

D.S.T. # 3, 8944-9033'

5-31-72 - Drilled to T.D. 9033'. Running DST # 3, 8944'-9033'. Tool open initially 20 mins., GTS in 8 mins., 65# on 3/8" ck. At end of 20 mins., 175# on 3/8" ck., gas rate 639 MCF/D. Shut in 1½ hrs., reopened on 3/8" ck. Flowed as follows:

| <u>Time</u> | <u>Surface Pressure</u> | <u>Rate MCF/D</u> |
|-------------|-------------------------|-------------------|
| 5 mins. | 120 psig | 452 |
| 15 | 220 | 792 |
| 30 | 300 | 1064 |
| 45 | 330 | 1166 |
| 60 | 345 | 1217 |

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Steady from 60 mins. to 150 mins., pressure varied from 340 to 355 psig, approx. 1230 MCF/D. Still open, will close at end of 180 mins.

6-1-72 - Drlg. @ 9120' in sand & shale. Made 87' past 24 hrs. Bit # 7, J-55. Vis 74, MW 8.7, WL 18, FC 3/32. DST # 3 continued: Shut in 1½ hrs., reopened on 3/8" ck. Flowed as follows:

| <u>Time</u> | <u>Surface Pressure</u> | <u>Rate MCF/D</u> |
|-------------|-------------------------|-------------------|
| 90 mins. | 355 psig | 1251 |
| 105 | 355 | 1251 |
| 120 | 350 | 1234 |
| 130 | 340 | 1200 |
| 140 | 345 | 1217 |
| 150 | 340 | 1200 |
| 170 | 335 | 1183 |
| 180 | 335 | 1183 S.I. |

At 9 a.m. shut in 6 hrs. At 3 p.m. pulled loose, recovered 100', mud sampler at 2500 psig. Recovered 20.4 cu. ft. gas, IHP 4319, Preflow 322, ISIP 3463, IFP 300, FFP 515, FSIP 3213, FHP 4172, Temp. 162 deg. F.

D.S.T. # 4, 7770-7830', Straddle Packer Test

6-4-72 - T.D. 9235'. DST # 4 straddle packer test, 7770'-7830', continued. Tool opened w/strong blow. GTS in 18 mins. Strong steady blow of gas TSTM for 4½ hrs., SI 4½ hrs. Recovered 1160' fluid in drill pipe. Reversed out 5 bbls. 45 deg. API clean oil plus 3 bbls. oil & gas cut mud and filtrate water. Chlorides 7000 to 9000 PPM. Drilling mud chlorides 9000 PPM. Sampler recovery - 2600 cc fluid at 2500 psi with .68 cu. ft. gas. Water from sampler checked 7500 PPMCl. Pressures: IHP 3636, Preflow 152 to 202, ISIP 3117, FHP 3558. Went back in hole w/bit, circulated to condition hole, circulating out large pieces of shale. Barnett Zone heaving heavily. Conditioning hole to run 4½" casing.