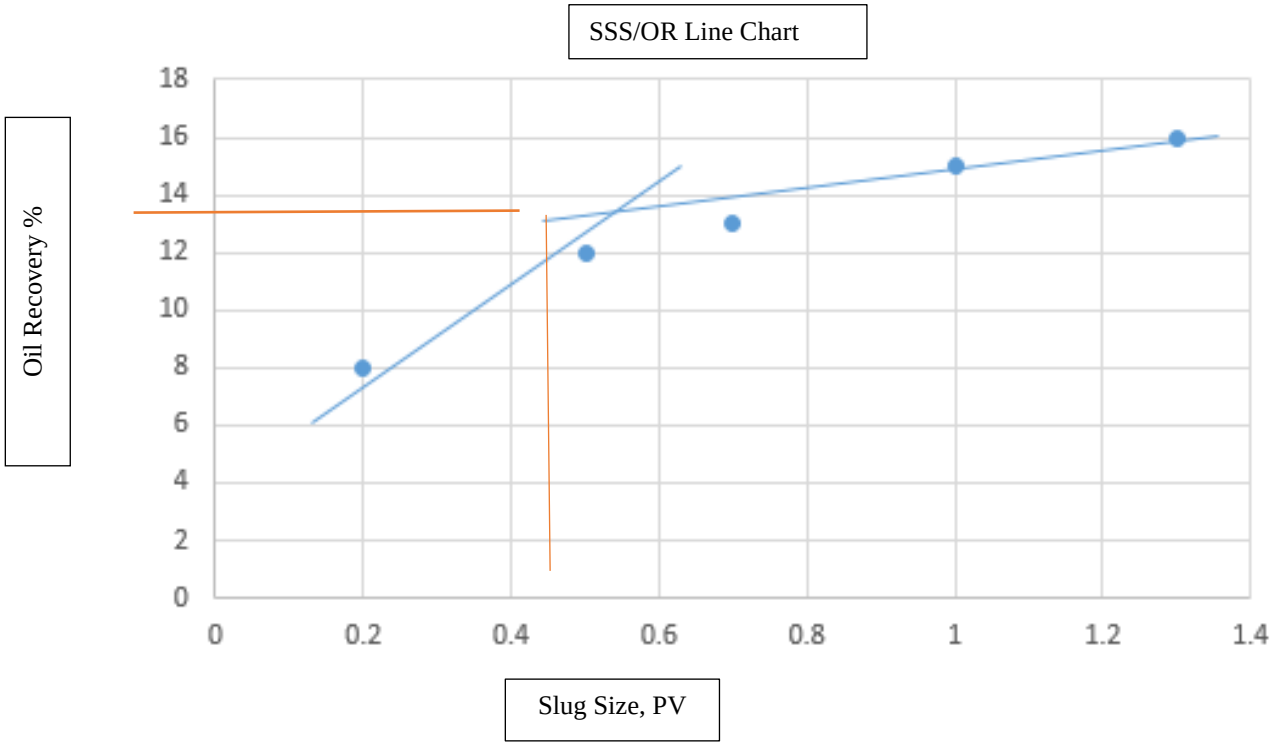

Fig. 4: Oil Recovery Result (Surfactant Slug Size)

TABLE III: OPTIMUM POLYMER SLUG SIZES VERSUS RECOVERY FOR THE POLYMER FLOODING

Polymer Slug Size (PV)	Oil Recovery
0.3	11%
0.5	11.5%
0.65	12.4%
0.8	12.9%

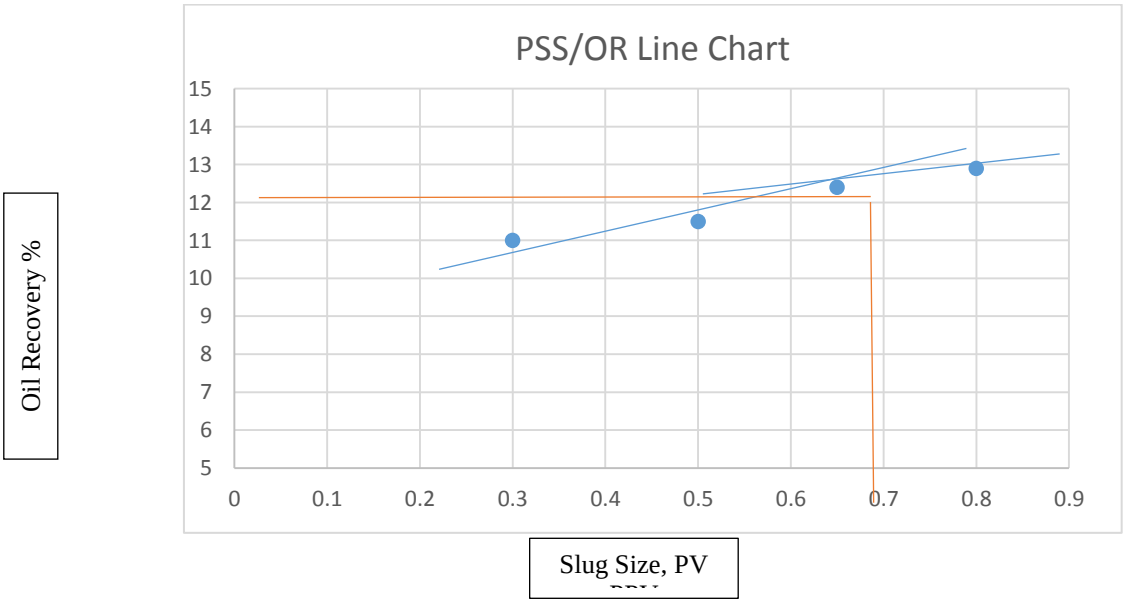

Fig. 5: Oil Recovery Results (Polymer Slug Size)

https://doi.org/10.17758/EARES9.EAP1219206

V. Conclusion

1. The experimental results from PVT, the capillary pressure as well as from the relative permeabilities were reviewed, analyzed and screened, which will be used for the selection of the suitable EOR methods using EORgui and PVTi software programs.

2. The analysis of the results of this study obtained from the output of the screening criteria of the software programs indicated that the Surfactant/polymer flooding is the most suitable technique for the field.

3. The optimum slug sizes of the surfactant and the polymer chemicals that are proposed to be used to drive these chemicals through the reservoir are the same and were estimated to be around 55% of pore volume. Water will be used to drive both surfactant and polymer slugs from the injection wells to the producing wells.

4. The estimated oil recovery from surfactant and Polymer flooding over the primary and secondary recoveries are 13.5 % and 12.5 % of original oil in place respectively.

5. Miscible Carbon Dioxide (CO2) flooding can be applied for the field with an estimated minimum miscibility pressure around 4520 psia.

6. The obtained results from the use of these programs will enable the company to setup future EOR development plans to increase the oil recovery in the field.

7. It is recommended to conduct a study for the Carbon Dioxide flooding of the field and the results should be compared to the surfactant/polymer flood process to arrive at a definite conclusion with respect to the most appropriate EOR processes for the candidate field.

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