

NELSON

Case Study · Louis Bull First Nation

Louis Bull First Nation: 140,000 tonnes remediated.

A long-standing fuel-retail hydrocarbon liability on Louis Bull First Nation land, destroyed on site around the clock and returned as buildable ground.

BEAR HILLS · LOUIS BULL FIRST NATION · ALBERTA

140K t
Hydrocarbon soil treated

25 t/hr
Average, 35 t/hr peak

100 %
To Alberta Tier 1 criteria

THE WORK

Impacted soil was excavated, screened and conditioned, then fed through Nelson's RS-45 mobile thermal system. Hydrocarbons were volatilized off the soil and the vapour stream routed to a high-temperature oxidizer for destruction.

Operations ran continuously, 24 hours a day, seven days a week. Treated soil was sampled pile by pile at specified volumes against Alberta Tier 1 criteria before release back to the excavation.

PROJECT RECORD

CLIENT	Civil works contractor, on Louis Bull First Nation land
SITE	Bear Hills, long-standing fuel-retail hydrocarbon liability, Alberta
EQUIPMENT	RS-45 mobile direct-fire thermal desorption unit, oxidizer, quench, feed hopper and scale belt
SCHEDULE	An eleven-month program, mobilization to demobilization
PERMITTING	Code of Practice for Small Incinerators

NELSON ROLE	Thermal remediation contractor: plant, crew and 24/7 operations
CONTAMINANTS	BTEX and TPH fractions F1 to F4
VOLUME	Approx. 140,000 tonnes, 25 t/hr average (approx. CAD $8.5 million)
SOIL CRITERIA	Alberta Tier 1
RESULT	All soil to criteria and returned to the excavation. Land redeveloped by the Nation