

WORTA

Lease Name

Well No.

Test No.

Tested Interval

Legal Location NE-SW-SE-19-15S-11W

Field Area WILDCAT

County RUSSELL

State KANSAS

2388-2423'

CUSTOM OIL EXPLORATION

Lease Owner/Company Name

| FLUID SAMPLE DATA | | | | Date | 9-28-79 <th>Ticket Number</th> <td>657636 </td> | Ticket Number | 657636 |
|--|--------------------------------|-----------------|-------------------------|--------------|---|---------------|------------------------|
| Sampler Pressure _____ P.S.I.G. at Surface | Kind of Job | OPEN HOLE | Halliburton District | HAYS | | | |
| Recovery: Cu. Ft. Gas _____ | Tester | J. BECKER | Witness | T. ELSTER | | | |
| cc. Oil _____ | Drilling Contractor | K. RICHMEIER | REVLON DRILLING COMPANY | | DR | | |
| cc. Water _____ | EQUIPMENT & HOLE DATA | | | | | | |
| cc. Mud _____ | Formation Tested | Willard Sand | | | | | |
| Tot. Liquid cc. _____ | Elevation | 853' | KB | | | | Ft. |
| Gravity _____ ° API @ _____ ° F. | Net Productive Interval | 6' | | | | | Ft. |
| Gas/Oil Ratio _____ cu. ft./bbl. | All Depths Measured From | Kelly Bushing | | | | | |
| RESISTIVITY _____ CHLORIDE CONTENT _____ | Total Depth | 2423' | | | | | Ft. |
| Recovery Water _____ @ _____ ° F. _____ ppm | Main Hole/Casing Size | 7 7/8" | | | | | |
| Recovery Mud _____ @ _____ ° F. _____ ppm | Drill Collar Length | - | I.D. | - | | | |
| Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm | Drill Pipe Length | 2363' | I.D. | 3.826" | | | |
| Mud Pit Sample _____ @ _____ ° F. _____ ppm | Packer Depth(s) | 2382-2388' | | | | | Ft. |
| Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm | Depth Tester Valve | 2373' | | | | | Ft. |
| Mud Weight 10 vis 36 SEC = $\frac{100}{36}$ | | | | | | | |
| Cushion TYPE AMOUNT | Depth Back Pres. Valve | Surface Choke | 1/2-3/8" | Bottom Choke | Merla | 3/4" | |
| Recovered 100 Feet of | slightly watery mud | | | | | | Med. From Tester Valve |
| Recovered _____ Feet of | | | | | | | |
| Recovered _____ Feet of | | | | | | | |
| Recovered _____ Feet of | | | | | | | |
| Recovered _____ Feet of | | | | | | | |
| Remarks | SEE PRODUCTION TEST DATA SHEET | | | | | | |
| CHARTS INDICATE PARTIAL PLUGGING DURING EARLY PART OF INITIAL FLOW PERIOD. | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| TEMPERATURE | Gauge No. 6177 | Gauge No. 6178 | Gauge No. | TIME | | | |
| Depth: 2375 Ft. | Depth: 2420 Ft. | Depth: | Ft. | | | | |
| Est. _____ ° F. | 12 Hour Clock | 12 Hour Clock | Hour Clock | Tool Opened | 2315 | A.M. | |
| Actual 97 ° F. | Blanked Off NO | Blanked Off YES | Blanked Off | Opened | | A.M. | |
| | Pressures | Pressures | Pressures | Bypass | 0325 | P.M. | |
| | Field Office | Field Office | Field Office | Reported | Computed | | |
| Initial Hydrostatic | 1271.0 | 1304 | 1303.2 | Minutes | Minutes | | |
| First Period Flow | Initial | 67.2 | 41 | 127.2 | | | |
| | Final | 101.8 | 111 | 122.2 | 65 | 66 | |
| Closed in | 825.6 | 838 | 845.4 | 60 | 59 | | |
| Second Period Flow | Initial | 141.8 | 121 | 142.4 | | | |
| | Final | 112.3 | 121 | 127.2 | 65 | 63 | |
| Closed in | 809.8 | 828 | 827.2 | 60 | 62 | | |
| Third Period Flow | Initial | | | | | | |
| Final | | | | | | | |
| Closed in | | | | | | | |
| Final Hydrostatic | 1258.3 | 1284 | 1281.9 | | | | |

Casing perms. _____ Bottom choke .75" Surf. temp. 65 °F Ticket No. 657636
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
 Merla Orifice

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

| Date Time | a.m. p.m. | Choke Size | Surface Pressure psi | Gas Rate MCF | Liquid Rate BPD | Remarks |
|-----------|--------------|------------|----------------------|--------------|-----------------|--------------------------------|
| 22:00 | | | | | | Picked up tool |
| 22:15 | | | | | | Tool in table |
| 23:12 | | | | | | Tool on bottom |
| 23:15 | | | | | | Opened tool with a strong blow |
| 23:45 | | 3/8" | 10 | 65.3 | | Gas to surface on 3/8" choke |
| 23:50 | | " | 16 | 86.8 | | |
| 23:55 | | " | 20 | 100 | | |
| 24:00 | | " | 25 | 116 | | |
| 24:05 | | " | 30 | 132 | | |
| 24:10 | | " | 33 | 140 | | |
| 24:15 | | " | 37 | 153 | | Slips would not hold |
| 24:20 | | " | 40 | 161 | | Closed tool |
| 01:20 | | " | 0 | 0 | | Opened tool |
| 01:25 | | " | 60 | 220 | | |
| 01:30 | | " | 80 | 279 | | |
| 01:31 | | 3/4" | | | | Change choke |
| 01:35 | | " | 22 | 424 | | |
| 01:40 | | " | 17 | 357 | | |
| 01:45 | | " | 16 | 344 | | |
| 01:50 | | " | 16 | 344 | | |
| 01:55 | | " | 16 | 344 | | |
| 02:00 | | " | 16 | 344 | | |
| 02:05 | | " | 16 | 344 | | |
| 02:10 | | " | 16 | 344 | | |
| 02:15 | | " | 16 | 344 | | |

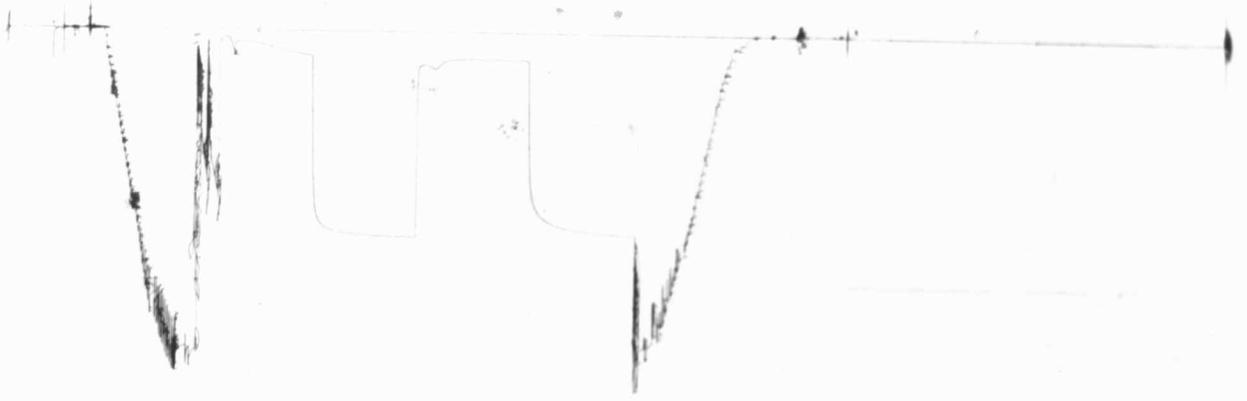
| Gauge No. 6177 | | Depth 2375' | | Clock No. 2800 | | 12 hour | | Ticket No. 657636 | |
|---|------------------|---|------------------|---|------------------|---|------------------|---|------------------|
| First Flow Period | | Closed In Pressure | | Second Flow Period | | Closed In Pressure | | Third Flow Period | |
| Time Defl. .000" | PSIG Temp. Corr. |
| $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | |
| 0 | .000 | 67.2 | 101.8 | .000 | 141.8 | .000 | 112.3 | | |
| 1 | .0718 | P | 745.7 | (.080 | 136.5C) | .0396*** | 724.7 | | |
| 2 | .1437 | 48.3 | 785.6 | .0877** | 133.4 | .0659 | 751.0 | | |
| 3 | .2155 | 50.4 | 799.3 | .1552 | 110.2 | .0924 | 765.7 | | |
| 4 | .2873 | 70.3 | 806.7 | .2226 | 109.2 | .1187 | 775.1 | | |
| 5 | .3592 | 87.1 | 811.9 | .2901 | 109.2 | .1451 | 782.5 | | |
| 6 | .4310 | 101.8 | 816.1 | .3575 | 111.3 | .1715 | 787.8 | | |
| 7 | | | 817.2 | .4250 | 112.3 | .1979 | 792.0 | | |
| 8 | | | 818.2 | | | .2243 | 796.2 | | |
| 9 | | | 821.4 | | | .2506 | 798.3 | | |
| 10 | | | 822.4 | | | .2771 | 800.4 | | |
| 11 | | | 823.5 | | | .3035 | 803.5 | | |
| 12 | | | 824.5 | | | .3298 | 805.6 | | |
| 13 | | | 825.6 | | | .3562 | 807.7 | | |
| 14 | | | 825.6 | | | .3826 | 808.8 | | |
| 15 | | | 825.6 | | | .4090 | 809.8 | | |

| Gauge No. 6178 | | Depth 2420' | | Clock No. 3926 | | hour 12 | |
|---|------------------|---|------------------|---|------------------|---|------------------|
| Time Defl. .000" | PSIG Temp. Corr. |
| $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | |
| 0 | .000 | 127.2 | 122.2 | .000 | 142.4 | .000 | 127.2 |
| 1 | .0735 | 632.3 | 781.8 | (.075 | 153.5C) | .0402*** | 751.5 |
| 2 | .1470 | 62.6 | 813.1 | .0881** | 140.4 | .0669 | 773.7 |
| 3 | .2205 | 71.7 | 824.2 | .1559 | 124.2 | .0937 | 786.8 |
| 4 | .2940 | 92.9 | 830.3 | .2237 | 123.2 | .1205 | 795.9 |
| 5 | .3675 | 109.0 | 834.3 | .2914 | 124.2 | .1473 | 801.0 |
| 6 | .4410 | 122.2 | 836.3 | .3592 | 126.2 | .1740 | 806.0 |
| 7 | | | 838.3 | .4270 | 127.2 | .2008 | 811.1 |
| 8 | | | 839.3 | | | .2276 | 815.1 |
| 9 | | | 840.4 | | | .2544 | 817.1 |
| 10 | | | 841.4 | | | .2811 | 820.2 |
| 11 | | | 842.4 | | | .3079 | 822.2 |
| 12 | | | 843.4 | | | .3347 | 823.2 |
| 13 | | | 844.4 | | | .3614 | 825.2 |
| 14 | | | 845.4 | | | .3882 | 826.2 |
| 15 | | | 845.4 | | | .4150 | 827.2 |

Reading Interval 11 **-13 minutes ***-6 minutes 4 C-Choke change P-Plugging Minutes

REMARKS: * -3 minutes

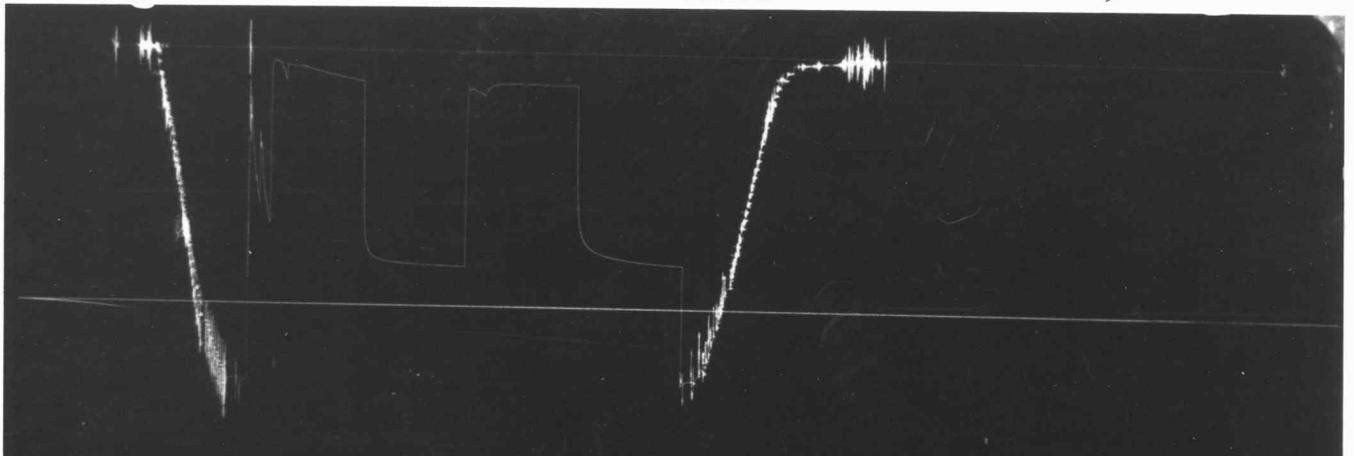
| | O. D. | I. D. | LENGTH | DEPTH |
|-------------------------------|--------|--------|--------|--------------|
| Drill Pipe or Tubing | | | | |
| Reversing Sub | 5.75" | 2.76" | 1' | 2237' |
| Water Cushion Valve | | | | |
| Drill Pipe | 4 1/2" | 3.826" | 2363' | |
| Drill Collars | | | | |
| Handling Sub & Choke Assembly | | | | |
| Dual CIP Valve | 5" | .87" | 6' | 2363' |
| Dual CIP Sampler | | | | |
| Hydro-Spring Tester | 5" | .75" | 5' | 2373' |
| Multiple CIP Sampler | | | | |
| Extension Joint | | | | |
| AP Running Case | 5" | 3.06" | 4' | 2375' |
| Hydraulic Jar | | | | |
| VR Safety Joint | | | | |
| Pressure Equalizing Crossover | | | | |
| Packer Assembly | 6.75" | 1.53" | 6' | 2382' |
| Distributor | | | | |
| Packer Assembly | 6.75" | 1.53" | 6' | 2388' |
| 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" | 3.84" | 28' | |
| | 5" | 3.75" | 1.5' | 2418' HT-500 |
| Blanked-Off B.T. Running Case | 5" | 2.44" | 4' | 2420' |
| Total Depth | | | | 2423' |



657636-6177

↑
PRESSURE

← TIME →



657636-6178

BT-6178

Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE RECORDER CHART



10° each circle

- OF₃ = Theoretical Open Flow Potential with/Damage Removed Max. MCF/D
- OF₄ = Theoretical Open Flow Potential with/Damage Removed Min. MCF/D
- P_s = Extrapolated Static Pressure Psig.
- P_f = Final Flow Pressure Psig.
- P_{or} = Potentiometric Surface (Fresh Water *) Feet
- Q = Average Adjusted Production Rate During Test bbls/day
- Q₁ = Theoretical Production w/Damage Removed bbls/day
- Q_g = Measured Gas Production Rate MCF/D
- R = Corrected Recovery bbls
- r_w = Radius of Well Bore Feet
- t = Flow Time Minutes
- t_o = Total Flow Time Minutes
- T = Temperature Rankine °R
- Z = Compressibility Factor —
- μ = Viscosity Gas or Liquid CP
- Log = Common Log

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given,
Fresh Water Corrected to 100° F.

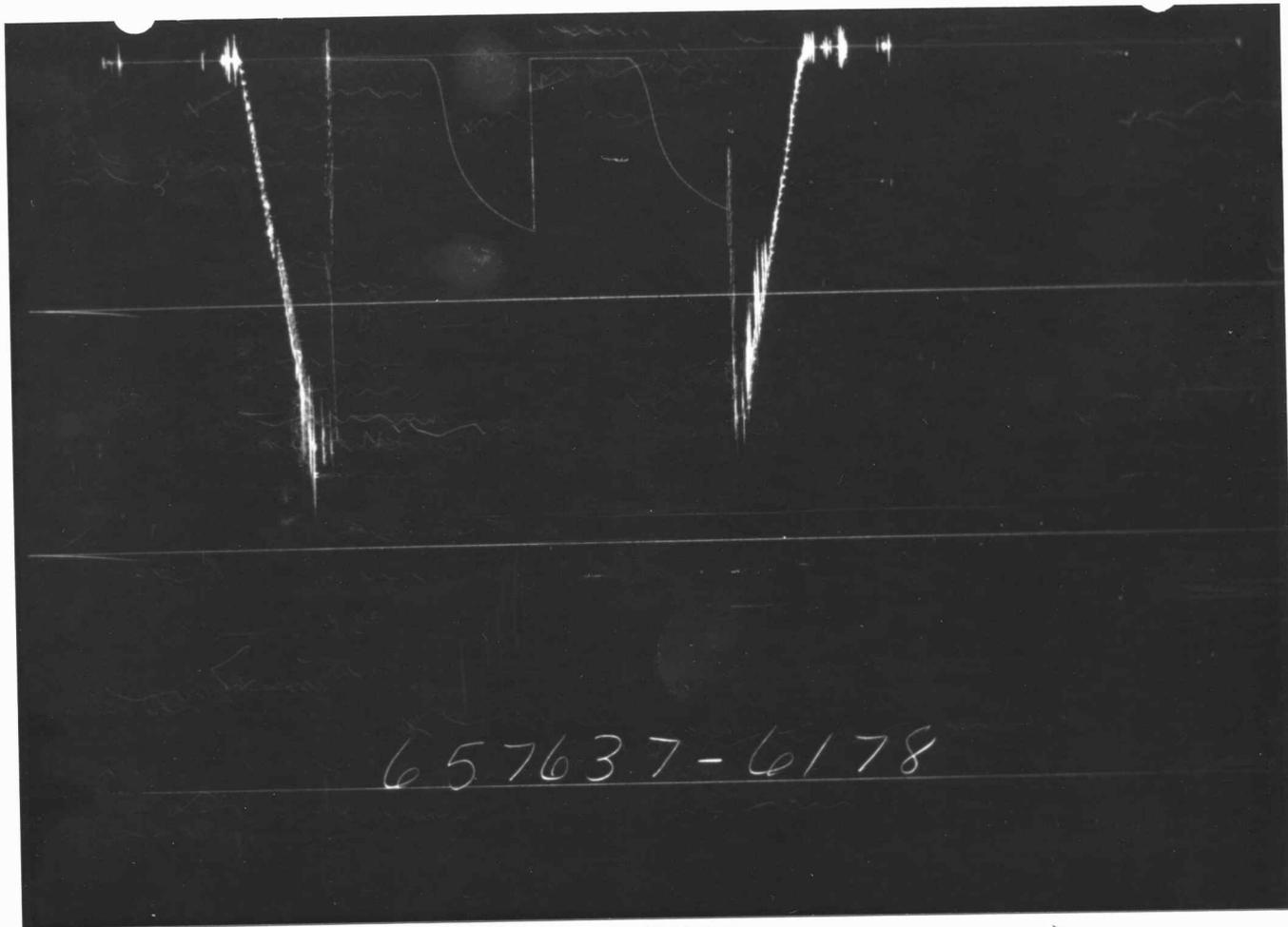
| Gauge No. 6178 | | Depth 2817' | | Clock No. 3926 | | 12 hour | | Ticket No. 657637 | |
|---|------------------|---|------------------|---|------------------|---|------------------|---|------------------|
| First Flow Period | | First Closed In Pressure | | Second Flow Period | | Second Closed In Pressure | | Third Flow Period | |
| Time Defl. .000" | PSIG Temp. Corr. |
| $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | | $\text{Log } \frac{t + \theta}{\theta}$ | |
| 0 | .000 | 6.0 | 16.1 | .000 | 24.2 | .000 | 28.2 | | |
| 1 | .0657 | 8.0 | 84.8 | .0652 | 22.2 | .0135** | 39.3 | | |
| 2 | .1313 | 10.1 | 209.0 | .1303 | 23.2 | .0405 | 74.7 | | |
| 3 | .1970 | 12.1 | 360.6 | .1955 | 24.2 | .0674 | 150.5 | | |
| 4 | .2627 | 13.1 | 446.4 | .2607 | 26.2 | .0944 | 277.7 | | |
| 5 | .3284 | 15.1 | 504.0 | .3259 | 27.2 | .1214 | 378.7 | | |
| 6 | .3940 | 16.1 | 545.4 | .3910 | 28.2 | .1483 | 444.4 | | |
| 7 | | | 581.8 | | | .1753 | 489.8 | | |
| 8 | | | 611.1 | | | .2023 | 524.2 | | |
| 9 | | | 634.3 | | | .2292 | 551.5 | | |
| 10 | | | 655.5 | | | .2562 | 574.7 | | |
| 11 | | | 672.7 | | | .2832 | 594.9 | | |
| 12 | | | 688.8 | | | .3102 | 613.1 | | |
| 13 | | | 702.0 | | | .3371 | 629.2 | | |
| 14 | | | 713.1 | | | .3641 | 643.4 | | |
| 15 | | | 724.2 | | | .3910 | 654.5 | | |
| Gauge No. 6177 | | Depth 2844' | | Clock No. 2800 | | hour 12 | | | |
| 0 | .000 | 38.8 | 32.5 | .000 | 59.8 | .000 | 44.1 | | |
| 1 | .0653 | 27.3 | 108.1 | .066 | 38.8 | .0131** | 52.5 | | |
| 2 | .1307 | 28.3 | 271.0 | .132 | 39.9 | .0393 | 87.1 | | |
| 3 | .1960 | 28.3 | 392.8 | .198 | 42.0 | .0655 | 168.0 | | |
| 4 | .2613 | 28.3 | 465.3 | .264 | 43.0 | .0917 | 298.3 | | |
| 5 | .3267 | 30.4 | 517.8 | .330 | 44.1 | .1179 | 391.7 | | |
| 6 | .3920 | 32.5 | 558.8 | .396 | 44.1 | .1442 | 452.7 | | |
| 7 | | | 592.4 | | | .1704 | 496.8 | | |
| 8 | | | 619.7 | | | .1966 | 529.4 | | |
| 9 | | | 644.9 | | | .2228 | 557.7 | | |
| 10 | | | 664.9 | | | .2490 | 580.8 | | |
| 11 | | | 682.7 | | | .2752 | 601.8 | | |
| 12 | | | 698.5 | | | .3014 | 620.7 | | |
| 13 | | | 711.1 | | | .3276 | 636.5 | | |
| 14 | | | 724.7 | | | .3538 | 651.2 | | |
| 15 | | | 732.1 | | | .3800 | 663.8 | | |
| Reading Interval 10 | | 4 | | 10 | | 4 | | Minutes | |

REMARKS: *-6 minutes **-2 minutes

SPECIAL PRESSURE DATA

5

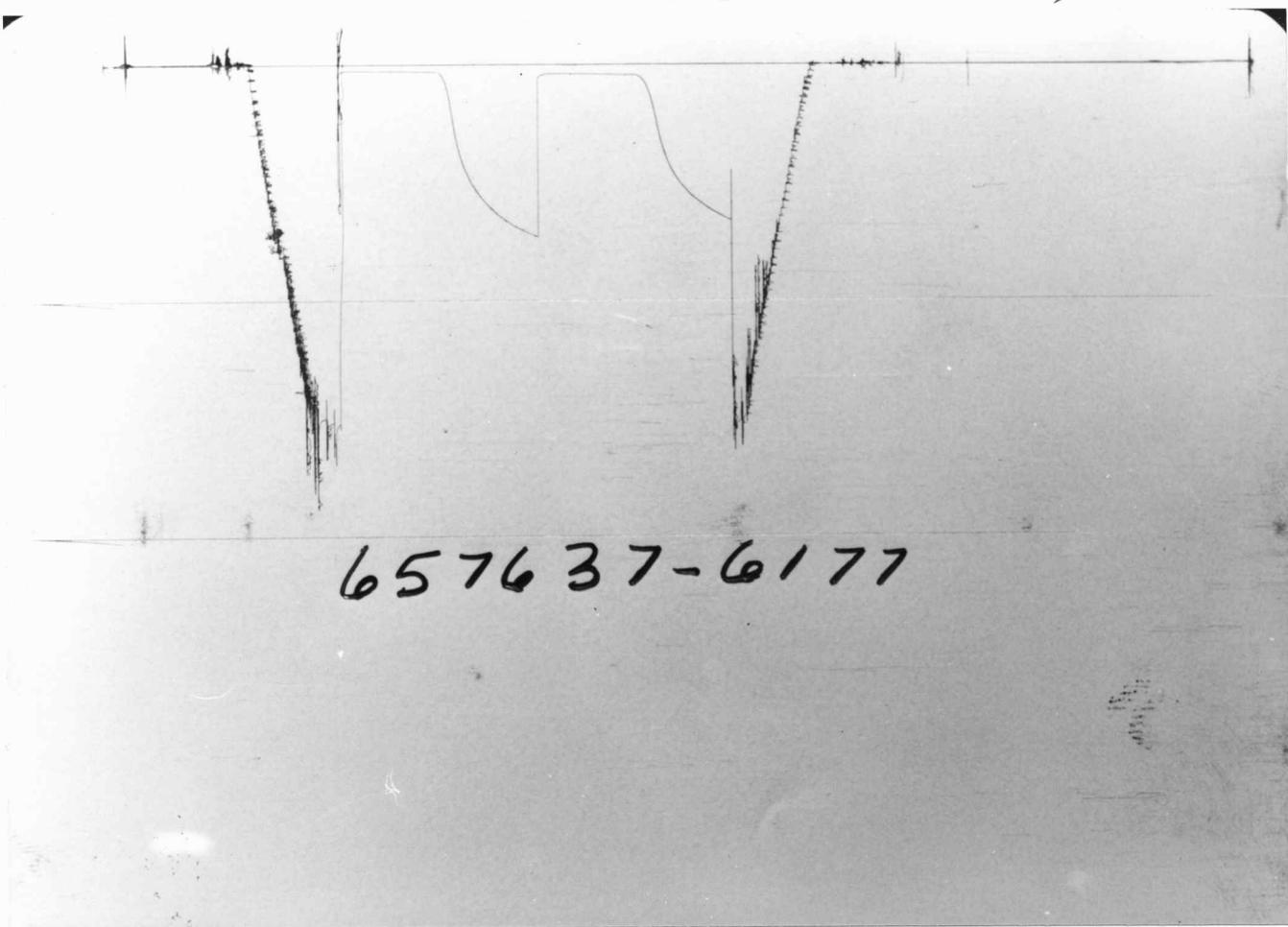
| | O. D. | I. D. | LENGTH | DEPTH |
|-------------------------------|-------|--------|--------|--------------|
| Drill Pipe or Tubing | 5.75" | 2.75" | 1' | 2680' |
| Reversing Sub | | | | |
| Water Cushion Valve | | | | |
| Drill Pipe | 4.5" | 3.826" | 2805' | |
| Drill Collars | | | | |
| Handling Sub & Choke Assembly | | | | |
| Dual CIP Valve | 5" | .87" | 6' | 2805' |
| Dual CIP Sampler | | | | |
| Hydro-Spring Tester | 5" | .75" | 5' | 2815' |
| Multiple CIP Sampler | | | | |
| Extension Joint | | | | |
| AP Running Case | 5" | 3.06" | 4' | 2817' |
| Hydraulic Jar | | | | |
| VR Safety Joint | | | | |
| Pressure Equalizing Crossover | | | | |
| Packer Assembly | 6.75" | 1.53" | 6' | 2824' |
| Distributor | | | | |
| Packer Assembly | 6.75" | 1.53" | 6' | 2830' |
| 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" | 3.84" | 10' | |
| | 5" | 3.75" | 1.5' | 2842' HT-500 |
| Blanked-Off B.T. Running Case | 5" | 2.44" | 4' | 2844' |
| Total Depth | | | | 2847' |



657637-6178

PRESSURE

TIME



657637-6177

Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE
RECORDER
CHART



10° each circle

- OF_3 = Theoretical Open Flow Potential with/Damage Removed Max. MCF/D
- OF_4 = Theoretical Open Flow Potential with/Damage Removed Min. MCF/D
- P_s = Extrapolated Static Pressure Psig.
- P_f = Final Flow Pressure Psig.
- P_{ot} = Potentiometric Surface (Fresh Water *) Feet
- Q = Average Adjusted Production Rate During Test bbls/day
- Q_1 = Theoretical Production w/Damage Removed bbls/day
- Q_g = Measured Gas Production Rate MCF/D
- R = Corrected Recovery bbls
- r_w = Radius of Well Bore Feet
- t = Flow Time Minutes
- t_o = Total Flow Time Minutes
- T = Temperature Rankine °R
- Z = Compressibility Factor
- μ = Viscosity Gas or Liquid CP
- Log** = Common Log

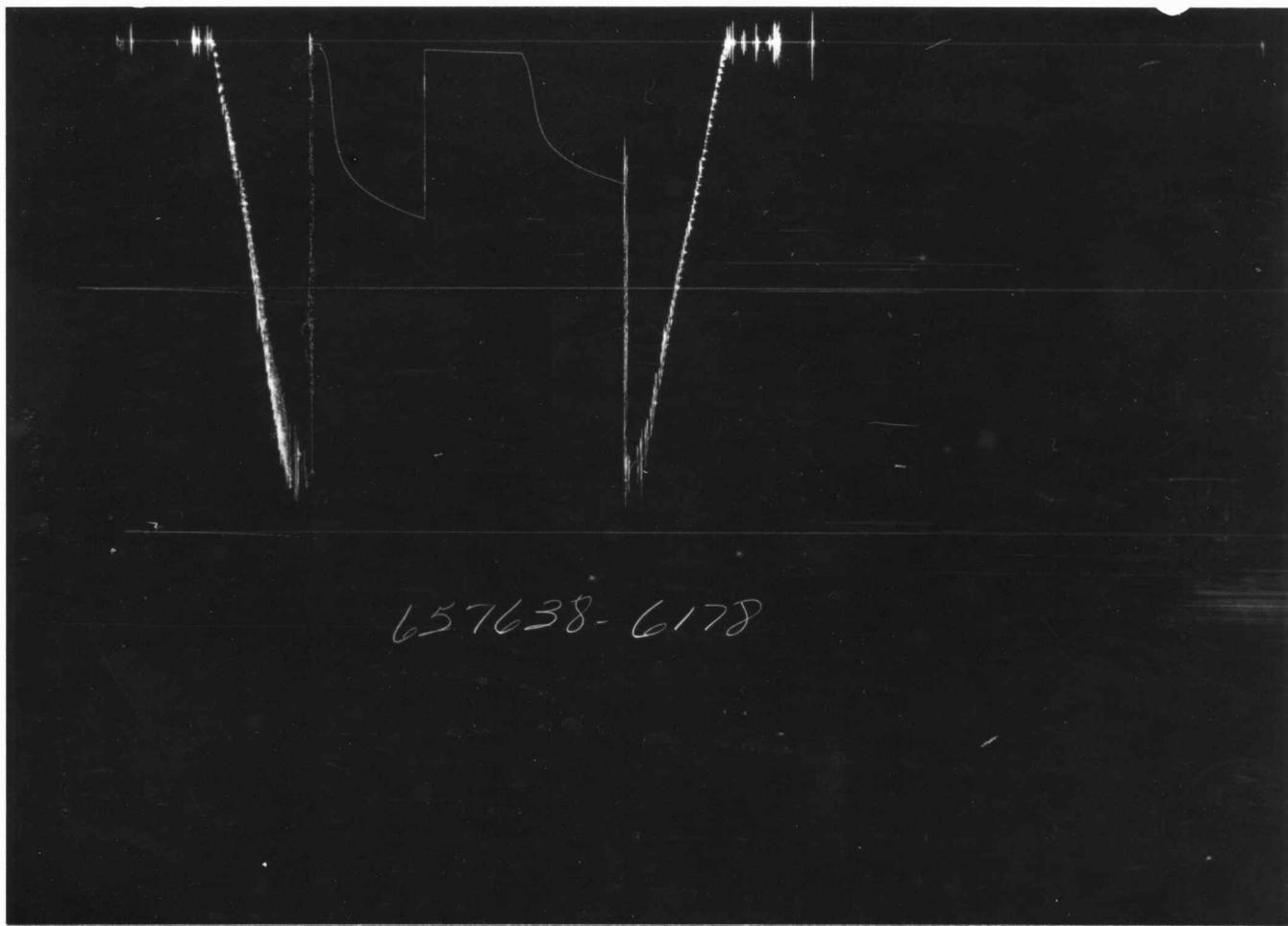
* Potentiometric Surface Reference to Rotary Table When Elevation Not Given,
Fresh Water Corrected to 100° F.

| Gauge No. 6178 | | Depth 3266' | | Clock No. 3926 | | Ticket No. 657638 | | | | | |
|---------------------|------------------|--------------------------|--------------------------------|--------------------|------------------|---------------------------|--------------------------------|-------------------|------------------|--------------------------|--------------------------------|
| First Flow Period | | First Closed In Pressure | | Second Flow Period | | Second Closed In Pressure | | Third Flow Period | | Third Closed In Pressure | |
| Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\log \frac{t+\theta}{\theta}$ | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\log \frac{t+\theta}{\theta}$ | Time Defl. .000" | PSIG Temp. Corr. | Time Defl. .000" | $\log \frac{t+\theta}{\theta}$ |
| 0 .000 | 9.0 | .000 | 13.1 | .000 | 38.3 | .000 | 48.4 | | | | |
| 1 .043 | 13.1 | .0339 | 139.3** | .0590 | 35.3* | .0338 | 133.3** | | | | |
| 2 | | .0611 | 404.0 | .1246 | 38.3 | .0608 | 285.8 | | | | |
| 3 | CLOCK STOPPED- | .0882 | 495.9 | .1902 | 41.4 | .0878 | 372.7 | | | | |
| 4 | ONLY 6.3 | .1154 | 543.4 | .2558 | 43.4 | .1149 | 416.1 | | | | |
| 5 | MINUTES | .1425 | 574.7 | .3214 | 44.4 | .1419 | 444.4 | | | | |
| 6 | RECORDED... | .1697 | 599.9 | .3870 | 48.4 | .1689 | 466.6 | | | | |
| 7 | | .1968 | 620.2 | | | .1959 | 483.8 | | | | |
| 8 | | .2240 | 637.3 | | | .2229 | 501.0 | | | | |
| 9 | | .2511 | 652.5 | | | .2499 | 515.1 | | | | |
| 10 | | .2783 | 666.6 | | | .2769 | 527.2 | | | | |
| 11 | | .3054 | 677.8 | | | .3039 | 538.3 | | | | |
| 12 | | .3326 | 688.8 | | | .3309 | 547.4 | | | | |
| 13 | | .3597 | 699.9 | | | .3579 | 557.5 | | | | |
| 14 | | .3869 | 709.0 | | | .3850 | 567.6 | | | | |
| 15 | | .4140 | 717.1 | | | .4120 | 574.7 | | | | |
| Gauge No. 6177 | | Depth 3306' | | Clock No. 2800 | | 12 hour | | | | | |
| 0 .000 | 59.8 | .000 | 54.6 | .000 | 73.5 | .000 | 70.3 | | | | |
| 1 .0592 | 39.9* | .0330 | 191.1** | .0590 | 58.8* | .0332 | 153.3** | | | | |
| 2 .1250 | 43.0 | .0594 | 434.8 | .1246 | 60.9 | .0598 | 302.5 | | | | |
| 3 .1908 | 45.1 | .0859 | 513.6 | .1902 | 63.0 | .0863 | 386.5 | | | | |
| 4 .2566 | 48.3 | .1123 | 559.8 | .2558 | 65.1 | .1129 | 428.5 | | | | |
| 5 .3224 | 51.4 | .1387 | 591.3 | .3214 | 67.2 | .1394 | 457.9 | | | | |
| 6 .3880 | 54.6 | .1652 | 614.4 | .3870 | 70.3 | .1660 | 480.0 | | | | |
| 7 | | .1916 | 634.4 | | | .1926 | 497.8 | | | | |
| 8 | | .2180 | 653.3 | | | .2191 | 514.6 | | | | |
| 9 | | .2444 | 667.0 | | | .2457 | 529.4 | | | | |
| 10 | | .2709 | 681.7 | | | .2722 | 542.0 | | | | |
| 11 | | .2973 | 694.3 | | | .2988 | 553.5 | | | | |
| 12 | | .3237 | 705.8 | | | .3254 | 565.1 | | | | |
| 13 | | .3502 | 716.3 | | | .3519 | 573.5 | | | | |
| 14 | | .3766 | 725.8 | | | .3785 | 581.9 | | | | |
| 15 | | .4030 | 733.1 | | | .4050 | 591.3 | | | | |
| Reading Interval 10 | | 4 | | 10 | | 4 | | | | Minutes | |

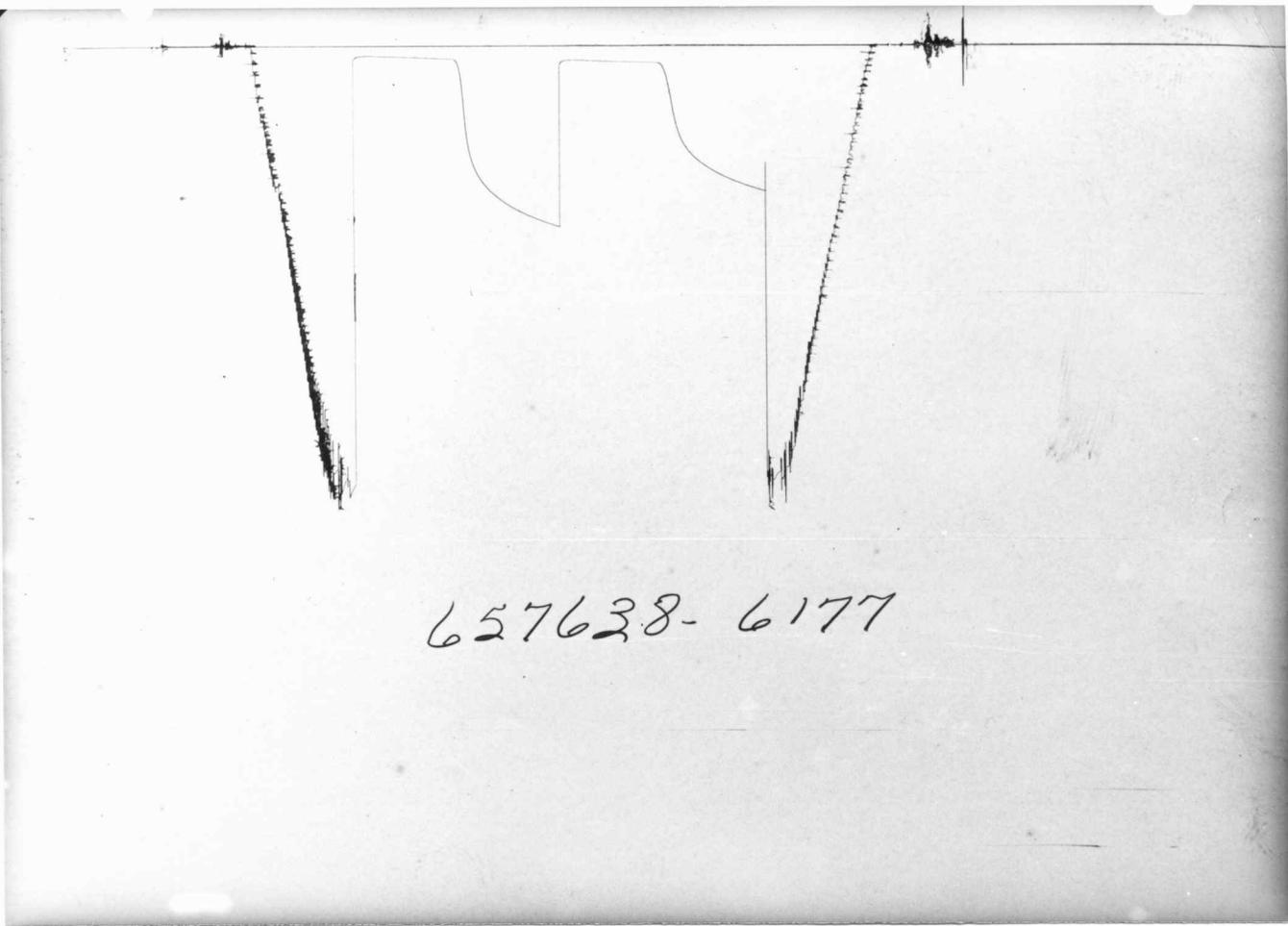
REMARKS: *First interval equal to 9 minutes **=5 minutes

5

| | O. D. | I. D. | LENGTH | DEPTH |
|-------------------------------------|-------|--------|-----------------|-------------|
| Drill Pipe or Tubing | 5.75" | 2.75" | 1' | 3129' |
| Reversing Sub | | | | |
| Water Cushion Valve | | | | |
| Drill Pipe | 4.5" | 3.826" | 3129' | |
| Drill Collars | 4.5" | 3.826" | 125' DRILL PIPE | |
| Handling Sub & Choke Assembly | | | | |
| Dual CIP Valve | 5" | .87" | 6' | 3254' |
| Dual CIP Sampler | | | | |
| Hydro-Spring Tester | 5" | .75" | 5' | 3264' |
| Multiple CIP Sampler | | | | |
| Extension Joint | | | | |
| AP Running Case | 5" | 3.06" | 4' | 3266' |
| Hydraulic Jar | | | | |
| VR Safety Joint | | | | |
| Pressure Equalizing Crossover | | | | |
| Packer Assembly | 6.75" | 1.53" | 6' | 3273' |
| Distributor | | | | |
| Packer Assembly | 6.75" | 1.53" | 6' | 3279' |
| 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" | 3.84" | 23' | |
| | 5" | 3.75" | 1.5' | 3304' TEMP. |
| Blanked-Off B.T. Running Case | 5" | 2.44" | 4' | 3306' |
| Total Depth | | | | 3309' |



657638-6178



657638-6177

Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE RECORDER CHART



10° each circle

| | | |
|------------|---|----------|
| OF_4 | = Theoretical Open Flow Potential with/Damage Removed Min. | MCF/D |
| P_s | = Extrapolated Static Pressure | Psig. |
| P_f | = Final Flow Pressure | Psig. |
| P_{ot} | = Potentiometric Surface (Fresh Water *) | Feet |
| Q | = Average Adjusted Production Rate During Test | bbls/day |
| Q_1 | = Theoretical Production w/Damage Removed | bbls/day |
| Q_g | = Measured Gas Production Rate | MCF/D |
| R | = Corrected Recovery | bbls |
| r_w | = Radius of Well Bore | Feet |
| t | = Flow Time | Minutes |
| t_o | = Total Flow Time | Minutes |
| T | = Temperature Rankine | °R |
| Z | = Compressibility Factor | — |
| μ | = Viscosity Gas or Liquid | CP |
| Log | = Common Log | |

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.