SPARTAN CONTROLS

MEASUREMENT INSTRUMENTATION

Dual-Viscosity Systems

Reduce Diluent Costs with Improved Viscosity Blending

Challenges with Traditional Blending Methods

Over-blending is costly. Whether blending crude to tank using manual grab-sampling, or manually managing reference curves with a single viscometer on your sales line, one thing is certain: if you are not consistently blending exactly at referral viscosity then you are wasting diluent.

Solution

Bitumen-to-diluent (B:D) ratio is optimized by performing the ASTM D341 calculation using real-time viscosity measurements from flowing blend at two different temperatures. Blending precisely to pipeline viscosity limits save on diluent costs while freeing up pipeline capacity for your product.

The following table illustrates the potential savings from large, mid-sized, and smaller production facilities, where an improved B:D ratio is realized for an 8 cSt over-blend improvement, with a cost of $60/bbl of diluent.

Uptime (days/year)	365	365	365
Bitument to Diluent (Current)	2.686	2.686	2.686
Bitument to Diluent (Projected)	2.703	2.703	2.703
Bitumen Production (m^3/hr)	750	150	50
Diluent Price ($/bbl)	60	60	60
Expected Savings (CDN/year)	$5,805,828.00	$1,161,166.00	$387,055.00

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Our engineered turn-key solution is a complete system from fast-loop, to measurement and host integration, including the capability of providing advanced process control and continuous, quantified process improvement.

Next Steps

Contact Spartan Controls to schedule a Blending Data Analysis Study and we will produce a report quantifying your present-day blending performance, annualized potential savings with improved blending performance, and proposal for a turn-key measurement solution.

For more information, contact us today

info@spartancontrols.com | +1 (877) 278-6404

What If...

You could dramatically reduce diluent cost by eliminating over blending?

You could automate viscosity blending to ground temperature in real-time?

You could simplify system calibration and maintenance while reducing lab sampling?

ROI was achievable within months, not years?