
Appendix D
Dredge Sediment Sampling and Testing

III. TEST ADMINISTRATION

A. Sponsor

French and Parrello Associates
1800 Route 34, Suite 101
Wall, NJ 07719

B. Testing Facilities

Aqua Survey, Inc. (ASI)
469 Point Breeze Road
Flemington, NJ 08822

CHEMTECH Environmental Laboratory
284 Sheffield Street
Mountainside, NJ 07092

Enthalpy Analytical
2714 Exchange Drive
Wilmington, NC 28405

C. Dates of Experimentation

Date of Study Initiation: March 29, 2019
Date of Study Completion: May 28, 2019

D. Study Participants

Jon Doi, Ph.D.	Executive Vice President
Thomas Dolce	Field Operations Manager
Robert Fristrom	Field Operations Specialist
Cheryl Hall	Quality Assurance Officer
Liz Horn	Staff Scientist
Erik Knudsen	Field Operations Support
Kevin Sondag	Field Operations Specialist
Michelle Thomas	Laboratory Manager

IV. MATERIALS AND METHODS

All sampling and testing were performed in accordance with the technical manual “The Management and Regulation of Dredging Activities and Dredged Material in New Jersey’s Tidal Waters” (NJDEP Dredging Manual), October 1997, and a New Jersey Dredging Projects SSAP approved by NJDEP on March 15, 2019.

A. Sampling

Test sediments from 15 locations, site water, and a field blank were collected by Aqua Survey personnel from South Amboy Ferry Terminal, South Amboy, NJ, on March 29, and April 1, 2019. The vessel used for sampling, the R/V Schuylkill, was positioned using a Trimble NT200D Differential Global Positioning System (DGPS). Sediment collection was performed using a Rossfelder P-3 vibracore with flexible plastic core liners. The project depth was -14.0 feet, including 2 foot overdredge.

The core samples collected were inspected and photographed. Characteristics were recorded on Sediment Core Logs. All samples were assigned unique ASI sample numbers. These samples were received on ice under chain of custody and were stored at 2-4 °C.

See Figure 1 for site map and Table 1 for DGPS coordinates.

The appendices contain all supporting documentation including sediment core logs (Appendix A), photographs (Appendix B), chains of custody (Appendix C), sample use forms (Appendix D), grain size distribution and percent moisture (Appendix E), and TOC raw data (Appendix F).

B. Homogenizing and Compositing

Each of the core samples was carefully homogenized using a stainless steel mixer. This procedure followed the specific guidelines found on pages 9-11 and in Appendix A of the Dredging Manual and in ASI’s standard operating procedure SOP/PRP/008. Samples were mixed until uniform in color and texture. Two composites were formed from the core samples. All sample identification numbers can be found in Table 2.

Since it is proposed that some of the dredged material may be treated with stabilizing materials, which will alter its chemical and physical composition, aliquots of the composite samples were treated in a manner to simulate this stabilization process. A standard commercial brand of Portland cement was used in creating the amended composite samples. Aliquots of the composites were blended with Portland cement (8% by weight) for approximately 5 minutes using a power drill and mixing paddle. Sub-samples of these composites were reserved for the appropriate chemical and physical analyses.

Sub-samples of each of the samples, both individual cores and the composites, were reserved for the appropriate physical and chemical analyses.

C. Physical and Total Organic Carbon Analysis

Guidance followed for percent moisture and grain size analysis was the *Standard Test Method for Particle-Size Analysis of Soils*, Designation ASTM D422-63, reapproved 2007. See Appendix E for the grain size distribution and percent moisture raw data.

Total Organic Carbon (TOC) was also determined based on the guidance from EPA Office of Solids Waste and Emergency Response SW-846 Method No. 9060 (Volume IC, Chapter 5, Revision 0, 9/86). The instrument for this analysis was the Dohrmann TOC Boat Sampler, Model 183 (Serial number 98202003), which was connected to the Dohrmann Apollo 9000 TOC Analyzer. Raw data and a standard reference material control chart can be found in Appendix F.

D. Chemical Analyses

Sub-samples of the composites, modified elutriates, site water and the field blank were shipped to the analytical laboratories by overnight courier. Following chain-of-custody procedures, the samples were placed in jars and shipped in coolers with ice packs.

CHEMTECH Environmental Laboratory performed the chemical analysis of the sediment, site water, modified elutriate, SPLP, and field blank for all required parameters. The CHEMTECH results are reported in tables in this volume. The full CHEMTECH results, including CHEMTECH Quality Assurance data, can be found in Volume II.

Enthalpy Analytical Services performed the Dioxin/Furan analysis of the sediment, site water, modified elutriate, SPLP, and field blank. The Enthalpy dioxin/Furan results are reported in tables in this volume, and the full results including Enthalpy Quality Assurance data, can be found in Volume III.

V. PHYSICAL AND CHEMICAL ANALYSIS RESULTS

The results of the analyses are as follows:

- Table 3: Physical Analyses (Grain Size Distribution, Percent Moisture and TOC)
- Tables 4a-e: Bulk Sediment, NJDEP Residential and Non-Residential SRS
- Tables 5a-e: Bulk Sediment Dioxins/Furans, NJDEP SRS
- Tables 6a-b: SPLP Leachates, NJDEP Class II Groundwater
- Tables 7a-b: SPLP Leachates Dioxins/Furans, NJDEP Class II Groundwater
- Tables 8a-e: Modified Elutriates, NJDEP Surface Water, Acute
- Tables 9a-e: Modified Elutriates, NJDEP Surface Water, Chronic
- Tables 10a-e: Modified Elutriates Dioxins/Furans, NJDEP Surface Water, WHO TEFs/TEQ
- Table 11: Site Water and Field Blank

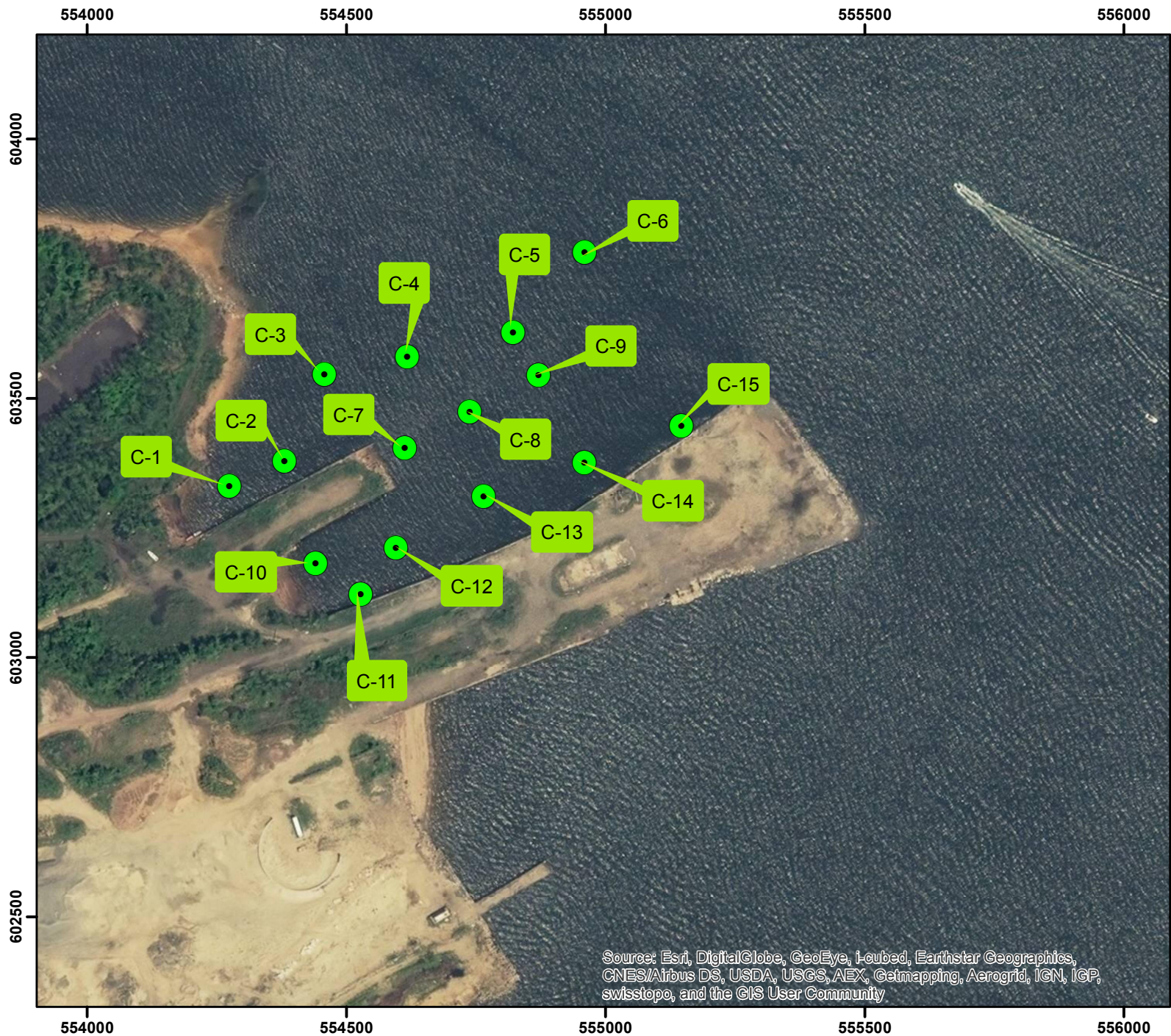
Table 1 DGPS Coordinates

Location	Northings	Eastings
C-1	603330.9	554274.3
C-2	603379.7	554380.4
C-3	603546.8	554457.5
C-4	603580.6	554617.6
C-5	603627.3	554821.8
C-6	603781.6	554959.6
C-7	603403.9	554612.6
C-8	603474.2	554737.9
C-9	603544.3	554870.5
C-10	603181.6	554440.1
C-11	603122.2	554527.8
C-12	603211.8	554595.3
C-13	603311.4	554765.4
C-14	603375.7	554959.4
C-15	603446.7	555146.5
Site Water	603385.7	554755.5

Table 2 Sample Identification and Compositing Scheme

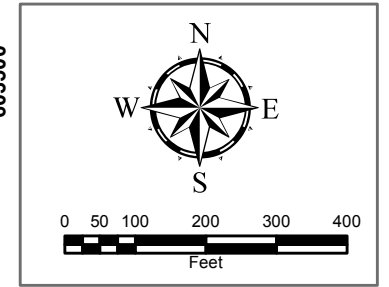
Location	Sample ID No.	Compositing Scheme	
C-1	20190152	Composite CS-1 20190169	Amended Composite CS-1 20190174
C-2	20190153		
C-3	20190154		
C-4	20190155	Composite CS-2 20190170	Amended Composite CS-2 20190175
C-5	20190156		
C-6	20190157		
C-7	20190158	Composite CS-3 20190171	Amended Composite CS-3 20190176
C-8	20190159		
C-9	20190160		
C-10	20190161	Composite CS-4 20190172	Amended Composite CS-4 20190177
C-11	20190162		
C-12	20190163		
C-13	20190164	Composite CS-5 20190173	Amended Composite CS-5 20190178
C-14	20190165		
C-15	20190166		
Field Blank	20190167		
Site Water	20190168		

Figure 1. Site Map



French and Parello
 South Amboy Ferry Terminal
 Sample Locations - Map

ASI Project: 39-050
 Coordinate System:
 State Plane NAD 83
 New Jersey US Survey Foot




Aqua Survey, Inc.
 469 Point Breeze Rd.
 Flemington, NJ 08822
 Tel: (908) 788-8700
 Fax: (908) 788-9165
 www.AquaSurvey.com

Table 3 Grain Size Distribution, Percent Moisture and TOC

Sample ID	ASI #	% Gravel	% Sand	% Silt	% Clay	% Moisture	TOC ppm	% TOC of Dry Weight
C-1	20190152	0.0	14.7	63.9	21.4	47.83	76,435	7.64
C-2	20190153	3.7	14.3	57.9	24.1	53.16	51,481	5.15
C-3	20190154	0.0	8.7	64.4	26.9	53.77	49,691	4.97
Composite CS-1	20190169	1.7	9.9	67.6	20.8	51.49	53,163	5.32
C-4	20190155	0.0	2.7	69.7	27.6	57.83	44,326	4.43
C-5	20190156	0.0	4.0	61.3	34.7	58.89	44,380	4.44
C-6	20190157	0.0	5.4	62.6	32.0	59.15	40,147	4.01
Composite CS-2	20190170	0.0	5.5	69.6	24.9	59.37	42,981	4.30
C-7	20190158	0.7	14.3	64.4	20.6	54.62	39,789	3.98
C-8	20190159	0.4	14.7	63.1	21.8	55.33	46,353	4.64
C-9	20190160	0.0	4.3	68.3	27.4	58.69	46,976	4.70
Composite CS-3	20190171	0.3	9.1	68.8	21.8	57.98	42,548	4.25
C-10	20190161	8.5	64.4	15.1	12.0	28.48	42,295	4.23
C-10	20190161 dup	12.6	61.5	14.3	11.6			
C-10	20190161 trp	9.7	62.7	16.8	10.8			
C-11	20190162	0.0	12.9	63.1	24.0	54.80	45,578	4.56
C-12	20190163	0.0	2.4	72.0	25.6	58.47	51,102	5.11
Composite CS-4	20190172	3.3	36.4	42.6	17.7	43.69	61,030	6.10
C-13	20190164	0.0	6.3	66.4	27.3	62.82	40,364	4.04
C-14	20190165	1.1	12.1	64.4	22.4	59.01	48,646	4.86
C-15	20190166	4.3	43.2	34.4	18.1	43.47	34,257	3.43
Composite CS-5	20190173	7.9	39.1	35.9	17.1	47.48	37,931	3.79
Composite CS-5	20190173 dup					46.91		
Composite CS-5	20190173 trp					47.25		



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: RF		
Job#: 39-050	Date: 3/29/19	Time: 1250	Crew: KS				
Coordinates:	N 603330.9	E 554274.3	Vessel: Schuylkill				
Core #: C-1	Zone: NJ	Datum NAD 83	Deploy:		1	2	
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0			Core Penetration Length (ft.):		12.5		
Measured Water Depth [MWD] [ft.]: 1.1			Recovered Core Length (ft.):		10.3		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 3.1			Sample Length Retained (ft.):		10.3		
Corrected Depth @ MLLW [ft.]: -2.0			Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.] 0.2			Collected to Project Depth:		Y / N		
Corrected Depth @ MLW [ft.]: -1.8							
Required Sample Core Length [SCL] [ft.]: 15.8							
All Length Measurements are in Decimal Feet							
Sample Interval (ft.)		Sample Id #		Description			
Top	0.0	20190152		0 - 0.5 Sandy dark grey silt 0.5 - 10.3 Dark grey silt, trace sand with pieces of wood & organic debris throughout. Sheen & slight petro odor noticed when bucketing.			
↓	10.3						
Bottom							
# of containers:		1		Core Volumes			
Type of container:		bucket	hardliner	cup	other	Nominal core-barrel diameter	
Conditions:				EST. Volume			
Comments: Too shallow to get closer. Very close to refusal. Head was at surface of sediment.				3.0"		.25 gal/ft	
				3.5" 8.0"		.33 gal/ft	
				4.0"		.50 gal/ft	
				Liner Type: Soft Hard			
				Vibracorer: P3 P5 VT6 Other			
Live Organisms Present		N		Pushcorer			Slambar
Oil Present		N		Eckman			Ponar: Standard / Petite
Odor Present		Y		Box Core			
Debris Present		Y					
Within 10% of Req'd Core Length		N					
Photo		Y					
MLW #td ver 030615							



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello			Project : South Amboy Ferry Terminal			Logger: RF						
Job#: 39-050		Date: 3/29/19		Time: 0950		Crew: KS						
Coordinates:		N 603546.8		E 554457.5		Vessel: Schuylkill						
Core #: C-3		Zone: NJ		Datum NAD 83		Deploy: 1 2 3						
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0				Core Penetration Length (ft.):		12.5						
Measured Water Depth [MWD] [ft.]: 2.3				Recovered Core Length (ft.):		10.8						
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 1.0				Sample Length Retained (ft.):		10.8						
Corrected Depth @ MLLW [ft.]: 1.3				Core Volume Retained (gal.):		1.5						
+ MLW Adjustment [ft.] 0.2				Collected to Project Depth:		(Y) N						
Corrected Depth @ MLW [ft.]: 1.5												
Required Sample Core Length [SCL] [ft.]: 12.5												
All Length Measurements are in Decimal Feet												
Sample Interval (ft.)		Sample Id #		Description								
Top 0.0		20190154		Drak grey silt, gravel & organic debris @ 3.0' - 3.2', more compact w/ depth. Organic odor.								
10.8												
		Bottom										
# of containers:		1		Core Volumes								
Type of container:		bucket		hardliner		cup		other	Nominal core-barrel diameter		EST. Volume	
Conditions:				3.0"						.25 gal/ft		
				3.5"		8.0"				.33 gal/ft		
Comments:				(4.0')						.50 gal/ft		
				Liner Type: (Soft) Hard								
				Vibracorer: (P3) P5 VT6 Other								
Live Organisms Present		N		Pushcorer		Slambar						
Oil Present		N										
Odor Present		Y		Eckman		Ponar: Standard / Petite						
Debris Present		N										
Within 10% of Req'd Core Length		Y										
Photo		Y		Box Core								
<i>MI W #td ver 030615</i>												



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: RF	
Job#: 39-050	Date: 3/29/19	Time: 1010	Crew: KS			
Coordinates:	N 603580.6	E 554617.6	Vessel: Schuylkill			
Core #: C-4	Zone: NJ	Datum NAD 83	Deploy:		1	2
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0		Core Penetration Length (ft.):		12.5		
Measured Water Depth [MWD] [ft.]: 3.7		Recovered Core Length (ft.):		10.4		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 1.2		Sample Length Retained (ft.):		10.4		
Corrected Depth @ MLLW [ft.]: 2.5		Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.] 0.2		Collected to Project Depth:		(Y) N		
Corrected Depth @ MLW [ft.]: 2.7						
Required Sample Core Length [SCL] [ft.]: 11.3						
All Length Measurements are in Decimal Feet						
Sample Interval (ft.)	Sample Id #	Description				
Top 0.0	20190155	Dark grey silt, more compact w/ depth, trace sand				
10.4						
↓						
Bottom						
# of containers:	1				Core Volumes	
Type of container:	bucket	hardliner	cup	other	Nominal core-barrel diameter	EST. Volume
Conditions:					3.0"	.25 gal/ft
Comments:					3.5" 8.0"	.33 gal/ft
					(4.0")	.50 gal/ft
					Liner Type: (Soft) Hard	
				Vibracorer: (P3) P5 VT6 Other		
Live Organisms Present	N	Pushcorer Slambar				
Oil Present	N					
Odor Present	N	Eckman Ponar: Standard / Petite				
Debris Present	N					
Within 10% of Req'd Core Length	Y	Box Core				
Photo	Y					
MLW #td ver 030615						



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: RF		
Job#: 39-050	Date: 3/29/19	Time: 1040	Crew: KS				
Coordinates:	N 603627.3	E 554821.8	Vessel: Schuylkill				
Core #: C-5	Zone: NJ	Datum NAD 83	Deploy:		1	2	
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0			Core Penetration Length (ft.):		10.2		
Measured Water Depth [MWD] [ft.]: 5.3			Recovered Core Length (ft.):		7.6		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 1.5			Sample Length Retained (ft.):		7.6		
Corrected Depth @ MLLW [ft.]: 3.8			Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.]: 0.2			Collected to Project Depth:		(Y) N		
Corrected Depth @ MLW [ft.]: 4.0							
Required Sample Core Length [SCL] [ft.]: 10.0							
All Length Measurements are in Decimal Feet							
Sample Interval (ft.)		Sample Id #		Description			
Top	0.0	20190156		Dark grey silt, some organic debris & trace sand, more compact w/ depth			
↓	7.6						
Bottom							
# of containers:		1		Core Volumes			
Type of container:		bucket	hardliner	cup	other	Nominal core-barrel diameter	EST. Volume
Conditions:				3.0"		.25 gal/ft	
Comments:				3.5" 8.0"		.33 gal/ft	
				(4.0)		.50 gal/ft	
				Liner Type: (Soft) Hard			
				Vibracorer: (P3) P5 VT6 Other			
Live Organisms Present		N		Pushcorer			Slambar
Oil Present		N		Eckman			Ponar: Standard / Petite
Odor Present		Y		Box Core			
Debris Present		Y					
Within 10% of Req'd Core Length		Y					
Photo		Y					
MLW #td ver 030615							



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello			Project : South Amboy Ferry Terminal			Logger: RF		
Job#: 39-050		Date: 3/29/19		Time: 1100		Crew: KS		
Coordinates:		N 603781.6		E 554959.6		Vessel: Schuylkill		
Core #: C-6		Zone: NJ		Datum NAD 83		Deploy: 1 2 3		
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0				Core Penetration Length (ft.):		8.5		
Measured Water Depth [MWD] [ft.]: 9.9				Recovered Core Length (ft.):		6.1		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 1.7				Sample Length Retained (ft.):		5.6		
Corrected Depth @ MLLW [ft.]: 8.2				Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.]: 0.2				Collected to Project Depth:		(Y) N		
Corrected Depth @ MLW [ft.]: 8.4								
Required Sample Core Length [SCL] [ft.]: 5.6								
All Length Measurements are in Decimal Feet								
Sample Interval (ft.)		Sample Id #		Description				
Top 0.0		20190157		Dark grey silt with some gravel & organic debris				
5.6								
↓								
Bottom								
# of containers:		1		Core Volumes				
Type of container:		bucket		hardliner		cup		other
Conditions:				Nominal core-barrel diameter		EST. Volume		
				3.0"		.25 gal/ft		
				3.5" 8.0"		.33 gal/ft		
Comments:				(4.0)		.50 gal/ft		
				Liner Type: (Soft) Hard				
				Vibracorer: (P3) P5 VT6 Other				
Live Organisms Present		N		Pushcorer Slambar				
Oil Present		N						
Odor Present		N		Eckman Ponar: Standard / Petite				
Debris Present		Y		Box Core				
Within 10% of Req'd Core Length		Y						
Photo		Y						
MLW #td ver 030615								



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello			Project : South Amboy Ferry Terminal			Logger: RF		
Job#: 39-050		Date: 3/29/19		Time: 1130		Crew: KS		
Coordinates:		N 603403.9		E 554612.6		Vessel: Schuylkill		
Core #: C-7		Zone: NJ		Datum NAD 83		Deploy: 1 2 3		
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0				Core Penetration Length (ft.):		9.5		
Measured Water Depth [MWD] [ft.]: 4.2				Recovered Core Length (ft.):		7.1		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 2.1				Sample Length Retained (ft.):		7.1		
Corrected Depth @ MLLW [ft.]: 2.1				Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.]: 0.2				Collected to Project Depth:		Y (N)		
Corrected Depth @ MLW [ft.]: 2.3								
Required Sample Core Length [SCL] [ft.]: 11.7								
All Length Measurements are in Decimal Feet								
Sample Interval (ft.)		Sample Id #		Description				
Top 0.0		20190158		Dark grey silt, more compact w/ depth, trace sand & organic debris mixed throughout				
7.1								
		Bottom						
# of containers: 1				Core Volumes				
Type of container: bucket hardliner cup other				Nominal core-barrel diameter		EST. Volume		
Conditions: Breezy 5-10 kts.				3.0"		.25 gal/ft		
				3.5" 8.0"		.33 gal/ft		
Comments: Refusal				(4.0")		.50 gal/ft		
				Liner Type: (Soft) Hard				
				Vibracorer: (P3) P5 VT6 Other				
Live Organisms Present		N		Pushcorer Slambar				
Oil Present		N						
Odor Present		Y		Eckman Ponar: Standard / Petite				
Debris Present		Y						
Within 10% of Req'd Core Length		Y		Box Core				
Photo		Y						
MLW #td ver 030615								



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello			Project : South Amboy Ferry Terminal			Logger: RF		
Job#: 39-050		Date: 3/29/19		Time: 1220		Crew: KS		
Coordinates:		N 603544.3		E 554870.5		Vessel: Schuylkill		
Core #: C-9		Zone: NJ		Datum NAD 83		Deploy: 1 2 3		
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0				Core Penetration Length (ft.):		11.0		
Measured Water Depth [MWD] [ft.]: 9.9				Recovered Core Length (ft.):		9.0		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 2.8				Sample Length Retained (ft.):		6.7		
Corrected Depth @ MLLW [ft.]: 7.1				Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.] 0.2				Collected to Project Depth:		(Y) N		
Corrected Depth @ MLW [ft.]: 7.3								
Required Sample Core Length [SCL] [ft.]: 6.7								
All Length Measurements are in Decimal Feet								
Sample Interval (ft.)		Sample Id #			Description			
Top 0.0		20190160			Dark grey silt, some gravel & sand throughout			
6.7								
Bottom								
# of containers:		1			Core Volumes			
Type of container:		bucket hardliner cup other			Nominal core-barrel diameter		EST. Volume	
Conditions:					3.0"		.25 gal/ft	
					3.5" 8.0"		.33 gal/ft	
Comments:					(4.0)		.50 gal/ft	
					Liner Type: (Soft) Hard			
					Vibracorer: (P3) P5 VT6 Other			
Live Organisms Present		N						
Oil Present		N			Pushcorer		Slambar	
Odor Present		Y						
Debris Present		Y			Eckman		Ponar: Standard / Petite	
Within 10% of Req'd Core Length		Y						
Photo		Y			Box Core			
					MLW #td ver 030615			



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: KS	
Job#: 39-050	Date: 4/1/19	Time: 1007	Crew: EK			
Coordinates:	N 603181.6	E 554440.1	Vessel: Schuylkill			
Core #: C-10	Zone: NJ	Datum NAD 83	Deploy:		1	2
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0		Core Penetration Length (ft.):		13.0		
Measured Water Depth [MWD] [ft.]: 1.8		Recovered Core Length (ft.):		10.0		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 2.0		Sample Length Retained (ft.):		10.0		
Corrected Depth @ MLLW [ft.]: -0.2		Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.] 0.2		Collected to Project Depth:		Y / (N)		
Corrected Depth @ MLW [ft.]: 0.0						
Required Sample Core Length [SCL] [ft.]: 14.0						
All Length Measurements are in Decimal Feet						
Sample Interval (ft.)	Sample Id #	Description				
Top 0.0	20190161	Dark grey/black silty sand				
4.1						
6.0						
10.0		Dark greyish-brown sand				
		Dark grey/black sandy silt w/ some rocks. Firmer w/ depth.				
Bottom						
# of containers:	1				Core Volumes	
Type of container:	bucket	hardliner	cup	other	Nominal core-barrel diameter	EST. Volume
Conditions:					3.0"	.25 gal/ft
					3.5" 8.0"	.33 gal/ft
Comments:					(4.0")	.50 gal/ft
					Liner Type: (Soft) Hard	
					Vibracorer: (P3) P5 VT6 Other	
Live Organisms Present	N	Pushcorer		Slambar		
Oil Present	N					
Odor Present	Y	Eckman		Ponar: Standard / Petite		
Debris Present	N					
Within 10% of Req'd Core Length	N	Box Core				
Photo	Y					
MLW #td ver 030615						



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: KS	
Job#: 39-050	Date: 4/1/19	Time: 1116	Crew: EK			
Coordinates:	N 603211.8	E 554595.3	Vessel: Schuylkill			
Core #: C-12	Zone: NJ	Datum NAD 83	Deploy:		1	2
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0			Core Penetration Length (ft.):		12.5	
Measured Water Depth [MWD] [ft.]: 4.5			Recovered Core Length (ft.):		9.6	
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 1.0			Sample Length Retained (ft.):		9.6	
Corrected Depth @ MLLW [ft.]: 3.5			Core Volume Retained (gal.):		1.5	
+ MLW Adjustment [ft.] 0.2			Collected to Project Depth:		(Y) N	
Corrected Depth @ MLW [ft.]: 3.7						
Required Sample Core Length [SCL] [ft.]: 10.3						
Sample Interval (ft.)		Sample Id #		Description		
Top	0.0	20190163		Soft, dark grey/black silt w/ trace sand. Firmer w/ depth.		
↓	9.6					
Bottom						
# of containers:		1		Core Volumes		
Type of container:		bucket	hardliner	cup	other	Nominal core-barrel diameter
Conditions:						EST. Volume
				3.0"		.25 gal/ft
				3.5" 8.0"		.33 gal/ft
Comments:				(4.0)		.50 gal/ft
				Liner Type: (Soft) Hard		
				Vibracorer: (P3) P5 VT6 Other		
Live Organisms Present		N		Pushcorer		
Oil Present		N		Slambar		
Odor Present		Y		Eckman		
Debris Present		N		Ponar: Standard / Petite		
Within 10% of Req'd Core Length		Y		Box Core		
Photo		Y				
MLW #td ver 030615						



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello			Project : South Amboy Ferry Terminal			Logger: KS			
Job#: 39-050		Date: 4/1/19		Time: 1155		Crew: EK			
Coordinates:		N 603311.4		E 554765.4		Vessel: Schuylkill			
Core #: C-13		Zone: NJ		Datum NAD 83		Deploy: 1 2 3			
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0				Core Penetration Length (ft.):		9.8			
Measured Water Depth [MWD] [ft.]: 9.0				Recovered Core Length (ft.):		7.0			
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 0.6				Sample Length Retained (ft.):		5.4			
Corrected Depth @ MLLW [ft.]: 8.4				Core Volume Retained (gal.):		1.5			
+ MLW Adjustment [ft.]: 0.2				Collected to Project Depth:		(Y) N			
Corrected Depth @ MLW [ft.]: 8.6									
Required Sample Core Length [SCL] [ft.]: 5.4									
All Length Measurements are in Decimal Feet									
Sample Interval (ft.)		Sample Id #		Description					
Top	0.0	20190164		Soft, dark grey/black silt, w/ trace sand, loose at the top. Firmer w/ depth.					
	5.4								
↓									
Bottom									
# of containers:		1		Core Volumes					
Type of container:		bucket		hardliner		cup		other	
Conditions:				Nominal core-barrel diameter		EST. Volume			
				3.0"		.25 gal/ft			
				3.5" 8.0"		.33 gal/ft			
Comments:				(4.0")		.50 gal/ft			
				Liner Type: (Soft) Hard					
				Vibracorer: (P3) P5 VT6 Other					
Live Organisms Present		N		Pushcorer		Slambar			
Oil Present		N							
Odor Present		Y		Eckman		Ponar: Standard / Petite			
Debris Present		N							
Within 10% of Req'd Core Length		Y							
Photo		Y		Box Core					
MLW #td ver 030615									



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: KS	
Job#: 39-050	Date: 4/1/19	Time: 1219	Crew: EK			
Coordinates:	N 603375.7	E 554959.4	Vessel: Schuylkill			
Core #: C-14	Zone: NJ	Datum NAD 83	Deploy:		1 2 3	
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0		Core Penetration Length (ft.):		9.0		
Measured Water Depth [MWD] [ft.]: 9.1		Recovered Core Length (ft.):		6.2		
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 0.5		Sample Length Retained (ft.):		5.2		
Corrected Depth @ MLLW [ft.]: 8.6		Core Volume Retained (gal.):		1.5		
+ MLW Adjustment [ft.] 0.2		Collected to Project Depth:		(Y) N		
Corrected Depth @ MLW [ft.]: 8.8						
Required Sample Core Length [SCL] [ft.]: 5.2						
All Length Measurements are in Decimal Feet						
Sample Interval (ft.)		Sample Id #		Description		
Top	0.0	20190165		Soft, dark grey/black silt w/ trace sand. Firmer w/ depth.		
	5.2					
↓						
Bottom						
# of containers:	1			Core Volumes		
Type of container:	bucket	hardliner	cup	other	Nominal core-barrel diameter	
Conditions:					3.0"	EST. Volume .25 gal/ft
					3.5"	8.0"
Comments:					(4.0")	.50 gal/ft
					Liner Type: (Soft) Hard	
					Vibracorer: (P3) P5 VT6 Other	
Live Organisms Present		N		Pushcorer		Slambar
Oil Present		N		Eckman		Ponar: Standard / Petite
Odor Present		Y		Box Core		
Debris Present		N				
Within 10% of Req'd Core Length		Y				
Photo		Y				
<i>MI W #/d ver 030615</i>						



AQUA SURVEY, INC.

SEDIMENT CORE LOG

Client : French & Parrello		Project : South Amboy Ferry Terminal			Logger: KS	
Job#: 39-050	Date: 4/1/19	Time: 1248	Crew: EK			
Coordinates:	N 603446.7	E 555146.5	Vessel: Schuylkill			
Core #: C-15	Zone: NJ	Datum NAD 83	Deploy:		1	2
Project Depth (incl. 2 Ft. Overdredge) [PD] [ft] MLW:: -14.0			Core Penetration Length (ft.):		12.5	
Measured Water Depth [MWD] [ft.]: 3.0			Recovered Core Length (ft.):		10.4	
Tide Adjust [TA] (+/- ft. from MLLW) [ft.]: 0.4			Sample Length Retained (ft.):		10.4	
Corrected Depth @ MLLW [ft.]: 2.6			Core Volume Retained (gal.):		2.0	
+ MLW Adjustment [ft.]: 0.2			Collected to Project Depth:		<input checked="" type="radio"/> Y	<input type="radio"/> N
Corrected Depth @ MLW [ft.]: 2.8						
Required Sample Core Length [SCL] [ft.]: 11.2						
All Length Measurements are in Decimal Feet						
Sample Interval (ft.)	Sample Id #	Description				
Top 0.0	20190166	Dark grey/black silt w/ some sand				
6.4		Dark grey sand w/ some silt				
7.6		Firmer, dark grey/black silt w/ trace sand				
10.4						
Bottom						
# of containers:	1				Core Volumes	
Type of container:	bucket	hardliner	cup	other	Nominal core-barrel diameter	EST. Volume
Conditions:					3.0"	.25 gal/ft
Comments:					3.5" 8.0"	.33 gal/ft
					<input checked="" type="radio"/> 4.0"	.50 gal/ft
					Liner Type: <input checked="" type="radio"/> Soft <input type="radio"/> Hard	
					Vibracorer: <input checked="" type="radio"/> P3 <input type="radio"/> P5 <input type="radio"/> VT6 <input type="radio"/> Other	
Live Organisms Present	N	Pushcorer		Slambar		
Oil Present	N	Eckman		Ponar: Standard / Petite		
Odor Present	Y	Box Core				
Debris Present	N					
Within 10% of Req'd Core Length	Y					
Photo	Y					
MLW #td ver 030615						

Table 4a

Volatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-1			Amended Composite CS-1		
					20190169			20190174		
					K2316-01			K2316-06		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	4,000	12,000	5	ND	10.5		ND	9.60	
Bromomethane (Methyl bromide)	74-83-9	25,000	59,000	5	ND	10.5		ND	9.60	
Vinyl chloride	75-01-4	700	2,000	5	ND	10.5		ND	9.60	
Chloroethane (Ethyl chloride)	75-00-3	220,000	1,100,000	5	ND	10.5		ND	9.60	
1,2,4-Trichlorobenzene	120-82-1	73,000	820,000	5	ND	10.5		ND	9.60	
Methylene chloride (Dichloromethane)	75-09-2	46,000	230,000	5	15.3	10.5	B	19.6	9.60	
Acetone (2-Propanone)	67-64-1	70,000,000	N/A	10	220	52.7		520	48.0	
Carbon disulfide	75-15-0	7,800,000	110,000,000	500	ND	10.5		18.7	9.60	
1,1-Dichloroethene	75-35-4	11,000	150,000	5	ND	10.5		ND	9.60	
1,1-Dichloroethane	75-34-3	8,000	24,000	5	ND	10.5		ND	9.60	
<i>cis</i> -1,2-Dichloroethene	156-59-2	230,000	560,000	5	ND	10.5		ND	9.60	
<i>trans</i> -1,2-Dichloroethene	156-60-5	300,000	720,000	5	ND	10.5		ND	9.60	
1,2-Dichloroethene (total)	N/A	230,000	N/A	5	ND			ND		
Chloroform	67-66-3	600	2,000	5	ND	10.5		ND	9.60	
1,2-Dichloroethane	107-06-2	900	3,000	5	ND	10.5		ND	9.60	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	3,100,000	44,000,000	10	65.8	52.7		97.6	48.0	
1,1,1-Trichloroethane	71-55-6	160,000,000	N/A	5	ND	10.5		ND	9.60	
Carbon tetrachloride	56-23-5	2,000	4,000	5	ND	10.5		ND	9.60	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	1,000	3,000	5	ND	10.5		ND	9.60	
1,2-Dichloropropane	78-87-5	2,000	5,000	5	ND	10.5		ND	9.60	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	N/A	5	ND	10.5		ND	9.60	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	N/A	5	ND	10.5		ND	9.60	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	2,000	7,000	5	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	3,000	10,000	5	ND	10.5		ND	9.60	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	3,000	8,000	5	ND	10.5		ND	9.60	
1,1,2-Trichloroethane	79-00-5	2,000	6,000	5	ND	10.5		ND	9.60	
Benzene	71-43-2	2,000	5,000	5	3.90	10.5	J	2.80	9.60	J
Bromoform	75-25-2	81,000	280,000	5	ND	10.5		ND	9.60	
Tetrachloroethene	127-18-4	43,000	1,500,000	5	ND	10.5		ND	9.60	
1,1,2,2-Tetrachloroethane	79-34-5	1,000	3,000	5	ND	10.5		ND	9.60	
Toluene	108-88-3	6,300,000	91,000,000	5	ND	10.5		ND	9.60	
Chlorobenzene	108-90-7	510,000	7,400,000	5	ND	10.5		ND	9.60	
Ethyl benzene	100-41-4	7,800,000	110,000,000	5	ND	10.5		ND	9.60	
Styrene	100-42-5	90,000	260,000	5	ND	10.5		ND	9.60	
Xylenes (Total)	1330-20-7	12,000,000	170,000,000	5	9.80	31.6	J	3.00	28.8	J
Acrolein	107-02-8	500	1,000	500	ND	52.7		ND	48.0	
Acrylonitrile	107-13-1	900	3,000	500	ND	52.7		ND	48.0	
Tertiary butyl alcohol	75-65-0	1,400,000	11,000,000	100	ND	52.7		ND	48.0	
Methyl acetate	79-20-9	78,000,000	N/A	5	ND	10.5		ND	9.60	

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4a continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-1			Amended Composite CS-1		
					20190169			20190174		
					K2316-01			K2316-06		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	3,100,000	240,000	200	ND	710		ND	630	
Azobenzene ²	103-33-3	700	2,000	700	ND	710		ND	630	
2,4,5-Trichlorophenol	95-95-4	6,100,000	68,000,000	200	ND	710		ND	630	
2,4,6-Trichlorophenol	88-06-2	19,000	74,000	200	ND	710		ND	630	
2,4-Dichlorophenol	120-83-2	180,000	2,100,000	200	ND	710		ND	630	
2,4-Dimethylphenol	105-67-9	1,200,000	14,000,000	200	ND	710		ND	630	
2,4-Dinitrophenol	51-28-5	120,000	1,400,000	300	ND	1400		ND	1300	
2,4-Dinitrotoluene	121-14-2	N/A	3,000	200	ND	710		ND	630	
2,6-Dinitrotoluene	606-20-2	N/A	3,000	200	ND	710		ND	630	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	700	3,000	200	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	310,000	2,200,000	200	ND	710		ND	630	
2-Methylnaphthalene	91-57-6	230,000	2,400,000	170	ND	710		ND	630	
2-Methylphenol (o-Cresol)	95-48-7	310,000	3,400,000	200	ND	710		ND	630	
2-Nitroaniline	88-74-4	39,000	23,000,000	300	ND	710		ND	630	
3,3'-Dichlorobenzidine	91-94-1	1,000	4,000	200	ND	710		ND	630	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	6,000	68,000	300	ND	1400		ND	1300	
3-,4-Methylphenol (p-Cresol) ³	65794-96-9	31,000	340,000	200	ND	710		ND	630	
Acenaphthene	83-32-9	3,400,000	37,000,000	200	ND	710		ND	630	
Acenaphthylene	208-96-8	N/A	300,000,000	200	ND	710		ND	630	
Acetophenone	98-86-2	2,000	5,000	200	ND	710		ND	630	
Anthracene	120-12-7	17,000,000	30,000,000	200	ND	710		ND	630	
Atrazine	1912-24-9	210,000	2,400,000	200	ND	710		ND	630	
Benzaldehyde	100-52-7	6,100,000	68,000,000	200	ND	1400		ND	1300	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

³ NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4a continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS) (continued)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-1			Amended Composite CS-1		
					20190169			20190174		
					K2316-01			K2316-06		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result	RL	Q	Result	RL	Q
Benidine	92-87-5	700	700	700	ND	710		ND	630	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	5,000	17,000	200	ND	710		140	630	J
Benzo(a)pyrene	50-32-8	500	2,000	200	ND	710		130	630	J
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	5,000	17,000	200	ND	710		170	630	J
Benzo(g,h,i)perylene	191-24-2	380,000,000	30,000,000	200	ND	710		ND	630	
Benzo(k)fluoranthene	207-08-9	45,000	170,000	200	ND	710		ND	630	
bis(2-Chloroethyl)ether	111-44-4	400	2,000	200	ND	710		ND	630	
Bis(2-chloroisopropyl) ether	108-60-1	23,000	67,000	200	ND	710		ND	630	
bis(2-Ethylhexyl)phthalate	117-81-7	35,000	140,000	200	ND	710		530	630	J
Butyl benzyl phthalate	85-68-7	1,200,000	14,000,000	200	ND	710		ND	630	
Caprolactam	105-60-2	31,000,000	340,000,000	200	ND	710		ND	630	
Carbazole	86-74-8	24,000	96,000	200	ND	710		ND	630	
Chrysene	218-01-9	450,000	1,700,000	200	ND	710		140	630	J
Dibenz(a,h)anthracene	53-70-3	500	2,000	200	ND	710		ND	630	
Diethylphthalate	84-66-2	49,000,000	550,000,000	200	ND	710		ND	630	
Di-n-butylphthalate	84-74-2	6,100,000	68,000,000	200	ND	710		ND	630	
Di-n-octylphthalate	117-84-0	2,400,000	27,000,000	200	ND	710		ND	630	
Fluoranthene	206-44-0	2,300,000	24,000,000	200	ND	710		320	630	J
Fluorene	86-73-7	2,300,000	24,000,000	200	ND	710		ND	630	
Hexachloro-1,3-butadiene	87-68-3	6,000	25,000	200	ND	710		ND	630	
Hexachlorobenzene	118-74-1	300	1,000	200	ND	710		ND	630	
Hexachlorocyclopentadiene	77-47-4	45,000	110,000	200	ND	1400		ND	1300	
Hexachloroethane	67-72-1	12,000	48,000	200	ND	710		ND	630	
Indeno(1,2,3-cd)pyrene	193-39-5	500	17,000	200	ND	710		ND	630	
Isophorone	78-59-1	510,000	2,000,000	200	ND	710		ND	630	
Naphthalene	91-20-3	6,000	17,000	200	ND	710		ND	630	
Nitrobenzene	98-95-3	5,000	14,000	200	ND	710		ND	630	
N-Nitrosodimethylamine	62-75-9	700	700	700	ND	710		ND	630	
N-Nitroso-di-n-propylamine	621-64-7	200	300	200	ND	710		ND	630	
N-Nitrosodiphenylamine	86-30-6	99,000	390,000	200	ND	710		ND	630	
Pentachlorophenol	87-86-5	900	3,000	300	ND	1400		ND	1300	
Phenanthrene	85-01-8	N/A	300,000,000	200	ND	710		240	630	J
Phenol	108-95-2	18,000,000	210,000,000	200	ND	710		150	630	J
Pyrene	129-00-0	1,700,000	18,000,000	200	ND	710		240	630	J

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4a continued

Pesticide/Herbicide and PCB Aroclor Analysis of Bulk Sediment (NJDEP SRS)

AST Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON-Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-1			Amended Composite CS-1		
					20190169			20190174		
					K2316-01			K2316-06		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
4,4'-DDD	72-54-8	3,000	13,000	3	ND	3.60		ND	3.30	
4,4'-DDE	72-55-9	2,000	9,000	3	ND	3.60		1.10	3.30	JP
4,4'-DDT	50-29-3	2,000	8,000	3	ND	3.60		ND	3.30	
Aldrin	309-00-2	40	200	2	ND	3.60		ND	3.30	
alpha-HCH (alpha-BHC)	319-84-6	100	500	2	ND	3.60		ND	3.30	
beta-HCH (beta-BHC)	319-85-7	400	2,000	2	ND	3.60		ND	3.30	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	400	2,000	2	ND	3.60		ND	3.30	
alpha-Chlordane	5103-71-9	N/A	N/A	N/A	ND	3.60		ND	3.30	
gamma-Chlordane	5103-74-2	N/A	N/A	N/A	ND	3.60		ND	3.30	
Chlordane (alpha and gamma)	57-74-9	200	1,000	2	ND			ND		
Dieldrin	60-57-1	40	200	3	ND	3.60		ND	3.30	
Endosulfan I	959-98-8	N/A	N/A	3	ND	3.60		ND	3.30	
Endosulfan II	33213-65-9	N/A	N/A	3	ND	3.60		ND	3.30	
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	470,000	6,800,000	3	ND			ND		
Endosulfan sulfate	1031-07-8	470,000	6,800,000	3	ND	3.60		ND	3.30	
Endrin	72-20-8	23,000	340,000	3	ND	3.60		ND	3.30	
Heptachlor	76-44-8	100	700	2	ND	3.60		ND	3.30	
Heptachlor epoxide	1024-57-3	70	300	2	ND	3.60		ND	3.30	
Methoxychlor	72-43-5	390,000	5,700,000	20	ND	3.60		ND	3.30	
Toxaphene	8001-35-2	600	3,000	200	ND	36.4		ND	32.6	
Aroclor-1016	12674-11-2	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1221	11104-28-2	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1232	11141-16-5	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1242	53469-21-9	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1248	12672-29-6	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1254	11097-69-1	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1260	11096-82-5	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1262	37324-23-5	N/A	N/A	N/A	ND	36.4		ND	32.6	
Aroclor-1268	11100-14-4	N/A	N/A	N/A	ND	36.4		ND	32.6	
Total Aroclor(SUM)	1336-36-3	200	1000	30	ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4a continued

Metals Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:mg/kg)			Amended Sediment (Units:mg/kg)		
					Composite CS-1			Amended Composite CS-1		
					20190169			20190174		
					K2316-01			K2316-06		
Analyte Name	CAS No.	mg/kg (ppm)	mg/kg (ppm)	mg/kg	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	78,000	N/A	20	14200	8.85		15600	8.03	
Antimony	7440-36-0	31	450	6	3.44	4.42	JN	3.04	4.02	JN
Arsenic	7440-38-2	19	19	1	67.9	1.77		59.2	1.61	
Barium	7440-39-3	16,000	59,000	20	104	8.85	N	103	8.03	N
Beryllium	7440-41-7	16	140	0.5	1.73	0.531		1.66	0.482	
Cadmium	7440-43-9	78	78	0.5	4.62	0.531		4.32	0.482	
Cobalt	7440-48-4	1,600	590	5	14.2	2.65		13.4	2.41	
Copper	7440-50-8	3,100	45,000	3	339	1.77	N	290	1.61	N
Lead	7439-92-1	400	800	1	341	1.06		244	0.964	
Manganese	7439-96-5	11,000	5,900	2	323	1.77		365	1.61	
Mercury	7439-97-6	23	65	0.1	2.52	0.114	D	1.61	0.051	D
Nickel	7440-02-0	1,600	23,000	4	52.5	3.54		44.5	3.21	
Selenium	7782-49-2	390	5,700	4	ND	1.77		ND	1.61	
Silver	7440-22-4	390	5,700	1	0.389	0.885	JN	ND	0.803	N
Vanadium	7440-62-2	78	1,100	5	65.8	3.54	N	59.1	3.21	N
Zinc	7440-66-6	23,000	110,000	6	546	3.54		528	3.21	
Cyanide	57-12-5	47	680	3	2.40	2.60	J	1.90	0.480	
Chromium, total	7440-47-3	N/A	N/A	N/A	131	0.885		124	0.803	
Hexavalent chromium	18540-29-9	N/A	N/A	N/A	ND	0.843		ND	0.762	
Trivalent chromium	16065-83-1	N/A	N/A	N/A	131	0.430		124	0.384	
% Moisture	MOIST	N/A	N/A	N/A	53.5			47.9		
% Solids	N/A	N/A	N/A	N/A	46.5			52.1		

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4b

Volatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON-Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-2			Amended Composite CS-2		
					20190170			20190175		
					K2316-02			K2316-07		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	4,000	12,000	5	ND	12.6		ND	11.1	
Bromomethane (Methyl bromide)	74-83-9	25,000	59,000	5	ND	12.6		ND	11.1	
Vinyl chloride	75-01-4	700	2,000	5	ND	12.6		ND	11.1	
Chloroethane (Ethyl chloride)	75-00-3	220,000	1,100,000	5	ND	12.6		ND	11.1	
1,2,4-Trichlorobenzene	120-82-1	73,000	820,000	5	ND	12.6		ND	11.1	
Methylene chloride (Dichloromethane)	75-09-2	46,000	230,000	5	23.9	12.6	B	23.7	11.1	B
Acetone (2-Propanone)	67-64-1	70,000,000	N/A	10	840	63.1		140	55.5	
Carbon disulfide	75-15-0	7,800,000	110,000,000	500	ND	12.6		18.9	11.1	
1,1-Dichloroethene	75-35-4	11,000	150,000	5	ND	12.6		ND	11.1	
1,1-Dichloroethane	75-34-3	8,000	24,000	5	ND	12.6		ND	11.1	
<i>cis</i> -1,2-Dichloroethene	156-59-2	230,000	560,000	5	ND	12.6		ND	11.1	
<i>trans</i> -1,2-Dichloroethene	156-60-5	300,000	720,000	5	ND	12.6		ND	11.1	
1,2-Dichloroethene (total)	N/A	230,000	N/A	5	ND			ND		
Chloroform	67-66-3	600	2,000	5	ND	12.6		ND	11.1	
1,2-Dichloroethane	107-06-2	900	3,000	5	ND	12.6		ND	11.1	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	3,100,000	44,000,000	10	250.0	63.1		26.2	55.5	J
1,1,1-Trichloroethane	71-55-6	160,000,000	N/A	5	ND	12.6		ND	11.1	
Carbon tetrachloride	56-23-5	2,000	4,000	5	ND	12.6		ND	11.1	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	1,000	3,000	5	ND	12.6		ND	11.1	
1,2-Dichloropropane	78-87-5	2,000	5,000	5	ND	12.6		ND	11.1	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	N/A	5	ND	12.6		ND	11.1	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	N/A	5	ND	12.6		ND	11.1	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	2,000	7,000	5	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	3,000	10,000	5	ND	12.6		ND	11.1	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	3,000	8,000	5	ND	12.6		ND	11.1	
1,1,2-Trichloroethane	79-00-5	2,000	6,000	5	ND	12.6		ND	11.1	
Benzene	71-43-2	2,000	5,000	5	ND	12.6		ND	11.1	
Bromoform	75-25-2	81,000	280,000	5	ND	12.6		ND	11.1	
Tetrachloroethene	127-18-4	43,000	1,500,000	5	ND	12.6		ND	11.1	
1,1,2,2-Tetrachloroethane	79-34-5	1,000	3,000	5	ND	12.6		ND	11.1	
Toluene	108-88-3	6,300,000	91,000,000	5	ND	12.6		ND	11.1	
Chlorobenzene	108-90-7	510,000	7,400,000	5	2.70	12.6	J	ND	11.1	
Ethyl benzene	100-41-4	7,800,000	110,000,000	5	ND	12.6		ND	11.1	
Styrene	100-42-5	90,000	260,000	5	ND	12.6		ND	11.1	
Xylenes (Total)	1330-20-7	12,000,000	170,000,000	5	ND	37.8		ND	33.3	
Acrolein	107-02-8	500	1,000	500	ND	63.1		ND	55.5	
Acrylonitrile	107-13-1	900	3,000	500	ND	63.1		ND	55.5	
Tertiary butyl alcohol	75-65-0	1,400,000	11,000,000	100	ND	63.1		ND	55.5	
Methyl acetate	79-20-9	78,000,000	N/A	5	ND	12.6		ND	11.1	

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B`.

Table 4b continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-2			Amended Composite CS-2		
					20190170			20190175		
					K2316-02			K2316-07		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	3,100,000	240,000	200	ND	840		ND	740	
Azobenzene ²	103-33-3	700	2,000	700	ND	840		ND	740	
2,4,5-Trichlorophenol	95-95-4	6,100,000	68,000,000	200	ND	840		ND	740	
2,4,6-Trichlorophenol	88-06-2	19,000	74,000	200	ND	840		ND	740	
2,4-Dichlorophenol	120-83-2	180,000	2,100,000	200	ND	840		ND	740	
2,4-Dimethylphenol	105-67-9	1,200,000	14,000,000	200	ND	840		ND	740	
2,4-Dinitrophenol	51-28-5	120,000	1,400,000	300	ND	1700		ND	1500	
2,4-Dinitrotoluene	121-14-2	N/A	3,000	200	ND	840		ND	740	
2,6-Dinitrotoluene	606-20-2	N/A	3,000	200	ND	840		ND	740	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	700	3,000	200	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	310,000	2,200,000	200	ND	840		ND	740	
2-Methylnaphthalene	91-57-6	230,000	2,400,000	170	ND	840		ND	740	
2-Methylphenol (o-Cresol)	95-48-7	310,000	3,400,000	200	ND	840		ND	740	
2-Nitroaniline	88-74-4	39,000	23,000,000	300	ND	840		ND	740	
3,3'-Dichlorobenzidine	91-94-1	1,000	4,000	200	ND	840		ND	740	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	6,000	68,000	300	ND	1700		ND	1500	
3-,4-Methylphenol (p-Cresol) ³	65794-96-9	31,000	340,000	200	ND	840		ND	740	
Acenaphthene	83-32-9	3,400,000	37,000,000	200	ND	840		ND	740	
Acenaphthylene	208-96-8	N/A	300,000,000	200	ND	840		ND	740	
Acetophenone	98-86-2	2,000	5,000	200	ND	840		ND	740	
Anthracene	120-12-7	17,000,000	30,000,000	200	ND	840		ND	740	
Atrazine	1912-24-9	210,000	2,400,000	200	ND	840		ND	740	
Benzaldehyde	100-52-7	6,100,000	68,000,000	200	ND	1700		ND	1500	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

³ NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B`.

Table 4b continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS) (continued)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-2			Amended Composite CS-2		
					20190170			20190175		
					K2316-02			K2316-07		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result	RL	Q	Result	RL	Q
Benzidine	92-87-5	700	700	700	ND	840		ND	740	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	5,000	17,000	200	ND	840		ND	740	
Benzo(a)pyrene	50-32-8	500	2,000	200	ND	840		ND	740	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	5,000	17,000	200	ND	840		ND	740	
Benzo(g,h,i)perylene	191-24-2	380,000,000	30,000,000	200	ND	840		ND	740	
Benzo(k)fluoranthene	207-08-9	45,000	170,000	200	ND	840		ND	740	
bis(2-Chloroethyl)ether	111-44-4	400	2,000	200	ND	840		ND	740	
Bis(2-chloroisopropyl) ether	108-60-1	23,000	67,000	200	ND	840		ND	740	
bis(2-Ethylhexyl)phthalate	117-81-7	35,000	140,000	200	ND	840		220	740	J
Butyl benzyl phthalate	85-68-7	1,200,000	14,000,000	200	ND	840		ND	740	
Caprolactam	105-60-2	31,000,000	340,000,000	200	ND	840		ND	740	
Carbazole	86-74-8	24,000	96,000	200	ND	840		ND	740	
Chrysene	218-01-9	450,000	1,700,000	200	ND	840		ND	740	
Dibenz(a,h)anthracene	53-70-3	500	2,000	200	ND	840		ND	740	
Diethylphthalate	84-66-2	49,000,000	550,000,000	200	ND	840		ND	740	
Di-n-butylphthalate	84-74-2	6,100,000	68,000,000	200	ND	840		ND	740	
Di-n-octylphthalate	117-84-0	2,400,000	27,000,000	200	ND	840		ND	740	
Fluoranthene	206-44-0	2,300,000	24,000,000	200	ND	840		ND	740	
Fluorene	86-73-7	2,300,000	24,000,000	200	ND	840		ND	740	
Hexachloro-1,3-butadiene	87-68-3	6,000	25,000	200	ND	840		ND	740	
Hexachlorobenzene	118-74-1	300	1,000	200	ND	840		ND	740	
Hexachlorocyclopentadiene	77-47-4	45,000	110,000	200	ND	1700		ND	1500	
Hexachloroethane	67-72-1	12,000	48,000	200	ND	840		ND	740	
Indeno(1,2,3-cd)pyrene	193-39-5	500	17,000	200	ND	840		ND	740	
Isophorone	78-59-1	510,000	2,000,000	200	ND	840		ND	740	
Naphthalene	91-20-3	6,000	17,000	200	ND	840		ND	740	
Nitrobenzene	98-95-3	5,000	14,000	200	ND	840		ND	740	
N-Nitrosodimethylamine	62-75-9	700	700	700	ND	840		ND	740	
N-Nitroso-di-n-propylamine	621-64-7	200	300	200	ND	840		ND	740	
N-Nitrosodiphenylamine	86-30-6	99,000	390,000	200	ND	840		ND	740	
Pentachlorophenol	87-86-5	900	3,000	300	ND	1700		ND	1500	
Phenanthrene	85-01-8	N/A	300,000,000	200	ND	840		ND	740	
Phenol	108-95-2	18,000,000	210,000,000	200	ND	840		ND	740	
Pyrene	129-00-0	1,700,000	18,000,000	200	ND	840		ND	740	

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B`.

Table 4b continued

Pesticide/Herbicide and PCB Aroclor Analysis of Bulk Sediment (NJDEP SRS)

AST Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-2			Amended Composite CS-2		
					20190170			20190175		
					K2316-02			K2316-07		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
4,4'-DDD	72-54-8	3,000	13,000	3	ND	4.30		ND	3.80	
4,4'-DDE	72-55-9	2,000	9,000	3	ND	4.30		ND	3.80	
4,4'-DDT	50-29-3	2,000	8,000	3	ND	4.30		ND	3.80	
Aldrin	309-00-2	40	200	2	ND	4.30		ND	3.80	
alpha-HCH (alpha-BHC)	319-84-6	100	500	2	ND	4.30		ND	3.80	
beta-HCH (beta-BHC)	319-85-7	400	2,000	2	ND	4.30		ND	3.80	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	400	2,000	2	ND	4.30		ND	3.80	
alpha-Chlordane	5103-71-9	N/A	N/A	N/A	ND	4.30		ND	3.80	
gamma-Chlordane	5103-74-2	N/A	N/A	N/A	ND	4.30		ND	3.80	
Chlordane (alpha and gamma)	57-74-9	200	1,000	2	ND			ND		
Dieldrin	60-57-1	40	200	3	ND	4.30		ND	3.80	
Endosulfan I	959-98-8	N/A	N/A	3	ND	4.30		ND	3.80	
Endosulfan II	33213-65-9	N/A	N/A	3	ND	4.30		ND	3.80	
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	470,000	6,800,000	3	ND			ND		
Endosulfan sulfate	1031-07-8	470,000	6,800,000	3	ND	4.30		ND	3.80	
Endrin	72-20-8	23,000	340,000	3	ND	4.30		ND	3.80	
Heptachlor	76-44-8	100	700	2	ND	4.30		ND	3.80	
Heptachlor epoxide	1024-57-3	70	300	2	ND	4.30		ND	3.80	
Methoxychlor	72-43-5	390,000	5,700,000	20	ND	4.30		ND	3.80	
Toxaphene	8001-35-2	600	3,000	200	ND	43.0		ND	38.0	
Aroclor-1016	12674-11-2	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1221	11104-28-2	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1232	11141-16-5	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1242	53469-21-9	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1248	12672-29-6	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1254	11097-69-1	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1260	11096-82-5	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1262	37324-23-5	N/A	N/A	N/A	ND	43.0		ND	38.0	
Aroclor-1268	11100-14-4	N/A	N/A	N/A	ND	43.0		ND	38.0	
Total Aroclor(SUM)	1336-36-3	200	1000	30	ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B`.

Table 4b continued

Metals Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:mg/kg)			Amended Sediment (Units:mg/kg)		
					Composite CS-2			Amended Composite CS-2		
					20190170			20190175		
					K2316-02			K2316-07		
Analyte Name	CAS No.	mg/kg (ppm)	mg/kg (ppm)	mg/kg	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	78,000	N/A	20	16100	10.6		17000	9.19	
Antimony	7440-36-0	31	450	6	1.63	5.28	JN	1.48	4.59	JN
Arsenic	7440-38-2	19	19	1	27.5	2.11		24.5	1.84	
Barium	7440-39-3	16,000	59,000	20	76.9	10.6	N	82.1	9.19	N
Beryllium	7440-41-7	16	140	0.5	1.72	0.633		1.64	0.551	
Cadmium	7440-43-9	78	78	0.5	2.95	0.633		2.63	0.551	
Cobalt	7440-48-4	1,600	590	5	14.8	3.17		13.5	2.76	
Copper	7440-50-8	3,100	45,000	3	227	2.11	N	182	1.84	N
Lead	7439-92-1	400	800	1	199	1.27		170	1.10	
Manganese	7439-96-5	11,000	5,900	2	399	2.11		394	1.84	
Mercury	7439-97-6	23	65	0.1	1.91	0.125	D	1.43	0.055	D
Nickel	7440-02-0	1,600	23,000	4	43.4	4.22		38.3	3.68	
Selenium	7782-49-2	390	5,700	4	ND	2.11		ND	1.84	
Silver	7440-22-4	390	5,700	1	0.529	1.06	JN	0.269	0.919	JN
Vanadium	7440-62-2	78	1,100	5	54.9	4.22		50.1	3.68	
Zinc	7440-66-6	23,000	110,000	6	461	4.22		475	3.68	
Cyanide	57-12-5	47	680	3	ND	3.00		2.70	0.540	
Chromium, total	7440-47-3	N/A	N/A	N/A	85.3	1.06		76.6	0.919	
Hexavalent chromium	18540-29-9	N/A	N/A	N/A	ND	1.02		ND	0.893	
Trivalent chromium	16065-83-1	N/A	N/A	N/A	85	0.509		76.6	0.448	
% Moisture	MOIST	N/A	N/A	N/A	60.7			55.4		
% Solids	N/A	N/A	N/A	N/A	39.3			44.6		

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B`.

Table 4c

Volatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050	CAS No.	NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON-Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-3			Amended Composite CS-3		
					20190171			20190176		
					K2316-03			K2316-08		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	4,000	12,000	5	ND	1200	D	ND	10.7	
Bromomethane (Methyl bromide)	74-83-9	25,000	59,000	5	ND	1200	D	ND	10.7	
Vinyl chloride	75-01-4	700	2,000	5	ND	1200	D	ND	10.7	
Chloroethane (Ethyl chloride)	75-00-3	220,000	1,100,000	5	ND	1200	D	ND	10.7	
1,2,4-Trichlorobenzene	120-82-1	73,000	820,000	5	ND	1200	D	ND	10.7	
Methylene chloride (Dichloromethane)	75-09-2	46,000	230,000	5	ND	1200	D	13.1	10.7	
Acetone (2-Propanone)	67-64-1	70,000,000	N/A	10	ND	5800	D	210	53.3	
Carbon disulfide	75-15-0	7,800,000	110,000,000	500	ND	1200	D	46.3	10.7	
1,1-Dichloroethene	75-35-4	11,000	150,000	5	ND	1200	D	ND	10.7	
1,1-Dichloroethane	75-34-3	8,000	24,000	5	ND	1200	D	ND	10.7	
<i>cis</i> -1,2-Dichloroethene	156-59-2	230,000	560,000	5	ND	1200	D	ND	10.7	
<i>trans</i> -1,2-Dichloroethene	156-60-5	300,000	720,000	5	ND	1200	D	ND	10.7	
1,2-Dichloroethene (total)	N/A	230,000	N/A	5	ND			ND		
Chloroform	67-66-3	600	2,000	5	ND	1200	D	ND	10.7	
1,2-Dichloroethane	107-06-2	900	3,000	5	ND	1200	D	ND	10.7	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	3,100,000	44,000,000	10	ND	5800	D	44.2	53.3	J
1,1,1-Trichloroethane	71-55-6	160,000,000	N/A	5	ND	1200	D	ND	10.7	
Carbon tetrachloride	56-23-5	2,000	4,000	5	ND	1200	D	ND	10.7	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	1,000	3,000	5	ND	1200	D	ND	10.7	
1,2-Dichloropropane	78-87-5	2,000	5,000	5	ND	1200	D	ND	10.7	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	N/A	5	ND	1200	D	ND	10.7	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	N/A	5	ND	1200	D	ND	10.7	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	2,000	7,000	5	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	3,000	10,000	5	ND	1200	D	ND	10.7	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	3,000	8,000	5	ND	1200	D	ND	10.7	
1,1,2-Trichloroethane	79-00-5	2,000	6,000	5	ND	1200	D	ND	10.7	
Benzene	71-43-2	2,000	5,000	5	240	1200	JD	180	10.7	
Bromoform	75-25-2	81,000	280,000	5	ND	1200	D	ND	10.7	
Tetrachloroethene	127-18-4	43,000	1,500,000	5	ND	1200	D	ND	10.7	
1,1,2,2-Tetrachloroethane	79-34-5	1,000	3,000	5	ND	1200	D	ND	10.7	
Toluene	108-88-3	6,300,000	91,000,000	5	ND	1200	D	30.4	10.7	
Chlorobenzene	108-90-7	510,000	7,400,000	5	ND	1200	D	42.7	10.7	
Ethyl benzene	100-41-4	7,800,000	110,000,000	5	ND	1200	D	28.2	10.7	
Styrene	100-42-5	90,000	260,000	5	ND	1200	D	ND	10.7	
Xylenes (Total)	1330-20-7	12,000,000	170,000,000	5	ND	3500	D	80.3	32.0	
Acrolein	107-02-8	500	1,000	500	ND	5800	D	ND	53.3	
Acrylonitrile	107-13-1	900	3,000	500	ND	5800	D	ND	53.3	
Tertiary butyl alcohol	75-65-0	1,400,000	11,000,000	100	ND	5800	D	ND	53.3	
Methyl acetate	79-20-9	78,000,000	N/A	5	ND	1200	D	ND	10.7	

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4c continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-3			Amended Composite CS-3		
					20190171			20190176		
					K2316-03			K2316-08		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	3,100,000	240,000	200	ND	770		ND	700	
Azobenzene ²	103-33-3	700	2,000	700	ND	770		ND	700	
2,4,5-Trichlorophenol	95-95-4	6,100,000	68,000,000	200	ND	770		ND	700	
2,4,6-Trichlorophenol	88-06-2	19,000	74,000	200	ND	770		ND	700	
2,4-Dichlorophenol	120-83-2	180,000	2,100,000	200	ND	770		ND	700	
2,4-Dimethylphenol	105-67-9	1,200,000	14,000,000	200	ND	770		ND	700	
2,4-Dinitrophenol	51-28-5	120,000	1,400,000	300	ND	1600		ND	1400	
2,4-Dinitrotoluene	121-14-2	N/A	3,000	200	ND	770		ND	700	
2,6-Dinitrotoluene	606-20-2	N/A	3,000	200	ND	770		ND	700	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	700	3,000	200	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	310,000	2,200,000	200	ND	770		ND	700	
2-Methylnaphthalene	91-57-6	230,000	2,400,000	170	ND	770		ND	700	
2-Methylphenol (o-Cresol)	95-48-7	310,000	3,400,000	200	ND	770		ND	700	
2-Nitroaniline	88-74-4	39,000	23,000,000	300	ND	770		ND	700	
3,3'-Dichlorobenzidine	91-94-1	1,000	4,000	200	ND	770		ND	700	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	6,000	68,000	300	ND	1600		ND	1400	
3-,4-Methylphenol (p-Cresol) ³	65794-96-9	31,000	340,000	200	ND	770		ND	700	
Acenaphthene	83-32-9	3,400,000	37,000,000	200	ND	770		ND	700	
Acenaphthylene	208-96-8	N/A	300,000,000	200	ND	770		ND	700	
Acetophenone	98-86-2	2,000	5,000	200	ND	770		ND	700	
Anthracene	120-12-7	17,000,000	30,000,000	200	ND	770		ND	700	
Atrazine	1912-24-9	210,000	2,400,000	200	ND	770		ND	700	
Benzaldehyde	100-52-7	6,100,000	68,000,000	200	ND	1600		ND	1400	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

³ NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4c continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS) (continued)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-3			Amended Composite CS-3		
					20190171			20190176		
					K2316-03			K2316-08		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result	RL	Q	Result	RL	Q
Benidine	92-87-5	700	700	700	ND	770		ND	700	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	5,000	17,000	200	ND	770		ND	700	
Benzo(a)pyrene	50-32-8	500	2,000	200	ND	770		ND	700	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	5,000	17,000	200	ND	770		ND	700	
Benzo(g,h,i)perylene	191-24-2	380,000,000	30,000,000	200	ND	770		ND	700	
Benzo(k)fluoranthene	207-08-9	45,000	170,000	200	ND	770		ND	700	
bis(2-Chloroethyl)ether	111-44-4	400	2,000	200	ND	770		ND	700	
Bis(2-chloroisopropyl) ether	108-60-1	23,000	67,000	200	ND	770		ND	700	
bis(2-Ethylhexyl)phthalate	117-81-7	35,000	140,000	200	220	770	J	870	700	
Butyl benzyl phthalate	85-68-7	1,200,000	14,000,000	200	ND	770		ND	700	
Caprolactam	105-60-2	31,000,000	340,000,000	200	ND	770		ND	700	
Carbazole	86-74-8	24,000	96,000	200	ND	770		ND	700	
Chrysene	218-01-9	450,000	1,700,000	200	ND	770		ND	700	
Dibenz(a,h)anthracene	53-70-3	500	2,000	200	ND	770		ND	700	
Diethylphthalate	84-66-2	49,000,000	550,000,000	200	ND	770		ND	700	
Di-n-butylphthalate	84-74-2	6,100,000	68,000,000	200	ND	770		ND	700	
Di-n-octylphthalate	117-84-0	2,400,000	27,000,000	200	ND	770		ND	700	
Fluoranthene	206-44-0	2,300,000	24,000,000	200	ND	770		ND	700	
Fluorene	86-73-7	2,300,000	24,000,000	200	ND	770		ND	700	
Hexachloro-1,3-butadiene	87-68-3	6,000	25,000	200	ND	770		ND	700	
Hexachlorobenzene	118-74-1	300	1,000	200	ND	770		ND	700	
Hexachlorocyclopentadiene	77-47-4	45,000	110,000	200	ND	1600		ND	1400	
Hexachloroethane	67-72-1	12,000	48,000	200	ND	770		ND	700	
Indeno(1,2,3-cd)pyrene	193-39-5	500	17,000	200	ND	770		ND	700	
Isophorone	78-59-1	510,000	2,000,000	200	ND	770		ND	700	
Naphthalene	91-20-3	6,000	17,000	200	ND	770		ND	700	
Nitrobenzene	98-95-3	5,000	14,000	200	ND	770		ND	700	
N-Nitrosodimethylamine	62-75-9	700	700	700	ND	770		ND	700	
N-Nitroso-di-n-propylamine	621-64-7	200	300	200	ND	770		ND	700	
N-Nitrosodiphenylamine	86-30-6	99,000	390,000	200	ND	770		ND	700	
Pentachlorophenol	87-86-5	900	3,000	300	ND	1600		ND	1400	
Phenanthrene	85-01-8	N/A	300,000,000	200	ND	770		ND	700	
Phenol	108-95-2	18,000,000	210,000,000	200	ND	770		ND	700	
Pyrene	129-00-0	1,700,000	18,000,000	200	ND	770		ND	700	

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4c continued

Pesticide/Herbicide and PCB Aroclor Analysis of Bulk Sediment (NJDEP SRS)

AST Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-3			Amended Composite CS-3		
					20190171			20190176		
					K2316-03			K2316-08		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
4,4'-DDD	72-54-8	3,000	13,000	3	ND	3.90		ND	3.60	
4,4'-DDE	72-55-9	2,000	9,000	3	ND	3.90		0.904	3.60	JP
4,4'-DDT	50-29-3	2,000	8,000	3	ND	3.90		ND	3.60	
Aldrin	309-00-2	40	200	2	ND	3.90		ND	3.60	
alpha-HCH (alpha-BHC)	319-84-6	100	500	2	ND	3.90		ND	3.60	
beta-HCH (beta-BHC)	319-85-7	400	2,000	2	ND	3.90		ND	3.60	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	400	2,000	2	ND	3.90		ND	3.60	
alpha-Chlordane	5103-71-9	N/A	N/A	N/A	ND	3.90		ND	3.60	
gamma-Chlordane	5103-74-2	N/A	N/A	N/A	ND	3.90		ND	3.60	
Chlordane (alpha and gamma)	57-74-9	200	1,000	2	ND			ND		
Dieldrin	60-57-1	40	200	3	ND	3.90		ND	3.60	
Endosulfan I	959-98-8	N/A	N/A	3	ND	3.90		ND	3.60	
Endosulfan II	33213-65-9	N/A	N/A	3	ND	3.90		ND	3.60	
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	470,000	6,800,000	3	ND			ND		
Endosulfan sulfate	1031-07-8	470,000	6,800,000	3	ND	3.90		ND	3.60	
Endrin	72-20-8	23,000	340,000	3	ND	3.90		ND	3.60	
Heptachlor	76-44-8	100	700	2	ND	3.90		ND	3.60	
Heptachlor epoxide	1024-57-3	70	300	2	ND	3.90		ND	3.60	
Methoxychlor	72-43-5	390,000	5,700,000	20	ND	3.90		ND	3.60	
Toxaphene	8001-35-2	600	3,000	200	ND	39.5		ND	36.3	
Aroclor-1016	12674-11-2	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1221	11104-28-2	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1232	11141-16-5	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1242	53469-21-9	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1248	12672-29-6	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1254	11097-69-1	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1260	11096-82-5	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1262	37324-23-5	N/A	N/A	N/A	ND	39.5		ND	36.3	
Aroclor-1268	11100-14-4	N/A	N/A	N/A	ND	39.5		ND	36.3	
Total Aroclor(SUM)	1336-36-3	200	1000	30	ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4c continued

Metals Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:mg/kg)			Amended Sediment (Units:mg/kg)		
					Composite CS-3			Amended Composite CS-3		
					20190171			20190176		
					K2316-03			K2316-08		
Analyte Name	CAS No.	mg/kg (ppm)	mg/kg (ppm)	mg/kg	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	78,000	N/A	20	14100	9.49		16400	9.21	
Antimony	7440-36-0	31	450	6	1.72	4.75	JN	1.81	4.60	JN
Arsenic	7440-38-2	19	19	1	26.9	1.90		26.0	1.84	
Barium	7440-39-3	16,000	59,000	20	94.7	9.49	N	111	9.21	N
Beryllium	7440-41-7	16	140	0.5	1.73	0.570		1.82	0.553	
Cadmium	7440-43-9	78	78	0.5	5.81	0.570		4.85	0.553	
Cobalt	7440-48-4	1,600	590	5	19.5	2.85		14.6	2.76	
Copper	7440-50-8	3,100	45,000	3	285	1.90	N	272	1.84	N
Lead	7439-92-1	400	800	1	525	1.14		366	1.11	
Manganese	7439-96-5	11,000	5,900	2	360	1.90		389	1.84	
Mercury	7439-97-6	23	65	0.1	2.58	0.118	D	2.04	0.102	D
Nickel	7440-02-0	1,600	23,000	4	52.9	3.80		50.6	3.68	
Selenium	7782-49-2	390	5,700	4	ND	1.90		ND	1.84	
Silver	7440-22-4	390	5,700	1	2.20	0.949	N	1.72	0.921	N
Vanadium	7440-62-2	78	1,100	5	51.3	3.80		51.2	3.68	
Zinc	7440-66-6	23,000	110,000	6	589	3.80		616	3.68	
Cyanide	57-12-5	47	680	3	4.00	2.80	D	6.30	0.530	
Chromium, total	7440-47-3	N/A	N/A	N/A	110	0.949		108	0.921	
Hexavalent chromium	18540-29-9	N/A	N/A	N/A	ND	0.927		ND	0.845	
Trivalent chromium	16065-83-1	N/A	N/A	N/A	110	0.465		108	0.429	
% Moisture	MOIST	N/A	N/A	N/A	57.0			53.4		
% Solids	N/A	N/A	N/A	N/A	43.0			46.6		

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4d

Volatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-4			Amended Composite CS-4		
					20190172			20190177		
					K2316-04			K2316-09		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	4,000	12,000	5	ND	9.30		ND	8.60	
Bromomethane (Methyl bromide)	74-83-9	25,000	59,000	5	ND	9.30		ND	8.60	
Vinyl chloride	75-01-4	700	2,000	5	ND	9.30		ND	8.60	
Chloroethane (Ethyl chloride)	75-00-3	220,000	1,100,000	5	ND	9.30		ND	8.60	
1,2,4-Trichlorobenzene	120-82-1	73,000	820,000	5	ND	9.30		ND	8.60	
Methylene chloride (Dichloromethane)	75-09-2	46,000	230,000	5	13.9	9.30		12.8	8.60	
Acetone (2-Propanone)	67-64-1	70,000,000	N/A	10	230	46.7		180	42.9	
Carbon disulfide	75-15-0	7,800,000	110,000,000	500	4.50	9.30	J	15.4	8.60	
1,1-Dichloroethene	75-35-4	11,000	150,000	5	ND	9.30		ND	8.60	
1,1-Dichloroethane	75-34-3	8,000	24,000	5	ND	9.30		ND	8.60	
<i>cis</i> -1,2-Dichloroethene	156-59-2	230,000	560,000	5	ND	9.30		ND	8.60	
<i>trans</i> -1,2-Dichloroethene	156-60-5	300,000	720,000	5	ND	9.30		ND	8.60	
1,2-Dichloroethene (total)	N/A	230,000	N/A	5	ND			ND		
Chloroform	67-66-3	600	2,000	5	ND	9.30		ND	8.60	
1,2-Dichloroethane	107-06-2	900	3,000	5	ND	9.30		ND	8.60	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	3,100,000	44,000,000	10	71.7	46.7		34.9	42.9	J
1,1,1-Trichloroethane	71-55-6	160,000,000	N/A	5	ND	9.30		ND	8.60	
Carbon tetrachloride	56-23-5	2,000	4,000	5	ND	9.30		ND	8.60	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	1,000	3,000	5	ND	9.30		ND	8.60	
1,2-Dichloropropane	78-87-5	2,000	5,000	5	ND	9.30		ND	8.60	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	N/A	5	ND	9.30		ND	8.60	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	N/A	5	ND	9.30		ND	8.60	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	2,000	7,000	5	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	3,000	10,000	5	ND	9.30		ND	8.60	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	3,000	8,000	5	ND	9.30		ND	8.60	
1,1,2-Trichloroethane	79-00-5	2,000	6,000	5	ND	9.30		ND	8.60	
Benzene	71-43-2	2,000	5,000	5	1.90	9.30	J	ND	8.60	
Bromoform	75-25-2	81,000	280,000	5	ND	9.30		ND	8.60	
Tetrachloroethene	127-18-4	43,000	1,500,000	5	ND	9.30		ND	8.60	
1,1,2,2-Tetrachloroethane	79-34-5	1,000	3,000	5	ND	9.30		ND	8.60	
Toluene	108-88-3	6,300,000	91,000,000	5	ND	9.30		ND	8.60	
Chlorobenzene	108-90-7	510,000	7,400,000	5	3.20	9.30	J	ND	8.60	
Ethyl benzene	100-41-4	7,800,000	110,000,000	5	5.00	9.30	J	1.80	8.60	J
Styrene	100-42-5	90,000	260,000	5	ND	9.30		ND	8.60	
Xylenes (Total)	1330-20-7	12,000,000	170,000,000	5	14.9	28.0	J	6.00	25.8	J
Acrolein	107-02-8	500	1,000	500	ND	46.7		ND	42.9	
Acrylonitrile	107-13-1	900	3,000	500	ND	46.7		ND	42.9	
Tertiary butyl alcohol	75-65-0	1,400,000	11,000,000	100	ND	46.7		ND	42.9	
Methyl acetate	79-20-9	78,000,000	N/A	5	ND	9.30		ND	8.60	

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4d continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-4			Amended Composite CS-4		
					20190172			20190177		
					K2316-04			K2316-09		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	3,100,000	240,000	200	ND	610		ND	570	
Azobenzene ²	103-33-3	700	2,000	700	ND	610		ND	570	
2,4,5-Trichlorophenol	95-95-4	6,100,000	68,000,000	200	ND	610		ND	570	
2,4,6-Trichlorophenol	88-06-2	19,000	74,000	200	ND	610		ND	570	
2,4-Dichlorophenol	120-83-2	180,000	2,100,000	200	ND	610		ND	570	
2,4-Dimethylphenol	105-67-9	1,200,000	14,000,000	200	ND	610		ND	570	
2,4-Dinitrophenol	51-28-5	120,000	1,400,000	300	ND	1200		ND	1200	
2,4-Dinitrotoluene	121-14-2	N/A	3,000	200	ND	610		ND	570	
2,6-Dinitrotoluene	606-20-2	N/A	3,000	200	ND	610		ND	570	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	700	3,000	200	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	310,000	2,200,000	200	ND	610		ND	570	
2-Methylnaphthalene	91-57-6	230,000	2,400,000	170	ND	610		ND	570	
2-Methylphenol (o-Cresol)	95-48-7	310,000	3,400,000	200	ND	610		ND	570	
2-Nitroaniline	88-74-4	39,000	23,000,000	300	ND	610		ND	570	
3,3'-Dichlorobenzidine	91-94-1	1,000	4,000	200	ND	610		ND	570	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	6,000	68,000	300	ND	1200		ND	1200	
3-,4-Methylphenol (p-Cresol) ³	65794-96-9	31,000	340,000	200	ND	610		ND	570	
Acenaphthene	83-32-9	3,400,000	37,000,000	200	ND	610		ND	570	
Acenaphthylene	208-96-8	N/A	300,000,000	200	ND	610		ND	570	
Acetophenone	98-86-2	2,000	5,000	200	ND	610		ND	570	
Anthracene	120-12-7	17,000,000	30,000,000	200	ND	610		130	570	J
Atrazine	1912-24-9	210,000	2,400,000	200	ND	610		ND	570	
Benzaldehyde	100-52-7	6,100,000	68,000,000	200	ND	1200		ND	1200	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

³ NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4d continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS) (continued)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-4			Amended Composite CS-4		
					20190172			20190177		
					K2316-04			K2316-09		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result	RL	Q	Result	RL	Q
Benzidine	92-87-5	700	700	700	ND	610		ND	570	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	5,000	17,000	200	ND	610		430	570	J
Benzo(a)pyrene	50-32-8	500	2,000	200	ND	610		330	570	J
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	5,000	17,000	200	ND	610		460	570	J
Benzo(g,h,i)perylene	191-24-2	380,000,000	30,000,000	200	ND	610		200	570	J
Benzo(k)fluoranthene	207-08-9	45,000	170,000	200	ND	610		140	570	J
bis(2-Chloroethyl)ether	111-44-4	400	2,000	200	ND	610		ND	570	
Bis(2-chloroisopropyl) ether	108-60-1	23,000	67,000	200	ND	610		ND	570	
bis(2-Ethylhexyl)phthalate	117-81-7	35,000	140,000	200	410	610	J	2000	570	
Butyl benzyl phthalate	85-68-7	1,200,000	14,000,000	200	ND	610		ND	570	
Caprolactam	105-60-2	31,000,000	340,000,000	200	ND	610		ND	570	
Carbazole	86-74-8	24,000	96,000	200	ND	610		ND	570	
Chrysene	218-01-9	450,000	1,700,000	200	ND	610		370	570	J
Dibenz(a,h)anthracene	53-70-3	500	2,000	200	ND	610		ND	570	
Diethylphthalate	84-66-2	49,000,000	550,000,000	200	ND	610		ND	570	
Di-n-butylphthalate	84-74-2	6,100,000	68,000,000	200	ND	610		ND	570	
Di-n-octylphthalate	117-84-0	2,400,000	27,000,000	200	ND	610		ND	570	
Fluoranthene	206-44-0	2,300,000	24,000,000	200	120	610	J	900	570	
Fluorene	86-73-7	2,300,000	24,000,000	200	ND	610		ND	570	
Hexachloro-1,3-butadiene	87-68-3	6,000	25,000	200	ND	610		ND	570	
Hexachlorobenzene	118-74-1	300	1,000	200	ND	610		ND	570	
Hexachlorocyclopentadiene	77-47-4	45,000	110,000	200	ND	1200		ND	1200	
Hexachloroethane	67-72-1	12,000	48,000	200	ND	610		ND	570	
Indeno(1,2,3-cd)pyrene	193-39-5	500	17,000	200	ND	610		180	570	J
Isophorone	78-59-1	510,000	2,000,000	200	ND	610		ND	570	
Naphthalene	91-20-3	6,000	17,000	200	ND	610		ND	570	
Nitrobenzene	98-95-3	5,000	14,000	200	ND	610		ND	570	
N-Nitrosodimethylamine	62-75-9	700	700	700	ND	610		ND	570	
N-Nitroso-di-n-propylamine	621-64-7	200	300	200	ND	610		ND	570	
N-Nitrosodiphenylamine	86-30-6	99,000	390,000	200	ND	610		ND	570	
Pentachlorophenol	87-86-5	900	3,000	300	ND	1200		ND	1200	
Phenanthrene	85-01-8	N/A	300,000,000	200	ND	610		540	570	J
Phenol	108-95-2	18,000,000	210,000,000	200	ND	610		ND	570	
Pyrene	129-00-0	1,700,000	18,000,000	200	ND	610		640	570	

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4d continued

Pesticide/Herbicide and PCB Aroclor Analysis of Bulk Sediment (NJDEP SRS)

AST Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON-Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-4			Amended Composite CS-4		
					20190172			20190177		
					K2316-04			K2316-09		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
4,4'-DDD	72-54-8	3,000	13,000	3	ND	3.20		ND	2.90	
4,4'-DDE	72-55-9	2,000	9,000	3	ND	3.20		1.10	2.90	JP
4,4'-DDT	50-29-3	2,000	8,000	3	ND	3.20		ND	2.90	
Aldrin	309-00-2	40	200	2	ND	3.20		ND	2.90	
alpha-HCH (alpha-BHC)	319-84-6	100	500	2	ND	3.20		ND	2.90	
beta-HCH (beta-BHC)	319-85-7	400	2,000	2	ND	3.20		ND	2.90	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	400	2,000	2	ND	3.20		ND	2.90	
alpha-Chlordane	5103-71-9	N/A	N/A	N/A	ND	3.20		ND	2.90	
gamma-Chlordane	5103-74-2	N/A	N/A	N/A	ND	3.20		ND	2.90	
Chlordane (alpha and gamma)	57-74-9	200	1,000	2	ND			ND		
Dieldrin	60-57-1	40	200	3	ND	3.20		ND	2.90	
Endosulfan I	959-98-8	N/A	N/A	3	ND	3.20		ND	2.90	
Endosulfan II	33213-65-9	N/A	N/A	3	ND	3.20		ND	2.90	
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	470,000	6,800,000	3	ND			ND		
Endosulfan sulfate	1031-07-8	470,000	6,800,000	3	ND	3.20		ND	2.90	
Endrin	72-20-8	23,000	340,000	3	ND	3.20		ND	2.90	
Heptachlor	76-44-8	100	700	2	ND	3.20		ND	2.90	
Heptachlor epoxide	1024-57-3	70	300	2	ND	3.20		ND	2.90	
Methoxychlor	72-43-5	390,000	5,700,000	20	ND	3.20		ND	2.90	
Toxaphene	8001-35-2	600	3,000	200	ND	31.7		ND	29.4	
Aroclor-1016	12674-11-2	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1221	11104-28-2	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1232	11141-16-5	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1242	53469-21-9	N/A	N/A	N/A	ND	31.7		57.0	29.4	
Aroclor-1248	12672-29-6	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1254	11097-69-1	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1260	11096-82-5	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1262	37324-23-5	N/A	N/A	N/A	ND	31.7		ND	29.4	
Aroclor-1268	11100-14-4	N/A	N/A	N/A	ND	31.7		ND	29.4	
Total Aroclor(SUM)	1336-36-3	200	1000	30	ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4d continued

Metals Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:mg/kg)			Amended Sediment (Units:mg/kg)		
					Composite CS-4			Amended Composite CS-4		
					20190172			20190177		
					K2316-04			K2316-09		
Analyte Name	CAS No.	mg/kg (ppm)	mg/kg (ppm)	mg/kg	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	78,000	N/A	20	8640	7.79		12000	7.03	
Antimony	7440-36-0	31	450	6	1.24	3.89	JN	1.41	3.52	JN
Arsenic	7440-38-2	19	19	1	22.3	1.56		20.9	1.41	
Barium	7440-39-3	16,000	59,000	20	67.1	7.79	N	80.2	7.03	N
Beryllium	7440-41-7	16	140	0.5	1.23	0.467		1.36	0.422	
Cadmium	7440-43-9	78	78	0.5	3.40	0.467		3.96	0.422	
Cobalt	7440-48-4	1,600	590	5	17.8	2.34		18.7	2.11	
Copper	7440-50-8	3,100	45,000	3	211	1.56	N	206	1.41	N
Lead	7439-92-1	400	800	1	202	0.935		200	0.844	
Manganese	7439-96-5	11,000	5,900	2	246	1.56		286	1.41	
Mercury	7439-97-6	23	65	0.1	1.77	0.090	D	1.41	0.091	D
Nickel	7440-02-0	1,600	23,000	4	39.7	3.12		42.2	2.81	
Selenium	7782-49-2	390	5,700	4	ND	1.56		ND	1.41	
Silver	7440-22-4	390	5,700	1	0.991	0.779	N	0.681	0.703	JN
Vanadium	7440-62-2	78	1,100	5	34.1	3.12	N	37.1	2.81	N
Zinc	7440-66-6	23,000	110,000	6	457	3.12		529	2.81	
Cyanide	57-12-5	47	680	3	5.30	0.460		1.00	0.410	
Chromium, total	7440-47-3	N/A	N/A	N/A	75.8	0.779		75.2	0.703	
Hexavalent chromium	18540-29-9	N/A	N/A	N/A	ND	0.733		ND	0.687	
Trivalent chromium	16065-83-1	N/A	N/A	N/A	75.8	0.374		75.2	0.346	
% Moisture	MOIST	N/A	N/A	N/A	46.5			42.2		
% Solids	N/A	N/A	N/A	N/A	53.5			57.8		

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4e

Volatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON-Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-5			Amended Composite CS-5		
					20190173			20190178		
					K2316-05			K2316-10		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	4,000	12,000	5	ND	10.6		ND	9.30	
Bromomethane (Methyl bromide)	74-83-9	25,000	59,000	5	ND	10.6		ND	9.30	
Vinyl chloride	75-01-4	700	2,000	5	ND	10.6		ND	9.30	
Chloroethane (Ethyl chloride)	75-00-3	220,000	1,100,000	5	ND	10.6		ND	9.30	
1,2,4-Trichlorobenzene	120-82-1	73,000	820,000	5	ND	10.6		ND	9.30	
Methylene chloride (Dichloromethane)	75-09-2	46,000	230,000	5	7.40	10.6	JB	12.1	9.30	B
Acetone (2-Propanone)	67-64-1	70,000,000	N/A	10	120	53.2		140	46.5	
Carbon disulfide	75-15-0	7,800,000	110,000,000	500	5.70	10.6	J	21.7	9.30	
1,1-Dichloroethene	75-35-4	11,000	150,000	5	ND	10.6		ND	9.30	
1,1-Dichloroethane	75-34-3	8,000	24,000	5	ND	10.6		ND	9.30	
<i>cis</i> -1,2-Dichloroethene	156-59-2	230,000	560,000	5	ND	10.6		ND	9.30	
<i>trans</i> -1,2-Dichloroethene	156-60-5	300,000	720,000	5	ND	10.6		ND	9.30	
1,2-Dichloroethene (total)	N/A	230,000	N/A	5	ND			ND		
Chloroform	67-66-3	600	2,000	5	ND	10.6		ND	9.30	
1,2-Dichloroethane	107-06-2	900	3,000	5	ND	10.6		ND	9.30	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	3,100,000	44,000,000	10	33.8	53.2	J	26.3	46.5	J
1,1,1-Trichloroethane	71-55-6	160,000,000	N/A	5	ND	10.6		ND	9.30	
Carbon tetrachloride	56-23-5	2,000	4,000	5	ND	10.6		ND	9.30	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	1,000	3,000	5	ND	10.6		ND	9.30	
1,2-Dichloropropane	78-87-5	2,000	5,000	5	ND	10.6		ND	9.30	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	N/A	5	ND	10.6		ND	9.30	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	N/A	5	ND	10.6		ND	9.30	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	2,000	7,000	5	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	3,000	10,000	5	ND	10.6		ND	9.30	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	3,000	8,000	5	ND	10.6		ND	9.30	
1,1,2-Trichloroethane	79-00-5	2,000	6,000	5	ND	10.6		ND	9.30	
Benzene	71-43-2	2,000	5,000	5	6.40	10.6	J	4.10	9.30	J
Bromoform	75-25-2	81,000	280,000	5	ND	10.6		ND	9.30	
Tetrachloroethene	127-18-4	43,000	1,500,000	5	ND	10.6		ND	9.30	
1,1,2,2-Tetrachloroethane	79-34-5	1,000	3,000	5	ND	10.6		ND	9.30	
Toluene	108-88-3	6,300,000	91,000,000	5	ND	10.6		ND	9.30	
Chlorobenzene	108-90-7	510,000	7,400,000	5	5.90	10.6	J	3.50	9.30	J
Ethyl benzene	100-41-4	7,800,000	110,000,000	5	3.50	10.6	J	2.10	9.30	J
Styrene	100-42-5	90,000	260,000	5	ND	10.6		ND	9.30	
Xylenes (Total)	1330-20-7	12,000,000	170,000,000	5	10.1	31.9	J	6.20	27.9	J
Acrolein	107-02-8	500	1,000	500	ND	53.2		ND	46.5	
Acrylonitrile	107-13-1	900	3,000	500	ND	53.2		ND	46.5	
Tertiary butyl alcohol	75-65-0	1,400,000	11,000,000	100	ND	53.2		ND	46.5	
Methyl acetate	79-20-9	78,000,000	N/A	5	ND	10.6		ND	9.30	

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4e continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-5			Amended Composite CS-5		
					20190173			20190178		
					K2316-05			K2316-10		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	3,100,000	240,000	200	ND	700		ND	620	
Azobenzene ²	103-33-3	700	2,000	700	ND	700		ND	620	
2,4,5-Trichlorophenol	95-95-4	6,100,000	68,000,000	200	ND	700		ND	620	
2,4,6-Trichlorophenol	88-06-2	19,000	74,000	200	ND	700		ND	620	
2,4-Dichlorophenol	120-83-2	180,000	2,100,000	200	ND	700		ND	620	
2,4-Dimethylphenol	105-67-9	1,200,000	14,000,000	200	ND	700		ND	620	
2,4-Dinitrophenol	51-28-5	120,000	1,400,000	300	ND	1400		ND	1300	
2,4-Dinitrotoluene	121-14-2	N/A	3,000	200	ND	700		ND	620	
2,6-Dinitrotoluene	606-20-2	N/A	3,000	200	ND	700		ND	620	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	700	3,000	200	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	310,000	2,200,000	200	ND	700		ND	620	
2-Methylnaphthalene	91-57-6	230,000	2,400,000	170	ND	700		ND	620	
2-Methylphenol (o-Cresol)	95-48-7	310,000	3,400,000	200	ND	700		ND	620	
2-Nitroaniline	88-74-4	39,000	23,000,000	300	ND	700		ND	620	
3,3'-Dichlorobenzidine	91-94-1	1,000	4,000	200	ND	700		ND	620	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	6,000	68,000	300	ND	1400		ND	1300	
3-,4-Methylphenol (p-Cresol) ³	65794-96-9	31,000	340,000	200	ND	700		ND	620	
Acenaphthene	83-32-9	3,400,000	37,000,000	200	ND	700		ND	620	
Acenaphthylene	208-96-8	N/A	300,000,000	200	ND	700		ND	620	
Acetophenone	98-86-2	2,000	5,000	200	ND	700		ND	620	
Anthracene	120-12-7	17,000,000	30,000,000	200	ND	700		ND	620	
Atrazine	1912-24-9	210,000	2,400,000	200	ND	700		ND	620	
Benzaldehyde	100-52-7	6,100,000	68,000,000	200	ND	1400		ND	1300	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

³ NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4e continued

Semivolatile Analysis of Bulk Sediment (NJDEP SRS) (continued)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-5			Amended Composite CS-5		
					20190173			20190178		
					K2316-05			K2316-10		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result	RL	Q	Result	RL	Q
Benidine	92-87-5	700	700	700	ND	700		ND	620	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	5,000	17,000	200	ND	700		ND	620	
Benzo(a)pyrene	50-32-8	500	2,000	200	ND	700		ND	620	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	5,000	17,000	200	ND	700		130	620	J
Benzo(g,h,i)perylene	191-24-2	380,000,000	30,000,000	200	ND	700		ND	620	
Benzo(k)fluoranthene	207-08-9	45,000	170,000	200	ND	700		ND	620	
bis(2-Chloroethyl)ether	111-44-4	400	2,000	200	ND	700		ND	620	
Bis(2-chloroisopropyl) ether	108-60-1	23,000	67,000	200	ND	700		ND	620	
bis(2-Ethylhexyl)phthalate	117-81-7	35,000	140,000	200	ND	700		200	620	J
Butyl benzyl phthalate	85-68-7	1,200,000	14,000,000	200	ND	700		ND	620	
Caprolactam	105-60-2	31,000,000	340,000,000	200	ND	700		ND	620	
Carbazole	86-74-8	24,000	96,000	200	ND	700		ND	620	
Chrysene	218-01-9	450,000	1,700,000	200	ND	700		ND	620	
Dibenz(a,h)anthracene	53-70-3	500	2,000	200	ND	700		ND	620	
Diethylphthalate	84-66-2	49,000,000	550,000,000	200	ND	700		ND	620	
Di-n-butylphthalate	84-74-2	6,100,000	68,000,000	200	ND	700		ND	620	
Di-n-octylphthalate	117-84-0	2,400,000	27,000,000	200	ND	700		ND	620	
Fluoranthene	206-44-0	2,300,000	24,000,000	200	ND	700		200	620	J
Fluorene	86-73-7	2,300,000	24,000,000	200	ND	700		ND	620	
Hexachloro-1,3-butadiene	87-68-3	6,000	25,000	200	ND	700		ND	620	
Hexachlorobenzene	118-74-1	300	1,000	200	ND	700		ND	620	
Hexachlorocyclopentadiene	77-47-4	45,000	110,000	200	ND	1400		ND	1300	
Hexachloroethane	67-72-1	12,000	48,000	200	ND	700		ND	620	
Indeno(1,2,3-cd)pyrene	193-39-5	500	17,000	200	ND	700		ND	620	
Isophorone	78-59-1	510,000	2,000,000	200	ND	700		ND	620	
Naphthalene	91-20-3	6,000	17,000	200	ND	700		ND	620	
Nitrobenzene	98-95-3	5,000	14,000	200	ND	700		ND	620	
N-Nitrosodimethylamine	62-75-9	700	700	700	ND	700		ND	620	
N-Nitroso-di-n-propylamine	621-64-7	200	300	200	ND	700		ND	620	
N-Nitrosodiphenylamine	86-30-6	99,000	390,000	200	ND	700		ND	620	
Pentachlorophenol	87-86-5	900	3,000	300	ND	1400		ND	1300	
Phenanthrene	85-01-8	N/A	300,000,000	200	ND	700		ND	620	
Phenol	108-95-2	18,000,000	210,000,000	200	ND	700		140	620	J
Pyrene	129-00-0	1,700,000	18,000,000	200	ND	700		140	620	J

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4e continued

Pesticide/Herbicide and PCB Aroclor Analysis of Bulk Sediment (NJDEP SRS)

AST Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:µg/kg)			Amended Sediment (Units:µg/kg)		
					Composite CS-5			Amended Composite CS-5		
					20190173			20190178		
					K2316-05			K2316-10		
Analyte Name	CAS No.	µg/kg (ppb)	µg/kg (ppb)	µg/kg	Result ¹	RL	Q	Result ¹	RL	Q
4,4'-DDD	72-54-8	3,000	13,000	3	ND	3.60		ND	3.20	
4,4'-DDE	72-55-9	2,000	9,000	3	ND	3.60		ND	3.20	
4,4'-DDT	50-29-3	2,000	8,000	3	ND	3.60		ND	3.20	
Aldrin	309-00-2	40	200	2	ND	3.60		ND	3.20	
alpha-HCH (alpha-BHC)	319-84-6	100	500	2	ND	3.60		ND	3.20	
beta-HCH (beta-BHC)	319-85-7	400	2,000	2	ND	3.60		ND	3.20	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	400	2,000	2	ND	3.60		ND	3.20	
alpha-Chlordane	5103-71-9	N/A	N/A	N/A	ND	3.60		ND	3.20	
gamma-Chlordane	5103-74-2	N/A	N/A	N/A	ND	3.60		ND	3.20	
Chlordane (alpha and gamma)	57-74-9	200	1,000	2	ND			ND		
Dieldrin	60-57-1	40	200	3	ND	3.60		ND	3.20	
Endosulfan I	959-98-8	N/A	N/A	3	ND	3.60		ND	3.20	
Endosulfan II	33213-65-9	N/A	N/A	3	ND	3.60		ND	3.20	
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	470,000	6,800,000	3	ND			ND		
Endosulfan sulfate	1031-07-8	470,000	6,800,000	3	ND	3.60		ND	3.20	
Endrin	72-20-8	23,000	340,000	3	ND	3.60		ND	3.20	
Heptachlor	76-44-8	100	700	2	ND	3.60		ND	3.20	
Heptachlor epoxide	1024-57-3	70	300	2	ND	3.60		ND	3.20	
Methoxychlor	72-43-5	390,000	5,700,000	20	ND	3.60		ND	3.20	
Toxaphene	8001-35-2	600	3,000	200	ND	36.1		ND	32.0	
Aroclor-1016	12674-11-2	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1221	11104-28-2	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1232	11141-16-5	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1242	53469-21-9	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1248	12672-29-6	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1254	11097-69-1	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1260	11096-82-5	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1262	37324-23-5	N/A	N/A	N/A	ND	36.1		ND	32.0	
Aroclor-1268	11100-14-4	N/A	N/A	N/A	ND	36.1		ND	32.0	
Total Aroclor(SUM)	1336-36-3	200	1000	30	ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 4e continued

Metals Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	NJDEP NON- Residential Direct Contact Soil Remediation Standards	PQL*	Unamended Sediment (Units:mg/kg)			Amended Sediment (Units:mg/kg)		
					Composite CS-5			Amended Composite CS-5		
					20190173			20190178		
					K2316-05			K2316-10		
Analyte Name	CAS No.	mg/kg (ppm)	mg/kg (ppm)	mg/kg	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	78,000	N/A	20	10900	9.02		13300	7.89	
Antimony	7440-36-0	31	450	6	1.15	4.51	JN	0.980	3.95	JN
Arsenic	7440-38-2	19	19	1	19.1	1.80		17.6	1.58	
Barium	7440-39-3	16,000	59,000	20	57.9	9.02	N	66.4	7.89	N
Beryllium	7440-41-7	16	140	0.5	1.25	0.541		1.27	0.474	
Cadmium	7440-43-9	78	78	0.5	2.12	0.541		1.86	0.474	
Cobalt	7440-48-4	1,600	590	5	10.9	2.70		10.4	2.37	
Copper	7440-50-8	3,100	45,000	3	152	1.80	N	133	1.58	N
Lead	7439-92-1	400	800	1	140	1.08		127	0.947	
Manganese	7439-96-5	11,000	5,900	2	319	1.80		325	1.58	
Mercury	7439-97-6	23	65	0.1	1.40	0.053	D	0.941	0.025	
Nickel	7440-02-0	1,600	23,000	4	33.9	3.61		30.4	3.16	
Selenium	7782-49-2	390	5,700	4	ND	1.80		ND	1.58	
Silver	7440-22-4	390	5,700	1	0.532	0.902	JN	0.153	0.789	JN
Vanadium	7440-62-2	78	1,100	5	38.7	3.61	N	38.2	3.16	N
Zinc	7440-66-6	23,000	110,000	6	326	3.61		360	3.16	
Cyanide	57-12-5	47	680	3	ND	0.520		1.80	0.460	
Chromium, total	7440-47-3	N/A	N/A	N/A	67.6	0.902		60.2	0.789	
Hexavalent chromium	18540-29-9	N/A	N/A	N/A	ND	0.855		ND	0.755	
Trivalent chromium	16065-83-1	N/A	N/A	N/A	67.6	0.427		60.2	0.377	
% Moisture	MOIST	N/A	N/A	N/A	53.2			47.0		
% Solids	N/A	N/A	N/A	N/A	46.8			53.0		

* = Required Practical quantitation level, N.J.A.C. 7:26E-1.8.

N/A - Not Applicable, no value on the NJDEP Non-Residential Direct Contact Health Base Criteria and Soil Remediation Standards Table 1B.

Table 5a

Dioxin/Furan Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	PQL*	WHO TEF	Unamended Sediment (Units:ng/kg)				Amended Sediment (Units:ng/kg)			
					Composite CS-1				Amended Composite CS-1			
ASI Sample ID#					20190169				20190174			
Pace Sample ID #:					0419-713_10277_001				0419-713_10277_006			
Analyte Name	CAS No.	pg/kg (pptr)	pg/kg	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	0.0254	0.0254	0.0002		0.0196	0.0196	0.0002	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	0.0114	0.0114	0.0009		0.00976	0.00976	0.0010	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	0.0009		0.00824	0.0082	0.0010	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	0.188	0.0188	0.0009		0.159	0.01590	0.0010	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	0.0811	0.00811	0.0009		0.0652	0.00652	0.0010	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	0.715	0.00715	0.0009		0.621	0.00621	0.0010	
OCDD	3268-87-9	N/A	N/A	0.0003	9.27	0.00278	0.0018		8.37	0.00251	0.0020	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	0.0377	0.00377	0.0002		0.0307	0.00307	0.0002	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	0.0194	0.00058	0.0009		0.0162	0.00049	0.001	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	0.0345	0.01035	0.0009		0.0283	0.00849	0.0009	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	0.0524	0.00524	0.0009		0.045	0.0045	0.0009	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	0.023	0.0023	0.0009		0.0198	0.00198	0.0009	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	0.0269	0.00269	0.0009		0.0223	0.00223	0.0009	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	0.0009		ND	0	0.0009	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	0.337	0.00337	0.0009		0.276	0.00276	0.0009	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	0.0205	0.00021	0.0009		0.0186	0.00019	0.0009	
OCDF	39001-02-0	N/A	N/A	0.0003	0.491	0.00015	0.0018		0.420	0.00013	0.002	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.102				0.085		

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 5b

Dioxin/Furan Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	PQL*	WHO TEF	Unamended Sediment (Units:ng/kg)				Amended Sediment (Units:ng/kg)			
					Composite CS-2				Amended Composite CS-2			
					20190170				20190175			
					0419-713_10277_002				0419-713_10277_007			
ASI Sample ID#												
Pace Sample ID #:												
Analyte Name	CAS No.	pg/kg (pptr)	pg/kg	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	0.0102	0.0102	0.0002		0.00837	0.00837	0.0002	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	0.0064	0.0064	0.0010		0.00493	0.00493	0.0009	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	0.00753	0.00075	0.0010		0.00623	0.00062	0.0009	EMPC
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	0.0525	0.00525	0.0010		0.0437	0.00437	0.0009	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	0.0288	0.00288	0.0010		0.0229	0.00229	0.0009	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	0.528	0.00528	0.0010		0.432	0.00432	0.0009	
OCDD	3268-87-9	N/A	N/A	0.0003	10.0	0.003	0.0021		8.37	0.00251	0.0018	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	0.0222	0.00222	0.0002		0.019	0.0019	0.0002	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	0.0115	0.00035	0.0010		0.00952	0.00029	0.0009	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	0.0204	0.00612	0.0010		0.0173	0.00519	0.0009	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	0.0293	0.00293	0.0010		0.0244	0.00244	0.0009	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	0.015	0.0015	0.0010		0.0119	0.00119	0.0009	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	0.0184	0.00184	0.0010		0.0144	0.00144	0.0009	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	0.0010		ND	0	0.0009	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	0.185	0.00185	0.0010		0.150	0.0015	0.0009	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	0.0139	0.00014	0.0010		0.0101	0.0001	0.0009	
OCDF	39001-02-0	N/A	N/A	0.0003	0.314	0.00009	0.0021		0.225	0.00007	0.0018	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.051				0.042		

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 5c

Dioxin/Furan Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	PQL*	WHO TEF	Unamended Sediment (Units:ng/kg)				Amended Sediment (Units:ng/kg)			
					Composite CS-3				Amended Composite CS-3			
ASI Sample ID#					20190171				20190176			
Pace Sample ID #:					0419-713_10277_003				0419-713_10277_008			
Analyte Name	CAS No.	pg/kg (pptr)	pg/kg	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	0.0172	0.0172	0.0002		0.00997	0.0100	0.0002	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	0.00873	0.0087	0.0010		0.00783	0.00783	0.0009	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	0.00674	0.001	0.0010		0.00812	0.00081	0.0009	EMPC
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	0.148	0.0148	0.0010		0.140	0.01400	0.0009	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	0.0714	0.0071	0.0010		0.0618	0.00618	0.0009	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	0.702	0.00702	0.0010		0.680	0.00680	0.0009	
OCDD	3268-87-9	N/A	N/A	0.0003	10.4	0.00312	0.0019		10.3	0.00309	0.0018	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	0.0261	0.00261	0.0002		0.0259	0.00259	0.0002	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	0.0155	0.00047	0.0010		0.0146	0.00044	0.001	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	0.0277	0.00831	0.0010		0.0256	0.00768	0.0009	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	0.0413	0.00413	0.0010		0.0383	0.00383	0.0009	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	0.019	0.0019	0.0010		0.0193	0.00193	0.0009	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	0.0245	0.0025	0.0010		0.022	0.00220	0.0009	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	0.0010		ND	0	0.0009	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	0.234	0.00234	0.0010		0.221	0.00221	0.0009	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	0.0192	0.00019	0.0010		0.0164	0.00016	0.0009	
OCDF	39001-02-0	N/A	N/A	0.0003	0.423	0.00013	0.0019		0.332	0.00010	0.002	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.081				0.070		

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 5d

Dioxin/Furan Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	PQL*	WHO TEF	Unamended Sediment (Units:ng/kg)				Amended Sediment (Units:ng/kg)			
					Composite CS-4				Amended Composite CS-4			
					20190172				20190177			
					0419-713_10277_004				0419-713_10277_009			
ASI Sample ID#												
Pace Sample ID #:												
Analyte Name	CAS No.	pg/kg (pptr)	pg/kg	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	0.0124	0.0124	0.0002		0.0106	0.0106	0.0001	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	0.00681	0.00681	0.0008		0.0054	0.0054	0.0007	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	0.00575	0.000575	0.0008		0.00509	0.000509	0.0007	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	0.074	0.0074	0.0008		0.0617	0.00617	0.0007	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	0.0355	0.0036	0.0008		0.0296	0.00296	0.0007	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	0.569	0.00569	0.0008		0.487	0.00487	0.0007	
OCDD	3268-87-9	N/A	N/A	0.0003	8.26	0.00248	0.0016		7.32	0.00220	0.0015	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	0.0239	0.00239	0.0002		0.0199	0.00199	0.0001	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	0.0135	0.00041	0.0008		0.0111	0.00033	0.001	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	0.0228	0.00684	0.0008		0.0187	0.00561	0.0007	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	0.0368	0.00368	0.0008		0.0295	0.00295	0.0007	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	0.0166	0.00166	0.0008		0.0146	0.00146	0.0007	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	0.0198	0.00198	0.0008		0.0161	0.00161	0.0007	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	0.0008		ND	0	0.0007	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	0.211	0.00211	0.0008		0.168	0.00168	0.0007	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	0.0204	0.00020	0.0008		0.012	0.00012	0.0007	
OCDF	39001-02-0	N/A	N/A	0.0003	0.412	0.00012	0.0016		0.270	0.00008	0.001	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.058				0.049		

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 5e

Dioxin/Furan Analysis of Bulk Sediment (NJDEP SRS)

ASI Job # 39-050		NJDEP Residential Direct Contact Soil Remediation Standards	PQL*	WHO TEF	Unamended Sediment (Units:ng/kg)				Amended Sediment (Units:ng/kg)			
					Composite CS-5				Amended Composite CS-5			
					20190173				20190178			
					0419-713_10277_005				0419-713_10277_010			
ASI Sample ID#												
Pace Sample ID #:												
Analyte Name	CAS No.	pg/kg (pptr)	pg/kg	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	0.00658	0.0066	0.0002		0.00505	0.00505	0.0002	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	0.00352	0.0035	0.0008		0.00332	0.00332	0.0009	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	0.00436	0.000	0.0008		0.00357	0.00036	0.0009	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	0.0356	0.0036	0.0008		0.0306	0.00306	0.0009	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	0.0174	0.0017	0.0008		0.0136	0.00136	0.0009	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	0.341	0.00341	0.0008		0.304	0.00304	0.0009	
OCDD	3268-87-9	N/A	N/A	0.0003	6.56	0.00197	0.0017		5.80	0.00174	0.0018	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	0.0151	0.00151	0.0002		0.0122	0.00122	0.0002	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	0.00924	0.00028	0.0008		0.00762	0.00023	0.0009	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	0.0144	0.00432	0.0008		0.0112	0.00336	0.0009	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	0.0209	0.00209	0.0008		0.0175	0.00175	0.0009	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	0.0102	0.00102	0.0008		0.00894	0.00089	0.0009	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	0.0115	0.00115	0.0008		0.00991	0.00099	0.0009	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	0.0008		ND	0	0.0009	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	0.124	0.00124	0.0008		0.0987	0.00099	0.0009	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	0.0105	0.000105	0.0008		0.00821	0.00008	0.0009	
OCDF	39001-02-0	N/A	N/A	0.0003	0.209	0.00006	0.0017		0.153	0.00005	0.002	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.033				0.027		

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 6a

Volatile Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health-Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS-1			Amended Composite CS-2			Amended Composite CS-3		
Chemtech Sample ID #:				20190174			20190175			20190176		
				K2316-11			K2316-12			K2316-13		
Analyte Name	CAS No.	µg/L (ppb)	µg/L	Result ¹	RL	Q	Result ¹	RL	Q	Result ¹	RL	Q
Chloromethane (Methyl Chloride)	75-09-2	N/A	N/A	1.40	5.00	J	1.20	5.00	J	1.20	5.00	J
Bromomethane (Methyl bromide)	74-83-9	200	1	ND	5.00		ND	5.00		ND	5.00	
Vinyl chloride	75-01-4	2	1	ND	5.00		ND	5.00		ND	5.00	
Chloroethane (Ethyl chloride)	75-00-3	N/A	N/A	ND	5.00		ND	5.00		ND	5.00	
Azobenzene ²	103-33-3	20	20	ND	10.0		ND	10.0		ND	10.0	
Methylene chloride (Dichloromethane)	75-09-2	60	1	1.40	5.00	J	1.20	5.00	J	1.20	5.00	J
Acetone (2-Propanone)	67-64-1	120,000	10.0	12.6	25.0	J	12.1	25.0	J	10.7	25.0	J
Carbon disulfide	75-15-0	14,000	1	ND	5.00		ND	5.00		ND	5.00	
1,1-Dichloroethene	75-35-4	20	1	ND	5.00		ND	5.00		ND	5.00	
1,1-Dichloroethane	75-34-3	1,000	1	ND	5.00		ND	5.00		ND	5.00	
Chloroform	67-66-3	1,400	1	ND	5.00		ND	5.00		ND	5.00	
1,2-Dichloroethane	107-06-2	6	2	ND	5.00		ND	5.00		ND	5.00	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	6,000	2	2.30	25.0	J	1.80	25.0	J	1.70	25.0	J
1,1,1-Trichloroethane	71-55-6	600	1	ND	5.00		ND	5.00		ND	5.00	
Carbon tetrachloride	56-23-5	8	1	ND	5.00		ND	5.00		ND	5.00	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	12	1	ND	5.00		ND	5.00		ND	5.00	
1,2-Dichloropropane	78-87-5	10	1	ND	5.00		ND	5.00		ND	5.00	
cis-1,3-Dichloropropene	10061-01-5	N/A	N/A	ND	5.00		ND	5.00		ND	5.00	
trans-1,3-Dichloropropene	10061-02-6	N/A	N/A	ND	5.00		ND	5.00		ND	5.00	
1,3-Dichloropropene (cis and trans summed)	542-75-6	8	1	ND			ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	20	1	ND	5.00		ND	5.00		ND	5.00	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	8	1	ND	5.00		ND	5.00		ND	5.00	
1,1,2-Trichloroethane	79-00-5	60	2	ND	5.00		ND	5.00		ND	5.00	
Benzene	71-43-2	4	1	ND	5.00		ND	5.00		3.50	5.00	J
Bromoform	75-25-2	80	0.8	ND	5.00		ND	5.00		ND	5.00	
Tetrachloroethene	127-18-4	8	1	ND	5.00		ND	5.00		ND	5.00	
1,1,2,2-Tetrachloroethane	79-34-5	20	1	ND	5.00		ND	5.00		ND	5.00	
Toluene	108-88-3	12,000	1	ND	5.00		ND	5.00		0.480	5.00	J
Chlorobenzene	108-90-7	1,000	1	ND	5.00		ND	5.00		0.580	5.00	J
Ethyl benzene	100-41-4	14,000	2	ND	5.00		ND	5.00		0.230	5.00	J
Styrene	100-42-5	2,000	2	ND	5.00		ND	5.00		ND	5.00	
Xylenes (Total)	1330-20-7	20,000	2	ND	15.0		ND	15.0		ND	15.0	
Acrolein	107-02-8	80	5	ND	25.0		ND	25.0		ND	25.0	
Acrylonitrile	107-13-1	2	2	ND	25.0		ND	25.0		ND	25.0	
Tertiary butyl alcohol	75-65-0	2,000	2	ND	25.0		ND	25.0		ND	25.0	
Methyl acetate	79-20-9	140,000	0.5	ND	5.00		ND	5.00		ND	5.00	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.

N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6a continued

Semivolatile Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health-Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS-1			Amended Composite CS-2			Amended Composite CS-3		
Chemtech Sample ID #:				20190174			20190175			20190176		
				K2316-11			K2316-12			K2316-13		
Analyte Name	CAS No.	µg/L (ppb)	µg/L	Result ¹	RL	Q	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	6,000*	10	ND	10.0		ND	10.0		ND	10.0	
1,2,4-Trichlorobenzene	120-82-1	180	1	ND	5.00		ND	5.00		ND	5.00	
2,4,5-Trichlorophenol	95-95-4	14,000	10	ND	10.0		ND	10.0		ND	10.0	
2,4,6-Trichlorophenol	88-06-2	20	20	ND	10.0		ND	10.0		ND	10.0	
2,4-Dichlorophenol	120-83-2	400	10	ND	10.0		ND	10.0		ND	10.0	
2,4-Dimethylphenol	105-67-9	2,000	20	ND	10.0		ND	10.0		ND	10.0	
2,4-Dinitrophenol	51-28-5	200	40	ND	20.0		ND	20.0		ND	20.0	
2,4-Dinitrotoluene	121-14-2	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
2,6-Dinitrotoluene	606-20-2	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	25321-14-6	10	10	ND			ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	800	20	ND	10.0		ND	10.0		ND	10.0	
2-Methylnaphthalene	91-57-6	600	10	ND	10.0		ND	10.0		ND	10.0	
2-Methylphenol (o-Cresol)	95-48-7	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
2-Nitroaniline	88-74-4	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
3,3'-Dichlorobenzidine	91-94-1	30	30	ND	10.0		ND	10.0		ND	10.0	
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	14	1	ND	20.0		ND	20.0		ND	20.0	
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
Acenaphthene	83-32-9	4,200*	10	ND	10.0		ND	10.0		ND	10.0	
Acenaphthylene	208-96-8	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
Acetophenone	98-86-2	14,000	10	ND	10.0		ND	10.0		ND	10.0	
Anthracene	120-12-7	43*	10	ND	10.0		ND	10.0		ND	10.0	
Atrazine	1912-24-9	60	0.1	ND	10.0		ND	10.0		ND	10.0	
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND	20.0	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.
N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6a continued

Semivolatile Analysis of SPLP Leachates (NJDEP) (continued)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health- Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS- 1			Amended Composite CS- 2			Amended Composite CS- 3		
Chemtech Sample ID #:				20190174			20190175			20190176		
				K2316-11			K2316-12			K2316-13		
Analyte Name	CAS No.	µg/L (ppb)	µg/L	Result	RL	Q	Result	RL	Q	Result	RL	Q
Benzidine	92-87-5	20	20	ND	10.0		ND	10.0		ND	10.0	
Benzo(a)anthracene (1,2- Benzanthracene)	56-55-3	1	0.1	ND	10.0		ND	10.0		ND	10.0	
Benzo(a)pyrene	50-32-8	0.1	0.1	ND	10.0		ND	10.0		ND	10.0	
Benzo(b)fluoranthene (3,4- Benzofluoranthene)	205-99-2	1	0.2	ND	10.0		ND	10.0		ND	10.0	
Benzo(g,h,i)perylene	191-24-2	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
Benzo(k)fluoranthene	207-08-9	0.8*	0.3	ND	10.0		ND	10.0		ND	10.0	
bis(2-Chloroethyl)ether	111-44-4	7	7	ND	10.0		ND	10.0		ND	10.0	
Bis(2-chloroisopropyl) ether	108-60-1	6,000	10	ND	10.0		ND	10.0		ND	10.0	
bis(2-Ethylhexyl)phthalate	117-81-7	40	3	ND	10.0		ND	10.0		ND	10.0	
Butyl benzyl phthalate	85-68-7	2,000	1	ND	10.0		ND	10.0		ND	10.0	
Caprolactam	105-60-2	70,000	5000	ND	10.0		ND	10.0		ND	10.0	
Carbazole	86-74-8	N/A	N/A	ND	10.0		ND	10.0		ND	10.0	
Chrysene	218-01-9	2*	0.2	ND	10.0		ND	10.0		ND	10.0	
Dibenz(a,h)anthracene	53-70-3	0.3	0.3	ND	10.0		ND	10.0		ND	10.0	
Diethylphthalate	84-66-2	120,000	1	ND	10.0		ND	10.0		ND	10.0	
Di-n-butylphthalate	84-74-2	11,000*	1	ND	10.0		ND	10.0		ND	10.0	
Di-n-octylphthalate	117-84-0	20*	10	ND	10.0		ND	10.0		ND	10.0	
Fluoranthene	206-44-0	210*	10	ND	10.0		ND	10.0		ND	10.0	
Fluorene	86-73-7	2,000*	1	ND	10.0		ND	10.0		ND	10.0	
Hexachloro-1,3-butadiene	87-68-3	8	1	ND	10.0		ND	10.0		ND	10.0	
Hexachlorobenzene	118-74-1	0.4	0.02	ND	10.0		ND	10.0		ND	10.0	
Hexachlorocyclopentadiene	77-47-4	800	0.5	ND	20.0		ND	20.0		ND	20.0	
Hexachloroethane	67-72-1	40	7	ND	10.0		ND	10.0		ND	10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	0.2 [#]	0.2	ND	10.0		ND	10.0		ND	10.0	
Isophorone	78-59-1	800	10	ND	10.0		ND	10.0		ND	10.0	
Naphthalene	91-20-3	6,000	2	3.90	10.0	J	8.3	10.0	J	4.30	10.0	J
Nitrobenzene	98-95-3	80	6	ND	10.0		ND	10.0		ND	10.0	
N-Nitrosodimethylamine	62-75-9	0.8	0.8	ND	10.0		ND	10.0		ND	10.0	
N-Nitroso-di-n-propylamine	621-64-7	10	10	ND	10.0		ND	10.0		ND	10.0	
N-Nitrosodiphenylamine	86-30-6	140	10	ND	10.0		ND	10.0		ND	10.0	
Pentachlorophenol	87-86-5	6	0.1	ND	20.0		ND	20.0		ND	20.0	
Phenanthrene	85-01-8	N/A	0.3	ND	10.0		ND	10.0		ND	10.0	
Phenol	108-95-2	40,000	10	4.40	10.00	J	4.30	10.00	J	3.70	10.0	J
Pyrene	129-00-0	140*	0.1	ND	10.0		ND	10.0		ND	10.0	

* = Adjusted so as not to exceed water solubility. [#] = Water solubility below reporting limit; criterion set at reporting limit.

N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6a continued

Pesticide/Arochlor Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health- Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS- 1				Amended Composite CS- 2				Amended Composite CS- 3
Chemtech Sample ID #:				20190174				20190175				20190176
Analyte Name	CAS No.			µg/L (ppb)	µg/L	Result ¹	RL	Q	Result ¹	RL	Q	Result ¹
4,4'-DDD	72-54-8	2	0.02	ND	0.050		ND	0.050		ND	0.050	
4,4'-DDE	72-55-9	2	0.01	ND	0.050		ND	0.050		ND	0.050	
4,4'-DDT	50-29-3	2	0.1	ND	0.050		ND	0.050		ND	0.050	
Aldrin	309-00-2	0.04	0.04	ND	0.050		ND	0.050		ND	0.050	
alpha-HCH (alpha-BHC)	319-84-6	0.1	0.02	ND	0.050		ND	0.050		ND	0.050	
beta-HCH (beta-BHC)	319-85-7	0.4	0.04	ND	0.050		ND	0.050		ND	0.050	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.6	0.02	ND	0.050		ND	0.050		ND	0.050	
Chlordane (alpha and gamma)	57-74-9	0.5	0.5	ND			ND			ND		
Dieldrin	60-57-1	0.04	0.03	ND	0.050		ND	0.050		ND	0.050	
Endosulfan I	959-98-8	N/A	N/A	ND	0.050		ND	0.050		ND	0.050	
Endosulfan II	33213-65-9	N/A	N/A	ND	0.050		ND	0.050		ND	0.050	
Endosulfan I and II (alpha and beta)	115-29-7	510*	0.1	ND			ND			ND		
Endosulfan sulfate	1031-07-8	800	0.02	ND	0.050		ND	0.050		ND	0.050	
Endrin	72-20-8	40	0.03	ND	0.050		ND	0.050		ND	0.050	
Heptachlor	76-44-8	0.2	0.05	ND	0.050		ND	0.050		ND	0.050	
Heptachlor epoxide	1024-57-3	0.2	0.2	ND	0.050		ND	0.050		ND	0.050	
Methoxychlor	72-43-5	45*	0.1	ND	0.050		ND	0.050		ND	0.050	
Toxaphene	8001-35-2	2	2	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1016	12674-11-2	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1221	11104-28-2	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1232	11141-16-5	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1242	53469-21-9	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1248	12672-29-6	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1254	11097-69-1	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1260	11096-82-5	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.500		ND	0.500		ND	0.500	
Total Arochlor(SUM)	1336-36-3	0.5	0.5	ND			ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.
N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6a continued

Metal Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health-Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: mg/L)			SPLP Leachate (Units: mg/L)			SPLP Leachate (Units: mg/L)					
ASI Sample ID #:				Amended Composite CS-1				Amended Composite CS-2				Amended Composite CS-3			
Chemtech Sample ID #:				20190174				20190175				20190176			
				K2316-11				K2316-12				K2316-13			
Analyte Name	CAS No.	mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	Result	RL	Q			
Aluminum	7429-90-5	4	0.03	176	0.500	D	181	0.500	D	157	0.500	D			
Antimony	7440-36-0	0.12	0.003	ND	0.250	D	ND	0.250	D	ND	0.250	D			
Arsenic	7440-38-2	0.003	0.003	ND	0.100	D	ND	0.100	D	ND	0.100	D			
Barium	7440-39-3	120	0.2	0.140	0.500	JD	0.147	0.500	JD	0.158	0.500	JD			
Beryllium	7440-41-7	0.02	0.001	0.0315	0.030	D	0.0263	0.030	JD	0.0291	0.030	JD			
Cadmium	7440-43-9	0.08	0.0005	0.0028	0.030	JD	0.0045	0.030	JD	0.0022	0.030	JD			
Cobalt	7440-48-4	2	0.0005	0.0919	0.150	JD	0.0854	0.150	JD	0.0873	0.150	JD			
Copper	7440-50-8	26	0.004	0.0801	0.100	JD	0.0419	0.100	JD	0.051	0.100	JD			
Lead	7439-92-1	0.1	0.005	0.191	0.060	D	0.581	0.060	D	0.302	0.060	D			
Manganese	7439-96-5	1	0.0004	6.49	0.100	D	7.08	0.100	D	6.41	0.100	D			
Mercury	7439-97-6	0.04	0.00005	0.000074	0.0002	J	0.000049	0.0002	J	ND	0.0002				
Nickel (Soluble salts)	7440-02-0	2	0.004	0.348	0.200	D	0.23	0.200	D	0.311	0.200	D			
Selenium	7782-49-2	0.8	0.004	ND	0.100	D	ND	0.100	D	ND	0.100	D			
Silver	7440-22-4	0.8	0.001	0.0444	0.050	JD	0.0309	0.050	JD	0.0349	0.050	JD			
Vanadium	7440-62-2	N/A	N/A	1.07	0.200	D	0.724	0.200	D	0.729	0.200	D			
Zinc	7440-66-6	40	0.01	7.48	0.200	D	6.88	0.200	D	8.16	0.200	D			
Cyanide	57-12-5	2	0.006	0.0027	0.005	J	0.0036	0.005	J	ND	0.005				
Chromium, total	7440-47-3	N/A	N/A	1.46	0.050	D	0.794	0.050	D	1.09	50.0	D			
Hexavalent chromium	18540-29-9	N/A	N/A	ND	0.010	H	ND	0.010	H	ND	0.010	H			
Trivalent chromium	16065-83-1	N/A	N/A	1.46	0.010		0.794	0.010		1.09	0.010				

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.
 N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6b

Volatile Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health- Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS-4			Amended Composite CS-5		
Chemtech Sample ID #:				20190177			20190178		
				K2316-14			K2316-15		
Analyte Name	CAS No.	µg/L (ppb)	µg/L	Result ¹	RL	Q	Result ¹	RL	Q
Chloromethane (Methyl Chloride)	75-09-2	N/A	N/A	1.20	5.00	J	1.40	5.00	J
Bromomethane (Methyl bromide)	74-83-9	200	1	ND	5.00		ND	5.00	
Vinyl chloride	75-01-4	2	1	ND	5.00		ND	5.00	
Chloroethane (Ethyl chloride)	75-00-3	N/A	N/A	ND	5.00		ND	5.00	
Azobenzene ²	103-33-3	20	20	ND	10.0		ND	10.0	
Methylene chloride (Dichloromethane)	75-09-2	60	1	1.20	5.00	J	1.40	5.00	J
Acetone (2-Propanone)	67-64-1	120,000	10.0	17.1	25.0	J	11.2	25.0	J
Carbon disulfide	75-15-0	14,000	1	ND	5.00		ND	5.00	
1,1-Dichloroethene	75-35-4	20	1	ND	5.00		ND	5.00	
1,1-Dichloroethane	75-34-3	1,000	1	ND	5.00		ND	5.00	
Chloroform	67-66-3	1,400	1	ND	5.00		ND	5.00	
1,2-Dichloroethane	107-06-2	6	2	ND	5.00		ND	5.00	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	6,000	2	2.10	25.0	J	1.90	25.0	J
1,1,1-Trichloroethane	71-55-6	600	1	ND	5.00		ND	5.00	
Carbon tetrachloride	56-23-5	8	1	ND	5.00		ND	5.00	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	12	1	ND	5.00		ND	5.00	
1,2-Dichloropropane	78-87-5	10	1	ND	5.00		ND	5.00	
cis-1,3-Dichloropropene	10061-01-5	N/A	N/A	ND	5.00		ND	5.00	
trans-1,3-Dichloropropene	10061-02-6	N/A	N/A	ND	5.00		ND	5.00	
1,3-Dichloropropene (cis and trans summed)	542-75-6	8	1	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	20	1	ND	5.00		ND	5.00	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	8	1	ND	5.00		ND	5.00	
1,1,2-Trichloroethane	79-00-5	60	2	ND	5.00		ND	5.00	
Benzene	71-43-2	4	1	ND	5.00		ND	5.00	
Bromoform	75-25-2	80	0.8	ND	5.00		ND	5.00	
Tetrachloroethene	127-18-4	8	1	ND	5.00		ND	5.00	
1,1,2,2-Tetrachloroethane	79-34-5	20	1	ND	5.00		ND	5.00	
Toluene	108-88-3	12,000	1	ND	5.00		ND	5.00	
Chlorobenzene	108-90-7	1,000	1	ND	5.00		ND	5.00	
Ethyl benzene	100-41-4	14,000	2	ND	5.00		ND	5.00	
Styrene	100-42-5	2,000	2	ND	5.00		ND	5.00	
Xylenes (Total)	1330-20-7	20,000	2	ND	15.0		ND	15.0	
Acrolein	107-02-8	80	5	ND	25.0		ND	25.0	
Acrylonitrile	107-13-1	2	2	ND	25.0		ND	25.0	
Tertiary butyl alcohol	75-65-0	2,000	2	ND	25.0		ND	25.0	
Methyl acetate	79-20-9	140,000	0.5	ND	5.00		ND	5.00	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.

N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6b continued

Semivolatile Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health- Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS-4			Amended Composite CS-5		
Chemtech Sample ID #:				20190177			20190178		
				K2316-14			K2316-15		
Analyte Name	CAS No.	µg/L (ppb)	µg/L	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	6,000*	10	ND	10.0		ND	10.0	
1,2,4-Trichlorobenzene	120-82-1	180	1	ND	5.00		ND	5.00	
2,4,5-Trichlorophenol	95-95-4	14,000	10	ND	10.0		ND	10.0	
2,4,6-Trichlorophenol	88-06-2	20	20	ND	10.0		ND	10.0	
2,4-Dichlorophenol	120-83-2	400	10	ND	10.0		ND	10.0	
2,4-Dimethylphenol	105-67-9	2,000	20	ND	10.0		ND	10.0	
2,4-Dinitrophenol	51-28-5	200	40	ND	20.0		ND	20.0	
2,4-Dinitrotoluene	121-14-2	N/A	N/A	ND	10.0		ND	10.0	
2,6-Dinitrotoluene	606-20-2	N/A	N/A	ND	10.0		ND	10.0	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	25321-14-6	10	10	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	800	20	ND	10.0		ND	10.0	
2-Methylnaphthalene	91-57-6	600	10	ND	10.0		ND	10.0	
2-Methylphenol (o-Cresol)	95-48-7	N/A	N/A	ND	10.0		ND	10.0	
2-Nitroaniline	88-74-4	N/A	N/A	ND	10.0		ND	10.0	
3,3'-Dichlorobenzidine	91-94-1	30	30	ND	10.0		ND	10.0	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	14	1	ND	20.0		ND	20.0	
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	N/A	ND	10.0	JQ	ND	10.0	Q
Acenaphthene	83-32-9	4,200*	10	ND	10.0		ND	10.0	
Acenaphthylene	208-96-8	N/A	N/A	ND	10.0		ND	10.0	
Acetophenone	98-86-2	14,000	10	ND	10.0		ND	10.0	
Anthracene	120-12-7	43*	10	ND	10.0		ND	10.0	
Atrazine	1912-24-9	60	0.1	ND	10.0		ND	10.0	
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0	

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.
N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6b continued

Semivolatile Analysis of SPLP Leachates (NJDEP) (continued)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health- Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)		
ASI Sample ID #:				Amended Composite CS-4			Amended Composite CS-5		
Chemtech Sample ID #:				20190177			20190178		
				K2316-14			K2316-15		
Analyte Name	CAS No.	µg/L (ppb)	µg/L	Result	RL	Q	Result	RL	Q
Benzidine	92-87-5	20	20	ND	10.0		ND	10.0	
Benzo(a)anthracene (1,2- Benzanthracene)	56-55-3	1	0.1	ND	10.0		ND	10.0	
Benzo(a)pyrene	50-32-8	0.1	0.1	ND	10.0		ND	10.0	
Benzo(b)fluoranthene (3,4- Benzofluoranthene)	205-99-2	1	0.2	ND	10.0		ND	10.0	
Benzo(g,h,i)perylene	191-24-2	N/A	N/A	ND	10.0		ND	10.0	
Benzo(k)fluoranthene	207-08-9	0.8*	0.3	ND	10.0		ND	10.0	
bis(2-Chloroethyl)ether	111-44-4	7	7	ND	10.0		ND	10.0	
Bis(2-chloroisopropyl) ether	108-60-1	6,000	10	ND	10.0		ND	10.0	
bis(2-Ethylhexyl)phthalate	117-81-7	40	3	ND	10.0		ND	10.0	
Butyl benzyl phthalate	85-68-7	2,000	1	ND	10.0		ND	10.0	
Caprolactam	105-60-2	70,000	5000	ND	10.0		ND	10.0	
Carbazole	86-74-8	N/A	N/A	ND	10.0		ND	10.0	
Chrysene	218-01-9	2*	0.2	ND	10.0		ND	10.0	
Dibenz(a,h)anthracene	53-70-3	0.3	0.3	ND	10.0		ND	10.0	
Diethylphthalate	84-66-2	120,000	1	ND	10.0		ND	10.0	
Di-n-butylphthalate	84-74-2	11,000*	1	ND	10.0		ND	10.0	
Di-n-octylphthalate	117-84-0	20*	10	ND	10.0		ND	10.0	
Fluoranthene	206-44-0	210*	10	ND	10.0		ND	10.0	
Fluorene	86-73-7	2,000*	1	ND	10.0		ND	10.0	
Hexachloro-1,3-butadiene	87-68-3	8	1	ND	10.0		ND	10.0	
Hexachlorobenzene	118-74-1	0.4	0.02	ND	10.0		ND	10.0	
Hexachlorocyclopentadiene	77-47-4	800	0.5	ND	20.0		ND	20.0	
Hexachloroethane	67-72-1	40	7	ND	10.0		ND	10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	0.2 [#]	0.2	ND	10.0		ND	10.0	
Isophorone	78-59-1	800	10	ND	10.0		ND	10.0	
Naphthalene	91-20-3	6,000	2	ND	10.0		ND	10.0	
Nitrobenzene	98-95-3	80	6	ND	10.0		ND	10.0	
N-Nitrosodimethylamine	62-75-9	0.8	0.8	ND	10.0		ND	10.0	
N-Nitroso-di-n-propylamine	621-64-7	10	10	ND	10.0		ND	10.0	
N-Nitrosodiphenylamine	86-30-6	140	10	ND	10.0		ND	10.0	
Pentachlorophenol	87-86-5	6	0.1	ND	20.0		ND	20.0	
Phenanthrene	85-01-8	N/A	0.3	ND	10.0		ND	10.0	
Phenol	108-95-2	40,000	10	ND	10.0		2.90	10.0	J
Pyrene	129-00-0	140*	0.1	ND	10.0		ND	10.0	

* = Adjusted so as not to exceed water solubility. [#] = Water solubility below reporting limit; criterion set at reporting limit.

N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6b continued

Pesticide/Arochlor Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health- Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: µg/L)			SPLP Leachate (Units: µg/L)			
ASI Sample ID #:				Amended Composite CS-4			Amended Composite CS-5			
Chemtech Sample ID #:				20190177			20190178			
Analyte Name				CAS No.	µg/L (ppb)	µg/L	Result ¹	RL	Q	Result ¹
4,4'-DDD		72-54-8	2	0.02	ND	0.050		ND	0.050	
4,4'-DDE		72-55-9	2	0.01	ND	0.050		ND	0.050	
4,4'-DDT		50-29-3	2	0.1	ND	0.050		ND	0.050	
Aldrin		309-00-2	0.04	0.04	ND	0.050		ND	0.050	
alpha-HCH (alpha-BHC)		319-84-6	0.1	0.02	ND	0.050		ND	0.050	
beta-HCH (beta-BHC)		319-85-7	0.4	0.04	ND	0.050		ND	0.050	
Lindane (gamma-HCH) (gamma-BHC)		58-89-9	0.6	0.02	ND	0.050		ND	0.050	
Chlordane (alpha and gamma)		57-74-9	0.5	0.5	ND			ND		
Dieldrin		60-57-1	0.04	0.03	ND	0.050		ND	0.050	
Endosulfan I		959-98-8	N/A	N/A	ND	0.050		ND	0.050	
Endosulfan II		33213-65-9	N/A	N/A	ND	0.050		ND	0.050	
Endosulfan I and II (alpha and beta)		115-29-7	510*	0.1	ND			ND		
Endosulfan sulfate		1031-07-8	800	0.02	ND	0.050		ND	0.050	
Endrin		72-20-8	40	0.03	ND	0.050		ND	0.050	
Heptachlor		76-44-8	0.2	0.05	ND	0.050		ND	0.050	
Heptachlor epoxide		1024-57-3	0.2	0.2	ND	0.050		ND	0.050	
Methoxychlor		72-43-5	45*	0.1	ND	0.050		ND	0.050	
Toxaphene		8001-35-2	2	2	ND	0.500		ND	0.500	
Aroclor-1016		12674-11-2	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1221		11104-28-2	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1232		11141-16-5	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1242		53469-21-9	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1248		12672-29-6	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1254		11097-69-1	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1260		11096-82-5	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1262		37324-23-5	N/A	N/A	ND	0.500		ND	0.500	
Aroclor-1268		11100-14-4	N/A	N/A	ND	0.500		ND	0.500	
Total Arochlor(SUM)		1336-36-3	0.5	0.5	ND			ND		

¹ When summing compounds, NDs are counted as zero.

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.
N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 6b continued

Metal Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health-Based Leachate Criterion or PQL)	PQL	SPLP Leachate (Units: mg/L)			SPLP Leachate (Units: mg/L)		
ASI Sample ID #:				Amended Composite CS-4			Amended Composite CS-5		
Chemtech Sample ID #:				20190177			20190178		
				K2316-14			K2316-15		
Analyte Name	CAS No.	mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	4	0.03	176	0.500		182	0.500	
Antimony	7440-36-0	0.12	0.003	ND	0.250	D	ND	0.250	D
Arsenic	7440-38-2	0.003	0.003	ND	0.100	D	ND	0.100	D
Barium	7440-39-3	120	0.2	0.122	0.500	JD	0.140	0.500	JD
Beryllium	7440-41-7	0.02	0.001	0.0321	0.030	D	0.023	0.030	JD
Cadmium	7440-43-9	0.08	0.0005	0.00525	0.030	JD	ND	0.030	D
Cobalt	7440-48-4	2	0.0005	0.111	0.150	JD	0.0831	0.150	JD
Copper	7440-50-8	26	0.004	0.0496	0.100	JD	0.0405	0.100	JD
Lead	7439-92-1	0.1	0.005	0.382	0.060	D	0.158	0.060	D
Manganese	7439-96-5	1	0.0004	7.03	0.100	D	7.58	0.100	D
Mercury	7439-97-6	0.04	0.00005	0.000053	0.0002	J	0.000046	0.0002	J
Nickel (Soluble salts)	7440-02-0	2	0.004	0.368	0.200	D	0.221	0.200	D
Selenium	7782-49-2	0.8	0.004	ND	0.100	D	ND	0.100	D
Silver	7440-22-4	0.8	0.001	0.0354	0.050	JD	0.0307	0.050	JD
Vanadium	7440-62-2	N/A	N/A	0.768	0.200	D	0.622	0.200	D
Zinc	7440-66-6	40	0.01	10.6	0.200	D	5.75	0.200	D
Cyanide	57-12-5	2	0.006	ND	0.005		ND	0.005	
Chromium, total	7440-47-3	N/A	N/A	1.11	0.050	D	0.648	0.050	D
Hexavalent chromium	18540-29-9	N/A	N/A	ND	0.010	H	ND	0.010	H
Trivalent chromium	16065-83-1	N/A	N/A	1.11	0.010		0.648	0.010	

* = Adjusted so as not to exceed water solubility. # = Water solubility below reporting limit; criterion set at reporting limit.
 N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 7a

Dioxin/Furan Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050	Default Leachate Criteria for Class II Groundwater (higher of the Health-Based Leachate Criterion or PQL)	PQL*	WHO TEF	SPLP (Units:pg/L)				SPLP (Units:pg/L)				SPLP (Units:pg/L)					
				Amended Composite CS-1				Amended Composite CS-2				Amended Composite CS-3					
				20190174				20190175				20190176					
ASI Sample ID #:					0419-713_10284_026				0419-713_10284_027				0419-713_10284_028				
Enthalpy ID #:																	
Analyte Name	CAS No.	pg/L (pptr)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q	Result	*TEF	RL	Q	
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.17		ND	0	1.17		ND	0	1.17		
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	ND	0	5.86		ND	0	5.87		ND	0	5.86		
OCDD	3268-87-9	N/A	N/A	0.0003	ND	0	11.7		ND	0	11.7		ND	0	11.7		
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.17		ND	0	1.17		ND	0	1.17		
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	5.86		ND	0	5.87		ND	0	5.86		
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	ND	0	5.86		ND	0	5.87		ND	0	5.86		
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	5.86		ND	0	5.87		ND	0	5.86		
OCDF	39001-02-0	N/A	N/A	0.0003	ND	0	11.7		ND	0	11.7		ND	0	11.7		
WHO TEQ	TEQ	N/A	N/A	N/A		0.0				0.0				0.0			

N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 7b

Dioxin/Furan Analysis of SPLP Leachates (NJDEP)

ASI Job # 39-050		Default Leachate Criteria for Class II Groundwater (higher of the Health-Based Leachate Criterion or PQL)	PQL*	WHO TEF	SPLP (Units:pg/L)				SPLP (Units:pg/L)			
					Amended Composite CS-4				Amended Composite CS-5			
ASI Sample ID #:					20190177				20190178			
Enthalpy ID #:					0419-713_10284_029				0419-713_10284_030			
Analyte Name	CAS No.	pg/L (pptr)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.18		ND	0	1.17	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	5.91		ND	0	5.87	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	5.91		ND	0	5.87	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	5.91		ND	0	5.87	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	5.91		ND	0	5.87	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	ND	0	5.91		ND	0	5.87	
OCDD	3268-87-9	N/A	N/A	0.0003	ND	0	11.8		ND	0	11.7	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.18		ND	0	1.17	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	5.91		ND	0	5.87	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	5.91		ND	0	5.91	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	5.91		ND	0	5.91	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	5.91		ND	0	5.91	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	5.91		ND	0	5.91	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	5.91		ND	0	5.91	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	ND	0	5.91		ND	0	5.91	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	5.91		ND	0	5.91	
OCDF	39001-02-0	N/A	N/A	0.0003	ND	0	11.8		ND	0	11.7	
WHO TEQ	TEQ	N/A	N/A	N/A		0.0				0.0		

N/A - Not Applicable, no value on the NJDEP Default Leachate Criteria table for Class II Ground Water.

Table 8a

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-1								
ASI Sample ID #:	20190236											
Chemtech Sample ID #:	K2311-03			K2311-11			calculated					
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.					
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q	
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND		
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND		
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND		
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND		
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND		
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND		
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		4.40	5.00	J	ND		
Acetone (2-Propanone)	67-64-1	N/A	10	35.1	25.0		19.8	25.0	J	15.3	J	
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND		
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND		
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND		
cis -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND		
trans -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND		
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND		
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND		
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND		
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	7.60	25.0	J	ND	25.0		7.60	J	
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND		
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND		
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND		
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND		
cis -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND		
trans -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND		
cis- and trans- 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND		
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND		
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND		
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND		
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND		
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND		
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND		
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND		
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND		
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND		
Styrene	100-42-5	N/A	10	ND	5.00		0.380	5.00	J	ND		
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND		
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND		
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND		
Tertiary butyl alcohol	75-65-0	N/A	N/A	8.30	25.0	J	6.30	25.0	J	2.00	J	
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND		

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8a continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8a continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	ug/L	Q		
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND			
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND			
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND			
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND			
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND			
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND			
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND			
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND			
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND			
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND			
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND			
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND			
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND			
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND			
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND			
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND			
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND			
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND			
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND			
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND			
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND			
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND			
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND			
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND			
Pentachlorophenol	87-86-5	13	50	ND	20.0		ND	20.0		ND			
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND			
Phenol	108-95-2	N/A	10	ND	10.0		ND	10.0		ND			
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND			

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8a continued

Pesticide Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDT	50-29-3	0.13	0.1	ND	0.049		ND	0.050		ND			
Aldrin	309-00-2	1.3	0.05	ND	0.049		ND	0.050		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.049		ND	0.050		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.049		ND	0.050		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.16	0.05	ND	0.049		ND	0.050		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.049		ND	0.050		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.049		ND	0.050		ND			
Chlordane (alpha and gamma)	57-74-9	0.09	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.71	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.049		ND	0.050		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I and II (alpha and beta)	115-29-7	0.034	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.049		ND	0.050		ND			
Endrin	72-20-8	0.037	0.1	ND	0.049		ND	0.050		ND			
Heptachlor	76-44-8	0.053	0.05	ND	0.049		ND	0.050		ND			
Heptachlor epoxide	1024-57-3	0.053	0.05	ND	0.049		ND	0.050		ND			
Methoxychlor	72-43-5	N/A	0.5	ND	0.049		ND	0.050		ND			
Toxaphene	8001-35-2	0.21	5	ND	0.490		ND	0.500		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.510		ND	0.500		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.510		ND	0.500		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.510		ND	0.500		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8a continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-1							
ASI Sample ID #:	20190236										
Chemtech Sample ID #:	K2311-03			K2311-11			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	mg/L	Q
Aluminum	7429-90-5	N/A	0.2	0.201	0.050		ND	0.050		ND	
Antimony	7440-36-0	N/A	0.06	0.0178	0.025	J	0.0154	0.025	J	0.0	J
Arsenic	7440-38-2	0.069	0.01	0.101	0.010		0.038	0.010		0.063	
Barium	7440-39-3	N/A	0.2	0.1710	0.050		0.140	0.050		0.0310	
Beryllium	7440-41-7	N/A	0.005	0.0001	0.003	J	ND	0.003		0.0001	J
Cadmium	7440-43-9	0.04	0.005	ND	0.003		ND	0.003		ND	
Cobalt	7440-48-4	N/A	10	0.000975	0.015	J	0.000885	0.015	J	0.00009	J
Copper	7440-50-8	0.0048	0.025	0.0055	0.010	J	0.0081	0.010	J	0.0	J
Lead	7439-92-1	0.21	0.003	0.0067	0.006		0.00524	0.006	J	0.0015	J
Manganese	7439-96-5	N/A	0.015	0.286	0.010		0.248	0.010		0.038	
Mercury	7439-97-6	0.0018	0.0002	0.000066	0.0002	J	ND	0.0002		0.00007	J
Nickel	7440-02-0	0.064	0.04	ND	0.020		ND	0.020		ND	
Selenium	7782-49-2	0.29	0.005	ND	0.010		ND	0.010		ND	
Silver	7440-22-4	0.0019	0.01	ND	0.005		ND	0.005		ND	
Thallium	7440-28-0	N/A	0.01	0.00170	0.020	J	0.00185	0.020	J	0.0	J
Vanadium	7440-62-2	N/A	0.05	0.005	0.020	J	0.002	0.020	J	0.003	J
Zinc	7440-66-6	0.09	0.02	0.030	0.020		0.012	0.020	J	0.018	J
Cyanide	57-12-5	0.0027	0.01	0.005	0.005		0.0043	0.005	J	0.0007	J
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND	
Hexavalent chromium	18540-29-9	1.1	0.01	ND	0.010	H	ND	0.010	H	ND	H
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND	
Total Suspended Solids (ug/L)	TSS	N/A	N/A	116	4.00						

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8b

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-2								
ASI Sample ID #:	20190237											
Chemtech Sample ID #:	K2311-04			K2311-12			calculated					
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.					
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q	
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND		
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND		
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND		
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND		
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND		
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND		
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		8.00	5.00		ND		
Acetone (2-Propanone)	67-64-1	N/A	10	24.9	25.0	J	ND	25.0		24.9	J	
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND		
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND		
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND		
cis -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND		
trans -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND		
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND		
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND		
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND		
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	5.50	25.0	J	ND	25.0		5.50	J	
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND		
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND		
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND		
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND		
cis -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND		
trans -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND		
cis- and trans- 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND		
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND		
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND		
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND		
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND		
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND		
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND		
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND		
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND		
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND		
Styrene	100-42-5	N/A	10	ND	5.00		0.450	5.00	J	ND		
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND		
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND		
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND		
Tertiary butyl alcohol	75-65-0	N/A	N/A	12.9	25.0	J	3.80	25.0	J	9.10	J	
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND		

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8b continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-2									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190237							
Chemtech Sample ID #:						K2311-04			K2311-12			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8b continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-2							
ASI Sample ID #:	20190237										
Chemtech Sample ID #:	K2311-04			K2311-12			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result	RL	Q	Result	RL	Q	ug/L	Q
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND	
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND	
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND	
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND	
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND	
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND	
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND	
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND	
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND	
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND	
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND	
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND	
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND	
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND	
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND	
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND	
Pentachlorophenol	87-86-5	13	50	ND	20.0		ND	20.0		ND	
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND	
Phenol	108-95-2	N/A	10	ND	10.0		ND	10.0		ND	
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND	

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8b continued

Pesticide Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-2									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190237							
Chemtech Sample ID #:						K2311-04			K2311-12			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.051		ND	0.048		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.051		ND	0.048		ND			
4,4'-DDT	50-29-3	0.13	0.1	ND	0.051		ND	0.048		ND			
Aldrin	309-00-2	1.3	0.05	ND	0.051		ND	0.048		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.051		ND	0.048		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.051		ND	0.048		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.16	0.05	ND	0.051		ND	0.048		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.051		ND	0.048		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.051		ND	0.048		ND			
Chlordane (alpha and gamma)	57-74-9	0.09	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.71	0.1	ND	0.051		ND	0.048		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.051		ND	0.048		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.051		ND	0.048		ND			
Endosulfan I and II (alpha and beta)	115-29-7	0.034	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.051		ND	0.048		ND			
Endrin	72-20-8	0.037	0.1	ND	0.051		ND	0.048		ND			
Heptachlor	76-44-8	0.053	0.05	ND	0.051		ND	0.048		ND			
Heptachlor epoxide	1024-57-3	0.053	0.05	ND	0.051		ND	0.048		ND			
Methoxychlor	72-43-5	N/A	0.5	ND	0.051		ND	0.048		ND			
Toxaphene	8001-35-2	0.21	5	ND	0.510		ND	0.481		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.490		ND	0.521		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.490		ND	0.521		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.490		ND	0.521		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8b continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-2							
ASI Sample ID #:				20190237							
Chemtech Sample ID #:				K2311-04			K2311-12			calculated	
				ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte	CAS No.	mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	mg/L	Q
Aluminum	7429-90-5	N/A	0.2	0.042	0.050	J	ND	0.050		0.042	J
Antimony	7440-36-0	N/A	0.06	ND	0.025		0.0065	0.025	J	ND	
Arsenic	7440-38-2	0.069	0.01	0.081	0.010		0.004	0.010	J	0.077	J
Barium	7440-39-3	N/A	0.2	0.143	0.050		0.173	0.050		0.0	
Beryllium	7440-41-7	N/A	0.005	0.00017	0.003	J	ND	0.003		0.00017	J
Cadmium	7440-43-9	0.04	0.005	0.000095	0.003	J	ND	0.003		0.000095	J
Cobalt	7440-48-4	N/A	10	0.00113	0.015	J	0.00134	0.015	J	0.0	J
Copper	7440-50-8	0.0048	0.025	0.00383	0.010	J	0.0134	0.010		0.0	J
Lead	7439-92-1	0.21	0.003	0.00647	0.006		0.00424	0.006	J	0.0022	J
Manganese	7439-96-5	N/A	0.015	0.583	0.010		0.953	0.010		0.0	
Mercury	7439-97-6	0.0018	0.0002	ND	0.0002		ND	0.0002		ND	
Nickel	7440-02-0	0.064	0.04	ND	0.020		ND	0.020		ND	
Selenium	7782-49-2	0.29	0.005	ND	0.010		ND	0.010		ND	
Silver	7440-22-4	0.0019	0.01	ND	0.005		0.0005	0.005	J	ND	J
Thallium	7440-28-0	N/A	0.01	0.00156	0.020	J	ND	0.020		0.00156	J
Vanadium	7440-62-2	N/A	0.05	0.00514	0.020	J	ND	0.020		0.00514	J
Zinc	7440-66-6	0.09	0.02	0.0878	0.020		0.011	0.020	J	0.0771	J
Cyanide	57-12-5	0.0027	0.01	ND	0.005		0.0061	0.005		ND	
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND	
Hexavalent chromium	18540-29-9	1.1	0.01	ND	0.010	H	ND	0.010	H	ND	H
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND	
Total Suspended Solids (ug/L)	TSS	N/A	N/A	134	4.00						

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8c

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-3							
ASI Sample ID #:	20190238										
Chemtech Sample ID #:	K2311-05			K2311-13			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.2		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		6.70	5.00		ND	
Acetone (2-Propanone)	67-64-1	N/A	10	35.7	25.0		5.00	25.0	J	30.7	
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
cis -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
trans -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	8.00	25.0	J	ND	25.0		8.00	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
cis -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
trans -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
cis- and trans- 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	6.40	5.00		ND	5.00		6.40	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	1.00	5.00	J	ND	5.00		1.00	
Chlorobenzene	108-90-7	N/A	10	1.60	5.00	J	ND	5.00		1.60	
Ethyl benzene	100-41-4	N/A	10	0.650	5.00	J	ND	5.00		0.650	
Styrene	100-42-5	N/A	10	ND	5.00		ND	5.00		ND	
Xylenes (Total)	1330-20-7	N/A	10	2.23	15.0	J	ND	15.0		2.23	J
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	12.7	25.0	J	3.90	25.0	J	8.80	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8c continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-05			K2311-13			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.2		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.2		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.4		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.2		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.2		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.2		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.2		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.2		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.2		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.4		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.2		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.2		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.2		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.2		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.2		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.2		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.4		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 8c continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-3							
ASI Sample ID #:	20190238										
Chemtech Sample ID #:	K2311-05			K2311-13			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result	RL	Q	Result	RL	Q	ug/L	Q
Benzidine	92-87-5	N/A	N/A	ND	10.2		ND	10.0		ND	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.2		ND	10.0		ND	
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.2		ND	10.0		ND	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.2		ND	10.0		ND	
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.2		ND	10.0		ND	
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.2		ND	10.0		ND	
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.2		ND	10.0		ND	
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.2		ND	10.0		ND	
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.2		ND	10.0		ND	
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.2		ND	10.0		ND	
Caprolactam	105-60-2	N/A	N/A	ND	10.2		ND	10.0		ND	
Carbazole	86-74-8	N/A	10	ND	10.2		ND	10.0		ND	
Chrysene	218-01-9	N/A	10	ND	10.2		ND	10.0		ND	
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.2		ND	10.0		ND	
Diethylphthalate	84-66-2	N/A	10	ND	10.2		ND	10.0		ND	
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.2		ND	10.0		ND	
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.2		ND	10.0		ND	
Fluoranthene	206-44-0	N/A	10	ND	10.2		ND	10.0		ND	
Fluorene	86-73-7	N/A	10	ND	10.2		ND	10.0		ND	
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.2		ND	10.0		ND	
Hexachlorobenzene	118-74-1	N/A	10	ND	10.2		ND	10.0		ND	
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.4		ND	20.0		ND	
Hexachloroethane	67-72-1	N/A	10	ND	10.2		ND	10.0		ND	
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.2		ND	10.0		ND	
Isophorone	78-59-1	N/A	10	ND	10.2		ND	10.0		ND	
Naphthalene	91-20-3	N/A	N/A	ND	10.2		ND	10.0		ND	
Nitrobenzene	98-95-3	N/A	10	ND	10.2		ND	10.0		ND	
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.2		ND	10.0		ND	
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.2		ND	10.0		ND	
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.2		ND	10.0		ND	
Pentachlorophenol	87-86-5	13	50	ND	20.4		ND	20.0		ND	
Phenanthrene	85-01-8	N/A	10	ND	10.2		ND	10.0		ND	
Phenol	108-95-2	N/A	10	ND	10.2		ND	10.0		ND	
Pyrene	129-00-0	N/A	10	ND	10.2		ND	10.0		ND	

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8c continued

Pesticide Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-05			K2311-13			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.048		ND	0.049		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.048		ND	0.049		ND			
4,4'-DDT	50-29-3	0.13	0.1	ND	0.048		ND	0.049		ND			
Aldrin	309-00-2	1.3	0.05	ND	0.048		ND	0.049		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.048		ND	0.049		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.048		ND	0.049		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.16	0.05	ND	0.048		ND	0.049		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.048		ND	0.049		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.048		ND	0.049		ND			
Chlordane (alpha and gamma)	57-74-9	0.09	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.71	0.1	ND	0.048		ND	0.049		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.048		ND	0.049		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.048		ND	0.049		ND			
Endosulfan I and II (alpha and beta)	115-29-7	0.034	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.048		ND	0.049		ND			
Endrin	72-20-8	0.037	0.1	ND	0.048		ND	0.049		ND			
Heptachlor	76-44-8	0.053	0.05	ND	0.048		ND	0.049		ND			
Heptachlor epoxide	1024-57-3	0.053	0.05	ND	0.048		ND	0.049		ND			
Methoxychlor	72-43-5	N/A	0.5	ND	0.048		ND	0.049		ND			
Toxaphene	8001-35-2	0.21	5	ND	0.481		ND	0.490		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.521		ND	0.510		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.521		ND	0.510		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.521		ND	0.510		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8c continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			mg/L (ppm)	mg/L	20190238							
Chemtech Sample ID #:						K2311-05			K2311-13			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.021	0.050	J	ND	0.050		0.021	J		
Antimony	7440-36-0	N/A	0.06	0.0151	0.025	J	0.00659	0.025	J	0.0	J		
Arsenic	7440-38-2	0.069	0.01	0.029	0.010		0.0117	0.010		0.018			
Barium	7440-39-3	N/A	0.2	0.121	0.050		0.122	0.050		0.0			
Beryllium	7440-41-7	N/A	0.005	ND	0.003		ND	0.003		ND			
Cadmium	7440-43-9	0.04	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.0012	0.015	J	0.00091	0.015	J	0.0	J		
Copper	7440-50-8	0.0048	0.025	0.00456	0.010	J	0.0122	0.010		0.0	J		
Lead	7439-92-1	0.21	0.003	0.00602	0.006		0.00543	0.006	J	0.00059	J		
Manganese	7439-96-5	N/A	0.015	0.367	0.010		0.777	0.010		0.0			
Mercury	7439-97-6	0.0018	0.0002	0.000095	0.0002	J	ND	0.0002		0.000095	J		
Nickel	7440-02-0	0.064	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.29	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	ND	0.005		0.00028	0.005	J	ND			
Thallium	7440-28-0	N/A	0.01	0.0015	0.020	J	ND	0.020		0.0015	J		
Vanadium	7440-62-2	N/A	0.05	0.00326	0.020	J	0.0016	0.020	J	0.00166	J		
Zinc	7440-66-6	0.09	0.02	0.0433	0.020		0.0193	0.020	J	0.024	J		
Cyanide	57-12-5	0.0027	0.01	0.0058	0.005		0.0032	0.005	J	0.0026	J		
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	1.1	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	118	4.00								

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8d

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-4							
ASI Sample ID #:	20190238										
Chemtech Sample ID #:	K2311-06			K2311-14			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		8.30	5.00		ND	
Acetone (2-Propanone)	67-64-1	N/A	10	33.0	25.0		43.2	25.0		0.0	
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
cis -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
trans -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	7.20	25.0	J	ND	25.0		7.20	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
cis -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
trans -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
cis- and trans- 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND	
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND	
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND	
Styrene	100-42-5	N/A	10	ND	5.00		0.480	5.00	J	ND	
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND	
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	8.40	25.0	J	5.80	25.0	J	2.60	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8d continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-06			K2311-14			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 8d continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-4							
ASI Sample ID #:	20190238										
Chemtech Sample ID #:	K2311-06			K2311-14			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result	RL	Q	Result	RL	Q	ug/L	Q
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND	
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND	
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND	
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND	
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND	
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND	
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND	
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND	
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND	
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND	
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND	
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND	
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND	
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND	
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND	
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND	
Pentachlorophenol	87-86-5	13	50	ND	20.0		ND	20.0		ND	
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND	
Phenol	108-95-2	N/A	10	ND	10.0		3.10	10.0	J	ND	
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND	

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8d continued

Pesticide Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-06			K2311-14			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDT	50-29-3	0.13	0.1	ND	0.049		ND	0.050		ND			
Aldrin	309-00-2	1.3	0.05	ND	0.049		ND	0.050		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.049		ND	0.050		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.049		ND	0.050		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.16	0.05	ND	0.049		ND	0.050		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.049		ND	0.050		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.049		ND	0.050		ND			
Chlordane (alpha and gamma)	57-74-9	0.09	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.71	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.049		ND	0.050		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I and II (alpha and beta)	115-29-7	0.034	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.049		ND	0.050		ND			
Endrin	72-20-8	0.037	0.1	ND	0.049		ND	0.050		ND			
Heptachlor	76-44-8	0.053	0.05	ND	0.049		ND	0.050		ND			
Heptachlor epoxide	1024-57-3	0.053	0.05	ND	0.049		ND	0.050		ND			
Methoxychlor	72-43-5	N/A	0.5	ND	0.049		ND	0.050		ND			
Toxaphene	8001-35-2	0.21	5	ND	0.490		ND	0.500		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.510		ND	0.500		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.510		ND	0.500		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.510		ND	0.500		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8d continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			mg/L (ppm)	mg/L	20190238							
Chemtech Sample ID #:						K2311-06			K2311-14			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.0555	0.050		ND	0.050		0.0555			
Antimony	7440-36-0	N/A	0.06	ND	0.025		ND	0.025		ND			
Arsenic	7440-38-2	0.069	0.01	0.0173	0.010		0.0337	0.010		0.0			
Barium	7440-39-3	N/A	0.2	0.183	0.050		0.108	0.050		0.075			
Beryllium	7440-41-7	N/A	0.005	0.0001	0.003	J	ND	0.003		0.0001	J		
Cadmium	7440-43-9	0.04	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.00152	0.015	J	0.000875	0.015	J	0.000645	J		
Copper	7440-50-8	0.0048	0.025	0.00364	0.010	J	0.00461	0.010	J	0.0	J		
Lead	7439-92-1	0.21	0.003	0.00519	0.006	J	0.0053	0.006	J	0.0	J		
Manganese	7439-96-5	N/A	0.015	0.964	0.010		0.544	0.010		0.420			
Mercury	7439-97-6	0.0018	0.0002	ND	0.0002		ND	0.0002		ND			
Nickel	7440-02-0	0.064	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.29	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	0.00012	0.005	J	0.000125	0.005	J	0.0	J		
Thallium	7440-28-0	N/A	0.01	ND	0.020		ND	0.020		ND			
Vanadium	7440-62-2	N/A	0.05	0.00239	0.020	J	0.00209	0.020	J	0.0003	J		
Zinc	7440-66-6	0.09	0.02	0.0558	0.020		0.00924	0.020	J	0.04656	J		
Cyanide	57-12-5	0.0027	0.01	0.0032	0.005	J	0.0025	0.005	J	0.0007	J		
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	1.1	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	116	4.00								

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8e

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190240							
Chemtech Sample ID #:						K2311-07			K2311-15			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND			
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND			
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND			
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND			
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND			
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		11.8	5.00		ND			
Acetone (2-Propanone)	67-64-1	N/A	10	32.1	25.0		160	25.0		0.0			
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND			
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND			
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND			
cis -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND			
trans -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND			
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND			
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND			
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND			
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	6.50	25.0	J	ND	25.0		6.50	J		
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND			
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND			
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND			
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND			
cis -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND			
trans -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND			
cis- and trans- 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND			
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND			
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND			
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND			
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND			
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND			
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND			
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND			
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND			
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND			
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND			
Styrene	100-42-5	N/A	10	ND	5.00		ND	5.00		ND			
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND			
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND			
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND			
Tertiary butyl alcohol	75-65-0	N/A	N/A	10.0	25.0	J	6.30	25.0	J	3.70	J		
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		5.70	5.00		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8e continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190240							
Chemtech Sample ID #:						K2311-07			K2311-15			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 8e continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-5							
ASI Sample ID #:	20190240										
Chemtech Sample ID #:	K2311-07			K2311-15			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result	RL	Q	Result	RL	Q	ug/L	Q
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND	
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND	
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND	
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND	
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND	
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND	
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND	
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND	
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND	
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND	
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND	
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND	
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND	
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND	
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND	
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND	
Pentachlorophenol	87-86-5	13	50	ND	20.0		ND	20.0		ND	
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND	
Phenol	108-95-2	N/A	10	ND	10.0		ND	10.0		ND	
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND	

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8e continued

Pesticide Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190240							
Chemtech Sample ID #:						K2311-07			K2311-15			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.025		ND	0.049		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.025		ND	0.049		ND			
4,4'-DDT	50-29-3	0.13	0.1	ND	0.025		ND	0.049		ND			
Aldrin	309-00-2	1.3	0.05	ND	0.025		ND	0.049		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.025		ND	0.049		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.025		ND	0.049		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	0.16	0.05	ND	0.025		ND	0.049		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.025		ND	0.049		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.025		ND	0.049		ND			
Chlordane (alpha and gamma)	57-74-9	0.09	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.71	0.1	ND	0.025		ND	0.049		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.025		ND	0.049		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.025		ND	0.049		ND			
Endosulfan I and II (alpha and beta)	115-29-7	0.034	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.025		ND	0.049		ND			
Endrin	72-20-8	0.037	0.1	ND	0.025		ND	0.049		ND			
Heptachlor	76-44-8	0.053	0.05	ND	0.025		ND	0.049		ND			
Heptachlor epoxide	1024-57-3	0.053	0.05	ND	0.025		ND	0.049		ND			
Methoxychlor	72-43-5	N/A	0.5	ND	0.025		ND	0.049		ND			
Toxaphene	8001-35-2	0.21	5	ND	0.250		ND	0.490		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.500		ND	0.510		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.500		ND	0.510		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.500		ND	0.510		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 8e continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			mg/L (ppm)	mg/L	20190240							
Chemtech Sample ID #:						K2311-07			K2311-15			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.0878	0.050		ND	0.050		0.088			
Antimony	7440-36-0	N/A	0.06	0.00681	0.025	J	0.0127	0.025	J	0.0	J		
Arsenic	7440-38-2	0.069	0.01	0.0259	0.010		0.023	0.010		0.0029			
Barium	7440-39-3	N/A	0.2	0.122	0.050		0.108	0.050		0.014			
Beryllium	7440-41-7	N/A	0.005	ND	0.003		ND	0.003		ND			
Cadmium	7440-43-9	0.04	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.00135	0.015	J	0.00103	0.015	J	0.0003	J		
Copper	7440-50-8	0.0048	0.025	0.00398	0.010	J	0.00349	0.010	J	0.0	J		
Lead	7439-92-1	0.21	0.003	0.00614	0.006		0.00452	0.006	J	0.0016	J		
Manganese	7439-96-5	N/A	0.015	0.812	0.010		0.346	0.010		0.5			
Mercury	7439-97-6	0.0018	0.0002	ND	0.0002		ND	0.0002		ND			
Nickel	7440-02-0	0.064	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.29	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	0.000115	0.005	J	ND	0.005		0.000115	J		
Thallium	7440-28-0	N/A	0.01	ND	0.020		ND	0.020		ND			
Vanadium	7440-62-2	N/A	0.05	0.00326	0.020	J	0.0025	0.020	J	0.00076	J		
Zinc	7440-66-6	0.09	0.02	0.0497	0.020		0.00903	0.020	J	0.04067	J		
Cyanide	57-12-5	0.0027	0.01	ND	0.005		0.0072	0.005		ND			
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	1.1	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	220	4.00								

N/A: no value on NJDEP Surface Water standards

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9a

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050	Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-1								
ASI Sample ID #:			20190236								
Chemtech Sample ID #:			K2311-03			K2311-11			calculated		
Analyte			CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		4.40	5.00	J	ND	
Acetone (2-Propanone)	67-64-1	N/A	10	35.1	25.0		19.8	25.0	J	15.3	J
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	7.60	25.0	J	ND	25.0		7.60	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND	
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND	
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND	
Styrene	100-42-5	N/A	10	ND	5.00		0.380	5.00	J	ND	
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND	
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	8.30	25.0	J	6.30	25.0	J	2.00	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9a continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	10	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 9a continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	ug/L	Q		
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND			
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND			
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND			
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND			
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND			
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND			
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND			
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND			
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND			
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND			
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND			
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND			
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND			
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND			
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND			
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND			
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND			
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND			
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND			
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND			
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND			
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND			
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND			
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND			
Pentachlorophenol	87-86-5	7.9	50	ND	20.0		ND	20.0		ND			
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND			
Phenol	108-95-2	N/A	10	ND	10.0		ND	10.0		ND			
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND			

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9a continued

Pesticide/Arochlor Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDT	50-29-3	0.001	0.1	ND	0.049		ND	0.050		ND			
Aldrin	309-00-2	N/A	0.05	ND	0.049		ND	0.050		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.049		ND	0.050		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.049		ND	0.050		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	N/A	0.05	ND	0.049		ND	0.050		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.049		ND	0.050		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.049		ND	0.050		ND			
Chlordane (alpha and gamma)	57-74-9	0.004	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.0019	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.049		ND	0.050		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	0.0087	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.049		ND	0.050		ND			
Endrin	72-20-8	0.0023	0.1	ND	0.049		ND	0.050		ND			
Heptachlor	76-44-8	0.0036	0.05	ND	0.049		ND	0.050		ND			
Heptachlor epoxide	1024-57-3	0.0036	0.05	ND	0.049		ND	0.050		ND			
Methoxychlor	72-43-5	0.03	0.5	ND	0.049		ND	0.050		ND			
Toxaphene	8001-35-2	0.0002	5	ND	0.490		ND	0.500		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.510		ND	0.500		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.510		ND	0.500		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.510		ND	0.500		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9a continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-1									
ASI Sample ID #:	CAS No.			mg/L (ppm)	mg/L	20190236							
Chemtech Sample ID #:						K2311-03			K2311-11			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.201	0.050		ND	0.050		0.201			
Antimony	7440-36-0	N/A	0.06	0.018	0.025	J	0.0154	0.025	J	0.002	J		
Arsenic	7440-38-2	0.036	0.01	0.101	0.010		0.038	0.010		0.063			
Barium	7440-39-3	N/A	0.2	0.171	0.050		0.140	0.050		0.031			
Beryllium	7440-41-7	0.042	0.005	0.00012	0.003	J	ND	0.003		0.0001	J		
Cadmium	7440-43-9	0.0088	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.000975	0.015	J	0.000885	0.015	J	0.00009	J		
Copper	7440-50-8	0.0031	0.025	0.0055	0.010	J	0.00809	0.010	J	0.0	J		
Lead	7439-92-1	0.024	0.003	0.0067	0.006		0.00524	0.006	J	0.0015	J		
Manganese	7439-96-5	N/A	0.015	0.286	0.010		0.248	0.010		0.038			
Mercury	7439-97-6	0.00094	0.0002	0.000066	0.0002	J	ND	0.0002		0.000066	J		
Nickel	7440-02-0	0.022	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.071	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	ND	0.005		ND	0.005		ND			
Thallium	7440-28-0	N/A	0.01	0.0017	0.020	J	0.00185	0.0200	J	0.0	J		
Vanadium	7440-62-2	N/A	0.05	0.00504	0.020	J	0.00164	0.020	J	0.0034	J		
Zinc	7440-66-6	0.081	0.02	0.0295	0.020		0.0119	0.020	J	0.0176	J		
Cyanide	57-12-5	0.001	0.01	0.005	0.005		0.0043	0.005	J	0.0007	J		
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	0.05	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	116	4.00								

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9b

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-2							
ASI Sample ID #:				20190237							
Chemtech Sample ID #:				K2311-04			K2311-12			calculated	
				ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		8.00	5.00		ND	
Acetone (2-Propanone)	67-64-1	N/A	10	24.9	25.0	J	ND	25.0		24.9	J
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	5.50	25.0	J	ND	25.0		5.50	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND	
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND	
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND	
Styrene	100-42-5	N/A	10	ND	5.00		0.450	5.00	J	ND	
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND	
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	12.90	25.0	J	3.80	25.0	J	9.10	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9b continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-2									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190237							
Chemtech Sample ID #:						K2311-04			K2311-12			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	10	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 9b continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-2								
ASI Sample ID #:	20190237											
Chemtech Sample ID #:	K2311-04			K2311-12			calculated					
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.					
Analyte	CAS No.	ug/L (ppb)	ug/L	Result	RL	Q	Result	RL	Q	ug/L	Q	
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND		
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND		
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND		
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND		
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND		
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND		
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND		
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND		
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND		
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND		
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND		
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND		
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND		
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND		
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND		
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND		
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND		
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND		
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND		
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND		
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND		
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND		
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND		
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND		
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND		
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND		
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND		
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND		
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND		
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND		
Pentachlorophenol	87-86-5	7.9	50	ND	20.0		ND	20.0		ND		
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND		
Phenol	108-95-2	N/A	10	ND	10.0		ND	10.0		ND		
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND		

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9b continued

Pesticide/Arochlor Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-2									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190237							
Chemtech Sample ID #:						K2311-04			K2311-12			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.051		ND	0.048		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.051		ND	0.048		ND			
4,4'-DDT	50-29-3	0.001	0.1	ND	0.051		ND	0.048		ND			
Aldrin	309-00-2	N/A	0.05	ND	0.051		ND	0.048		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.051		ND	0.048		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.051		ND	0.048		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	N/A	0.05	ND	0.051		ND	0.048		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.051		ND	0.048		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.051		ND	0.048		ND			
Chlordane (alpha and gamma)	57-74-9	0.004	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.0019	0.1	ND	0.051		ND	0.048		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.051		ND	0.048		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.051		ND	0.048		ND			
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	0.0087	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.051		ND	0.048		ND			
Endrin	72-20-8	0.0023	0.1	ND	0.051		ND	0.048		ND			
Heptachlor	76-44-8	0.0036	0.05	ND	0.051		ND	0.048		ND			
Heptachlor epoxide	1024-57-3	0.0036	0.05	ND	0.051		ND	0.048		ND			
Methoxychlor	72-43-5	0.03	0.5	ND	0.051		ND	0.048		ND			
Toxaphene	8001-35-2	0.0002	5	ND	0.510		ND	0.481		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.490		ND	0.521		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.490		ND	0.521		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.490		ND	0.521		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.490		ND	0.521		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9b continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-2								
ASI Sample ID #:	CAS No.			20190237								
Chemtech Sample ID #:				K2311-04			K2311-12			calculated		
				ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.		
Analyte		mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	mg/L	Q	
Aluminum	7429-90-5	N/A	0.2	0.042	0.050	J	ND	0.050		0.042	J	
Antimony	7440-36-0	N/A	0.06	ND	0.025		0.00645	0.025	J	ND		
Arsenic	7440-38-2	0.036	0.01	0.0811	0.010		0.00405	0.010	J	0.0771	J	
Barium	7440-39-3	N/A	0.2	0.143	0.050		0.173	0.050		0.0		
Beryllium	7440-41-7	0.042	0.005	0.00017	0.003	J	ND	0.003		0.00017	J	
Cadmium	7440-43-9	0.0088	0.005	0.000095	0.003	J	ND	0.003		0.000095	J	
Cobalt	7440-48-4	N/A	10	0.00113	0.015	J	0.00134	0.015	J	0.0	J	
Copper	7440-50-8	0.0031	0.025	0.00383	0.010	J	0.0134	0.010		0.0	J	
Lead	7439-92-1	0.024	0.003	0.00647	0.006		0.00424	0.006	J	0.00223	J	
Manganese	7439-96-5	N/A	0.015	0.583	0.010		0.953	0.010		0.0		
Mercury	7439-97-6	0.00094	0.0002	ND	0.0002		ND	0.0002		ND		
Nickel	7440-02-0	0.022	0.04	ND	0.020		ND	0.020		ND		
Selenium	7782-49-2	0.071	0.005	ND	0.010		ND	0.010		ND		
Silver	7440-22-4	0.0019	0.01	ND	0.005		0.000525	0.005	J	ND		
Thallium	7440-28-0	N/A	0.01	0.00156	0.020	J	ND	0.0200		0.00156	J	
Vanadium	7440-62-2	N/A	0.05	0.00514	0.020	J	ND	0.020		0.00514	J	
Zinc	7440-66-6	0.081	0.02	0.0878	0.020		0.01071	0.020	J	0.0771	J	
Cyanide	57-12-5	0.001	0.01	ND	0.005		0.0061	0.005		ND		
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND		
Hexavalent chromium	18540-29-9	0.05	0.01	ND	0.010	H	ND	0.010	H	ND	H	
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND		
Total Suspended Solids (ug/L)	TSS	N/A	N/A	134	4.00							

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9c

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-3							
ASI Sample ID #:	20190238										
Chemtech Sample ID #:	K2311-05			K2311-13			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.2		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		6.70	5.00		ND	
Acetone (2-Propanone)	67-64-1	N/A	10	35.7	25.0		5.00	25.0	J	30.7	J
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	8.00	25.0	J	ND	25.0		8.00	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	6.40	5.00		ND	5.00		6.40	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	1.00	5.00	J	ND	5.00		1.00	J
Chlorobenzene	108-90-7	N/A	10	1.60	5.00	J	ND	5.00		1.60	J
Ethyl benzene	100-41-4	N/A	10	0.650	5.00	J	ND	5.00		0.650	J
Styrene	100-42-5	N/A	10	ND	5.00		ND	5.00		ND	
Xylenes (Total)	1330-20-7	N/A	10	2.23	15.0	J	ND	15.0		2.23	J
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	12.7	25.0	J	3.90	25.0	J	8.80	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9c continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-05			K2311-13			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.2		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	10	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.2		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.4		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.2		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.2		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.2		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.2		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.2		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.2		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.2		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.4		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.2		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.2		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.2		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.2		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.2		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.2		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.4		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 9c continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-05			K2311-13			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	ug/L	Q		
Benzidine	92-87-5	N/A	N/A	ND	10.2		ND	10.0		ND			
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.2		ND	10.0		ND			
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.2		ND	10.0		ND			
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.2		ND	10.0		ND			
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.2		ND	10.0		ND			
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.2		ND	10.0		ND			
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.2		ND	10.0		ND			
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.2		ND	10.0		ND			
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.2		ND	10.0		ND			
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.2		ND	10.0		ND			
Caprolactam	105-60-2	N/A	N/A	ND	10.2		ND	10.0		ND			
Carbazole	86-74-8	N/A	10	ND	10.2		ND	10.0		ND			
Chrysene	218-01-9	N/A	10	ND	10.2		ND	10.0		ND			
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.2		ND	10.0		ND			
Diethylphthalate	84-66-2	N/A	10	ND	10.2		ND	10.0		ND			
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.2		ND	10.0		ND			
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.2		ND	10.0		ND			
Fluoranthene	206-44-0	N/A	10	ND	10.2		ND	10.0		ND			
Fluorene	86-73-7	N/A	10	ND	10.2		ND	10.0		ND			
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.2		ND	10.0		ND			
Hexachlorobenzene	118-74-1	N/A	10	ND	10.2		ND	10.0		ND			
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.4		ND	20.0		ND			
Hexachloroethane	67-72-1	N/A	10	ND	10.2		ND	10.0		ND			
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.2		ND	10.0		ND			
Isophorone	78-59-1	N/A	10	ND	10.2		ND	10.0		ND			
Naphthalene	91-20-3	N/A	N/A	ND	10.2		ND	10.0		ND			
Nitrobenzene	98-95-3	N/A	10	ND	10.2		ND	10.0		ND			
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.2		ND	10.0		ND			
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.2		ND	10.0		ND			
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.2		ND	10.0		ND			
Pentachlorophenol	87-86-5	7.9	50	ND	20.4		ND	20.0		ND			
Phenanthrene	85-01-8	N/A	10	ND	10.2		ND	10.0		ND			
Phenol	108-95-2	N/A	10	ND	10.2		ND	10.0		ND			
Pyrene	129-00-0	N/A	10	ND	10.2		ND	10.0		ND			

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9c continued

Pesticide/Arochlor Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190238							
Chemtech Sample ID #:						K2311-05			K2311-13			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.048		ND	0.049		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.048		ND	0.049		ND			
4,4'-DDT	50-29-3	0.001	0.1	ND	0.048		ND	0.049		ND			
Aldrin	309-00-2	N/A	0.05	ND	0.048		ND	0.049		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.048		ND	0.049		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.048		ND	0.049		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	N/A	0.05	ND	0.048		ND	0.049		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.048		ND	0.049		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.048		ND	0.049		ND			
Chlordane (alpha and gamma)	57-74-9	0.004	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.0019	0.1	ND	0.048		ND	0.049		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.048		ND	0.049		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.048		ND	0.049		ND			
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	0.0087	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.048		ND	0.049		ND			
Endrin	72-20-8	0.0023	0.1	ND	0.048		ND	0.049		ND			
Heptachlor	76-44-8	0.0036	0.05	ND	0.048		ND	0.049		ND			
Heptachlor epoxide	1024-57-3	0.0036	0.05	ND	0.048		ND	0.049		ND			
Methoxychlor	72-43-5	0.03	0.5	ND	0.048		ND	0.049		ND			
Toxaphene	8001-35-2	0.0002	5	ND	0.481		ND	0.490		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.521		ND	0.510		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.521		ND	0.510		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.521		ND	0.510		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.521		ND	0.510		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9c continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-3									
ASI Sample ID #:	CAS No.			20190238									
Chemtech Sample ID #:				K2311-05			K2311-13			calculated			
				ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.			
Analyte		mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.021	0.050	J	ND	0.050		0.021	J		
Antimony	7440-36-0	N/A	0.06	0.0151	0.025	J	0.007	0.025	J	0.009	J		
Arsenic	7440-38-2	0.036	0.01	0.0293	0.010		0.0117	0.010		0.018			
Barium	7440-39-3	N/A	0.2	0.121	0.050		0.122	0.050		0.0			
Beryllium	7440-41-7	0.042	0.005	ND	0.003		ND	0.003		ND			
Cadmium	7440-43-9	0.0088	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.0012	0.015	J	0.00091	0.015	J	0.00029	J		
Copper	7440-50-8	0.0031	0.025	0.00456	0.010	J	0.0122	0.010		0.0	J		
Lead	7439-92-1	0.024	0.003	0.00602	0.006		0.00543	0.006	J	0.00059	J		
Manganese	7439-96-5	N/A	0.015	0.367	0.010		0.777	0.010		0.0			
Mercury	7439-97-6	0.00094	0.0002	0.000095	0.0002	J	ND	0.0002		0.000095	J		
Nickel	7440-02-0	0.022	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.071	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	ND	0.005		0.0003	0.005	J	ND			
Thallium	7440-28-0	N/A	0.01	0.0015	0.020	J	ND	0.0200		0.002	J		
Vanadium	7440-62-2	N/A	0.05	0.00326	0.020	J	0.0016	0.020	J	0.002	J		
Zinc	7440-66-6	0.081	0.02	0.0433	0.020		0.0193	0.020	J	0.024	J		
Cyanide	57-12-5	0.001	0.01	0.0058	0.005		0.0032	0.005	J	0.0026	J		
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	0.05	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	118	4.00								

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9d

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-4							
ASI Sample ID #:	20190239										
Chemtech Sample ID #:	K2311-06			K2311-14			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		8.30	5.00		ND	
Acetone (2-Propanone)	67-64-1	N/A	10	33.0	25.0		43.2	25.0		0.0	
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	7.20	25.0	J	ND	25.0		7.20	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND	
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND	
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND	
Styrene	100-42-5	N/A	10	ND	5.00		0.480	5.00	J	ND	
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND	
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	8.40	25.0	J	5.80	25.0	J	2.60	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		ND	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9d continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190239							
Chemtech Sample ID #:						K2311-06			K2311-14			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	10	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 9d continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190239							
Chemtech Sample ID #:						K2311-06			K2311-14			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result	RL	Q	Result	RL	Q	ug/L	Q		
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND			
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND			
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND			
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND			
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND			
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND			
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND			
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND			
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND			
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND			
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND			
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND			
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND			
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND			
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND			
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND			
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND			
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND			
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND			
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND			
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND			
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND			
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND			
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND			
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND			
Pentachlorophenol	87-86-5	7.9	50	ND	20.0		ND	20.0		ND			
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND			
Phenol	108-95-2	N/A	10	ND	10.0		3.10	10.0	J	ND			
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND			

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9d continued

Pesticide/Arochlor Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190239							
Chemtech Sample ID #:						K2311-06			K2311-14			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.049		ND	0.050		ND			
4,4'-DDT	50-29-3	0.001	0.1	ND	0.049		ND	0.050		ND			
Aldrin	309-00-2	N/A	0.05	ND	0.049		ND	0.050		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.049		ND	0.050		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.049		ND	0.050		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	N/A	0.05	ND	0.049		ND	0.050		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.049		ND	0.050		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.049		ND	0.050		ND			
Chlordane (alpha and gamma)	57-74-9	0.004	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.0019	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.049		ND	0.050		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.049		ND	0.050		ND			
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	0.0087	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.049		ND	0.050		ND			
Endrin	72-20-8	0.0023	0.1	ND	0.049		ND	0.050		ND			
Heptachlor	76-44-8	0.0036	0.05	ND	0.049		ND	0.050		ND			
Heptachlor epoxide	1024-57-3	0.0036	0.05	ND	0.049		ND	0.050		ND			
Methoxychlor	72-43-5	0.03	0.5	ND	0.049		ND	0.050		ND			
Toxaphene	8001-35-2	0.0002	5	ND	0.490		ND	0.500		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.510		ND	0.500		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.510		ND	0.500		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.510		ND	0.500		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.510		ND	0.500		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9d continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-4									
ASI Sample ID #:	CAS No.			20190239									
Chemtech Sample ID #:				K2311-06			K2311-14			calculated			
				ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.			
Analyte		mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.0555	0.050		ND	0.050		0.0560			
Antimony	7440-36-0	N/A	0.06	ND	0.025		ND	0.025		ND			
Arsenic	7440-38-2	0.036	0.01	0.0173	0.010		0.0337	0.010		0.0			
Barium	7440-39-3	N/A	0.2	0.183	0.050		0.108	0.050		0.075			
Beryllium	7440-41-7	0.042	0.005	0.0001	0.003	J	ND	0.003		0.0001	J		
Cadmium	7440-43-9	0.0088	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.00152	0.015	J	0.000875	0.015	J	0.000645	J		
Copper	7440-50-8	0.0031	0.025	0.00364	0.010	J	0.00461	0.010	J	0.0	J		
Lead	7439-92-1	0.024	0.003	0.00519	0.006	J	0.0053	0.006	J	0.0	J		
Manganese	7439-96-5	N/A	0.015	0.964	0.010		0.544	0.010		0.420			
Mercury	7439-97-6	0.00094	0.0002	ND	0.0002		ND	0.0002		ND			
Nickel	7440-02-0	0.022	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.071	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	0.00012	0.005	J	0.000125	0.005	J	0.0	J		
Thallium	7440-28-0	N/A	0.01	ND	0.020		ND	0.0200		ND			
Vanadium	7440-62-2	N/A	0.05	0.00239	0.020	J	0.00209	0.020	J	0.0003	J		
Zinc	7440-66-6	0.081	0.02	0.0558	0.020		0.00924	0.020	J	0.0466	J		
Cyanide	57-12-5	0.001	0.01	0.0032	0.005	J	0.0025	0.005	J	0.0007	J		
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	0.05	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	116	4.00								

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9e

Volatile Analysis of Modified Elutriate Samples

ASI Job # 39-050	Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-5								
ASI Sample ID #:			20190240								
Chemtech Sample ID #:			K2311-07			K2311-15			calculated		
Analyte			CAS No.	ug/L (ppb)	ug/L	Result ¹	RL	Q	Result ¹	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	N/A	10	ND	5.00		ND	5.00		ND	
Bromomethane (Methyl bromide)	74-83-9	N/A	10	ND	5.00		ND	5.00		ND	
Vinyl chloride	75-01-4	N/A	10	ND	5.00		ND	5.00		ND	
Chloroethane (Ethyl chloride)	75-00-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2,4-Trichlorobenzene	120-82-1	N/A	N/A	ND	5.00		ND	5.00		ND	
Azobenzene ²	103-33-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Methylene chloride (Dichloromethane)	75-09-2	N/A	10	ND	5.00		11.8	5.00		ND	
Acetone (2-Propanone)	67-64-1	N/A	10	32.1	25.0		160	25.0		0.0	
Carbon disulfide	75-15-0	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethene	75-35-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1-Dichloroethane	75-34-3	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,2-Dichloroethene	156-59-2	N/A	N/A	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,2-Dichloroethene	156-60-5	N/A	N/A	ND	5.00		ND	5.00		ND	
1,2-Dichloroethene (total)	N/A	N/A	N/A	ND			ND			ND	
Chloroform	67-66-3	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloroethane	107-06-2	N/A	10	ND	5.00		ND	5.00		ND	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	N/A	10	6.50	25.0	J	ND	25.0		6.50	J
1,1,1-Trichloroethane	71-55-6	N/A	10	ND	5.00		ND	5.00		ND	
Carbon tetrachloride	56-23-5	N/A	10	ND	5.00		ND	5.00		ND	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	N/A	10	ND	5.00		ND	5.00		ND	
1,2-Dichloropropane	78-87-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	N/A	10	ND	5.00		ND	5.00		ND	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	N/A	10	ND	5.00		ND	5.00		ND	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	542-75-6	N/A	N/A	ND			ND			ND	
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	N/A	10	ND	5.00		ND	5.00		ND	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2-Trichloroethane	79-00-5	N/A	10	ND	5.00		ND	5.00		ND	
Benzene	71-43-2	N/A	10	ND	5.00		ND	5.00		ND	
Bromoform	75-25-2	N/A	10	ND	5.00		ND	5.00		ND	
Tetrachloroethene	127-18-4	N/A	10	ND	5.00		ND	5.00		ND	
1,1,2,2-Tetrachloroethane	79-34-5	N/A	10	ND	5.00		ND	5.00		ND	
Toluene	108-88-3	N/A	10	ND	5.00		ND	5.00		ND	
Chlorobenzene	108-90-7	N/A	10	ND	5.00		ND	5.00		ND	
Ethyl benzene	100-41-4	N/A	10	ND	5.00		ND	5.00		ND	
Styrene	100-42-5	N/A	10	ND	5.00		ND	5.00		ND	
Xylenes (Total)	1330-20-7	N/A	10	ND	15.0		ND	15.0		ND	
Acrolein	107-02-8	N/A	N/A	ND	25.0		ND	25.0		ND	
Acrylonitrile	107-13-1	N/A	N/A	ND	25.0		ND	25.0		ND	
Tertiary butyl alcohol	75-65-0	N/A	N/A	10.0	25.0	J	6.30	25.0	J	3.70	J
Methyl acetate	79-20-9	N/A	N/A	ND	5.00		5.70	5.00		ND	

¹ When summing compounds, NDs are counted as zero.

² NJDEP Surface Water Quality Standard cited is for 1,2-Diphenylhydrazine CAS # 122-66-7, which decomposes into Azobenzene upon injection into the GC/MS port.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9e continued

Semivolatile Analysis of Modified Elutriate Samples

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190240							
Chemtech Sample ID #:						K2311-07			K2311-15			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
1,1'-Biphenyl	92-52-4	N/A	N/A	ND	10.0		ND	10.0		ND			
1,2,4-Trichlorobenzene	120-82-1	N/A	10	ND	5.00		ND	5.00		ND			
2,4,5-Trichlorophenol	95-95-4	N/A	10	ND	10.0		ND	10.0		ND			
2,4,6-Trichlorophenol	88-06-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dichlorophenol	120-83-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dimethylphenol	105-67-9	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrophenol	51-28-5	N/A	50	ND	20.0		ND	20.0		ND			
2,4-Dinitrotoluene	121-14-2	N/A	10	ND	10.0		ND	10.0		ND			
2,6-Dinitrotoluene	606-20-2	N/A	10	ND	10.0		ND	10.0		ND			
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	N/A	N/A	ND			ND			ND			
2-Chlorophenol (o-chlorophenol)	95-57-8	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylnaphthalene	91-57-6	N/A	10	ND	10.0		ND	10.0		ND			
2-Methylphenol (o-Cresol)	95-48-7	N/A	10	ND	10.0		ND	10.0		ND			
2-Nitroaniline	88-74-4	N/A	50	ND	10.0		ND	10.0		ND			
3,3'-Dichlorobenzidine	91-94-1	N/A	20	ND	10.0		ND	10.0		ND			
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	N/A	50	ND	20.0		ND	20.0		ND			
3-,4-Methylphenol (p-Cresol) ²	65794-96-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthene	83-32-9	N/A	10	ND	10.0		ND	10.0		ND			
Acenaphthylene	208-96-8	N/A	10	ND	10.0		ND	10.0		ND			
Acetophenone	98-86-2	N/A	N/A	ND	10.0		ND	10.0		ND			
Anthracene	120-12-7	N/A	10	ND	10.0		ND	10.0		ND			
Atrazine	1912-24-9	N/A	N/A	ND	10.0		ND	10.0		ND			
Benzaldehyde	100-52-7	N/A	N/A	ND	20.0		ND	20.0		ND			

¹ When summing compounds, NDs are counted as zero.

² NJDEP SRS cited is for coeluten 4-Methylphenol (p-Cresol) CAS # 106-44-5.

Table 9e continued

Semivolatile Analysis of Modified Elutriate Samples (continued)

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-5							
ASI Sample ID #:	20190240										
Chemtech Sample ID #:	K2311-07			K2311-15			calculated				
	ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.				
Analyte	CAS No.	ug/L (ppb)	ug/L	Result	RL	Q	Result	RL	Q	ug/L	Q
Benzidine	92-87-5	N/A	N/A	ND	10.0		ND	10.0		ND	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(a)pyrene	50-32-8	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(g,h,i)perylene	191-24-2	N/A	10	ND	10.0		ND	10.0		ND	
Benzo(k)fluoranthene	207-08-9	N/A	10	ND	10.0		ND	10.0		ND	
bis(2-Chloroethyl)ether	111-44-4	N/A	10	ND	10.0		ND	10.0		ND	
Bis(2-chloroisopropyl) ether	108-60-1	N/A	N/A	ND	10.0		ND	10.0		ND	
bis(2-Ethylhexyl)phthalate	117-81-7	N/A	10	ND	10.0		ND	10.0		ND	
Butyl benzyl phthalate	85-68-7	N/A	10	ND	10.0		ND	10.0		ND	
Caprolactam	105-60-2	N/A	N/A	ND	10.0		ND	10.0		ND	
Carbazole	86-74-8	N/A	10	ND	10.0		ND	10.0		ND	
Chrysene	218-01-9	N/A	10	ND	10.0		ND	10.0		ND	
Dibenz(a,h)anthracene	53-70-3	N/A	10	ND	10.0		ND	10.0		ND	
Diethylphthalate	84-66-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-butylphthalate	84-74-2	N/A	10	ND	10.0		ND	10.0		ND	
Di-n-octylphthalate	117-84-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluoranthene	206-44-0	N/A	10	ND	10.0		ND	10.0		ND	
Fluorene	86-73-7	N/A	10	ND	10.0		ND	10.0		ND	
Hexachloro-1,3-butadiene	87-68-3	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorobenzene	118-74-1	N/A	10	ND	10.0		ND	10.0		ND	
Hexachlorocyclopentadiene	77-47-4	N/A	10	ND	20.0		ND	20.0		ND	
Hexachloroethane	67-72-1	N/A	10	ND	10.0		ND	10.0		ND	
Indeno(1,2,3-cd)pyrene	193-39-5	N/A	10	ND	10.0		ND	10.0		ND	
Isophorone	78-59-1	N/A	10	ND	10.0		ND	10.0		ND	
Naphthalene	91-20-3	N/A	N/A	ND	10.0		ND	10.0		ND	
Nitrobenzene	98-95-3	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodimethylamine	62-75-9	N/A	N/A	ND	10.0		ND	10.0		ND	
N-Nitroso-di-n-propylamine	621-64-7	N/A	10	ND	10.0		ND	10.0		ND	
N-Nitrosodiphenylamine	86-30-6	N/A	10	ND	10.0		ND	10.0		ND	
Pentachlorophenol	87-86-5	7.9	50	ND	20.0		ND	20.0		ND	
Phenanthrene	85-01-8	N/A	10	ND	10.0		ND	10.0		ND	
Phenol	108-95-2	N/A	10	ND	10.0		ND	10.0		ND	
Pyrene	129-00-0	N/A	10	ND	10.0		ND	10.0		ND	

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9e continued

Pesticide/Arochlor Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (SurfaceWater, Marine, Chronic value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			ug/L (ppb)	ug/L	20190240							
Chemtech Sample ID #:						K2311-07			K2311-15			calculated	
						ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.	
Analyte				Result ¹	RL	Q	Result ¹	RL	Q	ug/L ¹	Q		
4,4'-DDD	72-54-8	N/A	0.1	ND	0.025		ND	0.049		ND			
4,4'-DDE	72-55-9	N/A	0.1	ND	0.025		ND	0.049		ND			
4,4'-DDT	50-29-3	0.001	0.1	ND	0.025		ND	0.049		ND			
Aldrin	309-00-2	N/A	0.05	ND	0.025		ND	0.049		ND			
alpha-HCH (alpha-BHC)	319-84-6	N/A	0.05	ND	0.025		ND	0.049		ND			
beta-HCH (beta-BHC)	319-85-7	N/A	0.05	ND	0.025		ND	0.049		ND			
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	N/A	0.05	ND	0.025		ND	0.049		ND			
alpha-Chlordane	5103-71-9	N/A	0.05	ND	0.025		ND	0.049		ND			
gamma-Chlordane	5103-74-2	N/A	0.05	ND	0.025		ND	0.049		ND			
Chlordane (alpha and gamma)	57-74-9	0.004	N/A	ND			ND			ND			
Dieldrin	60-57-1	0.0019	0.1	ND	0.025		ND	0.049		ND			
Endosulfan I	959-98-8	N/A	0.05	ND	0.025		ND	0.049		ND			
Endosulfan II	33213-65-9	N/A	0.1	ND	0.025		ND	0.049		ND			
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	0.0087	N/A	ND			ND			ND			
Endosulfan sulfate	1031-07-8	N/A	0.1	ND	0.025		ND	0.049		ND			
Endrin	72-20-8	0.0023	0.1	ND	0.025		ND	0.049		ND			
Heptachlor	76-44-8	0.0036	0.05	ND	0.025		ND	0.049		ND			
Heptachlor epoxide	1024-57-3	0.0036	0.05	ND	0.025		ND	0.049		ND			
Methoxychlor	72-43-5	0.03	0.5	ND	0.025		ND	0.049		ND			
Toxaphene	8001-35-2	0.0002	5	ND	0.250		ND	0.490		ND			
Aroclor-1016	12674-11-2	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1221	11104-28-2	N/A	2.0	ND	0.500		ND	0.510		ND			
Aroclor-1232	11141-16-5	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1242	53469-21-9	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1248	12672-29-6	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1254	11097-69-1	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1260	11096-82-5	N/A	1.0	ND	0.500		ND	0.510		ND			
Aroclor-1262	37324-23-5	N/A	N/A	ND	0.500		ND	0.510		ND			
Aroclor-1268	11100-14-4	N/A	N/A	ND	0.500		ND	0.510		ND			
Total Arochlor(SUM)	1336-36-3	N/A	N/A	ND			ND			ND			

¹ When summing compounds, NDs are counted as zero.

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 9e continued

Metal Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Chronic value)	PQL**	Composite CS-5									
ASI Sample ID #:	CAS No.			20190240									
Chemtech Sample ID #:				K2311-07			K2311-15			calculated			
				ELUT TOTAL			ELUT DISSOLVED			ELUT SUSP.			
Analyte		mg/L (ppm)	mg/L	Result	RL	Q	Result	RL	Q	mg/L	Q		
Aluminum	7429-90-5	N/A	0.2	0.0878	0.050		ND	0.050		0.0880			
Antimony	7440-36-0	N/A	0.06	0.00681	0.025	J	0.0127	0.025	J	0.0	J		
Arsenic	7440-38-2	0.036	0.01	0.0259	0.010		0.023	0.010		0.0029			
Barium	7440-39-3	N/A	0.2	0.122	0.050		0.108	0.050		0.014			
Beryllium	7440-41-7	0.042	0.005	ND	0.003		ND	0.003		ND			
Cadmium	7440-43-9	0.0088	0.005	ND	0.003		ND	0.003		ND			
Cobalt	7440-48-4	N/A	10	0.00135	0.015	J	0.00103	0.015	J	0.00032	J		
Copper	7440-50-8	0.0031	0.025	0.00398	0.010	J	0.00349	0.010	J	0.00049	J		
Lead	7439-92-1	0.024	0.003	0.00614	0.006		0.00452	0.006	J	0.00162	J		
Manganese	7439-96-5	N/A	0.015	0.812	0.010		0.346	0.010		0.466			
Mercury	7439-97-6	0.00094	0.0002	ND	0.0002		ND	0.0002		ND			
Nickel	7440-02-0	0.022	0.04	ND	0.020		ND	0.020		ND			
Selenium	7782-49-2	0.071	0.005	ND	0.010		ND	0.010		ND			
Silver	7440-22-4	0.0019	0.01	0.000115	0.005	J	ND	0.005		0.000115	J		
Thallium	7440-28-0	N/A	0.01	ND	0.020		ND	0.0200		ND			
Vanadium	7440-62-2	N/A	0.05	0.00326	0.020	J	0.0025	0.020	J	0.00076	J		
Zinc	7440-66-6	0.081	0.02	0.0497	0.020		0.00903	0.020	J	0.04067	J		
Cyanide	57-12-5	0.001	0.01	ND	0.005		0.0072	0.005		ND			
Chromium, total	7440-47-3	N/A	0.01	ND	0.005		ND	0.005		ND			
Hexavalent chromium	18540-29-9	0.05	0.01	ND	0.010	H	ND	0.010	H	ND	H		
Trivalent chromium	16065-83-1	N/A	0.01	ND	0.010		ND	0.010		ND			
Total Suspended Solids (ug/L)	TSS	N/A	N/A	220	4.00								

Regulatory Stds.: NJDEP Surface Water Quality Stds., N.J.A.C. 7:98, June 2008

N/A: no value

**Practical Quantitation Level; taken from the NJDEP Dredging Manual, Oct. 1997

Table 10a

Dioxin/Furan Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute and Chronic values)	PQL**	WHO TEF	Composite CS-1													
ASI Sample ID #:	CAS No.				20190236													
Enthalpy ID #:					0419-713_10278_013				0419-713_10279_018				calculated					
					ELUT TOTAL				ELUT DISSOLVED				ELUT SUSP.					
Analyte Name	pg/L (ppb)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q	pg/L	*TEF	Q				
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.33		ND	0	1.27		ND	0				
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	5.41	0.0541	6.65	EMPC	ND	0	6.36		5.41	0.0541	EMPC			
OCDD	3268-87-9	N/A	N/A	0.0003	33.3	0.00999	13.3		2.33	0.0007	12.7	J	31.0	0.0093	J			
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.33		ND	0	1.27		ND	0				
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	6.65		ND	0	6.36		ND	0				
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	6.65		ND	0	6.36		ND	0				
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	3.58	0.0358	6.65	J	ND	0	6.36		3.58	0.0358	J			
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	6.65		ND	0	6.36		ND	0				
OCDF	39001-02-0	N/A	N/A	0.0003	ND	0	13.3		ND	0	12.7		ND	0				
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.100				0.001				0.099				

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 10b

Dioxin/Furan Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute and Chronic values)	PQL**	WHO TEF	Composite CS-2										
ASI Sample ID #:	CAS No.				20190237										
Enthalpy ID #:					0419-713_10278_014				0419-713_10279_019				calculated		
					ELUT TOTAL				ELUT DISSOLVED				ELUT SUSP.		
Analyte Name	pg/L (ppb)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q	pg/L		Q	
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.28		ND	0	1.36		ND	0	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	ND	0	6.38		ND	0	6.81		ND	0	
OCDD	3268-87-9	N/A	N/A	0.0003	15.2	0.0046	12.8		ND	0	13.6		15.2	0.0046	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.28		ND	0	1.36		ND	0	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	6.38		ND	0	6.81		ND	0	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	ND	0	6.38		ND	0	6.81		ND	0	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	6.38		ND	0	6.81		ND	0	
OCDF	39001-02-0	N/A	N/A	0.0003	ND	0	12.8		ND	0	13.6		ND	0	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.005				0.0				0.005	

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 10c

Dioxin/Furan Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute and Chronic values)	PQL**	WHO TEF	Composite CS-3										
ASI Sample ID #:	CAS No.				20190238										
Enthalpy ID #:					0419-713_10278_015				0419-713_10279_020				calculated		
					ELUT TOTAL				ELUT DISSOLVED				ELUT SUSP.		
Analyte Name	pg/L (ppb)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q	pg/L		Q	
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.35		ND	0	1.33		ND	0	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	ND	0	6.76		ND	0	6.65		ND	0	
OCDD	3268-87-9	N/A	N/A	0.0003	16.1	0.0048	13.5		ND	0	13.3		16.1	0.0048	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.35		ND	0	1.33		ND	0	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	6.76		ND	0	6.65		ND	0	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	ND	0	6.76		ND	0	6.65		ND	0	
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	6.76		ND	0	6.65		ND	0	
OCDF	39001-02-0	N/A	N/A	0.0003	ND	0	13.5		ND	0	13.2965		ND	0	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.005				0.0				0.005	

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 10d

Dioxin/Furan Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute and Chronic values)	PQL**	WHO TEF	Composite CS-4										
ASI Sample ID #:	CAS No.				20190239										
Enthalpy ID #:					0419-713_10278_016				0419-713_10279_021				calculated		
					ELUT TOTAL				ELUT DISSOLVED				ELUT SUSP.		
Analyte Name	pg/L (ppb)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q	pg/L		Q	
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.41		ND	0	1.28		ND	0	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	7.03		ND	0	6.38		ND	0	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	7.03		ND	0	6.38		ND	0	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	7.03		ND	0	6.38		ND	0	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	7.03		ND	0	6.38		ND	0	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	3.38	0.0338	7.03	J	ND	0	6.38		3.38	0.0338	J
OCDD	3268-87-9	N/A	N/A	0.0003	46.7	0.014	14.1		ND	0	12.8		46.7	0.014	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.41		ND	0	1.28		ND	0	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	7.03		ND	0	6.38		ND	0	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	6.36		ND	0	6.38		ND	0	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	6.36		ND	0	6.38		ND	0	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	6.36		ND	0	6.38		ND	0	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	6.36		ND	0	6.38		ND	0	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	6.36		ND	0	6.38		ND	0	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	3.47	0.0347	6.36	J	ND	0	6.38		3.47	0.0347	J
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	6.36		ND	0	6.38		ND	0	
OCDF	39001-02-0	N/A	N/A	0.0003	ND	0	14.1		ND	0	12.8		ND	0	
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.083				0.0				0.083	

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 10e

Dioxin/Furan Analysis of Modified Elutriate

ASI Job # 39-050		Regulatory Action Level (Surface Water, Marine, Acute and Chronic values)	PQL**	WHO TEF	Composite CS-5										
ASI Sample ID #:	CAS No.				20190240										
Enthalpy ID #:					0419-713_10278_017				0419-713_10279_022				calculated		
					ELUT TOTAL				ELUT DISSOLVED				ELUT SUSP.		
Analyte Name	pg/L (ppb)	pg/L	Factor	Result	*TEF	RL	Q	Result	*TEF	RL	Q	pg/L		Q	
2,3,7,8-TCDD	1746-01-6	N/A	N/A	1	ND	0	1.38		ND	0	1.35		ND	0	
1,2,3,7,8-PeCDD	40321-76-4	N/A	N/A	1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,4,7,8-HxCDD	39227-28-6	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,6,7,8-HxCDD	57653-85-7	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,7,8,9-HxCDD	19408-74-3	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,4,6,7,8-HpCDD	35822-46-9	N/A	N/A	0.01	3.63	0.0363	6.90	EMPC	ND	0	6.76		3.63	0.0363	EMPC
OCDD	3268-87-9	N/A	N/A	0.0003	49.4	0.01482	13.8		ND	0	13.5		49.4	0.01482	
2,3,7,8-TCDF	51207-31-9	N/A	N/A	0.1	ND	0	1.38		ND	0	1.35		ND	0	
1,2,3,7,8-PeCDF	57117-41-6	N/A	N/A	0.03	ND	0	6.90		ND	0	6.76		ND	0	
2,3,4,7,8-PeCDF	57117-31-4	N/A	N/A	0.3	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,4,7,8-HxCDF	70648-26-9	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,6,7,8-HxCDF	57117-44-9	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
2,3,4,6,7,8-HxCDF	60851-34-5	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,7,8,9-HxCDF	72918-21-9	N/A	N/A	0.1	ND	0	6.90		ND	0	6.76		ND	0	
1,2,3,4,6,7,8-HpCDF	67562-39-4	N/A	N/A	0.01	3.60	0.036	6.90	EMPC	ND	0	6.76		3.60	0.036	EMPC
1,2,3,4,7,8,9-HpCDF	55673-89-7	N/A	N/A	0.01	ND	0	6.90		ND	0	6.76		ND	0	
OCDF	39001-02-0	N/A	N/A	0.0003	2.88	0.0009	13.8	J	ND	0	13.5		2.88	0.0009	J
WHO TEQ ¹	TEQ	N/A	N/A	N/A		0.088				0.000				0.088	

¹WHO-2005 TEQ (ND=0; EMPC=EMPC)

Table 11

Volatile Analysis of Site Water and Field Blank

ASI Job # 39-050		Site Water (Units:µg/L)			Field Blank (Units:µg/L)		
		Site Water			Field Blank		
		20190168			20190167		
		K2311-02			K2311-01		
Analyte Name	CAS No.	Result ¹	RL	Q	Result ¹	RL	Q
Chloromethane (Methyl Chloride)	74-87-3	ND	5.00		ND	5.00	
Bromomethane (Methyl bromide)	74-83-9	ND	5.00		ND	5.00	
Vinyl chloride	75-01-4	ND	5.00		ND	5.00	
Chloroethane (Ethyl chloride)	75-00-3	ND	5.00		ND	5.00	
Methylene chloride (Dichloromethane)	75-09-2	ND	5.00		5.40	5.00	
Acetone (2-Propanone)	67-64-1	ND	25.0		10.2	25.0	J
Carbon disulfide	75-15-0	ND	5.00		ND	5.00	
1,1-Dichloroethene	75-35-4	ND	5.00		ND	5.00	
1,1-Dichloroethane	75-34-3	ND	5.00		ND	5.00	
<i>cis</i> -1,2-Dichloroethene	156-59-2	ND	5.00		ND	5.00	
<i>trans</i> -1,2-Dichloroethene	156-60-5	ND	5.00		ND	5.00	
1,2-Dichloroethene (total)	N/A	ND					
Chloroform	67-66-3	ND	5.00		ND	5.00	
1,2-Dichloroethane	107-06-2	ND	5.00		ND	5.00	
2-Butanone (Methyl ethyl ketone) (MEK)	78-93-3	ND	25.0		ND	25.0	
1,1,1-Trichloroethane	71-55-6	ND	5.00		ND	5.00	
Carbon tetrachloride	56-23-5	ND	5.00		ND	5.00	
Bromodichloromethane (Dichlorobromomethane)	75-27-4	ND	5.00		ND	5.00	
1,2-Dichloropropane	78-87-5	ND	5.00		ND	5.00	
<i>cis</i> -1,3-Dichloropropene	10061-01-5	ND	5.00		ND	5.00	
<i>trans</i> -1,3-Dichloropropene	10061-02-6	ND	5.00		ND	5.00	
<i>cis</i> - and <i>trans</i> - 1,3-Dichloropropene	N/A	ND			ND		
Trichloroethene (TCE) (Trichloroethylene)	79-01-6	ND	5.00		ND	5.00	
Dibromochloromethane (Chlorodibromomethane)	124-48-1	ND	5.00		ND	5.00	
1,1,2-Trichloroethane	79-00-5	ND	5.00		ND	5.00	
1,2,4-Trichlorobenzene	120-82-1	ND	5.00		ND	5.00	
Benzene	71-43-2	ND	5.00		ND	5.00	
Bromoform	75-25-2	ND	5.00		ND	5.00	
Tetrachloroethene	127-18-4	ND	5.00		ND	5.00	
1,1,2,2-Tetrachloroethane	79-34-5	ND	5.00		ND	5.00	
Toluene	108-88-3	ND	5.00		ND	5.00	
Chlorobenzene	108-90-7	ND	5.00		ND	5.00	
Ethyl benzene	100-41-4	ND	5.00		ND	5.00	
Styrene	100-42-5	ND	5.00		ND	5.00	
Xylenes (Total)	1330-20-7	ND	15.0		ND	15.0	
Acrolein	107-02-8	ND	25.0		ND	25.0	
Acrylonitrile	107-13-1	ND	25.0		ND	25.0	

¹ When summing compounds, NDs are counted as zero.

Table 11 continued

Semivolatile Analysis of Site Water and Field Blank

ASI Job # 39-050		Site Water (Units:µg/L)			Field Blank (Units:µg/L)		
		Site Water			Field Blank		
		20190168			20190167		
		K2311-02			K2311-01		
Analyte Name	CAS No.	Result ¹	RL	Q	Result ¹	RL	Q
1,1'-Biphenyl	92-52-4	ND	10.0		ND	11.1	
Azobenzene	103-33-3	ND	10.0		ND	11.1	
2,4,5-Trichlorophenol	95-95-4	ND	10.0		ND	11.1	
2,4,6-Trichlorophenol	88-06-2	ND	10.0		ND	11.1	
2,4-Dichlorophenol	120-83-2	ND	10.0		ND	11.1	
2,4-Dimethylphenol	105-67-9	ND	10.0		ND	11.1	
2,4-Dinitrophenol	51-28-5	ND	20.0		ND	22.2	
2,4-Dinitrotoluene	121-14-2	ND	10.0		ND	11.1	
2,6-Dinitrotoluene	606-20-2	ND	10.0		ND	11.1	
2,4-Dinitrotoluene/2,6-Dinitrotoluene mix	121-14-2/606-20-2	ND			ND		
2-Chlorophenol (o-chlorophenol)	95-57-8	ND	10.0		ND	11.1	
2-Methylnaphthalene	91-57-6	ND	10.0		ND	11.1	
2-Methylphenol (o-Cresol)	95-48-7	ND	10.0		ND	11.1	
2-Nitroaniline	88-74-4	ND	10.0		ND	11.1	
3,3'-Dichlorobenzidine	91-94-1	ND	10.0		ND	11.1	
4,6- Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	534-52-1	ND	20.0		ND	22.2	
3-,4-Methylphenol (p-Cresol)	65794-96-9	ND	10.0		ND	11.1	
Acenaphthene	83-32-9	ND	10.0		ND	11.1	
Acenaphthylene	208-96-8	ND	10.0		ND	11.1	
Acetophenone	98-86-2	ND	10.0		ND	11.1	
Anthracene	120-12-7	ND	10.0		ND	11.1	
Atrazine	1912-24-9	ND	10.0		ND	11.1	
Benzaldehyde	100-52-7	ND	20.0		ND	22.2	

¹ When summing compounds, NDs are counted as zero.

Table 11 continued

Semivolatile Analysis of Site Water and Field Blank (continued)

ASI Job # 39-050		Site Water (Units:µg/L)			Field Blank (Units:µg/L)		
		Site Water			Field Blank		
		20190168			20190167		
		K2311-02			K2311-01		
Analyte Name	CAS No.	Result	RL	Q	Result	RL	Q
Benzidine	92-87-5	ND	10.0		ND	11.1	
Benzo(a)anthracene (1,2-Benzanthracene)	56-55-3	ND	10.0		ND	11.1	
Benzo(a)pyrene	50-32-8	ND	10.0		ND	11.1	
Benzo(b)fluoranthene (3,4-Benzofluoranthene)	205-99-2	ND	10.0		ND	11.1	
Benzo(g,h,i)perylene	191-24-2	ND	10.0		ND	11.1	
Benzo(k)fluoranthene	207-08-9	ND	10.0		ND	11.1	
bis(2-Chloroethyl)ether	111-44-4	ND	10.0		ND	11.1	
Bis(2-chloroisopropyl) ether	108-60-1	ND	10.0		ND	11.1	
bis(2-Ethylhexyl)phthalate	117-81-7	ND	10.0		ND	11.1	
Butyl benzyl phthalate	85-68-7	ND	10.0		ND	11.1	
Caprolactam	105-60-2	ND	10.0		ND	11.1	
Carbazole	86-74-8	ND	10.0		ND	11.1	
Chrysene	218-01-9	ND	10.0		ND	11.1	
Dibenz(a,h)anthracene	53-70-3	ND	10.0		ND	11.1	
Diethylphthalate	84-66-2	ND	10.0		ND	11.1	
Di-n-butylphthalate	84-74-2	ND	10.0		ND	11.1	
Di-n-octylphthalate	117-84-0	ND	10.0		ND	11.1	
Fluoranthene	206-44-0	ND	10.0		ND	11.1	
Fluorene	86-73-7	ND	10.0		ND	11.1	
Hexachloro-1,3-butadiene	87-68-3	ND	10.0		ND	11.1	
Hexachlorobenzene	118-74-1	ND	10.0		ND	11.1	
Hexachlorocyclopentadiene	77-47-4	ND	20.0		ND	22.2	
Hexachloroethane	67-72-1	ND	10.0		ND	11.1	
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10.0		ND	11.1	
Isophorone	78-59-1	ND	10.0		ND	11.1	
Naphthalene	91-20-3	ND	10.0		ND	11.1	
Nitrobenzene	98-95-3	ND	10.0		ND	11.1	
N-Nitrosodimethylamine	62-75-9	ND	10.0		ND	11.1	
N-Nitroso-di-n-propylamine	621-64-7	ND	10.0		ND	11.1	
N-Nitrosodiphenylamine	86-30-6	ND	10.0		ND	11.1	
Pentachlorophenol	87-86-5	ND	20.0		ND	22.2	
Phenanthrene	85-01-8	ND	10.0		ND	11.1	
Phenol	108-95-2	ND	10.0		ND	11.1	
Pyrene	129-00-0	ND	10.0		ND	11.1	

Table 11 continued

Pesticide/Herbiced/PCB Aroclor Analysis of Site Water and Field Blank

ASI Job # 39-050		Site Water (Units:µg/L)			Field Blank (Units:µg/L)		
		Site Water			Field Blank		
		20190168			20190167		
		K2311-02			K2311-01		
Analyte Name	CAS No.	Result ¹	RL	Q	Result ¹	RL	Q
4,4'-DDD	72-54-8	ND	0.050		ND	0.050	
4,4'-DDE	72-55-9	ND	0.050		ND	0.050	
4,4'-DDT	50-29-3	ND	0.050		ND	0.050	
Aldrin	309-00-2	ND	0.050		ND	0.050	
alpha-HCH (alpha-BHC)	319-84-6	ND	0.050		ND	0.050	
beta-HCH (beta-BHC)	319-85-7	ND	0.050		ND	0.050	
Lindane (gamma-HCH) (gamma-BHC)	58-89-9	ND	0.050		ND	0.050	
alpha-Chlordane	5103-71-9	ND	0.050		ND	0.050	
gamma-Chlordane	5103-74-2	ND	0.050		ND	0.050	
Chlordane (alpha and gamma)	57-74-9	ND			ND		
Dieldrin	60-57-1	ND	0.050		ND	0.050	
Endosulfan I	959-98-8	ND	0.050		ND	0.050	
Endosulfan II	33213-65-9	ND	0.050		ND	0.050	
Endosulfan I and II (alpha and beta)	959-98-8/33213-65-9	ND			ND		
Endosulfan sulfate	1031-07-8	ND	0.050		ND	0.050	
Endrin	72-20-8	ND	0.050		ND	0.050	
Heptachlor	76-44-8	ND	0.050		ND	0.050	
Heptachlor epoxide	1024-57-3	ND	0.050		ND	0.050	
Methoxychlor	72-43-5	ND	0.050		ND	0.050	
Toxaphene	8001-35-2	ND	0.500		ND	0.500	
Aroclor-1016	12674-11-2	ND	0.500		ND	0.500	
Aroclor-1221	11104-28-2	ND	0.500		ND	0.500	
Aroclor-1232	11141-16-5	ND	0.500		ND	0.500	
Aroclor-1242	53469-21-9	ND	0.500		ND	0.500	
Aroclor-1248	12672-29-6	ND	0.500		ND	0.500	
Aroclor-1254	11097-69-1	ND	0.500		ND	0.500	
Aroclor-1260	11096-82-5	ND	0.500		ND	0.500	
Aroclor-1262	37324-23-5	ND	0.500		ND	0.500	
Aroclor-1268	11100-14-4	ND	0.500		ND	0.500	
Total Aroclor(SUM)	1336-36-3	ND			ND		

¹ When summing compounds, NDs are counted as zero.

Table 11 continued

Metals Analysis of Site Water and Field Blank

ASI Job # 39-050		Site Water (Units:mg/L)			Field Blank (Units:mg/L)		
		Site Water			Field Blank		
		20190168			20190167		
		K2311-02			K2311-01		
Analyte Name	CAS No.	Result	RL	Q	Result	RL	Q
Aluminum	7429-90-5	ND	0.050	N	ND	0.050	N
Antimony	7440-36-0	ND	0.025		ND	0.025	
Arsenic	7440-38-2	0.00222	0.010	J	0.00043	0.010	J
Barium	7440-39-3	0.0404	0.050	J	ND	0.050	
Beryllium	7440-41-7	ND	0.003		ND	0.003	
Cadmium	7440-43-9	ND	0.003		ND	0.003	
Cobalt	7440-48-4	ND	0.015		ND	0.015	
Copper	7440-50-8	0.0059	0.010	J	ND	0.010	
Lead	7439-92-1	0.0116	0.006		ND	0.006	
Manganese	7439-96-5	0.0789	0.010		ND	0.010	
Mercury	7439-97-6	ND	0.0002		ND	0.0002	
Nickel	7440-02-0	ND	0.020		ND	0.020	
Selenium	7782-49-2	ND	0.010		ND	0.010	
Silver	7440-22-4	0.00059	0.005	J	0.0001	0.005	J
Vanadium	7440-62-2	0.00262	0.020	J	ND	0.020	
Zinc	7440-66-6	0.0841	0.020		0.0031	0.020	J
Cyanide	57-12-5	ND	0.005		ND	0.005	
Chromium, total	7440-47-3	ND	0.005		ND	0.005	
Hexavalent chromium	18540-29-9	ND	0.010	H	ND	0.010	H
Trivalent chromium	16065-83-1	ND	0.010		ND	0.010	

Table 11 continued

Dioxin/Furan Analysis of Site Water and Field Blank

ASI Job # 39-050		Site Water (Units:pg/L)			Field Blank (Units:pg/L)		
		Site Water			Field Blank		
		20190168			20190167		
		0419-713_10278_012			0419-713_10278_011		
Analyte Name	CAS No.	Result	RL	Q	Result	RL	Q
2,3,7,8-TCDD	1746-01-6	ND	1.36		ND	1.27	
1,2,3,7,8-PeCDD	40321-76-4	ND	6.81		ND	6.36	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	6.81		ND	6.36	
1,2,3,6,7,8-HxCDD	57653-85-7	ND	6.81		ND	6.36	
1,2,3,7,8,9-HxCDD	19408-74-3	ND	6.81		ND	6.36	
1,2,3,4,6,7,8-HpCDD	35822-46-9	ND	6.81		ND	6.36	
OCDD	3268-87-9	13.1	13.6		ND	12.7	
2,3,7,8-TCDF	51207-31-9	ND	1.36		ND	1.27	
1,2,3,7,8-PeCDF	57117-41-6	ND	6.81		ND	6.36	
2,3,4,7,8-PeCDF	57117-31-4	ND	6.81		ND	6.36	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	6.81		ND	6.36	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	6.81		ND	6.36	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	6.81		ND	6.36	
1,2,3,7,8,9-HxCDF	72918-21-9	ND	6.81		ND	6.36	
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	6.81		ND	6.36	
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	6.81		ND	6.36	
OCDF	39001-02-0	ND	13.6		ND	12.7	