

Annual General Meeting

October 27th 2015



Horizontal Pump Overview

- Company has replaced the defective "Part" and secured a reliable and consistent supply chain
- We have deployed the system with the new Part and have tested the Part and the complete system with success
- The production results from the deployment do not tell the entire story
- The Company has gained considerable confidence that the theory of mechanistic flow in Hz wellbores is correct and that the prize remains significant
- Canadian patent awarded for method claims and device patents are pending



- In June the Company deployed its Hz system with the new "Part"
- The System ran for 23 days with intermittent operation due to surface compression problems stemming from higher than anticipated activation pressures.
- In July the System had to be shut down while the Company sourced a larger compressor from the U.S. The system was restarted at the end of July
- The System ran for 30 days from late July to August when it became apparent that production increases were not going to be seen with the current well bore configuration, higher pump activation pressures and the time required to accomplish those
- The System was shut down in August and then retrieved in mid October.

RAISE PRODUCTION²

"Part" Performance

- Raise very satisfied with performance of the "Part":
 - Operated as per design
 - No failures
 - Operated above test pressure specifications
 - Inspection upon retrieval of System indicates "like new" condition

New Part Retrieved after in field operation Summer 2015 Old Part Visible blistering and bonding failures





RAISE PRODUCTION

- Significant information gained from deployment
- Meaningful indicators toward theory validation
 - Segmented flow across Hz
 - Trapped water beyond heel section
 - Pressure / 3 Phase Flow relationship not as expected
- Key highlights:
 - Increased water cuts while System in operation
 - Segmented and varied wellbore fluid composition across Hz
 - Sporadic sampling of salinities indicative of residual frac fluids
 - Solids production of quartz frac sand and in-situ clays indicate previously inactive areas of the well bore



Deployment Results Con't

• Salinity:

June 24 Sample:

- Water represented significant % of sample volume
- Salinity (Cl⁻) 1,000 mg/l

Offsetting well (~ 150 meters) sample:

- Sampled as reservoir control for insitu salinity
- Salinity (Cl⁻) 9,420 mg/l
- Indicative of fresh water present in June 24 sample, likely source frac fluids



Sample Fluid



NOTES:

- This drawing is not to scale, and is used for approximate representation only.

Dimensions are mKB to top of downhole assembly.
Inclincations angles from vertical

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Changes

- Eliminate packer cups at separator assembly
- Move rod pump down hole to 75deg from 55deg
- Install pumps across from fracture ports
- Activate toe pumps and heel pumps independently
- Use 4 lines for pump activation/exhaust to speed up cycle times
- Eliminate pump at first 2 heel frac ports
- Be prepared for a prolonged "clean up" of the toe area, depending on fluid composition and pressure requirements to pump, it may take 3 5 months but should improve progressively over time



- The company continues to develop its rod pumping technology anchored by a contract with a major heavy oil producer for use in SAGD (Wedge wells) and Cyclic Steam (Huff & Puff) applications. This is new and patentable technology
- The company will initiate a strategic sales mandate mid Q1 2016 for its conventional rod pumping business concurrent with the heavy oil development.



- New travelling and standing valves designed and patent applications submitted
- New Hydrostatic arresting valve designed and patent submitted
- New Articulating Rod plunger and connecting top assembly designed and patent submission pending
- Contract to develop and provide prototype for 4 ½" high volume 600m3/day (3700bbls) rod pump to Canadian heavy oil producer, feasibility complete, detailed design stage underway, expected delivery of prototype in Q2 2016 (Test deployment of a 2 ½" pump with all 3 valves will take place in November)
- Complete testing and begin strategy for commercialization of conventional rod pump ready for sales





