

QUICK NOTES

SHELL CANADA 6-WELL GROUNDBIRCH MONTNEY PAD

In July 2022, Shell Canada completed a six-well pad in the Montney formation in British Columbia, Canada. Stage Completions Bowhead system was installed in each of the six wells in conjunction with a competitor's ball-drop system installed in the toe sections.

BOWHEAD SYSTEM

BY THE NUMBERS

214

Bowhead Valves



100%

Valve-Opening Rate

21,300 tons
of Proppant Pumped



Maximum Slurry Rate of
9.5 m³/min

DESIGN DETAILS

The frac design for the pad included **50-T** slickwater fracs located strategically throughout each wellbore. 34 - 36 Bowhead valves were installed in each of the **114.3 mm** cemented liners. The plan for the pad included a trial to significantly improve efficiency by operating two frac fleets simultaneously.

JOB EXECUTION

The ball-drop treatments were completed initially in the toe section of each well, passing through unshifted Stage Completions valves. When the Bowhead stages were reached, all **214** were opened by launching corresponding collets and dissolvable balls between each frac with no need to shut down. Acoustic and high-resolution pressure monitoring confirmed each seat and shift. With no requirement for wireline or coiled tubing on location, the execution of simultaneously operating frac fleets was successful.

BOWHEAD is a multistage single point entry frac system offering a near limitless number of fracs per well. Cemented or uncemented, this system allows operators to target optimal spacing and distribution while providing unprecedented confidence in valve-opening accuracy.

01

Single Point Entry

A cementable multi-stage single point entry frac valve system offering near limitless fracs.

02

Continual Pumping

Individually profiled collets pumped with dissolvable balls result in continual pumping.

03

Safer, Smaller

Large-bore, fluid-conveyed collets eliminate the need for wireline, coiled tubing and perforating guns at the wellsite.

