Case Study

Construction Quality for Uranium Tailings Remediation

Uranium Mine in Western Canada

> Background

Okane is the Engineer of Record for remediation of the exposed tailings areas at an abandoned Uranium Mine and Mill located in Western Canada. Some site-specific challenges include the construction at a remote legacy site, optimization of site available materials, addressing the potential geotechnical stability risks associated with a historical dam structure, as well as managing a wide range of seasonal climate variations.

> Approach

Remedial objectives for the tailings deposits were driven by human and ecological health risk posed by exposure to gamma radiation, and needed to meet expectations of regulators, the Federal and Provincial governments, and the Indigenous communities of the Athabasca region. Detailed engineering designs for the tailings deposits included a water-shedding cover system and landform, a surface water management system, and revegetation plans.

> Client Benefit

A comprehensive set of construction plans were developed including construction level drawings for landform shaping and cut/fill earthworks, cover system material excavation and placement, and a surface water management system. Procedures for preparation, development, and rehabilitation of borrow areas and tailings deposits were developed. Okane is the primary engineer on site providing oversight of the QA/QC program during the multiyear construction project.

> ***Achieving construction quality through comprehensive QA/QC programs and optimization of site available materials.***

Integrated Mine Closure and Relinquishment Solutions

okane 25 YEARS