

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**Form must be Typed**

**Form must be Signed**

**All blanks must be Filled**

**WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

|  |   |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used  |                   |                           |                   |               |                |              |                            |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. |                   |                           |                   |               |                |              |                            |
| Purpose of String   | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |

| ADDITIONAL CEMENTING / SQUEEZE RECORD  |                  |                |              |                            |
|--|------------------|----------------|--------------|----------------------------|
| Purpose:   | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><input type="checkbox"/> Plug Off Zone |                  |                |              |                            |
|  |                  |                |              |                            |

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

|   |  |         |             |               |         |
|---|--|---------|-------------|---------------|---------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method:<br><input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ |         |             |               |         |
| Estimated Production Per 24 Hours                                   | Oil Bbls.  | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |

|   |  |                                    |
|---|--|------------------------------------|
| DISPOSITION OF GAS:<br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION:<br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5) (Submit ACO-4)</i> | PRODUCTION INTERVAL:<br>Top Bottom |
|---|--|------------------------------------|

| Shots Per Foot | Perforation Top | Perforation Bottom | Bridge Plug Type | Bridge Plug Set At | Acid, Fracture, Shot, Cementing Squeeze Record<br><i>(Amount and Kind of Material Used)</i> |
|----------------|-----------------|--------------------|------------------|--------------------|---|
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |
|                |                 |                    |                  |                    |   |

|                |       |         |            |  |
|----------------|-------|---------|------------|--|
| TUBING RECORD: | Size: | Set At: | Packer At: |  |
|----------------|-------|---------|------------|--|

|           |                         |
|-----------|-------------------------|
| Form      | ACO1 - Well Completion  |
| Operator  | Vincent Oil Corporation |
| Well Name | ROBINSON 1-22           |
| Doc ID    | 1359042                 |

All Electric Logs Run

|                   |
|-------------------|
|                   |
| Dual Induction    |
| Density - Neutron |
| Micro-log         |
| Sonic             |

|           |                         |
|-----------|-------------------------|
| Form      | ACO1 - Well Completion  |
| Operator  | Vincent Oil Corporation |
| Well Name | ROBINSON 1-22           |
| Doc ID    | 1359042                 |

Tops

| Name               | Top  | Datum   |
|--------------------|------|---------|
| Wabaunsee          | 2277 | (-647)  |
| Heebner            | 3185 | (-1555) |
| Brown Limestone    | 3398 | (-1768) |
| Lansing            | 3413 | (-1783) |
| Stark Shale        | 3752 | (-2122) |
| Hertha             | 3798 | (-2168) |
| Cherokee Shale     | 3988 | (-2358) |
| Mississippian      | 4066 | (-2436) |
| Mississippian Lime | 4152 | (-2522) |
| Kinderhook Shale   | 4266 | (-2636) |
| Viola              | 4427 | (-2797) |
| Simpson Sand       | 4467 | (-2837) |
| RTD                | 4565 | (-2935) |

|           |                         |
|-----------|-------------------------|
| Form      | ACO1 - Well Completion  |
| Operator  | Vincent Oil Corporation |
| Well Name | ROBINSON 1-22           |
| Doc ID    | 1359042                 |

#### Perforations

| Shots Per Foot | Perforation Record | Material Record  | Depth |
|----------------|--------------------|--|-------|
| 4              | 4066' to 4076'     | Perf, ran tubing to 4093, , Acdized with 750 gal 15% MCA,          |       |
|                |                    | Rigged up to swab, rec 40 bbls & line parted, SDFN.                |       |
|                |                    | Pulled tubing , repaired line reset tubing and rigged up to swb.   |       |
|                |                    | Swb 40 bbls and well KO , flow 39 bbls SI                          |       |
|                |                    | Swabed 24 bbls well flowing est 2.5 MMCFD, Shut in, released unit. |       |
|                |                    | Set surf equip, layed gas line, turned to production 5/21/17.      |       |
|                |                    | IP rate 350 MCFGD & 12 BWPD  |       |



# QUALITY WELL SERVICE, INC.

Federal Tax I.D. # 481187368

6631

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410  
Fax 620-672-3663

Rich's Cell 620-727-3409  
Brady's Cell 620-727-6964

|   |                |                       |                |   |                 |                            |                       |
|---|----------------|-----------------------|----------------|---|-----------------|----------------------------|-----------------------|
| Date <b>3-7-17</b>  | Sec. <b>27</b> | Twp. <b>28</b>        | Range <b>8</b> | County <b>Kingman</b>   | State <b>KS</b> | On Location <b>1:30 AM</b> | Finish <b>4:10 AM</b> |
| Lease <b>Robinson</b>   |                | Well No. <b>1-22</b>  |                | Location  |                 |                            |                       |
| Contractor <b>Duke</b>  |                |                       |                | Owner   |                 |                            |                       |
| Type Job <b>Surface</b>   |                |                       |                | To Quality Well Service, Inc.<br>You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |                 |                            |                       |
| Hole Size <b>12 1/4</b>   |                | T.D.                  |                | Charge To <b>Vincent</b>  |                 |                            |                       |
| Csg. <b>8 5/8</b>   |                | Depth <b>293'</b>     |                | Street  |                 |                            |                       |
| Tbg. Size   |                | Depth                 |                | City  |                 |                            |                       |
| Tool  |                | Depth                 |                | State   |                 |                            |                       |
| Cement Left in Csg. <b>20</b>   |                | Shoe Joint            |                | The above was done to satisfaction and supervision of owner agent or contractor.  |                 |                            |                       |
| Meas Line   |                | Displace <b>17.39</b> |                | Cement Amount Ordered <b>275.5x 60/40 2% Gel</b>  |                 |                            |                       |
| <b>EQUIPMENT</b>  |                |                       |                | <b>3%cc 1/4 C.F</b>   |                 |                            |                       |
| Pumptrk <b>8</b>  | No.            |                       |                | Common <b>165</b>   |                 |                            |                       |
| Bulktrk <b>9</b>  | No.            |                       |                | Poz. Mix <b>110</b>   |                 |                            |                       |
| Bulktrk   | No.            |                       |                | Gel. <b>5</b>   |                 |                            |                       |
| Pickup  | No.            |                       |                | Calcium <b>9</b>  |                 |                            |                       |
| <b>JOB SERVICES &amp; REMARKS</b>   |                |                       |                | <b>Hulls</b>  |                 |                            |                       |
| Rat Hole  |                |                       |                | Salt  |                 |                            |                       |
| Mouse Hole  |                |                       |                | Flowseal <b>68.75</b>   |                 |                            |                       |
| Centralizers  |                |                       |                | Kol-Seal  |                 |                            |                       |
| Baskets   |                |                       |                | Mud CLR 48  |                 |                            |                       |
| D/V or Port Collar  |                |                       |                | CFL-117 or CD110 CAF 38   |                 |                            |                       |
| <b>Ran 7 jts 8 5/8 csg broke circulation with rig. mixed 275.5x 60/40 2% gel 3%cc 1/4 C.F. Displaced with 17.39 bbls 1 1/2 cement did circulate</b> |                |                       |                | Sand  |                 |                            |                       |
|   |                |                       |                | Handling <b>289</b>   |                 |                            |                       |
|   |                |                       |                | Mileage <b>30</b>   |                 |                            |                       |
| <b>FLOAT EQUIPMENT</b>  |                |                       |                |   |                 |                            |                       |
|   |                |                       |                | Guide Shoe  |                 |                            |                       |
|   |                |                       |                | Centralizer   |                 |                            |                       |
|   |                |                       |                | Baskets   |                 |                            |                       |
|   |                |                       |                | AFU Inserts   |                 |                            |                       |
|   |                |                       |                | Float Shoe  |                 |                            |                       |
|   |                |                       |                | Latch Down  |                 |                            |                       |
|   |                |                       |                | <b>LMU 30</b>   |                 |                            |                       |
|   |                |                       |                | <b>Spade supervision</b>  |                 |                            |                       |
|   |                |                       |                | Pumptrk Charge <b>Surface</b>   |                 |                            |                       |
|   |                |                       |                | Mileage <b>600</b>  |                 |                            |                       |
|   |                |                       |                | Tax   |                 |                            |                       |
|   |                |                       |                | Discount  |                 |                            |                       |
|   |                |                       |                | Total Charge  |                 |                            |                       |
| X Signature   |                |                       |                |   |                 |                            |                       |

# QUALITY WELL SERVICE, INC.

Federal Tax I.D. # 481187368

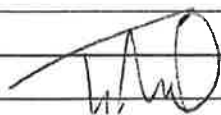
Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410  
Fax 620-672-3663

Rich's Cell 620-727-3409  
Brady's Cell 620-727-6964

|  |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
|--|-------------|----------|-------------------------|------|-------------------|-------|---|---|---------|-------|----|-------------|------------------|--------------|---------|-------------------|--|
| Date                                     | 3-17-17     | Sec.     | 22                      | Twp. | 28                | Range | 8 | County  | Kingman | State | KS | On Location | 6:15 am          | Finish       | 8:45 am |                   |  |
| Lease                                    | Robinson    | Well No. | 1-22                    |      | Location          |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Contractor                               | Duke        |          |                         |      |                   |       |   | Owner   |         |       |    |             |                  |              |         |                   |  |
| Type Job                                 | long string |          |                         |      |                   |       |   | To Quality Well Service, Inc.<br>You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |         |       |    |             |                  |              |         |                   |  |
| Hole Size                                | 7 7/8       |          | T.D.                    |      | 4565              |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Csg.                                     | 4.5 10.5 #  |          | Depth                   |      | 4230              |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Tbg. Size                                |             |          | Depth                   |      | Charge To Vincent |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Tool                                     |             |          | Depth                   |      | Street            |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Cement Left in Csg.                      |             |          | Shoe Joint              |      | 42.60             |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Meas Line                                |             |          | Displace                |      | 66.57             |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Cement Amount Ordered                    |             |          |                         |      |                   |       |   |   |         |       |    |             | 1.50 sacks pro c |              |         |                   |  |
| <b>EQUIPMENT</b>                         |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Pumptrk                                  | 8           | No.      | MKS                     |      | Common            |       |   |   |         |       |    |             |                  |              |         | 1.50 sacks pro c  |  |
| Bulktrk                                  | 9           | No.      | Deck                    |      | Poz. Mix          |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Bulktrk                                  |             | No.      |                         |      | Gel.              |       |   |   |         |       |    |             |                  |              |         | 3                 |  |
| Pickup                                   |             | No.      | Derrick                 |      | Calcium           |       |   |   |         |       |    |             |                  |              |         | >                 |  |
| <b>JOB SERVICES &amp; REMARKS</b>        |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Rat Hole                                 | 30          |          | Salt                    |      |                   |       |   |   |         |       |    |             |                  |              |         | 16 salt           |  |
| Mouse Hole                               | 20          |          | Flowseal                |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Centralizers                             |             |          | Kol-Seal                |      |                   |       |   |   |         |       |    |             |                  |              |         | 750               |  |
| Baskets                                  |             |          | Mud CLR 48              |      |                   |       |   |   |         |       |    |             |                  |              |         | 500 gal mud flush |  |
| D/V or Port Collar                       |             |          | CFL-117 or CD110 CAF 38 |      |                   |       |   |   |         |       |    |             |                  |              |         | CC-1 60 gallons   |  |
| Pipe on bottom broke circulation         |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| circulated 1hr. Pumped Pre flush         |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| pumped 30 sacks Rat hole 20 sacks mouse  |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| hole. Mixed and pumped 100 sacks cement. |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| washed up, released plug, displaced      |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| with 66.57 bbls KCL water. Landed        |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| plug @ 1200psi, released float hole.     |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| <b>FLOAT EQUIPMENT</b>                   |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Guide Shoe                               | 1           |          | 4.5                     |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Centralizer                              | 4           |          | 4.5                     |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Baskets                                  | 1           |          | 4.5                     |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| AFU Inserts                              | 1           |          | 4.5                     |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Float Shoe                               | 1           |          | Rubber Plug             |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Latch Down                               |             |          | LMU 30                  |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Service Supervisor                       |             |          |                         |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Pumptrk Charge                           |             |          | Long string             |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
| Mileage                                  |             |          | 120                     |      |                   |       |   |   |         |       |    |             |                  |              |         |                   |  |
|  |             |          |                         |      |                   |       |   |   |         |       |    |             |                  | Tax          |         |                   |  |
|  |             |          |                         |      |                   |       |   |   |         |       |    |             |                  | Discount     |         |                   |  |
|  |             |          |                         |      |                   |       |   |   |         |       |    |             |                  | Total Charge |         |                   |  |

X Signature







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Vincent Oil Corporation  
200 W Douglas Ave #725  
Wichita, KS 67202  
ATTN: Tom Dudgeon

**22-28S-8W Kingman**  
**Robinson 1-22**  
Job Ticket: 59926      **DST#: 1**  
Test Start: 2017.03.12 @ 10:34:05

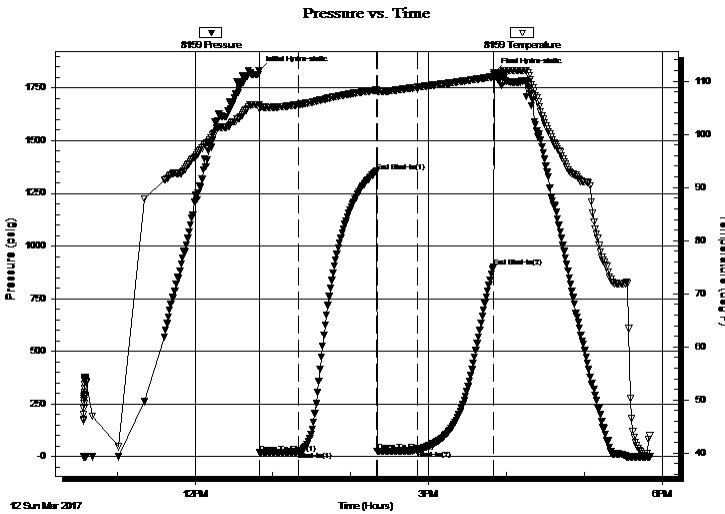
## GENERAL INFORMATION:

Formation: **Swope**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:49:50  
Time Test Ended: 17:50:20  
Interval: **3702.00 ft (KB) To 3770.00 ft (KB) (TVD)**  
Total Depth: 3770.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Leal Cason  
Unit No: 74  
Reference Elevations: 1630.00 ft (KB)  
1622.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8159      Inside**  
Press@RunDepth: 30.29 psig @ 3703.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2017.03.12      End Date: 2017.03.12      Last Calib.: 2017.03.12  
Start Time: 10:34:06      End Time: 17:50:20      Time On Btm: 2017.03.12 @ 12:49:20  
Time Off Btm: 2017.03.12 @ 15:50:20

**TEST COMMENT:** IF: Weak 1/4 inch Blow  
IS: No Blow Back  
FF: Weak Surface Blow  
FS: No Blow Back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1833.72         | 105.61       | Initial Hydro-static |
| 1           | 17.05           | 104.81       | Open To Flow (1)     |
| 31          | 21.79           | 105.62       | Shut-In(1)           |
| 91          | 1354.26         | 108.34       | End Shut-In(1)       |
| 92          | 22.80           | 108.01       | Open To Flow (2)     |
| 122         | 30.29           | 108.87       | Shut-In(2)           |
| 181         | 897.67          | 110.84       | End Shut-In(2)       |
| 181         | 1824.00         | 111.27       | Final Hydro-static   |

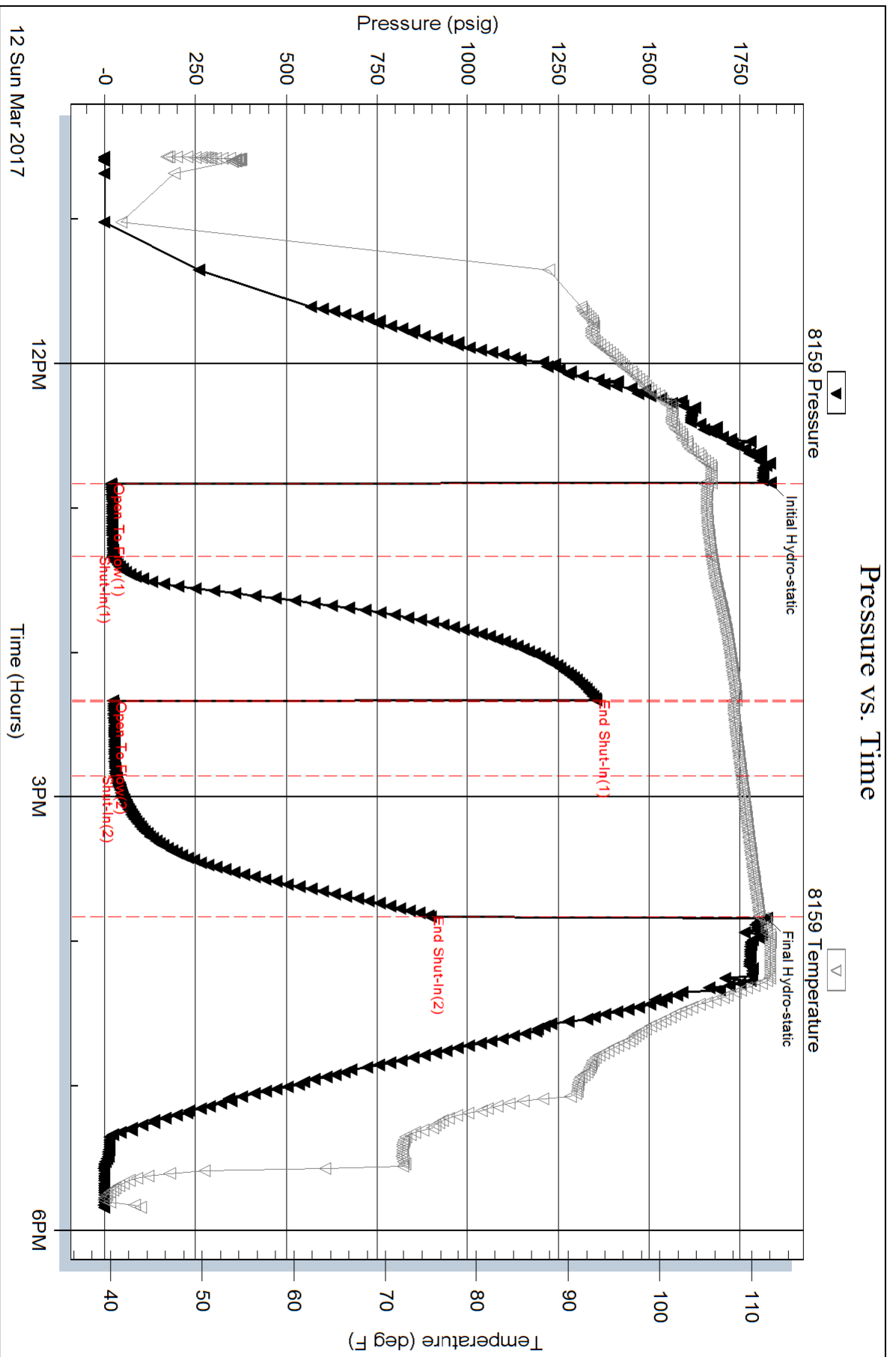
## Recovery

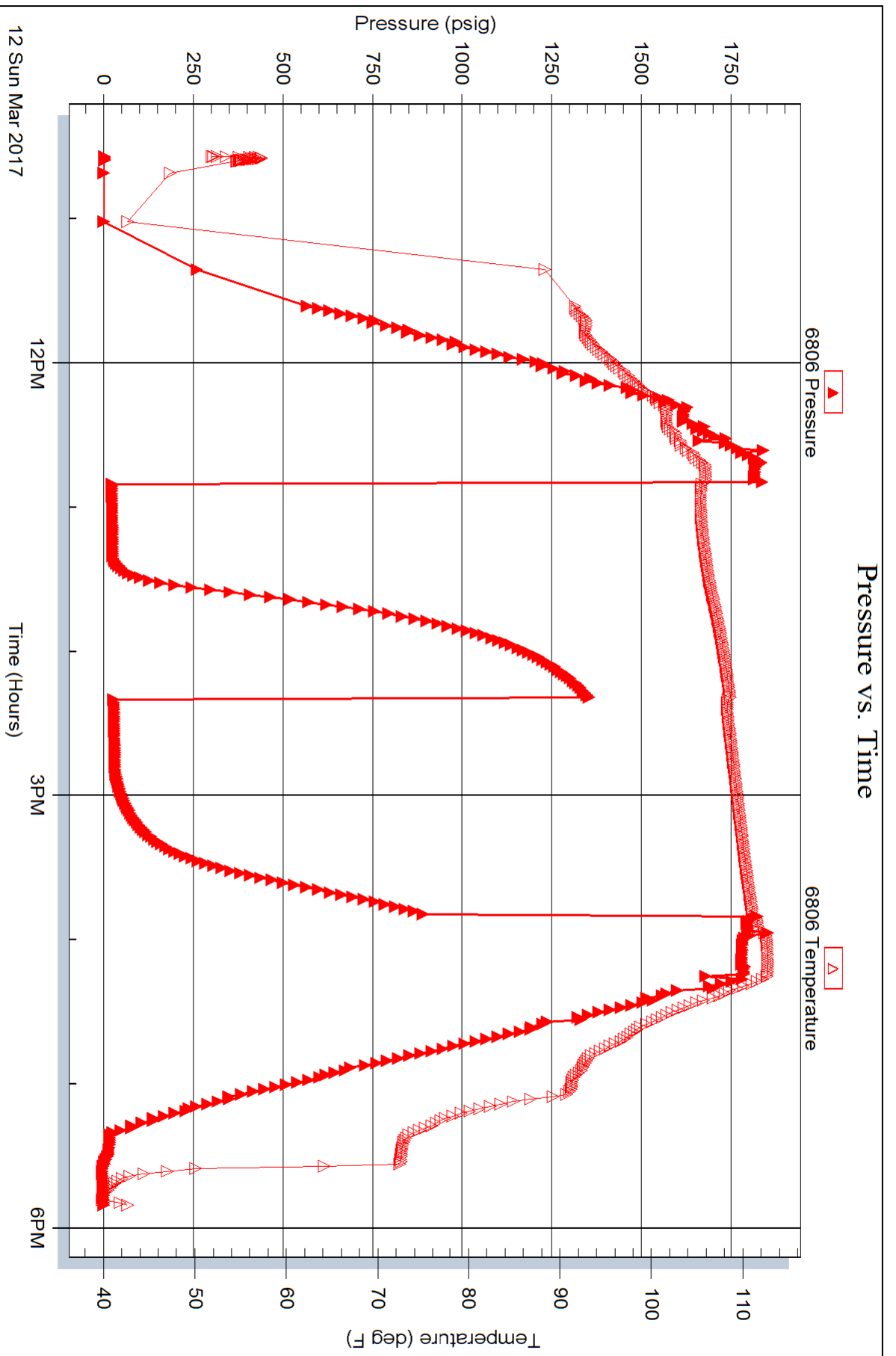
| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 30.00       | SGCM 2%G 98%M | 0.42         |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |

## Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |









**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Vincent Oil Corporation  
 200 W Douglas Ave #725  
 Wichita, KS 67202  
 ATTN: Tom Dudgeon

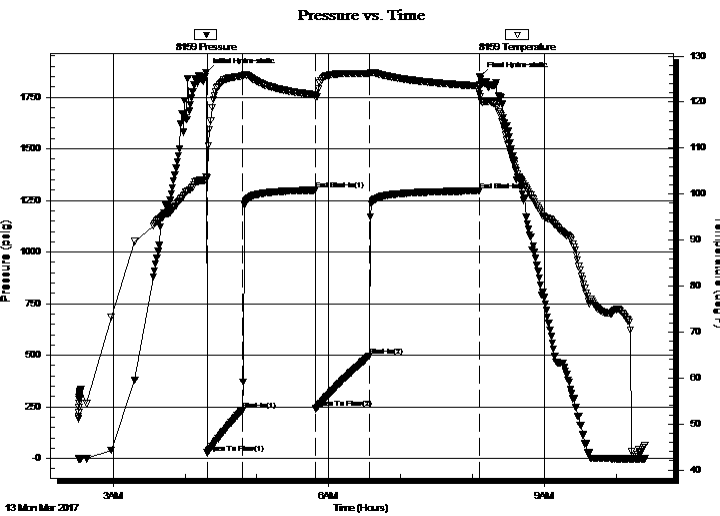
**22-28S-8W Kingman**  
**Robinson 1-22**  
 Job Ticket: 59927      **DST#: 2**  
 Test Start: 2017.03.13 @ 02:31:15

## GENERAL INFORMATION:

Formation: **Hertha**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 04:18:30  
 Tester: Leal Cason  
 Time Test Ended: 10:23:30  
 Unit No: 74  
 Interval: **3786.00 ft (KB) To 3805.00 ft (KB) (TVD)**  
 Reference Elevations: 1630.00 ft (KB)  
 Total Depth: 3805.00 ft (KB) (TVD) 1622.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

**Serial #: 8159 Inside**  
 Press@RunDepth: 497.34 psig @ 3787.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.03.13 End Date: 2017.03.13 Last Calib.: 2017.03.13  
 Start Time: 02:31:16 End Time: 10:23:30 Time On Btm: 2017.03.13 @ 04:17:30  
 Time Off Btm: 2017.03.13 @ 08:06:00

**TEST COMMENT:** IF: Strong Blow , BOB in 8 minutes  
 IS: No Blow Back  
 FF: Fair Blow , BOB in 10 minutes  
 FS: No Blow Back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1870.30         | 103.64       | Initial Hydro-static |
| 1           | 26.72           | 103.53       | Open To Flow (1)     |
| 31          | 234.81          | 125.70       | Shut-In(1)           |
| 92          | 1299.99         | 121.61       | End Shut-In(1)       |
| 92          | 241.44          | 121.09       | Open To Flow (2)     |
| 137         | 497.34          | 126.19       | Shut-In(2)           |
| 228         | 1296.29         | 123.49       | End Shut-In(2)       |
| 229         | 1849.38         | 123.24       | Final Hydro-static   |

## Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 1071.00     | Water         | 15.02        |
| 30.00       | MCW 20%M 80%W | 0.42         |
|             |               |              |
|             |               |              |
|             |               |              |

\* Recovery from multiple tests

## Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vincent Oil Corporation

**22-28S-8W Kingman**

200 W Douglas Ave #725  
Wichita, KS 67202

**Robinson 1-22**

Job Ticket: 59927

**DST#: 2**

ATTN: Tom Dudgeon

Test Start: 2017.03.13 @ 02:31:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

85000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 1071.00      | Water         | 15.023        |
| 30.00        | MCW 20%M 80%W | 0.421         |

Total Length: 1101.00 ft      Total Volume: 15.444 bbl

Num Fluid Samples: 0

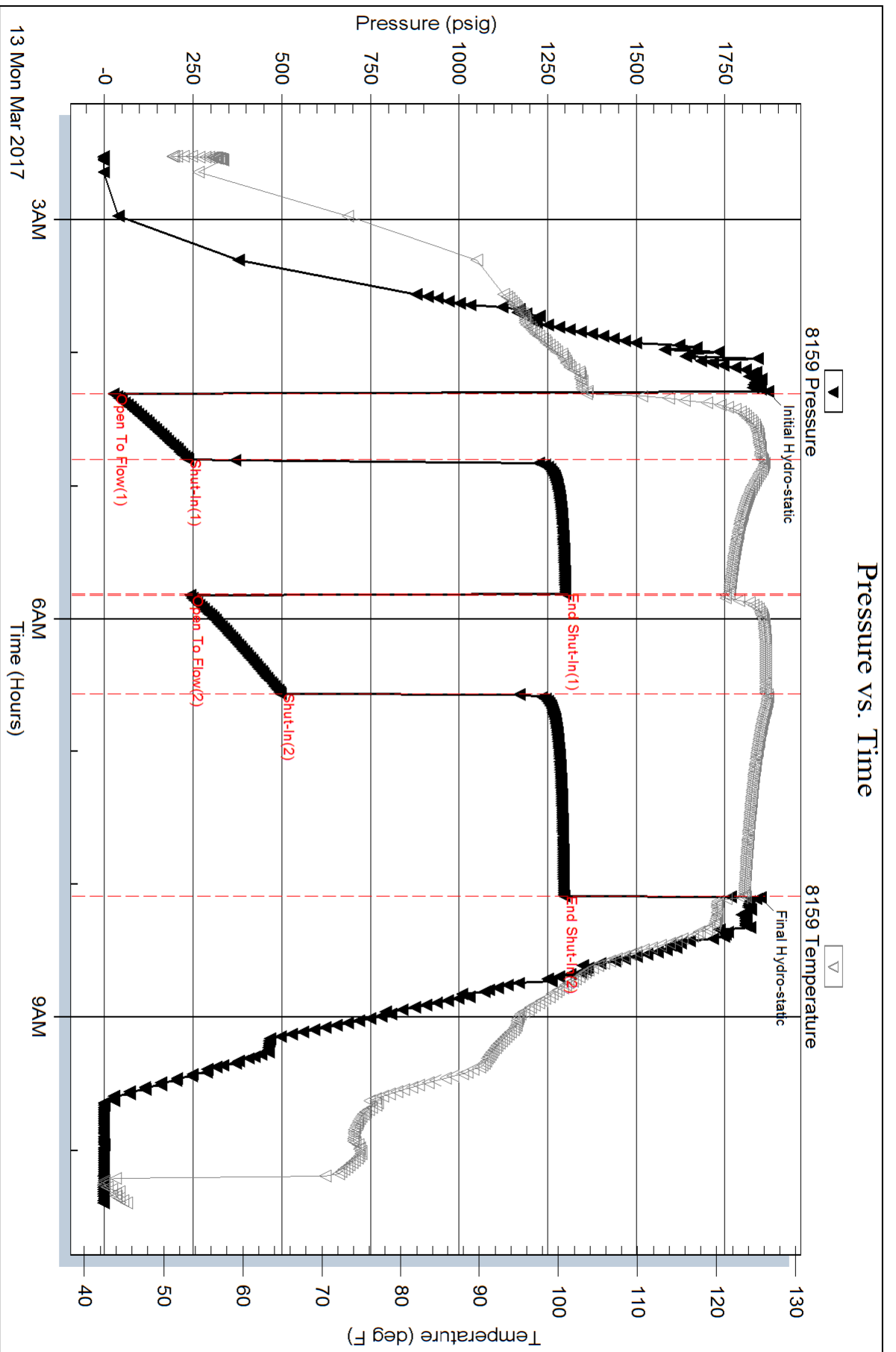
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .15 @ 43 degrees



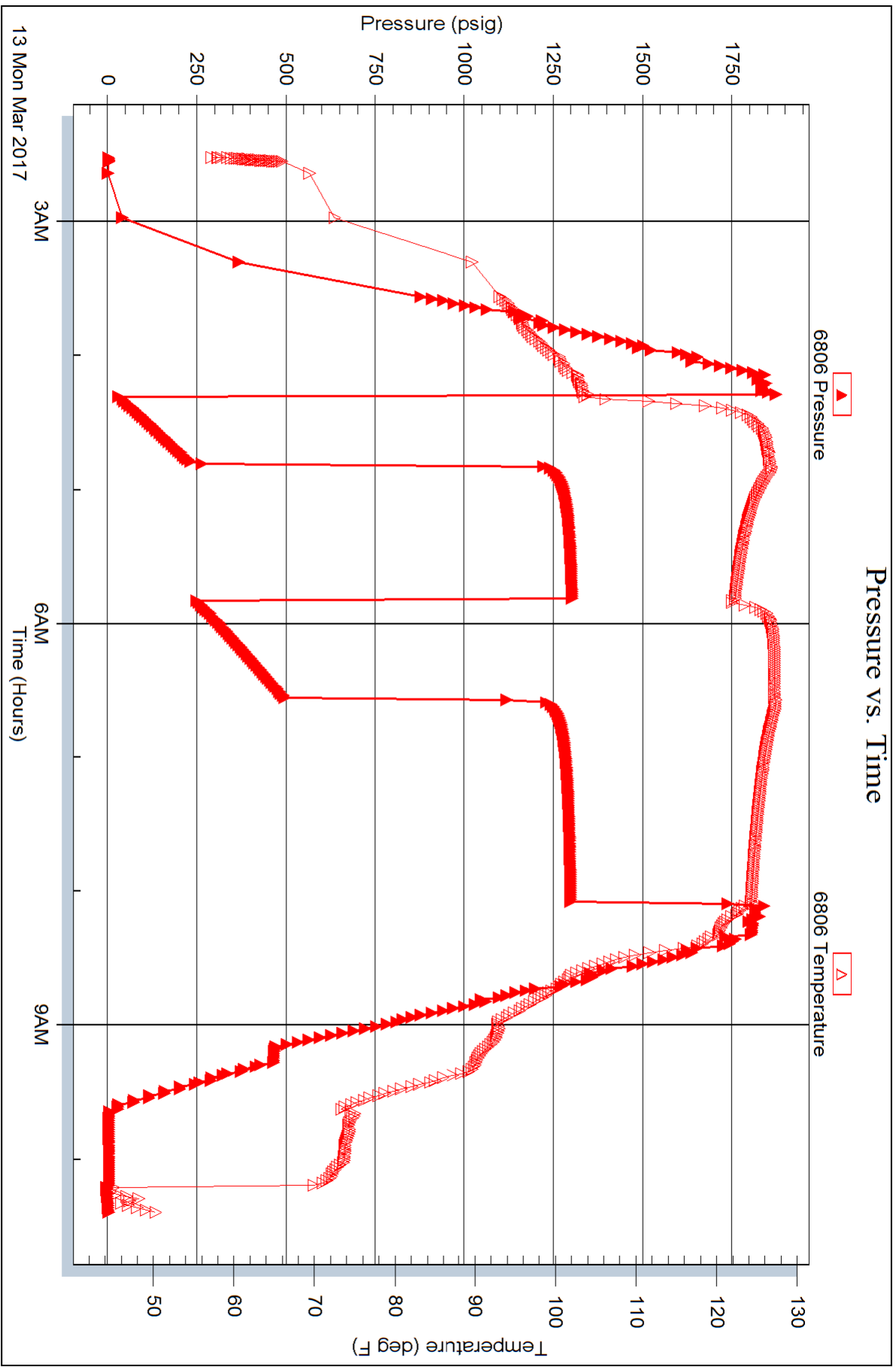


Serial #: 6806

Outside Vincent Oil Corporation

Robinson 1-22

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 59927

Printed: 2017.03.13 @ 11:01:08



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Vincent Oil Corporation  
 200 W Douglas Ave #725  
 Wichita, KS 67202  
 ATTN: Tom Dudgeon

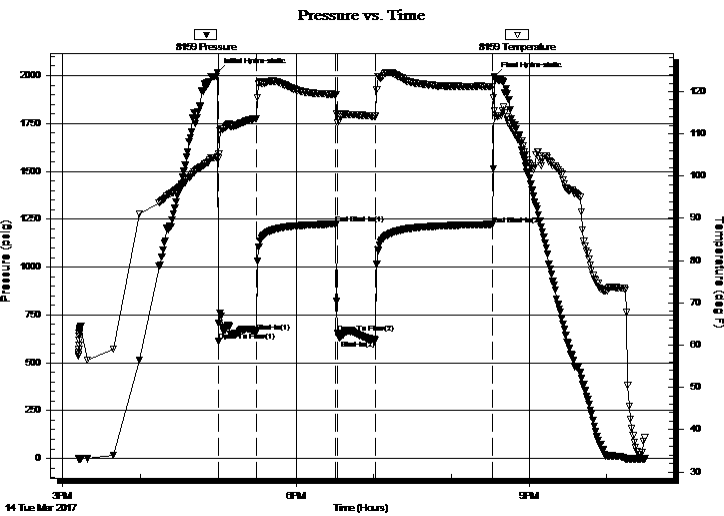
**22-28S-8W Kingman**  
**Robinson 1-22**  
 Job Ticket: 59928      **DST#: 3**  
 Test Start: 2017.03.14 @ 15:12:09

## GENERAL INFORMATION:

Formation: **Mississippi**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 17:00:09 Tester: Leal Cason  
 Time Test Ended: 22:29:39 Unit No: 74  
 Interval: **4007.00 ft (KB) To 4090.00 ft (KB) (TVD)** Reference Elevations: 1630.00 ft (KB)  
 Total Depth: 4090.00 ft (KB) (TVD) 1622.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

**Serial #: 8159 Inside**  
 Press@RunDepth: 618.67 psig @ 4008.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.03.14 End Date: 2017.03.14 Last Calib.: 2017.03.14  
 Start Time: 15:12:10 End Time: 22:29:39 Time On Btm: 2017.03.14 @ 16:59:24  
 Time Off Btm: 2017.03.14 @ 20:33:24

**TEST COMMENT:** IF: Strong Blow , BOB in 30 seconds, GTS in 3 minutes, Gauged & Caught Sample  
 IS: Would Not Bleed Off  
 FF: Strong Blow , BOB & GTS immediate, Gauged Gas  
 FSI: No Blow Back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2016.18         | 104.53       | Initial Hydro-static |
| 1           | 610.32          | 104.19       | Open To Flow (1)     |
| 30          | 661.53          | 113.66       | Shut-In(1)           |
| 92          | 1224.53         | 119.31       | End Shut-In(1)       |
| 93          | 653.65          | 112.72       | Open To Flow (2)     |
| 122         | 618.67          | 114.14       | Shut-In(2)           |
| 213         | 1222.39         | 121.17       | End Shut-In(2)       |
| 214         | 1993.26         | 115.53       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 0.00        | 3852 GIP    | 0.00         |
| 140.00      | Mud         | 1.96         |
|             |             |              |
|             |             |              |
|             |             |              |

\* Recovery from multiple tests

## Gas Rates

|                | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.50           | 209.00          | 1506.99          |
| Last Gas Rate  | 1.00           | 100.00          | 3288.86          |
| Max. Gas Rate  | 0.50           | 209.00          | 1506.99          |





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vincent Oil Corporation

**22-28S-8W Kingman**

200 W Douglas Ave #725  
Wichita, KS 67202

**Robinson 1-22**

Job Ticket: 59928

**DST#: 3**

ATTN: Tom Dudgeon

Test Start: 2017.03.14 @ 15:12:09

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 0.00         | 3852 GIP    | 0.000         |
| 140.00       | Mud         | 1.964         |

Total Length: 140.00 ft      Total Volume: 1.964 bbl

Num Fluid Samples: 0

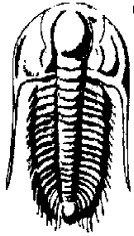
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Vincent Oil Corporation  
200 W Douglas Ave #725  
Wichita, KS 67202  
ATTN: Tom Dudgeon

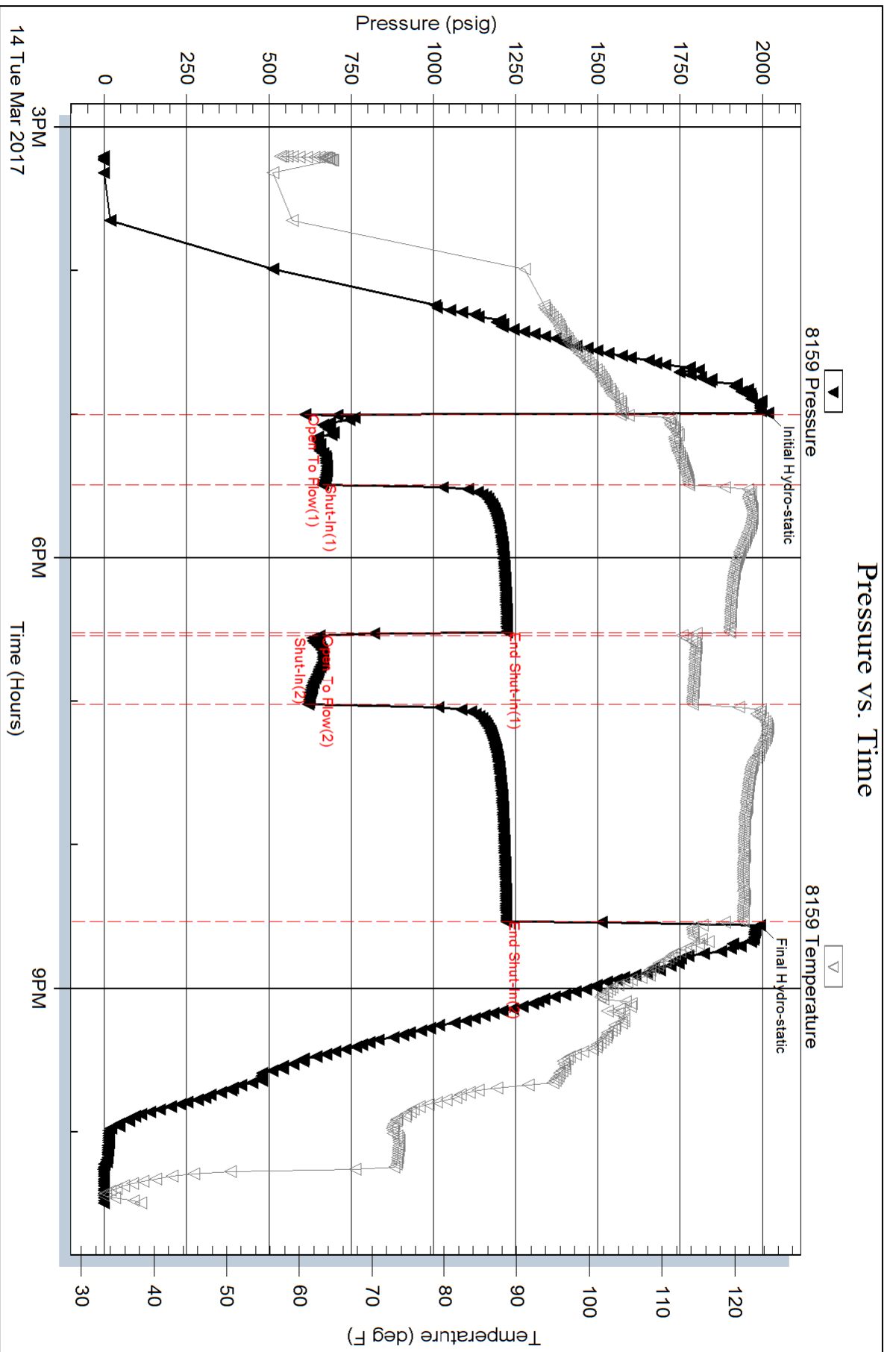
**22-28S-8W Kingman**  
**Robinson 1-22**  
Job Ticket: 59928      **DST#: 3**  
Test Start: 2017.03.14 @ 15:12:09

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

| Flow Period | Elapsed Time | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|-------------|--------------|----------------|-----------------|------------------|
| 1           | 10           | 0.50           | 209.00          | 1506.99          |
| 1           | 20           | 1.00           | 90.00           | 3001.38          |
| 1           | 30           | 1.00           | 100.00          | 3288.86          |
| 2           | 10           | 1.00           | 100.00          | 3288.86          |
| 2           | 20           | 1.00           | 100.00          | 3288.86          |
| 2           | 30           | 1.00           | 100.00          | 3288.86          |







Scale 1:240 Imperial

Well Name: Robinson 1-22  
Surface Location: 633 FSL 1365 FWL 22-28S8W  
Bottom Location: NW SW SE SW  
API: 15-095-22307-00-00  
License Number: 5004  
Spud Date: 3/6/2017 Time: 6:00 PM  
Region: So Cen KS  
Drilling Completed: 3/16/2017 Time: 8:38 AM  
Surface Coordinates: 603' FSL & 1315' FWL  
Bottom Hole Coordinates:  
Ground Elevation: 1622.00ft  
K.B. Elevation: 1630.00ft  
Logged Interval: 1300.00ft To: 4565.00ft  
Total Depth: 4565.00ft  
Formation: Mississippian  
Drilling Fluid Type: Chemical

#### OPERATOR

Company: Vincent Oil Corporation  
Address: 200 W Douglas Ave  
Ste 725  
Wichita, KS 67202  
Contact Geologist: Dick Jordan  
Contact Phone Nbr: 3162623573  
Well Name: Robinson 1-22  
Location: 633 FSL 1365 FWL 22-28S8W API: 15-095-22307-00-00  
Pool: Developmental Field: Garlisch West  
State: KS Country: USA

#### LOGGED BY

Company: Vincent Oil Corporation  
Address: 200 W Douglas Av  
Ste 725  
Wichita KS 67202  
Phone Nbr: 3162623573  
Logged By: Geologist Name: Tom Dudgeon

#### CONTRACTOR

Contractor: Duke Drilling Co. Inc.  
Rig #: 8  
Rig Type: Rotary  
Spud Date: 3/6/2017 Time: 6:00 PM  
TD Date: 3/16/2017 Time: 8:38 AM  
Rig Release: 3/17/2017 Time: 8:45 AM

#### SURFACE CO-ORDINATES

Well Type: Vertical  
Longitude: 08 1855271  
Latitude: 37 5006454



Longitude: -96.1855271  
 N/S Co-ord: 603' FSL  
 E/W Co-ord: 1315' FWL

Latitude: 37.5906434

### ELEVATIONS

K.B. Elevation: 1630.00ft      Ground Elevation: 1622.00ft  
 K.B. to Ground: 8.00ft

### TOTAL DEPTH

|                   |                    |         |
|-------------------|--------------------|---------|
| Measurement Type: | Measurement Depth: | TVD:    |
| RTD               | 4565.00            | 4568.00 |
| LTD               | 4568.00            | 4568.00 |

### DRILLING FLUID SUMMARY

|              |           |            |           |
|--------------|-----------|------------|-----------|
| Type         | Date      | From Depth | To Depth  |
| Chemical Mud | 3/10/2017 | 3024.00ft  | 4565.00ft |

### CASING SUMMARY

|             |          |              |         |             |                   |
|-------------|----------|--------------|---------|-------------|-------------------|
|             | Surface  | Intermediate | Main    |             |                   |
| Bit Size    | 12.25 in |              | 7.88 in |             |                   |
| Hole Size   | 12.25 in |              | 7.88 in |             |                   |
|             | Size     | Set At       | Type    | # of Joints | Drilled Out At    |
| Surf Casing | 8.625 in | 291 ft       | 23#     | 7           | 3/7/2017 12:00 PM |
| Int Casing  |          |              |         |             |                   |
| Prod Casing | 4.5 in   | 4227 ft      | 10.5#   | 99          |                   |

### CASING SEQUENCE

|            |           |             |            |
|------------|-----------|-------------|------------|
| Type       | Hole Size | Casing Size | At         |
| Surface    | 12.25 in  | 8.63        | 291.00 ft  |
| Production | 7.78 in   | 4.50        | 4227.00 ft |

### OPEN HOLE LOGS

Logging Company: ELI Wireline  
 Logging Engineer: Jeff Luebbers  
 Truck #: 922339  
 Logging Date: 3/16/2017      Time Spent: 6  
 # Logs Run: 4      # Logs Run Successful: 4

### LOGS RUN

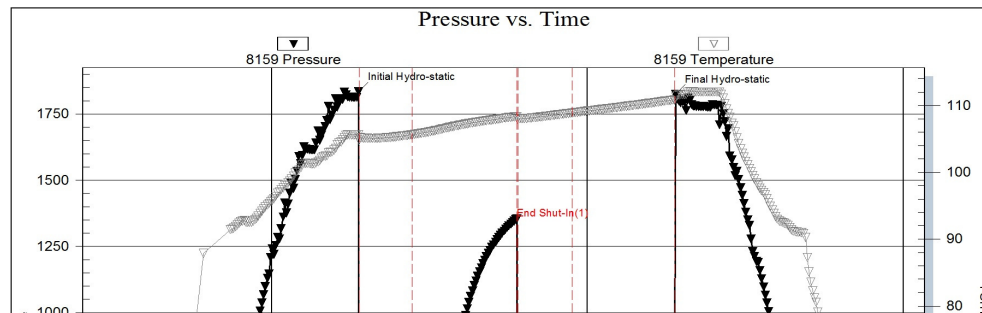
| Tool       | Logged Interval | Logged Interval | Hours | Remarks | Run # |
|------------|-----------------|-----------------|-------|---------|-------|
| DI         | 0.00ft          | 4568.00ft       | 3.00  |         | 1     |
| NDE/NEU/PE | 3100.00ft       | 4568.00ft       | 3.00  |         | 1     |
| Micro      | 3100.00ft       | 4568.00ft       | 3.00  |         | 2     |
| Sonic      | 0.00ft          | 4568.00ft       | 3.00  |         | 2     |

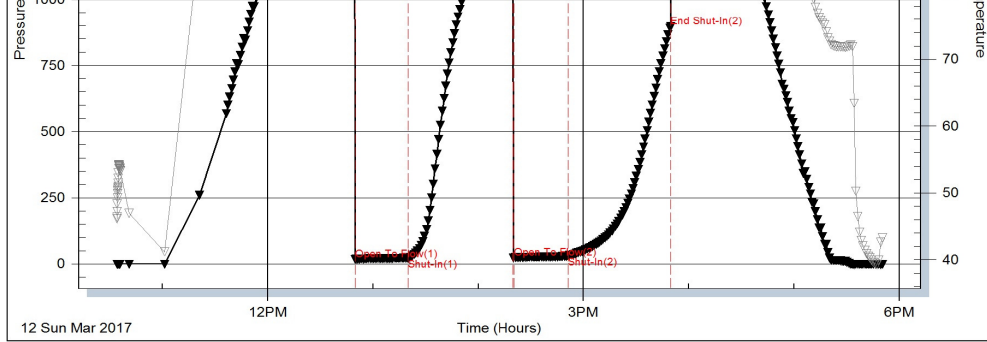
### LOGGING OPERATION SUMMARY

| Date     | From   | To        | Description Of Operation |
|----------|--------|-----------|--------------------------|
| 3/7/2017 | 0.00ft | 4568.00ft | Logs ran successfully    |

### DST #1

Serial #: 8159      Inside      Vincent Oil Corporation      Robinson #1-22      DST Test Number: 1





Trilobe Testing, Inc

Ref. No: 59926

Printed: 2017.03.16 @ 09:51:09

### DST #2

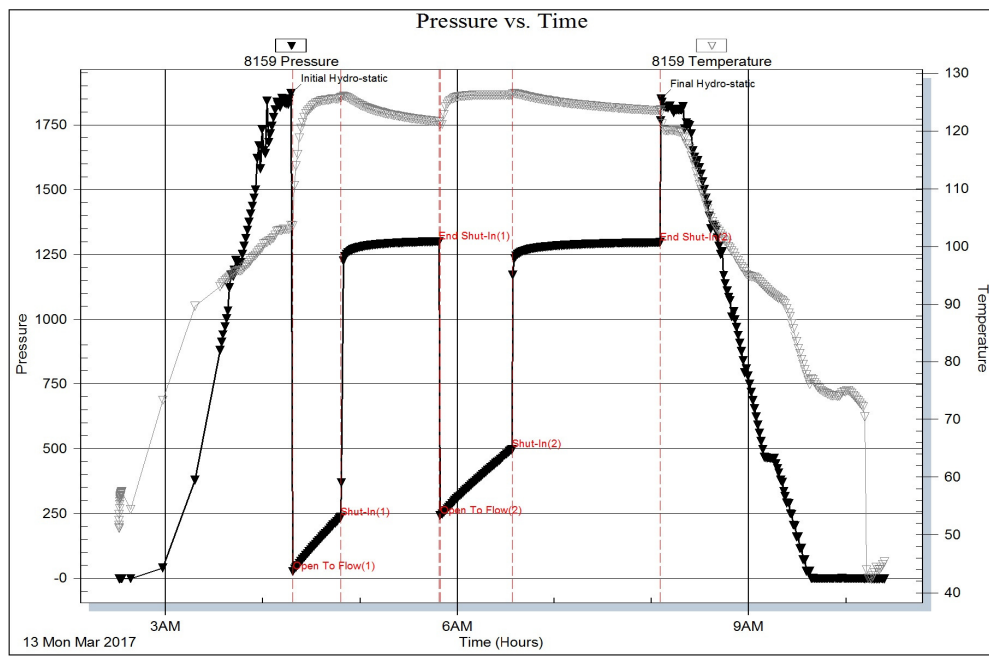
Serial #: 8159

Inside

Vincent Oil Corporation

Robinson #1-22

DST Test Number: 2



Trilobe Testing, Inc

Ref. No: 59927

Printed: 2017.03.16 @ 09:50:19

### DST #3

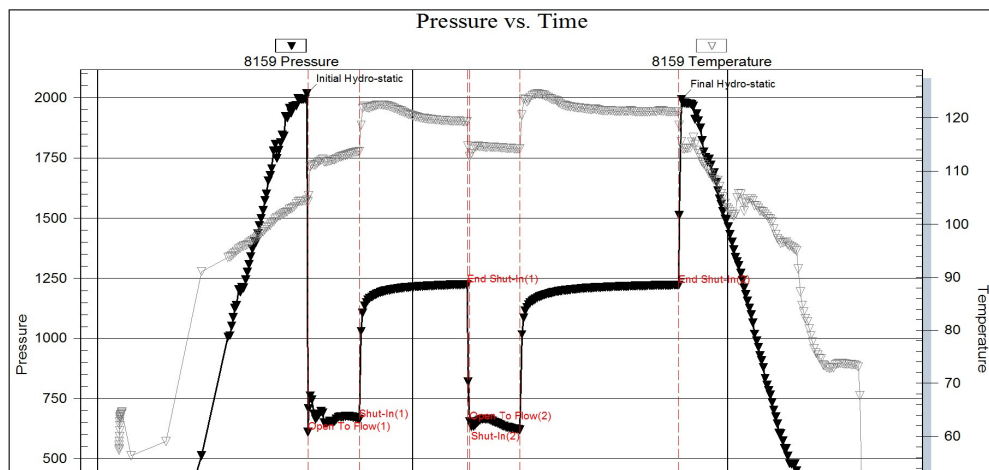
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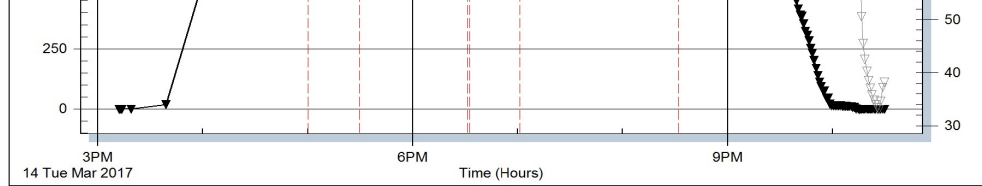
Inside

Vincent Oil Corporation

Robinson #1-22

DST Test Number: 3





Triobite Testing, Inc

Ref. No: 59928

Printed: 2017.03.16 @ 10:03:18

### NOTES

|  |       |       |             |
|--|-------|-------|-------------|
| Robinson 1-22 Tops                       |       |       |             |
| Key well: Simmons 2-22, S2 SE SE 2-28-8W |       |       |             |
| TOP                                      | DEPTH | DATUM | STRUCT. +/- |
| B/Flor                                   | 1709  | -79   | -20         |
| Cottnwd                                  | 1913  | -283  | -26         |
| Onaga                                    | 2237  | -607  | -25         |
| Wab                                      | 2283  | -653  | -19         |
| Stotler                                  | 2431  | -801  | -17         |
| Topeka                                   | 2802  | -1172 | -6          |
| Heebner                                  | 3184  | -1554 | -7          |
| Brn Ln                                   | 3396  | -1766 | -8          |
| Lans                                     | 3410  | -1780 | -6          |
| Stark                                    | 3750  | -2120 | -5          |
| Swope                                    | 3760  | -2130 | -2          |
| Hush                                     | 3789  | -2159 | -4          |
| Hertha                                   | 3797  | -2167 | -2          |
| Cher                                     | 3989  | -2359 | -6          |
| Miss                                     | 4078  | -2448 | -3          |
| Miss Lm                                  | 4150  | -2520 | 4           |
| Kind                                     | 4264  | -2634 | 1           |
| Viola                                    | 4427  | -2797 | -10         |
| Simp Sd                                  | 4469  | -2839 | -10         |

### ROCK TYPES

|       |           |       |       |
|-------|-----------|-------|-------|
| Cht   | Dolsec    | Ss    | Shcol |
| Coal  | Gyp       | Shgy  |       |
| Congl | Lmst fw<7 | Shblk |       |

### ACCESSORIES

#### MINERAL

- ⊥ Calcareous
- Carbonaceous Flakes
- ▲ Chert, dark
- ∩ Glauconite
- ∟ Gypsiferous
- Heavy, dark minerals
- × Mineral Crystals
- P Pyrite
- ▣ Salt Cast or Infill
- Sandy
- Silty
- △ Chert White

#### FOSSIL

- ∩ Coral
- ⊙ Crinoids
- ∩ Foraminifera
- F Fossils < 20%
- ⊙ Oolite

#### STRINGER

- Sandstone

#### TEXTURE

- C Chalky
- e Earthy
- FX Finexin

### OTHER SYMBOLS

#### POROSITY TYPE

- × Intercrystalline
- ⊕ Interoolitic
- V Vuggy
- P Pinpoint
- ∟ Moldic

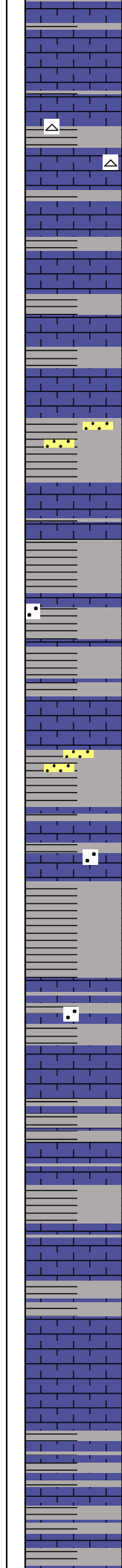
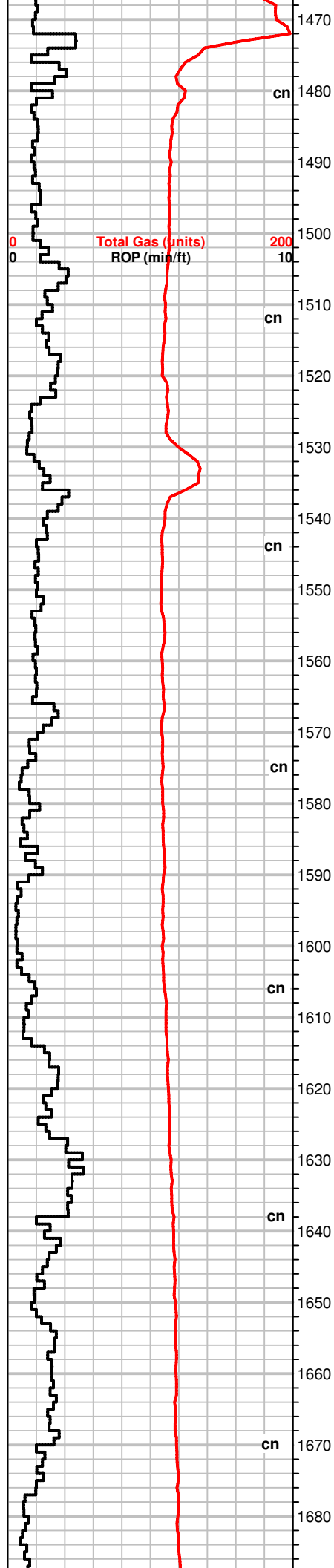
#### OIL SHOWS

- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- Questionable Stn

#### INTERVALS

- Core
- DST





MS, gray to crm, f-xln, earthy pcs, hard, NS, no odor  
scatt SH, grays, scatt red, dec. amt.

MS-WS, crm to lt. gray, f-xln, gritty txt, chalky to shaly pcs, firm,  
rare dull fluor, NS, Chert, opaque  
SH, gray, red, rare green

MS, crm to off white, f-xln, chalky  
SH, red, green, gray

SH, dk. gray, gray, red, scatt SS clusters, f-gr, rnded, sorted, rare  
gray MS, A.A.

SH, grays, sea green, red  
MS-WS, gray, f-xln, frim, NS, dull fluor scatt

Influx SH, red, some gray, brn, sandy, some Qtz grs, rnded, t to m-  
gr.

SH, A.A., lesser red, scatt WS, crm, f-xln, friable, sandy pcs,  
gypsum xtals

MS-WS, crm, f-xln, some pcs m-xln, gritty txt, soft, NS  
SH, gray, scatt red, some silty pcs

SH, red, grays, sea green  
rare MS, gray, vf-xln, firm, NS

SH, gray, red, green  
MS, crm, f-xln, earthy, NS

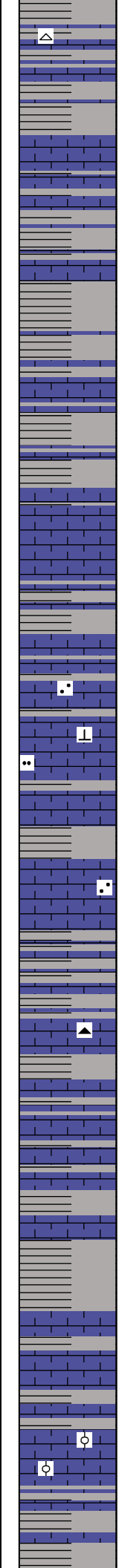
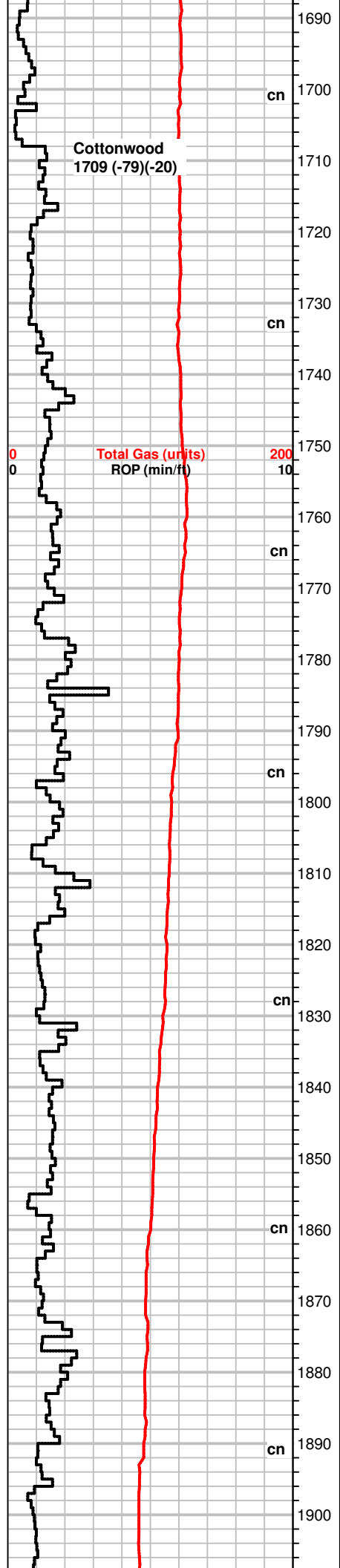
SH, gray, green, lesser red pcs

SH, A.A.

+98 UGK

1512' Air out Mud Pump

+20 UGK



SH, A.A.  
MS-WS, crm, mic to f-xln, hard to firm, scatt moldic pcs, oolitic pcs  
rare, NS, rare Chert, opaque

MS, crm to lt. gray, f-xln, gritty txt, soft, NS  
SH, gray, red

SH, grays, pyrite, sea green, carry mostly SH and some gypsum.

SH, gray to green, red, silty  
rare MS, gray, f-xln, silty in part, soft to firm, NS

MS-WS, lt. gray, vf-gr gritty txt, micro oolitic  
SH, green, gray, washed red

SH, gray, dk. gray(influx of gray pcs), WS, off white to gray, mic-  
xln, sandy to silty, calcitic cement in pcs, fossilif., NS

SH, grays, greenish gray, some shaly MS, gray, gritty txt, NS

SH, grays, green, red,  
MS, gray, vf-xln, silty/shaly, NS, Chert, blk

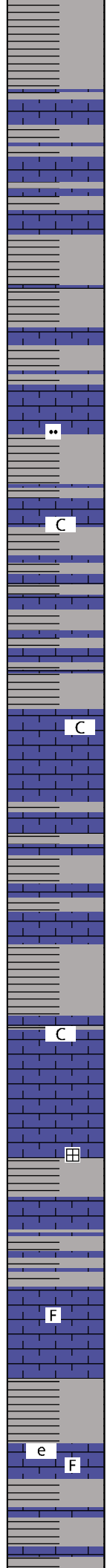
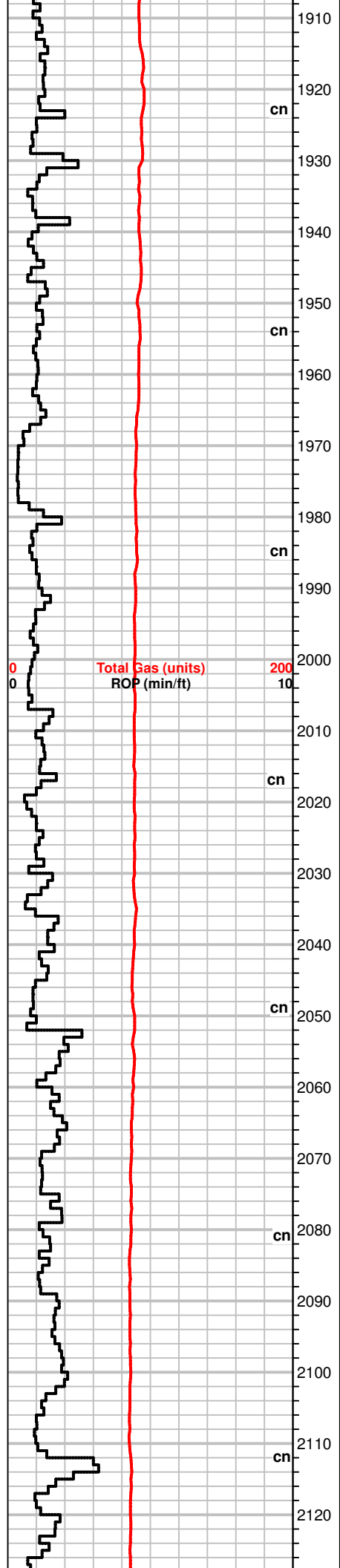
SH, red, gray, dk. gray, green/red pcs scatt.  
MS, crm to brn, f-xln, silty/shaly pcs(poor sample rep.)

SH, grays, brick red(influx), rare yellow pcs, some limey  
MS, crm to tan, f-xln, chalky, firm, NS

WS, crm to off white, f-xln, micro to f-n gr oolitic, soft, dull fluor, NS  
SH, grays, red

Flood SH. lt. gray to gray, greenish gray, red

**Jet Suction**



MS-WS, lt. gray to off white, f-xln, sli. chalky, soft, dull fluor, NS  
scatt SH, A.A.

SH, grays

SH, gray, red  
MS, crm to lt. gray, f-xln, gritty, chalky to shaly pcs, NS

MS, crm to lt. gray, f-xln, silty to gritty txt, chalky in part, lesser SH,  
gray to red, gypsum

SH, gray, some pcs limey, rare MS, crm, f-xln, chalky, soft, NS

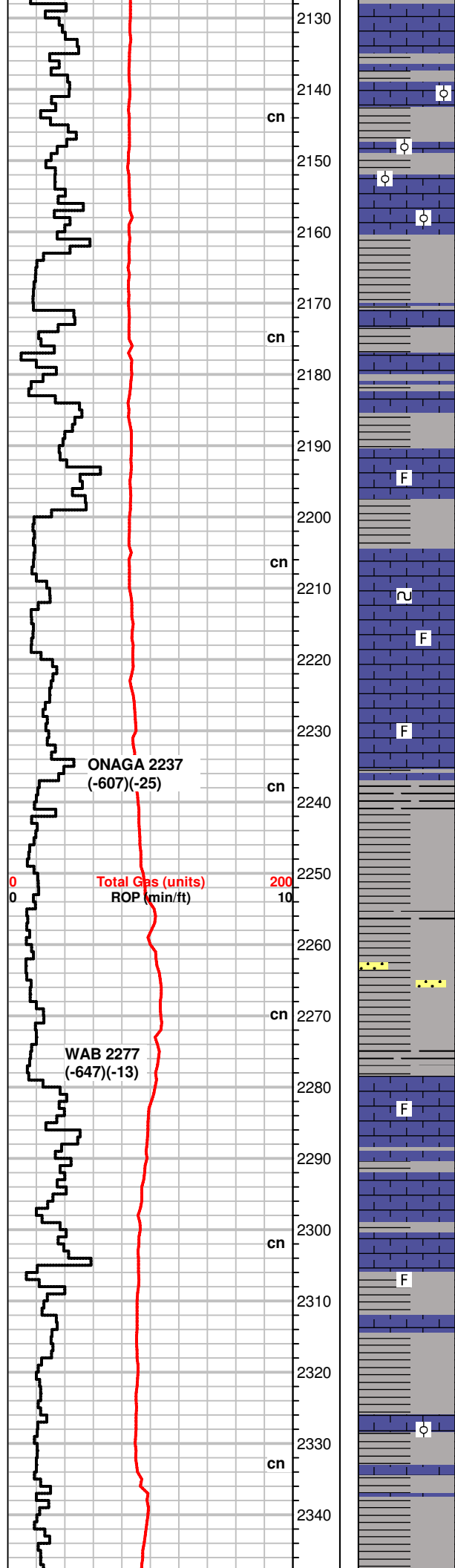
MS, crm, f-xln, chalky A.A., dull fluor, NS  
SH, brick red, lesser grays

MS-WS, crm to off white, f-xln, dense, to soft, chalky pcs scatt.,  
some fossilif., NS

SH, gray, green, brn, carrying gypsum casts  
MS, crm to lt. brn, vf-xln, grittys, some silty pcs, soft, NS

MS-WS, crm to lt. brn, vf-xln, dense, hard, fossilif., silty pcs, brittle  
in part, NS

SH, gray, dk. gray, scatt MS, crm to tan, vf-xln, chalky to earthy  
pcs, some hard, fossilif., NS



SH, red, grays, lesser MS, A.A.

MS-WS, crm to off white, f-xln, chalky to f-gr oolitic/moldic pcs, fossilif, soft, dull fluor, NS  
SH, grays, lt to dk., green, red

SH, dk. gray to blueish gray, brick red, sea green  
MS, crm, shaly to chalky, soft, NS

SH, gray, brn, green  
MS, off white to gray, f-xln, firm to hard, chalky, fossilif. pcs, dull fluor, NS

SH, gray, green, red, sandy, pyrite  
rare MS, lt. brn to lt. gray, f-xln, firm, fossils, glauc, NS

MS, off white to tan, f-xln, some chalky, dense to soft pcs, rare massive brn, hard, glauc, fossils, NS  
SH, gray, dk. gray, brn, red

SH, gray, red

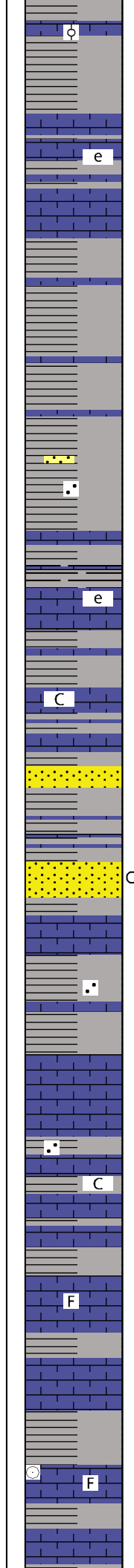
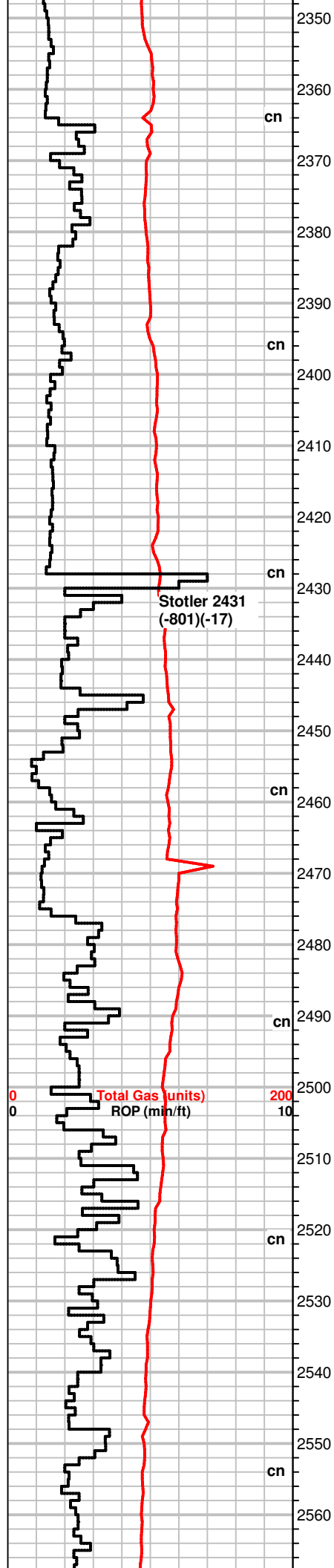
SH, gray, red, green, rare SS clusters, gray to green, f-gr, sorted, sub rnded, mineral specs, silty to shaly, NS

MS-WS, crm to tan, f-xln, firm, fossilif., silty, NS

SH, A.A., rare MS, tan, f-xln, frim, fossils, NS

MS, crm to off white, chalky to f-xln, NS  
SH, gray, inc in red pcs





MS, A.A., some WS, partially cherty, fossilif, m-gr oolitic in dense matrix  
SH, gray, brn, red

SH, gray, brn, red, silty pcs, mineral specs, carb. pcs  
rare MS, tan, f-xln, firm, waxy to earthy txt, NS

SH, dk gray to lt. gray, scatt red, silty  
rare MS, gray, silty, hard, NS

SH, grays, green, A.A., scat MS pcs, tan to crm, f-xln, firm, fossilif.,  
some pcs chalky, soft.  
rare SS clusters, opaque, vf-gr, sorted, sub rnded, tightly packed,  
NS

SH, grays, rare MS, crm to tan, earthy to chalky pcs, fossils rare,  
NS

SH, gray to red  
MS, crm to tan, A.A., fossilif to chalky pcs, soft, dull fluor, NS  
rare SS clusters and loose Qtz grs, f to co-gr frgmts, sub angular,  
poorly sorted, NS

MS, crm, to tan, f-xln, chalky to earthy in part. some f-xln, SH, red,  
gray, sea green  
rare (3) SS clusters, poorly sorted, f to co-gr., sub angular, tite, no  
odor, NS

SH, dk. gray to green, some red, most look like cavings  
rare MS, crm to tan, some off white, f-xln, chalky in part, firm, dull  
fluor, NS, rare Qtz gr's A.A., NS

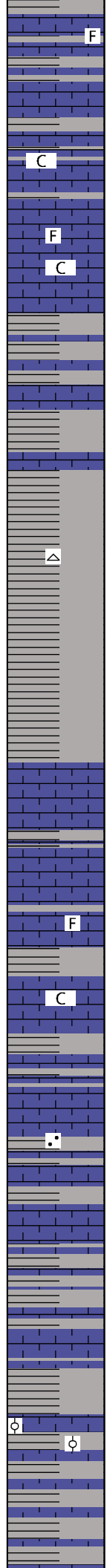
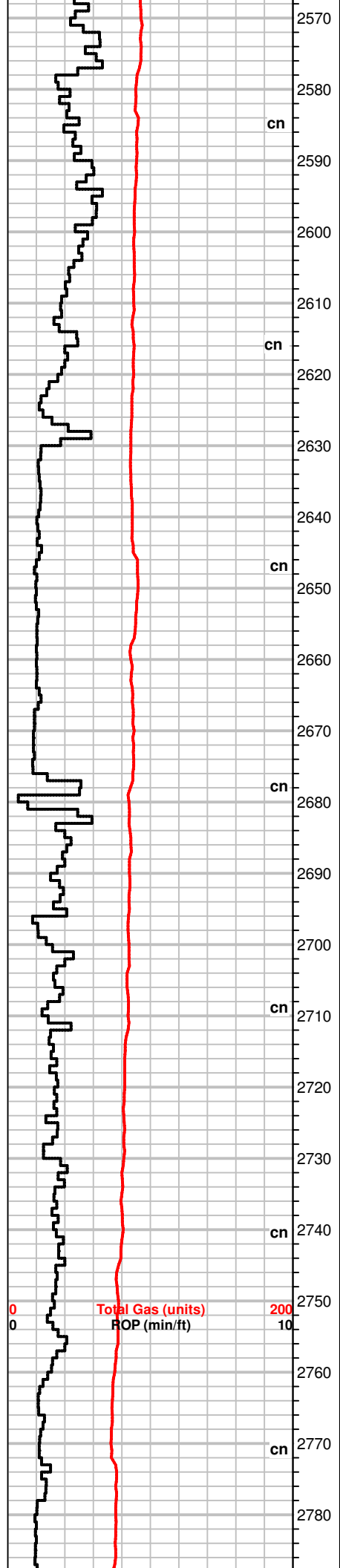
SH, grays, green, brn, brick red, MS, crm to off wht, f-xln,  
waxy/chalky pcs, firm, sandy txt, dull fluor, NS

MS, crm to brn, chalky, f-xln, scatt fossils, firm, friable, some  
mottled pcs  
SH, dk. gray gray, red

SH, A.A., silty to sandy, scatt red  
MS-WS, crm to brn, f-xln to chalky txt, fossils (crinoids, fulsilinids),  
dull fluor, NS

Mud-Co mud check  
Vis 31  
Wt 9.2  
0# LCM  
Cl 23,000ppm  
Filtrate N/C

+30 UGK



SH, grays, lt. to dk. gray, green, some silty to striated  
MS-WS, crm to tan, gray, A.A., lesser fossils, mostly chalky.

MS, crm to tan, some gray, f-xln, firm, chalky pcs, shaly, dull fluor, NS  
SH, grays to dk. gray, scatt green red

MS, off white to crm, f-xln, firm to hard, some fossilif, chalky pcs, most featureless(earthy), NS, scatt SH, green, gray

SH, dk. gray, grays, rare to scatt MS-WS, crm to tan, f-xln, fossilif, sli. chalky, firm, NS

SH, A.A., some red, scatt MS-WS, crm to crm, f-xln, fossil frgmts, scatt Chert frgmts, crm to white

SH, dk. gray, gray, scatt green  
MS, crm to off white, chalky to r-xln, firm, scatt fossils, some waxy looking pcs.

SH, grays  
MS, crm, f-xln to massive txt, firm, friable pcs, NS

MS-WS, crm to gray, f-xln, firm, some pcs mottled, silty to chalky, scatt fossils, NS  
SH, dk gray to gray.

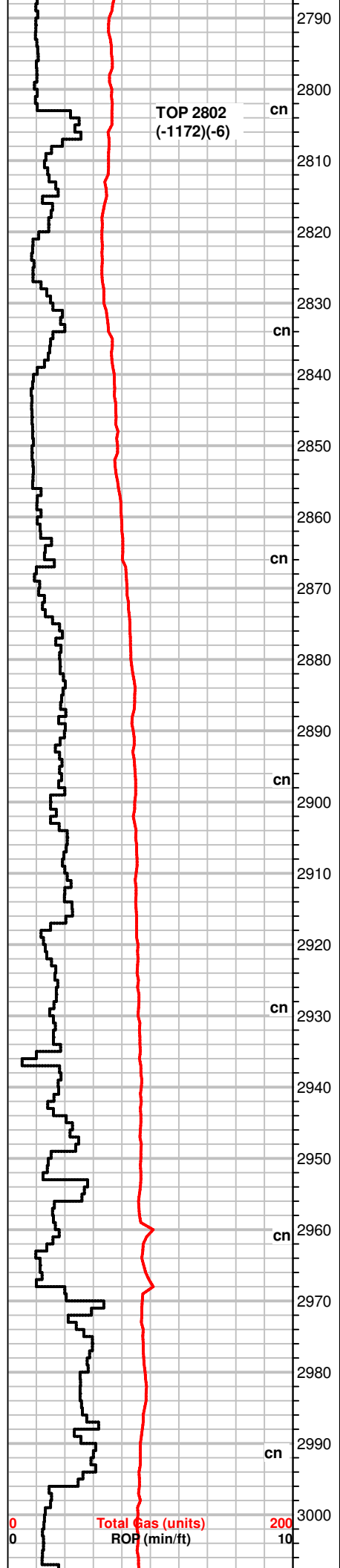
MS, gray, f-xln, soft, chalky matrix, NS  
SH, dk. gray to brn, some silty to partly sandy

SH, lt. grays, to scatt dk gray.  
rare MS, A.A., NS

SH, gray to dk. gray, scatt red and green(cave?)  
MS, brn to gray, shaly/silty, f-xln, soft to firm, scatt fossils/oolitic

**Dump and Clean pit #1**

**Air out pump**



TOP 2802  
(-1172)(-6)

cn

cn

cn

cn

cn

cn

cn

0 0 Total Gas (units) 200 ROP (min/ft) 10

SH, red, gray, green  
scatt MS, A.A.

SH dk. grays  
MS-WS, crm to lt. tan, f-xln, firm, scatt fossils, chalky matrix, NS

SH, dk. gray to gray  
lesser MS, A.A., chalky(mostly) to f-xln, hard, NS

MS, crm, f-xln, scatt fossils, soft pcs(friable), dull fluor, NS  
SH, gray, brn, red

SH, dk. gray, gray  
lesser MS, A.A.

MS-WS, crm to gray, most f-xln, firm to soft, chalky matrix, rare  
mottled pcs, NS  
SH, lt. grays, scatt dk. gray

MS-WS, A.A., crm to gray, f-xln, chalky pcs, rare mottled, fossilif.,  
dull fluor, NS  
SH, grays, red

SH, gray,(most lt. gray), sandy, hard pcs  
MS, crm f to m-xln, gritty micro oolitic pcs, partly sandy, fossils,  
glauca specs, NS

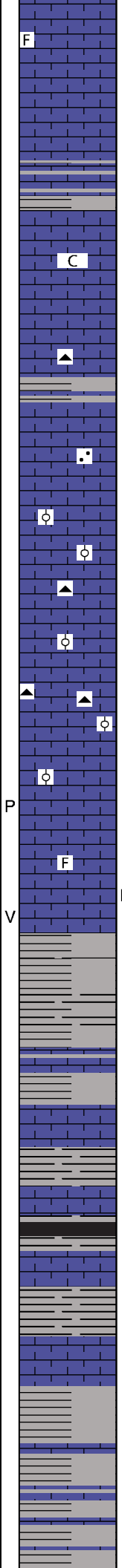
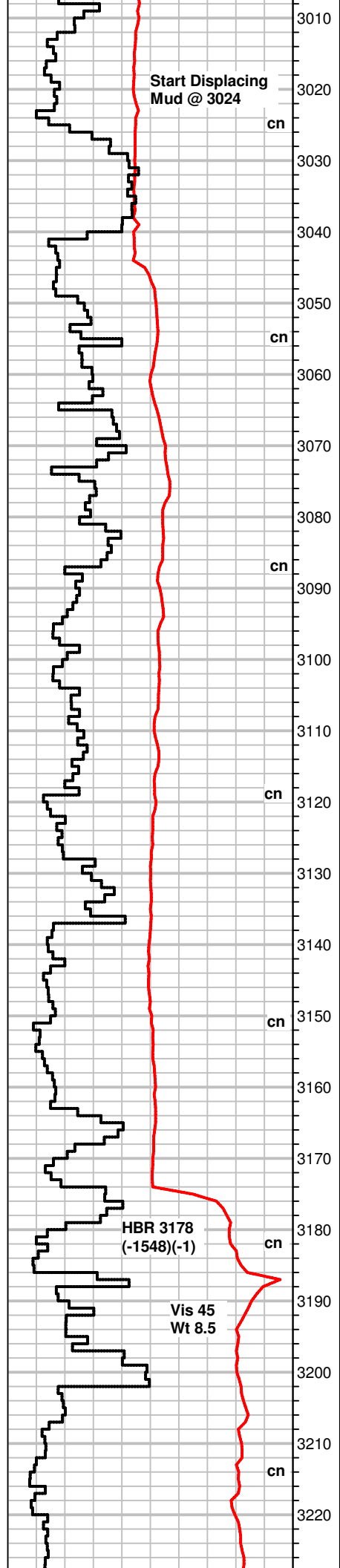
SH, gray, silty, dk. gray to rare blk pcs, rare MS, tan, f-xln, fossilif  
pcs, chalky in part

SH, red, gray  
Inc in MS, crm to tan, f-xln, firm, chalky, fossilif. pcs, NS

MS, A.A., sandy pcs scatt  
some SH, grays, rare pyrite

SH, gray to green, scatt dk. gray

tight conn @ 2803



MS, off white to crm, f-xln to chalky, fossils, dull fluor, NS

Inc in SH, dk. gray to gray, some sea green pcs  
MS, A.A.

MS, crm to off white, chlky, some f-xln, massive, txt, frim, NS

MS, AA, suboolitic, chalky, mtrx, scatt Chert frgmts, rare SH, drk gray

MS-WS, crm to off white, rare gray, gray/gritty pcs, some dense, fossilif., rare dull fluor, NS,

MS-WS, crm to tan, f-xln, hard to dense, sub oolitic to m-gr oolitic pcs, dense matrix, NS

MS-WS, A.A., inc in gray pcs, some mottled, Chert frgmts, fossilif.

MS-WS, crm to lt. brn, scatt off white, f-xln to chalky, soft to dense/hard pcs, Chert, crm, gray, fossils, rare SH, gray, silty

MS-WS, crm to rare gray/brn, f-xln to chalky, most sub oolitic sandy, dnese, brn pcs, scatt fossils, NS

MS-WS, crm to gray, most A.A., scatt silty pcs, most sub oolitic or fossilif., NS  
rare SH, dk. gray (carrying?)

MS- WS crm to lt gray, vf-xln, dense, oolitic, fossilif, chalky txt, hard, rare spotty edge stn in dry, rare SH, gray

SH dk grays, MS- WS. crm to off wht, f-xln, pcs sandy, friable, chalky, ( most pcs) soft, some brn, massive , dense, scatt fossils

MS-WS, A.A. SH, drk gray, green silty

MS-WS, A.A., inc SH, sea green, dk. gray

SH, blk, dk. gray, carb., gassy

SH, blk, dk. gray, carb., scatt gassy pcs

SH, blk, gray, carb  
MS-WS, crm to brn, f-xln, dense to friable pcs, fossils, chert frgmts

SH, blk, dk. gray  
scatt MS-WS, A.A., NS

SH, dk. gray, gray, scatt green  
MS-WS, crm to brn, some gray, f-xln, some chalky, dense, firm to hard, brittle, scatt mic-xln, some fossilif. pcs, rare Chert, frgmts, dull fluor, NS

Scatt MS-WS, crm to lt. gray, some brn, f-xln, mottled pcs, dense looking but most w/ chalky soft mtrx, fossils, some sandy, brittle, NS

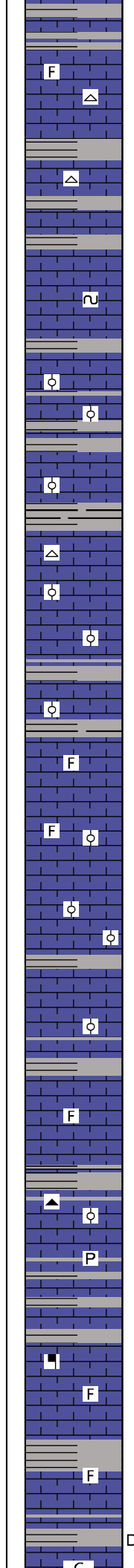
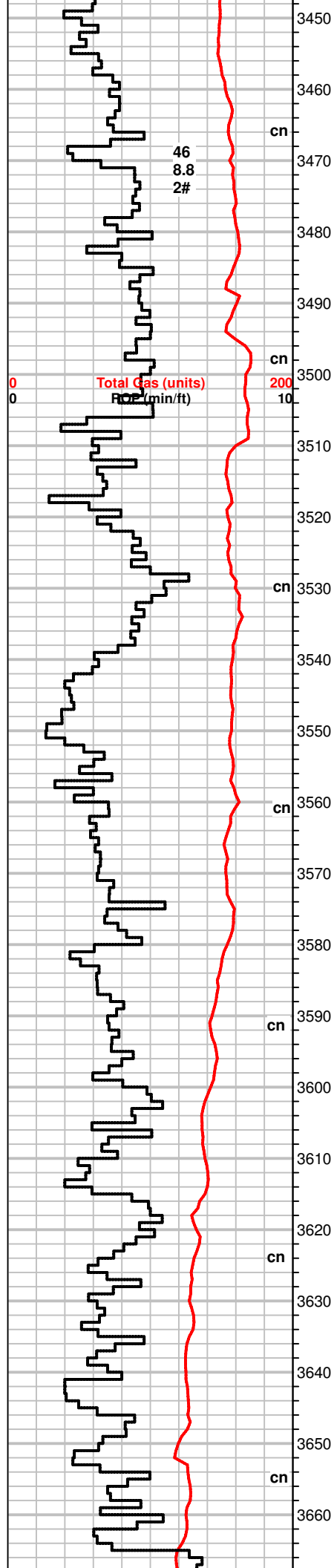
Down for 1.5 hrs, mud problems(air in the mud system)

Mud-Co Check  
Vis 42  
Wt 8.8  
2# LCM  
Cl 5,000ppm  
Filtrate 8.8

Air out trash pump

Rig check





Chert, frgmnts, NS  
SH, gray

MS, scatt WS, crm to gray, f-xln to m-xln, most hard, oolitic to fossil frgmnts, scatt Chert frgmnts, tan, dull fluor, NS

MS-WS, tan to brn, some crm, f-xln, hard, some pcs sli. chalky, scatt fossils, Chert, white  
rare SH, blk, gray

SH, gray, dk. gray  
MS-WS, tan to crm, A.A.

MS, scatt WS, crm to tan, f-xln, dense, fossils, rare glauc specs, NS

MS-WS, crm to tan, mic to f-xln, earthy to massive txt, suboolitic pcs, dense, sandy in part, friable pcs, dull fluor, NS  
some SH, gray

MS, off wht to crm, f-xln, hard, suboolitic, scatt dense pcs, NS  
rare gray SH

SH, grays, brn-gray, fossils, MS-WS, tan to gray, f-xln, mottled pcs, dense, fossilif., NS, some Chert frgmnts

MS-WS, A.A., some SH, dk. gray

MS, crm, f-xln to chalky pcs, hard to firm, scatt oolitic, m-gr pcs  
scatt SH, dk. gray

MS, crm to brn, mic-xln, dense, some pcs silty, rare fossils, rare SH, blk, grays

MS-WS, crm to brn, mic to f-xln, dense, some fossilif. pcs, oolitic in part

MW-WS, A.A., crm to brn, f-xln, fossils, dense, NS

SH, grays, brn, silty, WS-MS, crm, f-xln, fossilif/oolitic, f-gr. frgmnts, dense to brittle, NS

SH, grays, dk. gray, MS, brn to gray, mic-xln, dense, sub oolitic, NS

MS, crm to tan, mic-xln to f-xln, dense, hard, fossils rare, NS

MS, A.A., some dark mineral specs/silty txt, Chert grayish white, fossils, scatt SH, grays

MS, crm, f-xln to earthy txt, hard to firm, rare fossils, scatt brn, mic-xln, dense pcs, NS  
SH, gray, green, pyrite

MS, crm, earthy to f-xln, chalky looking, dense, hard, some pcs silty/mottled, mineral specs, fossils rare, NS

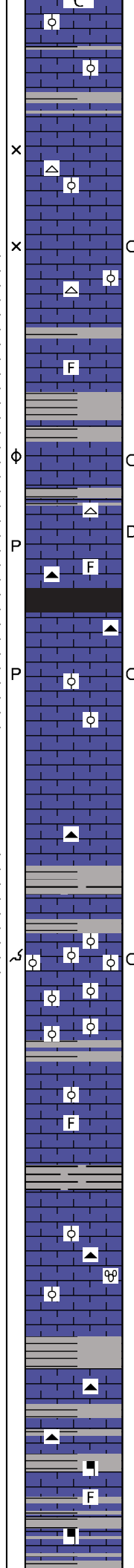
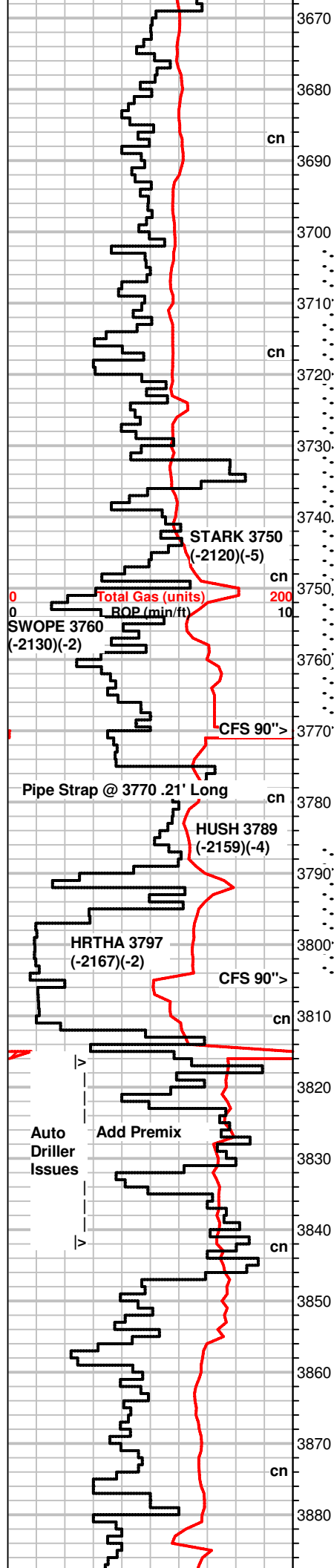
WS-MS, crm to brn, f-xln, gritty txt, fossils, soft to firm, some gray pcs, silty, SH, gray, green

MS-WS, A.A., some gray, f-xln, shalky, fossilif., NS  
SH, gray green, silty

MS, lt. tan to off white, mic to f-xln, dense, some pcs chalky, suboolitic in xln mtrx, rare glauc specs, edge stn in dry, SH, gray

**Mud-CO Mud check**  
**Vis 44**  
**Wt 9.1+**  
**1.5# LCM**  
**Cl 4,400ppm**  
**Filtrate 9.6**

**Rig check, clean suction,**  
**screen, pull back mud**



MS-WS, off white to crm, f-xln, massive to earthy txt, sub oolitic, some chalky, dull fluor, NS

MS, crm to brn-ish gray, mic-xln, dense, scatt sub oolitic pcs, rare fossils, rare SH, grays

MS, crm to off white, f-xln, earthy, hard, some brittle, dense, sub oolitic pcs, Chert, white

MS-WS, A.A., waxy looking, fossils, slight edge stn dry

MS-WS, crm to brn, mic to f-xln, earthy in part, hard, dense, sli. chalky in part, firm, sub oolitic pcs, scatt Chert, white

MS, A.A., most pcs dense, some mottled and fossilif. pcs, dull fluor, NS

MS-WS, crm, gray, brn, f- to mic-xln, dense, some fossils, rare mineral specs, some silty, rare soppty bright fluor, slow milky cut(1 pc), scatt SH, gray, spotty edge stn dry

MS-WS, crm to brn, mic-xln, dense, mottled, fossilif, rare dead stn, mineral flour, Chert, white

MS, crm to brn, most f-xln, dense, some sli. chalky, fossils, calcite veins, Chert, brn  
SH, blk, dk. gray, carb., gassy

MS-WS, crm to lt. gray/tan, f-xln, chalky pcs scatt, some fossils, soft/friable, some earthy pcs, brittle, scatt spotty bright fluor(<10% pcs), gas bubbles rare, streaming cut when broken, no odor, PP por, spotty to partially sat. stn in dry

MS-WS, crm to lt. gray, tan, f-xln to mic-xln, massive/dense pcs, some fossilif., hard, NS

MS, crm to gray, scatt WS, crm, chalky to mic-xln, A.A., fossils, Chert, frgmts, crm, NS, rare

SH, rare blk, gray, carb, gassy  
MS-WS, A.A., inc in chalky pcs, fossils, soft to hard, fenestrae, Chert, white, fossilif.

WS-PS, crm to brn, gray, f-xln to mic-xln, m to co-gr oolitic/moldic pcs, tite calcite cement, dense, hard to firm, bright fluor(50%), flash odor in bag, 1 pc strm cut, few pcs milky cut. no free oil or bleeding gas, 50% spotty stn dry

MS, crm to brn, f-xln, dense, some fossils, sub oolitic pcs, chalky pcs scatt., some SH, dk. gray, gray

MS, brn to crm, mic to f-xln, dense, oolitic/moldic, A.A, co to vf-gr, friable pcs, rare chalky pcs., NS

SH, dk .gray, gray, rare blk  
MS-WS, crm to tan, f-xln, earthy to gritty txt, fossilif.

MS, crm, chalky, soft, glauc, scatt brn pcs, mic-xln, dense, scatt fossils, NS, Chert, brn, some SH, grays

SH, gray, dk. gray, MS-WS, crm to brn, f-xln, chalky pcs, scatt glauc, some dense, fossilif, Chert, brn

SH, gray, sli. inc in amt., MS-WS, crm , tan, f-xln fossils, some rare micro oolitic/sandy pcs, Chert, white/brn, fossils.

MS-WS, crm to brn, f-xln, earthy txt in part, fossils, some pcs mottled, minerals, scatt SH, gray

SH, gray, silty, MS-WS, crm to gray, f-xln to chalky, soft to dense, mineral specs, fossilif, dull fluor, NS

**DST #1 3702-3770**  
**Swope Lm**  
**30-60-30-60**  
**WB**  
**NBB**  
**WB**  
**NBB**  
**Rec: 30' SGCM**  
**(2%G, 98%M)**  
**IH 1834#**  
**IF 17-22#**  
**ISIP 1354#**  
**FF 23-30#**  
**FSIP 897#**  
**FH 1824#**  
**Temp 111°F**

**+42 UGK shale gas**

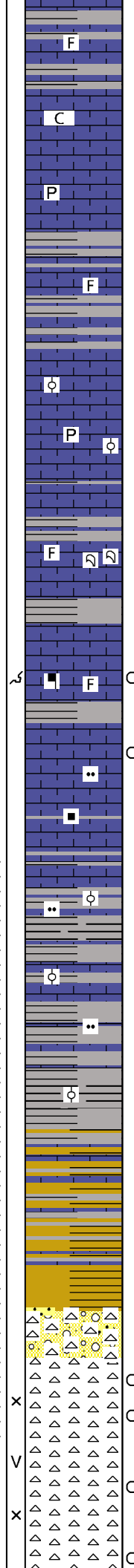
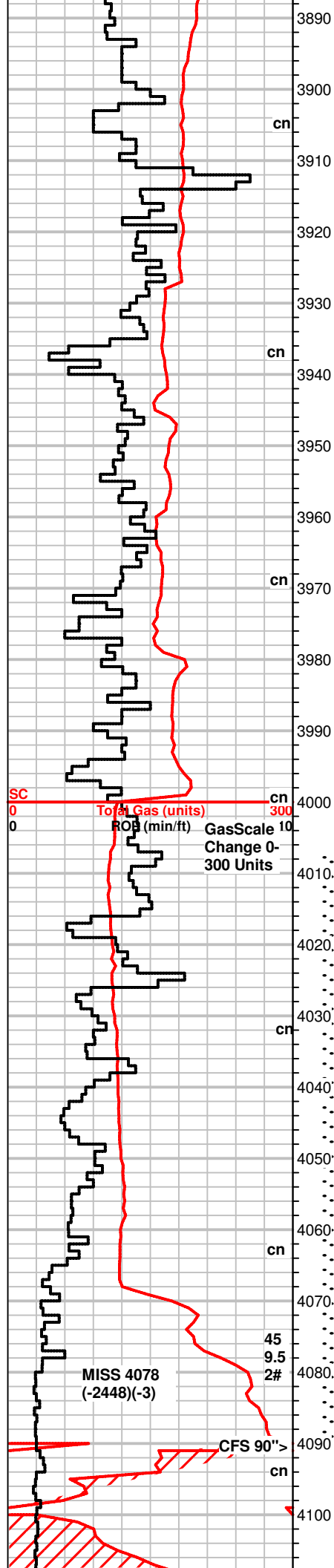
**+29 UGK,**  
**~10 UGK recycle**

**Mud-Co mud check**  
**Vis 53**  
**Wt 9.2**  
**1# LCM**  
**CL 4,000ppm**  
**8.8 Filtrate**

**+38 UGK shale gas**

**Mud-CO mud check**  
**Vis 54**  
**Wt 9.3**  
**2# LCM**  
**CI 4,000ppm**  
**Filtrate 8.8**

**DST #2 3786-3805**  
**Hertha Lm.**  
**30-60-45-90**  
**SB BOB/8min**  
**NBB**  
**FB BOB/10min**  
**NBB**  
**Rec: 30' MCW (20% m, 80% w)**  
**1071' Water**  
**IH 1870#**  
**IF 27-235#**  
**ISIP 1299#**  
**FF 241-497#**  
**FSIP 1296#**  
**FH 1849#**  
**API Rw .15 @ 43°F**  
**CI 85,000ppm**  
**Temp 123°F**



SH, grays, green  
MS, crm to tan, f-xln, dense, scatt fossils, Chert, brn, NS

SH, dk. gray, gray, green(carrying?), MS crm, f-xln to earthy, dense, scatt chalky firm pcs, most hard, mottled, fossils, NS

MS-WS, crm to gray, brn, f-xln, chalky to dense, hard, fossils, pyrite, scatt SH, gray, some dk. gray

SH, blk, brn, gray  
MS, tan to brn, vf to mic-xln, massive txt, dense, hard, dull fluor, scatt fossils, NS

MS, A.A.  
some SH, gray to brn, dec. amt.

SH, dk. gray to gray, pyrite  
MS-WS, crm to tan, brn, f-xln, chalky pcs rare, most massive, hard, fossils scatt., NS

MS, off white to crm, f-xln, mostly chalky, some dense, A.A., NS, SH, grays, brn, green

SH, gray, striated, MS-WS, crm to brn, f-xln hard, fossils, large fossil frgmts(coral)

MS-WS, crm to brn, vf-xln, dense, some pcs A.A., silty in part, hard, NS, SH, gray, dk. gray

MS-WS, A.A., fossilif., mineral specs, friable, rare spotty stn dry, scatt SH, gray, silty, sea green pcs rare

Influx SH, dk. gray to gray, sea green rare, silty pcs, rare gas bubbles

SH, gray, rare blk/dk. gray, sli. carb, silty pcs  
MS crm to brn, f-xln, dense, hard, rare fossils, dull fluor, NS

MS-WS, crm to brn, gray, f-xln, dense, some silty looking, fossils, some chalky pcs, most hard, NS  
SH, gray, green, fossils, rare brn

MS-WS, crm to tan, brn, f-xln dense, fossils, some dk gray to green m-gr ooids in tite xln matrix, SH, gray, green, pyrite

SH, dk. gray to gray, silty, scatt pyrite, fossils  
scatt. MS-WS, crm, f-xln, suboolitic to m-gr oolitic pcs, friable, some hard, NS

SH, blk, dk. gray to green, mustard yellow, glauc/sandy pcs  
MS-WS, crm to brn, f-xln to mic-xln, dense, scatt dk ooids in dense matrix, fossils rare, dull fluor, NS

SH, mostly grays, inc amt of varicolored-yellow, brick red, sea green, silty to sandy pcs, rare MS, gray to crm, f-xln, dense, some fossils, Cherty pcs rare, dull fluor, NS

SH, gray to dk. gray, vari colored pcs, pyrite  
rare MS, crm to tan, f-xln dense, rare chalky soft pcs, NS

SH, varicolored, mostly dk. gray to gray, rare Chert, white to lt. brn, wthrd, very spotty stn(10%), no odor, rare Qtz grs., f-gr, angular to sub ang., frosted

Chert, white to bone white, some fresh, some pcs w/ spotty stn (<25%), no odor, dull fluor, no cut, gas bubbles when broken, spotty stn, some 10-50% sat. pcs dry, good int-xln por.

Chert, white to bone white, tripolitic to wthrd, scatt fresh pcs, dull mineral fluor, rare spotty dead stn on wthrd pcs, no cut, no odor, spotty stn dry

Chert, off white to opaque, tripolitic to some fresh, most wthrd A.A., NS, scatt mineral fluor, spotty stn dry,

Vis 60  
Wt 9.2  
1# LCM

Change weight indicator

Mud-Co mud check  
Vis 57  
Wt 9.4+  
1# LCM  
Cl 4,000ppm  
Filtrate 9.0

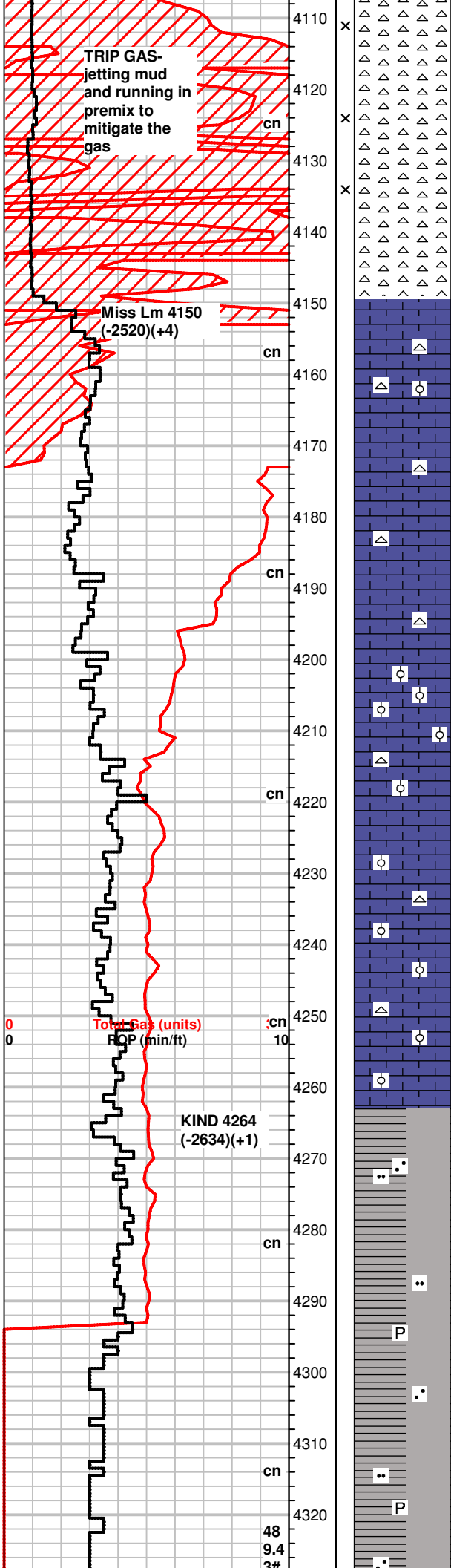
+13 UGK shale gas

DST #3 4007-4090  
Miss Chert  
30-60-30-90  
SB BOB/30sec GTS/3min  
GA 1.506 MMCF/10"  
3.001 MMCF/20"  
3.288 MCF/30"  
Would not bleed off  
SB BOB+GTS/Immed.  
GA 3.288 MCF/10"  
3.288 MCF/20"  
3.288 MCF/30"  
NBB  
3852' GIP  
Rec: 140' Mud  
IH 2016#  
IF 610-662#  
ISIP 1224#  
FF 654-619#  
FSIP 1222#  
FH 1993#  
Temp 121°F

+80 UGK

+155 UGK,  
+66 UGK recycle





Chert, off white to bone white, most wthrd, some fresh, v. spotty strn in 10% of tray, rare slow milky cut, no odor

Chert, A.A., some fresh

Chert, A.A., some pcs fractured, inc in fresh pcs

MS, crm to gray, f-xln, some pcs chalky, firm to hard, NS samples mostly Chert from above, very little sample representation

MS, white to gray, chalky to f-xln, NS carrying Chert, A.A.

MS, white to gray, scatt crm, f-xln

MS, white to crm, sli. gray, chalky to firm, f-xln pcs, very little sample representation, carrying SH and Chert A.A., barren dry

MS-WS, rare PS, crm to lt. brn, f-xln, sli. massive to earthy txt, firm to dense, some fossilif., m-gr oolitic, NS

WS-PS, crm to brn, f-xln, mostly A.A. fossils, some pcs dolomitic, brn, m-gr sugary txt, some Chert, white, barren dry

MS-WS, crm to lt. gray, lt. brn, f-xln sub oolitic, dense, scatt fossils, some pcs earthy, NS, Chert, opaque white

MS-WS, A.A., lesser gray pcs, Chert, opaque white, NS

MS-WS, crm to brn, f-xln some pcs dense/massive, scatt sub oolitic, friable, Chert, opaque blueish white, barren dry

MS-WS, crm to brn, f-xln, firm, some A.A., Chert, white, NS

SH, brn-ish gray, grays, silty pyrite  
some MS, crm to brn, gray, f-xln, dense, fossilif. pcs scatt,

SH, gray, brn-ish gray, green silty

SH, gray to green, some brn, silty, some pcs earthy/waxy

SH, gray, green, brn, silty to striated

SH, gray, green, AA, pyrite rare

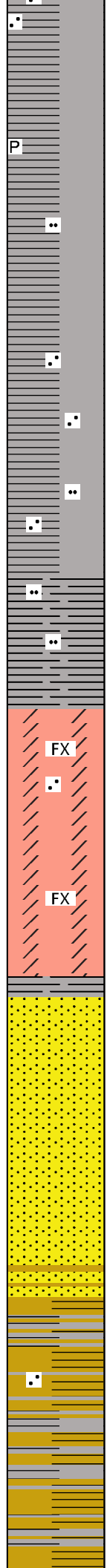
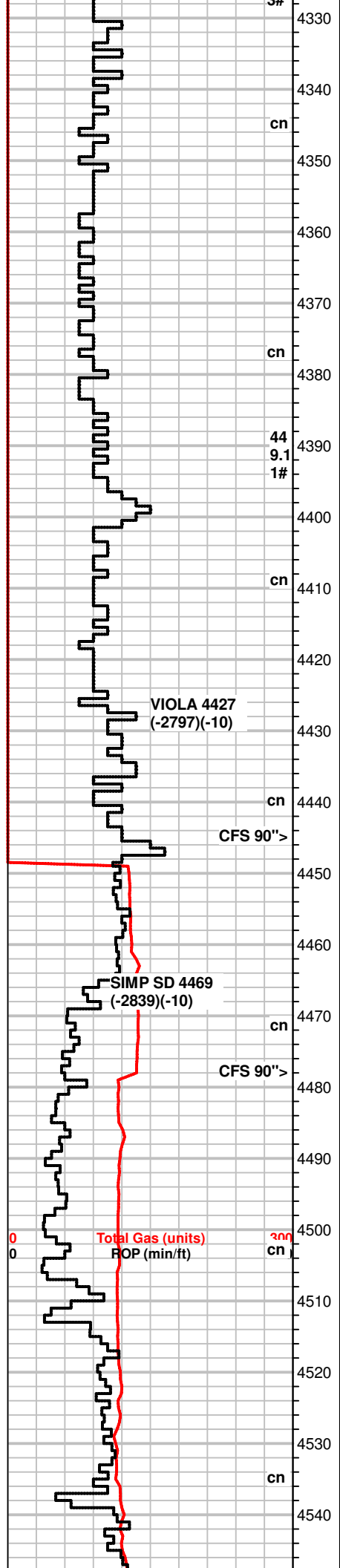
SH, A.A.

SH, gray to dk. gray, silty some striated, scatt pyrite

SH, gray, silty to sandy, some hard

**Mud-Co mud check**  
 Vis 47  
 Wt 9.3+  
 1# LCM  
 CI 4,000 ppm  
 Filtrate 9.0

**Bloodhound Computer**  
 quit working, drill time  
 was hand entered while  
 the program installed  
 spare computer.



SH, A.A.

SH, dk. gray to gray, silty, carb., scatt pyrite

SH, gray, mineral specs

SH, gray, silty to sandy pcs scatt, some limey

SH, gray, green, silty

SH, gray, silty, some scatt limey

SH, dk. gray to gray

SH, dk. gray, carb

Dolo, lt grn to gray, brn, vf-xln, sugary txt, rare min. fluor, no odor, no cut

Dolo, crm to lt. gray brn, vf-xln, soft to firm, sandy looking, mineral fluor, NS

Dolo, crm to brn, f-xln, firm to soft, sugary txt, dull fluor, NS

scatt SH grays, (carrying?)

Qtz gr's, co-gr, sub angular, sli. frosty, no vis show, no odor in bag, no gas increase

Qtz gr's, m to co-gr, sub rnd to rnd, pitted to frosty pcs scatt, SS clusters, white, f to m-xln, sug ang to sub rnd, sorted, friable, NS

SS clusters, white, f to m-gr, sub rnd to rnd, friable, sorted, NS

Scatt SH, red to purple, gray

SH, purple-ish red, gray, striated, fissile, earthy to waxy looking

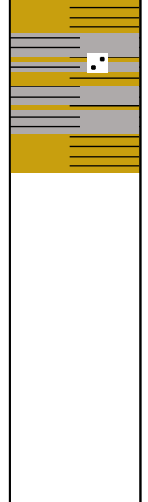
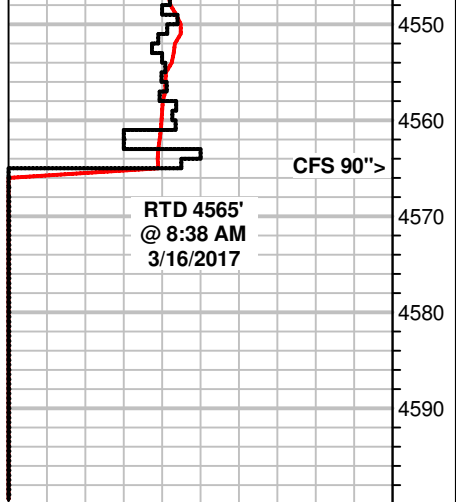
SH, purple to red, some grays, varicolored, earthy., scatt SS. clusters, white, f to m-gr, friable

SH, varicolored, gray, red, prple, yellow

**NO gas increase  
bloodhound computer  
screen has gone out,  
working on installing the  
program on my machine  
to get the data**

**No gas increase**

**Mud-Co mud check  
Vis 47  
Wt 9.6+  
3# LCM**



SH, purple, red, yellow, gray, sli. calc.

SH, red, gray, green, purple, yellow, sandy, some SS clusters, dk. gray, vf to f-grn, sorted, sub rnded, friable, NS

CI 4,000ppm  
Filtrate 9.2