

| | | | | | | |
|---|----------------------------------|---------------------|----------------------|--------------|---------------|--------|
| FLUID SAMPLE DATA | | | Date | 7-18-79 | Ticket Number | 677680 |
| Sampler Pressure _____ P.S.I.G. at Surface | Kind of Job | OPEN HOLE TEST | Halliburton District | WINFIELD | | |
| Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water _____ cc. Mud _____ Tot. Liquid cc. _____ | Tester | R. O'NEAL | Witness | H.C. HOPKINS | | |
| Gravity _____ ° API @ _____ ° F. | Drilling Contractor | KAN-GO INCORPORATED | | PW | | |
| Gas/Oil Ratio _____ cu. ft./bbl. | EQUIPMENT & HOLE DATA | | | | | |
| RESISTIVITY _____ CHLORIDE CONTENT _____ | Formation Tested | Mississippi Chat | | | | |
| Recovery Water _____ @ _____ ° F. _____ ppm | Elevation | 1460' | K.B. | Ft. | | |
| Recovery Mud _____ @ _____ ° F. _____ ppm | Net Productive Interval | 12' | Ft. | | | |
| Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm | All Depths Measured From | Kelly Bushing | | | | |
| Mud Pit Sample _____ @ _____ ° F. _____ ppm | Total Depth | 2984' | Ft. | | | |
| Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm | Main Hole/Casing Size | 7 7/8" | | | | |
| Mud Weight 9.7 vis 50 Sec. \varnothing | Drill Collar Length | 248' | I.D. | 2.25" | | |
| | Drill Pipe Length | 2694' | I.D. | 3.826" | | |
| | Packer Depth(s) | 2966' - 2972' | | Ft. | | |
| | Depth Tester Valve | 2957' Ft. | | | | |

| TYPE | AMOUNT | Depth Back Ft. | Surface Choke | Bottom Choke |
|-----------|------------|----------------------------|---------------|--------------|
| Cushion | | Pres. Valve | 1/4" | 3/4" |
| Recovered | 90 Feet of | oil and gas cut saltwater. | | |
| Recovered | Feet of | | | |
| Recovered | Feet of | | | |
| Recovered | Feet of | | | |
| Recovered | Feet of | | | |

Remarks Gas to the surface - 1,420 MCFD
- SEE PRODUCTION TEST DATA SHEET -

| TEMPERATURE | Gauge No. | 7505 | Gauge No. | 7504 | Gauge No. | TIME | |
|---------------------|---------------|----------------|---------------|-----------------|------------|----------|------|
| | Depth: | 2959 Ft. | Depth: | 2981 Ft. | Depth: | Ft. | |
| Est. 99 °F. | 12 Hour Clock | Blanked Off NO | 12 Hour Clock | Blanked Off YES | Hour Clock | Tool | A.M. |
| Actual °F. | Pressures | Pressures | Pressures | Pressures | Reported | Computed | |
| | Field | Office | Field | Office | Minutes | Minutes | |
| Initial Hydrostatic | | 1536.1 | 1545 | 1548.0 | | | |
| First Period | Flow Initial | 331.9 | 271 | 371.4 | | | |
| | Flow Final | 236.4 | 231 | 239.9 | 20 | 20 | |
| | Closed in | 831.3 | 823 | 829.6 | 30 | 30 | |
| Second Period | Flow Initial | 244.4 | 231 | 248.9 | | | |
| | Flow Final | 226.3 | 221 | 228.9 | 60 | 59 | |
| | Closed in | 818.2 | 813 | 817.6 | 30 | 31 | |
| Third Period | Flow Initial | | | | | | |
| | Flow Final | | | | | | |
| | Closed in | | | | | | |
| Final Hydrostatic | | 1524.0 | 1585 | 1535.0 | | | |

Legal Location Sec. - Twp. - Rng. 35 - 22 - 2
Lease Name KELLER
Well No. 1
Test No. 2
Field Area
Meas. From Tester Valve
Tested Interval 2972' - 2984'
County HARVEY
State KANSAS
Lease Owner/Company Name S & S OIL AND GAS

Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 677680
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
 INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

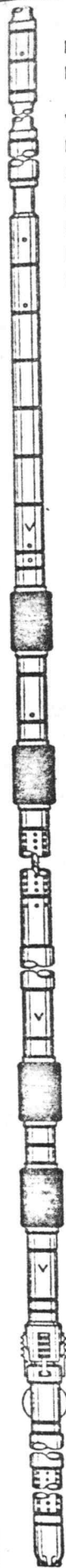
| Date Time | Choke Size | Surface Pressure psi | Gas Rate MCF | Liquid Rate BPD | Remarks |
|-------------------------|---------------|----------------------------|--------------------|-----------------------|---|
| 7-17-79 a.m. p.m. | | | | | |
| 2345 | | | | | Made up tools. |
| 7-18-79 | | | | | |
| 0010 | | | | | Started in hole. |
| 0137 | | | | | Very strong blow. |
| 0139 | | | | | Gas to the surface in 2 minutes. |
| 0142 | 1½" | 16 | MCFD 1694 | | |
| 0152 | " | 15 | 1626 | | |
| 0157 | " | " | " | | Closed tool. |
| 0227 | | | | | Reopened tool. |
| 0232 | " | 16 | 1694 | | |
| 0242 | " | 15 | 1626 | | |
| 0252 | " | 14 | 1559 | | |
| 0302 | " | 13 | 1490 | | |
| 0312 | " | 12 | 1420 | | |
| 0322 | " | " | " | | |
| 0327 | " | " | " | | Closed tool. |
| 0357 | | | | | Came off bottom - waited until daylight. |
| 0710 | | | | | Tool in table. |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
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| | | | | | |
| | | | | | |

| Gauge No. 7505 | | Depth 2959' | | Clock No. 13664 | | 12 hour | | Ticket No. 677680 | |
|-------------------|------------------|--------------------------|--|--------------------|------------------|---------------------------|--|-------------------|------------------|
| First Flow Period | | First Closed In Pressure | | Second Flow Period | | Second Closed In Pressure | | Third Flow Period | |
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\text{Log} \frac{t + \theta}{\theta}$ | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\text{Log} \frac{t + \theta}{\theta}$ | Time Defl. .000" | PSIG Temp. Corr. |
| 0 | .000 | 331.9 | 236.4 | .000 | 244.4 | .000 | 226.3 | | |
| 1 | .0272 | 260.5 | 762.0 | .0621 | 242.4* | .0207 | 749.9** | | |
| 2 | .0544 | 253.5 | 785.1 | .1311 | 231.3 | .0345 | 769.0 | | |
| 3 | .0816 | 245.4 | 798.1 | .2000 | 227.3 | .0483 | 780.1 | | |
| 4 | .1088 | 236.4 | 807.2 | .2690 | 225.3 | .0621 | 788.1 | | |
| 5 | .1360 | 236.4 | 813.2 | .3380 | 225.3 | .0760 | 795.1 | | |
| 6 | | | 817.2 | .4070 | 226.3 | .0898 | 799.1 | | |
| 7 | | | 820.2 | | | .1036 | 804.2 | | |
| 8 | | | 822.2 | | | .1174 | 807.2 | | |
| 9 | | | 825.2 | | | .1312 | 809.2 | | |
| 10 | | | 826.3 | | | .1450 | 811.2 | | |
| 11 | | | 827.3 | | | .1588 | 813.2 | | |
| 12 | | | 828.3 | | | .1726 | 814.2 | | |
| 13 | | | 829.3 | | | .1864 | 816.2 | | |
| 14 | | | 830.3 | | | .2002 | 817.2 | | |
| 15 | | | 831.3 | | | .2140 | 818.2 | | |

| Gauge No. 7504 | | Depth 2981' | | Clock No. 13662 | | 12 hour | | | |
|-------------------|------------------|--------------------------|--|--------------------|------------------|---------------------------|--|--|--|
| First Flow Period | | First Closed In Pressure | | Second Flow Period | | Second Closed In Pressure | | | |
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\text{Log} \frac{t + \theta}{\theta}$ | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\text{Log} \frac{t + \theta}{\theta}$ | | |
| 0 | .000 | 371.4 | 239.9 | .000 | 248.9 | .000 | 228.9 | | |
| 1 | .0274 | 266.0 | 762.5 | .0616 | 245.9* | .0202 | 749.4** | | |
| 2 | .0548 | 257.0 | 785.5 | .1301 | 235.9 | .0337 | 768.5 | | |
| 3 | .0822 | 247.9 | 798.5 | .1986 | 229.9 | .0472 | 780.5 | | |
| 4 | .1096 | 237.9 | 807.6 | .2671 | 228.9 | .0607 | 788.5 | | |
| 5 | .1370 | 239.9 | 813.6 | .3356 | 227.9 | .0742 | 794.5 | | |
| 6 | | | 817.6 | .4040 | 228.9 | .0876 | 799.5 | | |
| 7 | | | 820.6 | | | .1011 | 803.6 | | |
| 8 | | | 822.6 | | | .1146 | 806.6 | | |
| 9 | | | 824.6 | | | .1281 | 808.6 | | |
| 10 | | | 825.6 | | | .1416 | 810.6 | | |
| 11 | | | 826.6 | | | .1550 | 812.6 | | |
| 12 | | | 828.6 | | | .1685 | 813.6 | | |
| 13 | | | 828.6 | | | .1820 | 815.6 | | |
| 14 | | | 829.6 | | | .1954 | 816.6 | | |
| 15 | | | 829.6 | | | .2090 | 817.6 | | |

REMARKS: * = 9 minute interval; ** = 3 minute interval.....

SPECIAL PRESSURE DATA



| | O. D. | I. D. | LENGTH | DEPTH |
|-------------------------------------|------------|--------|--------|-------|
| Drill Pipe or Tubing | 6" | 3" | 1' | |
| Reversing Sub | | | | |
| Water Cushion Valve | 4.5" | 3.826" | 2694' | |
| Drill Pipe | 6.25" | 2.25" | 248' | |
| Drill Collars | 5.75" | 3.5" | 4.66' | |
| Handling Sub & Choke Assembly | 5.75" | .87" | 4.87' | 2952' |
| Dual CIP Valve | | | | |
| Dual CIP Sampler | 5" | .75" | 5.02' | 2957' |
| Hydro-Spring Tester | Double Pin | | 1' | |
| Multiple CIP Sampler | | | | |
| Extension Joint | | | | |
| AP Running Case | 5" | 3.06" | 4.14' | 2959' |
| Hydraulic Jar | | | | |
| VR Safety Joint | | | | |
| Pressure Equalizing Crossover | | | | |
| Packer Assembly | 6.75" | 1.53" | 5.81' | 2966' |
| Distributor | | | | |
| Packer Assembly | 6.75" | 1.53" | 5.81' | 2972' |
| Flush Joint Anchor | | | | |
| Pressure Equalizing Tube | | | | |
| Blanked-Off B.T. Running Case | | | | |
| Drill Collars | | | | |
| Anchor Pipe Safety Joint | | | | |
| Packer Assembly | | | | |
| Distributor | | | | |
| Packer Assembly | | | | |
| Anchor Pipe Safety Joint | | | | |
| Side Wall Anchor | | | | |
| Drill Collars | | | | |
| Flush Joint Anchor | 5" | 2.37" | 6' | |
| Blanked-Off B.T. Running Case | 5" | 2.44" | 4.06' | 2981' |
| Total Depth | | | | 2984' |