



Pre-Installation Site Prep



RCR-7® Installation

ITL RCR-7® | MINE TAILINGS POND, ARIZONA

PROJECT OVERVIEW

ITL RCR-7® was chosen to line the freshwater side of a tailings pond at a mine site in Arizona. A failing buried liner system along the face of the berm, which separates fresh water from dried tailings, was raising concern. Also of concern was the high-winds prevalent at the location contributing to erosion control issues.

PROJECT GOAL

Cover one side of the tailings pond to prevent water from penetrating the center berm. This protection was essential for the water containment critical to the mining process.

PRE-EXISTING SITE CONDITIONS

- High Elevation of the mine, 4,000 feet (1,220 meters)
- Existing liner buried underneath the face of the slope.
- High winds area requiring stable slope protection able to resist wind damage and lifting.
- Installation during cold/damp months of November and December.

TIME & COST SAVING INSTALLATION

Over 120,000 ft² of RCR® was installed safely, rapidly and without any enhanced training or any specialty tools. The length of this slope was roughly 106 feet (32.3m) and angle approximately 2:1. Installation did require a crane and spotter as the crane lowered the product for unroll from behind the berm, on the dry tailings pond, nearly 20 vertical feet below the top of the berm.

Alternatives considered included a geomembrane liner and traditional concrete. Geomembrane was ruled out in favor of the customer's need for a more robust option that would also provide erosion control. This option was also bypassed for potential construction delays in this high wind area, as well as potential for repeated future repair. Traditional concrete was ruled out as a solution due to increased cost and difficult installation based on the slope angle and length.

Site challenges for this large project included inclement weather (snow and excess rainfall), however due to the ease of application the budget and timeline remained intact.

Given the length of the slope of 106 feet (32.3m), and length of rolls ~65.4 feet (20m), roughly 1.6 rolls were required from the top anchor trench to the bottom anchor trench. The joint connecting the two rolls was created approximately one quarter of the way down the slope, overlapped ~1 foot (0.3m), with the top edge of the bottom RCR® being pinned in place using 6" long U-pins, spaced every 3 feet (1m). The anchor trench at the top was 2' deep and 2' wide, set back ~3'. The bottom anchor trench was 2' deep and 2' wide. The sides were also terminated using an anchor trench 2' deep and 2' wide.

This project was budgeted for 23 working days, entire installation was completed in less than 20 working days. This includes lost time due to equipment issues, high winds, rain and snow.

**see reverse for more installation photos*



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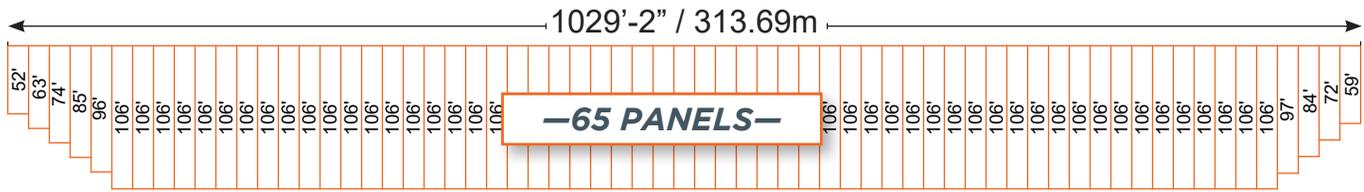


Illustration of pre-project panel planning.



Crane behind berm, using spotter to place RCR® material.



Slope angle made using this product a time and cost effective solution compared to traditional concrete.



RCR® overlap and seaming. Bottom of berm anchor trench placement.



Site prep with top of berm anchor trench placement.



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