

PETERSON

Lease Name

Well No.

Test No.

4305' - 4345'

County

NESS

State

KANSAS

Lease Owner/Company Name

RAINS AND WILLIAMSON

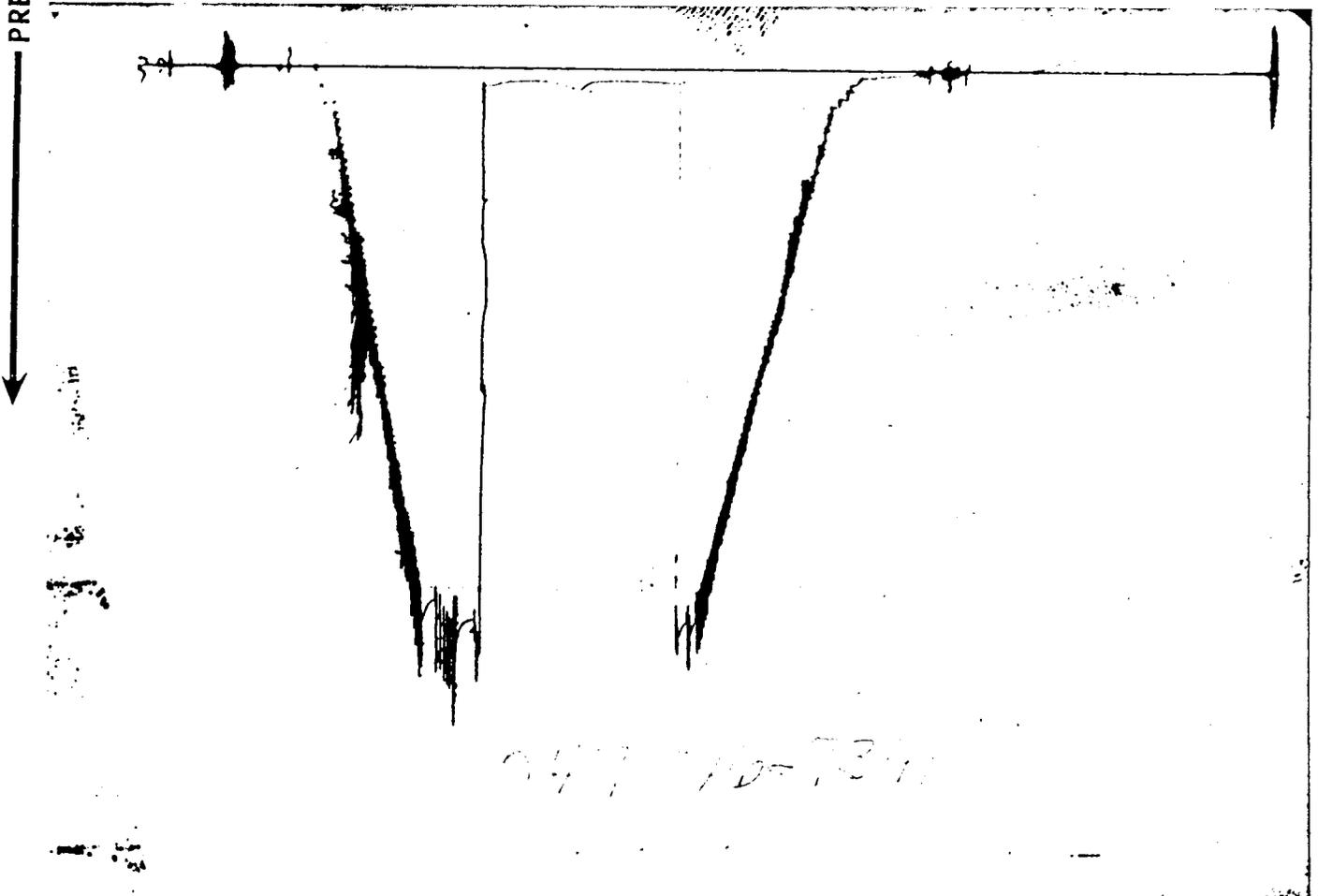
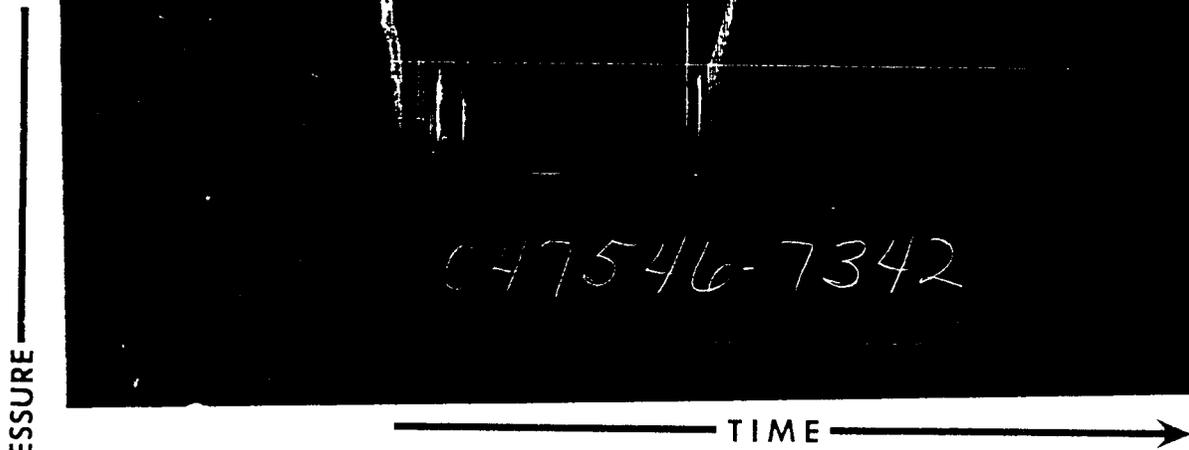
Legal Location  
Sec. - Twp. - Rng.

47 - 17 - 26

|   |              |                  |                |                          |                         |                      |            |
|---|--------------|------------------|----------------|--------------------------|-------------------------|----------------------|------------|
| FLUID SAMPLE DATA   |              |                  |                | Date                     | 7-1-81                  | Ticket Number        | 047546     |
| Sampler Pressure _____ P.S.I.G. at Surface  |              |                  |                | Kind of D.S.T.           | OPEN HOLE               | Halliburton Location | NESS CITY  |
| Recovery: Cu. Ft. Gas _____<br>cc. Oil _____<br>cc. Water _____<br>cc. Mud _____<br>Tot. Liquid cc. _____ |              |                  |                | Tester                   | MR. CROSSWHITE          | Witness              | MR. SLAGLE |
| Gravity _____ ° API @ _____ °F.<br>Gas/Oil Ratio _____ cu. ft./bbl.                                       |              |                  |                | Drilling Contractor      | BC                      |                      |            |
| RESISTIVITY _____ CHLORIDE CONTENT _____  |              |                  |                | EQUIPMENT & HOLE DATA    |                         |                      |            |
| Recovery Water _____ @ _____ °F. _____ ppm  |              |                  |                | Formation Tested         | Fort Scott              |                      |            |
| Recovery Mud _____ @ _____ °F. _____ ppm  |              |                  |                | Elevation                | _____ Ft.               |                      |            |
| Recovery Mud Filtrate _____ @ _____ °F. _____ ppm   |              |                  |                | Net Productive Interval  | _____ Ft.               |                      |            |
| Mud Pit Sample _____ @ _____ °F. _____ ppm  |              |                  |                | All Depths Measured From | Kelly Bushing           |                      |            |
| Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm   |              |                  |                | Total Depth              | 4345' _____ Ft.         |                      |            |
| Mud Weight _____ 9.4 vis _____ 46 sec.  |              |                  |                | Main Hole/Casing Size    | 7 7/8"                  |                      |            |
|   |              |                  |                | Drill Collar Length      | 183' _____ I.D. 2.25"   |                      |            |
|   |              |                  |                | Drill Pipe Length        | 4111' _____ I.D. 3.826" |                      |            |
|   |              |                  |                | Packer Depth(s)          | 4305' _____ Ft.         |                      |            |
|   |              |                  |                | Depth Tester Valve       | 4292' _____ Ft.         |                      |            |
| TYPE  |              | AMOUNT           |                | Depth Back Pres. Valve   | Surface Choke           | Bottom Choke         |            |
| Cushion   |              |                  |                | Ft.                      | .25"                    | .75"                 |            |
| Recovered   |              | 20 Feet of       |                | Drilling mud             |                         |                      |            |
| Recovered   |              | Feet of          |                |                          |                         |                      |            |
| Recovered   |              | Feet of          |                |                          |                         |                      |            |
| Recovered   |              | Feet of          |                |                          |                         |                      |            |
| Recovered   |              | Feet of          |                |                          |                         |                      |            |
| Remarks SEE PRODUCTION TEST DATA SHEET.   |              |                  |                |                          |                         |                      |            |
|   |              |                  |                |                          |                         |                      |            |
|   |              |                  |                |                          |                         |                      |            |
|   |              |                  |                |                          |                         |                      |            |
| TEMPERATURE   |              | Gauge No. 7342   | Gauge No. 7341 | Gauge No.                | TIME                    |                      |            |
| Depth: 4294' Ft.  |              | Depth: 4342' Ft. | Depth:         | (00:00-24:00 hrs.)       |                         |                      |            |
| Est. 115 °F.  |              | 12 Hour Clock    | 12 Hour Clock  | Hour Clock               |                         | Tool                 |            |
| Blanked Off NO  |              | Blanked Off YES  | Blanked Off    |                          | Opened 1113             |                      |            |
| Actual °F.  |              | Pressures        |                | Pressures                |                         | Opened Bypass 1313   |            |
|   |              | Field            | Office         | Field                    | Office                  | Reported             | Computed   |
| Initial Hydrostatic   |              | 2093.6           | 1204 ??        | 2123.1                   | Minutes Minutes         |                      |            |
| First Period  | Flow Initial | 9.3              | 75             | 67.6                     |                         |                      |            |
|   | Flow Final   | 9.3              | 56             | 47.9                     | 30                      |                      |            |
|   | Closed in    | 61.5             | 94             | 83.6                     | 30                      |                      |            |
| Second Period   | Flow Initial | 13.9             | 56             | 83.6                     |                         |                      |            |
|   | Flow Final   | 13.9             | 47             | 46.9                     | 30                      |                      |            |
|   | Closed in    | 29.8             | 66             | 55.4                     | 30                      |                      |            |
| Third Period  | Flow Initial |                  |                |                          |                         |                      |            |
|   | Flow Final   |                  |                |                          |                         |                      |            |
|   | Closed in    |                  |                |                          |                         |                      |            |
| Final Hydrostatic   |              | 2093.6           | 1204 ??        | 2123.1                   |                         |                      |            |



|                               | O. D. | I. D.  | LENGTH | DEPTH |
|-------------------------------|-------|--------|--------|-------|
| Drill Pipe or Tubing          |       |        |        |       |
| Drill Collars                 |       |        |        |       |
| Reversing Sub                 | 5"    | 3"     | 1'     | 4220' |
| Water Cushion Valve           |       |        |        |       |
| Drill Pipe                    | 4½"   | 3.826" | 4111'  |       |
| Drill Collars                 | 6.25" | 2.25"  | 183'   |       |
| Handling Sub & Choke Assembly |       |        |        |       |
| Dual CIP Valve                | 5"    | .87"   | 6'     | 4282' |
| Dual CIP Sampler              |       |        |        |       |
| Hydro-Spring Tester           | 5"    | .75"   | 5'     | 4292' |
| Multiple CIP Sampler          |       |        |        |       |
| Extension Joint               |       |        |        |       |
| AP Running Case               | 5"    | 3.06"  | 4'     | 4294' |
| Hydraulic Jar                 |       |        |        |       |
| VR Safety Joint               | 5"    | 2.44"  | 3'     |       |
| Pressure Equalizing Crossover |       |        |        |       |
| Packer Assembly               | 6.75" | 1.53"  | 6'     | 4305' |
| Distributor                   |       |        |        |       |
| Packer Assembly               |       |        |        |       |
| 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"  | 34'    |       |
| Blanked-Off B.T. Running Case | 5"    | 2.44"  | 4'     | 4342' |
| Total Depth                   |       |        |        | 4345' |



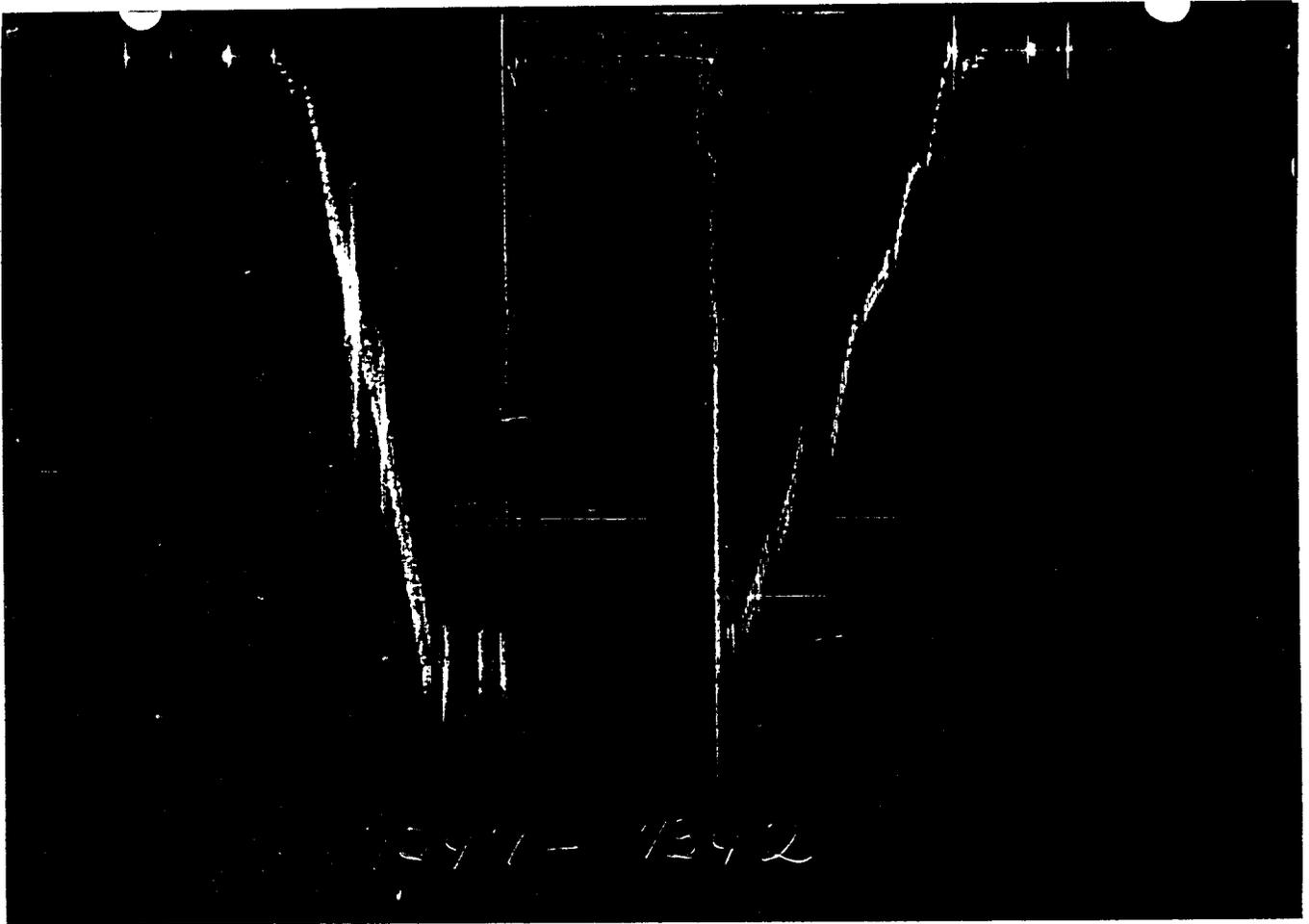
Each Horizontal Line Equal to 1000 p.s.i.







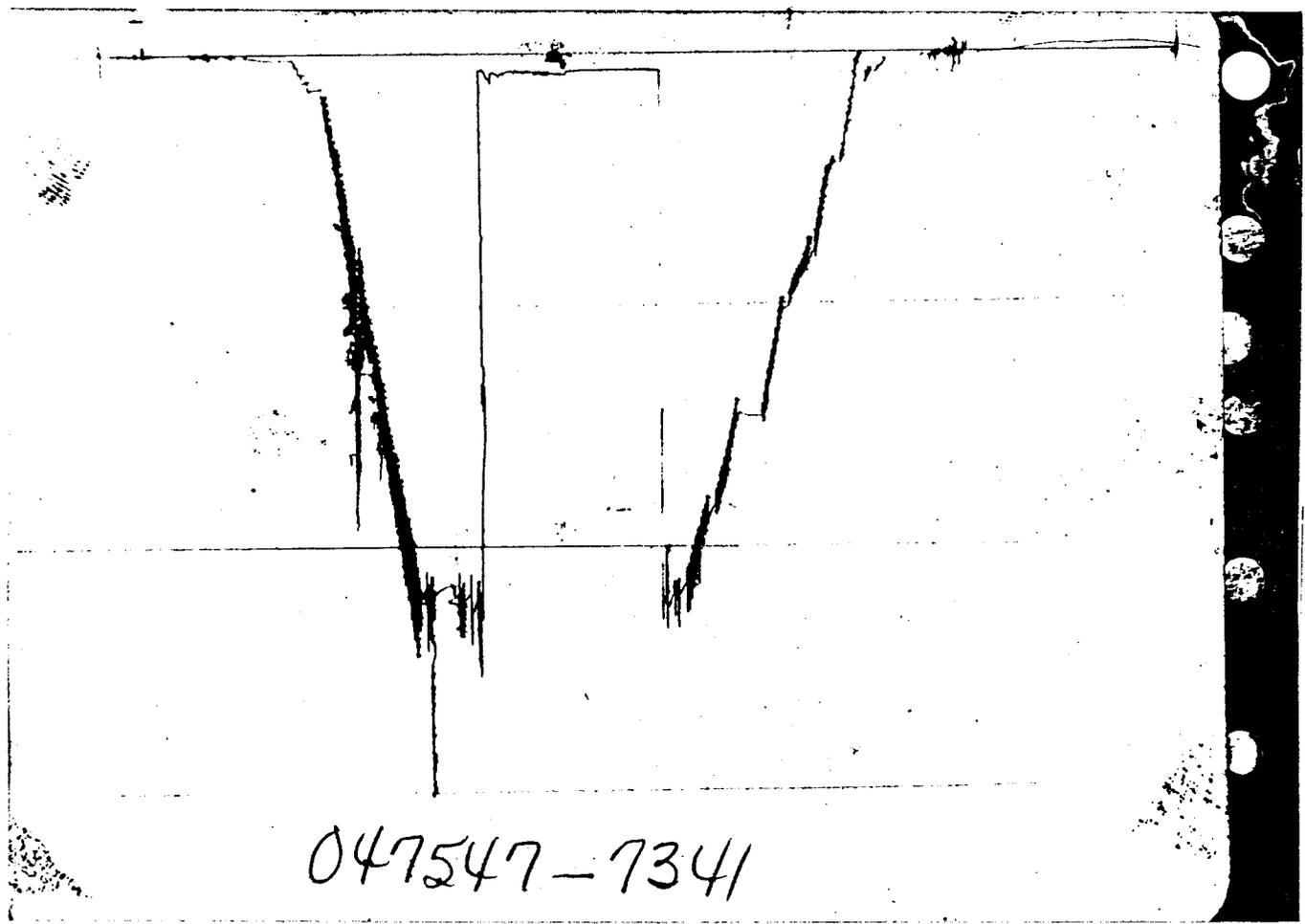
|                               | O. D. | I. D.  | LENGTH | DEPTH |
|-------------------------------|-------|--------|--------|-------|
| Drill Pipe or Tubing          |       |        |        |       |
| Drill Collars                 |       |        |        |       |
| Reversing Sub                 | 5.00" | 3.00"  | 1.00'  | 4300' |
| Water Cushion Valve           |       |        |        |       |
| Drill Pipe                    | 4.50" | 3.826" | 4187'  |       |
| Drill Collars                 | 6.25" | 2.25"  | 180'   |       |
| Handling Sub & Choke Assembly |       |        |        |       |
| Dual CIP Valve                | 5.00" | .87"   | 6.00'  | 4363' |
| Dual CIP Sampler              |       |        |        |       |
| Hydro-Spring Tester           | 5.00" | .75"   | 5.00'  | 4373' |
| Multiple CIP Sampler          |       |        |        |       |
| Extension Joint               |       |        |        |       |
| AP Running Case               | 5.00" | 3.06"  | 4.00'  | 4375' |
| Hydraulic Jar                 |       |        |        |       |
| VR Safety Joint               | 5.00" | 2.44"  | 3.00'  |       |
| Pressure Equalizing Crossover |       |        |        |       |
| Packer Assembly               | 6.75" | 1.53"  | 6.00'  | 4386' |
| Distributor                   |       |        |        |       |
| Packer Assembly               |       |        |        |       |
| 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            | 5.00" | 3.82"  | 23'    |       |
| Blanked-Off B.T. Running Case | 5.00" | 2.44"  | 4.00'  | 4412' |
| Total Depth                   |       |        |        | 4415' |



291-7292

TIME

PRESSURE



047547-7341

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

| FLUID SAMPLE DATA                                   |  |   |  | Date                              | Ticket Number |
|---|--|---|--|-----------------------------------|---------------|
| Sampler Pressure _____ P.S.I.G. at Surface          |  |   |  | Date                              | 7-3-81        |
| Recovery: Cu. Ft. Gas _____                         |  |   |  | Kind of D.S.T.                    | OPEN HOLE     |
| cc. Oil _____                                       |  |   |  | Halliburton Location              | NESS CITY     |
| cc. Water _____                                     |  |   |  | Tester                            | B. CROSSWHITE |
| cc. Mud _____                                       |  |   |  | Witness                           | B. EUWER      |
| Tot. Liquid cc. _____                               |  |   |  | Drilling Contractor               | COMPANY TOOLS |
| Gravity _____ ° API @ _____ °F.                     |  |   |  | PW                                |               |
| Gas/Oil Ratio _____ cu. ft./bbl.                    |  |   |  | EQUIPMENT & HOLE DATA             |               |
| RESISTIVITY _____ CHLORIDE CONTENT _____            |  |   |  | Formation Tested                  |               |
| Recovery Water _____ @ _____ °F. _____ ppm          |  |   |  | MISSISSIPPIAN                     |               |
| Recovery Mud _____ @ _____ °F. _____ ppm            |  |   |  | Elevation _____ Ft.               |               |
| Recovery Mud Filtrate _____ @ _____ °F. _____ ppm   |  |   |  | Net Productive Interval _____ Ft. |               |
| Mud Pit Sample _____ @ _____ °F. _____ ppm          |  |   |  | All Depths Measured From          |               |
| Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm |  |   |  | Kelly Bushing                     |               |
| Mud Weight _____ 9.7 vis _____ 42 sec.              |  |   |  | Total Depth                       |               |
| TYPE AMOUNT   |  |   |  | 4442' _____ Ft.                   |               |
| Cushion _____                                       |  |   |  | Main Hole/Casing Size             |               |
| Depth Back Pres. Valve _____                        |  |   |  | 7 7/8"                            |               |
| Surface Choke .25"                                  |  |   |  | Drill Collar Length               |               |
| Bottom Choke .75"                                   |  |   |  | 180' I.D. 2.25"                   |               |
| Recovered _____                                     |  |   |  | Drill Pipe Length                 |               |
| _____   |  |   |  | 4190' I.D. 3.826"                 |               |
| _____   |  |   |  | Packer Depth(s)                   |               |
| _____   |  |   |  | 4385' _____ Ft.                   |               |
| _____   |  |   |  | Depth Tester Valve                |               |
| _____   |  |   |  | 4373' _____ Ft.                   |               |
| Remarks - SEE PRODUCTION TEST DATA SHEET -          |  |   |  |                                   |               |
| TEMPERATURE   |  |   |  |                                   |               |
| Gauge No. 7342                                      |  | Gauge No. 7341                                  |  | Gauge No.                         |               |
| Depth: 4375 Ft.                                     |  | Depth: 4438 Ft.                                 |  | TIME (00:00-24:00 hrs.)           |               |
| 12 Hour Clock                                       |  | 12 Hour Clock                                   |  | Hour Clock                        |               |
| Blanked Off NO                                      |  | Blanked Off YES                                 |  | Blanked Off                       |               |
| Actual °F.  |  | Pressures                                       |  | Pressures                         |               |
| Field Office  |  | Field Office                                    |  | Field Office                      |               |
| Initial Hydrostatic                                 |  | 2242 2174.5                                     |  | Reported Computed                 |               |
| Flow Initial  |  | 94 104.5  |  | Minutes Minutes                   |               |
| Flow Final  |  | NO READINGS: 188 200.7                          |  | 30 *                              |               |
| Closed in   |  | STYLUS NOT 675 692.4                            |  | 70 *                              |               |
| Flow Initial  |  | ENGAGED..... 188 213.9                          |  | 90 *                              |               |
| Flow Final  |  | 207 219.1                                       |  | 90 *                              |               |
| Closed in   |  | 545 566.6                                       |  | 90 *                              |               |
| Flow Initial  |  | * = See attached incremental reading sheet..... |  |                                   |               |
| Flow Final  |  |   |  |                                   |               |
| Closed in   |  |   |  |                                   |               |
| Final Hydrostatic                                   |  | 2166 2212.6                                     |  |                                   |               |

Legal Location Sec. - Twp. - Rng. 17 - 17 - 26

Lease Name PETERSON

Well No. 1

Test No. 3

Tested Interval 4385' - 4442'

County NESS

State KANSAS

Lease Owner/Company Name RAINS & WILLIAMSON OIL COMPANY



RAINS & WILLIAMSON OIL COMPANY  
Lease Owner/Company Name

158576  
Ticket Number

B.T. 7342

B.T. 7341

B.T. \_\_\_\_\_

Depth 4375' - 12 hour

Depth 4438' - 12 Hour

Depth \_\_\_\_\_

| Time (minutes)                        | Log $\frac{t + t}{t}$ | PSIG Temp. Corr. | Time (minutes) | Log $\frac{t + t}{t}$ | PSIG Temp. Corr. | Time (minutes) | Log $\frac{t + t}{t}$ | PSIG Temp. Corr. |
|---------------------------------------|-----------------------|------------------|----------------|-----------------------|------------------|----------------|-----------------------|------------------|
| FIRST FLOW                            |                       |                  | FIRST FLOW     |                       |                  |                |                       |                  |
|                                       |                       |                  | 0              |                       | 104.5            |                |                       |                  |
|                                       |                       |                  | 5              |                       | 127.4            |                |                       |                  |
| NO READINGS - STYLUS NOT ENGAGED..... |                       |                  | 10             |                       | 133.2            |                |                       |                  |
|                                       |                       |                  | 15             |                       | 169.4            |                |                       |                  |
|                                       |                       |                  | 20             |                       | 174.2            |                |                       |                  |
|                                       |                       |                  | 25             |                       | 170.4            |                |                       |                  |
|                                       |                       |                  | 30             |                       | 197.2            |                |                       |                  |
|                                       |                       |                  | 35.1           |                       | 200.7            |                |                       |                  |
|                                       |                       |                  | FIRST CIP      |                       |                  |                |                       |                  |
|                                       |                       |                  | 0              |                       | 200.7            |                |                       |                  |
|                                       |                       |                  | 5              |                       | 376.1            |                |                       |                  |
|                                       |                       |                  | 10             |                       | 444.5            |                |                       |                  |
|                                       |                       |                  | 15             |                       | 489.0            |                |                       |                  |
|                                       |                       |                  | 20             |                       | 526.4            |                |                       |                  |
|                                       |                       |                  | 25             |                       | 554.0            |                |                       |                  |
|                                       |                       |                  | 30             |                       | 583.5            |                |                       |                  |
|                                       |                       |                  | 35             |                       | 604.4            |                |                       |                  |
|                                       |                       |                  | 40             |                       | 625.5            |                |                       |                  |
|                                       |                       |                  | 45             |                       | 644.2            |                |                       |                  |
|                                       |                       |                  | 50             |                       | 662.4            |                |                       |                  |
|                                       |                       |                  | 55             |                       | 678.7            |                |                       |                  |
|                                       |                       |                  | 59.8           |                       | 692.4            |                |                       |                  |
|                                       |                       |                  | SECOND FLOW    |                       |                  |                |                       |                  |
|                                       |                       |                  | 0              |                       | 213.9            |                |                       |                  |
|                                       |                       |                  | 15             |                       | 219.8            |                |                       |                  |
|                                       |                       |                  | 30             |                       | 228.6            |                |                       |                  |
|                                       |                       |                  | 45             |                       | 260.9            |                |                       |                  |
|                                       |                       |                  | 60             |                       | 213.9            |                |                       |                  |
|                                       |                       |                  | 75             |                       | 215.8            |                |                       |                  |
|                                       |                       |                  | 90.0           |                       | 219.1            |                |                       |                  |
|                                       |                       |                  | FINAL CIP      |                       |                  |                |                       |                  |
|                                       |                       |                  | 0              |                       | 219.1            |                |                       |                  |
|                                       |                       |                  | 6              |                       | 292.9            |                |                       |                  |
|                                       |                       |                  | 12             |                       | 327.1            |                |                       |                  |
|                                       |                       |                  | 18             |                       | 353.4            |                |                       |                  |
|                                       |                       |                  | 24             |                       | 379.8            |                |                       |                  |
|                                       |                       |                  | 30             |                       | 401.1            |                |                       |                  |
|                                       |                       |                  | 36             |                       | 420.3            |                |                       |                  |
|                                       |                       |                  | 42             |                       | 439.1            |                |                       |                  |
|                                       |                       |                  | 48             |                       | 455.7            |                |                       |                  |

Remarks: \_\_\_\_\_



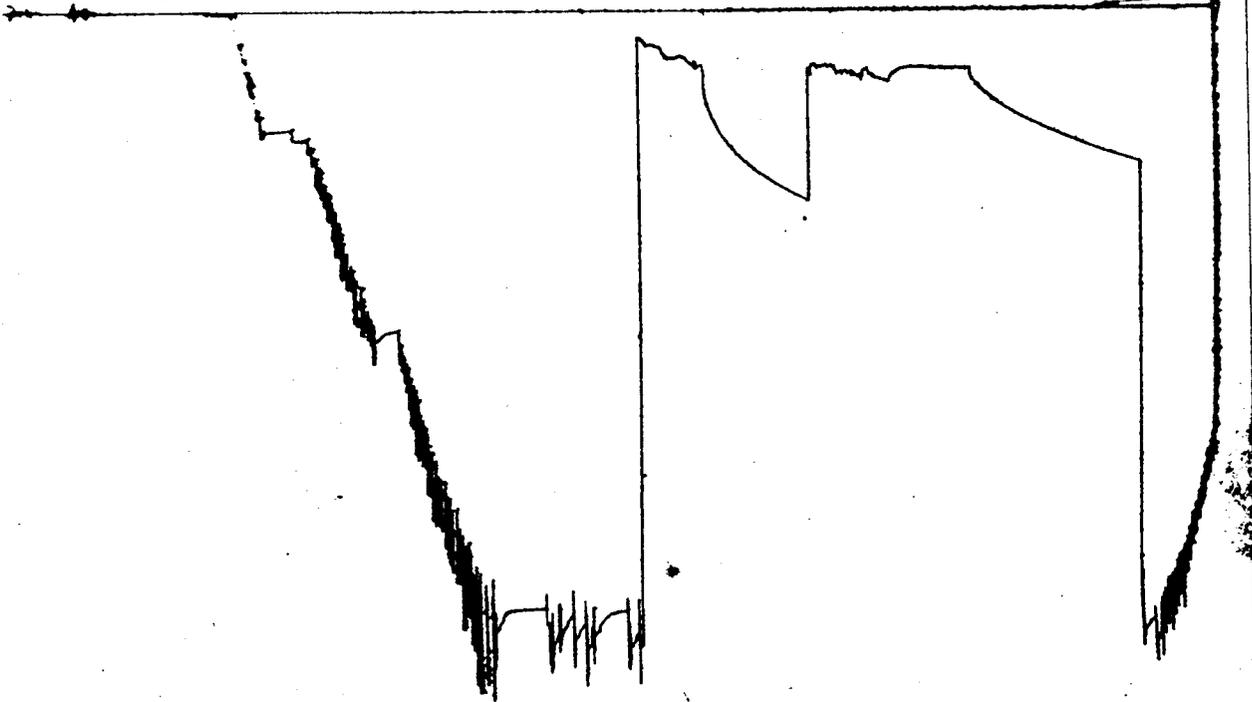


|                               | O. D. | I. D.  | LENGTH | DEPTH |
|-------------------------------|-------|--------|--------|-------|
| Drill Pipe or Tubing          |       |        |        |       |
| Drill Collars                 |       |        |        |       |
| Reversing Sub                 | 5"    | 3"     | 1'     | 4301' |
| Water Cushion Valve           |       |        |        |       |
| Drill Pipe                    | 4.5"  | 3.826" | 4190'  |       |
| Drill Collars                 | 6.25" | 2.25"  | 180'   |       |
| Handling Sub & Choke Assembly |       |        |        |       |
| Dual CIP Valve                | 5"    | .87"   | 6'     | 4363' |
| Dual CIP Sampler              |       |        |        |       |
| Hydro-Spring Tester           | 5"    | .75"   | 5'     | 4373' |
| Multiple CIP Sampler          |       |        |        |       |
| Extension Joint               |       |        |        |       |
| AP Running Case               | 5"    | 3.06"  | 4'     | 4375' |
| Hydraulic Jar                 |       |        |        |       |
| VR Safety Joint               | 5"    | 2.44"  | 3'     |       |
| Pressure Equalizing Crossover |       |        |        |       |
| Packer Assembly               | 6.75" | 1.53"  | 6'     | 4385' |
| Distributor                   |       |        |        |       |
| Packer Assembly               |       |        |        |       |
| 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"  | 51'    |       |
| Blanked-Off B.T. Running Case | 5"    | 2.44"  | 4'     | 4438' |
| Total Depth                   |       |        |        | 4442' |

158576-7342

↑  
PRESSURE  
↓

← TIME →



158576-7341

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