



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1191140
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

| | | |
|-----------------------------------|-----------------|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1191140

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 <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____ | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample 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 <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone | | | | |
| | | | | |

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | | |
|----------------|-------|---------|------------|---|
| TUBING RECORD: | Size: | Set At: | Packer At: | Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No |
|----------------|-------|---------|------------|---|

| | |
|---|--|
| Date of First, Resumed Production, SWD or ENHR. | Producing Method: <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: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL: _____ _____ |
|--|--|---|

ALLIED OIL & GAS SERVICES, LLC 052146

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Liberal 21

| | | | | | | | |
|--------------------------------|-------------------|--|--------------------|------------|-----------------------|-----------------------|------------------------|
| DATE <u>2-4-16</u> | SEC <u>23</u> | TWP. <u>32S</u> | RANGE <u>37W</u> | CALLED OUT | ON LOCATION | JOB START <u>0230</u> | JOB FINISH <u>0400</u> |
| LEASE <u>Willis</u> | WELL# <u>23-7</u> | LOCATION <u>Hugoton, KS - 4N-1.5E-</u> | | | COUNTY <u>Stevens</u> | STATE <u>KS</u> | |
| OLD OR <u>NEW</u> (Circle one) | | | <u>15 - F into</u> | | | | |

CONTRACTOR Duke #9

TYPE OF JOB Surface

HOLE SIZE 12 1/4 I.D.

CASING SIZE 8 5/8 2 1/4 DEPTH 1095

TUBING SIZE DEPTH 1745

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT 41.75

CEMENT LEFT IN CSG. 2.7

PERFS.

DISPLACEMENT 106

OWNER _____

CEMENT

AMOUNT ORDERED 625sk ALWC-39%CC, 1/4 FloSeal
200sk Class A-39%CC, 1/4 FloSeal

EQUIPMENT

PUMP TRUCK CEMENTER Bobby H

#531-571 HELPER Jaine Torres

BULK TRUCK DRIVER Victor Alex Corona

#774-744

BULK TRUCK DRIVER Jose Calderon

#869-841

| | | |
|---------------|----------------------------|------------------------|
| COMMON Common | 200sk @ 17.90 | 3,580.00 |
| POZMIX ALWC | 625sk @ 16.50 | 10,312.50 |
| GEL FloSeal | 2061B @ 2.97 | 611.82 |
| CHLORIDE | 275k @ 6.28 | 1,728.00 |
| ASC | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| HANDLING | 932 ft ³ @ 2.45 | 2,311.90 |
| MILEAGE | 1971 TM @ 2.60 | 5,124.60 |
| | | TOTAL 23,648.28 |

REMARKS:

SERVICE

| | | |
|-------------------|----------------|----------------------|
| DEPTH OF JOB | | |
| PUMP TRUCK CHARGE | | 2213.75 |
| EXTRA FOOTAGE | @ | |
| MILEAGE Heavy | 50MT @ 7.70 | 385.00 |
| MANIFOLD | 1 Day @ 275.00 | 275.00 |
| Light Mileage | 50MT @ 4.40 | 220.00 |
| | @ | |
| | | TOTAL 3093.75 |

CHARGE TO: Palmer Oil

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | |
|------------------|--------------|----------------------|
| Slide Shoe | 1EA @ 460.95 | 460.95 |
| AFU Insert Float | 1EA @ 446.95 | 446.95 |
| Controlizers | 3EA @ 74.83 | 224.49 |
| Cement Basket | 1EA @ 559.75 | 559.75 |
| Top Rubber Plug | 1EA @ 131.04 | 131.04 |
| | @ | |
| | | TOTAL 1822.87 |

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____

TOTAL CHARGES 28,584.83

DISCOUNT _____ IF PAID IN 30 DAYS
Net - 22,867.90

PRINTED NAME Emigdio Rojas

SIGNATURE Emigdio Rojas

ALLIED OIL & GAS SERVICES, LLC 052514

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Liberals KS

| | | | | | | | |
|-------------------------|----------------|--------------------|------------------|--------------------------------|----------------------------|-------------------------|--------------------------|
| DATE <u>2-13-14</u> | SEC. <u>23</u> | TWP. <u>32S</u> | RANGE <u>37W</u> | CALLED OUT | ON LOCATION <u>12:00pm</u> | JOB START <u>2:00pm</u> | JOB FINISH <u>4:30pm</u> |
| LEASE <u>Willis</u> | | WELL # <u>23-7</u> | | LOCATION <u>Ver Hugoton KS</u> | | COUNTY <u>Stevens</u> | STATE <u>KS</u> |
| OLD OR NEW (Circle one) | | | | | | | |

CONTRACTOR Duke #9

TYPE OF JOB PTA

HOLE SIZE 7 1/8 T.D. _____

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

OWNER _____

CEMENT AMOUNT ORDERED 170sk 60/40 40gel
1/4 # flo seal

EQUIPMENT

PUMP TRUCK CEMENTER Lenny Barea

549-SSO HELPER Jame M.

BULK TRUCK

609-041 DRIVER Ruben P.

BULK TRUCK

_____ DRIVER _____

| | | | | |
|-----------------|--------------|---|--------------|----------------|
| COMMON | <u>102sk</u> | @ | <u>17.90</u> | <u>1825.00</u> |
| POZMIX | <u>60sk</u> | @ | <u>9.35</u> | <u>635.00</u> |
| GEL | <u>6sk</u> | @ | <u>23.40</u> | <u>140.40</u> |
| CHLORIDE | | @ | | |
| ASC | | @ | | |
| <u>flo seal</u> | <u>2sk</u> | @ | <u>297</u> | <u>5.94</u> |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| HANDLING | <u>176</u> | @ | <u>2.48</u> | <u>436.48</u> |
| MILEAGE | <u>300</u> | @ | <u>2.60</u> | <u>930.00</u> |
| TOTAL | | | | <u>4032.42</u> |

REMARKS:

CHARGE TO: Palmer Oil

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

| | | | | |
|----------------------|------------|---|-------------|----------------|
| DEPTH OF JOB | <u>PTA</u> | | | |
| PUMP TRUCK CHARGE | | | | <u>2249.84</u> |
| EXTRA FOOTAGE | | @ | | |
| MILEAGE | <u>50</u> | @ | <u>7.70</u> | <u>385.00</u> |
| MANIFOLD | | @ | | |
| <u>light vehicle</u> | <u>50</u> | @ | <u>4.40</u> | <u>220.00</u> |
| <u>1/2 drill pin</u> | <u>100</u> | @ | | <u>140.00</u> |
| TOTAL | | | | <u>2994.84</u> |

PLUG & FLOAT EQUIPMENT

| | | | |
|--------------------|---|-------|-------|
| _____ | @ | _____ | _____ |
| _____ | @ | _____ | _____ |
| _____ | @ | _____ | _____ |
| _____ | @ | _____ | _____ |
| _____ | @ | _____ | _____ |
| TOTAL _____ | | | |

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Emigdio Rojas

SIGNATURE Emigdio Rojas

SALES TAX (If Any) _____

TOTAL CHARGES \$7027.26

DISCOUNT _____ IF PAID IN 30 DAYS

\$5,621.81



DRILL STEM TEST REPORT

Prepared For: **Palmer Oil, Inc.**

PO Box 399
Garden City, KS 67846

ATTN: Wyatt Urban

Willis #23-7

23-32s-37w Stevens, KS

Start Date: 2014.02.09 @ 11:54:27

End Date: 2014.02.09 @ 20:53:12

Job Ticket #: 51931 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.02.14 @ 15:34:24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

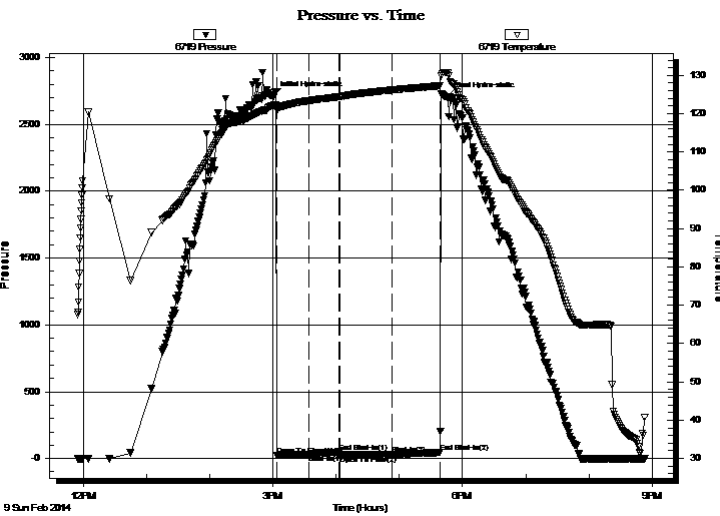
23-32s-37w Stevens, KS
Willis #23-7
Job Ticket: 51931 **DST#: 1**
Test Start: 2014.02.09 @ 11:54:27

GENERAL INFORMATION:

Formation: **Morrow Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:03:57
Time Test Ended: 20:53:12
Interval: **5595.00 ft (KB) To 5670.00 ft (KB) (TVD)**
Total Depth: 5670.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 53
Reference Elevations: 3117.00 ft (KB)
3104.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 6719 Outside
Press@RunDepth: 30.04 psig @ 5596.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.02.09 End Date: 2014.02.09 Last Calib.: 2014.02.09
Start Time: 11:54:32 End Time: 20:53:12 Time On Btm: 2014.02.09 @ 15:01:12
Time Off Btm: 2014.02.09 @ 17:44:57

TEST COMMENT: IF: Weak blow . Surf., - 3 1/2 ".
IS: No blow .
FF: Weak blow . Surf., - 3/4 ".
FS: No blow .



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2713.10 | 122.23 | Initial Hydro-static |
| 3 | 23.16 | 120.88 | Open To Flow (1) |
| 34 | 29.70 | 123.41 | Shut-In(1) |
| 62 | 49.41 | 124.41 | End Shut-In(1) |
| 63 | 25.54 | 124.44 | Open To Flow (2) |
| 112 | 30.04 | 126.19 | Shut-In(2) |
| 158 | 45.21 | 127.29 | End Shut-In(2) |
| 164 | 2704.78 | 130.66 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00 | drig mud | 0.05 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palmer Oil, Inc.
 PO Box 399
 Garden City, KS 67846
 ATTN: Wyatt Urban

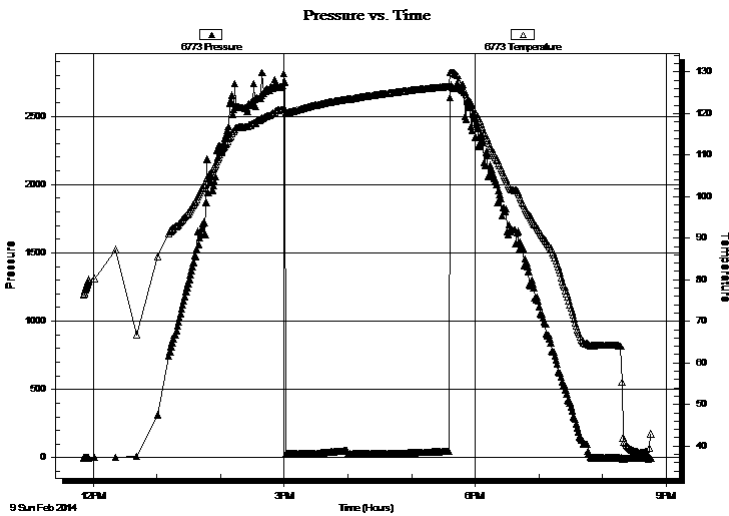
23-32s-37w Stevens, KS
Willis #23-7
 Job Ticket: 51931 **DST#: 1**
 Test Start: 2014.02.09 @ 11:54:27

GENERAL INFORMATION:

| | | | |
|---|---------|---|--|
| Formation: Morrow Sand | | | |
| Deviated: No Whipstock: | ft (KB) | Test Type: Conventional Bottom Hole (Initial) | |
| Time Tool Opened: 15:03:57 | | Tester: Leal Cason | |
| Time Test Ended: 20:53:12 | | Unit No: 53 | |
| Interval: 5595.00 ft (KB) To 5670.00 ft (KB) (TVD) | | Reference Elevations: 3117.00 ft (KB) | |
| Total Depth: 5670.00 ft (KB) (TVD) | | 3104.00 ft (CF) | |
| Hole Diameter: 7.88 inches Hole Condition: Fair | | KB to GR/CF: 13.00 ft | |

| | | | | | |
|--|----------------------|-------------------------|--|--|--|
| Serial #: 6773 | Outside | | | | |
| Press@RunDepth: psig @ 5596.00 ft (KB) | | Capacity: 8000.00 psig | | | |
| Start Date: 2014.02.09 | End Date: 2014.02.09 | Last Calib.: 2014.02.09 | | | |
| Start Time: 11:50:49 | End Time: 20:45:27 | Time On Btm: | | | |
| | | Time Off Btm: | | | |

TEST COMMENT: IF: Weak blow . Surf., - 3 1/2 ".
 IS: No blow .
 FF: Weak blow . Surf., - 3/4 ".
 FS: No blow .



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00 | drig mud | 0.05 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

23-32s-37w Stevens,KS
Willis #23-7
Job Ticket: 51931 **DST#: 1**
Test Start: 2014.02.09 @ 11:54:27

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 5406.00 ft | Diameter: 3.80 inches | Volume: 75.83 bbl | Tool Weight: | 2400.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 25000.00 lb |
| Drill Collar: | Length: 180.00 ft | Diameter: 2.25 inches | Volume: 0.89 bbl | Weight to Pull Loose: | 90000.00 lb |
| | | | <u>Total Volume: 76.72 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 19.00 ft | | | String Weight: Initial | 85000.00 lb |
| Depth to Top Packer: | 5595.00 ft | | | Final | 85000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 75.00 ft | | | | |
| Tool Length: | 103.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments: Shale Packer on Bottom

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|-------------------------|--------------------|-------------------|-----------------|-------------------|-----------------------|
|-------------------------|--------------------|-------------------|-----------------|-------------------|-----------------------|

| | | | | | |
|-----------------|-------|------|---------|---------|------------------------------------|
| Change Over Sub | 1.00 | | | 5568.00 | |
| Shut In Tool | 5.00 | | | 5573.00 | |
| Hydraulic tool | 5.00 | | | 5578.00 | |
| Jars | 5.00 | | | 5583.00 | |
| Safety Joint | 3.00 | | | 5586.00 | |
| Packer | 4.00 | | | 5590.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 5595.00 | |
| Stubb | 1.00 | | | 5596.00 | |
| Recorder | 0.00 | 6719 | Outside | 5596.00 | |
| Recorder | 0.00 | 6773 | Outside | 5596.00 | |
| Perforations | 5.00 | | | 5601.00 | |
| Change Over Sub | 1.00 | | | 5602.00 | |
| Drill Pipe | 64.00 | | | 5666.00 | |
| Change Over Sub | 1.00 | | | 5667.00 | |
| Bullnose | 3.00 | | | 5670.00 | 75.00 Bottom Packers & Anchor |

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil, Inc.

23-32s-37w Stevens, KS

PO Box 399
Garden City, KS 67846

Willis #23-7

Job Ticket: 51931

DST#: 1

ATTN: Wyatt Urban

Test Start: 2014.02.09 @ 11:54:27

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:

3000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 10.00 | drig mud | 0.049 |

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

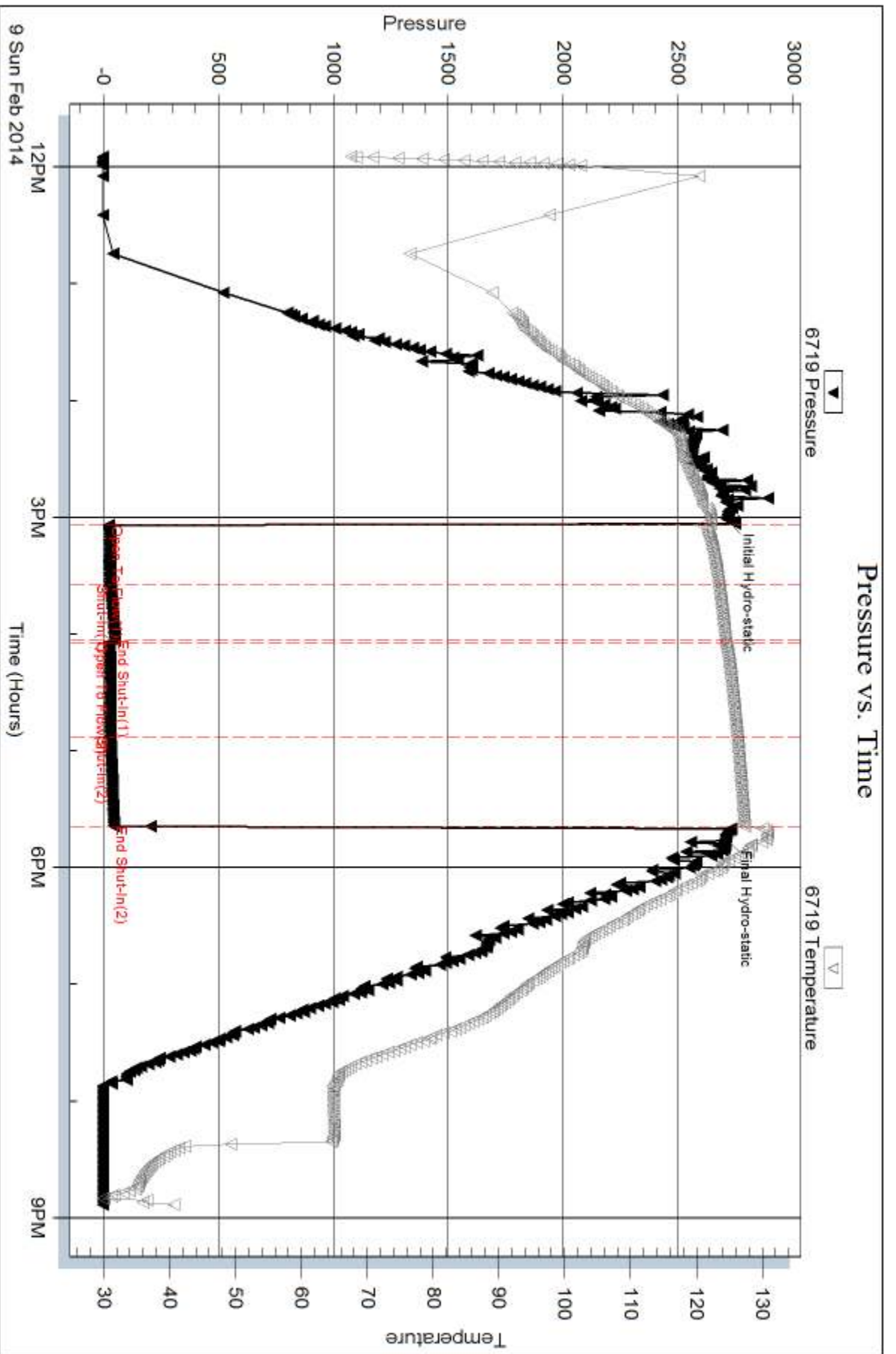
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

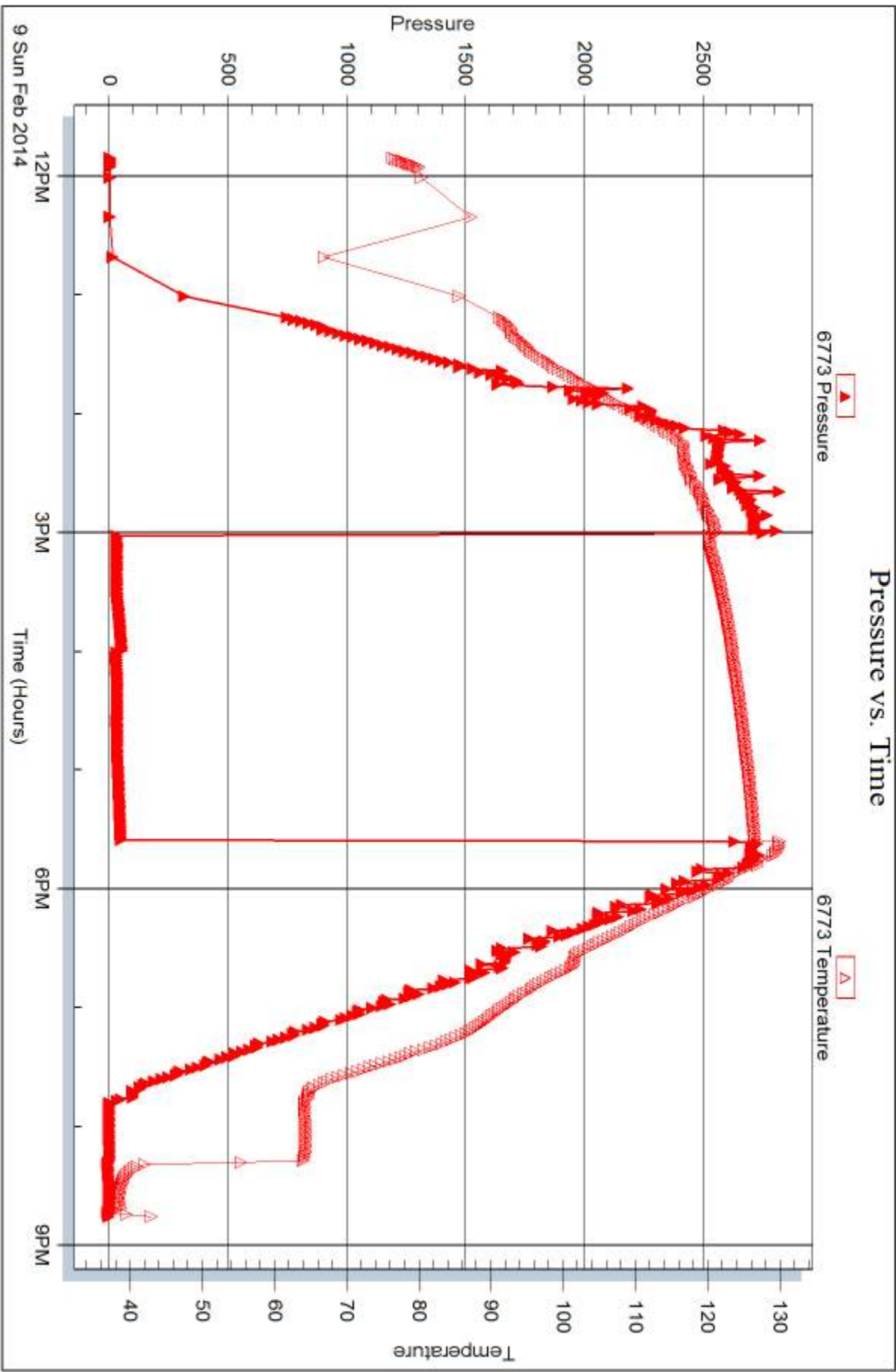


Serial #: 6773

Outside Palmer Oil, Inc.

Wells #23-7

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 51931

Printed: 2014.02.14 @ 15:34:27



DRILL STEM TEST REPORT

Prepared For: **Palmer Oil, Inc.**

PO Box 399
Garden City, KS 67846

ATTN: Wyatt Urban

Willis #23-7

23-32s-37w Stevens, KS

Start Date: 2014.02.11 @ 22:15:03

End Date: 2014.02.12 @ 10:55:43

Job Ticket #: 51932 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.02.14 @ 15:32:42



DRILL STEM TEST REPORT

Palmer Oil, Inc.
 PO Box 399
 Garden City, KS 67846
 ATTN: Wyatt Urban

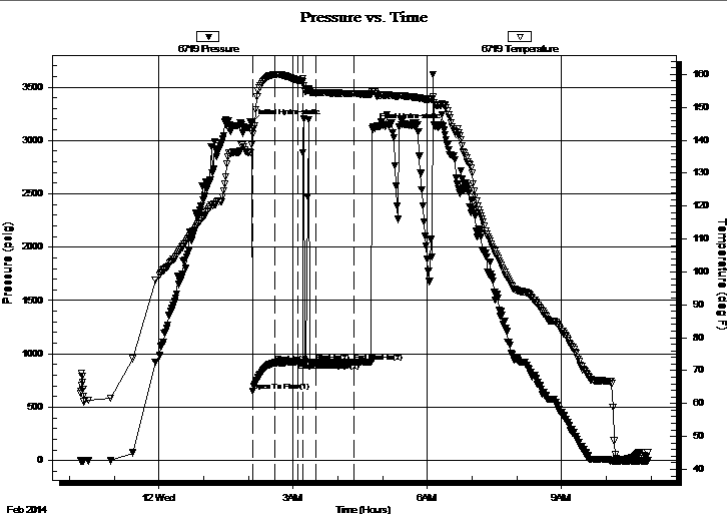
23-32s-37w Stevens, KS
Willis #23-7
 Job Ticket: 51932 **DST#: 2**
 Test Start: 2014.02.11 @ 22:15:03

GENERAL INFORMATION:

| | | |
|---|--|---|
| Formation: St. Louis | | Test Type: Conventional Bottom Hole (Reset) |
| Deviated: No Whipstock: ft (KB) | | Tester: Matt Smith |
| Time Tool Opened: 02:05:43 | | Unit No: 53 |
| Time Test Ended: 10:55:43 | | |
| Interval: 6325.00 ft (KB) To 6385.00 ft (KB) (TVD) | | Reference Elevations: 3117.00 ft (KB) |
| Total Depth: 6385.00 ft (KB) (TVD) | | 3104.00 ft (CF) |
| Hole Diameter: 7.88 inches Hole Condition: | | KB to GR/CF: 13.00 ft |

| | | | | |
|---|-------------------------------------|--|--|--|
| Serial #: 6719 Outside | | | | |
| Press@RunDepth: 921.61 psig @ 6326.00 ft (KB) | Capacity: 8000.00 psig | | | |
| Start Date: 2014.02.11 End Date: 2014.02.12 | Last Calib.: 2014.02.12 | | | |
| Start Time: 22:15:03 End Time: 10:55:43 | Time On Btm: 2014.02.12 @ 02:04:13 | | | |
| | Time Off Btm: 2014.02.12 @ 04:46:58 | | | |

TEST COMMENT: IF: Strong blow . B.O.B. in 2 mins.
 IS: No blow .
 FF: No blow .
 FS: No blow .



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 3161.50 | 138.61 | Initial Hydro-static |
| 2 | 652.07 | 141.82 | Open To Flow (1) |
| 32 | 917.18 | 159.96 | Shut-In(1) |
| 62 | 920.68 | 158.29 | End Shut-In(1) |
| 69 | 920.87 | 157.82 | Open To Flow (2) |
| 86 | 921.61 | 154.48 | Shut-In(2) |
| 138 | 920.89 | 154.15 | End Shut-In(2) |
| 163 | 3123.22 | 154.76 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------------------|--------------|
| 180.00 | MCW 42% <i>m</i> 58% <i>w</i> | 0.89 |
| 1420.00 | V SLI MW 2% <i>m</i> 98% <i>w</i> | 19.92 |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palmer Oil, Inc.
 PO Box 399
 Garden City, KS 67846
 ATTN: Wyatt Urban

23-32s-37w Stevens, KS

Willis #23-7

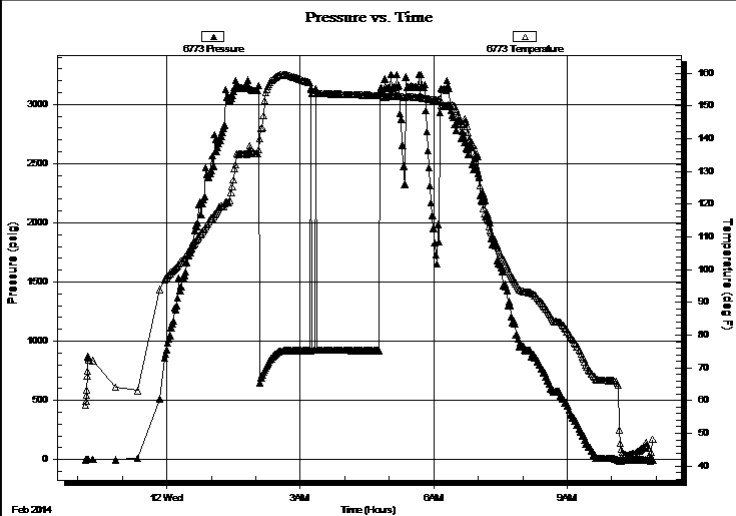
Job Ticket: 51932 **DST#: 2**
 Test Start: 2014.02.11 @ 22:15:03

GENERAL INFORMATION:

| | | | | |
|-------------------|---|-----------------|-----------------------|------------------------------------|
| Formation: | St. Louis | | | |
| Deviated: | No Whipstock: | ft (KB) | Test Type: | Conventional Bottom Hole (Reset) |
| Time Tool Opened: | 02:05:43 | | Tester: | Matt Smith |
| Time Test Ended: | 10:55:43 | | Unit No: | 53 |
| Interval: | 6325.00 ft (KB) To 6385.00 ft (KB) (TVD) | | Reference Elevations: | 3117.00 ft (KB) 3104.00 ft (CF) |
| Total Depth: | 6385.00 ft (KB) (TVD) | | KB to GR/CF: | 13.00 ft |
| Hole Diameter: | 7.88 inches | Hole Condition: | | |

| | | | | |
|-----------------------|------------------------|-----------|--------------|---------------|
| Serial #: 6773 | Outside | | | |
| Press@RunDepth: | psig @ 6326.00 ft (KB) | Capacity: | 8000.00 psig | |
| Start Date: | 2014.02.11 | End Date: | 2014.02.12 | Last Calib.: |
| Start Time: | 22:10:30 | End Time: | 10:55:55 | Time On Btm: |
| | | | | Time Off Btm: |

TEST COMMENT: IF: Strong blow . B.O.B. in 2 mins.
 IS: No blow .
 FF: No blow .
 FS: No blow .



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------|--------------|
| 180.00 | MCW 42%m 58%w | 0.89 |
| 1420.00 | V SLI MW 2%m 98%w | 19.92 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil, Inc.

23-32s-37w Stevens, KS

PO Box 399
Garden City, KS 67846

Willis #23-7

Job Ticket: 51932

DST#: 2

ATTN: Wyatt Urban

Test Start: 2014.02.11 @ 22:15:03

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 6130.00 ft | Diameter: 3.80 inches | Volume: 85.99 bbl | Tool Weight: 2400.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 180.00 ft | Diameter: 2.25 inches | Volume: 0.89 bbl | Weight to Pull Loose: 130000.0 lb |
| | | | <u>Total Volume: 86.88 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 13.00 ft | | | String Weight: Initial 88000.00 lb |
| Depth to Top Packer: | 6325.00 ft | | | Final 104000.0 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 60.00 ft | | | |
| Tool Length: | 88.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 6298.00 | |
| Shut In Tool | 5.00 | | | 6303.00 | |
| Hydraulic tool | 5.00 | | | 6308.00 | |
| Jars | 5.00 | | | 6313.00 | |
| Safety Joint | 3.00 | | | 6316.00 | |
| Packer | 4.00 | | | 6320.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 6325.00 | |
| Stubb | 1.00 | | | 6326.00 | |
| Recorder | 0.00 | 6719 | Outside | 6326.00 | |
| Recorder | 0.00 | 6773 | Outside | 6326.00 | |
| Perforations | 5.00 | | | 6331.00 | |
| Change Over Sub | 1.00 | | | 6332.00 | |
| Drill Pipe | 32.00 | | | 6364.00 | |
| Change Over Sub | 1.00 | | | 6365.00 | |
| Perforations | 17.00 | | | 6382.00 | |
| Bullnose | 3.00 | | | 6385.00 | 60.00 Bottom Packers & Anchor |
| Total Tool Length: | 88.00 | | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

23-32s-37w Stevens,KS
Willis #23-7
Job Ticket: 51932 **DST#: 2**
Test Start: 2014.02.11 @ 22:15:03

Mud and Cushion Information

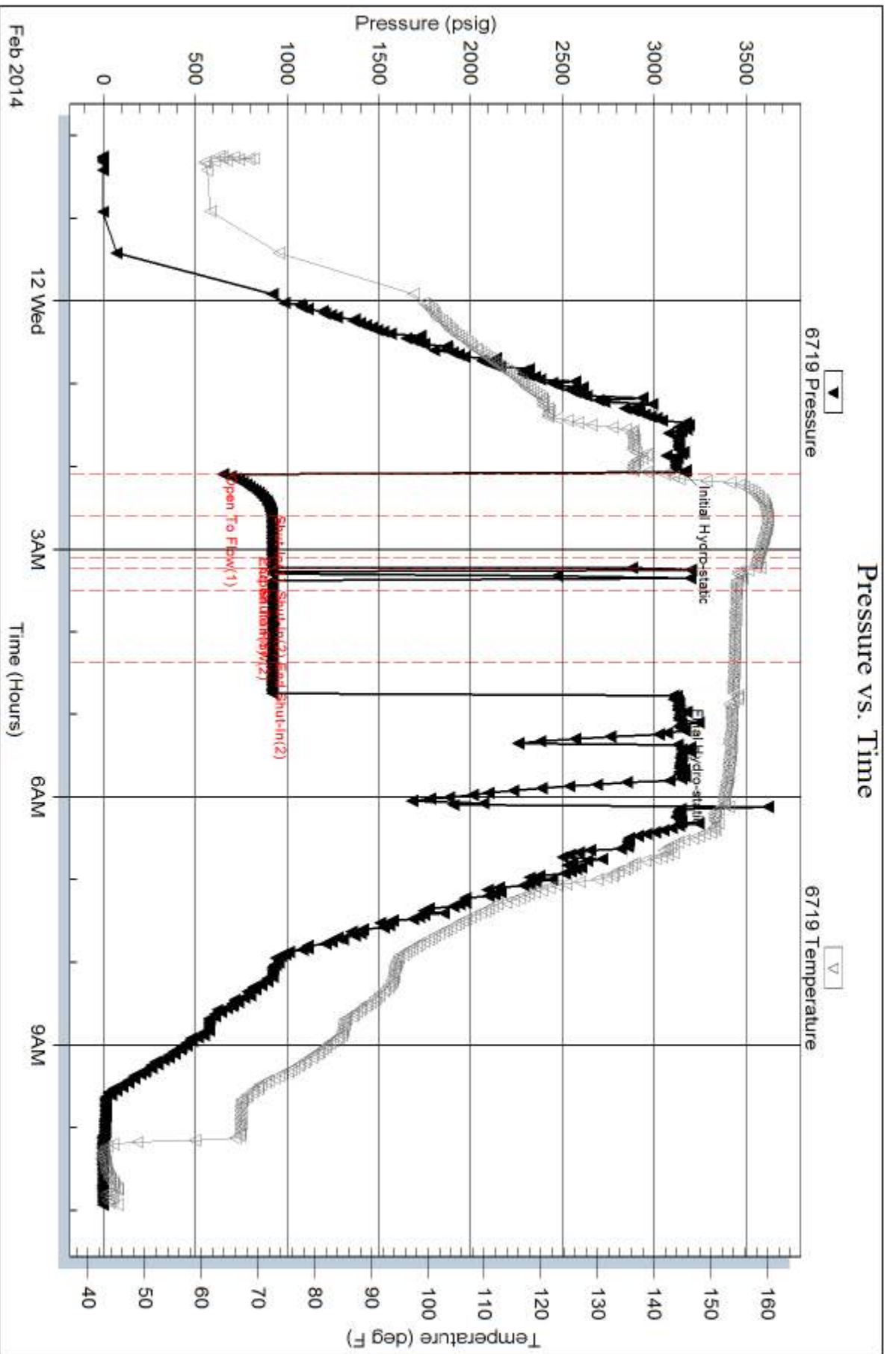
| | | | |
|----------------------------------|----------------------------|---------------------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: 11000 ppm | |
| Viscosity: 50.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.99 in ³ | Gas Cushion Type: | | |
| Resistivity: 0.00 ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 1250.00 ppm | | | |
| Filter Cake: 0.20 inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------|---------------|
| 180.00 | MCW 42%m 58%w | 0.885 |
| 1420.00 | V SLI MW 2%m 98%w | 19.919 |

Total Length: 1600.00 ft Total Volume: 20.804 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

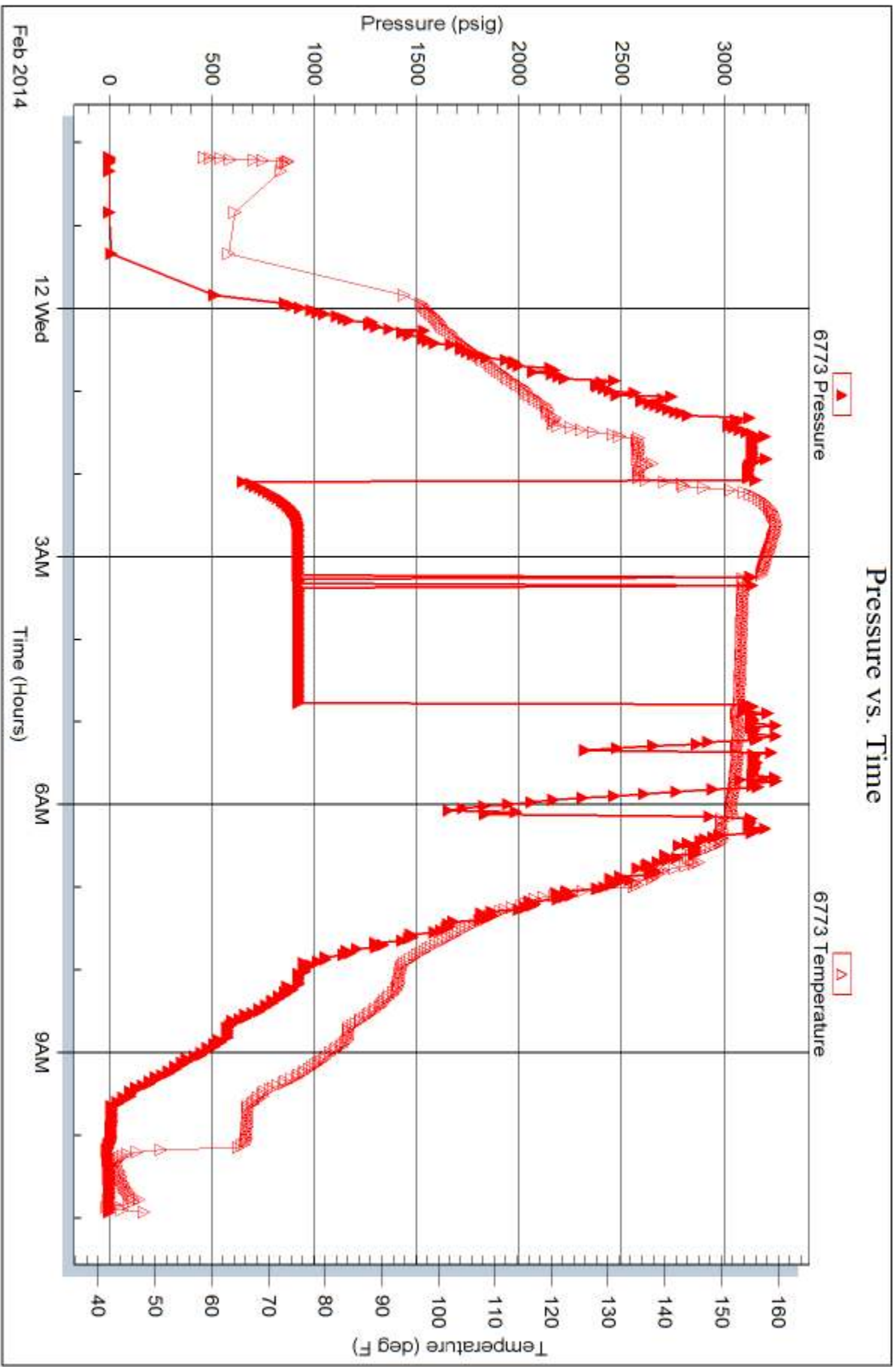


Serial #: 6773

Outside Palmer Oil, Inc.

Wells #23-7

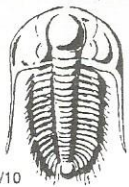
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 51932

Printed: 2014.02.14 @ 15:32:44



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51931

Well Name & No. ~~Willis # 23-7~~ Willis # 23-7 Test No. 1 Date 02/09/14
 Company Palmer Oil, Inc. Elevation 3117 KB 3104 GL
 Address 3118 N. Cummings RD. P.O. Box 399 Garden City, Ks. 67846
 Co. Rep / Geo. Wyatt Urban Rig Duke Drlg Rig #9
 Location: Sec. 23 Twp. 32s Rge. 37W Co. Stevens, State KS.

Interval Tested 5595 - 5670 Zone Tested Morrow Sand
 Anchor Length 75' Drill Pipe Run 5406 Mud Wt. 9.3
 Top Packer Depth 5590 Drill Collars Run 180' Vis 58
 Bottom Packer Depth 5595 Wt. Pipe Run 2 WL 6.4
 Total Depth 5670 Chlorides 3,000 ppm System LCM 2#

Blow Description IF: Weak blow. Surf. - 3 1/2".
 ISI: No blows.
 FF: Weak blow. Surf. - 3/4".
 FSI: No blow.

| Rec | Feet of | drlg mud | %gas | %oil | %water | %mud |
|-----|---------|----------|------|------|--------|------|
| 10 | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Rec Total 10' BHT 130° Gravity API RW @ ° F Chlorides ppm

| | | |
|------------------------------|--|--|
| (A) Initial Hydrostatic 2713 | <input checked="" type="checkbox"/> Test 1350 | T-On Location 1130 |
| (B) First Initial Flow 23 | <input checked="" type="checkbox"/> Jars 250 | T-Started 1154 |
| (C) First Final Flow 30 | <input checked="" type="checkbox"/> Safety Joint 75 | T-Open 1504 |
| (D) Initial Shut-In 49 | <input type="checkbox"/> Circ Sub | T-Pulled 1738 |
| (E) Second Initial Flow 25 | <input type="checkbox"/> Hourly Standby | T-Out 2053 |
| (F) Second Final Flow 30 | <input checked="" type="checkbox"/> Mileage 310 → 208rt 322.40 | Comments matt Smith |
| (G) Final Shut-In 45 | <input type="checkbox"/> Sampler | |
| (H) Final Hydrostatic 2705 | <input type="checkbox"/> Straddle | <input type="checkbox"/> Ruined Shale Packer |
| | <input checked="" type="checkbox"/> Shale Packer 250 | <input type="checkbox"/> Ruined Packer |
| Initial Open 30 | <input type="checkbox"/> Extra Packer | <input type="checkbox"/> Extra Copies |
| Initial Shut-In 30 | <input type="checkbox"/> Extra Recorder | Sub Total 0 |
| Final Flow 45 | <input type="checkbox"/> Day Standby | Total 2247.40 |
| Final Shut-In 45 | <input type="checkbox"/> Accessibility | MP/DST Disc't |
| | Sub Total 2247.40 | |

Approved By _____ Our Representative

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51932

Well Name & No. Willis # 23-7 Test No. 2 Date 02/11/14
 Company Palmer Oil, Inc. Elevation 3117 KB 3104 GL
 Address 3118 N. Cummings RD. P.O. Box 399 Garden City, KS. 67846
 Co. Rep / Geo. Wyatt Urban Rig Duke Delg, Rig #9
 Location: Sec. 23 Twp. 32s Rge. 37w Co. Stevens State KS

Interval Tested 6325 - 6385 Zone Tested St. Louis
 Anchor Length 60' Drill Pipe Run 6130 Mud Wt. 9.4
 Top Packer Depth 6320 Drill Collars Run 180' Vis 50
 Bottom Packer Depth 6325 Wt. Pipe Run 2 WL 8.0
 Total Depth 6385 Chlorides 1250 ppm System LCM 1 1/2#

Blow Description IF: Strong blow, B.O.B. in 2 mins.
ISI: No blow.
FF: No blow.
FSI: No blow.

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|------------------|------|------|-----------|-----------|
| <u>1420</u> | <u>VSLI OCWM</u> | | | <u>58</u> | <u>42</u> |
| <u>180</u> | <u>VSLI OCWM</u> | | | <u>98</u> | <u>2</u> |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 1600' BHT 154° Gravity N/C API RW 1.0 @ 40 ° F Chlorides 11,000 ppm

(A) Initial Hydrostatic 3162 Test 1450 T-On Location 2130
 (B) First Initial Flow 652 Jars 250 T-Started 2215
 (C) First Final Flow 917 Safety Joint 75 T-Open 0205
 (D) Initial Shut-In 921 Circ Sub _____ T-Pulled 0445
 (E) Second Initial Flow 921 Hourly Standby .75h 75 T-Out 1655
 (F) Second Final Flow 922 Mileage 310 322.40 Comments _____
 (G) Final Shut-In 921 Sampler _____
 (H) Final Hydrostatic 3123 Straddle _____

Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer 320
 Extra Packer _____
 Extra Copies _____
 Extra Recorder _____
 Sub Total 816.67
 Day Standby 1d 24.5h Total 3309.07
 Accessibility _____ MP/DST Disc't _____
 Sub Total 2172.40

Approved By _____ Our Representative Matthew Smith

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



NOTES

Company: Palmer Oil, Inc.

Lease: Willis 23-7

Field: Willis

Location: SE-NW-NW-SE (2250' FSL & 2300' FEL)

Sec: 23 Twsp: 32S Rge: 37W

County: Stevens State: Kansas

KB: 3117' GL: 3104'

API #: 15-189-22832-00-00

Contractor: Duke Drilling Inc. (Rig #9)

Spud: 2/03/2014 Comp: 2/13/2014

RTD: 6500' LTD: 6506'

Mud Up: 4500' Type Mud: Chemical

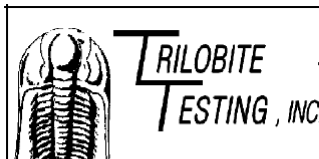
Samples Saved From: 4600' to RTD
 Drilling Time Kept From: 4100' to RTD
 Samples Examined From: 4600' to RTD
 Geological Supervision from: 4600' to RTD
 Geologist on Well: Wyatt Urban

Surface Casing: 8 5/8@ 1740'

Electronic Surveys: Logged by Pioneer Energy Services, DIL, CNL/CDL, MEL

Palmer Oil, Inc.
well comparison sheet

| Formation | DRILLING WELL | | | | COMPARISON WELL | | | | COMPARISON WELL | | | | |
|-------------|--------------------------------|---------|------|---------|--------------------------------|---------|--------|-------------------------|-----------------------------|---------|--------|-------------------------|--|
| | Palmer Oil, Inc. - Willis 23-7 | | | | Palmer Oil, Inc. - Willis 23-6 | | | | EOG Resources - 23-1 Willis | | | | |
| | SE-NW-NW-SE 23-32-37W | | | | NE-SE-SW-NE 23-32S-37W | | | | W2-SE-NW-SE 23-32S-37W | | | | |
| | 3117 KB | | | | 3119 KB | | | Structural Relationship | | 3122 KB | | Structural Relationship | |
| | Sample | Sub-Sea | Log | Sub-Sea | Log | Sub-Sea | Sample | Log | Log | Sub-Sea | Sample | Log | |
| Heebner | | | | | | | | | | 4147 | -1025 | | |
| Lansing | 4256 | -1139 | | | | | | | | | | | |
| Marmaton | 4952 | -1835 | 4930 | -1813 | 4969 | -1850 | 15 | 37 | 4948 | -1826 | -9 | 13 | |
| Cherokee | 5118 | -2001 | 5122 | -2005 | 5127 | -2008 | 7 | 3 | 5121 | -1999 | -2 | -6 | |
| Atoka | 5530 | -2413 | 5534 | -2417 | | | | | | | | | |
| Morrow | 5625 | -2508 | 5631 | -2514 | 5632 | -2513 | 5 | -1 | 5636 | -2514 | 6 | 0 | |
| St. Gen. | 6172 | -3055 | 6172 | -3055 | 6178 | -3059 | 4 | 4 | | | | | |
| St. Louis | 6300 | -3183 | 6294 | -3177 | 6298 | -3179 | -4 | 2 | 6356 | -3234 | 51 | 57 | |
| St. Louis B | 6345 | -3228 | 6347 | -3230 | 6361 | -3242 | 14 | 12 | 6372 | -3250 | 22 | 20 | |
| RTD | 6500 | -3383 | 6500 | -3383 | 6500 | -3381 | -2 | -2 | | | | | |
| LTD | 6506 | -3389 | 6506 | -3389 | | | | | | | | | |



DRILL STEM TEST REPORT

Palmer Oil, Inc. **23-32s-37w Stevens Co.**

3118 N. Cummings Rd. **Willis #23-7**
 P.O. Box 399

Job Ticket: 51931 DST#: 1



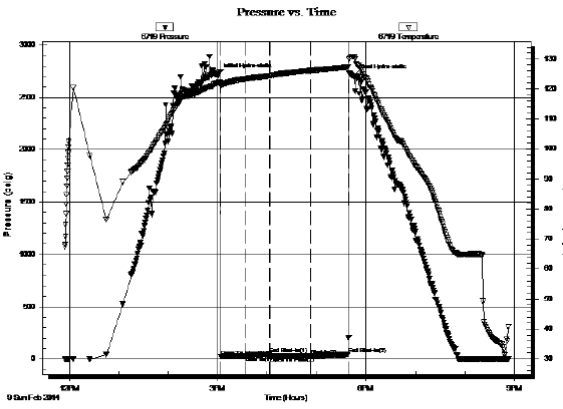
GENERAL INFORMATION:

Formation: **Morrow Sand**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 15:03:57
 Time Test Ended: 20:53:12
 Interval: **5595.00 ft (KB) To 5670.00 ft (KB) (TVD)**
 Total Depth: 5670.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)
 Tester: Leal Cason
 Unit No: 53
 Reference Elevations: 3117.00 ft (KB)
 3104.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 6719 Outside
 Press@RunDepth: 30.04 psig @ 5596.00 ft (KB)
 Start Date: 2014.02.09 End Date: 2014.02.09 Capacity: 8000.00 psig
 Start Time: 11:54:32 End Time: 20:53:12 Last Calib.: 2014.02.09
 Time On Btm: 2014.02.09 @ 15:01:12
 Time Off Btm: 2014.02.09 @ 17:44:57

TEST COMMENT: IF: Weak blow . Surf., - 3 1/2 ".
 IS: No blow .
 FF: Weak blow . Surf., - 3/4 ".
 FSt: No blow .



PRESSURE SUMMARY

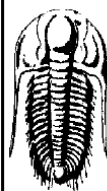
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2713.10 | 122.23 | Initial Hydro-static |
| 3 | 23.16 | 120.88 | Open To Flow (1) |
| 34 | 29.70 | 123.41 | Shut-In(1) |
| 62 | 49.41 | 124.41 | End Shut-In(1) |
| 63 | 25.54 | 124.44 | Open To Flow (2) |
| 112 | 30.04 | 126.19 | Shut-In(2) |
| 158 | 45.21 | 127.29 | End Shut-In(2) |
| 164 | 2704.78 | 130.66 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00 | drig mud | 0.05 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Palmer Oil, Inc.
 3118 N. Cummings Rd.
 P.O. Box 399
 Garden City, Ks.
 ATTN: Wyatt Urban

23-32s-37w Stevens Co.
Willis #23-7
 Job Ticket: 51932 **DST#: 2**
 Test Start: 2014.02.11 @ 22:15:03

GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 02:05:43
 Time Test Ended: 10:55:43
 Interval: **6325.00 ft (KB) To 6385.00 ft (KB) (TVD)**
 Total Depth: 6385.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches-Hole Condition:

Test Type: Conventional Bottom Hole (Reset)
 Tester: Matt Smith
 Unit No: 53
 Reference Elevations: 3117.00 ft (KB)
 3104.00 ft (CF)
 KB to GR/CF: 13.00 ft

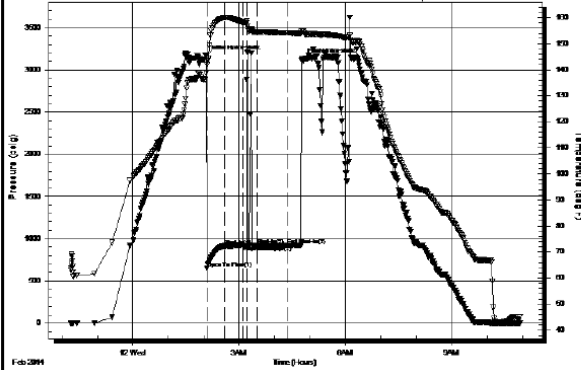
Serial #: 6719 Outside
 Press@RunDepth: 921.61 psig @ 6326.00 ft (KB)
 Start Date: 2014.02.11 End Date: 2014.02.12 Capacity: 8000.00 psig
 Start Time: 22:15:03 End Time: 10:55:43 Last Calib.: 2014.02.12
 Time On Btm: 2014.02.12 @ 02:04:13
 Time Off Btm: 2014.02.12 @ 04:46:58

TEST COMMENT: IF: Strong blow . B.O.B. in 2 mins.
 IS: No blow .
 FF: No blow .
 FSt: No blow .

Pressure vs. Time

PRESSURE SUMMARY

| Time | Pressure | Temp | Annotation |
|------|----------|------|------------|
|------|----------|------|------------|



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 3161.50 | 138.61 | Initial Hydro-static |
| 2 | 652.07 | 141.82 | Open To Flow (1) |
| 32 | 917.18 | 159.96 | Shut-in(1) |
| 62 | 920.68 | 158.29 | End Shut-in(1) |
| 69 | 920.87 | 157.82 | Open To Flow (2) |
| 86 | 921.61 | 154.48 | Shut-in(2) |
| 138 | 920.89 | 154.15 | End Shut-in(2) |
| 163 | 3123.22 | 154.76 | Final Hydro-static |

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 180.00 | V SLI OCMW 42%m 58%w | 0.89 |
| 1420.00 | V SLI OCMW 2%m 98%w | 19.92 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

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

ROCK TYPES

| | | | |
|-----------|------------|------------|----|
| sdy lmst | Lmst fw7> | Carbon Sh | Ss |
| Lmst fw<7 | shale, gry | shale, red | |

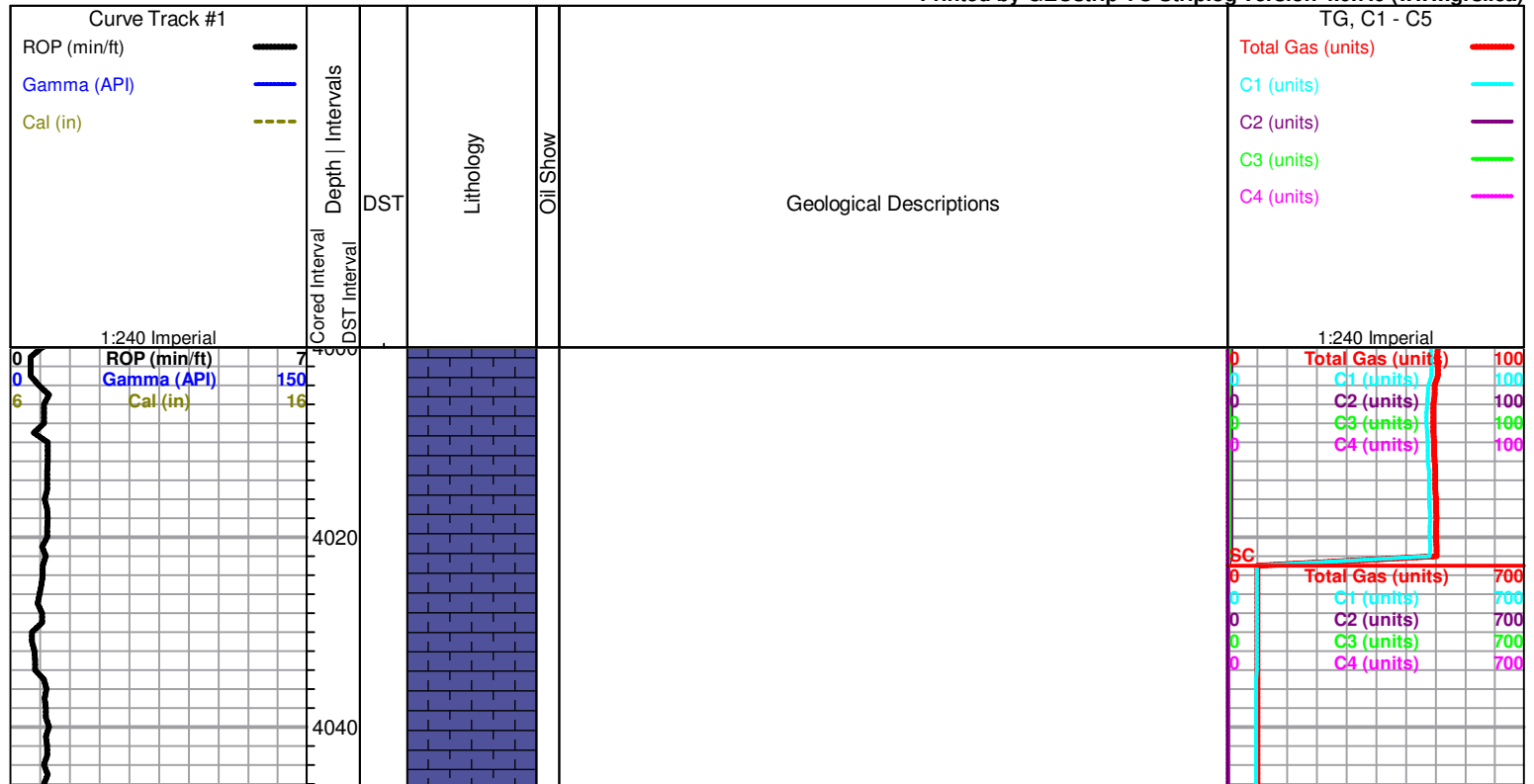
ACCESSORIES

FOSSIL
 Oolite

OTHER SYMBOLS

| | |
|--|---|
| <p>Oil Show</p> <ul style="list-style-type: none"> ● Good Show ● Fair Show ● Poor Show ○ Spotted or Trace ○ Questionable Trace D Dead Oil Strn ■ Fluorescence * Gas | <p>DST</p> <ul style="list-style-type: none"> DST Int DST alt Core tail pipe |
|--|---|

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



4060
4080
4100
4120
4140
4160
4180
4200
4220
4240
4260

B. Heebner 4136 (-1019)

Lansing 4256 (-1139)

ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16

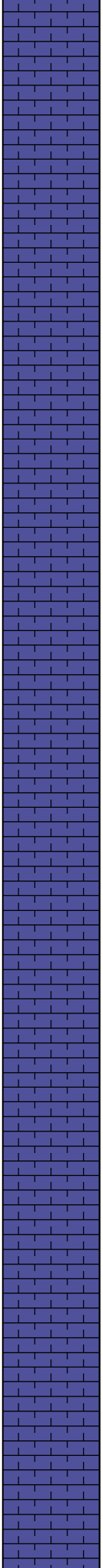
ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16

Total Gas (units) 700
C1 (units) 700
C2 (units) 700
C3 (units) 700
C4 (units) 700

4280
4300
4320
4340
4360
4380
4400
4420
4440
4460
4480

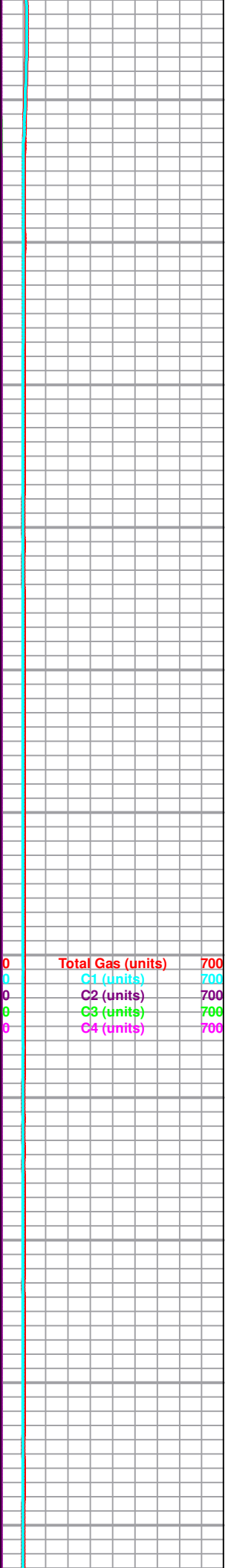
ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16

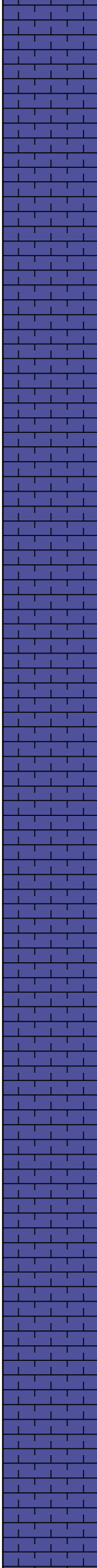
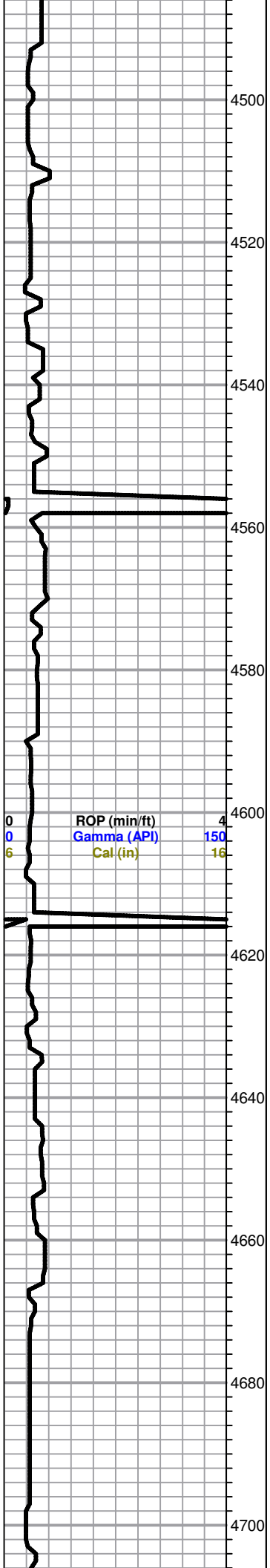
0
0
6



Total Gas (units) 700
C1 (units) 700
C2 (units) 700
C3 (units) 700
C4 (units) 700

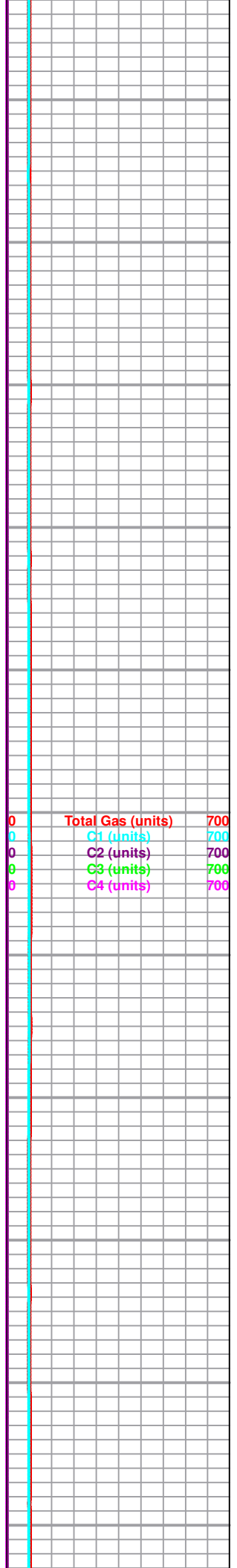
0
0
0
0
0





LS, tan to brown, mottled, fxl, dense, poor visible porosity, no shows

LS, tan to cream FX, dense, poor visible porosity, chalky in parts, no shows



4720
4740
4760
4780
4800
4820
4840
4860
4880
4900
4920

LS, tan, ool, poorly deveoped, poor scattered porosity, dense,

Sh. gray to black, silty

black carb Sh.

LS, cream to tan, chalky, dense, poor visible porosity, few foss, no shows

LS, brown to tan, FXL, mottled, few foss, poor scattered porosity,

LS, brown to tan, FXL, cherty, dense, poor visible porosity, few foss, no shows.

SH. black to gray, silty in parts

ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16

Total Gas (units) 700
C1 (units) 700
C2 (units) 700
C3 (units) 700
C4 (units) 700

4940
4960
4980
5000
5020
5040
5060
5080
5100
5120
5140

MARMATON 4952 (-1835)

LS, brown to tan, FXL, dense, chery, poor visible porosity no shows.

LS, tan to brown dense, poor scattered porosity, dense,

LS, cream to tan, FXL, dense, cherty, poor visible porosity, no shows

LS, brown to tan FXL, dense, poor visible porosity no shows

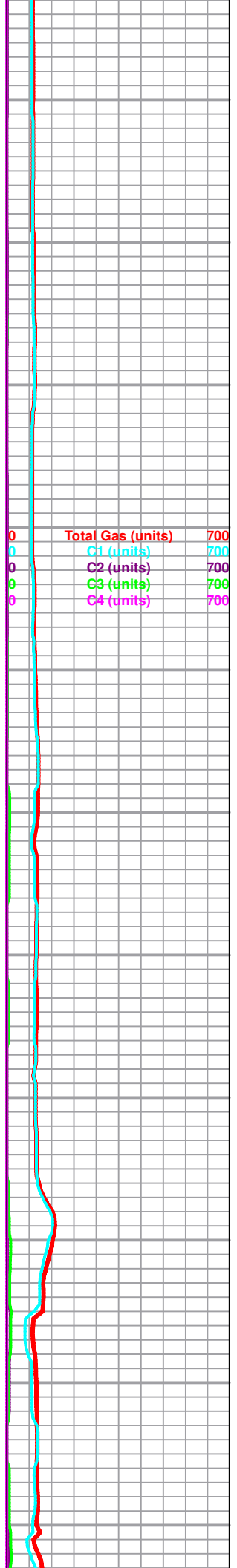
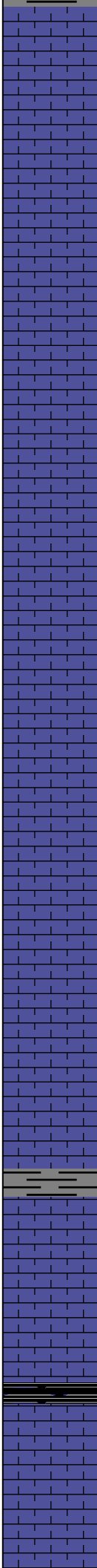
Sh. gray to black, silty, trc. LS, tan FXL cherty, poor visible porosity, no shows

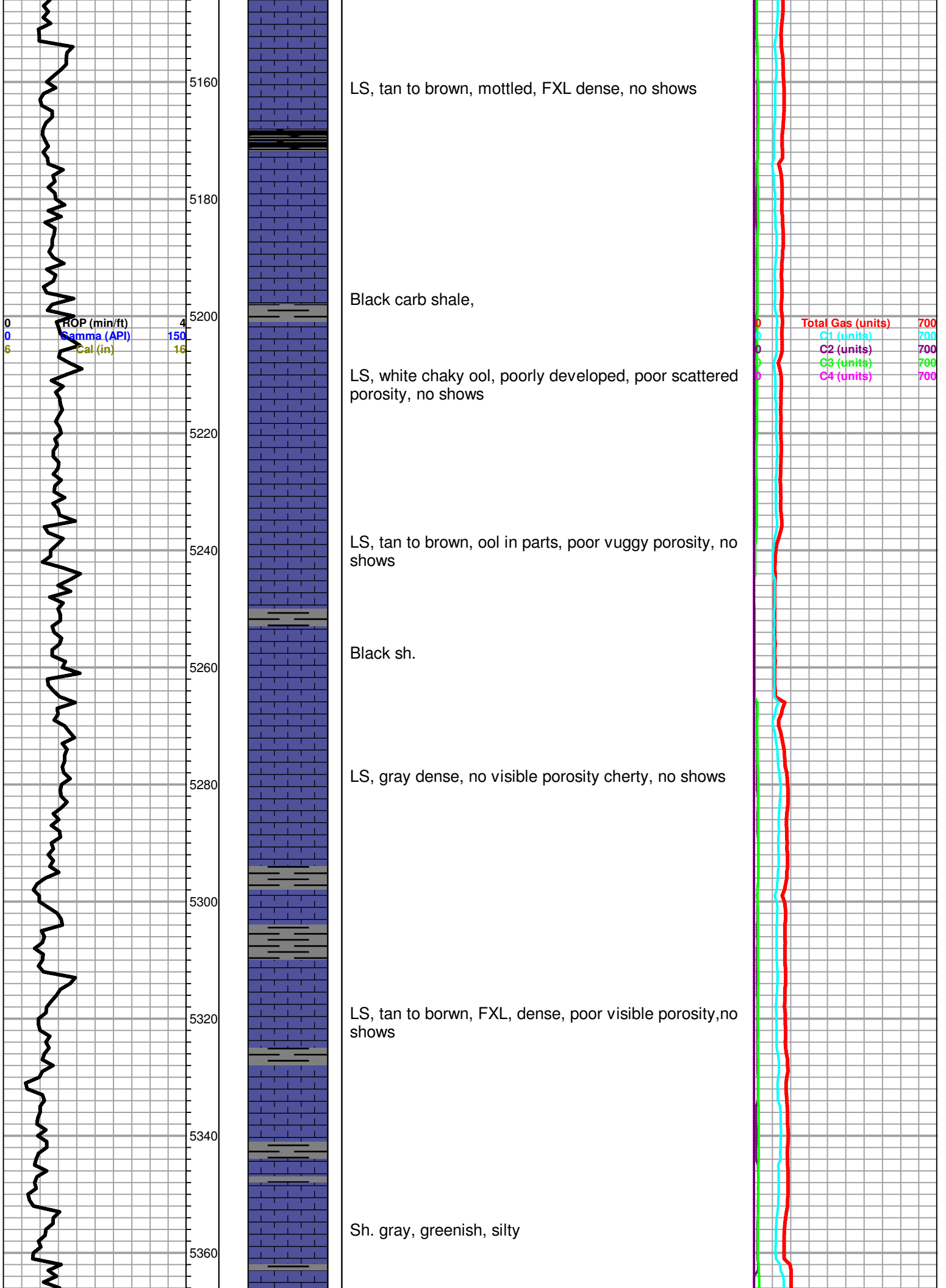
Cherokee Sh. 5118 (-2001)

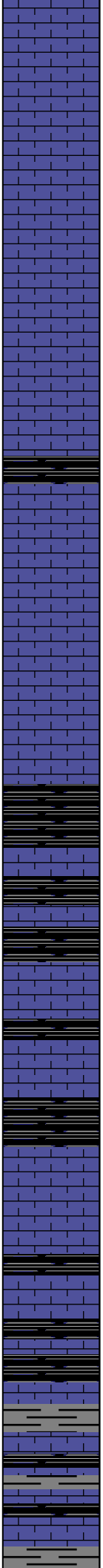
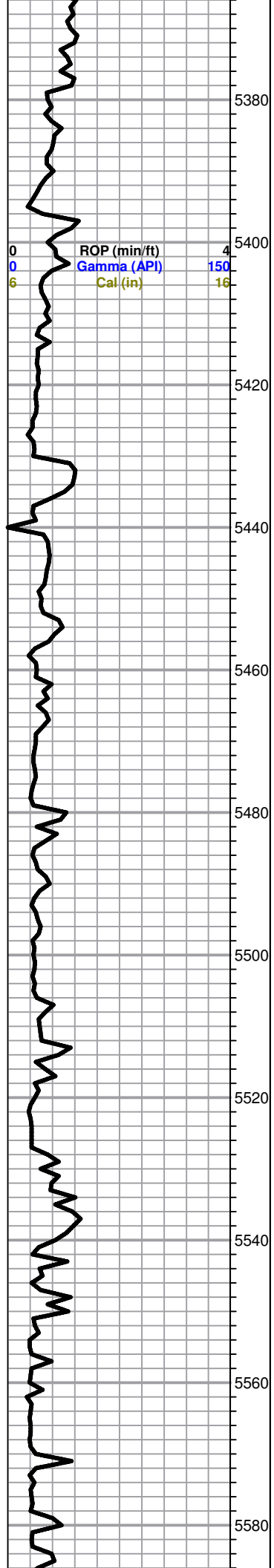
Black carb shale.

ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16

Total Gas (units) 700
C1 (units) 700
C2 (units) 700
C3 (units) 700
C4 (units) 700







5380
5400
LS, cream to tan, FXL, dense, few foss, poor visible porosity, no shows

5420
LS, cream to tan, FXL, dense, few foss, poorly developed dense, poor scattered porosity no shows

5460
LS, cream to gray, mottled, dense, poor visible porosity, no shows

5480
Sh. black carb

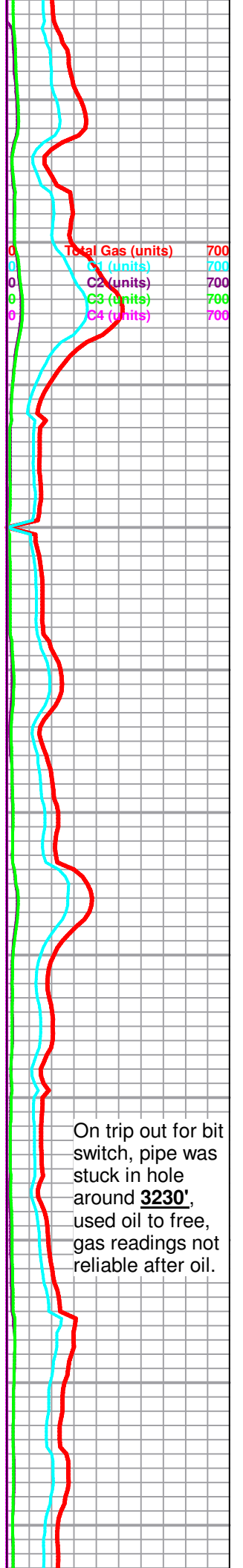
5500
Sh. gray to black carb

5520
Sh. black carb, trace LS, cream chalky poor visible porosity, no shows

5540
Atoka 5530 (-2413)
LS, cream to tan, chalky, poor scattered porosity, few foss, dense, no shows

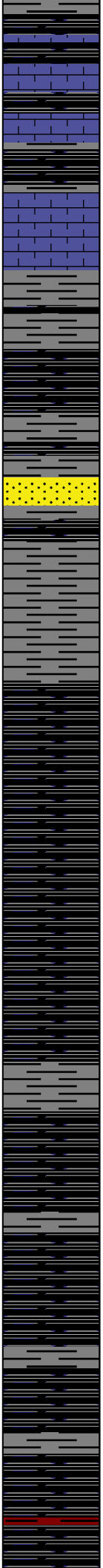
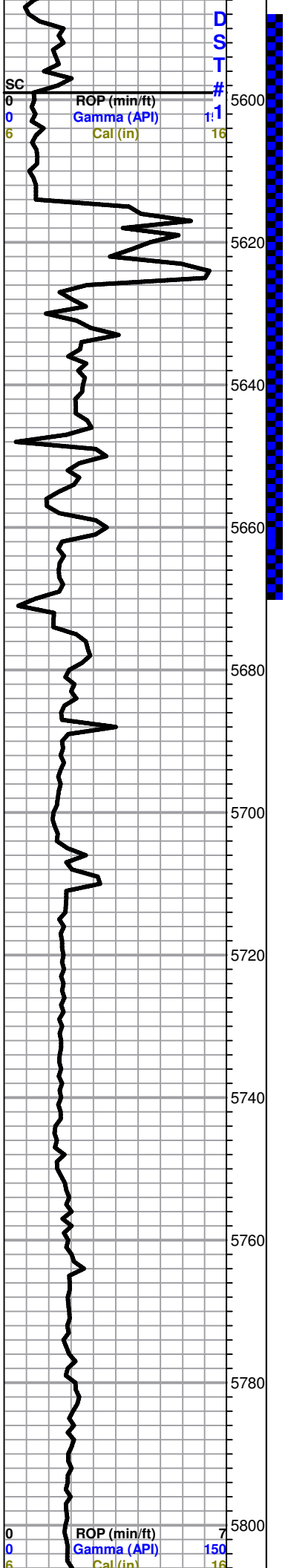
5560
Sh. black and gray

5580
LS, cream to tan, cherty FXL, dense poor visible



On trip out for bit switch, pipe was stuck in hole around **3230'**, used oil to free, gas readings not reliable after oil.

porosity, no shows, Trc. black to gray shale



MORROW 5625 (-2508)

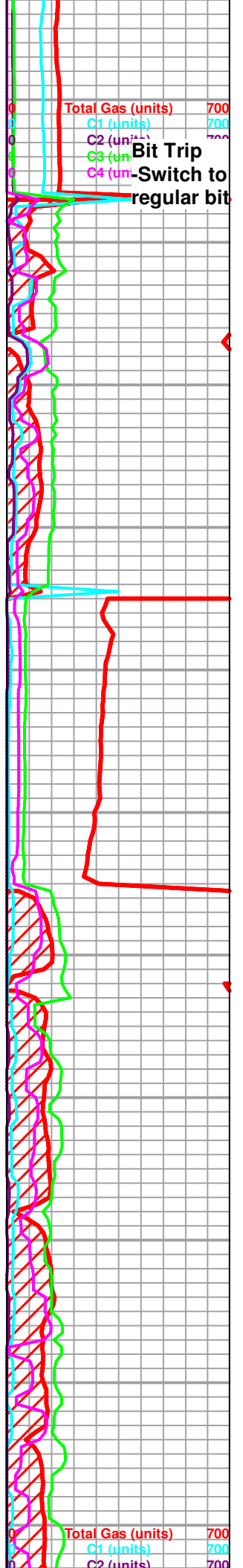
Sh. black carb

Trc.Sd, gray qtz. sub rounded, well sorted, friable, no odor, no flor. cut, no shows.

Sh. black gray silty

Sh. gray to black

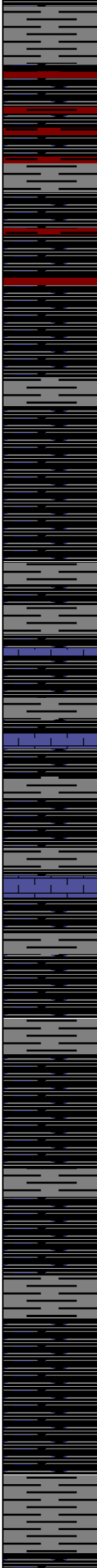
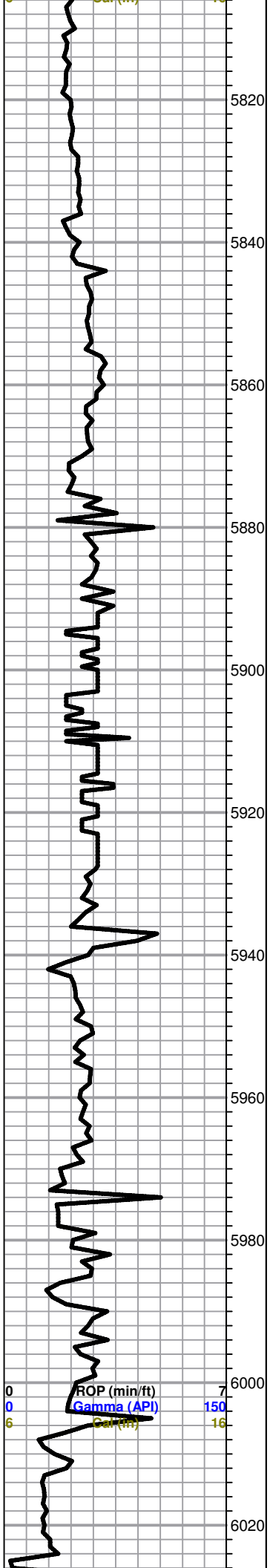
Sh. black to gray,



Total Gas (units) 700
 C1 (units) 700
 C2 (units) 700
 C3 (units) 700
 C4 (units) 700

Bit Trip
 Switch to regular bit

Total Gas (units) 700
 C1 (units) 700
 C2 (units) 700



Sh. gray to black, silty in parts, trace maroon to red sh.

Sh. black carb

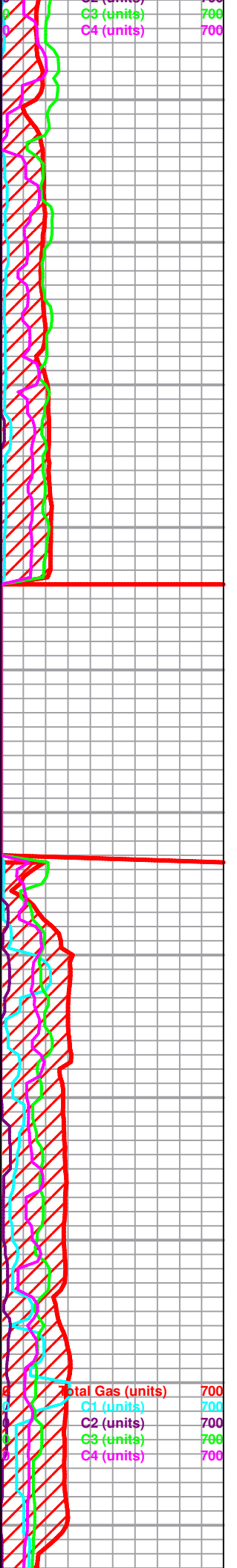
Sh. black carb

Sh. black carb, trace cream to tan, chalky, poorly developed, no shows

Sh. black to gray, trc. LS, cream to gray,

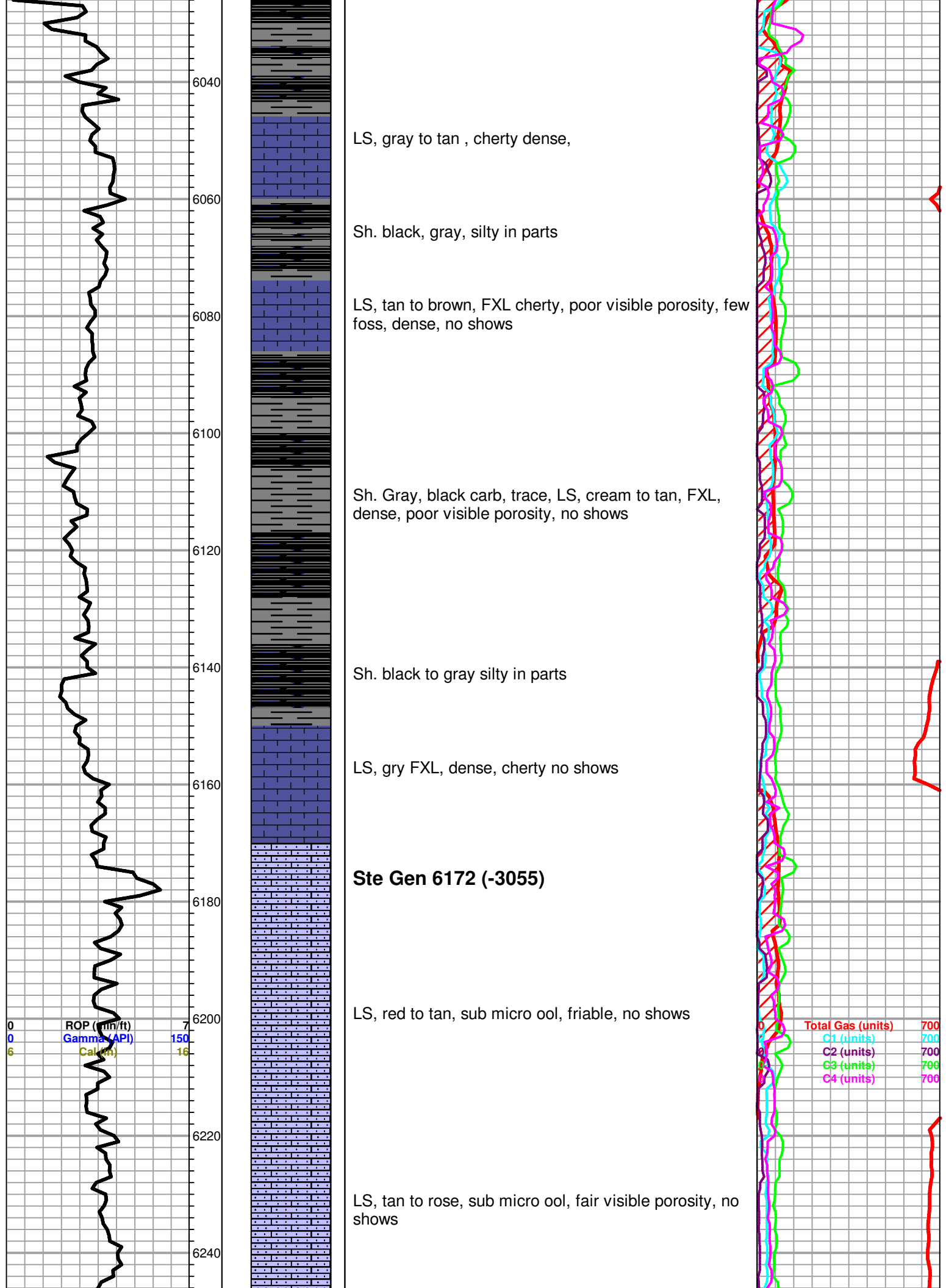
Sh. black, gray, silty, maroon,

Sh. gray, silty, Black carb sh



C3 (units) 700
C4 (units) 700

Total Gas (units) 700
C1 (units) 700
C2 (units) 700
C3 (units) 700
C4 (units) 700



6040
6060
6080
6100
6120
6140
6160
6180
6200
6220
6240

LS, gray to tan , cherty dense,

Sh. black, gray, silty in parts

LS, tan to brown, FXL cherty, poor visible porosity, few foss, dense, no shows

Sh. Gray, black carb, trace, LS, cream to tan, FXL, dense, poor visible porosity, no shows

Sh. black to gray silty in parts

LS, gry FXL, dense, cherty no shows

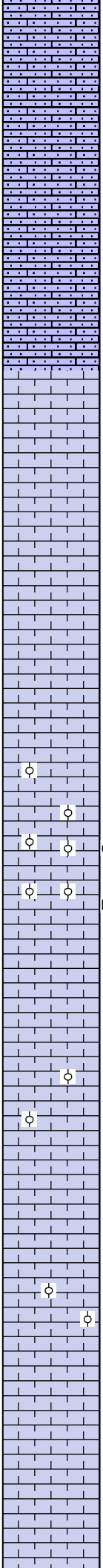
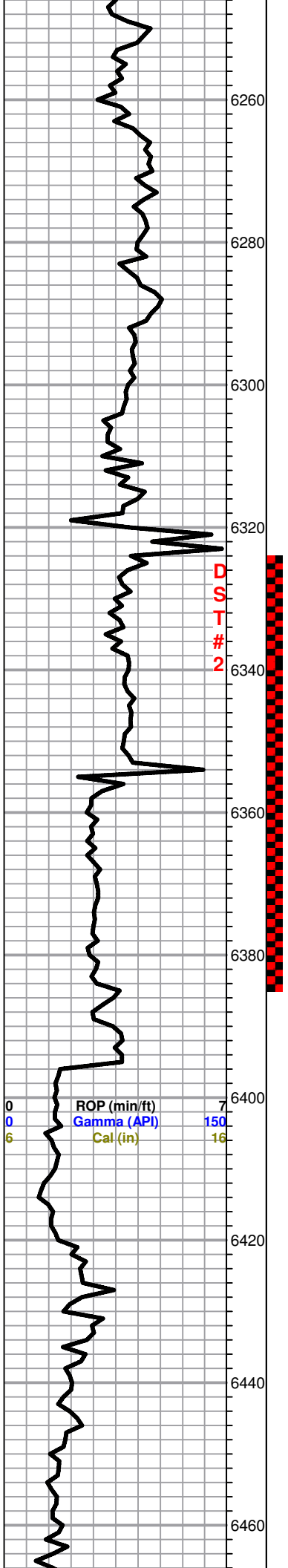
Ste Gen 6172 (-3055)

LS, red to tan, sub micro ool, friable, no shows

LS, tan to rose, sub micro ool, fair visible porosity, no shows

Total Gas (units) 700
C1 (units) 700
C2 (units) 700
C3 (units) 700
C4 (units) 700

ROP (min/ft) 7
Gamma (API) 150
Calc (%) 16



LS, tan to rose, sub micro ool, friable no shows

St. Louis 6300 (-3183)

LS, white to cream chalky, poor visible porosity, no shows,

LS, cream to white ool, poorly developed, chalky, poor scattered .

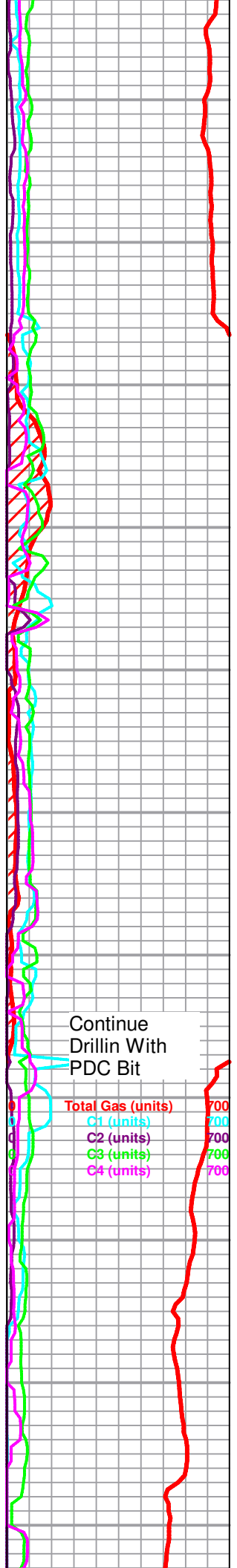
LS, cream to white, ool, chalky poor visible porosity, no shows.

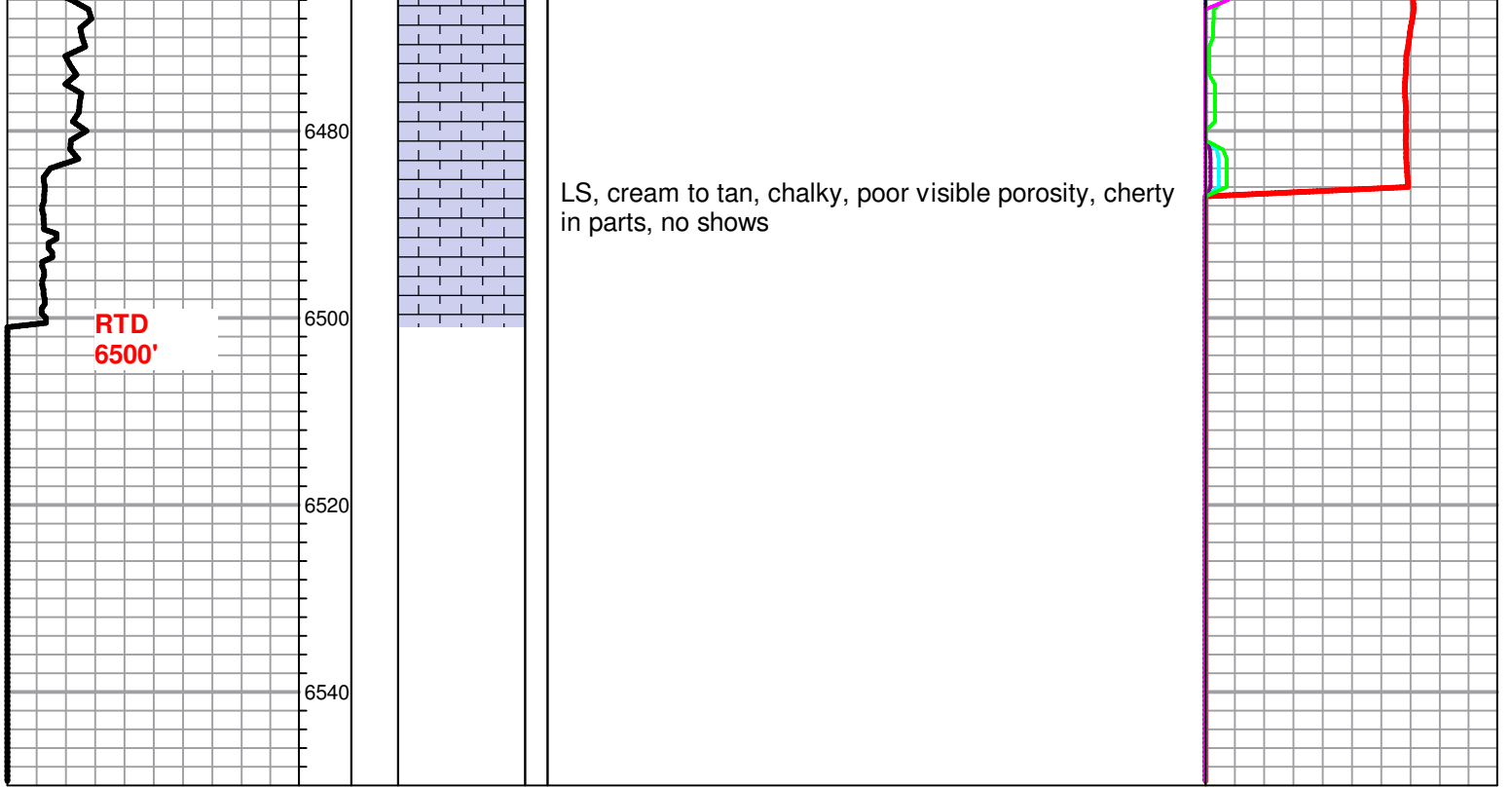
LS, tan ool, well developed, good scattered porosity, fair odor, light show of free oil, good for.

LS, cream to tan, ool, poorly developed , chalky, poor visible porosity, no shows

LS, cream, chalky, few ool, poorly developed, poor scattered porosity, no shows

LS, cream to tan, dense, cherty in parts, poor visible porosity, no shows





LS, cream to tan, chalky, poor visible porosity, cherty in parts, no shows

RTD
6500'

6480

6500

6520

6540