

# SOLID WASTE ACCEPTANCE PROTOCOL

## SASKATCHEWAN

This form will assist you in identifying if the waste(s) can be accepted and assist in the analytical testing requirements.

SECURE Industrial Landfills will only accept solid, non-dangerous oilfield and non-hazardous industrial wastes. EXAMPLES OF COMMON ACCEPTABLE

### SOLID WASTES (NO FREE LIQUIDS)

- 1 Activated Carbon
- 2 Asbestos
- 3 Catalyst(s) Sulphur and Non-Sulphur
- 4 Cement (Crushed, Dry Returns)
- 5 Contaminated Debris and Soil(s) with:
  - Chemical/Solvent(s)
  - Crude Oil/Condensate
  - Dry Cleaning/Industrial Related
  - Mercury/Metals
  - Methanol
  - Produced/Salt Water
  - Refined Fuel(s) (i.e. Gasoline)
  - Sulphur
- 6 Construction and Demolition (C&D) Debris
- 7 Desiccant(s)/Molecular Sieve(s)
- 8 Drilling Mud(s)/Cuttings:
  - Advanced Gel Chem
  - Gel Chem
  - Invert
  - Potassium Chloride (KCl)
  - Potassium Sulphate ( $K_2SO_4$ )
- 9 Frac Sand (non-radioactive)
- 10 Incinerator Ash
- 11 Sand - Produced
- 12 Sludge - No Free Liquids (Solids ONLY) from:
  - Flare pit
  - Hydrocarbon
  - Lime
  - Process
  - Sulphur
- 13 Treated Wood/Wood Waste (e.g. railway ties)
- 14 Treatable Solid Waste (Hydrocarbon impacted, Refined fuel impacted solids)  
*(Lomond Treatment Pad ONLY)*

### PROHIBITED WASTES

- 1 Free Liquids
- 2 Hazardous Solid Waste as defined in:
  - *Transportation of Dangerous Goods Regulations* (Transport Canada, 2020)
  - *Schedule 2, 5, 6 & 7 of Cross-Border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (2021)*
- 3 Municipal Solid Waste (MSW)
- 4 Radioactive Material
- 5 Medical or Bio-medical Waste
- 6 Putrescible Waste (e.g. animal carcasses)
- 7 Waste containing distillate invert mud systems with oxygen scavengers
- 8 Large metal objects (e.g. automobiles/white goods)
- 9 Explosives
- 10 Reactive Material

### LANDFILL DISPOSAL CRITERIA

The following is a list of landfill disposal criteria that may be required based on the description, origin and history of the solid waste:

- Analytical data provided must support the non-hazardous solid waste classification
- Analytical data provided must be current (not older than one (1) calendar year)
- It is the responsibility of the waste generator to determine the characteristics of the waste
- Un-used non-hazardous solid products require a SDS/Data Sheet

### MULTI-WELL PADS

- A SECURE Application Form (SAF) and analytical is required for each surface location;
- All downholes are to be listed on the SAF;
- An analytical is required for each drilling product for every SAF; and
- If the product or formation changes, an updated analytical is required.

## INDUSTRIAL LANDFILL DISPOSAL CRITERIA

The following list of common compounds and associated regulatory levels are the maximum allowable concentrations for solid waste that can be accepted at SECURE Saskatchewan Industrial Landfills. Any material that exceeds these limits will not be approved for disposal.

**Note:** Refer to the “SECURE SASKATCHEWAN INDUSTRIAL LANDFILL ANALYTICAL REQUIREMENTS” following this page for the specific analysis required based on the waste stream description.

CONSTITUENTS	REGULATORY LEVELS	CONSTITUENTS	REGULATORY LEVELS
<b>Leachable/Total BTEX:</b>		<b>Leachable:</b>	
Benzene	0.5 mg/L	Nitrate/Nitrite	1000.0 mg/L
Toluene	100.0 mg/kg	Nitrite	320.0 mg/L
Ethylbenzene	100.0 mg/kg	Nitrate	4500.0 mg/L
Xylenes	100.0 mg/kg	<b>PCBs:</b>	
<b>Leachable Metals:</b>		PCB	50.0 mg/kg (Total)
Arsenic	2.5 mg/L	<b>Other</b>	
Barium	100.0 mg/L	Additionally, the waste must meet all the following requirements:	
Boron	500.0 mg/L	pH	≥ 2.0 and ≤ 12.5
Cadmium	0.5 mg/L	Flash Point	> 60.5°C (degrees Celsius)
Chromium	5.0 mg/L	No Free Liquids	can be present (US EPA Method 9095 Paint Filter Test)
Lead	5.0 mg/L		
Mercury	0.1 mg/L		
Selenium	1.0 mg/L		
Uranium	10.0 mg/L		
<b>Solvent Scan:</b>			
Carbon disulphide	100.0 mg/kg		
Cresols	200.0 mg/L		
Nitrobenzene	2.0 mg/L		
Pyridine	5.0 mg/L		
Ethyl methyl ketone	200.0 mg/L		

**Note(s):**

- Not all regulated compounds are listed above. Please refer to the *Transportation of Dangerous Goods Regulations* (Transport Canada, 2011) and Cross Border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (2021)
- Dry Cleaner and/or other Industrial related impacted solids may require specific analytical parameters; please contact SECURE for full details

## INDUSTRIAL LANDFILL DISPOSAL CRITERIA

### BASIC PARAMETERS

The following **basic** analytical testing is required for all wastes regardless of the composition:

**FP** – Flash Point for solid samples

**LB** – Leachable Benzene (TCLP)

**TTEX** – Total Toluene, Ethylbenzene and Xylene(s) (mg/kg)

**LMETALS** – Leachable metals (TCLP)

**pH** – pH of solid waste material

**PFT** – Paint Filter Testt

### SUPPLEMENTAL – WASTE SPECIFIC PARAMETERS

The following additional analysis **MAY** be required depending on the waste description and/or type (refer to guidance below). Additional analysis may be requested depending on the type of waste and source of generation.

**EOX** – Extractable Halogenated Organic Compounds (TCLP)

**VOC** – Volatile Organic Compounds (TCLP)

**Sol Scan** – Landfill Solvent Screen in solid waste EPA 8240

**PAH** – Polycyclic Aromatic Hydrocarbons

**PCB** – Polychlorinated Biphenyls

**Spontaneous Combustion** (Self-Heating)

**Sulphur** – Elemental Sulphur (S<sup>0</sup>) and Sulphides (S<sup>2-</sup>)

**Water Reactivity** (ΔT)

**% ANC** – % Acid Neutralizing Capacity – Additional testing **recommended** for Sulphur impacted wastes

**% CCE** – % Calcium Carbonate Equivalent – Additional testing **recommended** for Sulphur impacted wastes

### WASTE SPECIFIC ANALYTIC PARAMETERS

WASTE DESCRIPTION	ANALYTICAL REQUIREMENTS
<b>1</b> Activated Carbon	Basic and Spontaneous Combustion (Self-Heating)*
<b>2</b> Catalyst (sulphur)	Basic, Elemental Sulphur and Sulphides, Spontaneous Combustion (Self-Heating)*
<b>3</b> Catalyst (non-sulphur)	Basic, Spontaneous Combustion (Self-Heating)*
<b>4</b> Desiccant(s)/Molecular Sieve(s)	Basic, Water Reactivity (ΔT)*

**\*Please contact the Facility Manager to discuss the requirements of these parameters.**

**Note:** The analytical requirements for waste approval include but are not limited to those listed above. SECURE may request additional testing prior to issuing approval. If a waste differs from the descriptions above please contact the SECURE facility.

### HELPFUL INFORMATION (Laboratory Requirements)

- Spontaneous combustion testing requires a four (4) litre pail of sample.
- BTEX sampling requires a 500 mL glass jar with no head space.
- Analytical reports must be the signed copy.