NA	NA
LPMR-S-6-4-6X	0.9	NA	NA	NA	NA	NA
LPMR-S-7-0-0.5	9.7	NA	NA	NA	NA	NA
LPMR-S-7-1-3	4.3	NA	NA	NA	NA	NA
LPMR-S-7-1-3X	4.1	NA	NA	NA	NA	NA
LPMR-S-8-0-0.5	5.6	NA	NA	NA	NA	NA
LPMR-S-8-0.5-2.5	5.48	2.52	55.7	35	29	6
LPMR-S-8-4-7	0.6	NA	NA	NA	NA	NA
LPMR-S-9-0-0.5	4.5	NA	NA	NA	NA	NA
LPMR-S-9-0.5-2.5	4.2	NA	NA	NA	NA	NA
LPMR-S-9-3-8	1.2	2.7	27.1	Non plastic		
LPMR-S-9-3-8X	0.7	NA	NA	NA	NA	NA
LPMR-S-10-0-0.5	7.6	NA	NA	NA	NA	NA
LPMR-S-10-5-7	3.3	NA	NA	NA	NA	NA
LPMR-S-11-0-0.5	8	NA	NA	NA	NA	NA
LPMR-S-11-0.5-1.5	3.6	NA	NA	NA	NA	NA
LPMR-S-11-1.5-4	2.9	NA	NA	NA	NA	NA
LPMR-S-12-0-0.5	4.1	NA	NA	NA	NA	NA
LPMR-S-12-0.5-1.5	2.5	NA	NA	NA	NA	NA
LPMR-S-13-0-0.5	4.9	NA	NA	NA	NA	NA
LPMR-S-13-0.5-1.5	6.7	NA	NA	NA	NA	NA

Work conducted under START TDD S05-0801-002

Analytical conducted under STAT Analytical Corporation, Chicago, IL

TABLE 2
POLYCHLORINATED BIPHENYLS SAMPLING RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Sampling Date	GPS Location ⁽¹⁾		Ortho ht (ft)	Depth (ft)	Total Aroclors (mg/kg)	Location
		NORTHING	EASTING				
LPMR-S-1-0-0.5	2/27-29/2008	968504.364	2259441.538	613.66007	0 - 0.5	0.292	Zone 2
LPMR-S-1-0.5-2	2/27-29/2008	968504.364	2259441.538	613.66007	0.5 - 2.0	U	Zone 2
LPMR-S-2-0-0.5	2/27-29/2008	968389.8113	2259242.542	614.23296	0 - 0.5	143.9	Zone 2
LPMR-S-2-2.5-7	2/27-29/2008	968389.8113	2259242.542	614.23296	5.0 - 7.0	0.56J	Zone 2
LPMR-S-3-0-0.5	2/27-29/2008	968342.8434	2259335.377	614.18893	0 - 0.5	2.9J	Zone 2
LPMR-S-3-0.5-2	2/27-29/2008	968342.8434	2259335.377	614.18893	0.5 - 2.0	30.5J	Zone 2
LPMR-S-3-4-6	2/27-29/2008	968342.8434	2259335.377	614.18893	4.0 - 6.0	3.29J	Zone 2
LPMR-S-4-0-0.5	2/27-29/2008	968021.8949	2259213.728	615.90897	0 - 0.5	1.74J	Zone 2
LPMR-S-4-4.5-5.5	2/27-29/2008	968021.8949	2259213.728	615.90897	5.0 - 5.5	87.5J	Zone 2
LPMR-S-4-4.5-5.5X	2/27-29/2008	968021.8949	2259213.728	615.90897	5.0 - 5.5	202J	Zone 2
LPMR-S-4-7.5-9	2/27-29/2008	968021.8949	2259213.728	615.90897	5.0 - 9.0	0.038J	Zone 2
LPMR-S-5-0-0.5	2/27-29/2008	967988.6157	2258957	614.69959	0 - 0.5	4.15J	Zone 2
LPMR-S-5-1-2.5	2/27-29/2008	967988.6157	2258957	614.69959	1.0 - 2.5	135J	Zone 2
LPMR-S-5-8-9	2/27-29/2008	967988.6157	2258957	614.69959	8.0 - 9.0	0.113J	Zone 2
LPMR-S-6-0-0.5	2/27-29/2008	967887.1198	2258955.67	615.96934	0 - 0.5	8.8J	Zone 2
LPMR-S-6-1-2	2/27-29/2008	967887.1198	2258955.67	615.96934	1.0 - 2.0	823J	Zone 2
LPMR-S-6-4-6	2/27-29/2008	967887.1198	2258955.67	615.96934	4.0 - 6.0	1.19J	Zone 2
LPMR-S-6-4-6X	2/27-29/2008	967887.1198	2258955.67	615.96934	4.0 - 6.0	1.47J	Zone 2
LPMR-S-7-0-0.5	2/27-29/2008	967475.4513	2258577.911	615.13081	0 - 0.5	4.4J	Zone 2
LPMR-S-7-1-3	2/27-29/2008	967475.4513	2258577.911	615.13081	1.0 - 3.0	6.8J	Zone 2
LPMR-S-7-1-3X	2/27-29/2008	967475.4513	2258577.911	615.13081	1.0 - 3.0	6.2J	Zone 2
LPMR-S-8-0-0.5	2/27-29/2008	967195.6656	2258551.306	614.89216	0 - 0.5	22.2J	Zone 2
LPMR-S-8-0.5-2.5	2/27-29/2008	967195.6656	2258551.306	614.89216	0.5 - 2.5	38.6J	Zone 2
LPMR-S-8-4-7	2/27-29/2008	967195.6656	2258551.306	614.89216	4.0 - 7.0	1.17J	Zone 2
LPMR-S-9-0-0.5	2/27-29/2008	967140.6726	2258681.922	615.27393	0 - 0.5	6.1J	Zone 2
LPMR-S-9-0.5-1.5	2/27-29/2008	967140.6726	2258681.922	615.27393	0.5 - 1.5	8J	Zone 2
LPMR-S-9-3-8	2/27-29/2008	967140.6726	2258681.922	615.27393	3.0 - 8.0	0.31J	Zone 2
LPMR-S-9-3-8X	2/27-29/2008	967140.6726	2258681.922	615.27393	3.0 - 8.0	0.14J	Zone 2
LPMR-S-10-0-0.5	2/27-29/2008	966995.4285	2259336.634	615.80769	0 - 0.5	1.12J	Zone 2
LPMR-S-10-5-7	2/27-29/2008	966995.4285	2259336.634	615.80769	5.0 - 7.0	1.83J	Zone 2
LPMR-S-11-0-0.5	2/27-29/2008	966952.0046	2259484.517	615.91959	0 - 0.5	29.6J	Zone 2
LPMR-S-11-0.5-1.5	2/27-29/2008	966952.0046	2259484.517	615.91959	0.5 - 1.5	19J	Zone 2
LPMR-S-11-1.5-4	2/27-29/2008	966952.0046	2259484.517	615.91959	1.5 - 4	3.39J	Zone 2
LPMR-S-12-0-0.5	2/27-29/2008	966730.5273	2259549.599	614.19703	0 - 0.5	2.42J	Zone 2
LPMR-S-12-0.5-1.5	2/27-29/2008	966730.5273	2259549.599	614.19703	0.5 - 1.5	1.53J	Zone 2
LPMR-S-13-0-0.5	2/27-29/2008	966653.2221	2259606.282	613.95042	0 - 0.5	4.13J	Zone 2
LPMR-S-13-0.5-1.5	2/27-29/2008	966653.2221	2259606.282	613.95042	0.5 - 1.5	9.2J	Zone 2
LC-B-1-N	3/2-6/2009	969453.6	2258101.2	613.7	0- 1.0	5.4	Zone 1
LC-B-2	3/2-6/2009	969440.5	2258122.5	613.7	0- 0.5	0.97	Zone 1
LC-B-2-S	3/2-6/2009	969427.5	2258143.9	613.7	0- 1.0	0.91	Zone 1
LC-C-2	3/2-6/2009	969159.5	2258281.6	613.612	0- 1.0	1.3	Zone 1
LC-D-2	3/2-6/2009	968859.8	2258318.5	613.137	0- 0.3	0.82	Zone 1
LC-E-2	3/2-6/2009	968539.1	2258635	612.96	0- 0.6	0.272J	Zone 1
LC-F-2	3/2-6/2009	968231.8	2258431	613	0- 1.0	1.2	Zone 1
WO-AA-2	3/2-6/2009	968445.948	2259638.412	613.464	0- 1.0	7	Zone 2

TABLE 2
POLYCHLORINATED BIPHENYLS SAMPLING RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Sampling Date	GPS Location ⁽¹⁾		Ortho ht (ft)	Depth (ft)	Total Aroclors (mg/kg)	Location
		NORTHING	EASTING				
WO-C-2-top	3/2-6/2009	968302.96	2259239.02	613.366	0- 0.5	2.2	Zone 2
WO-F-1-top half	3/2-6/2009	968003.57	2258900.31	613.114	0- 0.5	0.91	Zone 2
WO-F-1 middle	3/2-6/2009	968003.57	2258900.31	613.114	0.5 - 1.5	U	Zone 2
WO-F-1-bottom half	3/2-6/2009	968003.57	2258900.31	613.114	1.5 - 2.0	U	Zone 2
WO-I-2-top half	3/2-6/2009	967665.159	2258542.522	613.503	0 - 1.5	120	Zone 2
WO-I-2-bottom half	3/2-6/2009	967665.159	2258542.522	613.503	1.5 - 3.0	15	Zone 2
WO-O-2- top half	3/2-6/2009	966982.6	2259106.4	612.351	0- 0.5	1.2	Zone 2
WO-O-2- bottom half	3/2-6/2009	966982.6	2259106.4	612.351	0.5- 1.5	0.98	Zone 2
WO-R-2-top half	3/2-6/2009	966822.92	2259516.24	611.847	0- 0.5	3.1	Zone 2
WO-R-2-top half-dup	3/2-6/2009	966822.92	2259516.24	611.847	0- 0.5	3.2	Zone 2
WO-R-2-bottom	3/2-6/2009	966822.92	2259516.24	611.847	0.5- 2.0	1.9	Zone 2
WO-R-2-bottom-dup	3/2-6/2009	966822.92	2259516.24	611.847	0.5- 2.0	3	Zone 2
WO-K-3-top	3/2-6/2009	967221.361	2258475.202	614.026	0 - 2.0	0.75	Zone 2
WO-H-3-top	3/2-6/2009	967759.22	2258664.93	612.888	0 - 2.0	0.086	Zone 2
BP-01	3/2-6/2009	965869.593	2259631.599	614.35	0- 0.5	0.023J	Zone 3
BP-02	3/2-6/2009	965661.304	2259620.187	615.474	0- 0.5	U	Zone 3
MRZZ-01-0-0_5	3/2-6/2009	965141.565	2263515.329	611.945	0- 0.5	41	Zone 5

Work conducted under START TDD: S05-0801-002

Analytical conducted under CLP by Liberty Analytical Corp. Cary, NC

Key

¹ - The coordinates are Milwaukee County Coordinates as defined by the WI DoT and determined by GPS observation. The two elevations are ortho heights defined from Geoid03 and a translation to NGVD1929. These samples were collected during February 2008.

"X" marking on the sample identification means duplicate sample

U - Below the detection limit

shaded means exceeds TSCA limit of 50 mg/Kg

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
S-1	2/27-29/2008	968504.364	2259441.538	613.66007	Zone 2	8.0	Prod/Chem
S-2	2/27-29/2008	968389.8113	2259242.542	614.23296	Zone 2	9.0	Prod/Chem
S-3	2/27-29/2008	968342.8434	2259335.377	614.18893	Zone 2	6.5	Prod/Chem
S-4	2/27-29/2008	968021.8949	2259213.728	615.90897	Zone 2	9.5	Prod/Chem
S-5	2/27-29/2008	967988.6157	2258957	614.69959	Zone 2	9.0	Prod/Chem
S-6	2/27-29/2008	967887.1198	2258955.67	615.96934	Zone 2	6.0	Prod/Chem
S-7	2/27-29/2008	967475.4513	2258577.911	615.13081	Zone 2	7.0	Prod/Chem
S-8	2/27-29/2008	967195.6656	2258551.306	614.89216	Zone 2	7.0	Prod/Chem
S-9	2/27-29/2008	967140.6726	2258681.922	615.27393	Zone 2	8.0	Prod/Chem
S-10	2/27-29/2008	966995.4285	2259336.634	615.80769	Zone 2	7.0	Prod/Chem
S-11	2/27-29/2008	966952.0046	2259484.517	615.91959	Zone 2	6.0	Prod/Chem
S-12	2/27-29/2008	966730.5273	2259549.599	614.19703	Zone 2	4.0	Prod/Chem
S-13	2/27-29/2008	966653.2221	2259606.282	613.95042	Zone 2	3.0	Prod/Chem
ST-1	2/27-29/2008	968408.6903	2259503.349	614.19908	Zone 2	5.0	Prod
ST-2	2/27-29/2008	968365.2735	2259377.409	614.50864	Zone 2	5.5	Prod
ST-3	2/27-29/2008	968313.3496	2259434.401	615.88933	Zone 2	5.5	Prod
ST-4	2/27-29/2008	968298.2807	2259264.713	614.12551	Zone 2	5.5	Prod
ST-5	2/27-29/2008	968206.6841	2259320.949	615.2184	Zone 2	6.8	Prod
ST-6	2/27-29/2008	968191.6376	2259174.261	615.13038	Zone 2	7.9	Prod
ST-7	2/27-29/2008	968122.7483	2259102.676	615.5688	Zone 2	7.0	Prod
ST-8	2/27-29/2008	968051.004	2259029.089	614.95703	Zone 2	8.6	Prod
ST-9	2/27-29/2008	968000.0832	2259065.256	615.4729	Zone 2	8.0	Prod
ST-10	2/27-29/2008	967891.8638	2258879.371	614.75504	Zone 2	6.9	Prod
ST-11	2/27-29/2008	967838.3254	2258942.09	615.74572	Zone 2	7.9	Prod
ST-12	2/27-29/2008	967840.6162	2258742.496	613.38482	Zone 2	6.3	Prod
ST-13	2/27-29/2008	967781.7281	2258802.059	614.86037	Zone 2	6.0	Prod
ST-15	2/27-29/2008	967621.3597	2258608.85	614.79763	Zone 2	4.0	Prod
ST-16	2/27-29/2008	967528.3605	2258925.125	614.59439	Zone 2	5.0	Prod
ST-17	2/27-29/2008	967419.1151	2258744.748	615.14767	Zone 2	5.3	Prod
ST-18	2/27-29/2008	967392.0583	2259005.13	614.81639	Zone 2	6.5	Prod
ST-19	2/27-29/2008	967314.8821	2258860.086	615.19475	Zone 2	2.2	Prod
ST-20	2/27-29/2008	967293.8657	2259059.489	615.39939	Zone 2	7.0	Prod
ST-21	2/27-29/2008	967214.5874	2258919.561	615.66865	Zone 2	6.0	Prod
ST-22	2/27-29/2008	967552.4434	2258443.364	613.99637	Zone 2	5.5	Prod
ST-23	2/27-29/2008	967386.6598	2258433.808	614.6529	Zone 2	4.0	Prod
ST-25	2/27-29/2008	967277.6481	2258531.031	615.27277	Zone 2	6.5	Prod
ST-28	2/27-29/2008	967145.9535	2258734.572	615.13525	Zone 2	6.0	Prod
ST-30	2/27-29/2008	967118.7426	2258985.068	615.49687	Zone 2	3.5	Prod
ST-31	2/27-29/2008	967165.183	2259091.176	613.74391	Zone 2	7.0	Prod
ST-34	2/27-29/2008	967001.4342	2259293.202	615.65398	Zone 2	6.0	Prod
ST-36	2/27-29/2008	966968.9172	2259436.023	615.78109	Zone 2	6.4	Prod
ST-38	2/27-29/2008	966900.6054	2259553.976	615.4821	Zone 2	3.7	Prod
ST-39	2/27-29/2008	966755.7074	2259514.068	613.98781	Zone 2	3.7	Prod
ST-40	2/27-29/2008	966683.4487	2259587.068	613.96093	Zone 2	7.0	Prod
TP-1	2/27-29/2008	968390.0891	2259418.187	614.19982	Zone 2	5.8	Prod
TP-2	2/27-29/2008	968054.944	2259148.442	615.84789	Zone 2	6.5	Prod
TP-3	2/27-29/2008	967386.2109	2258409.587	614.56157	Zone 2	7.0	Prod

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
TP-4	2/27-29/2008	967202.34	2258818.084	615.38142	Zone 2	6.5	Prod
LC-A-1	3/2-6/2009	969525.11	2257847.501	613.478	Zone 1	1.8	Prod
LC-A-2	3/3-6/2009	969561.2	2257849	613.5	Zone 1	0.7	Prod/Chem
LC-A-3	3/3-6/2010	969597.3	2257850	613.5	Zone 1	0.0	Prod
LC-B-1	3/3-6/2011	969408.338	2258102.9	613.666	Zone 1	1.6	Prod
LC-B-1-N	3/3-6/2012	969453.6	2258101.2	613.7	Zone 1	1.6	Prod/Chem
LC-B-2	3/3-6/2013	969440.5	2258122.5	613.7	Zone 1	1.3	Prod/Chem
LC-B-2-S	3/3-6/2014	969427.5	2258143.9	613.7	Zone 1	1.3	Prod/Chem
LC-B-3	3/3-6/2015	969472.792	2258142.255	613.7	Zone 1	0.0	Prod
LC-C-1	3/3-6/2016	969152.162	2258252.644	613.612	Zone 1	2.9	Prod
LC-C-2	3/3-6/2017	969159.5	2258281.6	613.612	Zone 1	1.5	Prod/Chem
LC-C-3	3/3-6/2018	969166.9	2258310.6	613.612	Zone 1	NA	Prod
LC-D-1	3/3-6/2019	968851.856	2258281.097	613.137	Zone 1	1.6	Prod
LC-D-2	3/3-6/2020	968859.8	2258318.5	613.137	Zone 1	4.6	Prod/Chem
LC-D-3	3/3-6/2021	968867.7	2258355.6	613.137	Zone 1	2.0	Prod
LC-D-4	3/3-6/2022	968875.585	2258392.814	613.137	Zone 1	1.7	Prod
LC-E-1	3/3-6/2023	968536.427	2258332.771	612.967	Zone 1	1.7	Prod
LC-E-2	3/3-6/2024	968539.1	2258635	612.96	Zone 1	0.2	Prod/Chem
LC-E-3	3/3-6/2025	968541.8	2258397.7	612.95	Zone 1	0.7	Prod
LC-E-4	3/3-6/2026	968544.492	2258429.067	612.944	Zone 1	2.0	Prod
LC-F-1	3/3-6/2027	968222.424	2258397.377	619.692	Zone 1	0.0	Prod
LC-F-2	3/3-6/2028	968231.8	2258431	613	Zone 1	0.2	Prod/Chem
LC-F-3	3/3-6/2029	968241.2	2258464.7	613	Zone 1	1.7	Prod
LC-F-4	3/3-6/2030	968250.63	2258498.323	612.997	Zone 1	1.8	Prod
LC-G-1	3/3-6/2031	967973.601	2258516.926	613.048	Zone 1	0.2	Prod
LC-G-2	3/3-6/2032	967989.7	2258545.6	613.25	Zone 1	0.3	Prod
LC-G-3	3/3-6/2033	968005.8	2258574.4	613.4	Zone 1	0.9	Prod
LC-G-4	3/3-6/2034	968021.936	2258603.084	613.542	Zone 1	3.6	Prod
WO-AA-1	3/3-6/2035	968464.78	2259644.583	613.202	Zone 2	0.9	Prod
WO-AA-2	3/3-6/2036	968445.948	2259638.412	613.464	Zone 2	5.2	Prod/Chem
WO-AA-3	3/3-6/2037	968427.787	2259632.731	613.605	Zone 2	3.3	Prod
WO-AA-4	3/3-6/2038	968410.773	2259627.907	614.54	Zone 2	3.5	Prod
WO-A-00	3/3-6/2039	968491.993	2259506.659	613.3	Zone 2	0.8	Prod
WO-A-1	3/3-6/2040	968470.793	2259510.87	613.3	Zone 2	2.3	Prod
WO-A-2	3/3-6/2041	968449.593	2259515.079	613.293	Zone 2	0.6	Prod
WO-A-3	3/3-6/2042	968428.393	2259519.293	613.743	Zone 2	2.4	Prod
WO-A-4	3/3-6/2043	968408.217	2259525.151	614.299	Zone 2	4.8	Prod
WO-A-5	3/3-6/2044	968387.177	2259528.273	615.108	Zone 2	2.3	Prod
WO-B-1	3/3-6/2045	968418.9	2259336.95	613.47	Zone 2	1.8	Prod
WO-B-2	3/3-6/2046	968403.79	2259349.92	613.47	Zone 2	2.1	Prod
WO-B-3	3/3-6/2047	968388.626	2259362.895	613.469	Zone 2	3.3	Prod
WO-B-4	3/3-6/2048	968373.466	2259375.867	614.24	Zone 2	4.9	Prod
WO-B-5	3/3-6/2049	968358.477	2259388.954	614.509	Zone 2	3.3	Prod
WO-B-6	3/3-6/2050	968343.299	2259402.118	614.895	Zone 2	4.6	Prod
WO-B-7	3/3-6/2051	968328.433	2259415.395	615.219	Zone 2	3.0	Prod
WO-C-00	3/3-6/2052	968332.42	2259211.98	613.366	Zone 2	5.0	Prod
WO-C-1	3/3-6/2053	968317.69	2259225.5	613.366	Zone 2	2.4	Prod

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
WO-C-2	3/3-6/2054	968302.96	2259239.02	613.366	Zone 2	2.3	Prod/Chem
WO-C-3	3/3-6/2055	968287.894	2259252.348	614.061	Zone 2	6.3	Prod
WO-C-4	3/3-6/2056	968273.498	2259266.056	614.929	Zone 2	4.2	Prod
WO-C-5	3/3-6/2057	968258.676	2259279.505	615.24	Zone 2	4.3	Prod
WO-C-6	3/3-6/2058	968244.069	2259293.181	615.076	Zone 2	5.8	Prod
WO-C-7	3/3-6/2059	968229.406	2259306.641	615.109	Zone 2	8.0	Prod
WO-C-8	3/3-6/2060	968214.572	2259320.132	615.244	Zone 2	5.8	Prod
WO-C-9	3/3-6/2061	968200.089	2259333.559	614.88	Zone 2	4.0	Prod
WO-D-1	3/3-6/2062	968317.7	2259225.5	613.366	Zone 2	2.4	Prod
WO-D-2	3/3-6/2063	968303	2259239	613.366	Zone 2	1.2	Prod
WO-D-3	3/3-6/2064	968288.2	2259252.5	613.366	Zone 2	1.0	Prod
WO-D-4	3/3-6/2065	968182.559	2259145.23	614.679	Zone 2	3.2	Prod
WO-D-5	3/3-6/2066	968169.091	2259159.907	615.247	Zone 2	3.6	Prod
WO-D-6	3/3-6/2067	968155.282	2259174.62	615.415	Zone 2	5.2	Prod
WO-D-7	3/3-6/2068	968141.763	2259188.984	615.512	Zone 2	4.1	Prod
WO-D-8	3/3-6/2069	968128.252	2259203.843	615.608	Zone 2	4.2	Prod
WO-D-9	3/3-6/2070	968114.816	2259218.708	615.597	Zone 2	5.8	Prod
WO-D-10	3/3-6/2071	968101.37	2259233.533	615.603	Zone 2	6.8	Prod
WO-D-11	3/3-6/2072	968088.013	2259248.357	615.563	Zone 2	5.3	Prod
WO-D-12	3/3-6/2073	968074.775	2259263.266	615.428	Zone 2	1.3	Prod
WO-D-13	3/3-6/2074	968061.238	2259277.94	615.154	Zone 2	2.4	Prod
WO-E-1	3/3-6/2075	968114.434	2258994.046	613.54	Zone 2	2.5	Prod
WO-E-2	3/3-6/2076	968092.899	2259018.257	612.698	Zone 2	4.8	Prod
WO-E-3	3/3-6/2077	968073.497	2259040.846	614.651	Zone 2	5.8	Prod
WO-E-4	3/3-6/2078	968060.779	2259056.474	615.314	Zone 2	4.4	Prod
WO-E-5	3/3-6/2079	968048.061	2259071.949	615.557	Zone 2	3.9	Prod
WO-E-6	3/3-6/2080	968035.227	2259087.273	615.565	Zone 2	4.5	Prod
WO-E-7	3/3-6/2081	968022.259	2259102.404	615.627	Zone 2	2.9	Prod
WO-E-8	3/3-6/2082	968009.484	2259117.858	615.768	Zone 2	3.4	Prod
WO-E-9	3/3-6/2083	967996.75	2259133.15	615.774	Zone 2	7.2	Prod
WO-E-10	3/3-6/2084	967983.844	2259148.405	615.731	Zone 2	7.4	Prod
WO-E-11	3/3-6/2085	967970.991	2259163.821	616.103	Zone 2	6.0	Prod
WO-E-12	3/3-6/2086	967958.018	2259179.011	615.787	Zone 2	5.6	Prod
WO-E-13	3/3-6/2087	967945.298	2259194.318	615.75	Zone 2	4.8	Prod
WO-E-14	3/3-6/2088	967932.098	2259209.647	615.758	Zone 2	1.1	Prod
WO-E-15	3/3-6/2089	967919.721	2259224.71	615.72	Zone 2	2.0	Prod
WO-F-1	3/3-6/2090	968003.57	2258900.31	613.114	Zone 2	4.2	Prod/Chem
WO-F-2	3/3-6/2091	967990.38	2258913.21	613.114	Zone 2	5.2	Prod
WO-F-3	3/3-6/2092	967977.199	2258926.103	613.114	Zone 2	6.8	Prod
WO-F-4	3/3-6/2093	967964.016	2258938.997	614.793	Zone 2	7.7	Prod
WO-F-5	3/3-6/2094	967949.241	2258953.974	615.227	Zone 2	3.4	Prod
WO-F-6	3/3-6/2095	967934.683	2258968.069	615.653	Zone 2	3.8	Prod
WO-F-7	3/3-6/2096	967920.45	2258981.987	615.854	Zone 2	6.9	Prod
WO-F-8	3/3-6/2097	967906.025	2258996.073	615.236	Zone 2	2.9	Prod
WO-F-9	3/3-6/2098	967892.121	2259009.829	614.948	Zone 2	3.0	Prod
WO-F-10	3/3-6/2099	967877.719	2259024.219	614.945	Zone 2	3.7	Prod
WO-G-00	3/3-6/2100	967892.14	2258793.61	613.01	Zone 2	2.9	Prod

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
WO-G-1	3/3-6/2101	967878.9	2258823.69	613.01	Zone 2	1.5	Prod
WO-G-2	3/3-6/2102	967852.43	2258838.74	613.01	Zone 2	4.4	Prod
WO-G-3	3/3-6/2103	967852.358	2258838.934	613.983	Zone 2	3.9	Prod
WO-G-4	3/3-6/2104	967839.19	2258853.779	615.133	Zone 2	6.4	Prod
WO-G-5	3/3-6/2105	967825.888	2258868.881	615.535	Zone 2	5.7	Prod
WO-G-6	3/3-6/2106	967812.906	2258884.071	615.942	Zone 2	4.1	Prod
WO-G-7	3/3-6/2107	967800.159	2258899.439	615.991	Zone 2	3.3	Prod
WO-G-8	3/3-6/2108	967786.243	2258913.951	616.324	Zone 2	3.5	Prod
WO-G-9	3/3-6/2109	967773.594	2258928.871	615.475	Zone 2	3.8	Prod
WO-G-10	3/3-6/2110	967761.181	2258943.705	614.873	Zone 2	2.7	Prod
WO-H-1	3/3-6/2111	967771.17	2258626.42	612.888	Zone 2	1.3	Prod
WO-H-2	3/3-6/2112	967765.19	2258645.68	612.888	Zone 2	0.9	Prod
WO-H-3	3/3-6/2113	967759.22	2258664.93	612.888	Zone 2	1.1	Prod/Chem
WO-H-4	3/3-6/2114	967753.241	2258684.188	612.888	Zone 2	0.8	Prod
WO-H-5	3/3-6/2115	967747.635	2258704.053	612.951	Zone 2	0.8	Prod
WO-H-6	3/3-6/2116	967741.33	2258723.095	612.841	Zone 2	2.1	Prod
WO-H-7	3/3-6/2117	967735.315	2258741.952	613.033	Zone 2	1.1	Prod
WO-H-8	3/3-6/2118	967729.137	2258761.185	612.917	Zone 2	3.9	Prod
WO-H-9	3/3-6/2119	967722.86	2258779.994	613.61	Zone 2	4.0	Prod
WO-H-10	3/3-6/2120	967716.418	2258799.142	613.819	Zone 2	2.3	Prod
WO-H-11	3/3-6/2121	967711.126	2258818.179	613.556	Zone 2	1.3	Prod
WO-H-12	3/3-6/2122	967705.386	2258837.331	614.924	Zone 2	1.3	Prod
WO-H-13	3/3-6/2123	967699.606	2258856.28	616.868	Zone 2	1.6	Prod
WO-H-14	3/3-6/2124	967694.023	2258875.385	617.372	Zone 2	2.3	Prod
WO-I-1	3/3-6/2125	967682.26	2258532	613.5	Zone 2	4.7	Prod
WO-I-2	3/3-6/2126	967665.159	2258542.522	613.503	Zone 2	5.3	Prod/Chem
WO-I-3	3/3-6/2127	967648.063	2258553.045	614.314	Zone 2	5.3	Prod
WO-I-4	3/3-6/2128	967631.152	2258563.756	614.445	Zone 2	5.3	Prod
WO-I-5	3/3-6/2129	967614.464	2258574.617	614.523	Zone 2	5.5	Prod
WO-I-6	3/3-6/2130	967597.745	2258585.63	614.619	Zone 2	6.0	Prod
WO-I-7	3/3-6/2131	967581.101	2258596.768	614.69	Zone 2	5.1	Prod
WO-I-8	3/3-6/2132	967564.364	2258607.696	614.803	Zone 2	4.9	Prod
WO-I-9	3/3-6/2133	967547.859	2258618.771	614.977	Zone 2	4.8	Prod
WO-I-10	3/3-6/2134	967531.041	2258629.932	614.946	Zone 2	5.4	Prod
WO-I-11	3/3-6/2135	967514.421	2258640.978	615.095	Zone 2	5.6	Prod
WO-I-12	3/3-6/2136	967497.841	2258651.843	615.089	Zone 2	2.5	Prod
WO-I-13	3/3-6/2137	967481.158	2258663.121	615.01	Zone 2	1.5	Prod
WO-I-14	3/3-6/2138	967464.704	2258674.6	615.342	Zone 2	4.3	Prod
WO-I-15	3/3-6/2139	967473.253	2258692.394	615.078	Zone 2	4.3	Prod
WO-I-16	3/3-6/2140	967482.306	2258710.276	614.856	Zone 2	2.3	Prod
WO-I-17	3/3-6/2141	967491.438	2258728.661	613.101	Zone 2	0.4	Prod
WO-I-18	3/3-6/2142	967499.7	2258746.61	612.92	Zone 2	1.2	Prod
WO-I-19	3/3-6/2143	967508.39	2258764.77	612.92	Zone 2	3.3	Prod
WO-I-20	3/3-6/2144	967517.088	2258782.935	613.4	Zone 2	4.1	Prod
WO-I-21	3/3-6/2145	967525.934	2258801.146	614.191	Zone 2	2.8	Prod
WO-I-22	3/3-6/2146	967534.698	2258819.249	615.002	Zone 2	4.8	Prod
WO-I-23	3/3-6/2147	967542.934	2258837.316	615.453	Zone 2	5.3	Prod

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
WO-I-24	3/3-6/2148	967551.765	2258855.356	615.147	Zone 2	5.0	Prod
WO-I-25	3/3-6/2149	967560.436	2258873.284	615.156	Zone 2	5.1	Prod
WO-I-26	3/3-6/2150	967568.936	2258891.336	614.875	Zone 2	3.1	Prod
WO-I-27	3/3-6/2151	967577.607	2258909.372	614.324	Zone 2	2.8	Prod
WO-I-28	3/3-6/2152	967586.194	2258927.544	614.926	Zone 2	3.8	Prod
WO-J-1	3/3-6/2153	967417.111	2258387.38	614.417	Zone 2	5.2	Prod
WO-J-2	3/3-6/2154	967412.515	2258406.737	613.76	Zone 2	5.8	Prod
WO-J-3	3/3-6/2155	967408.002	2258426.084	613.803	Zone 2	6.0	Prod
WO-J-4	3/3-6/2156	967403.117	2258445.495	614.393	Zone 2	5.7	Prod
WO-J-5	3/3-6/2157	967398.288	2258464.711	614.747	Zone 2	4.7	Prod
WO-J-6	3/3-6/2158	967393.667	2258484.604	614.692	Zone 2	3.9	Prod
WO-J-7	3/3-6/2159	967388.783	2258503.783	614.921	Zone 2	1.8	Prod
WO-J-8	3/3-6/2160	967384.116	2258523.051	615.013	Zone 2	4.8	Prod
WO-K-1	3/3-6/2161	967198.905	2258441.788	614.87	Zone 2	9.4	Prod
WO-K-2	3/3-6/2162	967210.135	2258458.784	614.323	Zone 2	4.9	Prod
WO-K-3	3/3-6/2163	967221.361	2258475.202	614.026	Zone 2	4.9	Prod/Chem
WO-K-4	3/3-6/2164	967232.807	2258491.687	614.171	Zone 2	5.3	Prod
WO-K-5	3/3-6/2165	967243.255	2258508.906	614.447	Zone 2	5.3	Prod
WO-K-6	3/3-6/2166	967252.996	2258526.24	615.017	Zone 2	2.3	Prod
WO-K-7	3/3-6/2167	967264.19	2258545.613	612.566	Zone 2	1.9	Prod
WO-K-8	3/3-6/2168	967350.236	2258747.493	614.862	Zone 2	4.0	Prod
WO-K-9	3/3-6/2169	967360.483	2258764.546	615.024	Zone 2	4.4	Prod
WO-K-10	3/3-6/2170	967368.874	2258783.073	614.994	Zone 2	4.4	Prod
WO-K-11	3/3-6/2171	967379.228	2258799.975	615.02	Zone 2	2.9	Prod
WO-K-12	3/3-6/2172	967386.936	2258817.963	613.163	Zone 2	1.4	Prod
WO-K-13	3/3-6/2173	967396.836	2258835.43	612.591	Zone 2	1.5	Prod
WO-K-14	3/3-6/2174	967406.736	2258852.89	612.591	Zone 2	3.0	Prod
WO-K-15	3/3-6/2175	967416.631	2258870.355	612.591	Zone 2	4.1	Prod
WO-K-16	3/3-6/2176	967426.466	2258887.707	614.847	Zone 2	2.8	Prod
WO-K-17	3/3-6/2177	967436.116	2258905.153	615.093	Zone 2	3.6	Prod
WO-K-18	3/3-6/2178	967446.406	2258922.52	614.886	Zone 2	4.6	Prod
WO-K-19	3/3-6/2179	967456.314	2258940.012	614.459	Zone 2	4.0	Prod
WO-K-20	3/3-6/2180	967466.147	2258957.488	614.048	Zone 2	3.8	Prod
WO-K-21	3/3-6/2181	967475.451	2258974.918	614.943	Zone 2		Prod
WO-L-1	3/3-6/2182	967115.798	2258539.524	614.447	Zone 2	4.6	Prod
WO-L-2	3/3-6/2183	967129.546	2258553.717	614.003	Zone 2	4.4	Prod
WO-L-3	3/3-6/2184	967143.798	2258567.765	614.13	Zone 2	3.8	Prod
WO-L-4	3/3-6/2185	967158.433	2258581.151	614.386	Zone 2	1.8	Prod
WO-L-5	3/3-6/2186	967173.514	2258593.989	615.238	Zone 2	8.1	Prod
WO-M-1	3/3-6/2187	967061.614	2258728.38	614.07	Zone 2	7.0	Prod
WO-M-2	3/3-6/2188	967082.423	2258727.267	614.004	Zone 2	6.0	Prod
WO-M-3	3/3-6/2189	967102.3	2258725.633	614.412	Zone 2	3.8	Prod
WO-M-4	3/3-6/2190	967122.826	2258724.235	614.863	Zone 2	3.8	Prod
WO-M-5	3/3-6/2191	967141.734	2258722.441	615.069	Zone 2	3.0	Prod
WO-M-6	3/3-6/2192	967158.287	2258719.151	615.31	Zone 2	2.8	Prod
WO-M-7	3/3-6/2193	967204.327	2258756.761	615.062	Zone 2	3.8	Prod
WO-M-8	3/3-6/2194	967217.718	2258772.61	614.982	Zone 2	4.8	Prod

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
WO-M-9	3/3-6/2195	967228.688	2258789.067	614.963	Zone 2	5.1	Prod
WO-M-10	3/3-6/2196	967239.848	2258805.718	614.606	Zone 2	2.3	Prod
WO-M-11	3/3-6/2197	967251.184	2258822.061	615.301	Zone 2	5.2	Prod
WO-M-12	3/3-6/2198	967262.484	2258838.471	615.452	Zone 2	4.8	Prod
WO-M-13	3/3-6/2199	967273.606	2258855.199	615.514	Zone 2	5.0	Prod
WO-M-14	3/3-6/2200	967285.107	2258871.635	615.379	Zone 2	4.9	Prod
WO-M-15	3/3-6/2201	967296.63	2258887.91	614.85	Zone 2	1.6	Prod
WO-M-16	3/3-6/2202	967307.74	2258904.3	612.5	Zone 2	2.6	Prod
WO-M-17	3/3-6/2203	967318.85	2258920.69	612.5	Zone 2	3.1	Prod
WO-M-18	3/3-6/2204	967329.96	2258937.08	612.5	Zone 2	1.7	Prod
WO-M-19	3/3-6/2205	967340.837	2258954.094	613.99	Zone 2	2.0	Prod
WO-M-20	3/3-6/2206	967352.139	2258969.81	614.743	Zone 2	3.2	Prod
WO-M-21	3/3-6/2207	967363.521	2258986.33	614.349	Zone 2	4.4	Prod
WO-M-22	3/3-6/2208	967374.54	2259003.007	614.173	Zone 2	4.8	Prod
WO-M-23	3/3-6/2209	967385.171	2259019.957	615.024	Zone 2	3.0	Prod
WO-M-24	3/3-6/2210	967308.216	2259041.151	665.76	Zone 2	5.6	Prod
WO-N-1	3/3-6/2211	967037.748	2258865.229	614.255	Zone 2	3.0	Prod
WO-N-2	3/3-6/2212	967057.329	2258870.256	614.086	Zone 2	6.0	Prod
WO-N-3	3/3-6/2213	967076.312	2258875.374	614.77	Zone 2	6.5	Prod
WO-N-4	3/3-6/2214	967086.092	2258892.801	614.988	Zone 2	6.8	Prod
WO-N-5	3/3-6/2215	967095.902	2258910.094	615.29	Zone 2	7.0	Prod
WO-N-6	3/3-6/2216	967105.74	2258927.489	615.588	Zone 2	4.9	Prod
WO-N-7	3/3-6/2217	967115.442	2258945.016	615.794	Zone 2	4.9	Prod
WO-N-8	3/3-6/2218	967125.296	2258962.433	615.653	Zone 2	5.3	Prod
WO-N-9	3/3-6/2219	967135.775	2258979.278	615.238	Zone 2	2.9	Prod
WO-N-10	3/3-6/2220	967144.611	2258997.046	612.893	Zone 2	1.2	Prod
WO-N-11	3/3-6/2221	967154.33	2259014.44	612.428	Zone 2	4.1	Prod
WO-N-12	3/3-6/2222	967164.05	2259031.82	612.428	Zone 2	3.3	Prod
WO-N-13	3/3-6/2223	967173.76	2259049.21	612.428	Zone 2	1.1	Prod
WO-N-14	3/3-6/2224	967183.48	2259066.6	612.428	Zone 2	2.2	Prod
WO-N-15	3/3-6/2225	967195.747	2259082.654	613.741	Zone 2	1.4	Prod
WO-O-1	3/3-6/2226	966968.238	2259092.557	612.988	Zone 2	1.9	Prod
WO-O-2	3/3-6/2227	966982.6	2259106.4	612.351	Zone 2	1.8	Prod/Chem
WO-O-3	3/3-6/2228	966996.96	2259120.3	612.351	Zone 2	2.1	Prod
WO-O-4	3/3-6/2229	967011.32	2259134.2	612.351	Zone 2	0.0	Prod
WO-O-5	3/3-6/2230	967025.679	2259148.196	613.096	Zone 2	0.1	Prod
WO-P-1	3/3-6/2231	966935.16	2259246.02	612.235	Zone 2	1.8	Prod
WO-P-2	3/3-6/2232	966971.66	2259262.39	612.235	Zone 2	0.5	Prod
WO-Q-1	3/3-6/2233	966856.44	2259381.24	612.35	Zone 2	2.5	Prod
WO-Q-2	3/3-6/2234	966884.99	2259394.81	612.35	Zone 2	3.0	Prod
WO-Q-3	3/3-6/2235	966915.16	2259409.14	612.35	Zone 2	1.7	Prod
WO-R-1	3/3-6/2236	966793.29	2259495.08	611.847	Zone 2	1.7	Prod
WO-R-2	3/3-6/2237	966822.92	2259516.24	611.847	Zone 2	2.3	Prod/Chem
WO-R-3	3/3-6/2238	966859.68	2259542.49	611.847	Zone 2	1.6	Prod
WO-S-00	3/3-6/2239	966690.85	2259620.5	611.547	Zone 2	1.6	Prod
WO-S-1	3/3-6/2240	966721.16	2259638	611.547	Zone 2	1.6	Prod
WO-S-2	3/3-6/2241	966747.14	2259653	611.547	Zone 2	2.0	Prod

TABLE 3
SEDIMENT THICKNESS SURVEY RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample ID	Date Sampled	GPS Information ⁽¹⁾		Ortho Ht (Ft)	Location	Sediment Thickness (ft)	Target
		Easting	Northing				
WO-S-3	3/3-6/2242	966761.86	2259661.5	611.547	Zone 2	2.1	Prod
WO-S-4	3/3-6/2243	966787.84	2259676.5	611.547	Zone 2	3.5	Prod
BP-1	3/3-6/2244	965869.593	2259631.599	614.35	Zone 3	0.5	Chem
BP-2	3/3-6/2245	965661.304	2259620.187	615.474	Zone 3	0.5	Chem
MR-ZZ-1	3/3-6/2246	965141.565	2263515.329	611.945	Zone 5	5	Prod/Chem
MR-ZZ-2	3/3-6/2247	965162.326	2263447.31	611.682	Zone 5	1.9	Prod
MR-ZZ-3	3/3-6/2248	965180.916	2263417.138	611.814	Zone 5	1.1	Prod
MR-ZZ-4	3/3-6/2249	965206.366	2263389.383	611.599	Zone 5	0.8	Prod
MR-ZZ-5	3/3-6/2250	965233.432	2263363.513	611.543	Zone 5	1	Prod
MR-ZZ-6	3/3-6/2251	965265.795	2263350.005	611.492	Zone 5	0.2	Prod
MR-ZZ-7	3/3-6/2252	965307.629	2263349.098	611.543	Zone 5	0	Prod
MR-ZZ-8	3/3-6/2253	965376.635	2263378.266	609.398	Zone 5	0	Prod
MR-ZZ-9	3/3-6/2254	965409.252	2263355.451	608.009	Zone 5	0	Prod
MR-ZZ-10	3/3-6/2255	965423.211	2263348.023	609.11	Zone 5	0	Prod
MR-ZZ-11	3/3-6/2256	965433.363	2263343.494	608.389	Zone 5	0	Prod

Work conducted by START under TDD: S05-0801-002

Key

- Prod - depth was determined using manually using a rod.
- Chem - Conducted PCBs analysis
- Zone 1 - Lincoln Creek Area
- Zone 2 - West Oxbow Area
- Zone 3 - Blatz Pavilion Area
- Zone 5 - Near dam and impoundment area

TABLE 4
GRAIN SIZE ANALYSIS SUMMARY
FEBRUARY 27-29, 2008
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Sample	Boring	Depth Interval (ft)	% Gravel	% Sand	% Silt	% Clay
LPMR-S-1-0.5-2	S-1	0.5-2	0.4	97.2	2.4 (fines)	
LPMR-S-5-1-2.5	S-5	1-2.5	0	20.5	69.5	10
LPMR-S-8-0.5-2.5	S-8	0.5-2.5	0	20.2	59.8	20
LPMR-S-9-3-8	S-9	3.0 - 8.0	1.3	93.4	5.3 (fines)	

Work conducted by START under TDD: S05-0801-002

Laboratory analysis conducted under CLP by Liberty Analytical Corp. Cary, NC

Key

LPMR-S-1-0.5-2 = Lincoln Park Milwaukee River/Sample 1/at depth of 0.5 to 2 ft

TABLE 5
SEDIMENT BORING and FLATS LOCATIONS (ZONE 2)
FEBRUARY 27-29, 2008
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Description of Area	Zone	Borings
North Flat: on north side of primary channel	Zone 2	S-1, S-2 (2008)
East Flat: east of primary channel and north of pier	Zone 2	ST-1, TP-1, ST-2, S-3, ST-3, ST-4, ST-5, ST-6, ST-7, TP-2, ST-8, S-4 (2008)
East Flat: east of primary channel and west of pier	Zone 2	ST-9, S-5, ST-10, S-6, ST-11, ST-13 (2008); WO-F-1 (2009)
East Flat: east of primary channel and south of pier	Zone 2	ST-16, ST-18, ST-20, ST-31 (2008)
West Flat: west of secondary channel	Zone 2	ST-22 (2008)
Island Flat, east, west, and north of the island	Zone 2	ST-15, ST-17, ST-19, ST-21, TP-4, S-7, ST-23, TP-3, ST-25, S-8 (2008)
Island Flat, south and southeast of the island	Zone 2	S-9, ST-28, ST-30 (2008); WO-L-2 (2009)
Northern Southeast Flat, north of primary channel and east of bridge	Zone 2	ST-34, S-10, ST-36, S-11, ST-38 (2008)
Southern Southeast Flat, south of primary channel and east of bridge	Zone 2	ST-39, S-12, ST-40, S-13 (2008)
Primary Channel just west of bridge (Zone 2B)	Zone 2	WO-O-2 (2009)
Primary Channel between bridge and Milwaukee River (Zone 2B)	Zone 2	WO-R-2 (2009)

**TABLE 6
DISPOSAL SAMPLING RESULTS
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN**

Analyte	Units	Sample IDs	
		WO-K-3	WO-H-3
Total PCBs	mg/Kg	0.75	0.086
TCLP Metals			
Arsenic	mg/L	0.01 U	0.015
Barium	mg/L	0.52	1.1
Cadmium	mg/L	0.005 U	0.0053
Chromium	mg/L	0.02 U	0.02 U
Copper	mg/L	0.05 U	0.05 U
Lead	mg/L	0.014	0.024
Mercury	mg/L	0.00025 U	0.00025 U
Nickel	mg/L	0.036	0.081
Selenium	mg/L	0.01 U	0.01 U
Silver	mg/L	0.01 U	0.01 U
Zinc	mg/L	0.51	1.1
TCLP SVOCs			
1,4-Dichlorobenzene	mg/L	0.005 U	0.005 U
2,4-Dinitrotoluene	mg/L	0.005 U	0.005 U
Hexachlorobenzene	mg/L	0.005 U	0.005 U
Hexachlorobutadiene	mg/L	0.005 U	0.005 U
Nitrobenzene	mg/L	0.005 U	0.005 U
2-Methylphenol	mg/L	0.005 U	0.005 U
3- & 4- Methylphenol	mg/L	0.005 U	0.005 U
Pentachlorophenol	mg/L	0.025 U	0.025 U
Pyridine	mg/L	0.005 U	0.005 U
2,4,5-Trichlorophenol	mg/L	0.005 U	0.005 U
2,4,6-Trichlorophenol	mg/L	0.005 U	0.005 U
TCLP VOCs			
Benzene	mg/L	0.05 U	0.05 U
2-Butanone	mg/L	0.1 U	0.1 U
Carbon Tetrachloride	mg/L	0.05 U	0.05 U
Chlorobenzene	mg/L	0.05 U	0.05 U
Chloroform	mg/L	0.05 U	0.05 U
1,2-Dichloroethane	mg/L	0.05 U	0.05 U
1,1-Dichloroethene	mg/L	0.05 U	0.05 U
Tetrachloroethene	mg/L	0.05 U	0.05 U
Trichloroethene	mg/L	0.05 U	0.05 U
Vinyl Chloride	mg/L	0.05 U	0.05 U
Specific Gravity		2.42	2.6
Reactive Cyanide	mg/kg	1 U	1 U
Reactive Sulfide	mg/Kg	10 U	10 U
Flash Point	°F	>212	>212
Paint Filter	pass/fail	PASS	PASS
pH	pH Units	7.3	7.5
Phenolics	mg/Kg	0.33	0.89

Work conducted under START TDD: S05-0801-002

Analytical conducted under STAT Analytical Corporation, Chicago, IL

Key

U - Below the detection limit

TABLE 7
PCBs AND MEAN PEC-Q VALUES
FEBRUARY 27 - 29, 2008
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

SAMPLE ID	TOC (%)	Aroclor 1242 ¹	Aroclor 1248	Aroclor 1254	Total PCB (mg/kg)	Total PCB @ 1% TOC (ug/kg)	PEC (ug/kg)	PEC-Q: PCB	QAPP Zone	Metals PEC-Q ²	PAH PEC-Q ³	Overall Mean PEC-Q	Estimated Average Incidence of Toxicity
LPMIR-S-1-0-0.5	1.9	0.041	0.22	0.072	0.3	175	676	0.3	na	nd	nd	na	na
LPMIR-S-1-0.5-2	0.52	0.073	0.073	0.073	0.2	421	676	0.6	na	nd	nd	na	na
LPMIR-S-2-0-0.5	8.3	0.11	140	3.9	144.0	17351	676	25.7	na	nd	nd	na	na
LPMIR-S-3-0-0.5	9.8	0.073	2	0.9	3.0	303	676	0.4	na	nd	nd	na	na
LPMIR-S-3-0.5-2	6.4	21	7.8	1.7	30.5	4766	676	7.0	na	nd	nd	na	na
LPMIR-S-4-0-0.5	7.3	0.069	1.2	0.54	1.8	248	676	0.4	4	0.7	0.2	0.4	36
LPMIR-S-5-0-0.5	4.2	0.056	3.2	0.95	4.2	1001	676	1.5	4	0.7	0.2	0.8	56
LPMIR-S-5-1-2.5	9.96	68	53	14	135.0	13554	676	20.1	4	0.7	0.2	7.0	100
LPMIR-S-6-0-0.5	10.9	0.088	6.9	1.9	8.9	815	676	1.2	4	0.7	0.2	0.7	52
LPMIR-S-6-1-2	10	560	220	43	823.0	82300	676	121.7	4	0.7	0.2	40.9	100
LPMIR-S-7-0-0.5	9.7	0.035	3.2	1.2	4.4	457	676	0.7	3	1.2	1.4	1.1	68
LPMIR-S-7-1-3	4.3	0.052	5.2	1.6	6.9	1593	676	2.4	3	1.2	1.4	1.7	83
LPMIR-S-8-0-0.5	5.6	7.9	11	3.3	22.2	3964	676	5.9	3	1.2	1.4	2.8	96
LPMIR-S-8-0.5-2.5	5.48	17	19	2.6	38.6	7044	676	10.4	3	1.2	1.4	4.3	100
LPMIR-S-9-0-0.5	4.5	0.052	5	1.1	6.2	1367	676	2.0	3	1.2	1.4	1.5	80
LPMIR-S-9-0.5-1.5	4.2	0.049	6.2	1.8	8.0	1916	676	2.8	3	1.2	1.4	1.8	86
LPMIR-S-10-0-0.5	7.6	0.059	0.44	0.68	1.2	155	676	0.2	2	0.4	0.4	0.3	30
LPMIR-S-11-0-0.5	8	0.32	25	4.6	29.9	3740	676	5.5	2	0.4	0.4	2.1	90
LPMIR-S-11-0.5-1.5	3.6	0.25	17	2	19.3	5347	676	7.9	2	0.4	0.4	2.9	96
LPMIR-S-12-0-0.5	4.1	0.051	1.9	0.52	2.5	603	676	0.9	2	0.4	0.4	0.6	44
LPMIR-S-12-0.5-1.5	2.5	0.045	1.2	0.33	1.6	630	676	0.9	2	0.4	0.4	0.6	45
LPMIR-S-13-0-0.5	4.9	0.056	3.4	0.73	4.2	854	676	1.3	2	0.4	0.4	0.7	51
LPMIR-S-13-0.5-1.5	6.7	0.092	6.4	2.8	9.3	1387	676	2.1	2	0.4	0.4	1.0	63

nd=no data

na=not applicable

¹ Bold indicates Aroclor was positively detected, other values are detection limits.

² Composite samples from each zone as defined in the QAPP were analyzed for metal concentrations. Therefore the metals PEC-Q value from the composite samples were used to calculate overall mean-PEC-Q values. Data from WDNR (2005).

³ Maximum PAH PEC-Q values for samples in QAPP Zones. Data from WDNR (2005).

TABLE 8
MEAN METAL PROBABLE EFFECTS CONCENTRATION QUOTIENT (PEC-Q)
FOR ESTABROOK IMPOUNDMENT SEDIMENTS¹
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Analyte	PEC ²	Zone 2		Zone 3		Zone 4		Zone 5	
	mg/kg ³	mg/kg	PEC-Q	mg/kg	PEC-Q	mg/kg	PEC-Q	mg/kg	PEC-Q
Arsenic	33	na	na	nd (<5)	<0.2	nd (<5)	<0.2	na	na
Cadmium	5	1.5	0.3	3.9	0.8	1.6	0.3	1.2	0.2
Chromium	110	38.5	0.4	140	1.3	76	0.7	37.3	0.3
Copper	150	na	na	106	0.7	na	na	na	na
Lead	130	88	0.7	322	2.5	199	1.5	104	0.8
Nickel	49	20	0.4	45	0.9	23	0.5	19	0.4
Zinc	460	207	0.5	444	1.0	222	0.5	166	0.4
Mean PEC-Q			0.4		1.2		0.7		0.4

nd=not detected above laboratory method detection limit

na=not applicable

¹Data from Wisconsin Department of Natural Resources PUBL-WT 826 (2005)

²PEC-Probable effects concentration

³mg/kg dry weight sediment

TABLE 9
SUMMARY OF PAH AND PCB DATA FOR SEDIMENT SAMPLES FROM THE WDNR
AUGUST 2003 SAMPLING EVENT
LINCOLN PARK/MILWAUKEE RIVER CHANNEL SEDIMENTS
FOCUSED REMEDIAL INVESTIGATION
MILWAUKEE, WISCONSIN

Field Name	QAPP Zone	Horizon	Start	End	Include in PEC-Q	Depth Units	X	Y	%TOC	Total PAH	PAH @ 1% TOC (ug/kg)	PAH @ PEC (ug/kg)	Total PCB	Aroclors	PCB @ 1% TOC (ug/kg)	PCB @ PEC (ug/kg)	PEC-Q	
1X1	A	0	1.4	Yes	FT	689829.1	294168.8	11.6	5541.0 ug/kg	4777	22800	0.2	6700 ug/kg	1242/1248	578	676	0.9	
1X3	1	Surface	na	Yes	na	689308	294399.9	16.6	26320 ug/kg	1586	22800	0.1	1200 ug/kg	1242/1248	72	676	0.1	
2X4	1	Surface	na	Yes	na	688863.7	294322.5	10	14780 ug/kg	1478	22800	0.1	530 ug/kg	1248/1254	53	676	0.1	
4X8	2	A	0	0.6	Yes	FT	688742.4	294405.5	nd	nd	nd	nd	2600 ug/kg	1248/1254	nd	nd	nd	
4X8	2	B	0.6	1.2	Yes	FT	688742.4	294405.5	nd	nd	nd	nd	42000 ug/kg	1242/1248	nd	nd	nd	
4X8	2	C	1.2	1.9	Yes	FT	688742.4	294405.5	11.6	58680 ug/kg	5059	22800	0.2	700 ug/kg	1248/1254	60	676	0.1
4X8	2	D	1.9	2.6	No	FT	688742.4	294405.5	11.6	29380 ug/kg	2533	22800	0.1	270 ug/kg	1248/1254	23	676	0.0
4X9	2	A	0	0.6	Yes	FT	688743.2	294372.7	nd	nd	nd	nd	1500 ug/kg	1248/1254	nd	nd	nd	
4X9	2	B	0.6	1.2	Yes	FT	688743.2	294372.7	nd	nd	nd	nd	2200 ug/kg	1248/1254	nd	nd	nd	
4X9	2	C	1.2	1.8	Yes	FT	688743.2	294372.7	9.1	80480 ug/kg	8844	22800	0.4	21000 ug/kg	1242	23077	676	34.1
4X9	2	D	1.8	2.4	No	FT	688743.2	294372.7	9.1	66280 ug/kg	7284	22800	0.3	5400 ug/kg	1248	593	676	0.9
4X9	2	E	2.4	2.7	No	FT	688743.2	294372.7	9.1	25540 ug/kg	2807	22800	0.1	840 ug/kg	1242/1248	92	676	0.1
4X10	2	A	0	0.6	Yes	FT	688754.5	294540	nd	nd	nd	nd	2500 ug/kg	1248/1254	nd	nd	nd	
4X10	2	B	0.6	1.2	Yes	FT	688754.5	294540	nd	nd	nd	nd	16000 ug/kg	1242/1248	nd	nd	nd	
4X10	2	C	1.2	1.8	Yes	FT	688754.5	294540	10.2	59210 ug/kg	5805	22800	0.3	17000 ug/kg	1242/1248	16667	676	24.7
4X10	2	D	1.8	2.4	No	FT	688754.5	294540	10.2	38210 ug/kg	3746	22800	0.2	6200 ug/kg	1248/1254	608	676	0.9
4X10	2	E	2.4	3.2	No	FT	688754.5	294540	10.2	44290 ug/kg	4342	22800	0.2	1100 ug/kg	1254	108	676	0.2
3X3	3	A	0	0.6	Yes	FT	688550	29840.6	nd	nd	nd	nd	2200 ug/kg	1248/1254	nd	nd	nd	
3X3	3	B	0.6	1.2	Yes	FT	688550	29840.6	nd	nd	nd	nd	4400 ug/kg	1248/1254	nd	nd	nd	
3X3	3	C	1.2	1.8	Yes	FT	688550	29840.6	9.6	70500 ug/kg	7344	22800	0.3	6200 ug/kg	1248/1254	646	676	1.0
3X3	3	D	1.8	2.2	No	FT	688550	29840.6	9.6	44470 ug/kg	4632	22800	0.2	2700 ug/kg	1242/1248	281	676	0.4
3X3	3	E	2.2	2.6	No	FT	688550	29840.6	9.6	58400 ug/kg	6083	22800	0.3	430 ug/kg	1248/1254	45	676	0.1
4X2	3	A	0	0.8	Yes	FT	688383.3	294826.1	10.5	46680 ug/kg	4636	22800	0.2	9300 ug/kg	1242/1248	886	676	1.3
4X2	3	B	0.8	1.6	Yes	FT	688383.3	294826.1	nd	nd	nd	nd	15000 ug/kg	1242/1248	nd	nd	nd	
4X2	3	C	1.6	1.9	Yes	FT	688383.3	294826.1	nd	61860 ug/kg	nd	22800	0.3	8100 ug/kg	1248/1254	nd	nd	nd
4X2	3	D	1.9	2.2	No	FT	688383.3	294826.1	10.1	65350 ug/kg	6468	22800	0.3	1600 ug/kg	1248/1254	158	676	0.2
4X2	3	E	2.2	2.5	No	FT	688383.3	294826.1	10.1	49390 ug/kg	4908	22800	0.4	620 ug/kg	1248/1254	61	676	0.1
4X3	3	A	0	1.1	Yes	FT	688432.9	294777.7	nd	nd	nd	nd	46000 ug/kg	1242/1248	nd	nd	nd	
4X3	3	B	1.1	1.6	Yes	FT	688432.9	294777.7	9.9	92000 ug/kg	9293	22800	0.4	16000 ug/kg	1248/1254	1616	676	2.4
4X3	3	C	1.6	2.2	No	FT	688432.9	294777.7	9.9	72600 ug/kg	7333	22800	0.3	1700 ug/kg	1248/1254	172	676	0.3
4X3	3	D	2.2	2.5	No	FT	688432.9	294777.7	nd	127300 ug/kg	nd	22800	0.3	290 ug/kg	1248/1254	nd	nd	nd
4X4	3	A	0	0.8	Yes	FT	688481.2	294788.8	8.1	61000 ug/kg	7531	22800	0.3	79000 ug/kg	1242/1248	9753	676	14.4
4X4	3	B	0.8	1.8	Yes	FT	688481.2	294788.8	nd	67700 ug/kg	nd	22800	0.8	1100 ug/kg	1242/1248	nd	nd	nd
4X4	3	C	1.8	2.3	No	FT	688481.2	294788.8	2.9	49810 ug/kg	17176	22800	0.8	1100 ug/kg	1248/1254	379	676	0.6
4X4	3	D	2.3	2.8	No	FT	688481.2	294788.8	nd	82100 ug/kg	nd	22800	nd	4600 ug/kg	1242/1248	nd	nd	nd
4X4	3	E	2.8	3.3	No	FT	688481.2	294788.8	nd	2148 ug/kg	nd	22800	nd	<800 ug/kg	na	nd	nd	nd
4X4	3	F	3.3	3.5	No	FT	688481.2	294788.8	nd	81 ug/kg	nd	22800	nd	48 ug/kg	1242/1248	nd	nd	nd
4X5	3	A	0	0.8	Yes	FT	688478.9	294791.6	10.7	333800 ug/kg	31196	22800	1.4	4000 ug/kg	1248/1254	374	676	0.6
4X5	3	B	0.8	1.8	Yes	FT	688478.9	294791.6	nd	68090 ug/kg	nd	22800	0.2	42000 ug/kg	1242/1248	nd	nd	nd
4X5	3	C	1.8	2.3	No	FT	688478.9	294791.6	9.1	37170 ug/kg	4085	22800	0.2	400 ug/kg	1248/1254	44	676	0.1
4X5	3	D	2.3	2.8	No	FT	688478.9	294791.6	nd	80400 ug/kg	nd	22800	nd	620 ug/kg	1248/1254	nd	nd	nd
4X5	3	E	2.8	3.3	No	FT	688478.9	294791.6	nd	318 ug/kg	nd	22800	nd	1200 ug/kg	1242/1248	nd	nd	nd
4X5	3	F	3.3	3.5	No	FT	688478.9	294791.6	9.1	318 ug/kg	nd	22800	nd	98 ug/kg	1242/1248	nd	nd	nd
4X7	3	A	0	0.6	Yes	FT	688531.5	294784.3	8.7	66430 ug/kg	7636	22800	0.3	8700 ug/kg	1242/1248	1000	676	1.5
4X7	3	B	0.6	1.2	Yes	FT	688531.5	294784.3	nd	nd	nd	22800	0.3	7200 ug/kg	1242/1248	nd	nd	nd
4X7	3	C	1.2	1.8	Yes	FT	688531.5	294784.3	nd	83090 ug/kg	nd	22800	nd	38000 ug/kg	1242/1248	nd	nd	nd
4X7	3	D	1.8	2.4	No	FT	688531.5	294784.3	nd	118800 ug/kg	nd	22800	nd	17000 ug/kg	1242/1248	nd	nd	nd
4X7	3	E	2.4	3.0	No	FT	688531.5	294784.3	nd	36220 ug/kg	5572	22800	0.2	22000 ug/kg	1248/1254	3385	676	5.0
4X7	3	F	3.0	3.6	No	FT	688531.5	294784.3	nd	nd	nd	22800	0.2	450 ug/kg	1248/1254	nd	nd	nd
5X1	4	Surface	Ponar	Yes	na	688381.9	295123.3	3.5	49360 ug/kg	14103	22800	0.6	1900 ug/kg	1242/1248	543	676	0.8	
5X2	5	A	Ponar	Yes	na	688436.1	295018.6	2.6	13700 ug/kg	5269	22800	0.2	1000 ug/kg	1242/1248	385	676	0.6	
5X2	5	B	Ponar	Yes	na	688436.1	295018.6	2.6	20500 ug/kg	7885	22800	0.3	3400 ug/kg	1248/1254	1308	676	1.9	

nd=no data
 not applicable
 Horizon Start, End, X and Y data are from the Data Appendix.
 Data in cells with no background color are from the CBSQG spreadsheet.
 Data on additional horizons from Data Appendix (PAH data from Table 4 WDNR, 2005).
 Values from CBSQG spreadsheet and Data Appendix do not agree. Value from Data Appendix is presented here.
 Data from CBSQG spreadsheet is identical for 4X4 and 4X5 sites. The PAH data presented here for site 4X5 and 4X7 are from Table 4 WDNR (2005).