

Additively Manufactured Gas Sparger for Gas lift Geothermal Technologies

Lifting Geothermal Fluid with the Help of Gravity

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Objective:

To design, optimize, and manufacture a gas sparger that will increase the efficiency of gas lift pumping strategies.

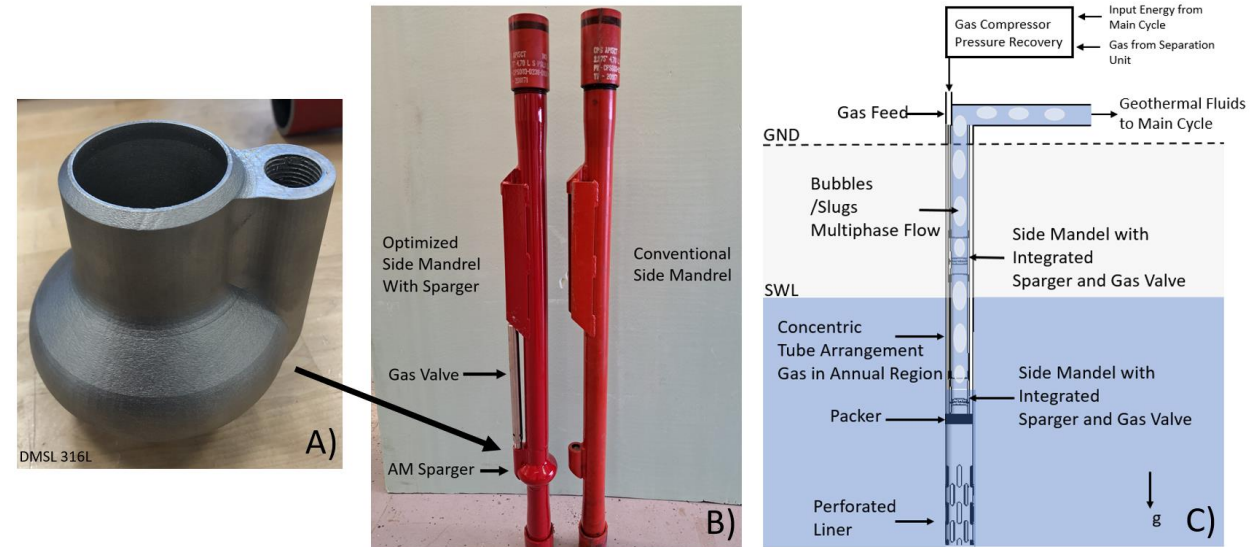
Technology Advantages:

The gas lift geothermal approach involves inject high pressure gas deep within the well and allowing the bubble and fluid to rise. Advantages: Low Cost, Low Maintenance, Access to Hotter Reservoirs, Less Parts, and Simple Operation.

Approach:

- Determine the well characteristics and use modeling to develop and specify gas lift components.
- Manufacture the sparger using s 3D additive approach and integrated into a gas lift side mandrel.
- Conduct a field test to compare the performance of existing gas lift approach to the current, optimized sparger approach.
- Seek commercialization and begin marketing technology.

Optimized Sparger Integrated into Gas lift Side Mandrel



AM Network Connector: ORNL, NETL

AM Network Partners: Xometry

Field Testing Locations: Utah FORGE Well (>200C and >5000ft)