Table 1
South Branch Park River
Flood Control Maintenance Project
Sediment Analysis

Physical Charcateristics

Sample Dates May 5-6, 2014

	SAMPLE ID:			
Testing Parameter:	**Quaker C1**	**Quaker C2**	**Quaker C3**	**Park C1**
Total Organic Carbon (mg/kg)	43,600	45,200	NT	57,300
Particle Size -- By Sieve (Percent Finer)				
Sieve, #4 (%)	90.1	97.9	83.3	90.1
Sieve, #10 (%)	84.9	97.1	72.3	80.5
Sieve, #40 (%)	49.8	93.7	31.3	52.7
Sieve, #60 (%)	35.5	85.7	14.6	38.3
Sieve, #200 (%)	21.4	57.9	4.7	15.5
Laboratory Description:	Brown f-m SAND, some Silt, trace Gravel	Brown SILT and f-m SAND, trace Gravel	c SAND, little f-c Gravel, tra	Brown f-c SAND, little Silt, trace Gravel

	SAMPLE ID:			
Testing Parameter:	**Piper C1**	**Hamilton C1**	**Hamilton C1 Duplicate**	**Hamilton C2**
Total Organic Carbon (mg/kg)	29,700	13,600	13,600	6,220
Particle Size-- By Sieve (Percent Finer)				
Sieve, #4 (%)	98.6	93.3	NT	84.7
Sieve, #10 (%)	98.0	90.8	NT	72.5
Sieve, #40 (%)	93.7	48.0	NT	17.1
Sieve, #60 (%)	86.2	20.4	NT	7.2
Sieve, #200 (%)	66.2	10.6	NT	4.3
Laboratory Description:	Brown SILT, some f-m Sand, trace Gravel	Brown f-m SAND, little Silt, trace Gravel	NT	Brown f-c SAND, little f-c Gravel, trace Silt

Notes:

1. NT = Not tested

Table 2
South Branch Park River
Flood Control Maintenance Project
Sediment Analysis

Total Metals

Sample Dates May 5-6, 2014

Total Metals	CT Remediation Standard Regulations				SAMPLE ID:			
	R-DEC	I/C-DEC	GA-PMC*	GB-PMC*	Quaker C1	Quaker C2	Quaker C3	Park C1
Antimony, Total	27	8,200	0.006	0.06	5.8	6.8	NT	5.2
Arsenic, Total	10	10	0.05	0.5	2.7	4.2	NT	2.2
Barium, Total	4,700	140,000	1	10	88.6	127	NT	69.8
Beryllium, Total	2	2	0.004	0.04	0.37	0.45	NT	0.25
Cadmium, Total	34	1,000	0.005	0.05	ND (0.50)	ND (0.56)	NT	ND (0.32)
Chromium, Total	NE	NE	0.05	0.5	17.1	22.5	NT	15.3
Copper, Total	2,500	76,000	1.3	13	51.6	41.3	NT	28.7
Lead, Total	400	1,000	0.015	0.15	53.1	71.2	NT	33.2
Mercury, Total	20	610	0.002	0.02	ND (0.046)	0.105	NT	ND (0.043)
Nickel, Total	1,400	7,500	0.1	1	13.6	15	NT	12.1
Selenium, Total	340	10,000	0.05	0.5	ND (2.52)	ND (2.81)	NT	ND (1.62)
Silver, Total	340	10,000	0.036	0.36	ND (0.50)	0.69	NT	ND (0.32)
Thallium, Total	5.4	160	0.005	0.05	ND (1.24)	ND (1.38)	NT	ND (0.80)
Vanadium, Total	470	14,000	0.05	0.5	26.3	32.4	NT	21.7
Zinc, Total	20,000	610,000	5	50	106	131	NT	106

Total Metals	CT Remediation Standard Regulations				SAMPLE ID:			
	R-DEC	I/C-DEC	GA-PMC*	GB-PMC*	Piper C1	Hamilton C1	Hamilton C1 Duplicate	Hamilton C2
Antimony, Total	27	8,200	0.006	0.06	ND (4.0)	ND (5.3)	ND (6.1)	ND (5.4)
Arsenic, Total	10	10	0.05	0.5	9.1	ND (2.6)	ND (3.1)	ND (2.7)
Barium, Total	4,700	140,000	1	10	165	56.6	93.5	36.0
Beryllium, Total	2	2	0.004	0.04	0.46	0.22	0.21	0.17
Cadmium, Total	34	1,000	0.005	0.05	8.31	0.72	0.73	ND (0.55)
Chromium, Total	NE	NE	0.05	0.5	85.2	15.9	35.9	15.3
Copper, Total	2,500	76,000	1.3	13	296	31.9	37.7	17.6
Lead, Total	400	1,000	0.015	0.15	76.8	41.8	41.6	20.3
Mercury, Total	20	610	0.002	0.02	0.138	0.036	0.052	ND (0.034)
Nickel, Total	1,400	7,500	0.1	1	90.7	20.7	30.4	17.3
Selenium, Total	340	10,000	0.05	0.5	ND (2.03)	ND (2.65)	ND (3.08)	ND (2.73)
Silver, Total	340	10,000	0.036	0.36	1.48	ND (0.53)	ND (0.62)	ND (0.55)
Thallium, Total	5.4	160	0.005	0.05	ND (1.00)	ND (1.31)	ND (1.52)	ND (1.34)
Vanadium, Total	470	14,000	0.05	0.5	36.2	15.9	19.1	15.6
Zinc, Total	20,000	610,000	5	50	402	99.2	110	64.4

Notes:

* GA-PMC and GB-PMC units are mg/L. PMC for metals based on analyses by TCLP or SPLP Methods.

1. All units are mg/kg except for GA-PMC and GB-PMC which are mg/L.
2. ND (0.054) = Not detected - indicates the constituent was not detected at a concentration above the Method Detection Limit (shown in parentheses)
3. NE = Standard Not Established.
4. NT = Not Tested
5. **Bold** values exceed the Residential Direct Exposure Criteria (R-DEC)
6. Underlined values exceed the Industrial/Commercial Direct Exposure Criteria (I/C-DEC)
7. Yellow Highlighted values exceed the GA Pollutant Mobility Criteria x 20 (GA-PMC screening criterion).
8. Red values exceed the GB Pollutant Mobility Criteria x 20 (GB-PMC screening criterion).

Table 3
South Branch Park River Flood Control Maintenance Project
Semi-Volatile Organic Compounds
Sample Dates May 5-6, 2014

Semi-Volatile Organic Compounds -- 8270C (mg/kg)	CT Remediation Standard Regulations				SAMPLE ID:			
	R-DEC	I/C-DEC	GA-PMC	GB-PMC	Quaker C1	Quaker C2	Quaker C3	Park C1
Acenaphthene	NE	NE	NE	NE	ND (0.541)	ND (0.589)	NT	ND (0.572)
Acenaphthylene	1,000	2,500	8.4	84	0.574	ND (0.589)	NT	ND (0.572)
Anthracene	1,000	2,500	40	400	ND (0.541)	ND (0.589)	NT	ND (0.572)
Benzo(a)anthracene	1	7.8	1	1	**2.5**	**2.03**	NT	**1.12**
Benzo(a)pyrene	1	1	1	1	**2.4**	**2.14**	NT	**1.05**
Benzo(b)fluoranthene	1	7.8	1	1	**4.05**	**3.96**	NT	**1.69**
Benzo(g,h,i)perylene	NE	NE	NE	NE	0.872	0.899	NT	ND (0.572)
Benzo(k)fluoranthene	8.4	78	1	1	1.41	1.26	NT	0.662
Carbazole	NE	NE	NE	NE	ND (0.541)	ND (0.589)	NT	ND (0.572)
Chrysene	NE	NE	NE	NE	3.07	2.72	NT	1.37
Dibenzo(a,h,)anthracene	NE	NE	NE	NE	0.341	ND (0.295)	NT	ND (0.287)
Dibenzofuran	NE	NE	NE	NE	ND (0.541)	ND (0.589)	NT	ND (0.572)
Fluoranthene	1,000	2,500	5.6	56	5.43	4.84	NT	2.61
Fluorene	1,000	2,500	5.6	56	ND (0.541)	ND (0.589)	NT	ND (0.572)
Ideno(1,2,3-cd)pyrene	NE	NE	NE	NE	0.831	0.848	NT	ND (0.572)
Phenanthrene	1,000	2,500	4	40	1.91	1.48	NT	0.922
Pyrene	1,000	2,500	4	40	4.22	3.64	NT	1.94

Semi-Volatile Organic Compounds -- 8270C (mg/kg)	CT Remediation Standard Regulations				SAMPLE ID:			
	R-DEC	I/C-DEC	GA-PMC	GB-PMC	Piper C1	Hamilton C1	Hamilton C1 Duplicate	Hamilton C2
Acenaphthene	NE	NE	NE	NE	ND (0.598)	ND (0.403)	ND (0.419)	1.09
Acenaphthylene	1,000	2,500	8.4	84	ND (0.598)	ND (0.403)	ND (0.419)	ND (0.411)
Anthracene	1,000	2,500	40	400	ND (0.598)	0.540	0.551	3.55
Benzo(a)anthracene	1	7.8	1	1	0.720	**2.41**	**1.77**	**6.80**
Benzo(a)pyrene	1	1	1	1	0.667	**2.15**	**1.61**	**5.95**
Benzo(b)fluoranthene	1	7.8	1	1	0.919	**2.86**	**1.95**	**7.44**
Benzo(g,h,i)perylene	NE	NE	NE	NE	ND (0.598)	1.35	0.857	2.44
Benzo(k)fluoranthene	8.4	78	1	1	ND (0.598)	0.911	0.71	2.36
Carbazole	NE	NE	NE	NE	ND (0.598)	ND (0.403)	ND (0.419)	0.927
Chrysene	NE	NE	NE	NE	0.923	2.70	2.02	7.09
Dibenzo(a,h,)anthracene	NE	NE	NE	NE	ND (0.300)	0.425	0.282	1.00
Dibenzofuran	NE	NE	NE	NE	ND (0.598)	ND (0.403)	ND (0.419)	0.628
Fluoranthene	1,000	2,500	5.6	56	1.34	5.08	3.70	17.4
Fluorene	1,000	2,500	5.6	56	ND (0.598)	ND (0.403)	ND (0.419)	1.61
Ideno(1,2,3-cd)pyrene	NE	NE	NE	NE	ND (0.598)	1.26	0.828	2.50
Phenanthrene	1,000	2,500	4	40	ND (0.598)	2.23	1.67	14.9
Pyrene	1,000	2,500	4	40	1.26	4.49	3.1	16.0

Notes:

1. Only constituents detected above laboratory Method Detection Limits (MDL) are shown.
2. All units are mg/kg.
3. ND (0.054) = Not detected - indicates the constituent was not detected at a concentration above the Method Detection Limit (shown in parentheses)
4. **Bold** values exceed the Residential Direct Exposure Criteria (R-DEC)
5. Underlined values exceed the Industrial/Commercial Direct Exposure Criteria (I/C-DEC)
6. Yellow Highlighted values exceed the GA Pollutant Mobility Criteria
7. Red values exceed the GB Pollutant Mobility Criteria

Table 4
South Branch Park River
Flood Control Maintenance Project
Extractable Total Petroleum Hydrocarbons (ETPH)
Sample Dates May 5-6, 2014

Extractable Total Petroleum Hydrocarbons (ETPH)	CT Remediation Standard Regulations				SAMPLE ID:			
	R-DEC	I/C-DEC	GA-PMC	GB-PMC	Quaker C1	Quaker C2	Quaker C3	Park C1
ETPH	500	2,500	500	2,500	147	219	NT	**615**

Extractable Total Petroleum Hydrocarbons (ETPH)	CT Remediation Standard Regulations				SAMPLE ID:			
	R-DEC	I/C-DEC	GA-PMC	GB-PMC	Piper C1	Hamilton C1	Hamilton C1 Duplicate	Hamilton C2
ETPH	500	2,500	500	2,500	467	250	308	282

Notes:
1. All units are mg/kg.
2. ND (0.054) = Not detected - indicates the constituent was not detected at a concentration above the Method Detection Limit (shown in parentheses)
3. NE = Standard Not Established.
4. NT = Not Tested
5. **Bold** values exceed the Residential Direct Exposure Criteria (R-DEC)
6. Underlined values exceed the Industrial/Commercial Direct Exposure Criteria (I/C-DEC)
7. Yellow Highlighted values exceed the GA Pollutant Mobility Criteria
8. Red values exceed the GB Pollutant Mobility Criteria

Table 5
South Branch Park River
Flood Control Maintenance Project
Polychlorinated Biphenyl (PCB) Aroclors
Sample Dates May 5-6, 2014

	CT Remediation Standard Regulations				SAMPLE ID			
PCB Aroclors	**R-DEC**	**I/C-DEC**	**GA-PMC***	**GB-PMC***	**Quaker C1**	**Quaker C2**	**Quaker C3**	**Park C1**
Aroclor 1016	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Aroclor 1221	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Aroclor 1232	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Aroclor 1242	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Aroclor 1248	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	0.113
Aroclor 1254	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Aroclor 1260	--	--	--	--	0.216	ND (0.0838)	NT	ND (0.0820)
Aroclor 1262	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Aroclor 1268	--	--	--	--	ND (0.0791)	ND (0.0838)	NT	ND (0.0820)
Total PCBs	1	10	0.0005	0.005	0.216	ND (0.0838)	NT	0.113

	CT Remediation Standard Regulations				SAMPLE ID:			
PCB Aroclors	**R-DEC**	**I/C-DEC**	**GA-PMC***	**GB-PMC***	**Piper C1**	**Hamilton C1**	**Hamilton C1 Duplicate**	**Hamilton C2**
Aroclor 1016	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1221	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1232	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1242	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1248	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1254	--	--	--	--	ND (0.0893)	0.164	0.402	0.140
Aroclor 1260	--	--	--	--	0.617	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1262	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Aroclor 1268	--	--	--	--	ND (0.0893)	ND (0.0578)	ND (0.0605)	ND (0.0605)
Total PCBs	1	10	0.0005	0.005	0.617	0.164	0.402	0.140

Notes:
* GA-PMC and GB-PMC units are mg/L. PMC for PCBs based on analyses by TCLP or SPLP Methods.
1. All units are mg/kg except for GA-PMC and GB-PMC which are mg/L.
2. ND (0.054) = Not detected - indicates the constituent was not detected at a concentration above the Method Detection Limit (shown in parentheses)
3. NE = Standard Not Established.
4. NT = Not Tested
5. **Bold** values exceed the Residential Direct Exposure Criteria (R-DEC)
6. *Underlined* values exceed the Industrial/Commercial Direct Exposure Criteria (I/C-DEC)
7. Yellow Highlighted values exceed the GA Pollutant Mobility Criteria x 20 (GA-PMC screening criterion).
8. Red values exceed the GB Pollutant Mobility Criteria x 20 (GB-PMC screening criterion).