

RECOMMENDED WORKOVER PROCEDURE

1. Kill the well with brine if necessary.
2. Pull the production tubing and packer. Packer is a Sweet 4 cup dual completion packer (cup type without slips). Pull tubing slowly with minimum amount of rotation to keep cups from inverting and sticking the packer. If problems are encountered pulling packer, contact production engineer.
3. Run GR/N and collar locator^{logs} from PBD to 4500'±.
4. Run BP and treating packer (full opening) on 2-7/8" workstring.
5. Set BP at 6415' and packer at 6200'±.
6. Perforate the^{upper & lower} Drinkard with 1 jspf using a hollow steel carrier jet tubing gun. Perfs will be picked by Geologist from GR/N log. Shoot perfs with 0° phasing, use decentralizer and lubricator.
7. Unset the packer and spot acid across the new perforations.
8. Reset the packer approximately 10' below bottom perf of Upper Drinkard zone (approximately 6340').
9. Pressure test surface equipment to 5500 psi. Joint of tubing above BOP should be N-80.
10. Acid frac the lower zone with 10,000 gals. Polymulsion pad, 11,000 gals. 20% HCl and 3,000 gals. flush volume as follows:
 - a. Pump 1,000 gals. acid.
 - b. Pump 10,000 gals. K-1 pad.
 - c. Pump 10,000 gals. acid.
 - d. Pump 3,000 gals. brine containing 3 gals. Corexit 7652.
 - e. Shut in well approximately 1 hour.
 - f. Flow well to tanks until all load is recovered or well dies.

Frac down 2-7/8" tubing at maximum rate not exceeding 5000 psi surface pressure. The 20% HCl should contain 50# gum karaya and 4 gals. Corexit 8504 (or equivalent) per 1,000 gals. acid.

Mixing directions for 10,000 gals. brine-external K-1 Polymulsion:*

- a. Add 33 gals. Exxon 8596 (emulsifier) to 3,300 gals. clean brine.
- b. Circulate brine while adding 160# gum karaya and 200# Adomite Aqua. Circulate until gell strength develops.
- c. Circulate gelled brine while adding 6,700 gals. lease crude.

*Insure that no alkaline contaminants, such as cement or lime residue are present in the storage, mixing, or pumping equipment.

11. Kill the Drinkard if necessary.
12. Reset BP 10' above top perf of lower zone (approximately 6380') and packer at 6200'±.

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