

2.0 Reporting Requirements

This report has been completed in accordance with the requirements of Permits PR-16078 Section 9.3, Subsections (a) to (j), of The Environmental Management Act Permit No.: PR-16078

9.3(a) The category and tonnage of waste received, recycled and discharged for the preceding calendar year

A summary of the waste streams / materials received at the Tervita Northern Rockies Secure Landfill is provided in the table below. Table 1 breaks down the waste substances and volumes accepted in 2017.

Table 1 – 2017 Waste Substance and Summary

Substance	Tonnage
Drilling Waste Hydrocarbon	2,199.56
Miscellaneous Industrial Waste	577.13
Contaminated Soil w/ Refined Fuels	74,895.57
Contaminated Soil w/ Produced Water	1,997.20
Contaminated Soil w/ Metals	11,456.02
Contaminated Soils w/ Crude Oil/Condensate	2,456.44
Contaminated Soil w/ Chemical/Solvent	19.37
Construction & Demolition Material	65.61
Catalyst Non-Sulphur	73.56
Sulphur	325.40
Total 2017 Tonnage	94,065.86

In 2017, 29,080.83 m³ of leachate from the Landfill was processed and disposed of at approved Oilfield Waste Management Facilities.

Analysis was done between 2013 to 2017 for waste types received to determine trends. See Table 2 and Graph 1 for the trend analysis.

2.0 Reporting Requirements

This report has been completed in accordance with the requirements of Sections 9.3, Subsections (a) to (j), of The Environmental Management Act Permit No.: PR-17150.

9.3(a) The category and tonnage of waste received, recycled and discharged for the preceding calendar year

A summary of the waste streams / materials received at the Tervita Silverberry Secure Landfill from January 1, 2017 to December 31, 2017 are in Table 1.

Table 1 – Waste Substance Summary

Substance	Tonnage
Catalyst – Non-Sulphur	106.76
Cement - Landfill	132.17
Construction & Demolition Material	124.47
Contaminated Soil - Chemical/Solvent	15.07
Contaminated Soil - Crude Oil/Condensate	7,307.66
Contaminated Soil - Mercury/Metals	1,223.46
Contaminated Soil - Produced/Salt Water	26,002.47
Contaminated Soil - Refined Fuels/Oils	11,078.84
Contaminated Soil w/ Sulphur	7.64
Desiccant	62.40
Flare Pit Material	17,108.44
Frac Sand - Non- Radioactive	38.09
Incinerator Ash	104.59
Hydrocarbon Contaminated Material	341.37
Contaminated Process Material	43,498.28
Sulphur	990.02
Miscellaneous Wastes - Industrial	5,218.23
Drilling Waste Hydrocarbons	109,612.47
Drilling Waste - Gel Chemical	25,471.70
NORM Waste	17,331.62
Drilling Waste - Advanced Gel Chemical	26,625.25
Liner Disposal	885.17
Non-friable Asbestos	75.77
Total Tonnage	293,361.94

In 2017, 32,955.50 m³ of leachate from the Landfill was processed and sent for deepwell disposal at one of Tervita's Oilfield Waste Management Facilities. The 2017 Leachate Disposal Volume Summary is included as Attachment 1. Analysis was done on 2013 to 2017 waste types received to determine trends. See Table 2 and Graph 1 for the trend analysis.