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Material Profile Reference Guide

Passyunk Wash Plant acceptance criteria pursuant to PADEP Soil Waste Processing Facility Permit #301391. Criteria subject to change in accordance with PADEP requirements.

All applications must include the following documents:

Document	Notes
Material Profile Form	- Complete Site History and Generator Information - Generator Authorization Form if the generator is authorizing others to act on their behalf.
Laboratory Analytical Report(s)	- Accredited lab - Chain of Custody - Summary Tables of Results
Sample Location Diagram	- All grab and composite sample locations match each sample ID in laboratory report(s)
PADEP FP-001 Form	- PA Clean Fill only submitted through PADEP GreenPort website
PADEP FORM U	- Regulated Fill (RF) and Residual Waste Soils (RWS) only. - Form submitted to Eco Materials for submission to PADEP

Soil Status	Acceptance Criteria	Sample Frequency	Analytical Parameters
PA Clean Fill	All parameters below PA CFCL values	3 composites & 3 grabs per 3,000 cy (4,500 tons)	TCL/TAL
Clean Fill Sample Frequency: first 125 cy require 2 composite/grab samples. Sources with up to 3,000 cy require 3 composite/grabs Each additional 1,000 cy requires 1 composite and grab			
Out-of-State Sampling: Four (4) discrete grabs can be substituted for one composite sample.			
Default analytical parameters include: TCL VOCs (grab only), TCL SVOCs, total PCBs, TCL pesticides and TAL metals (including mercury and cyanide). - Total Chromium must be below the CFCL for hexavalent chromium (Cr VI) or Cr VI must be reported below CFCL. - Consult the PADEP Management of Fill Policy (MoFP) to determine which usages at a donor site would trigger additional analysis for clean fill determination. Examples of usages that likely require additional analytical parameters include, but are not limited to dredge materials, orchards, fire training facilities and/or airports.			

Soil Status	Acceptance Criteria	Sample Frequency	Analytical Parameters
Regulated Fill	All parameters below PA RFCL values	3 composites & 3 grabs per 3,000 cy (4,500 tons)	TCL/TAL + RCRA Characteristics
Regulated Fill Sample Frequency: first 125 cy require 2 composite/grab samples. Sources with up to 3,000 cy require 3 composite/grabs Each additional 1,000 cy requires 1 composite and grab			
TCLP Trigger Values:	All target parameters below PADEP GW MSC and non-hazardous	Based on individual samples with compounds above trigger values	Site-specific based on exceedances outside of TCLP 40
- Only those individual compounds found to be greater than the trigger values require TCLP analysis. - TCLP trigger values listed on table below. - All other waste characterization parameters required. - If total values are not available (i.e. herbicides), they will be required for TCLP. - Note: pyridine and m-cresol are not on the TCL SVOC, however are required to be reported as total below the trigger value and/or TCLP below hazardous criteria.			

Soil Status	Acceptance Criteria	Sample Frequency	Analytical Parameters
Residual Waste Soil	All parameters below facility acceptance & non-hazardous	1 composite & grab per 500 cy (750 tons)	RCRA Characteristics

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Required RCRA Characterization for Regulated Fill (RF) and Residual Waste Soil (RWS):

- TCLP analysis of all 40 constituents included in 40 CFR § 261.24 (table below)
- Total polychlorinated biphenyls (PCBs as Aroclors)
- pH/corrosivity
- Ignitability
- Reactive sulfide
- Reactive cyanide

Parameter	Hazardous Classification Criteria
Ignitability	Flashpoint <140 F
Corrosivity	Aqueous pH < 2 or > 12.5
Reactive	Normally unstable, undergoes violent changes without detonating, water reactive
Toxic	Exceeding the regulatory limits for TCLP

Required 40 Constituents for TCLP Analysis:

EPA HW No	Analytical Group	Compound	CAS No.	TCLP Trigger (mg/kg)
D017	Herbicide	2,4,5-TP	93-72-1	20
D016	Herbicide	2,4-D	94-75-7	1.8
D004	Metal	Arsenic	7440-38-2	29
D005	Metal	Barium	7440-39-3	2000
D006	Metal	Cadmium	7440-43-9	20
D007	Metal	Chromium	7440-47-3	100
D008	Metal	Lead	7439-92-1	100
D009	Metal	Mercury	7439-97-6	4
D010	Metal	Selenium	7782-49-2	20
D011	Metal	Silver	7440-22-4	84
n/a	PCB	PCB Aroclor 1221	11104-28-2	0.16
n/a	PCB	PCB Aroclor 1232	11141-16-5	0.13
n/a	PCB	PCBs, Total	1336-36-3	5
D020	Pesticide	Chlordane	57-74-9	0.6
D012	Pesticide	Endrin	72-20-8	0.4
D031	Pesticide	Heptachlor (and its epoxide)	76-44-8	0.16
D013	Pesticide	Lindane	58-89-9	0.072
D014	Pesticide	Methoxychlor	72-43-5	200
D015	Pesticide	Toxaphene	8001-35-2	1.2
D041	SVOC	2,4,5-trichlorophenol	95-95-4	2100
D042	SVOC	2,4,6-Trichlorophenol	88-06-2	10
D030	SVOC	2,4-Dinitrotoluene	121-14-2	0.05
D032	SVOC	Hexachlorobenzene	118-74-1	0.96
D033	SVOC	Hexachlorobutadiene	87-68-3	10
D034	SVOC	Hexachloroethane	67-72-1	0.56
D024	SVOC	m-cresol	108-39-4	34
D036	SVOC	Nitrobenzene	98-95-3	0.052
D023	SVOC	o-cresol	95-48-7	28
D025	SVOC	p-cresol	106-44-5	4
D037	SVOC	Pentachlorophenol	87-86-5	5
D038	SVOC	Pyridine	110-86-1	0.39
D029	VOC	1,1-Dichloroethylene	75-35-4	0.19
D028	VOC	1,2-Dichloroethane	107-06-2	0.1
D027	VOC	1,4-Dichlorobenzene	106-46-7	10
D018	VOC	Benzene	71-43-2	0.13
D019	VOC	Carbon Tetrachloride	56-23-5	0.26

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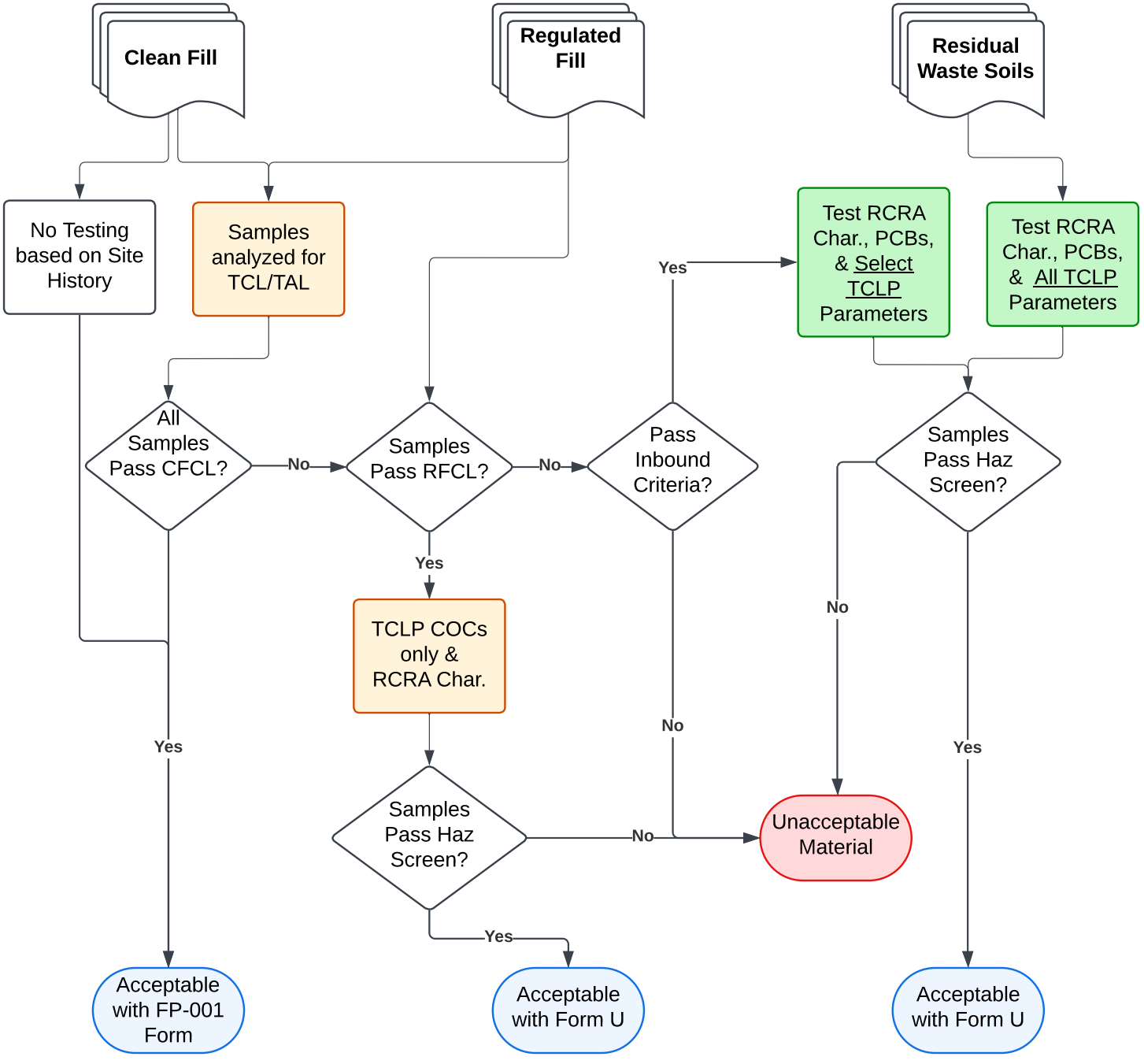
Required 40 Constituents for TCLP Analysis:				
EPA HW No	**Analytical Group**	**Compound**	**CAS No.**	**TCLP Trigger (mg/kg)**
D021	VOC	Chlorobenzene	108-90-7	6.1
D022	VOC	Chloroform	67-66-3	2
D035	VOC	Methyl ethyl ketone	78-93-3	76
D039	VOC	Tetrachloroethylene	127-18-4	0.43
D040	VOC	Trichloroethylene	79-01-6	0.17
D043	VOC	Vinyl chloride	75-01-4	0.027

EPA HW No. =	Hazardous waste number.
CAS No. =	Chemical abstracts service number.
* Detection Limit Note =	Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
Cresol Note =	If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.
Hazardous Level =	USEPA Hazardous Waste Regulatory Levels: 40 CFR Part 261, Subpart C - Characteristics of Hazardous Waste, Section 261.24 Toxicity Characteristic, Table 1 - Maximum Concentration of Contaminants for the Toxicity Characteristic (July 14, 2006).
PADEP Generic SGW =	PADEP Statewide Health Standards (SWHS): 25 PA Code Chapter 250 Tables 3b and 4b - Medium Specific Concentrations (MSCs) for Organic and Inorganic Regulated Substances in Soil: Generic Soil to Groundwater (SGW) (Unsaturated Conditions) Pathways, Used Aquifer, Low Dissolved Solids (publish date November 20, 2021).
TCLP Trigger Value =	The lower of the PADEP Generic SGW versus 20 times the Hazardous Level.

Environmental Acceptance Critera Decision Matrix -Passyunk Wash Plant-



Samples Analyzed at 1 per 1000 cy

Samples Analyzed at 1 per 500 cy

All applications are subject to Eco Materials' review.
All Form U applications are subject to PADEP review.