

CASE STUDY

PRODUCT DEVELOPMENT CITRIKLEEN[®] CR34



SCOPE

Product Development Case Study for **CITRIKLEEN® CR34**.

The **PROBLEM**

General cleaning and degreasing in the oilsands industry or energy service sector can be an arduous task. The fouling typically encountered on field equipment is a tough mixture or matrix of mud, clay, sand, and of course bituminous materials. This mixture can be tough to penetrate, mobilize, and wash away with traditional solvent degreaser formulations.

Our **SOLUTION**

To combat this issue, **CITRIKLEEN® CR34** was developed as versatile, powerful, and fast-acting cleaner and degreaser for these applications. Utilizing the solvency and sustainability of terpene chemistry, **CITRIKLEEN® CR34** has become an effective alternative to wholly solvent-based cleaners and degreasers for efficient rinsing as well as for use in enclosed-space and hot surface cleaning applications. To provide direct evidence of **CITRIKLEEN® CR34**'s efficient degreasing and cleaning capacity, performance evaluations were conducted in both the laboratory and the field.



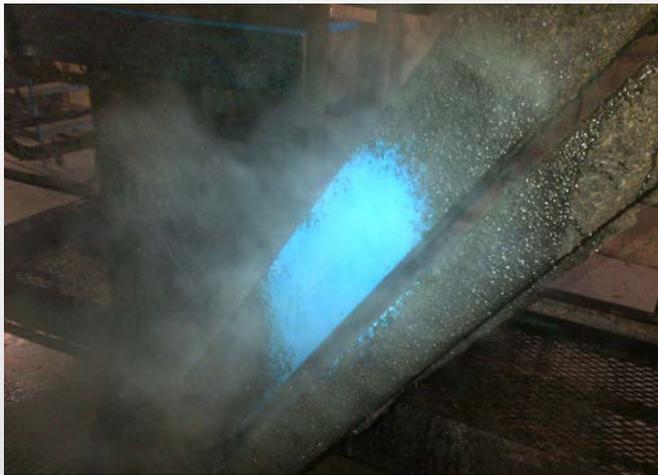
*Laboratory demonstration of the surface cleaning capacity of **CITRIKLEEN® CR34** against a competitor's product. An excessive weight of diluted bitumen was exposed to equal volumes of each product, pulled out and rinsed at intervals before completely dissolved. Each time, **CITRIKLEEN® CR34** (far left) dissolved more material and provided cleaner rinsing of all surfaces.*



Our *SOLUTION*



A successful laboratory demonstration of **CITRIKLEEN® CR34**'s cleaning capacity on scaffolding equipment (seen left – scaffolding poles), under static soak conditions, was conducted for a client seeking to evaluate its performance in a soak tank application.



A successful field trial was commissioned and completed by a client seeking to reduce or eliminate the cost of having their equipment (seen above – section of a boom) sand-blasted by a third party to remove encrusted bitumen after use in the field. The results of this trial lead the client to complete cleaning and degreasing of their field equipment internally at a substantially lower cost.



Our SOLUTION



An oilsands operator conducting their own internal field trial of **CITRIKLEEN® CR34** discovered faster and more aggressive oily soil mobilization. The results lead them to not only use **CITRIKLEEN® CR34** for cleaning their equipment but also for remediating spills.

By demonstrating its performance both in the laboratory and the field, **CITRIKLEEN® CR34** has now become a demonstrated tool in both the oilsands energy and energy service sector for over 10 years.

A comprehensive and **integrated approach**

With over 100 years of product development, manufacturing and application experience, the West Penetone family of companies has designed and patented many products to satisfy the needs of our clients world wide.

Our technical group provides customers effective support to ensure that contaminants are paired with the right chemistry for any task.

Establishing and maintaining a collaborative approach with our customers in tackling their operational and maintenance challenges is key to realizing efficiencies and cost savings.

Questions? solution@westpenetone.com

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