Case Study

Raychem

Diavik Diamond Mine Project

PROJECT DETAILS

Applications:
Electric Heat Tracing for Diamond Mining Facility

Technology:
Series-Resistance Cable (SC) Heat Tracing

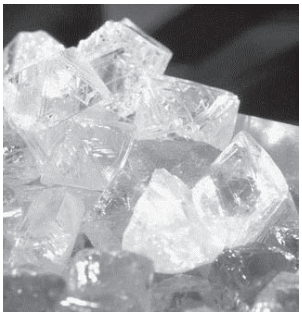
Location:
Lac De Gras, Northwest Territories, Canada

Date:
Ongoing

Contract Scope:
Various EP and EPC projects for the Electric Heat Tracing and Ancillary Components; Control & Monitoring and Transformers

Client:
Diavik Diamond Mine

chemelex



KEY CHALLENGES

Several key challenges were faced when dealing with the Diavik Diamond Mine Project. The shear long line nature of the pipe brought challenges in itself, as well as, both the use of HDPE pipe and the transition from metallic pipe to HDPE pipe. Another major factor in deciding how to tackle this unique project was the scarcity of available power sources located near the project site, so long-circuit capability became a critical initiative in order to limit the amount of additional power distribution costs that the Client would have incurred.

SOLUTION

The overall solution utilized Raychem brand flexible Series-Resistance Cable (SC) Heat Tracing for use on metallic and HDPE transfer line piping. Raychem designed an integrated system utilizing primarily SC heat tracing that resulted in longer circuit lengths than could have been achieved through other heat tracing technologies.

Not only did the SC heat tracing cable provide for an ideal product-solution in terms of fit-for-purpose, but it also had the additional advantage of being able to limit the number of power-points required due to the longer-circuit capabilities of the technology. With the SC heat tracing technology, Raychem was able to utilize the Client's pre-existing power distribution infrastructure, thereby reducing the overall cost-impact to the project itself.

PRODUCTS

To meet the needs of this challenging application, Chemelex offered a Heat Management System which included:

- Raychem brand flexible Series-resistance Cable (SC) Heat Tracing

BENEFITS

As the application flexibility for this key technology presented itself, the utilization of this product – along with the innovative engineering and design capabilities of the PTM team – as a solution provider was quickly leveraged to other industries including: coal mining, oil sands excavation, and rail heating. Through the initial success of the Diavik Diamond Mine Project, and the innovative use of the SC cable on HDPE, metallic and transition pipe, Chemelex was able to provide unique solutions to a wider range of unique opportunities.

Chemelex provides engineering, design and specialized heat trace products for the mining industry. From diamond mining to oil sands excavation, the appropriate technology can be identified and applied through the broad selection of PTM technologies and engineering knowlege.

With decades of experience in designing, manufacturing and installing heat management systems, PTM was able to provide a comprehensive solution to Diavik's unique needs.

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