Table 1 - Chemical Analysis Plan Summary

Management Unit	Coordinates North	Coordinates East	Boring Numbers	Existing Depth (feet)	Proposed Project Depth (feet)	Propsed Dredged Amount (feet)	Primary Sample Number (1)	Secondary Sample Number (2)	Tertiary Sample Number (3)
MU-1	466979	1342970	AD-1a	959	956	3	PS-1	SS-1a	TS-1
	466939	1343069	AD-1b	958	950	8		SS-1b	
	467072	1343352	***AD-1c***	957	948	9		SS-1c	
	466989	1343104	AD-1d	957	950	7		SS-1d	
MU-2	467183	1343494	***AD-2a***	957	947	10	PS-2	SS-2a	TS-2
	467269	1343519	AD-2b	956	947	9		SS-2b	
	467303	1343825	***AD-2c***	956	946	10		SS-2c	
	467324	1343931	***AD-2d***	956	945	11		SS-2d	
MU-3	467308	1343989	***AD-3a***	953	945	8	PS-3	SS-3a	TS-3
	467500	1344221	***AD-3b***	953	943	10		SS-3b	
	467389	1344357	AD-3c	953	947	6		SS-3c	
	467551	1344488	AD-3d	953	949	4		SS-3d	
MU-4	467632	1344360	***AD-4a***	953	941	12	PS-4	SS-4a	TS-4
	467906	1344368	***AD-4b***	951	940	11		SS-4b	
	467663	1344360	***AD-4c***	953	942	11		SS-4c	
	467947	1344497	AD-4d	952	947	5		SS-4d	
MU-5	468409	1343876	AD-5a	951	948	3	PS-5	SS-5a	TS-5
	468323	1344072	***AD-5b***	950	942	8		SS-5b	
	468046	1344418	***AD-5c***	950	940	10		SS-5c	
	468049	1344492	***AD-5d***	952	944	8		SS-5d	
MU-6	469568	1342954	***AD-6a***	953	949	4	PS-6	SS-6a	TS-6
	469348	1343041	***AD-6b***	953	948	5		SS-6b	
	468484	1343818	***AD-6c***	951	944	7		SS-6c	
	469192	1343250	AD-6d	952	948	4		SS-6d	
MU-7	469994	1342729	***AD-7a***	956	952	4	PS-7	SS-7a	TS-7
	470177	1342785	***AD-7b***	955	952	3		SS-7b	
	470322	1342936	***AD-7c***	956	952	4		SS-7c	
	469584	1343083	AD-7d	953	950	3		SS-7d	
MU-8	470895	1342267	***AD-8a***	956	954	2	PS-8	SS-8a	TS-8
	470744	1342271	AD-8b	956	954	2		SS-8b	
	470645	1342388	AD-8c	955	953	2		SS-8c	
	470518	1342545	AD-8d	955	953	2		SS-8d	
MU-9	473970	1338463	AD-9a	984	982	2	PS-9	SS-9a	TS-9
	474023	1338467	***AD-9b***	979	974	5		SS-9b	
	474059	1338486	AD-9c	979	975	4		SS-9c	
	474110	1338394	AD-9d	979	976	3		SS-9d	

(1)	Each Primary Sample to be analyzed for Total Petroleum Hydrocarbons, Extractable Organic Halogens, Target Analyte List Metals, Total Polychlorinated Biphenyls, Chlordane and Chloride.
(2)	At each Management Unit where the Primary Sample analysis result for TPH>120ppm, EOX>25ppm, Lead>45ppm, PCB>1ppm or Chlordane>20ppb (exceeds PaDEP Draft Dredging Guideline), the four Secondary Samples from that management unit to be subjected to analysis for each parameter that was exceeded.
(3)	At each Management Unit where the Primary or Secondary Sample analysis result for TPH or EOX exceeds TPH>500ppm, EOX>50ppm, (PaDEP Draft Dredging Guideline Single Sample Limit), the Tertiary Samples from that management unit to be subjected to analysis for VOCs and SVOCs. To prevent under estimating potential SVOC contamination, the Tertiary Sample may either be the collected Tertiary Sample, or the Secondary sample with the highest result, whichever is highest.
AD-1c	Bold italic font indicates borings selected for procurement of samples for both chemical and geotechnical analyses. See Table 2 for the associated geotechnical analyses schedule.

Table 2 - Geotechnical Analysis Plan Summary

Management Unit	Coordinates North	Coordinates East	Boring Number	Existing Depth (feet)	Proposed Project Depth (feet)	Proposed Dredge Depth (feet)	Sample Interval (feet)	Moisture Content ASTM D 2216	Atterberg Limits ASTM D 4318	Grain Size ASTM D 422	Specific Gravity ASTM D 854	Organic Content ASTM D 2974
MU-1	467072	1343352	AD-1c	957	948	9	0-2	x				
	467072	1343352	AD-1c	957	948	9	2-4	x				
	467072	1343352	AD-1c	957	948	9	4-6	x				
	467072	1343352	AD-1c	957	948	9	6-9	x	x	x	x	x
MU-2	467183	1343494	AD-2a	957	947	10	0-2	x				
	467183	1343494	AD-2a	957	947	10	2-4	x				
	467183	1343494	AD-2a	957	947	10	4-6	x				
	467183	1343494	AD-2a	957	947	10	6-8	x				
	467183	1343494	AD-2a	957	947	10	8-10	x				
	467303	1343825	AD-2c	956	946	10	0-2	x				
	467303	1343825	AD-2c	956	946	10	2-4	x				
	467303	1343825	AD-2c	956	946	10	4-6	x				
	467303	1343825	AD-2c	956	946	10	6-8	x				
	467303	1343825	AD-2c	956	946	10	8-10	x				
	467324	1343931	AD-2d	956	945	11	0-2	x				
	467324	1343931	AD-2d	956	945	11	2-4	x				
	467324	1343931	AD-2d	956	945	11	4-6	x				
	467324	1343931	AD-2d	956	945	11	6-8	x				
	467324	1343931	AD-2d	956	945	11	8-11	x	x	x	x	x
MU-3	467308	1343989	AD-3a	953	945	8	0-2	x				
	467308	1343989	AD-3a	953	945	8	2-4	x				
	467308	1343989	AD-3a	953	945	8	4-6	x				
	467308	1343989	AD-3a	953	945	8	6-8	x				
	467500	1344221	AD-3b	953	943	10	0-2	x				
	467500	1344221	AD-3b	953	943	10	2-4	x				
	467500	1344221	AD-3b	953	943	10	4-6	x				
	467500	1344221	AD-3b	953	943	10	6-8	x				
	467500	1344221	AD-3b	953	943	10	8-10	x	x	x	x	x
MU-4	467632	1344360	AD-4a	953	941	12	0-2	x				
	467632	1344360	AD-4a	953	941	12	2-4	x				
	467632	1344360	AD-4a	953	941	12	4-6	x				
	467632	1344360	AD-4a	953	941	12	6-8	x				
	467632	1344360	AD-4a	953	941	12	8-10	x				
	467632	1344360	AD-4a	953	941	12	10-12	x	x	x	x	x
	467906	1344368	AD-4b	951	940	11	0-2	x				
	467906	1344368	AD-4b	951	940	11	2-4	x				
	467906	1344368	AD-4b	951	940	11	4-6	x				
	467906	1344368	AD-4b	951	940	11	6-8	x				
	467906	1344368	AD-4b	951	940	11	8-10	x	x	x	x	x
	467663	1344360	AD-4c	953	942	11	0-2	x				
	467663	1344360	AD-4c	953	942	11	2-4	x				
	467663	1344360	AD-4c	953	942	11	4-6	x				
	467663	1344360	AD-4c	953	942	11	6-8	x				
	467663	1344360	AD-4c	953	942	11	8-11	x				
MU-5	468323	1344072	AD-5b	950	942	8	0-2	x				
	468323	1344072	AD-5b	950	942	8	2-4	x				
	468323	1344072	AD-5b	950	942	8	4-6	x				
	468323	1344072	AD-5b	950	942	8	6-8	x				
	468046	1344418	AD-5c	950	940	10	0-2	x				
	468046	1344418	AD-5c	950	940	10	2-4	x				
	468046	1344418	AD-5c	950	940	10	4-6	x				
	468046	1344418	AD-5c	950	940	10	6-8	x				
	468046	1344418	AD-5c	950	940	10	8-10	x	x	x	x	x
	468049	1344492	AD-5d	952	944	8	0-2	x				
	468049	1344492	AD-5d	952	944	8	2-4	x				
	468049	1344492	AD-5d	952	944	8	4-6	x				
	468049	1344492	AD-5d	952	944	8	6-8	x				
MU-6	469568	1342954	AD-6a	953	949	4	0-4	x	x	x	x	x
	469348	1343041	AD-6b	953	948	5	0-2	x				
	469348	1343041	AD-6b	953	948	5	2-5	x	x	x	x	x
	468484	1343818	AD-6c	951	944	7	0-2	x				
	468484	1343818	AD-6c	951	944	7	2-4	x				
	468484	1343818	AD-6c	951	944	7	4-7	x	x	x	x	x
MU-7	469994	1342729	AD-7a	956	952	4	0-2	x				
	469994	1342729	AD-7a	956	952	4	2-4	x	x	x	x	x
	470177	1342785	AD-7b	955	952	3	0-3	x	x	x	x	x
	470322	1342936	AD-7c	956	952	4	0-2	x				
	470322	1342936	AD-7c	956	952	4	2-4	x	x	x	x	x
	469584	1343083	AD-7d	953	950	3	0-3	x	x	x	x	x
MU-8	470895	1342267	AD-8a	956	954	2	0-2	x	x	x	x	x
MU-9	474023	1338467	AD-9b	979	974	5	0-2	x				
	474023	1338467	AD-9b	979	974	5	2-5	x	x	x	x	x

Table 3 - North Park and Marshall Lake Sediment Sample Collection Summary

Management Unit	Coordinates North	Coordinates East	Boring Numbers	Lake Level (feet MSL)	Top of Sediment (feet MSL)	Bottom of Sample (feet MSL)	Composite Sample Length (feet)	Primary Sample Number (1)	Secondary Sample Number (2)	Tertiary Sample Number (3)
MU-1	466994	1342993	AD-1a	960	958.5	955.5	3	PS-1	SS-1a	TS-1 SVOC
	466934	1343064	AD-1b	960	958.5	950.5	8		SS-1b	
	467070	1343551	***AD-1c***	960	957	948	9		SS-1d	
	466981	1343100	AD-1d	960	957	950	7		SS-1c	TS-1 VOC@10.5'
MU-2	467183	1343490	***AD-2a***	960	957	947	10	PS-2	SS-2a	TS-2 SVOC
	467269	1343522	AD-2b	960	956	947	9		SS-2b	
	467309	1343824	***AD-2c***	960	956	946	10		SS-2c	
	467304	1343937	***AD-2d***	960	956	945	11		SS-2d	TS-2 VOC@13.5'
MU-3	467606	1343995	***AD-3a***	960	953	945	8	PS-3	SS-3a	TS-3 VOC@13.5'
	467520	1344232	***AD-3b***	960	953	943	10		SS-3b	TS-3 SVOC
	467383	1344356	AD-3c	960	953	947	6		SS-3c	
	467554	1344491	AD-3d	960	953	949	4		SS-3d	
MU-4	467632	1344347	***AD-4a***	960	953	941	12	PS-4	SS-4a	TS-4 VOC @ 16'
	467899	1344375	***AD-4b***	960	951	940	11		SS-4b	TS-4 SVOC
	467666	1344355	***AD-4c***	960	953	942	11		SS-4c	
	467981	1344499	AD-4d	960	952	947	5		SS-4d	
MU-5	468405	1343868	AD-5a	960	951	948	3	**PS-5 and PS-10**	**SS-5a/10a**	**TS-5 & TS-10 SVOC**
	468320	1344087	***AD-5b***	960	950	942	8		**SS-5b/10b**	
	468043	1344417	***AD-5c***	960	950	940	10		**SS-5c/10c**	**TS-5d & TS-10d VOC @ 16.5'**
	468051	1344497	***AD-5d***	960	952	944	8		**SS-5d/10d**	
MU-6	469547	1342955	***AD-6a***	960	953	949	4	PS-6	SS-6a	TS-6 SVOC
	469351	1343022	***AD-6b***	960	952.75	947.25	5.5		SS-6b	
	469198	1343252	***AD-6c***	960	951	944	7		SS-6c	
	468481	1343817	AD-6d	960	952	948	4		SS-6d	TS-6 VOC @ 11'
MU-7	469976	1342721	***AD-7a***	960	956	952	4	PS-7	SS-7a	TS-7 SVOC
	470172	1342792	***AD-7b***	960	955	952	3		SS-7b	
	470322	1342930	***AD-7c***	960	956	952	4		SS-7c	
	469578	1343093	AD-7d	960	953	950	3		SS-7d	TS-7 VOC @ 8.5'
MU-8	470891	1342267	***AD-8a***	960	955.75	953.75	2	PS-8	SS-8a	TS-8 SVOC
	470742	1342273	AD-8b	960	955.5	953.5	2		SS-8b	
	470656	1342390	AD-8c	960	955	953	2		SS-8c	
	470523	1342544	AD-8d	960	955	953	2		SS-8d	TS-8 VOC @ 6.5'
MU-9	473975	1338461	AD-9a	989	984	982	2	PS-9	SS-9a	TS-9 SVOC
	474024	1338468	***AD-9b***	989	979	974	5		SS-9b	
	474058	1338485	AD-9c	989	979	975	4		SS-9c	
	474111	1338387	AD-9d	989	979	976	3		SS-9d	TS-9 VOC @ 13.5'

(1)	Each Primary Sample was a composite of representative sediment through the entire sample length of all four individual borings in the Management Unit, and each Primary Sample was submitted for Total Petroleum Hydrocarbons, Extractable Organic Halogens, Target Analyte List Metals, Total Polychlorinated Biphenyls, Chlordane and Chloride laboratory analyses.
(2)	A set of Secondary Samples was collected at each of the four borings in each Management Unit. Each Secondary Sample was a representative composite of the sediment through the full length of one boring, collected for potential laboratory determination of Total Petroleum Hydrocarbons, Extractable Organic Halogens and/or lead.
(3)	Two sets of Tertiary Samples were collected in each Management Unit. One set was a representative composite of the sediment through the full length of one of the four borings, collected for potential laboratory determination of Semi-Volatile Organic Compounds. The other set was a discreet sample collected for potential laboratory determination of Volatile Organic Compounds at the boring and depth below the water surface indicated.
AD-1c	Bold italic font indicates borings where samples were collected for both chemical and geotechnical analyses. From these borings, a total of 72 discreet samples were collected for determination of moisture content, and a total of 15 samples were collected for determination of grain size distribution, atterberg limits, specific gravity and organic content - loss on ignition.
MU-5	Bold font indicates location of field duplicate sample - samples labeled for laboratory identification as MU-10/PS-10, SS-10 and TS-10.

Table 4 - North Park and Marshall Lakes Sediment Sample Moisture Content Results

Management Unit	Boring Number	Sample Interval (feet)	USCS	Moisture Content
MU-1	AD-1c	0-2	CL	101.5
	AD-1c	2-4	CL	84.9
	AD-1c	4-6	CL	53.2
	AD-1c	6-9	SM	23.6
MU-2	AD-2a	0-2	CL	68
	AD-2a	2-4	CL	68.9
	AD-2a	4-6	CL	78.4
	AD-2a	6-8	CL	47.5
	AD-2a	8-10	CL	22.3
	AD-2c	0-2	CL	81.1
	AD-2c	2-4	CL	72.6
	AD-2c	4-6	CL	61.9
	AD-2c	6-8	CL-SC	46.3
	AD-2c	8-10	SC	40.8
	AD-2d	0-2	CL	82.2
	AD-2d	2-4	CL	53.5
	AD-2d	4-6	CL	46.5
	AD-2d	6-8	CL	52.5
	AD-2d	8-11	CL-SC	28.1
MU-3	AD-3a	0-2	CL	79.4
	AD-3a	2-4	CL	82.8
	AD-3a	4-6	CL	59.1
	AD-3a	6-8	CL	62.2
	AD-3b	0-2	CL	108.9
	AD-3b	2-4	CL	77.1
	AD-3b	4-6	CL	60.6
	AD-3b	6-8	CL	37.7
	AD-3b	8-10	SM	26.6
MU-4	AD-4a	0-2	CL	82.8
	AD-4a	2-4	CL	55.7
	AD-4a	4-6	CL	86.8
	AD-4a	6-8	CL	49.7
	AD-4a	8-10	CL	40.8
	AD-4a	10-12	SC	28.7
	AD-4b	0-2	CL	77.5
	AD-4b	2-4	CL	25.3
	AD-4b	4-6	CL	13.8
	AD-4b	6-8	SC	15.8
	AD-4b	8-10	SC	16.6
	AD-4c	0-2	CL	103.5
	AD-4c	2-4	CL	55.5
	AD-4c	4-6	CL	91.3
	AD-4c	6-8	CL	77.4
	AD-4c	8-11	CH	26.8
MU-5	AD-5b	CL	0-2	151.4
	AD-5b	CL	2-4	155.3
	AD-5b	CL	4-6	122.7
	AD-5b	CL	6-8	38
	AD-5c	CL	0-2	105.6
	AD-5c	CL	2-4	124.8
	AD-5c	CL	4-6	91
	AD-5c	CL	6-8	30.3
	AD-5c	CL	8-10	27.6
	AD-5d	CL	0-2	145.1
	AD-5d	CL	2-4	100.9
	AD-5d	CL	4-6	91.4
	AD-5d	CL	6-8	20.9
MU-6	AD-6a	CL	0-4	59.2
	AD-6b	ML	0-2	93.9
	AD-6b	CL	2-5	34.5
	AD-6c	CH	0-2	74.5
	AD-6c	SC	2-4	18.2
	AD-6c	CL	4-7	19.5
MU-7	AD-7a	CL	0-2	14.8
	AD-7a	GC	2-4	16.2
	AD-7b	CL	0-3	43.2
	AD-7c	CH	0-2	22.8
	AD-7c	SC	2-4	20.1
	AD-7d	CH	0-3	97.5
MU-8	AD-8a	CH-SC	0-2	36.5
MU-9	AD-9b	CL	0-2	50.3
	AD-9b	CL	2-5	34.9

Average % moisture for all samples	61
Average % moisture in top samples	80
Average % moisture in bottom samples	29

Table 5 - North Park and Marshall Lakes Sediment Geotechnical Index Property Test Results

Manage-ment Unit	Boring Number	Sample Interval (feet)	USCS	Moisture Content	Atterberg Limits Liquid Limit	Plastic Limit	Plasticity Index	Specific Gravity	Organic Content
MU-1	AD-1c	6-9	SM	23.6	24	18	8	2.66	2
MU-2	AD-2d	8-11	SM	28.1	23	16	7	2.66	1.6
MU-3	AD-3b	8-10	CL	26.6	38	22	16	2.64	2.6
MU-4	AD-4a	10-12	CL	28.7	30	17	13	2.63	2.3
	AD-4b	8-10	SM	16.6	29	17	12	2.71	1.6
MU-5	AD-5c	8-10	CL	27.6	46	25	21	2.69	3.7
MU-6	AD-6a	0-4	CL	59.2	47	22	25	2.7	4.7
	AD-6b	2-5	CL	34.5	42	23	19	2.68	4.1
	AD-6c	4-7	SC - CL	19.5	34	19	15	2.68	3.5
MU-7	AD-7a	2-4	SC - CL	16.2	31	18	13	2.81	2.1
	AD-7b	0-3	CL	43.2	38	20	18	2.65	4.4
	AD-7c	2-4	SC	20.1	26	25	11	2.66	1.4
	AD-7d	0-3	CH	97.5	59	25	34	2.68	4.2
MU-8	AD-8a	0-2	CL	36.5	40	20	20	2.67	3
MU-9	AD-9b	2-5	CL	34.9	30	20	10	2.72	2.3

Table 6 - North Park and Marshall Lakes Primary Sediment Sample Results

Analytical Parameter	TRPH-DRO (mg/Kg)	EOX (mg/Kg)	Chlordane (ug/Kg)	PCBs (ug/Kg)	Lead (mg/Kg)	Chlorides (mg/Kg)
	Draft Dredging Guideline Limits					
Primary Sample Number	120mg/Kg Unrestricted use - 200 single sample limit residential - 500 single sample non-residential	25 mg/Kg Unrestricted use - 50 single sample limit	20 ug/Kg	1000 ug/Kg	45 mg/Kg	PaDEP Safe Fill Standard 250 ppm
PS-1	**130**	<18	<22*	<43	38	91.8
PS-2	83	<16	<20	<39	39.2	52.2
PS-3	**210**	<20	<25*	<48	**49.6**	19.3
PS-4	43	<16	<21*	<41	39.1	83.8
PS-5	**180**	<21	<27*	<52	**66.7**	184
PS-10	**210**	<22	<27*	<52	**63.1**	177
PS-6	23	<18	<21*	<41	25.3	81.8
PS-7	12j	<14	<20	<38	24.9	37.1
PS-8	16	<14	<18	<34	15.8	27.1
PS-9	24	<16	<22*	<42	23.8	80.3
Mean	93.1				38.55	83.44

Table 7 - North Park Lake Secondary Sediment Sample Results

Secondary Sample Number	TRPH-DRO (mg/Kg)	Lead (mg/Kg)			TRPH-DRO (mg/Kg)	Lead (mg/Kg)
Management Unit 1 PS-1	**130**	38	**Management Unit 5 PS-5**		**180**	**66.7**
SS-1a	86			SS-5a	160	**72.6**
SS-1b	75			SS-5b	28	**59.3**
SS-1c	71			SS-5c	230	**64.3**
SS-1d	38			SS-5d	84	**78.6**
MU-1 Mean	80		MU-5 Mean		**136.4**	68.3
Management Unit 3 PS-3	**210**	**49.6**	**Management Unit 5 Duplicate PS-10**		**210**	**63.1**
SS-3a	90	**55.3**		SS-10a	140	**67.6**
SS-3b	92	**48.9**		SS-10b	110	**60.9**
SS-3c	98	**54.6**		SS-10c	97	**54.3**
SS-3d	30	**70.6**		SS-10d	230	**84.8**
MU-3 Mean	104	**55.8**	MU-10 Mean		**157.4**	**66.1**
			MU 5 &10 Mean		**146.9**	**67.2**

* Reporting Limit Exceeds required RL, but MDL was 1.1 ug/Kg or less for all analyses.

Bold font indicates result exceeds PADEP Unrestricted Use Criteria: TPH>120 mg/Kg; Lead>45 mg/Kg.

j - Indicates value reported is an estimated value, which is below Reporting Limit for analysis.

Table 8 - North Park and Marshall Lakes Primary Sediment Sample Metals Analysis Results

Sample ID	PS-1		PS-2		PS-3		PS-4		PS-5		PS-10		PS-6		PS-7		PS-8		PS-9		PADEP	PADEP
STL Sample ID	C2J040308008		C2J080101001		C2J040308001		C2J080243001		C2J040102001		C2J040102008		C2J030104008		C2J030104001		C2J010317001		C2J100102001		Safe Fill	Clean Fill
Matrix	SOLID		SOLID		SOLID		SOLID		SOLID		SOLID		SOLID		SOLID		SOLID		SOLID		Standard	Standard
Units	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	mg/Kg
Metals																						
Aluminum	8260	J	9820	J	10800	J	7900	J	13400	J	12900	J	9990	J	8630	J	7470	J	8630	J	190000	
Antimony	10.4	U	9.5	U	11.6	U	10	U	12.6	U	12.6	U	10	U	9.2	U	8.4	U	10.2	U	27.00	3
Arsenic	**7.5**		**6.9**		**8.5**		**8.8**		**11.7**		**11.9**		**8.9**		**7.5**		**6.5**		**7.2**		12	**0.3**
Barium	105		113		128		101		171		167		148		118		86.7		123		8200	500
Beryllium	**1.4**	**J**	**1.4**	**J**	**1.5**	**J**	**1.2**	**J**	**1.7**	**J**	**1.8**	**J**	**1.5**	**J**	**1.3**	**J**	**1.1**	**J**	**1.2**	**J**	320	**0.1**
Cadmium	0.37	B	0.17	B	0.24	B	0.19	B	0.49	B	0.42	B	0.14	B	0.049	B	0.7	U	0.089	B	38	2
Calcium	3130	J	1910	J	2390	J	1730	J	2740	J	2750	J	1830	J	1420	J	1290	J	1320	J	NS	
Chromium	17.6		16.7		19.7		14.8		22.9		22.5		16.3		17.8		12.9		15		19000	70
Cobalt	10.9		10.8		12.4		9.7		14.2		14		11		10.7		9.5		10.4		24	470
Copper	21.9		18.7		24.1		18.1		29.1		28.7		19		16.3		12.3		14.7		4300	100
Iron	23300		23400		27300		22700		32900		33000		26300		26100		21600		24100		66000	
Lead	**38**		**39.2**		**49.6**		**39.1**		**66.7**		**63.1**		**25.3**		**24.9**		15.8		**23.8**		450	**20**
Magnesium	2220		2310		2670		1850		3090		3050		2330		2020		1810		2000		NS	
Manganese	**623**		**579**		**741**		**642**		**930**		**948**		**438**		**564**		**609**		**502**		31000	**40**
Mercury	0.087		0.097	J	0.11		0.1	J	0.12		0.12		0.1		0.073		0.043	B	0.055	B	10	2
Nickel	19.9		**20.4**		**23.8**		16.6		**27.9**		**27.5**		**20.8**		18.7		15.7		19.2		650	**20**
Potassium	481	B	664	B	777	B	405	B	1010	B	914	B	558	B	464	B	460	B	666	B	NS	
Selenium	0.77	B	0.73	B	0.91	B	0.84	U	0.94	B	1.3		0.83	B	0.49	B	0.67	B	0.49	B	26	6
Silver	0.17	B	0.18	B	0.2	B	0.13	B	0.3	B	0.29	B	0.13	B	0.13	B	0.13	B	0.12	B	84	40
Sodium	162	B	91.2	B	213	B	126	B	246	B	261	B	127	B	91.4	B	71	B	146	B	NS	
Thallium	1.7	U	1.6	U	1.9	U	1.7	U	2.1	U	2.1	U	1.7	U	1.5	U	1.4	U	1.7	U	14	0.6
Vanadium	18.5		18.8		20.8		18.2		26.4		26		20.9		17.9		16.3		16.8		1500	
Zinc	**129**	J	**110**	J	**142**	J	98.3	J	**162**	J	**159**	J	92.4	J	82.3	J	52.4	J	85.1	J	7500	**100**

x	**Shading** with bold font indicates result exceeds PADEP Clean Fill Criterion.
U	= Non-Detect result. Analyte not detected at Reporting Limit listed. Method Detection Limit was below Safe Fill value.
B	=Estimated result. Result is less than Reporting Limit.
J	= Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Table 9 - Descriptive Statistic Summary of Total Petroleum Hydrocarbon Concentrations in North Park Lake Sediments

Data Set	PS-1 thru 8 & PS-10	PS-1 thru 4; PS-6 thru 8; (PS-5+10)/2	SS-1a thru 1d	SS-3a thru 3d	SS-5a thru 5d; SS-10a thru 10d	PS-2, 4, 6, 7, 8; SS means MU-1, MU-3, MU-5	PS-1; SS-1a thru 1d	PS-3; SS-3a thru 3d	PS-5; PS-10; SS-5a thru 5d; SS-10a thru 10d	PS-2, 4, 6, 7, 8; PS&SS means MU-1, MU-3, MU-5	All North Park Lake Samples
Statistic											
Mean	100.8	89.0	67.5	77.5	134.9	57.1	80	104	146.9	63.5	102.6
Median	83.0	63.0	73	91	125	55.3	75	92	150	61.5	90.0
Standard Deviation	83.5	80.5	20.7	31.8	70.5	42.0	33.2	65.4	67.5	48.1	67.9
Sample Variance	6970.2	6474.9	427	1014	4974.1	1764.1	1102	4272	4561.4	2316.8	4613.2
Range	198.0	198.0	48	68	202	123.0	92	180	202	134.9	218.0
Minimum	12.0	12.0	38	30	28	12.0	38	30	28	12.0	12.0
Maximum	210.0	210.0	86	98	230	135.0	130	210	230	146.9	230.0
Count	9.0	8.0	4	4	8	8.0	5	5	10	8.0	25.0
Largest(1)	210.0	210.0	86	98	230	135.0	130	210	230	146.9	230.0
Smallest(1)	12.0	12.0	38	30	28	12.0	38	30	28	12.0	12.0
Confidence Level(95.0%)	64.2	67.3	32.9	50.7	59.0	35.1	41.2	81.2	48.3	40.2	28.0
Mean Concentration 95% UCL	**165**	**156**	100	128	194	92	121	185	195	**104**	**131**

TPH Concentration Data (Each column of numbers below is the data set for the calculation above)

130	130	86	90	160	67.5	130	210	180	80	Primary
83	83	75	92	28	83	86	90	160	83	Samples 1
210	210	71	98	230	77.5	75	92	28	104	thru 8, 10
43	43	38	30	84	43	71	98	230	43	plus the
180	195			140	135	38	30	84	146.9	four sets of
210	23			110	23			210	23	four
23	12			97	12			140	12	Secondary
12	16			230	16			110	16	Sample
16								97		results
								230		

Table 10 - Descriptive Statistic Summary of Total Petroleum Hydrocarbon Concentrations in North Park and Marshall Lake Sediments

Data Set	PS-1 thru PS-10	PS-1 thru PS-4; PS-6 thru PS-9; (PS-5+PS-10)/2	SS-1a thru 1d	SS-3a thru 3d	SS-5a thru 5d; SS-10a thru 10d	PS-2, 4, 6, 7, 8, 9; SS means MU-1, MU-3, MU-5	PS-1; SS-1a thru 1d	PS-3; SS-3a thru 3d	PS-5; PS-10; SS-5a thru 5d; SS-10a thru 10d	PS-2, 4, 6, 7, 8, 9; PS&SS means MU-1, MU-3, MU-5	All Samples
Statistic											
Mean	93.1	81.8	67.5	77.5	134.9	53.4	80	104	146.9	59.1	99.6
Median	63	43	73	91	125	43	75	92	150	43	88
Standard Deviation	82.4	78.3	20.7	31.8	70.5	40.8	33.2	65.4	67.5	46.9	68.3
Sample Variance	6785.2	6134.9	427	1014	4974.1	1665.5	1102	4272	4561.4	2200.4	4666.5
Range	198	198	48	68	202	123	92	180	202	134.9	218
Minimum	12	12	38	30	28	12	38	30	28	12	12
Maximum	210	210	86	98	230	135	130	210	230	146.9	230
Count	10	9	4	4	8	9	5	5	10	9	26
Largest(1)	210	210	86	98	230	135	130	210	230	146.9	230
Smallest(1)	12	12	38	30	28	12	38	30	28	12	12
Confidence Level(95.0%)	58.9	60.2	32.9	50.7	59.0	31.4	41.2	81.2	48.3	36.1	27.6
Mean Concentration 95% UCL	**152**	**142**	100	128	194	**85**	121	185	195	**95**	**127**

TPH Concentration Data (Each column of numbers below is the data set for the calculation above)

130	130	86	90	160	67.5	130	210	180	80	Primary Samples 1 thru 10 plus the four sets of four Secondary Samples
83	83	75	92	28	83	86	90	160	83	
210	210	71	98	230	77.5	75	92	28	104	
43	43	38	30	84	43	71	98	230	43	
180	195			140	135	38	30	84	146.9	
210	23			110	23			210	23	
23	12			97	12			140	12	
12	16			230	16			110	16	
16	24				24			97	24	
24								230		

Table 11 - Descriptive Statistic Summary of Total Lead Concentrations in North Park Lake Sediments

Data Set	PS-1 thru 8 & PS-10	PS-1 thru 4; PS-6 thru 8; (PS-5+10)/2	SS-3a thru 3d	SS-5a thru 5d; SS-10a thru 10d	PS-1, 2, 4, 6, 7, 8; SS means MU-3, MU-5	PS-3; SS-3a thru 3d	PS-5; PS-10; SS-5a thru 5d; SS-10a thru 10d	PS-1, 2, 4, 6, 7, 8; PS&SS means MU-3, MU-5	All North Park Lake Samples
Statistic									
Mean	40.2	37.1	57.4	67.8	38.4	55.8	67.2	38.2	54.0
Median	39.1	38.6	55.0	66.0	38.6	54.6	65.5	38.6	55.3
Standard Deviation	17.2	15.5	9.3	10.3	17.3	8.8	9.2	16.9	18.2
Sample Variance	296.7	240.0	86.2	106.2	298.5	76.7	84.8	285.5	333.0
Range	50.9	49.1	21.7	30.5	52.0	21.7	30.5	51.4	69.0
Minimum	15.8	15.8	48.9	54.3	15.8	48.9	54.3	15.8	15.8
Maximum	66.7	64.9	70.6	84.8	67.8	70.6	84.8	67.2	84.8
Count	9.0	8.0	4.0	8.0	8.0	5.0	10.0	8.0	21.0
Largest(1)	66.7	64.9	70.6	84.8	67.8	70.6	84.8	67.2	84.8
Smallest(1)	15.8	15.8	48.9	54.3	15.8	48.9	54.3	15.8	15.8
Confidence Level(95.0%	13.2	13.0	14.8	8.6	14.4	10.9	6.6	14.1	8.3
Mean Concentration 95% UCL	**52.3**	**51.5**	69.7	74.6	**53.0**	65.5	72.1	**52.7**	**62.3**

Lead Concentration Data (Each column of numbers below is the data set for the calculation above)

38	38	55.3	72.6	38	49.6	66.7	38	Primary Samples 1 thru 8, 10 and the four sets of four Secondary Sample results
39.2	39.2	48.9	59.3	39.2	55.3	72.6	39.2	
49.6	**49.6**	54.6	64.3	57.35	48.9	59.3	55.8	
39.1	39.1	70.6	78.6	39.1	54.6	64.3	39.1	
66.7	**64.9**		67.6	67.8	70.6	78.6	67.22	
63.1	25.3		60.9	25.3		63.1	25.3	
25.3	24.9		54.3	24.9		67.6	24.9	
24.9	15.8		84.8	15.8		60.9	15.8	
15.8						54.3		
						84.8		

Table 12 - Descriptive Statistic Summary of Total Lead Concentrations in North Park and Marshall Lake Sediments

Data Set	PS-1 thru PS-10	PS-1 thru PS-4; PS-6 thru PS-9; (PS-5+PS-10)/2	SS-3a thru 3d	SS-5a thru 5d; SS 10a thru 10d	PS-1, 2, 4, 6, 7, 8, 9; SS means MU-3, MU-5	PS-3; SS-3a thru 3d	PS-5; PS-10; SS-5a thru 5d; SS-10a thru 10d	PS-1, 2, 4, 6, 7, 8, 9; PS&SS means MU-3, MU-5	All Samples
Statistic									
Mean	38.6	35.6	57.4	67.8	36.8	55.8	67.2	36.6	52.6
Median	38.6	38.0	55.0	66.0	38.0	54.6	65.5	38.0	55.0
Standard Deviation	17.0	15.2	9.3	10.3	16.9	8.8	9.2	16.5	18.9
Sample Variance	290.6	229.7	86.2	106.2	285.0	76.7	84.8	272.8	358.6
Range	50.9	49.1	21.7	30.5	52.0	21.7	30.5	51.4	69.0
Minimum	15.8	15.8	48.9	54.3	15.8	48.9	54.3	15.8	15.8
Maximum	66.7	64.9	70.6	84.8	67.8	70.6	84.8	67.2	84.8
Count	10.0	9.0	4.0	8.0	9.0	5.0	10.0	9.0	22.0
Largest(1)	66.7	64.9	70.6	84.8	67.8	70.6	84.8	67.2	84.8
Smallest(1)	15.8	15.8	48.9	54.3	15.8	48.9	54.3	15.8	15.8
Confidence Level(95.0%)	12.2	11.6	14.8	8.6	13.0	10.9	6.6	12.7	8.4
Mean Concentration 95% UCL	**50.7**	**47.3**	72.1	76.4	**49.8**	66.7	73.8	**49.3**	**61.0**

Lead Concentration Data (Each column of numbers below is the data set for the calculation above)

38	38	55.3	72.6	38	49.6	66.7	38	Primary
39.2	39.2	48.9	59.3	39.2	55.3	72.6	39.2	Samples 1
49.6	**49.6**	54.6	64.3	57.35	48.9	59.3	55.8	thru 10 and
39.1	39.1	70.6	78.6	39.1	54.6	64.3	39.1	the four
66.7	**64.9**		67.6	67.8	70.6	78.6	67.22	sets of four
63.1	25.3		60.9	25.3		63.1	25.3	Secondary
25.3	24.9		54.3	24.9		67.6	24.9	Sample
24.9	15.8		84.8	15.8		60.9	15.8	results
15.8	23.8			23.8		54.3	23.8	
23.8						84.8		