Proposed Protocol for Field Tests to Evaluate Paraffin Remediation using Microbial Treatment¹

1. Prior to the first microbial treatment, Contractor will collect a 1-quart baseline oil sample at the separator in a container provided by EORI, properly label the filled container, and ship/deliver the sample to EORI or a laboratory designated by EORI within 48 hours, if possible. After the initial oil sample is received, EORI will facilitate the delivery of the first microbial treatment to the well site in coordination with the Contractor.

2. Treatment #1

- a. Mix the 1-gallon microbial solution with 1 barrel of produced water at temperatures above 35°F on site before being introduced into well
- b. Pour or pump the mixture down the annulus of the well
- c. Shut in the well for 24 hours and then resume normal production operations
- d. Seven to 10 days after the microbial treatment, collect a 1-qt oil sample at the separator using a container supplied by EORI, properly label the filled container, and ship/deliver the sample within 48 hours, if possible, to either EORI or a designated laboratory for analysis
- e. Record daily fluid (oil, water, and gas) production for a period of at least 6 months after initial treatment and report to the EORI Project Manager
- f. Optional: Shoot fluid level once per week to ensure that the fluid is pumped off and that the well is maximizing production
- 3. Treatments #2 and #3: Thirty days after previous microbial treatment, administer an additional microbial treatment in the same manner as described above, including collection of an oil sample seven to 10 days after treatment
- 4. Final sample collection: Three months after the third and final treatment, collect a final oil sample and ship/deliver it as described in step 2. d., and the test will be complete.

<u>EORI Project Manager contact information</u>. All communication, collected production and well data, and fluid samples shall be sent to or coordinated with the EORI Project Manager, Eric Robertson, whose contact information follows:

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¹ The proposed protocol can be modified within reason to fit needs of operator.