Calgary Aggregate Recycling (CAR) Operational Inputs, Testing, and Outputs

266,198 TONNES

Total amount of waste diverted from landfills in 2 years of operations *



Inputs

In accordance with the *Environmental Protection and Enhancement Act*, Calgary Aggregate Recycling Inc. (CAR) has been approved by Alberta Environment and Parks to operate a "Waste Management Facility", under AEP Approval number: 476084-00-00.

The activities conducted at the site are designated under Schedule 1 of the Activities Designation Regulation (Alberta Regulation 276/2003). Schedule 1 – Division.

Accepted Material Streams

The following material can be accepted at the facility, provided it meets the criteria from Required Analytical Testing:

- Soil & Contaminated Soils from:
- construction and demolition sites,
- municipal land use zones classified as commercial and light industrial,
- soils from sand and gravel pit operations,
- Non-hazardous hydro-vac material
- Aggregate
- Asphalt (for crushing, not washing)
- Concrete (for crushing, not washing)
- Debris mixes from construction and demolition sites

Prohibited Material (Rejected from Processing)

- Hazardous waste as specified in the Waste Control Regulation, AR 192/96, as amended
- Dangerous oilfield waste
- Municipal solid waste
- Domestic wastewater
- Explosive(s)
- NORM waste (Naturally occurring radioactive material)
- Biomedical waste; and
- Ozone depleting substances

Operational Tonnage Summary (Wash Plant)

Year	In - Cont	In - Slurry	Total Incoming	Out - Washed	Filtered Out	Diverted	То	Total Diverted (All Materials)
2023	76,809.15	15,572.01	92,381.15	25,464.49	46,001.26	21%	GeoCycle	90%
2024	174,089.21	26,600.16	200,689.37	56,154.23	68,872.06	25% **	GeoCycle	91%

* Total diverted waste calculated by subtracting landfill materials from total Incoming materials

** The GeoCycle lost operation of one kiln in 2024 for processing the fines materials. Alternative uses for the fines product are being explored to get diversion to 100%.

Inputs Testing

For all materials brought to CAR, the materials generator must complete a material application prior to materials being accepted to the site for input.

All Contaminated Material must be tested and meet the following requirements:

- 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

Non-Conforming Material

Any non-conforming material will be rejected. In the event that non-conforming material is identified, CAR will notify the material generator of the issue.



Extensive testing details are available in the Soil Reuse Facility Operations Plan (PDF)

Outputs

Sellable Materials

The following materials are generated and sold for use in construction, road maintenance, landscaping, and other applications:



Reusable Materials

Water - most water is cleaned and reused in the wash process, the rest is provided back to hydro-vac operators for their use.

Fines Cakes - This soil-like clay material is diverted for use in concrete manufacturing (whenever possible) and uses for agriculture and landfill maintenance are being explored. The fines consisting mainly of clay and silt particles that are less than 63 microns (μ m) or 0.063 mm. The nature of this output material is a usable product in other processes. Under normal operations this material is not "waste" and is not disposed of as a waste product.





Output Destinations

	Sand & Aggregates are sold to end users for landscaping, construction and infrastructure maintenance purposes.
alt	Water is provided back to hydro-vac operators for use in their process and reused within the wash process repeatedly.
Rock	Fines are processed down-stream for use as a concrete additive. New uses for the fines material is being explored with the City of Calgary for landfill separation and coverage, and other users for carbon sequestering, and agricultural purposes.
and	