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Pipestone Area Last Mile Supply Chain Optimization

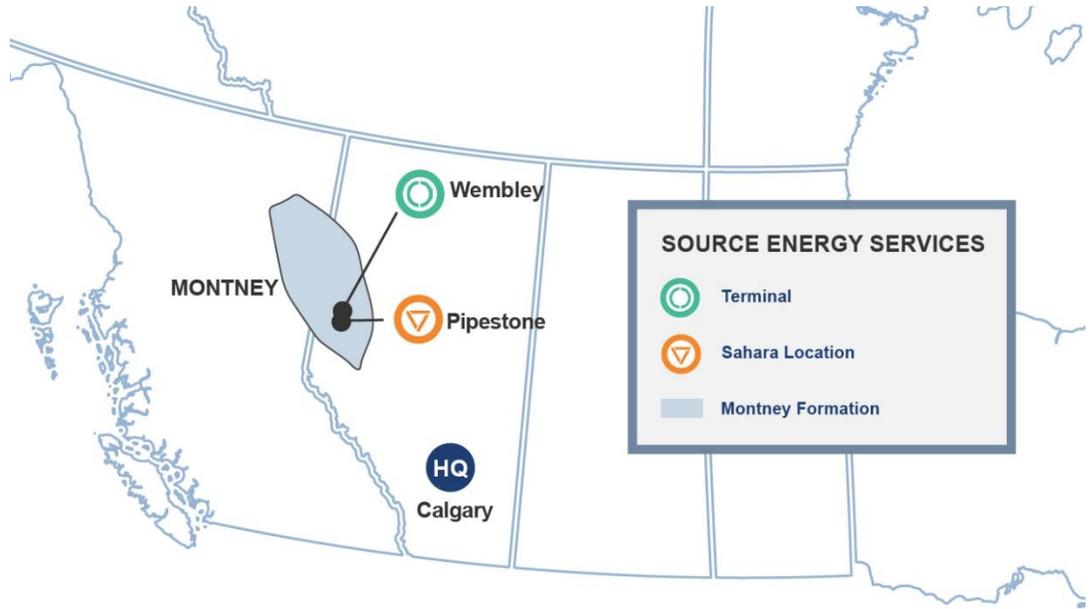


ABOUT SOURCE ENERGY SERVICES

With over a decade of experience in proppant logistics, Source Energy Services is well-positioned in terms of our terminal network, resources, and connections. Our knowledge of our industry, clients, and of available resources enables us to directly deliver proppant faster and more efficiently across Western Canada. We reliably manage our customer's proppant and well completion needs with logistic solutions that cover the entire supply chain.

At Source we are proud to be an integral part of Canada's oil and gas industry – an industry which has some of the highest environmental and safety standards of any other oil and gas producing country. We are uncompromising stewards of the environment and maintain sustainable operations. Source strives to exceed environmental and safety expectations throughout every stage of our operations.

THE PROJECT



Over the past five years, proppant intensity in the Montney formation has increased exponentially – especially in the prolific Pipestone Area west of Grande Prairie, AB. To maximize efficiency and reduce Drilling and Completions costs, the trend at recent well sites in the Pipestone Area is to pump up to 6,000 MT of proppant per day at a single location with two pressure pumping crews. This poses a significant supply chain challenge as proppant and last mile logistics can account for 25% to 30% of the entire Drilling and Completions costs in this area, equivalent to roughly \$1 MM per day. The purpose of our Pipestone Area Last Mile Proppant Supply Chain Optimization project with our junior E&P customer and trucking partners was to optimize the last mile proppant supply chain in order to ensure continuous, orderly, repeatable, and cost-efficient well completion activities.

Source delivered 45,000 MT of Northern White proppant from our Wembley terminal to the Pipestone area well site. Source's Wembley terminal has the largest storage (90,000 MT) and throughput capacity (15,000 MT/day) of any single proppant terminal in Western Canada. The terminal also features 4 truck load outs, which enables Source to have a truck loaded and, on the road, every 4 minutes.

Due to the proximity of the Pipestone area well site to our Wembley terminal – approximately 15 KM – Source and the carriers were able to ensure short cycle times during this project. In total, there were 1,070 trips between the terminal and the well site, with 15,019 KMs travelled by truck on this project. Comparative to other projects of this nature, minimal trucks were involved as each truck easily performed up to six deliveries per 12-hour shift.

Once the proppant arrived at the well site, it was stored in two of Source's industry-leading Sahara well site proppant storage units. Combined, this enabled 3,500 MT of storage capacity on the well pad. Of the two Sahara units in operation at the Pipestone area well pad, one was the Sahara 7, the newest addition to the Canadian Sahara fleet. The Sahara 7 features state of the art web-enabled real-time inventory tracking. The enhanced well site storage capabilities helped enable continuous operations for our customer on this project and allowed them to achieve their ambitious pumping program.

Source's Wembley terminal has the largest storage - 90,000 MT - and throughput capacity - 15,000 MT/day - of any single proppant terminal in Western Canada.

PROJECT OUTCOMES

This project proved that, like the majors, junior E&Ps can unlock the efficiency of self-sourcing proppant. The Source logistics system worked together to deliver record volumes while optimizing the supply chain. Source's technology and systems reduced the total number of trucks on the road and drivers benefitted as their capacity to work was maximized.

1. Safety – Safety is the most important performance objective of any organization, and Source had no reportable safety or service quality incidents on this project.
2. Community – On this project, Source Energy Services and our carriers had no road infractions or residential complaints. Our objective was zero issues and the project team delivered this.
3. Environmental Impact – On the Pipestone area well site, there was negligible sand spillage reported, meaning this was a near zero-waste project for Source Energy Services. There was also no idling of trucks on the road by the carriers, as tracked by our proprietary Advanced Logistics Performance System (ALPS) technology. In comparison to using a domestic proppant source, sand delivered from Source's Wembley terminal reduced the amount of trucking on the road (and its resulting emissions) by 1,060,981 KM¹ for the Pipestone area well site project. This is equivalent to 26.5 trips around the world¹.
4. Site operations – Our objective was to keep site inventory at or above 70% full. Sahara inventory never dropped below 72% full, and average site inventory was at 80% full for the entire 14-day campaign – ensuring no Non-Productive Time Risk due to sand supply chain issues. Realtime management of trucks with our proprietary ALPS technology also enabled zero standby costs, which meant we were able to keep the project within budget and project scope. We also had a record high delivery day of proppant – 5,100 MT – to the well pad during this project.
5. Budget – The Pipestone area well site project came within 1% of our project initial plan. Industry expectations have within ~3% considered to be a success, so we were thrilled with this outcome.



¹ Distance to the Domestic Terminal: 538km

Compared to using a domestic proppant source, using sand delivered from Source's Wembley terminal reduced the amount of trucking that needed to be done on the road by 1,060,981 KMs for the Pipestone well pad project.

HIGHLIGHT: SOURCE'S ADVANCED LOGISTICS PERFORMANCE SYSTEM (ALPS)

Source Energy Services used our proprietary Advanced Logistics Performance System (ALPS) to monitor route adherence and trucking assets throughout the project. The ALPS technology also enabled us to ensure the trucks adhered to the correct, pre-established route from our Wembley terminal to the Pipestone well site, as well as monitor truck velocity ensuring they stayed within the speed limit.

ALPS also monitored the congestion of the trucks to minimize the truck detention (i.e. trucks waiting at the terminal, wellsite or in the community), as well as ensuring that each truck made 5 to 6 deliveries per day of proppant to the well site.

How were we able to do this? Each truck operated by our trucking partners has a Source Energy Services owned tablet installed in it featuring our proprietary ALPS technology. These tablets are live connected to Source's 24/7 Logistics Coordination team to enable live GPS Monitoring and flexible redirection on the trucks. An additional feature of ALPS is the ability for paperless billing, all of which creates further efficiencies for the project.

The ALPS technology ultimately optimized the last mile proppant supply chain so that the proppant arrived at the well pad safely, without incident, and in an almost on-demand manner.

SAMPLE ANALYTICS

SOURCE ENERGY SERVICES DATA VISUALIZATION: REAL TIME ANALYTICS



- Road monitoring and real time truck tracking
- Wellsite monitoring, communication and geofence data analysis
- Satellite view ensures more accurate geofencing, resulting in higher quality data collection