

**Clean Earth
Sampling Frequency Protocol**

Philadelphia

METHODS	TPH - EXPANDED TO C44	BTX	TOX	TOTAL ORGANICS	TOTAL VOLATILE ORGANICS	TOTAL SEMI VOLATILE ORGANICS C ₁₀ -N ₁ -Zn	TCLP METALS - RCRA + Ni, Zn	TCLP METALS - RCRA + Cd, Ni, Zn	IGNITABILITY RCRA + C ₁₀	CORROSIVITY (PH)	REACTIVITY - SULFIDE AND CYANIDE	PCBs SW846 CHAPTER 7.3	TOTAL SULFUR	TCLP VOLATILE ORGANICS	TCLP SEMI VOLATILE ORGANICS	TCLP HERBICIDES	TCLP PESTICIDES
FREQUENCY																	
VIRGIN PETROLEUM	Grab - 1st 90 tons; 2nd 90 tons; every 180 tons thereafter	X	X														
	5 point grab composite - every 900 tons						X	X	X	X	X						
Limit		* <400,000	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	Negative	> 2 - <12.5	Sulfide <500 Cyanide <250	<48	No Limit	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List
WASTE PETROLEUM	Grab - 1st 90 tons; 2nd 90 tons; every 180 tons thereafter	X		X													
	5 point grab composite - every 900 tons		X				X	X	X	X	X	X	X				
Limit		* <400,000	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	Negative	> 2 - <12.5	Sulfide <500 Cyanide <250	<48	No Limit	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List
PETROLEUM SOLVENTS	Grab - 1st 90 tons; 2nd 90 tons; every 180 tons thereafter				X												
	Grab - Every 900 tons													X			
	5 point grab composite - every 900 tons			X		X	X	X	X	X	X	X	X		X	X	X
Limit		* <400,000	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	Negative	> 2 - <12.5	Sulfide <500 Cyanide <250	<48	No Limit	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List
HISTORIC FILL	Grab - 1st 90 tons; 2nd 90 tons; every 180 tons thereafter	X				X											
	Grab - Every 900 tons													X			
	5 point grab composite - every 900 tons			X	X		X	X	X	X	X	X	X		X	X	X
Limit		* <400,000	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	Negative	> 2 - <12.5	Sulfide <500 Cyanide <250	<48	No Limit	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List
COAL TAR	Grab - 1st 90 tons; 2nd 90 tons; every 180 tons thereafter	X			X	X											
	Grab - Every 900 tons													X			
	5 point grab composite - every 900 tons						X	X	X	X	X	X	X		X	X	X
Limit		* <400,000	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	Negative	> 2 - <12.5	Sulfide <500 Cyanide <250	<48	No Limit	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List	See Cross Reference Parameter List

* If TPH is >10,000 ppm a PADEP Form U must be submitted

This is to be used as a guideline for sampling. Sampling frequencies and parameter requirements may be modified at the discretion of the CE Approval staff based items such as site history, levels of contamination and/or source of contamination, etc..