Table A-2: Sampling Design Matrix - Phase 1
Soil Sampling

Sample Location	Boring Total Depth (ft bgs)	Sample Medium	Rationale	Number of Sample Locations	Sample Identification	Sampling Tool	Sampling Depth (ft bgs)	Analysis: Field Screening by PID	[2,3]Geotechnical Parameters	VOCs	SVOCs	TAL Metals (includes Mercury)	Cyanide	[2]Hexavalent Chromium	PCBs	[2]PFCS	[2]ORP	[2]pH	TPH
Soil Borings (Surface Soil and Subsurface Soil)																			
DSB- 1	15	Surface soil	To delineate nature and extent	1	DSB-1-0.0-0.5	Split spoon Continuous sampler PVC/acetate sleeve, 5 ft core barrel, or hand auger	0.0 - 0.5	Yes				1	1	1					
				1	DSB-1-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-1-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 2	15	Surface soil		1	DSB-2-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-2-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-2-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 3	15	Surface soil		1	DSB-3-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-3-0.5-2.0		0.5 - 2.0	Yes		1	1	1	1	1	1	1	1	1	1
		Subsurface soil		1	DSB-3-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 4	15	Surface soil		1	DSB-4-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-4-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-4-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 5	5	Surface soil		1	DSB-5-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-5-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-5-2.0-5.0		2.0 - 5.0	Yes				1	1	1					
DSB- 6	15	Surface soil		1	DSB-6-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-6-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-6-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 7	15	Surface soil		1	DSB-7-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-7-0.5-2.0		0.5 - 2.0	Yes		1	1	1	1	1	1	1	1	1	1
		Subsurface soil		1	DSB-7-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 8	5	Surface soil		1	DSB-8-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-8-0.5-2.0		0.5 - 2.0	Yes		1	1	1	1	1	1	1	1	1	1
		Subsurface soil		1	DSB-8-2.0-5.0		2.0 - 5.0	Yes				1	1	1					
DSB- 9	15	Surface soil		1	DSB-9-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-9-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-9-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 10	15	Surface soil	To delineate nature and extent (if needed, locations will be identified in future based on intial soil boring results)	1	DSB-10-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-10-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-10-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 11	15	Surface soil		1	DSB-11-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-11-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-11-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
DSB- 12	15	Surface soil		1	DSB-12-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	DSB-12-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	DSB-12-XX-XX		Total Depth of 15 ft. or Refusal	Yes				1	1	1					
JSB- 1	5	Surface soil	To further assess potential source areas	1	JSB-1-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	JSB-1-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	JSB-1-2.0-5.0		2.0 - 5.0	Yes				1	1	1					
JSB- 2	5	Surface soil		1	JSB-2-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	JSB-2-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	JSB-2-2.0-5.0		2.0 - 5.0	Yes		1	1	1	1	1	1	1	1	1	1
JSB- 3	5	Surface soil		1	JSB-3-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	JSB-3-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	JSB-3-2.0-5.0		2.0 - 5.0	Yes				1	1	1					
JSB- 4	5	Surface soil		1	JSB-4-0.0-0.5		0.0 - 0.5	Yes				1	1	1					
				1	JSB-4-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	JSB-4-2.0-5.0		2.0 - 5.0	Yes				1	1	1					
							Subtotal Soil Boring Soil Samples		**0**	**4**	**4**	**48**	**48**	**48**	**4**	**4**	**4**	**4**	**4**

Table A-2: Sampling Design Matrix - Phase 1
Soil Sampling

Sample Location	Boring Total Depth (ft bgs)	Sample Medium	Rationale	Number of Sample Locations	Sample Identification	Sampling Tool	Sampling Depth (ft bgs)	Analysis: Field Screening by PID	[2,3]Geotechnical Parameters	VOCs	SVOCs	TAL Metals (includes Mercury)	Cyanide	[2]Hexavalent Chromium	PCBs	[2]PFCS	[2]ORP	[2]pH	TPH
Monitoring Wells																			
MW- 1	40	Surface soil	To assess nature and extent	1	MW-1-0.0-0.5	Hollow stem auger with 5 ft core barrel	0.0 - 0.5	Yes				1	1	1					
				1	MW-1-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	MW-1-XX-XX		[1]Highest PID Reading/Apparent Ground Water Interface	Yes		1	1	1	1	1	1	1	1	1	1
		Subsurface soil (core)		1	MW-1-XX-XX	Shelby Tube			1										
MW- 2	40	Surface soil		1	MW-2-0.0-0.5	Hollow stem auger with 5 ft core barrel	0.0 - 0.5	Yes				1	1	1					
				1	MW-2-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	MW-2-XX-XX		[1]Highest PID Reading/Apparent Ground Water Interface	Yes				1	1	1					
		Subsurface soil (core)		1	MW-2-XX-XX	Shelby Tube			1										
MW- 3	40	Surface soil		1	MW-3-0.0-0.5	Hollow stem auger with 5 ft core barrel	0.0 - 0.5	Yes				1	1	1					
				1	MW-3-0.5-2.0		0.5 - 2.0	Yes				1	1	1					
		Subsurface soil		1	MW-3-XX-XX		[1]Highest PID Reading/Apparent Ground Water Interface	Yes		1	1	1	1	1	1	1	1	1	1
		Subsurface soil (core)		1	MW-3-XX-XX	Shelby Tube			1										
Subtotal Monitoring Well Soil Samples									**3**	**2**	**2**	**9**	**9**	**9**	**2**	**2**	**2**	**2**	**2**
Total Soil Samples									**3**	**6**	**6**	**57**	**57**	**57**	**6**	**6**	**6**	**6**	**6**
Soil Investigation QC Samples																			
Field Duplicates	NA	Soil	Quality Control	Same as original with "-D" added to the ID, for example MW-16-0.5-2.0-D		1 per 10 samples			0	1	1	6	6	6	1	1	1	1	1
MS/MSDs	NA	Soil		Same as original sample identification		1 per 20 samples (extra volume consisting of one container for MS and one container for MSD per each MS/MSD sample)			0	1	1	3	3	3	1	1	1	1	1
Total Soil Samples Associated with Soil Investigation Including QC									**3**	**8**	**8**	**66**	**66**	**66**	**8**	**8**	**8**	**8**	**8**
Water QC Samples																			
Trip blanks	NA	Water	Quality Control	TB with number; for example TB-1, TB-2, etc.		1 per cooler containing equipment rinsate for equipment used during soil investigation			0	6	0	0	0	0	0	0	0	0	0
Equipment blanks	NA	Water		ER with number; for example ER-1, ER-2, etc.		1 per day per set of nondedicated equipment per team			0	4	4	10	10	10	4	4	4	4	4
Total Water QC Samples Associated with Soil Investigation									**0**	**10**	**4**	**10**	**10**	**10**	**4**	**4**	**4**	**4**	**4**

NOTES:

[1]Interval that contains the highest PID reading will be determined in the field; these intervals will used accordingly the sample indentifcation number for the collected samples meeting these criteria

Sample depth may vary depending upon location of sample and encountered condtions; in addition the highest PID reading may correspond with one of the surface soil intervals or the ground water interface, as a result, the number of samples collected may be less than shown.

[2] Geotechnical parameters, hexavalent chromium, PFCs, pH , and ORP, analyses for soil samples will be conducted by a private laboratory.

[3]Geotechnical parameters include bulk density, porosity, effective porosity, fraction organic carbon, and permeability.

bgs = Below ground surface
ft = foot (feet)
MS = Matrix spike
MSD = Matrix spike duplicate
NA = Not Applicable
ORP = Oxidation Reduction Potential
PCB = Polychlorinated biphenyl
PFCs = Perfluorochemicals
PID = Photoionization detector
PVC = polyvinyl chloride
QC = Quality control
SVOC = Semivolatile organic compound
TAL = Target Analyte List
TPH = Total petroleum hydrocarbons
TB = Trip Blank
TPH = Total petroleum hydrocarbons
VOC = Volatile organic compound

Objective of Sampling - To determine the nature and extent of contaminants of potential concern associated with surface and subsurface soil.

Activities to be Conducted - The tasks of this field investigation that will be performed during Phase 1 include: (1) Installation of soil borings and monitoring wells, and (2) collection of surface and subsurface soil samples for laboratory analyses.

Sample Locations - See Figure A-1 for soil boring locations and A-2 for monitoring well locations in Appendix A of the Sampling and Analysis Plan