



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1111847  
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
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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: \_\_\_\_\_



1111847

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
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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:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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**McCoy Petroleum Corporation**  
**Richardson Trust 'A' #1-15**  
**30'E of S2 SE NW, Section 15-27S-29W**  
**2310' FNL & 2010' FWL**  
**Gray County, Kansas**  
**API# 15-069-20414-0000**

**SAMPLE TOPS**

**McCoy Petroleum**  
**Richardson Trust 'A' #1-15**  
**S/2 NE NW**  
**Sec 15-27S-29W**  
**KB: 2754'**

KB: 2754'	Depth	Datum
Herington	2666	88
Krider	2686	68
Winfield	2722	32
Towanda	2768	-14
Ft. Riley	2818	-64
Florence	2870	-116
Wreford	2913	-159
Council Grove	2940	-186
Neva	3138	-384
Foraker	3242	-488
Stotler	3489	-735
Topeka	3745	-991
Heebner	4134	-1380
Toronto	4155	-1401
Lansing	4192	-1438
LKC 'G'	4410	-1666
Stark	4508	-1754
Hushpuckney	4551	-1797
Marmaton	4678	-1924
Pawnee	4772	-2018
Cherokee	4808	-2054
Mid Cher. LS	4880	-2126
St. Genevieve	4965	-2211
St. Louis 'A'	5030	-2276
St. Louis 'B'	5061	-2307
RTD	5150	-2397

**WELL REPORT**

**McCoy Petroleum Corporation  
Richardson Trust 'A' #1-15  
30'E of S2 SE NW, Section 15-27S-29W  
2310' FNL & 2010' FWL  
Gray County, Kansas  
API# 15-069-20414-0000**

**#1155 (12-10)**

*Page 2*

**Electric Log TOPS**

**McCoy Petroleum  
Richardson Trust 'A' #1-15  
S/2 NE NW  
Sec 15-27S-29W  
KB: 2754'**

KB: 2754'	Depth	Datum
Herington	2670	84
Krider	2691	63
Winfield	2736	18
Towanda	2794	-40
Ft. Riley	2840	-86
Florence	2898	-144
Wreford	2932	-178
Council Grove	2968	-214
Stotler	3514	-760
Topeka	3794	-1040
Heebner	4134	-1380
Toronto	4154	-1400
Lansing	4194	-1440
LKC 'G'	4406	-1652
Stark	4518	-1764
Hushpuckney	4566	-1812
Marmaton	4692	-1938
Pawnee	4770	-2016
Cherokee	4808	-2054
Mid-Cher. Zone	4889	-2135
St. Genevieve	4966	-2212
St. Louis 'A'	5030	-2276
St. Louis 'B'	5054	-2300
LTD	5151	-2397



## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E Central Ste 300  
Wichita, KS 67206

ATTN: Evan Stone

**15-27s-29w Gray,KS**

**Richardson Trust A #1-15**

Start Date: 2012.11.21 @ 17:19:41

End Date: 2012.11.22 @ 00:43:35

Job Ticket #: 50105                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:54:00

McCoy Petroleum Corp.

Richardson Trust A #1-15

15-27s-29w Gray,KS

DST # 1

Lansing I

2012.11.21



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corp.  
 8080 E Central Ste 300  
 Wichita, KS 67206  
 ATTN: Evan Stone

**Richardson Trust A #1-15**  
**15-27s-29w Gray,KS**  
 Job Ticket: 50105 **DST#: 1**  
 Test Start: 2012.11.21 @ 17:19:41

## GENERAL INFORMATION:

Formation: **Lansing I**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:38:36  
 Time Test Ended: 00:43:35  
 Interval: **4433.00 ft (KB) To 4460.00 ft (KB) (TVD)**  
 Total Depth: 4460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brandon Turley  
 Unit No: 60  
 Reference Elevations: 2752.00 ft (KB)  
 2741.00 ft (CF)  
 KB to GR/CF: 11.00 ft

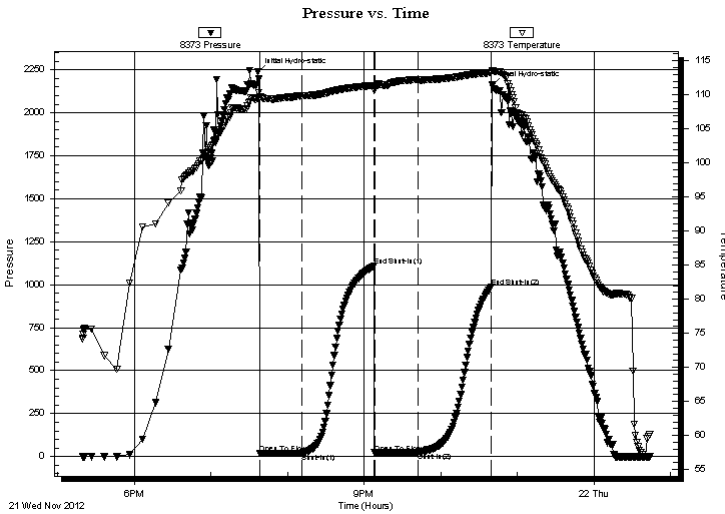
## Serial #: 8373

Inside

Press @ RunDepth: 23.29 psig @ 4434.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.11.21 End Date: 2012.11.22 Last Calib.: 2012.11.22  
 Start Time: 17:19:41 End Time: 00:43:35 Time On Btm: 2012.11.21 @ 19:36:36  
 Time Off Btm: 2012.11.21 @ 22:40:35

TEST COMMENT: IF: 1/4" blow died in 10 min.  
 IS: No return.  
 FF: No blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.38	109.41	Initial Hydro-static
2	18.33	109.71	Open To Flow (1)
35	19.94	109.85	Shut-In(1)
91	1107.07	111.40	End Shut-In(1)
92	21.53	110.70	Open To Flow (2)
126	23.29	112.19	Shut-In(2)
183	985.41	113.25	End Shut-In(2)
184	2161.08	113.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

ATTN: Evan Stone

Job Ticket: 50105

**DST#: 1**

Test Start: 2012.11.21 @ 17:19:41

## Tool Information

Drill Pipe:	Length: 4112.00 ft	Diameter: 3.80 inches	Volume: 57.68 bbl	Tool Weight: 2000.00 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: 299.00 ft	Diameter: 2.25 inches	Volume: 1.47 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 59.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4433.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4406.00	
Shut In Tool	5.00			4411.00	
Hydraulic tool	5.00			4416.00	
Jars	5.00			4421.00	
Safety Joint	3.00			4424.00	
Packer	5.00			4429.00	28.00 Bottom Of Top Packer
Packer	4.00			4433.00	
Stubb	1.00			4434.00	
Recorder	0.00	8373	Inside	4434.00	
Recorder	0.00	8356	Outside	4434.00	
Perforations	21.00			4455.00	
Bullnose	5.00			4460.00	27.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

Job Ticket: 50105

**DST#: 1**

ATTN: Evan Stone

Test Start: 2012.11.21 @ 17:19:41

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8373

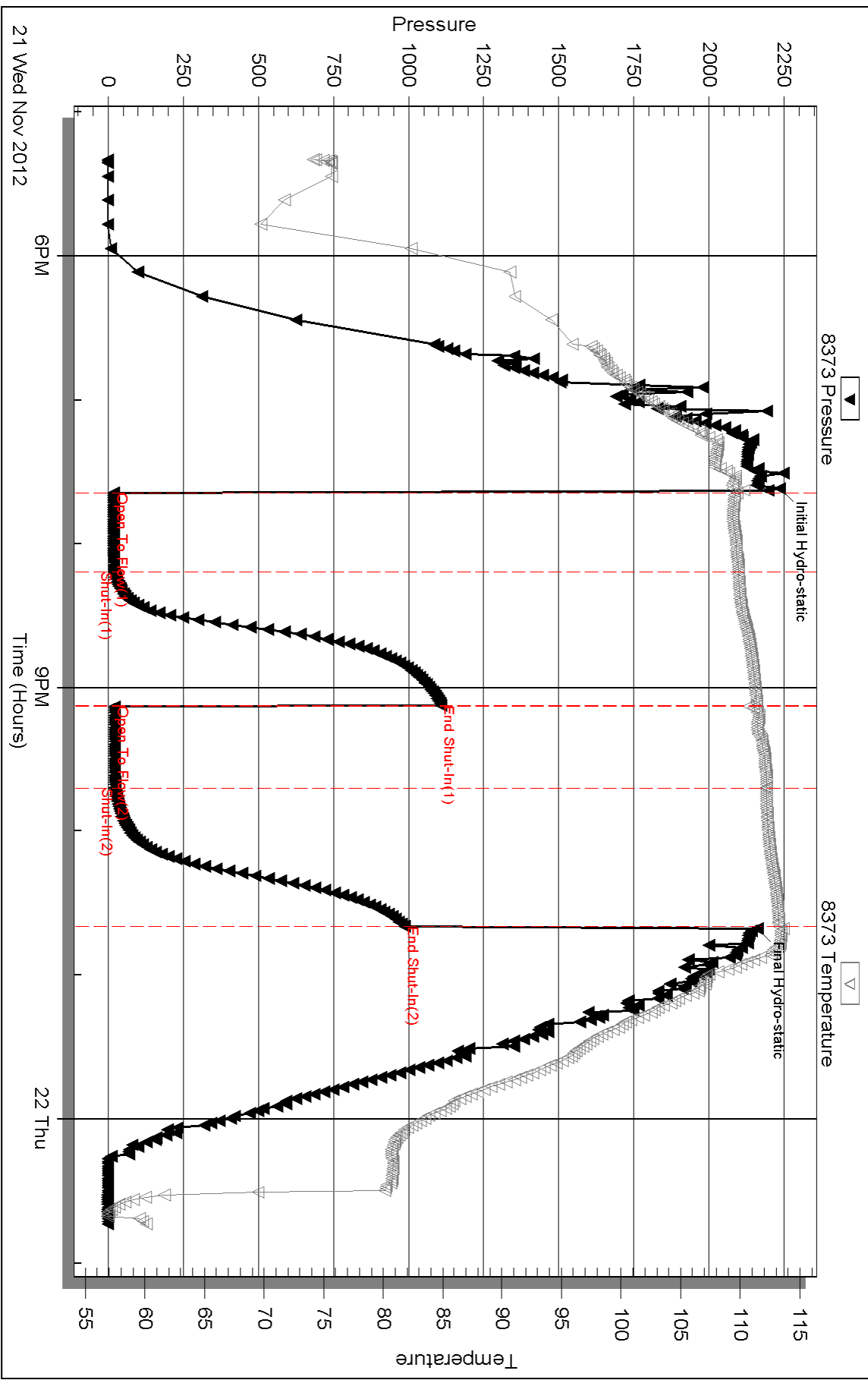
Inside

McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50105

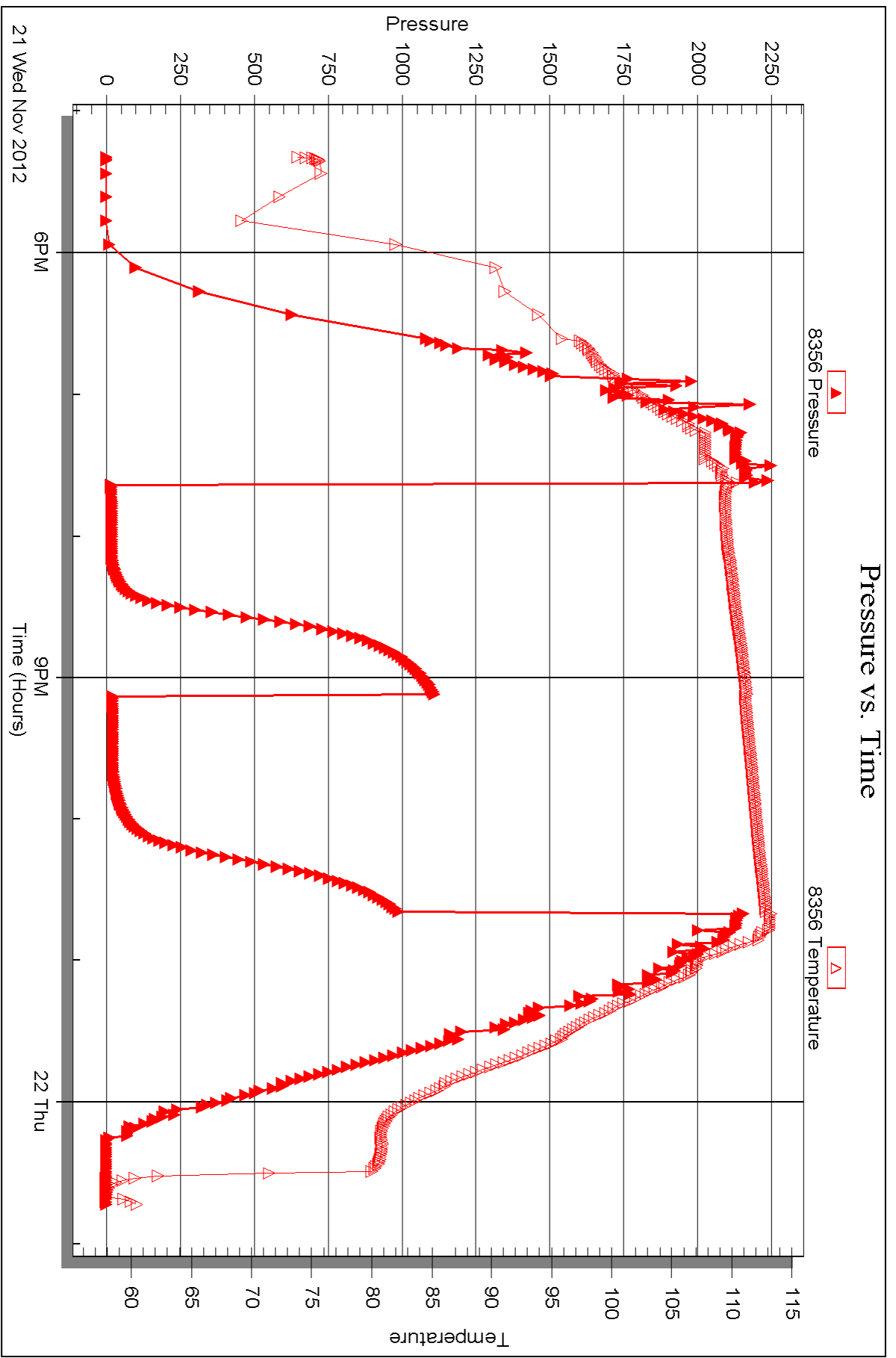
Printed: 2012.11.27 @ 10:54:05

Serial #: 8356

Outside McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E Central Ste 300  
Wichita, KS 67206

ATTN: Evan Stone

**15-27s-29w Gray,KS**

**Richardson Trust A #1-15**

Start Date: 2012.11.22 @ 16:20:52

End Date: 2012.11.23 @ 00:04:22

Job Ticket #: 50106                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:53:15







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

ATTN: Evan Stone

Job Ticket: 50106

**DST#: 2**

Test Start: 2012.11.22 @ 16:20:52

## Tool Information

Drill Pipe:	Length: 4270.00 ft	Diameter: 3.80 inches	Volume: 59.90 bbl	Tool Weight: 2000.00 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: 299.00 ft	Diameter: 2.25 inches	Volume: 1.47 bbl	Weight to Pull Loose: 90000.00 lb
			Total Volume: 61.37 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4592.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	76.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			4565.00	
Shut In Tool	5.00			4570.00	
Hydraulic tool	5.00			4575.00	
Jars	5.00			4580.00	
Safety Joint	3.00			4583.00	
Packer	5.00			4588.00	28.00 Bottom Of Top Packer
Packer	4.00			4592.00	
Stubb	1.00			4593.00	
Recorder	0.00	8373	Inside	4593.00	
Recorder	0.00	8356	Outside	4593.00	
Perforations	8.00			4601.00	
Change Over Sub	1.00			4602.00	
Drill Pipe	32.00			4634.00	
Change Over Sub	1.00			4635.00	
Bullnose	5.00			4640.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 76.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

Job Ticket: 50106

**DST#: 2**

ATTN: Evan Stone

Test Start: 2012.11.22 @ 16:20:52

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100%m	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:



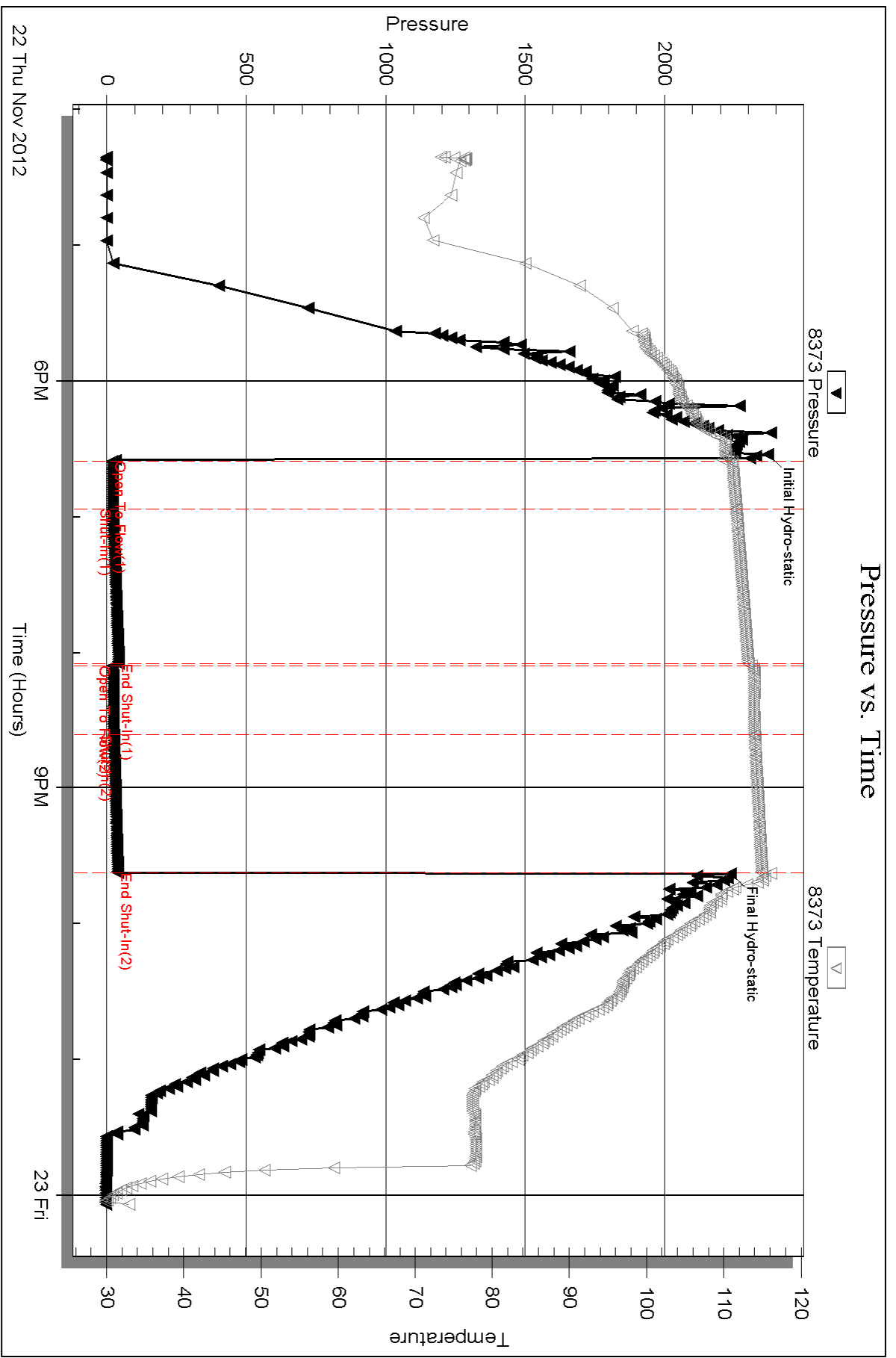
Serial #: 8373

Inside

McCoy Petroleum Corp.

15-27s-29w Gray,KS

DST Test Number: 2

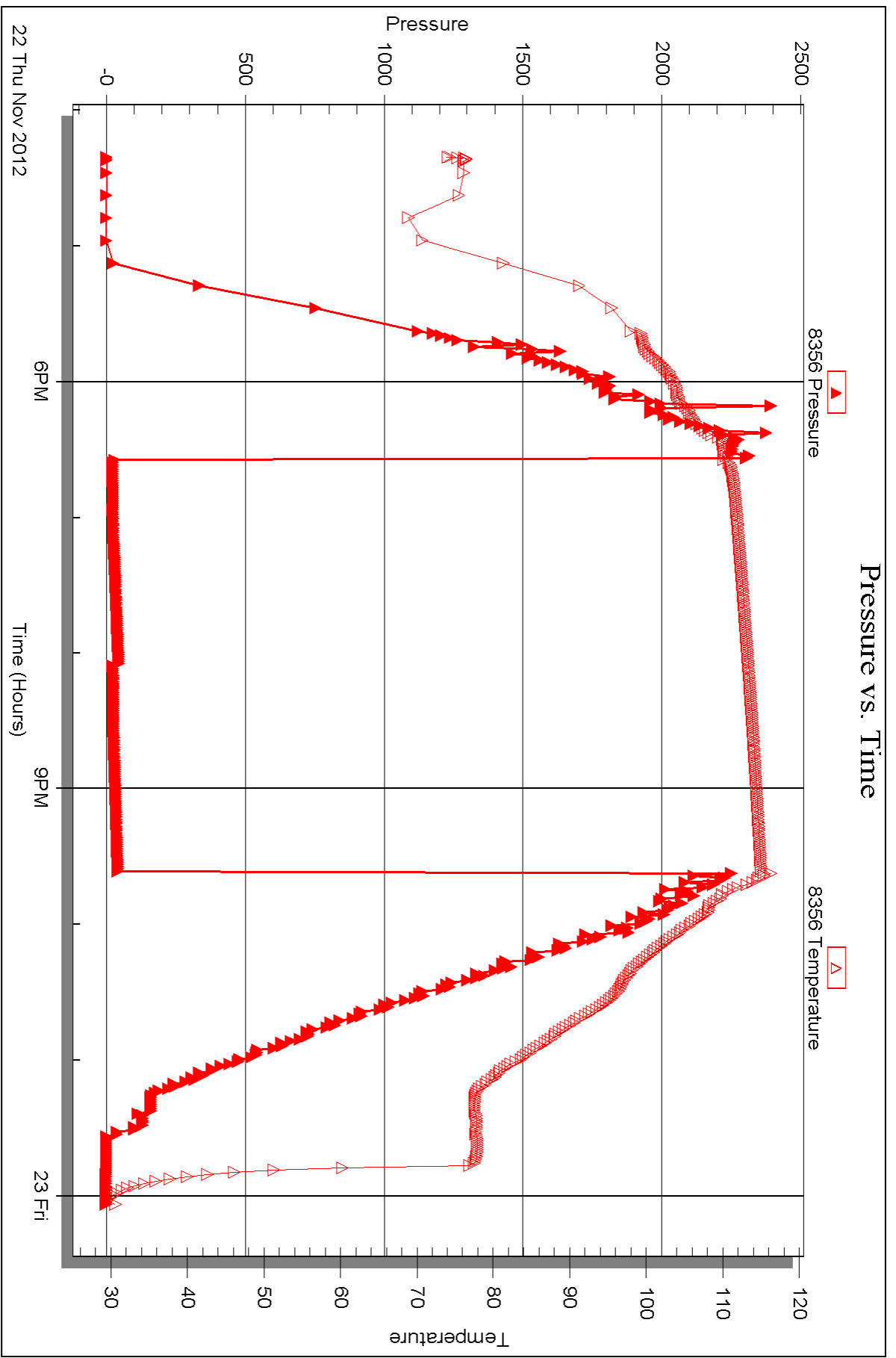


Serial #: 8356

Outside McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 50106

Printed: 2012.11.27 @ 10:53:20



## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E Central Ste 300  
Wichita, KS 67206

ATTN: Evan Stone

**15-27s-29w Gray,KS**

**Richardson Trust A #1-15**

Start Date: 2012.11.23 @ 18:22:53

End Date: 2012.11.24 @ 04:03:53

Job Ticket #: 50107                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:52:28



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corp.  
 8080 E Central Ste 300  
 Wichita, KS 67206  
 ATTN: Evan Stone

**Richardson Trust A #1-15**  
**15-27s-29w Gray,KS**  
 Job Ticket: 50107 **DST#: 3**  
 Test Start: 2012.11.23 @ 18:22:53

## GENERAL INFORMATION:

Formation: **Cherokee- Atoka**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:40:23  
 Time Test Ended: 04:03:53  
 Interval: **4852.00 ft (KB) To 4915.00 ft (KB) (TVD)**  
 Total Depth: 4915.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brandon Turley  
 Unit No: 60  
 Reference Elevations: 2752.00 ft (KB)  
 2741.00 ft (CF)  
 KB to GR/CF: 11.00 ft

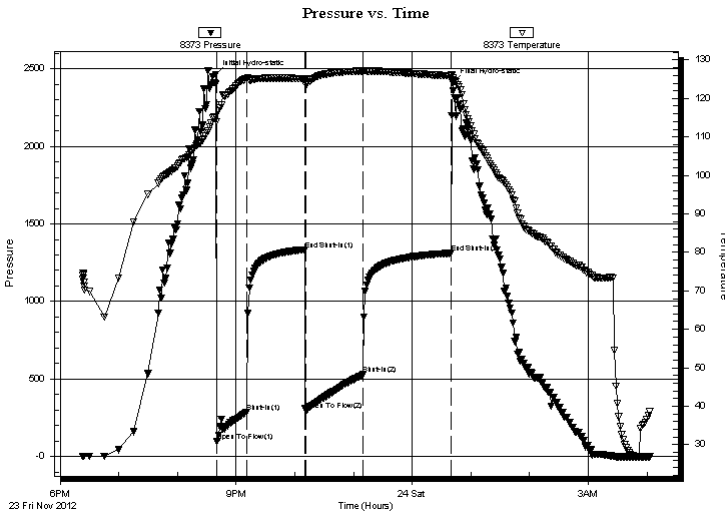
## Serial #: 8373

Inside

Press @ Run Depth: 527.79 psig @ 4853.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.11.23 End Date: 2012.11.24 Last Calib.: 2012.11.24  
 Start Time: 18:22:58 End Time: 04:03:53 Time On Btm: 2012.11.23 @ 20:39:23  
 Time Off Btm: 2012.11.24 @ 00:41:23

TEST COMMENT: IF: 1/4" blow BOB in 3 min.  
 IS: Weak surface blow.  
 FF: BOB in 2 min.  
 FS: BOB in 13 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2463.44	115.25	Initial Hydro-static
1	98.28	113.91	Open To Flow (1)
32	288.66	125.24	Shut-In(1)
91	1334.24	125.16	End Shut-In(1)
92	300.96	123.67	Open To Flow (2)
151	527.79	127.15	Shut-In(2)
241	1312.06	125.91	End Shut-In(2)
242	2410.23	125.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
315.00	water 100%w	1.69
189.00	mcw 90%w 10%m	2.65
126.00	mw cgo 35%g 30%o 30%w 5%m	1.77
504.00	mcgo 40%g 50%o 10%m	7.07
189.00	ocm 5%o 95%m	2.65
0.00	2142 GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

McCoy Petroleum Corp.  
 8080 E Central Ste 300  
 Wichita, KS 67206  
 ATTN: Evan Stone

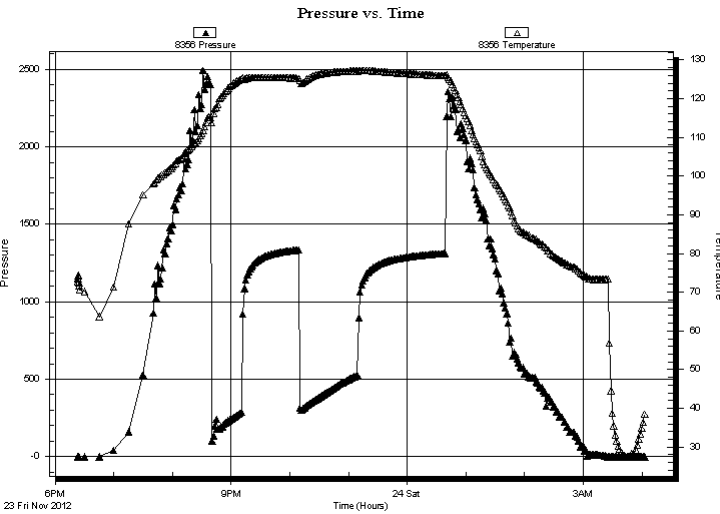
**Richardson Trust A #1-15**  
**15-27s-29w Gray,KS**  
 Job Ticket: 50107 **DST#: 3**  
 Test Start: 2012.11.23 @ 18:22:53

### GENERAL INFORMATION:

Formation: **Cherokee- Atoka**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 20:40:23 Tester: Brandon Turley  
 Time Test Ended: 04:03:53 Unit No: 60  
 Interval: **4852.00 ft (KB) To 4915.00 ft (KB) (TVD)** Reference Elevations: 2752.00 ft (KB)  
 Total Depth: 4915.00 ft (KB) (TVD) 2741.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

**Serial #: 8356 Outside**  
 Press @ Run Depth: psig @ 4853.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.11.23 End Date: 2012.11.24 Last Calib.: 2012.11.24  
 Start Time: 18:22:53 End Time: 04:03:48 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF: 1/4" blow BOB in 3 min.  
 IS: Weak surface blow .  
 FF: BOB in 2 min.  
 FS: BOB in 13 min.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
315.00	water 100%w	1.69
189.00	mcw 90%w 10%m	2.65
126.00	mw cgo 35%g 30%o 30%w 5%m	1.77
504.00	mcgo 40%g 50%o 10%m	7.07
189.00	ocm 5%o 95%m	2.65
0.00	2142 GIP	0.00

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

ATTN: Evan Stone

Job Ticket: 50107

**DST#: 3**

Test Start: 2012.11.23 @ 18:22:53

## Tool Information

Drill Pipe:	Length: 4529.00 ft	Diameter: 3.80 inches	Volume: 63.53 bbl	Tool Weight: 2000.00 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: 299.00 ft	Diameter: 2.25 inches	Volume: 1.47 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 65.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 84000.00 lb
Depth to Top Packer:	4852.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			4825.00	
Shut In Tool	5.00			4830.00	
Hydraulic tool	5.00			4835.00	
Jars	5.00			4840.00	
Safety Joint	3.00			4843.00	
Packer	5.00			4848.00	28.00 Bottom Of Top Packer
Packer	4.00			4852.00	
Stubb	1.00			4853.00	
Recorder	0.00	8373	Inside	4853.00	
Recorder	0.00	8356	Outside	4853.00	
Perforations	23.00			4876.00	
Change Over Sub	1.00			4877.00	
Drill Pipe	32.00			4909.00	
Change Over Sub	1.00			4910.00	
Bullnose	5.00			4915.00	63.00 Bottom Packers & Anchor

**Total Tool Length: 91.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

Job Ticket: 50107

**DST#: 3**

ATTN: Evan Stone

Test Start: 2012.11.23 @ 18:22:53

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

56000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4700.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
315.00	water 100%w	1.695
189.00	mcw 90%w 10%m	2.651
126.00	mw cgo 35%g 30%o 30%w 5%m	1.767
504.00	mcgo 40%g 50%o 10%m	7.070
189.00	ocm 5%o 95%m	2.651
0.00	2142 GIP	0.000

Total Length: 1323.00 ft      Total Volume: 15.834 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 28@30=31

.28@34=56000

Serial #: 8373

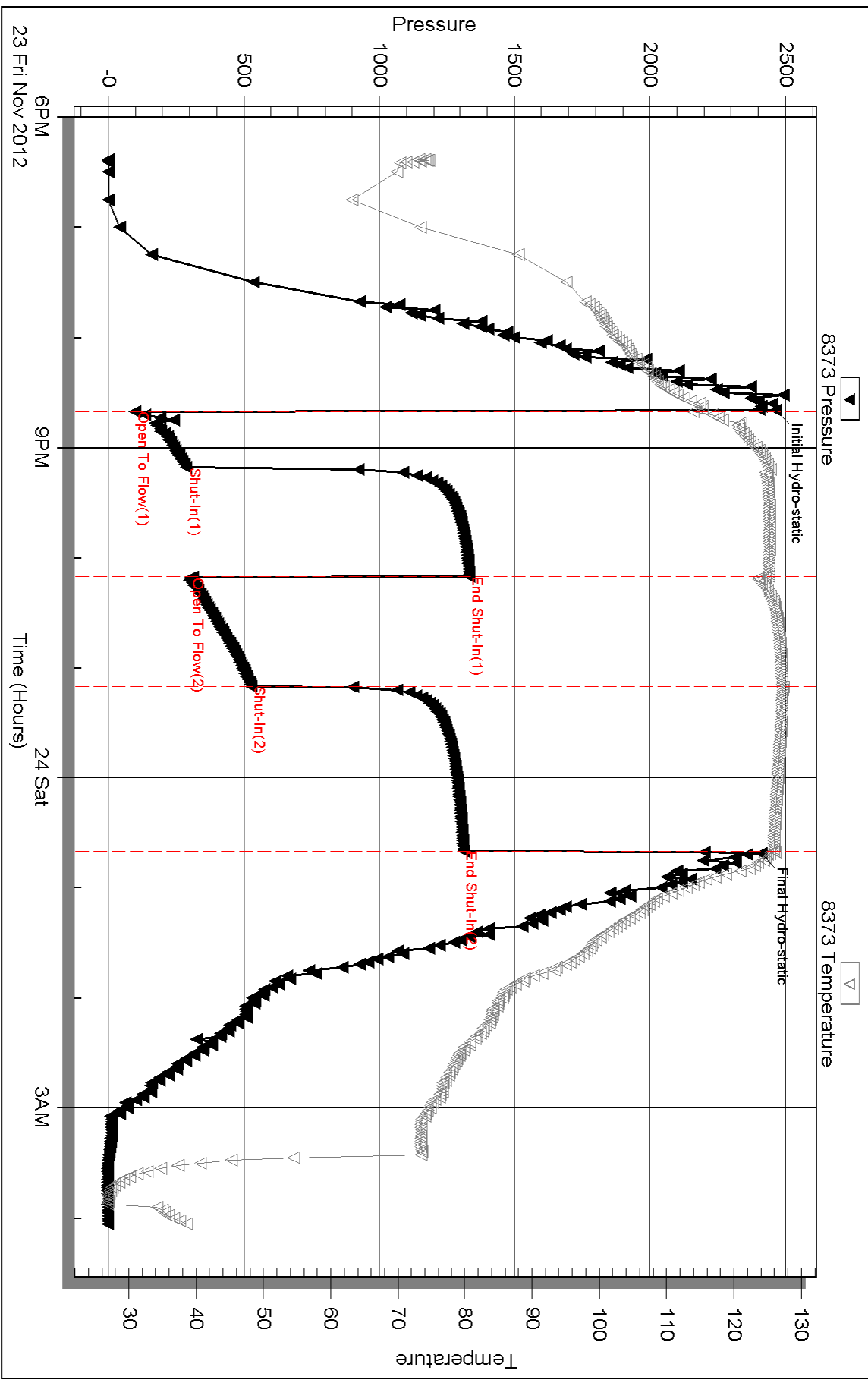
Inside

McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50107

Printed: 2012.11.27 @ 10:52:32

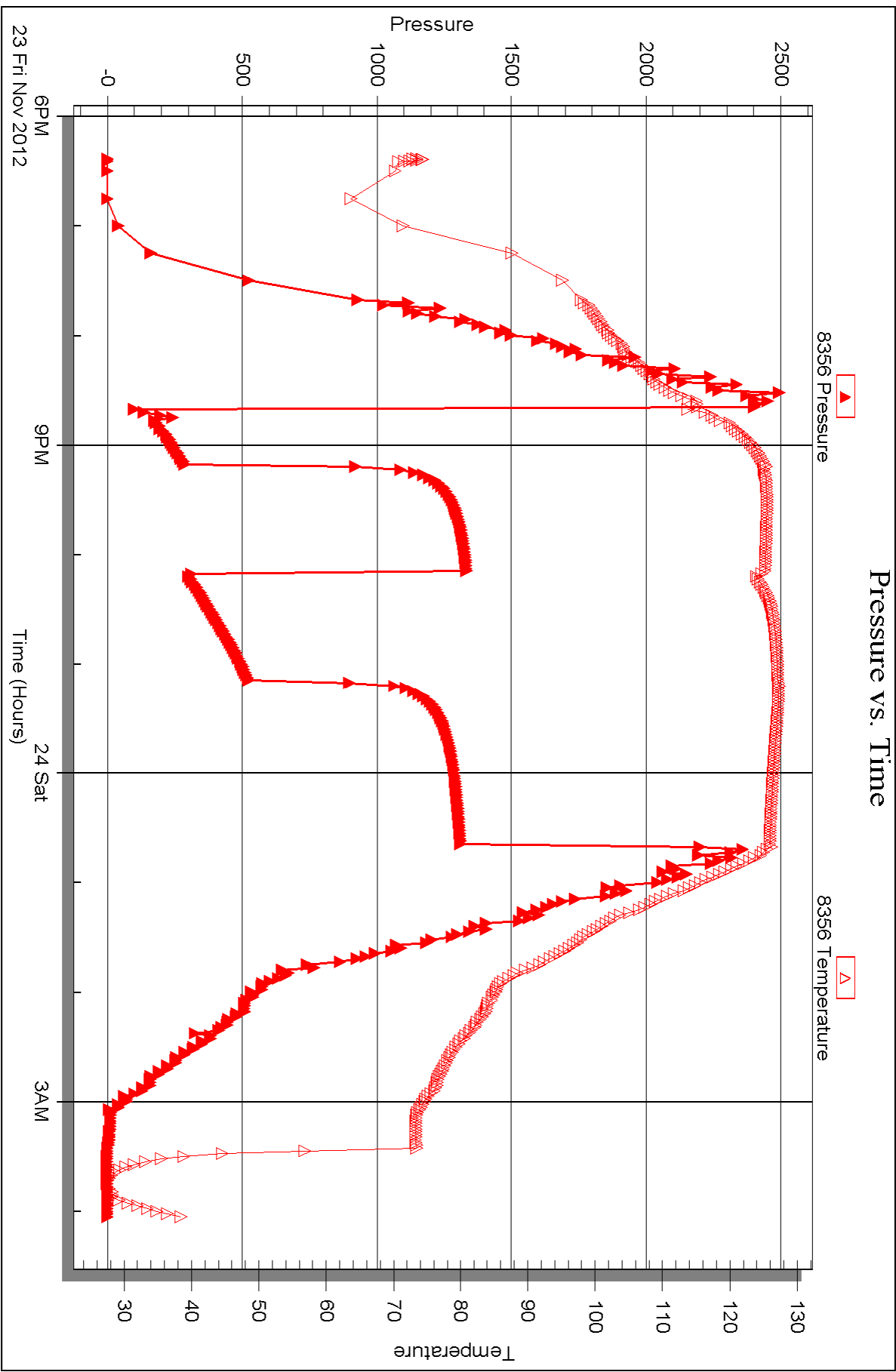


Serial #: 8356

Outside McCoy Petroleum Corp.

15-27-s-29w Gray, KS

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E Central Ste 300  
Wichita, KS 67206

ATTN: Evan Stone

**15-27s-29w Gray,KS**

**Richardson Trust A #1-15**

Start Date: 2012.11.24 @ 22:33:15

End Date: 2012.11.25 @ 07:35:45

Job Ticket #: 50108                      DST #: 4

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

Printed: 2012.11.27 @ 10:51:36

McCoy Petroleum Corp.

Richardson Trust A #1-15

15-27s-29w Gray,KS

DST # 4

Miss St Louis

2012.11.24



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corp.  
8080 E Central Ste 300  
Wichita, KS 67206  
ATTN: Evan Stone

**Richardson Trust A #1-15**  
**15-27s-29w Gray,KS**  
Job Ticket: 50108 **DST#: 4**  
Test Start: 2012.11.24 @ 22:33:15

## GENERAL INFORMATION:

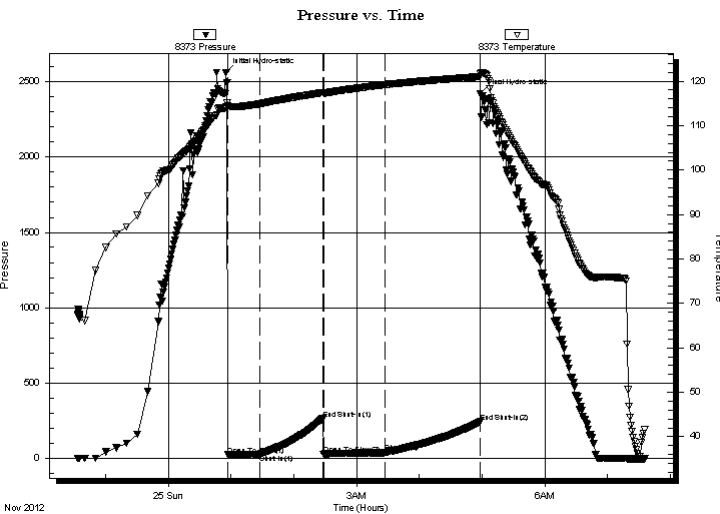
Formation: **Miss St louis**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 00:56:45  
Time Test Ended: 07:35:45  
Interval: **5005.00 ft (KB) To 5050.00 ft (KB) (TVD)**  
Total Depth: 5050.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Brandon Turley  
Unit No: 60  
Reference Elevations: 2752.00 ft (KB)  
2741.00 ft (CF)  
KB to GR/CF: 11.00 ft

## Serial #: 8373

Inside

Press @ Run Depth: 38.99 psig @ 5006.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.11.24 End Date: 2012.11.25 Last Calib.: 2012.11.25  
Start Time: 22:33:20 End Time: 07:35:45 Time On Btm: 2012.11.25 @ 00:55:15  
Time Off Btm: 2012.11.25 @ 04:58:15

TEST COMMENT: IF: Weak blow built to 1"  
IS: No return.  
FF: 1" blow built to 6"  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2561.65	114.32	Initial Hydro-static
2	23.29	114.38	Open To Flow (1)
32	29.65	114.90	Shut-In(1)
92	263.35	117.42	End Shut-In(1)
93	26.06	117.30	Open To Flow (2)
152	38.99	119.20	Shut-In(2)
243	243.47	121.05	End Shut-In(2)
243	2423.27	121.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	ocm 10%o 90%m	0.15
0.00	210 GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

ATTN: Evan Stone

Job Ticket: 50108

**DST#: 4**

Test Start: 2012.11.24 @ 22:33:15

## Tool Information

Drill Pipe:	Length: 4688.00 ft	Diameter: 3.80 inches	Volume: 65.76 bbl	Tool Weight:	2000.00 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: 299.00 ft	Diameter: 2.25 inches	Volume: 1.47 bbl	Weight to Pull Loose:	110000.0 lb
			<u>Total Volume: 67.23 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	85000.00 lb
Depth to Top Packer:	5005.00 ft			Final	85000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	45.00 ft				
Tool Length:	73.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Stubb	1.00			4978.00	
Shut In Tool	5.00			4983.00	
Hydraulic tool	5.00			4988.00	
Jars	5.00			4993.00	
Safety Joint	3.00			4996.00	
Packer	5.00			5001.00	28.00 Bottom Of Top Packer
Packer	4.00			5005.00	
Stubb	1.00			5006.00	
Recorder	0.00	8373	Inside	5006.00	
Recorder	0.00	8356	Outside	5006.00	
Perforations	5.00			5011.00	
Change Over Sub	1.00			5012.00	
Drill Pipe	32.00			5044.00	
Change Over Sub	1.00			5045.00	
Bullnose	5.00			5050.00	45.00 Bottom Packers & Anchor

**Total Tool Length: 73.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

Job Ticket: 50108

**DST#: 4**

ATTN: Evan Stone

Test Start: 2012.11.24 @ 22:33:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	ocm 10%o 90%m	0.148
0.00	210 GIP	0.000

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8373

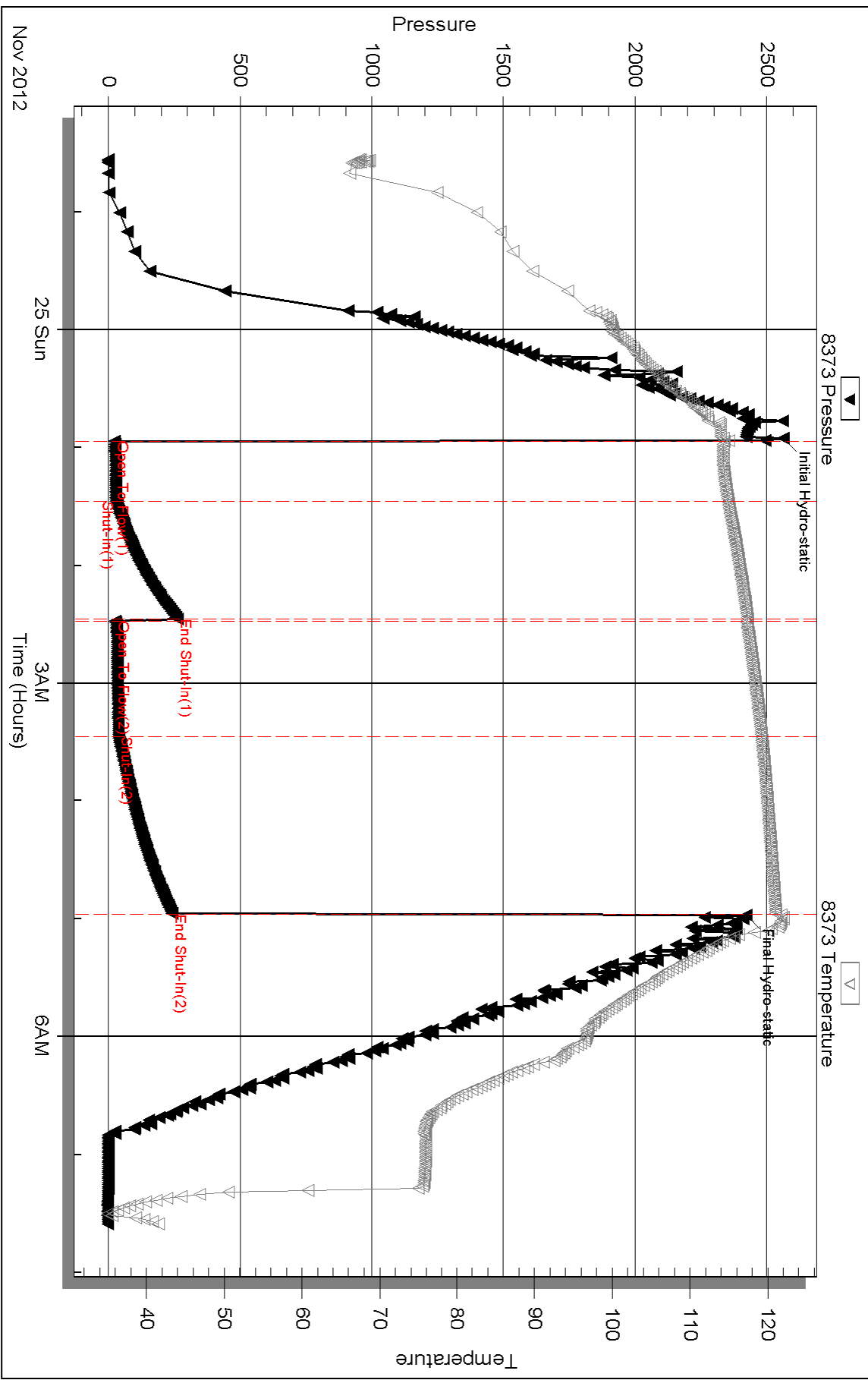
Inside

McCoy Petroleum Corp.

15-27-s-29w Gray, KS

DST Test Number: 4

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50108

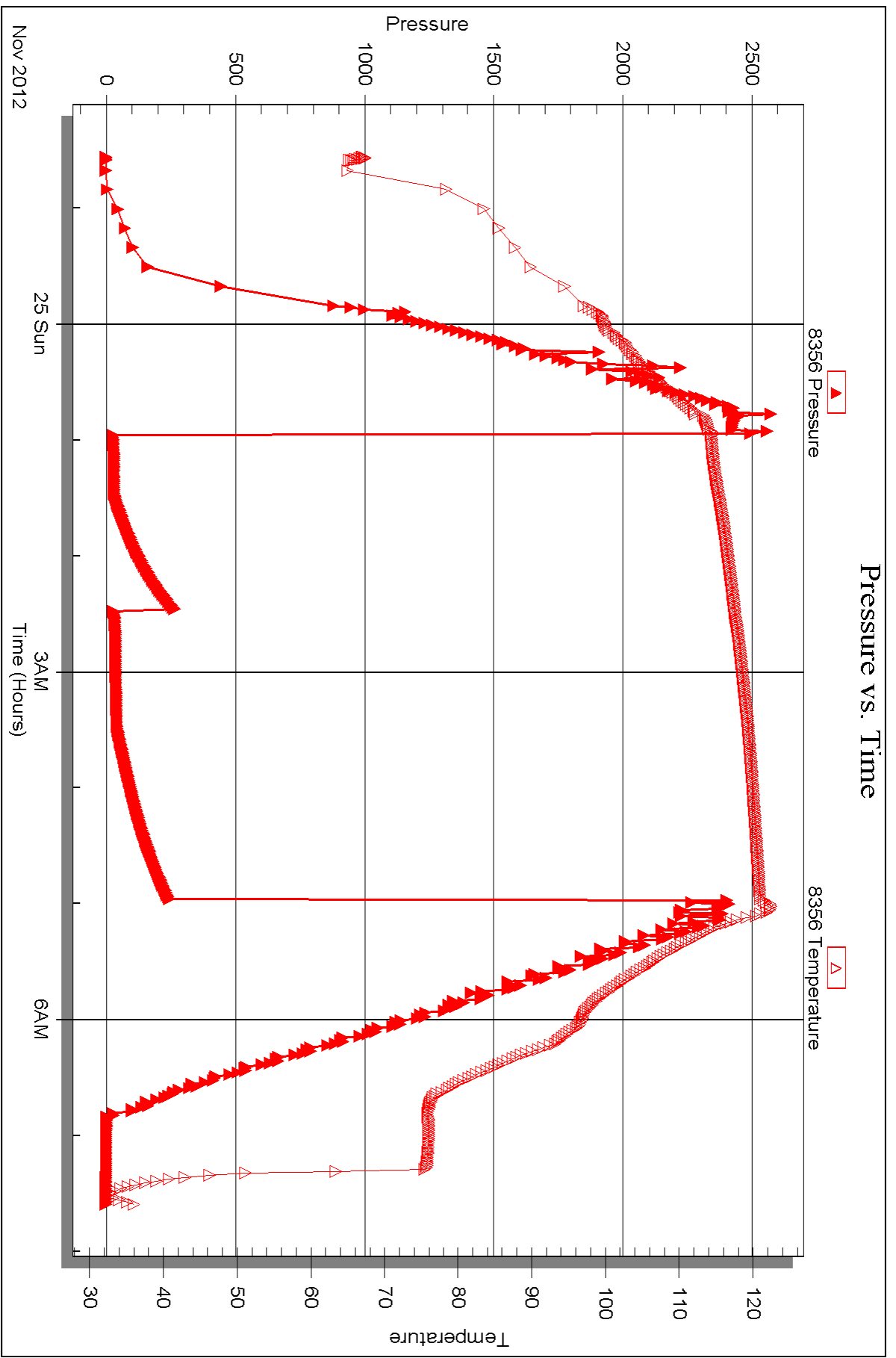
Printed: 2012.11.27 @ 10:51:41

Serial #: 8356

Outside McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 50108

Printed: 2012.11.27 @ 10:51:41





## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E Central Ste 300  
Wichita, KS 67206

ATTN: Evan Stone

**15-27s-29w Gray,KS**

**Richardson Trust A #1-15**

Start Date: 2012.11.25 @ 16:08:18

End Date: 2012.11.25 @ 23:57:48

Job Ticket #: 50109                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.11.27 @ 10:50:35



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corp.  
 8080 E Central Ste 300  
 Wichita, KS 67206  
 ATTN: Evan Stone

**Richardson Trust A #1-15**  
**15-27s-29w Gray,KS**  
 Job Ticket: 50109 **DST#: 5**  
 Test Start: 2012.11.25 @ 16:08:18

## GENERAL INFORMATION:

Formation: **Miss St. Louis**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:22:48  
 Time Test Ended: 23:57:48  
 Interval: **5050.00 ft (KB) To 5070.00 ft (KB) (TVD)**  
 Total Depth: 5070.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brandon Turley  
 Unit No: 60  
 Reference Elevations: 2752.00 ft (KB)  
 2741.00 ft (CF)  
 KB to GR/CF: 11.00 ft

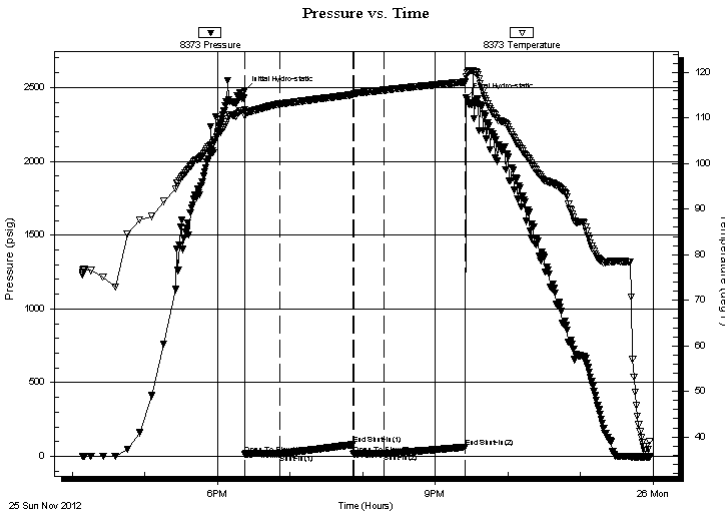
## Serial #: 8373

Inside

Press @ Run Depth: 20.35 psig @ 5051.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.11.25 End Date: 2012.11.25 Last Calib.: 2012.11.25  
 Start Time: 16:08:23 End Time: 23:57:47 Time On Btm: 2012.11.25 @ 18:22:18  
 Time Off Btm: 2012.11.25 @ 21:25:18

TEST COMMENT: IF: Surface blow died in 6 min.  
 IS: No return.  
 FF: No blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2480.66	111.84	Initial Hydro-static
1	16.32	110.49	Open To Flow (1)
30	18.11	113.10	Shut-In(1)
90	80.23	115.12	End Shut-In(1)
90	12.58	115.10	Open To Flow (2)
115	20.35	116.10	Shut-In(2)
183	63.47	117.90	End Shut-In(2)
183	2430.94	119.04	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 5%o 95%m	0.02

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corp.

**Richardson Trust A #1-15**

8080 E Central Ste 300  
Wichita, KS 67206

**15-27s-29w Gray,KS**

ATTN: Evan Stone

Job Ticket: 50109

**DST#: 5**

Test Start: 2012.11.25 @ 16:08:18

## Tool Information

Drill Pipe:	Length: 4747.00 ft	Diameter: 3.80 inches	Volume: 66.59 bbl	Tool Weight: 2000.00 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: 299.00 ft	Diameter: 2.25 inches	Volume: 1.47 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 68.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 86000.00 lb
Depth to Top Packer:	5050.00 ft			Final 86000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			5023.00	
Shut In Tool	5.00			5028.00	
Hydraulic tool	5.00			5033.00	
Jars	5.00			5038.00	
Safety Joint	3.00			5041.00	
Packer	5.00			5046.00	28.00 Bottom Of Top Packer
Packer	4.00			5050.00	
Stubb	1.00			5051.00	
Recorder	0.00	8373	Inside	5051.00	
Recorder	0.00	8356	Outside	5051.00	
Perforations	14.00			5065.00	
Bullnose	5.00			5070.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corp.  
8080 E Central Ste 300  
Wichita, KS 67206  
ATTN: Evan Stone

**Richardson Trust A #1-15**  
**15-27s-29w Gray,KS**  
Job Ticket: 50109      **DST#: 5**  
Test Start: 2012.11.25 @ 16:08:18

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 65.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	ocm 5%o 95%m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

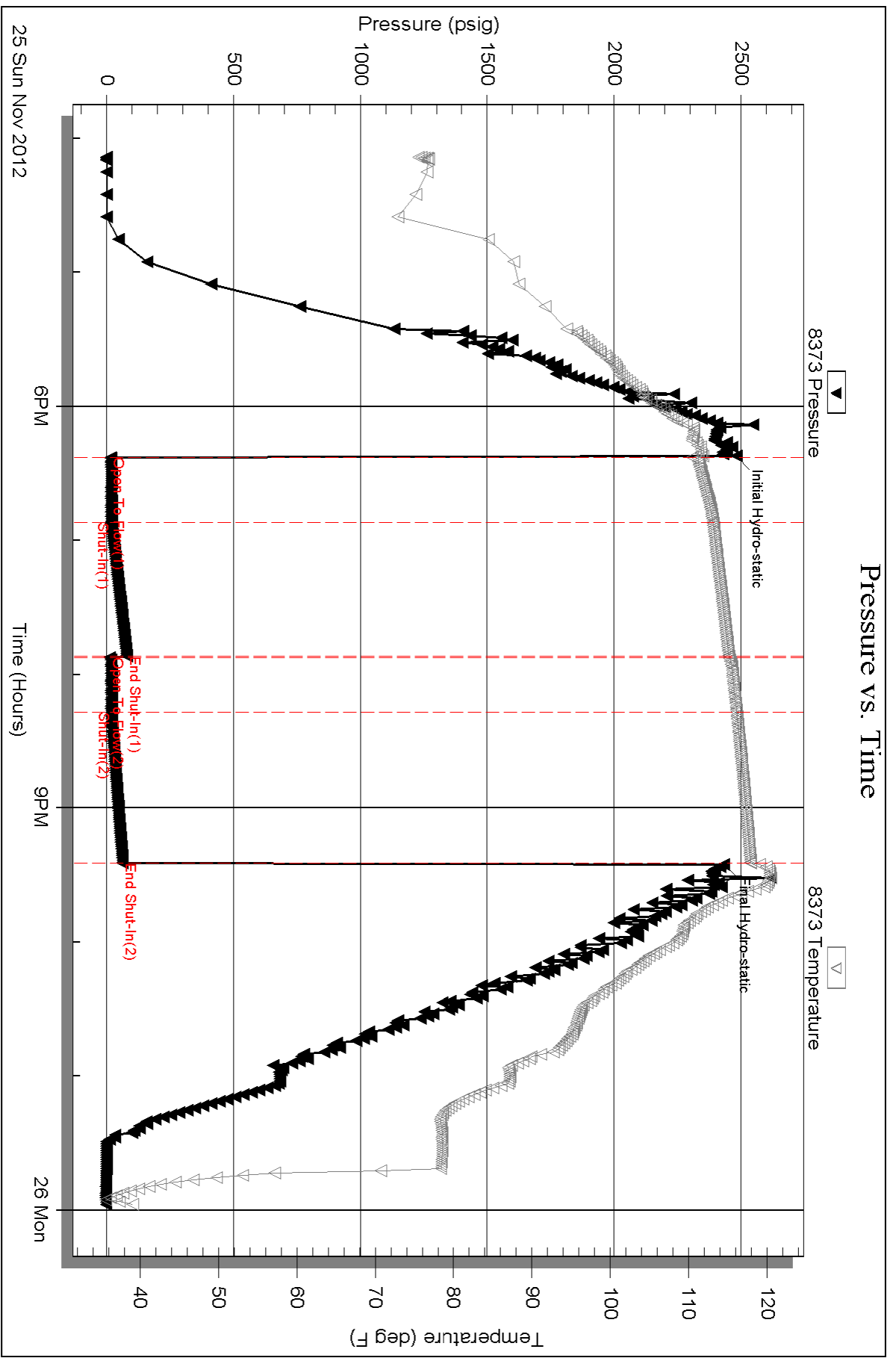
Serial #: 8373

Inside

McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 5

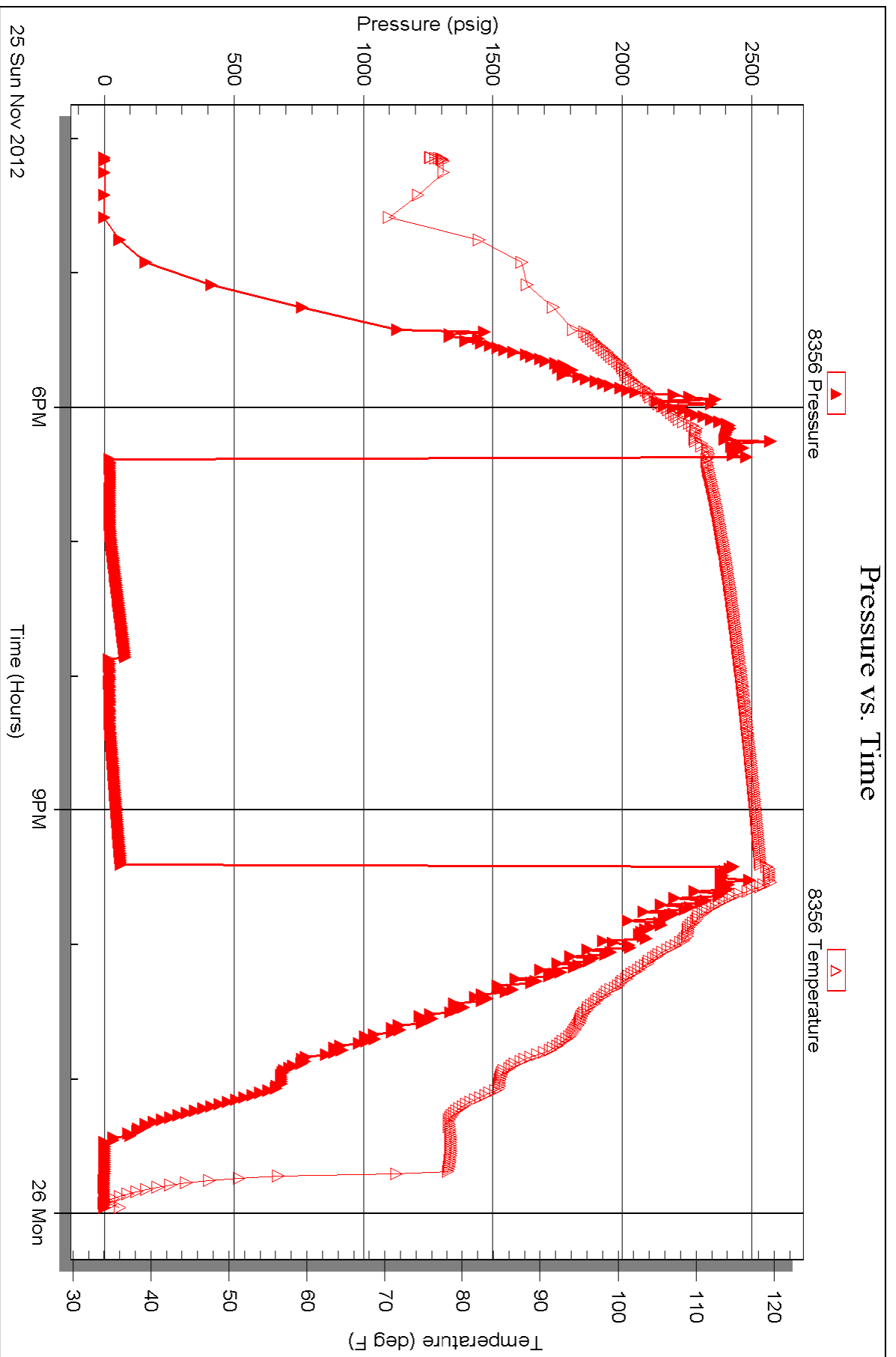


Serial #: 8356

Outside McCoy Petroleum Corp.

15-27s-29w Gray, KS

DST Test Number: 5





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 50105

Well Name & No. Richardson Trust A1-15 Test No. 1 Date 11-21-12  
 Company McLoy Petroleum Corp. Elevation 2752 KB 2741 GL  
 Address 8080 E Central St 300 Wichita, KS 67206  
 Co. Rep / Geo. Even Stone Rig Sterling #5  
 Location: Sec. 15 Twp. 27 Rge. 29 Co. Gray State KS

Interval Tested 4433 4460 Zone Tested Lensing F  
 Anchor Length 27 Drill Pipe Run 4112 Mud Wt. 9.1  
 Top Packer Depth 4428 Drill Collars Run 299 Vis 58  
 Bottom Packer Depth 4433 Wt. Pipe Run — WL 10.8  
 Total Depth 4460 Chlorides 3400 ppm System LCM 2

Blow Description IF: 1/4 blow died for 10 min.  
IS: No return.  
FF: No blow.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 113 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2236  Test 1250 T-On Location 3:45  
 (B) First Initial Flow 18  Jars 250 T-Started 17:19  
 (C) First Final Flow 19  Safety Joint 75 T-Open 19:38  
 (D) Initial Shut-In 1107  Circ Sub N/L T-Pulled 22:38  
 (E) Second Initial Flow 21  Hourly Standby — T-Out 00:45  
 (F) Second Final Flow 23  Mileage 152- 235.60  
 (G) Final Shut-In 985  Sampler —  
 (H) Final Hydrostatic 2161  Straddle —

Initial Open 30  Shale Packer —  Ruined Shale Packer —  
 Initial Shut-In 60  Extra Packer —  Ruined Packer —  
 Final Flow 30  Extra Recorder — Sub Total 0  
 Final Shut-In 60  Day Standby — Total 1810.60  
 Accessibility — MP/DST Disc't —  
 Sub Total 1810.60

Approved By [Signature] Our Representative [Signature]  
 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. 50106

Well Name & No. Richardson Trust A 1-15 Test No. 2 Date 11-22-12  
 Company McCoy Petroleum Elevation 2752 KB 2741 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Evan Stone Rig sterling #5  
 Location: Sec. 15 Twp. 27 Rge. 29 Co. Gray State KS

Interval Tested 4592 4640 Zone Tested Lensing-KC  
 Anchor Length 48 Drill Pipe Run 4270 Mud Wt. 9.2  
 Top Packer Depth 4587 Drill Collars Run 299 Vis 61  
 Bottom Packer Depth 4592 Wt. Pipe Run \_\_\_\_\_ WL 8.8  
 Total Depth 4640 Chlorides 3400 ppm System LCM 2  
 Blow Description IF: 1/4 blow built to 1 in 10 min. Died in 25 min,  
IS: No return.  
FF: No blow.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 114 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2369</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>15:15</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>16:20</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>18:18</u>
(D) Initial Shut-In <u>43</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>21:18</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>23:55</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>152</u> - 235.60	Comments _____
(G) Final Shut-In <u>40</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2237</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1810.60</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1810.60</u>	

Approved By [Signature] Our Representative [Signature]  
 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. 50107

Well Name & No. Richardson Trust A1-15 Test No. 3 Date 11-23-12  
 Company McGoy Petroleum Elevation 2752 KB 2741 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. EUM Stone Rig Sterling #5  
 Location: Sec. 15 Twp. 27 Rge. 29 Co. Gray State K5

Interval Tested 4852 4915 Zone Tested Cherokee - Atoka  
 Anchor Length 63 Drill Pipe Run 4529 Mud Wt. 9.4  
 Top Packer Depth 4847 Drill Collars Run 299 Vis 61  
 Bottom Packer Depth 4852 Wt. Pipe Run \_\_\_\_\_ WL 8.4  
 Total Depth 4915 Chlorides 4700 ppm System LCM 2  
 Blow Description IF: 1/4 blow ~~1/2~~ BOB in 3 min.  
IS: ~~1/2~~ weak surface blow.  
FF: BOB in 2 min.  
FS: BOB in 13 min.

Rec	Feet of	%gas	%oil	%water	%mud
189	ocm	5		95	
564	mcgo	40	50	10	
126	mwcgo	35	30	5	
189	mcw		90	10	
315	water		100		

Rec Total 1323 BHT 125 Gravity 31 API RW .28 @ 34° F Chlorides 56,000 ppm  
 (A) Initial Hydrostatic 2463  Test 1250 T-On Location 18:00  
 (B) First Initial Flow 98  Jars 250 T-Started 18:22  
 (C) First Final Flow 288  Safety Joint 75 T-Open 20:38  
 (D) Initial Shut-In 1334  Circ Sub N/C T-Pulled 06:38  
 (E) Second Initial Flow 300  Hourly Standby 14-25.00 T-Out 4:15  
 (F) Second Final Flow 527  Mileage 152 - 235.60 Comments 2142 GTP  
 (G) Final Shut-In 1312  Sampler \_\_\_\_\_ H2S in fluid  
 (H) Final Hydrostatic 2410  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1835.60  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1835.60

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

Approved By [Signature] Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 50108

Well Name & No. Richardson Trust A 1-15 Test No. 4 Date 11-24-12  
 Company McCoy Petroleum Elevation 2752 KB 2741 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Eum Stone Rig Sterling #5  
 Location: Sec. 15 Twp. 27 Rge. 29 Co. Gray State KS

Interval Tested 5005 5050 Zone Tested MISS St Louis  
 Anchor Length 45 Drill Pipe Run 4688 Mud Wt. 9.1  
 Top Packer Depth 5000 Drill Collars Run 299 Vis 60  
 Bottom Packer Depth 5005 Wt. Pipe Run — WL 7.2  
 Total Depth 5050 Chlorides 2800 ppm System LCM 2

Blow Description IF: Weak blow built to 1,  
IS: No return.  
FF: 1" blow built to 6.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>ocm</u>	<u>10</u>		<u>90</u>	
	<u>210 GIP</u>				

Rec Total 30 BHT 121 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>2561</u>	<input checked="" type="checkbox"/> Test 1350	T-On Location <u>22:15</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>22:33</u>
(C) First Final Flow <u>29</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>00:55</u>
(D) Initial Shut-In <u>263</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>4:55</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>7:40</u>
(F) Second Final Flow <u>38</u>	<input checked="" type="checkbox"/> Mileage <u>152 - 235.60</u>	Comments _____
(G) Final Shut-In <u>243</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2423</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1910.60</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1910.60</u>	

Approved By [Signature] Our Representative [Signature]

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.





# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 50109

Well Name & No. Richardson Trust A1-15 Test No. 5 Date 11-25-12  
 Company McCoy Petroleum Elevation 2752 KB 2741 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Eum Stone Rig sterling #5  
 Location: Sec. 15 Twp. 27 Rge. 29 Co. Gray State KS

Interval Tested 5050 5070 Zone Tested Miss St. Louis  
 Anchor Length 20 Drill Pipe Run 4747 Mud Wt. 8.9  
 Top Packer Depth 5045 Drill Collars Run 299 Vis 8.4  
 Bottom Packer Depth 5050 Wt. Pipe Run — WL 8.4  
 Total Depth 5070 Chlorides 3000 ppm System LCM 2

Blow Description IF: surface blow died in 6 min.  
FS: No return.  
FF: No blow.  
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OCM</u>	<u>5</u>		<u>95</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2480  Test 1350 T-On Location 15:35  
 (B) First Initial Flow 16  Jars 250 T-Started 16:08  
 (C) First Final Flow 18  Safety Joint 75 T-Open 18:22  
 (D) Initial Shut-In 80  Circ Sub N/C T-Pulled 21:22  
 (E) Second Initial Flow 12  Hourly Standby T-Out 20:00  
 (F) Second Final Flow 20  Mileage 152-x2 471.20 Comments \_\_\_\_\_  
 (G) Final Shut-In 63  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2430  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer 320  
 Initial Shut-In 60  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 320  
 Final Shut-In 60  Day Standby \_\_\_\_\_ Total 2466.20  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 2146.20

Approved By [Signature] Our Representative [Signature]

Tribolite 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 of 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.

# ALLIED OIL & GAS SERVICES, LLC KB 052684

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:

Liberal

DATE <u>11/18/12</u>	SEC. <u>15</u>	TWP. <u>27 S</u>	RANGE <u>29 W</u>	CALLED OUT	ON LOCATION	JOB START <u>7:00</u>	JOB FINISH <u>8:30</u>
LEASE <u>Richardson Trust</u> WELL # <u>1-15A</u> LOCATION <u>North of Montezuma KS.</u>						COUNTY <u>Grey</u>	STATE <u>Kansas</u>
OLD OR NEW (Circle one)						<u>1.01</u>	<u>11.45</u>

CONTRACTOR Sterling #5 OWNER \_\_\_\_\_

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. \_\_\_\_\_

CASING SIZE 8 5/8 DEPTH 1,837

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX 1,500 MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. 42'

PERFS. \_\_\_\_\_

DISPLACEMENT 163

CEMENT Lead

AMOUNT ORDERED 450 SKS Class A, 2% CC, 2% Gypseal, 30% Sodium Metasilicate heads, 1/4 #/SK Flo Seal, Tail 150 SKS Class C, 2% CC

COMMON	<u>450 SKS @ 17.99</u>	<u>\$8,055.00</u>
POZMIX	@ _____	_____
GEL	@ _____	_____
CHLORIDE	@ _____	_____
ASC	@ _____	_____
Class C	<u>150 SKS @ 24.40</u>	<u>\$3,660.00</u>
NAMS	<u>846 lbs @ 3.39</u>	<u>\$2,791.39</u>
Gypseal	<u>8 SKS @ 37.00</u>	<u>\$300.00</u>
CC	<u>19 SKS @ 64.00</u>	<u>\$1,216.00</u>
Flo-Seal	<u>113 lbs @ 2.97</u>	<u>\$335.61</u>
HANDLING	<u>657.60 @ 2.48</u>	<u>\$1,630.85</u>
MILEAGE/Dayage	<u>(1494) @ 2.00</u>	<u>\$2,988.00</u>
TOTAL		<u>\$21,873.66</u>

EQUIPMENT

PUMP TRUCK	CEMENTER <u>Tim C Kenny B</u>	<u>1</u>
#530-484	HELPER <u>Vicente T</u>	<u>3</u>
BULK TRUCK		
#472-467	DRIVER <u>Angel G</u>	<u>3</u>
BULK TRUCK		
#562-554	DRIVER <u>Lenny B</u>	<u>1</u>

REMARKS:

Thank You

SERVICE

DEPTH OF JOB	<u>1,837'</u>	
PUMP TRUCK CHARGE		<u>\$2,213.75</u>
EXTRA FOOTAGE	@ _____	_____
MILEAGE	@ _____	_____
MANIFOLD	<u>1 @ 275.00</u>	<u>\$275.00</u>
Light Vehicle	<u>50 @ 4.40</u>	<u>\$220.00</u>
Heavy Vehicle	<u>50 @ 7.74</u>	<u>\$387.00</u>
TOTAL		<u>\$3,093.75</u>

CHARGE TO: McCoy

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

Guide Shoe	<u>1 @ 460.94</u>	<u>\$460.94</u>
AFU Float Valve	<u>1 @ 446.94</u>	<u>\$446.94</u>
Centralizer	<u>4 @ 74.88</u>	<u>\$299.52</u>
Cement Basket	<u>1 @ 559.24</u>	<u>\$559.24</u>
Rubber Plug	<u>1 @ 131.04</u>	<u>\$131.04</u>
TOTAL		<u>\$1,897.74</u>

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 Calvin Mikkelsen

SIGNATURE [Signature]

SALES TAX (If Any) 136.03

TOTAL CHARGES \$26,865.95

DISCOUNT 35% 9409.60 IF PAID IN 30 DAYS

NET \$17,462.35



# ALLIED OIL & GAS SERVICES, LLC KB 053311

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Liberals KS

DATE <u>11-27-12</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
<u>Richardson Trust LEASE</u>						<u>4:00</u>	<u>5:00</u>
	WELL# <u>1-1SA</u>	LOCATION <u>ec Montezuma KS</u>				COUNTY <u>Gray</u>	STATE <u>KS</u>
OLD OR NEW (Circle one) <span style="float: right;">1.0? 7.45</span>							

CONTRACTOR <u>Sterling #5</u> TYPE OF JOB <u>Production</u> HOLE SIZE <u>7 7/8</u> T.D. <u>5150</u> CASING SIZE <u>4 1/2</u> DEPTH <u>ES 156</u> TUBING SIZE DEPTH DRILL PIPE DEPTH TOOL DEPTH PRES. MAX MINIMUM MEAS. LINE SHOE JOINT <u>42.15</u> CEMENT LEFT IN CSG. <u>calc barrels</u> PERFS. DISPLACEMENT <u>81 barrels</u> EQUIPMENT	OWNER CEMENT AMOUNT ORDERED <u>225sk Class H ASC</u> <u>S# Gilsonite .5% FL-160</u> <u>Spk Class A 60/40-40 Bagel Rat/Mouse Hole</u> COMMON @ POZMIX @ GEL @ CHLORIDE @ ASC Class H <u>225sk</u> @ <u>23.40</u> <u>5265.00</u> <u>ACC2A light weight socks</u> @ <u>18.95</u> <u>3972.50</u> @ <u>FL-160 106#</u> @ <u>10.90</u> <u>2003.40</u> <u>Gilsonite 1125#</u> @ <u>.98</u> <u>1102.50</u> <u>Super Flush 18 barrels</u> @ <u>59.70</u> <u>1074.60</u> @ @ @ HANDLING <u>299sk</u> @ <u>2.48</u> <u>741.52</u> MILEAGE <u>(742.075)</u> @ <u>2.60</u> <u>1929.40</u> Drayage TOTAL \$ <u>12,895.92</u>
PUMP TRUCK CEMENTER <u>Lenny Baeza / Stehly Hunza</u> # <u>530-484</u> HELPER/VICENT <u>Torrez</u> BULK TRUCK # <u>562-558</u> DRIVER <u>Eddi Carasado</u> BULK TRUCK # DRIVER	

REMARKS:  
Thank You !!!

CHARGE TO: McCoy  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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 Calvin Mikkelsen  
 SIGNATURE Calvin Mikkelsen

SERVICE

DEPTH OF JOB <u>5001-6000 ft</u>	
PUMP TRUCK CHARGE <u>3,099.25</u>	
EXTRA FOOTAGE @	
MILEAGE <u>SD</u> @ <u>7.70</u> <u>385.00</u>	
MANIFOLD <u>1</u> @ <u>275.00</u> <u>275.00</u>	
light Vehicle <u>SD</u> @ <u>4.40</u> <u>220.00</u>	
@	
TOTAL \$ <u>3979.25</u>	

PLUG & FLOAT EQUIPMENT

<u>Centralizers 5</u> @ <u>56.16</u> <u>280.80</u>	
<u>Catch down plug 1</u> @ <u>272.61</u> <u>272.61</u>	
<u>AFU float shoe 1</u> @ <u>382.59</u> <u>382.59</u>	
@	
@	
TOTAL \$ <u>936.00</u>	

SALES TAX (If Any) 831.49  
 TOTAL CHARGES \$ 17811.17  
 DISCOUNT 6255.91 IF PAID IN 30 DAYS  
 Net \$ 11,577.26

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

February 05, 2013

Scott Hampel  
McCoy Petroleum Corporation  
8080 E CENTRAL STE 300  
WICHITA, KS 67206-2366

Re: ACO1  
API 15-069-20414-00-00  
RICHARDSON TRUST 'A' 1-15  
NW/4 Sec.15-27S-29W  
Gray County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Scott Hampel



**GEOLOGICAL  
REPORT  
AND  
DRILLING TIME  
SAMPLE LOG**

OPERATOR **McCoy Petroleum Corporation**

LEASE **Richardson Trust 'A'** WELL # **1-15**

FIELD **Wildcat**

LOCATION **2310' FNL & 2010' FWL**

SECTION **15** TOWNSHIP **27S** RANGE **29W**

COUNTY **Gray** STATE **KS**

API # **15 - 069 - 20414**

CONTRACTOR **Sterling Drilling Co.** RIG NO. **5**

COMMENCED DRILLING **November 16, 2012**

COMPLETED DRILLING **November 26, 2012**

RTD **5,150** FEET LTD **5,151** FEET

MUD UP AT **3,100** FEET MUD TYPE **Chemical**

SAMPLES SAVED FROM **3,060** TO **5,150**

DRILLING TIME KEPT FROM **2,500** TO **5,150**

SAMPLES EXAMINED FROM **3,060** TO **5,150**

GEOLOGICAL SUPERVISION FROM **3,060** TO **5,150**

GEOLOGIST ON WELL **Evan Stone**

DRILL STEM TESTING BY **Trilobite Testing, Inc.**

GAS DETECTOR **TookeDAQ System**

**ELEVATIONS**

K.B. **2754** FEET

G.L. **2741** FEET

ALL MEASUREMENTS  
FROM K.B.

**CASING**

Surface: **8-5/8" @ 1837'**

Production: **4-1/2" @ 5149'**

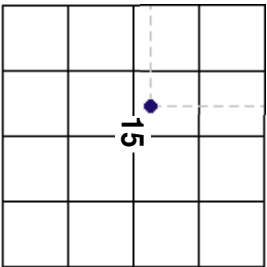
**ELECTRICAL SURVEYS**

Weatherford Wireline

Neutron-Density

Dual Induction

Microlog



**ROCK TYPES**

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal

- Congl
- Dol
- Gyp
- Igne
- Lmst
- Chtlm

- Sandy
- Shly
- Meta
- Mrst
- Salt
- Shale

- Carb shale
- Red shale
- Brn shale
- Grn shale
- Shcol
- Shgy

- Sltst
- Ss
- Till

**ACCESSORIES**

- MINERAL**
- Anhy
  - Arggrn
  - Arg
  - Bent
  - Bit
  - Brecfrag
  - Calc
  - Carb
  - Chtdk
  - Chtlt
  - Dol

- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

- STRINGER**
- Anhy
  - Arg
  - Bent
  - Coal

- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

- TEXTURE**
- Boundst
  - Chalky
  - Cryxln
  - Earthy

- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackst





2650

**HERINGTON**

2670' (+84)

**KRIDER**

2691' (+63)

2700

**WINFIELD**

2736' (+18)

2750

Mud-Co Mud Ck  
@ 2788'  
10:40 AM  
11/19/2012  
WT: 9.6      VIS: 31  
PV: --      YP: --  
CHL: 91,000    LCM: 1#

**TOWANDA**

2794' (-40)

2800

ROP (Min/Ft)

TG (Units)

ET PILEV

FT. RILEY

2840' (-86)

2850

FLORENCE

2900

2898' (-144)

WREFORD

2950

2931' (-177)

COUNCIL GROVE

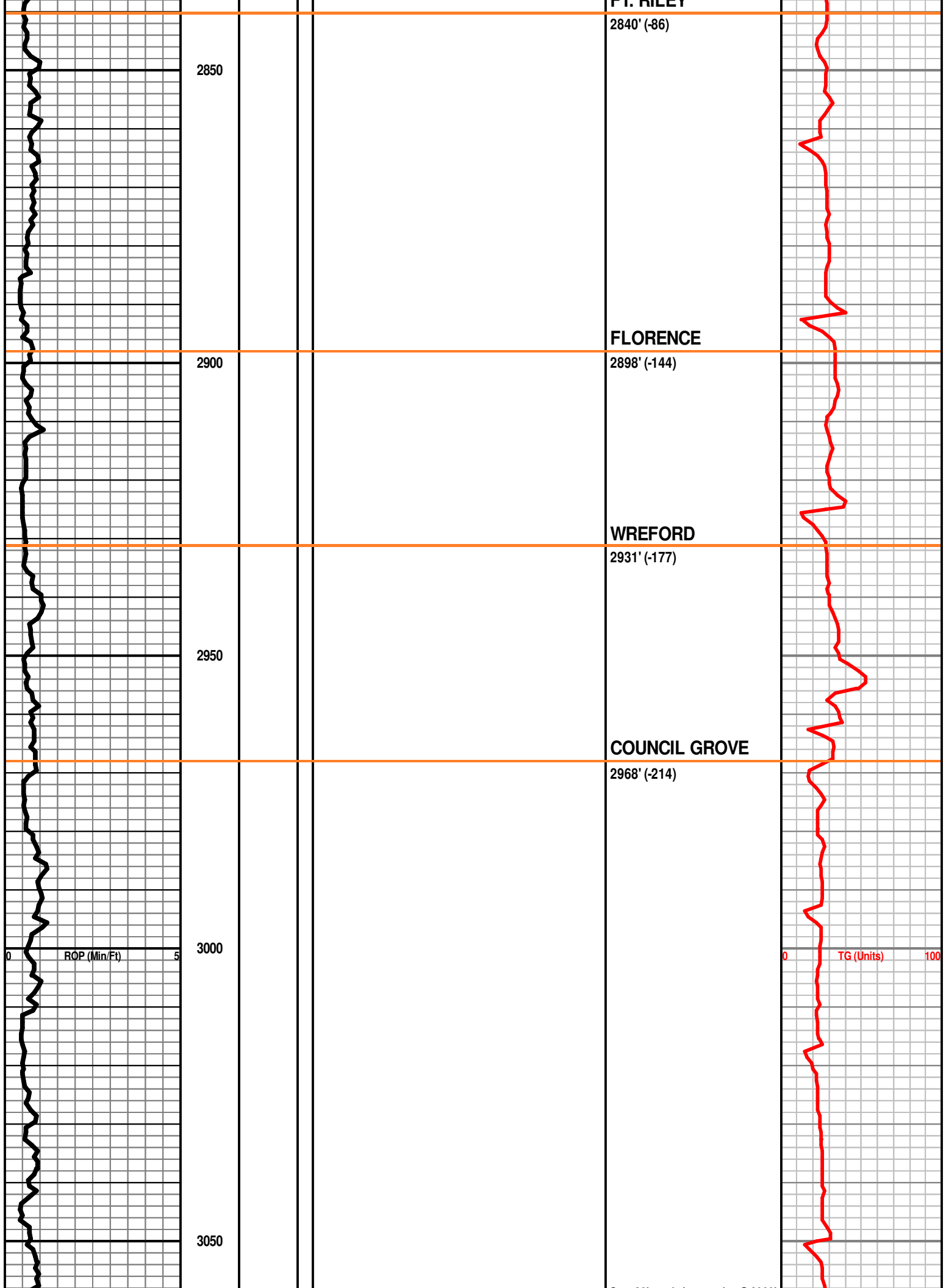
3000

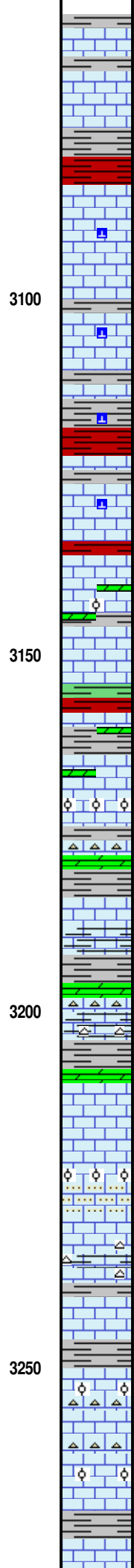
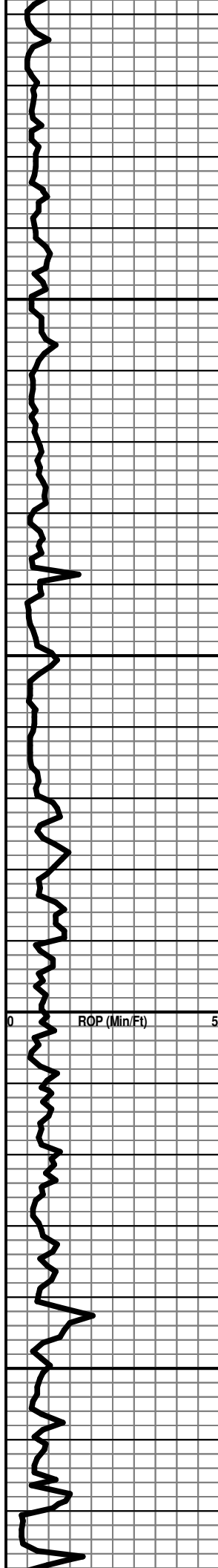
2968' (-214)

3050

ROP (Min/Ft)

TG (Units)





Very fine mix of red shale and white-gray fxln limestone, no vis porosity

3100

Very fine mix of red-gray shale and white- gray limestone, trc calcite, no vis porosity

Very fine mix of red-gray shale and white- gray limestone, trc calcite, no vis porosity

3150

Limestone: white-tan-gray, fxln, mottled, oolitic in part w/ poor oolitic porosity, scattered tan-gray dolomite and red-green shale, no shows

Limestone: tan-white-gray, fxln, mottled, oolitic, trc black oolites, fossiliferous, no vis porosity, scattered dark gray dolomite and tan-gray fxln dolomitic limestone, trc gray chert and red shale

3200

Limestone: off white-tan, vfxln, some mottled, soft, shaly, scattered gray chert and tan-gray fxln dolomite, no vis porosity

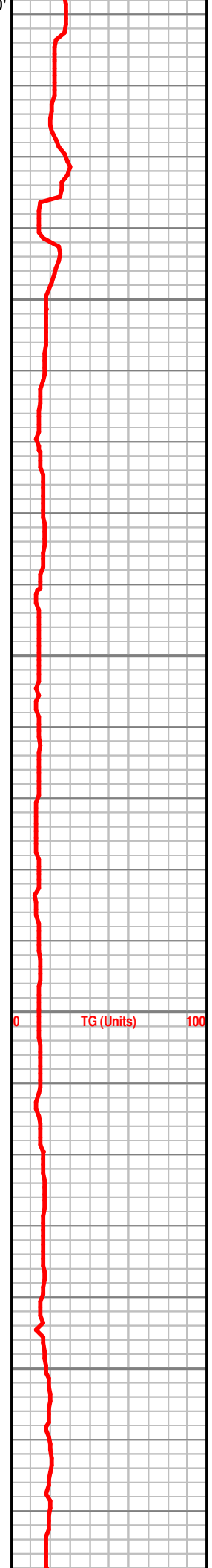
Limestone: off white-tan-gray, vfxln, oolitic w/ poor-fair oolitic porosity, some black oolites, sl fossiliferous, sl chalky

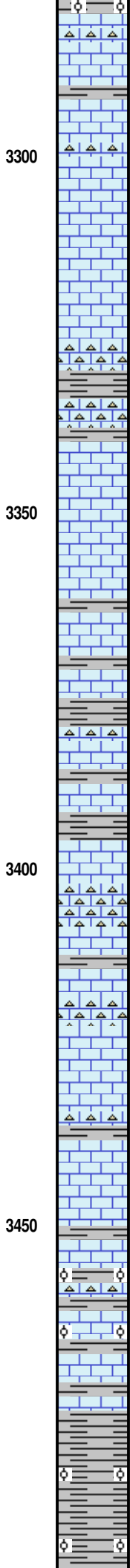
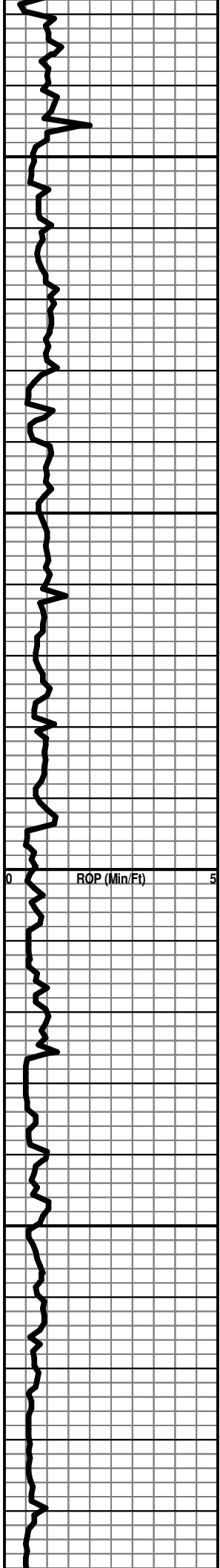
A.A. w/ scattered tan-opaque chert and silty gray shale.

3250

Limestone: white-tan-gray, vf-microxln, oolitic in part, poor vis porosity, chalky, scattered dk gray chert

Limestone: gray-tan-off white, microxln, some oolitic, poor pp porosity, chalky, fossiliferous, scattered dk gray chert





Scattered dk gray chert

3300 Limestone: white-tan, microxln, dense, no vis porosity, sl chalky, scattered white-gray chert,

Limestone: off white-tan, vfxln w/ scattered granular, dense, no vis porosity, sl chalky, scattered gray-tan chert and gray shale

3350 Limestone: white-tan, granular, some mottled, dense, no vis porosity, sl chalky, scattered white-tan-gray chert

Limestone: off white-tan-gray, granular, mottled, no vis porosity, fossiliferous, arenaceous, sl chalky, trc lt gray-opaque chert

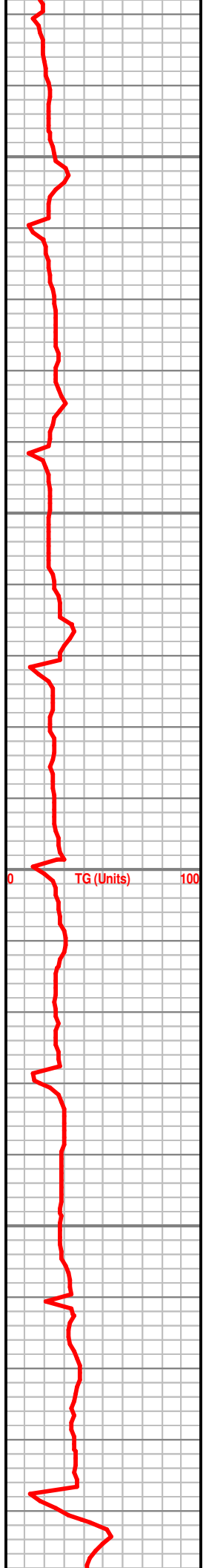
3400 Limestone: gray-dk gray-tan, granular, mottled, no vis porosity, sl fossiliferous, arenaceous, scattered gray-opaque chert

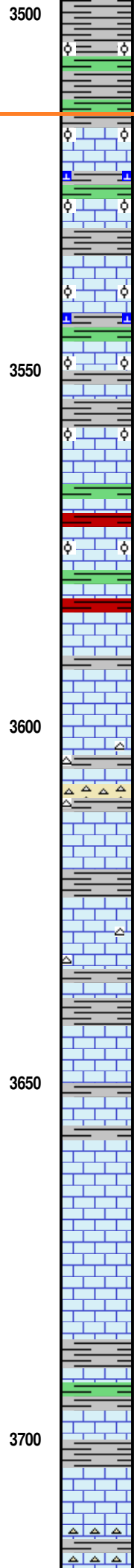
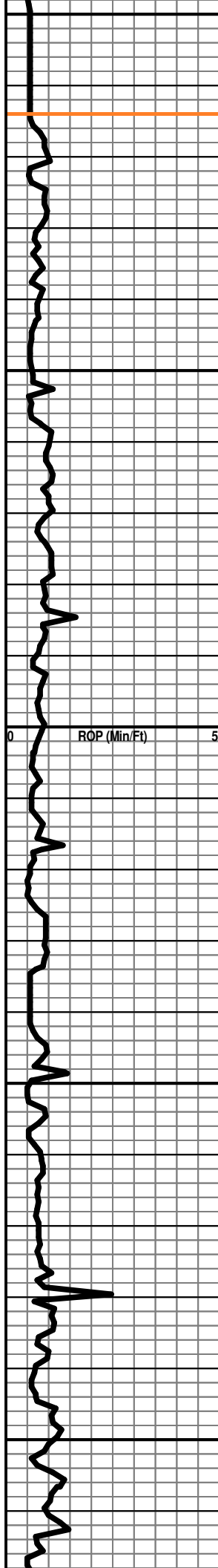
Limestone: dk gray-gray, granular, no vis porosity, v fossiliferous, scattered lt gray chert, trc red shale

3450

A.A. w/ abundant black ooids

Limestone: white-tan, microxln, no vis porosity mixed with Limestone: dk gray, vfxln, oolitic, fossiliferous, poor vis porosity





3500

**STOTLER**

3514' (-760)

Limestone: tan-white, f-microIn, oolitic, fossiliferous, few pieces with poor oolitic porosity, trc calcite and shale

Same as above w/ no vis porosity and scattered gray-tan chert

3550

Limestone: white-tan-dk gray, microIn-granular, sl fossiliferous, oolitic in part, no vis porosity, scattered off white chert and red-green shale

3600

Limestone: white-tan, micro-vfxIn, sl fossiliferous, poor pp-vuggy porosity, scattered lt brown chert and gray shale

Limestone: off white-tan, mixed granular and vfxIn, no vis porosity, trc lt brown chert

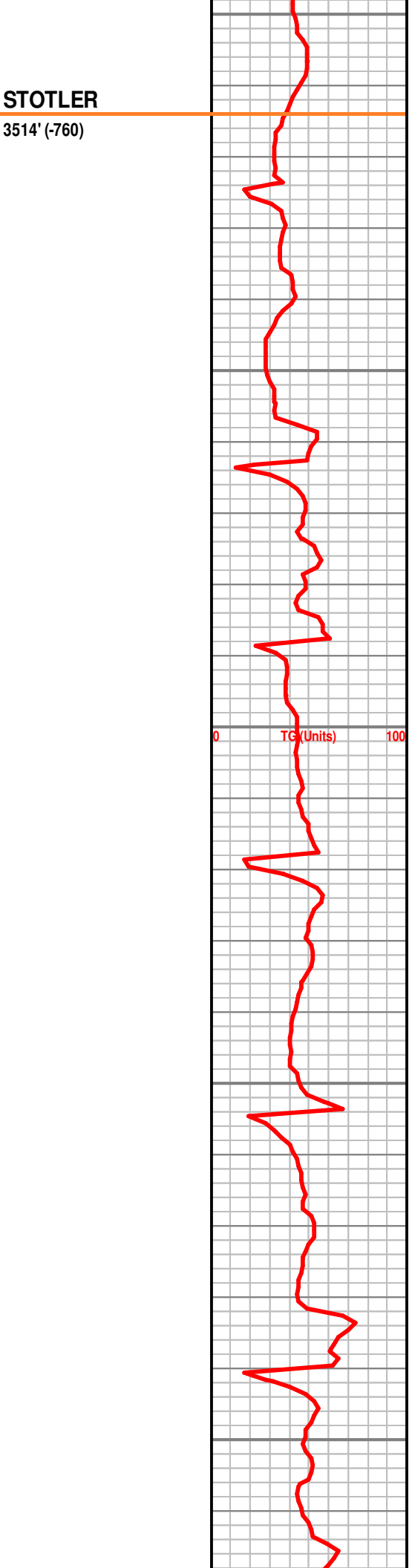
3650

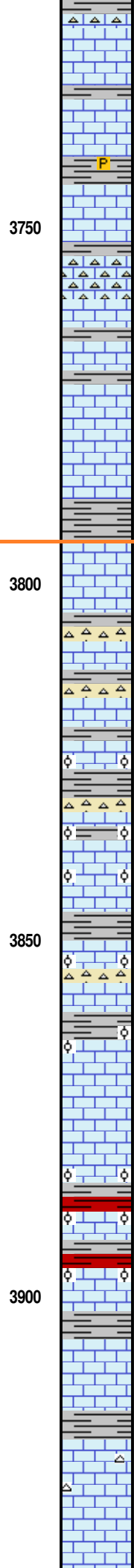
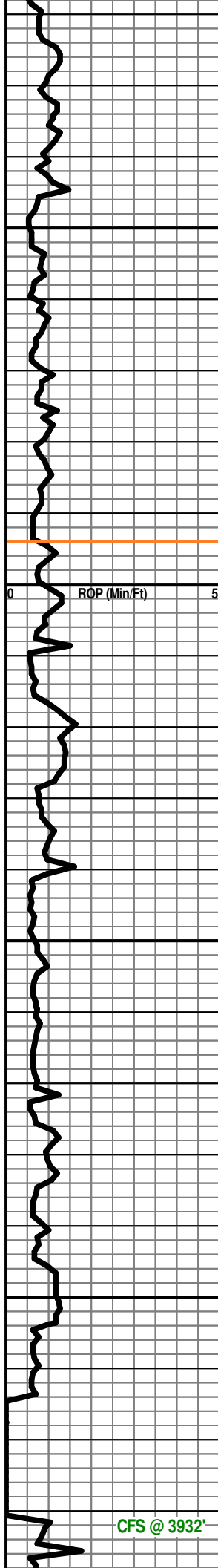
Limestone: tan, vfxIn, dense, no vis porosity, sl fossiliferous, trc gray shale

Limestone: tan-off white-gray, microIn, fossiliferous, dense, no vis porosity, sl chalky, trc gray-green shale

3700

Limestone: lt gray-white-tan, microIn, no vis porosity, sl fossiliferous, trc gray chert





Limestone: tan-off white, microxn, dense, no vis porosity, sl fossiliferous  
 Shale: gray-green-red, silty, pyritic

Limestone: tan-lt gray, microxn, poor pp porosity, sl fossiliferous, sl chalky, scattered lt gray-opaque chert

Limestone: white-tan, vf-microxn, scattered poor pp porosity, fossiliferous

**TOPEKA**  
 3794' (-1040)

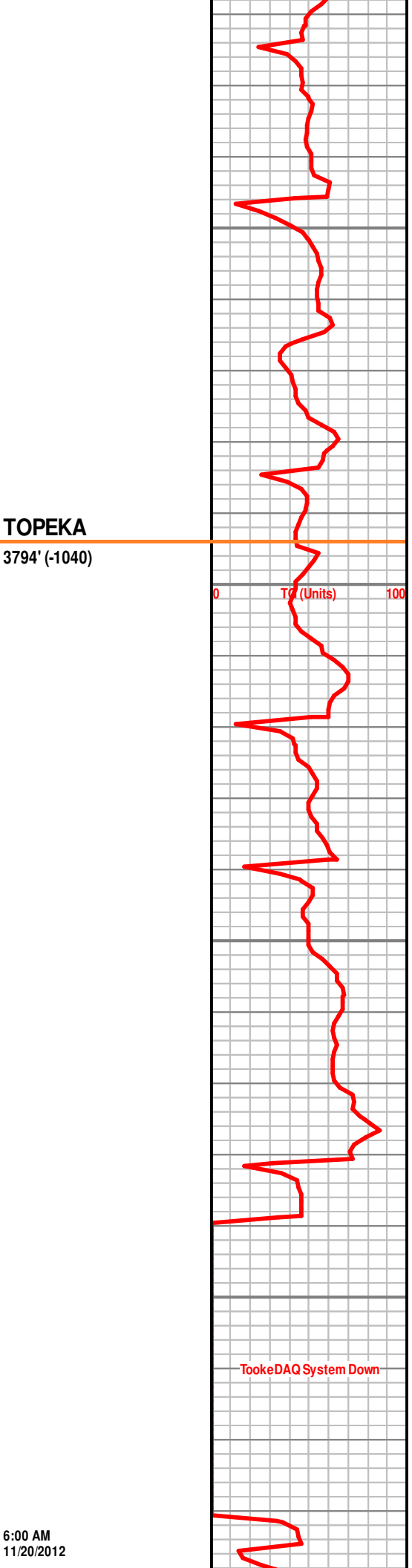
Limestone: white-lt gray, microxn, no vis porosity, fossiliferous, scattered gray chert and shale

Limestone: white-tan-gray, microxn, sl fossiliferous, poor pp porosity, oolitic in part w/ good oolitic porosity, no shows, scattered gray shale and trc tan-gray chert

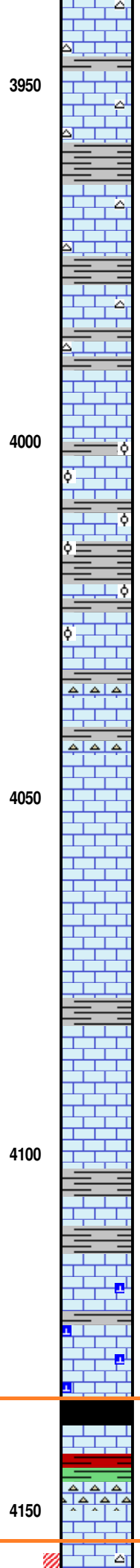
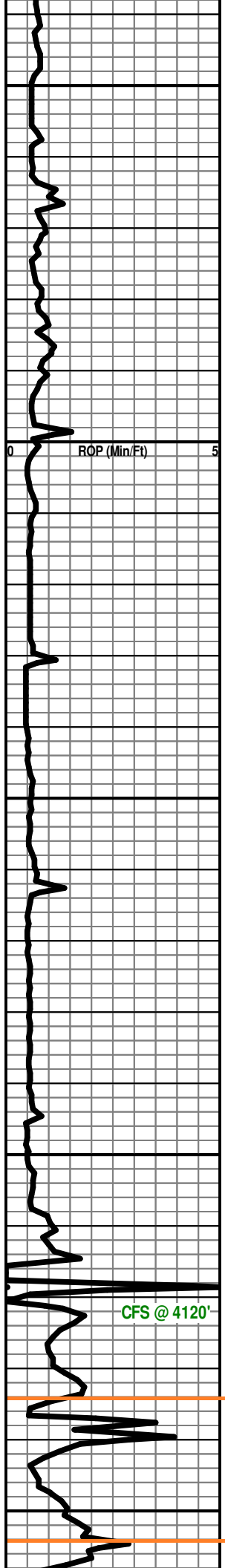
Limestone: white-tan-gray, microxn, some mottled, sl fossiliferous, poor-fair pp porosity, oolitic in part w/ no vis porosity, no shows, no fluorescence, scattered gray-red shale and trc gray chert

Limestone: white-tan, vfxln, some arenaceous and mottled, fossiliferous, good pp porosity, no shows, no fluorescence, oolitic in part w/ poor vis porosity, trc red-gray shale

Limestone: white, vfxln, mottled-oolitic, fossiliferous-bioclastic, fair pp porosity, scattered gray shale, trc off white chert, no shows



CFS @ 3932'



Limestone: white-tan, fxln, oolitic, fossiliferous-bioclastic, chalky, poor vis porosity in bioclasts and oolites, scattered gray shale, trc tan chert, chalky, no shows

Limestone: white-tan, fxln, mottled, poor oolite development, no vis porosity, fossiliferous, some bioclastic, scattered gray shale and tan chert

Limestone: white-tan, fxln, mottled, poor pp porosity, sub-oolitic, fossiliferous, with Limestone: dk gray, oolitic w/ trc black oolites, no vis porosity, scattered dk gray shale

A.A. w/ dk gray chert

Limestone: white-tan-dk gray, fxln, mottled-granular, some oolitic, sl fossiliferous, no vis porosity, scattered gray chert

Limestone: white-tan-lt gray, f-microxln, granular, some oolitic, no vis porosity, fossiliferous, trc gray-opaque chert and red-green shale

Limestone: white-tan, f-microxln, granular-sucrosic, chalky, oolitic w/ poor-fair oolitic porosity, no shows, scattered brown-gray shale, trc white chert

Limestone: off white-gray, f-microxln, dense, no vis porosity, some granular, chalky, fossiliferous, trc dk gray shale

Shale: black, carbonaceous

Limestone: gray-off white, fxln, fossiliferous, chalky, black carbonaceous shale, trc gray chert and red-green shale

Start 10' wet & dry samples @ 4000'

T<sub>g</sub> (Units) 0 100

Mud-Co Mud Ck @ 4119' 12:25 PM 11/20/2012 WT: 9.2 VIS: 61 PV: 16 YP: 16 CHL: 5,500 LCM: 2#

TookeDAQ System Down

**HEEBNER**

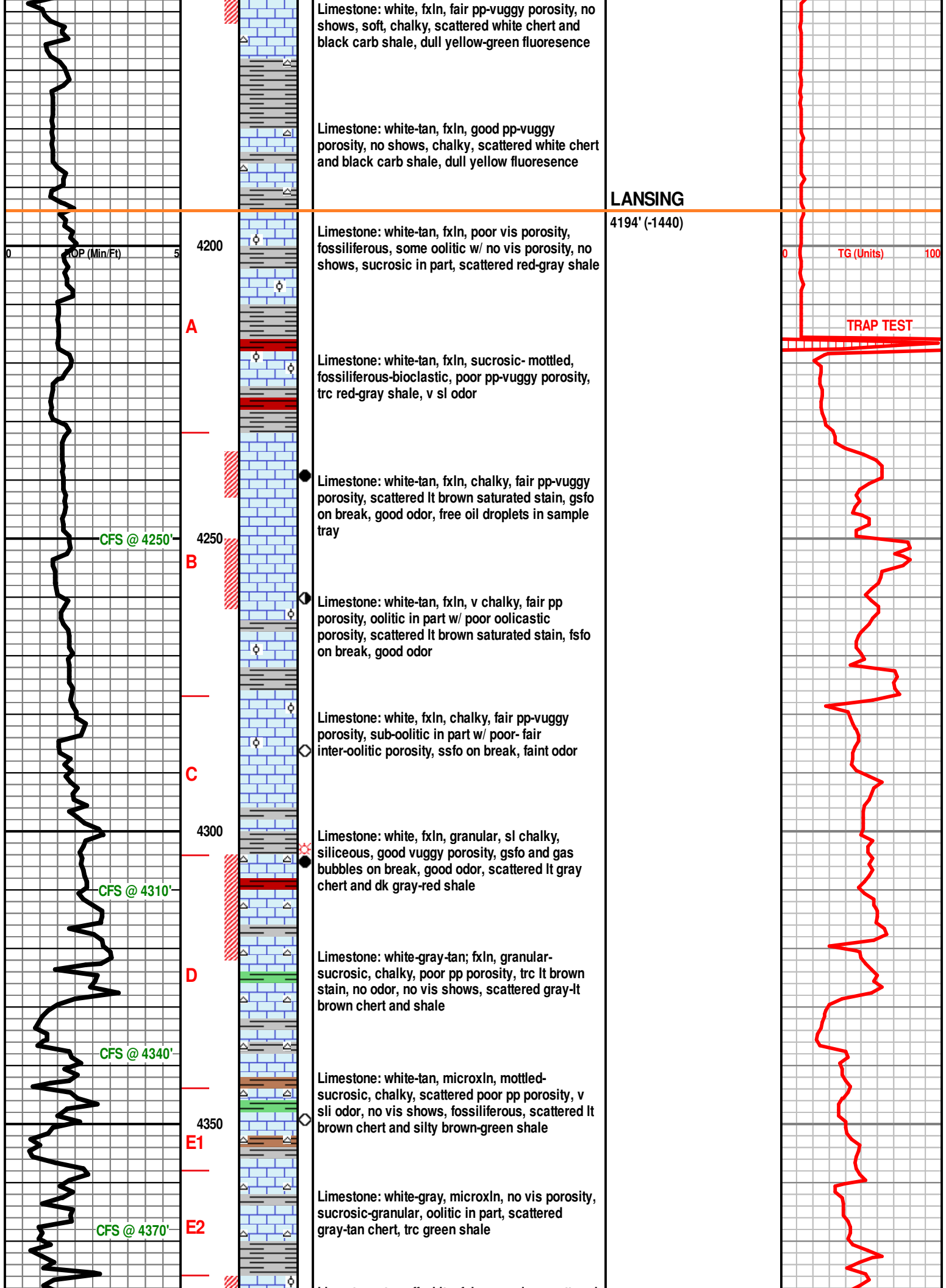
4134' (-1380)

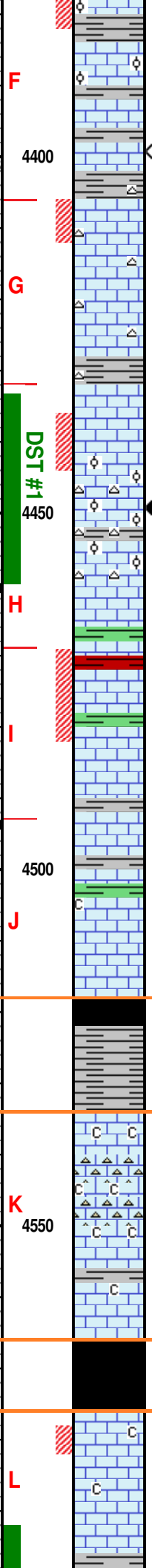
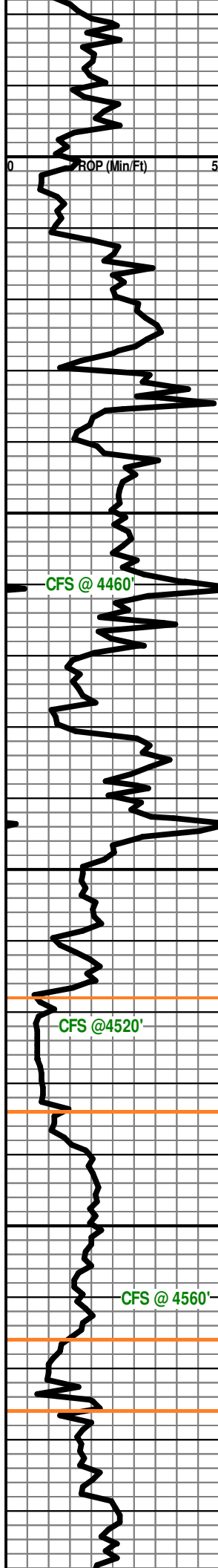
**TORONTO**

4154' (-1400)

CFS @ 4120'







Limestone: tan-off white, fxl, granular, scattered lt brown oolites, no vis porosity, trc gray-tan chert

Limestone: tan-off white, fxl, chalky, poor vis interxln porosity, ssfo on break, scattered spotty lt brown stain, faint odor, trc tan chert and gray silty shale

Limestone: tan-off white, fxl, some oolitic, chalky, poor vis pp-interxln porosity, v faint odor, no vis shows, scattered tan chert

Limestone: tan-off white, microxln, some oolitic, chalky, poor vis porosity, no odor or vis shows, scattered tan-gray chert, trc gray shale

Limestone: white-tan, microxln, chalky, v oolitic, good interxln/channel porosity, some pieces w/ even brown saturated stain and gsfo w/ strong odor on break

Limestone: white-tan, f-microxln, some oolitic, dense, no vis porosity, fossiliferous, sl chalky, trc green-red shale

Limestone: tan-off white-lt brown, f-microxln, some mxln, no vis porosity, dense, fossiliferous, sl chalky

Limestone: tan-off white, microxln, poor-no vis porosity, scattered fossiliferous, sl chalky, trc gray-green silty shale

Shale: black, carbonaceous

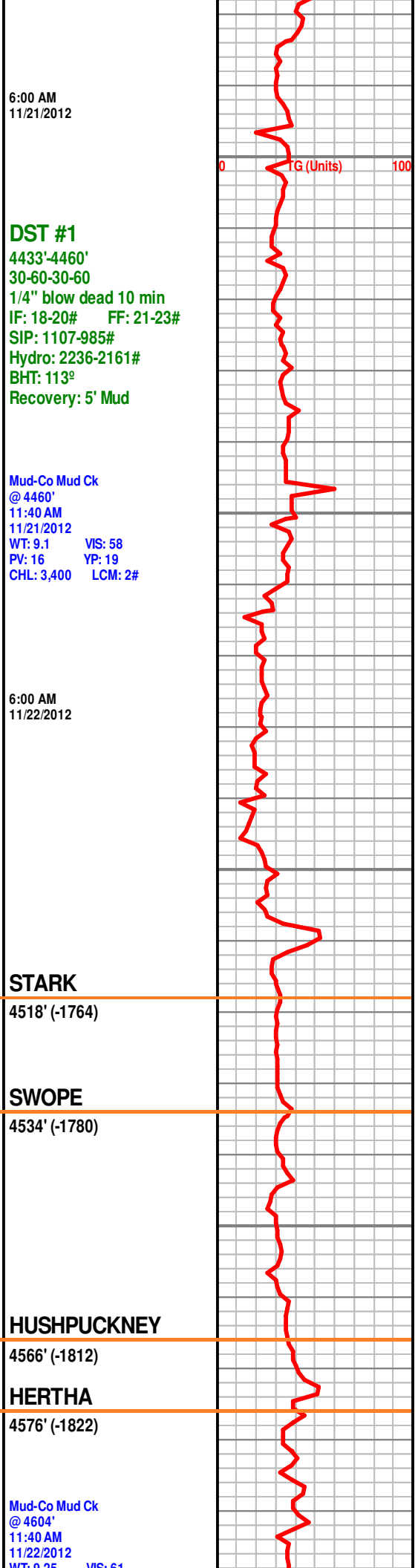
Limestone: lt gray-tan, microxln, brittle, v chalky, some fossiliferous, scattered lt brown stain, poor-no vis porosity, v faint odor, no vis shows

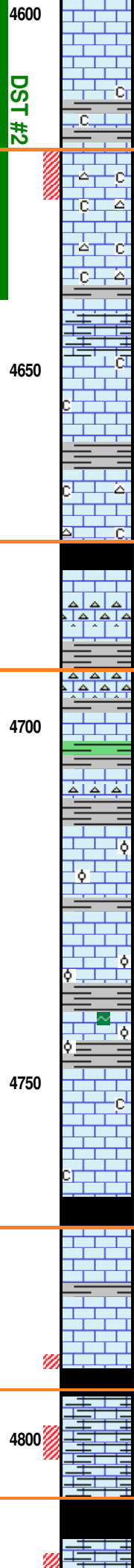
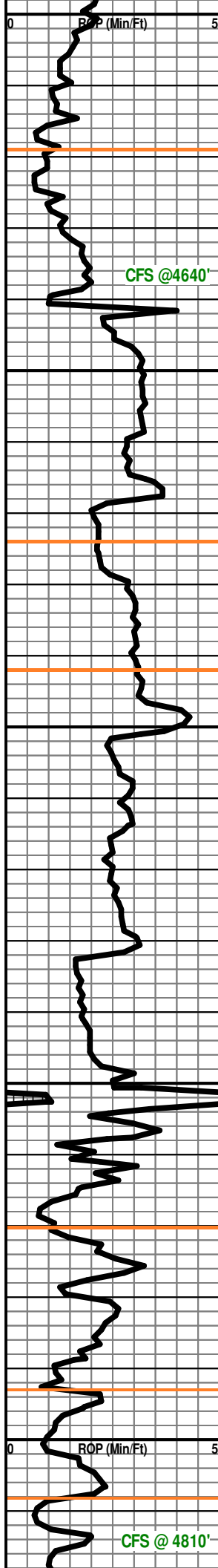
Limestone: lt gray-tan, microxln, poor vis pp-vuggy porosity in a few pieces, less chalky and fossiliferous than above, trc brown stain, v faint odor, no vis shows

Shale: black, carbonaceous

Limestone: off white-lt gray-tan, microxln, sl chalky, scattered vuggy porosity mostly poor pp porosity, scattered lt brown stain, fair odor, trc tan chert

A.A. w/ no vis porosity and faint odor





NOTE GAS CURVE SCALE CHANGE @ 4602'

Limestone: lt gray, f-microIn, dense, chalky, fossiliferous, poor pp porosity, ssfo on break, good odor, spotty lt brown stain

Limestone: lt gray-off white, microIn, chalky, oolitic w/ good oolitic porosity, gsfo on break, strong odor, spotty lt brown sat stain, some fossiliferous-bioclastic, trc black shale and tan-gray chert

Limestone: lt gray-tan, fxIn, no vis porosity, chalky, oolitic in part w/ poor vis moldic porosity, no vis shows, trc dk gray shale

Shale: dk gray-lt gray, blocky-rounded, some platy-fissile

Mix of Shale: as above and Limestone: gray-tan, fxIn, no vis porosity, chalky, trc tan chert

Limestone: tan-lt gray-brown, vfxIn, dense, cherty, no vis porosity, sub-fossiliferous, trc lt gray-green-black shale

Limestone: tan-gray-brown, vfxIn-granular, dense, cherty, no vis porosity, fossiliferous, scattered spotty dk brown-black stain, no vis shows or odor, interbedded red-green- black shale

Limestone: tan-gray, vf-fxIn, dense, no vis porosity, oolitic in part, fossiliferous, some glauconitic, interbedded dk gray-red shale

NOTE GAS CURVE SCALE CHANGE @ 4730'

Limestone: tan-gray, vfxIn-granular, oolitic w/ poor-fair oolitic porosity, no shows, some fossiliferous-bioclastic, some sl glauconitic, interbedded green-gray shale

Limestone: gray-white, microIn-granular, fossiliferous, sl chalky, no vis porosity, scattered oolitic w/ good moldic porosity, no shows, no odor

Shale: black, carbonaceous

Limestone: lt gray-dk gray, fxIn-granular, dense, oolitic w/ trc black inter-oolitic stain, poor-no vis porosity, no shows or odor, trc black-dk gray shale

Shale: black, carbonaceous, platy-blocky, v gassy, slow streaming gas bubbles

Limestone: lt gray-tan, microIn, v fossiliferous, poor pp-vuggy porosity, scattered dk brown stain, strong odor, oolitic w/ fair interoolitic- moldic porosity, sso on break of oolites, black gassy carbonaceous shale

Shale: black, carbonaceous, platy-blocky, trc slow streaming gas bubbles

wl: 9.23 vs: 61  
 PV: 22 YP: 22  
 CHL: 3,400 LCM: 2#

**KCC**  
 4619' (-1865)

**DST #2**  
 4592'-4640'  
 30-60-30-60  
 1/4" blow built to 1" dead after 10 min  
 IF: 20-23# FF: 21-25#  
 SIP: 43-40#  
 Hydro: 2369-2237#  
 BHT: 116°  
 Recovery: 10' Mud

**BKC**  
 4674' (-1920)

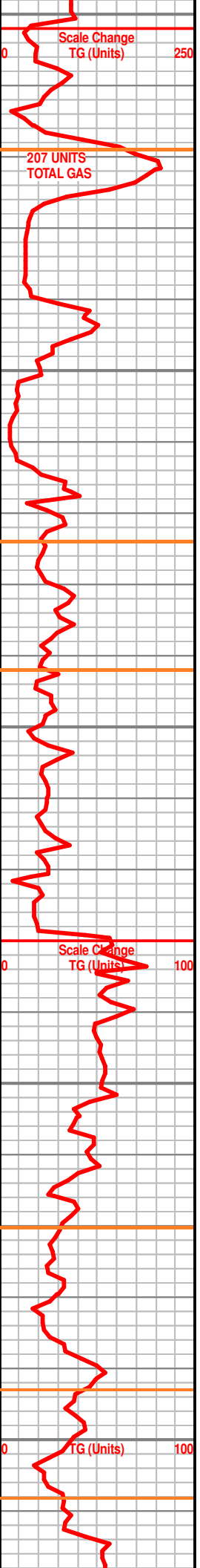
**MARMATON**  
 4692' (-1938)  
 6:00 AM  
 11/23/2012

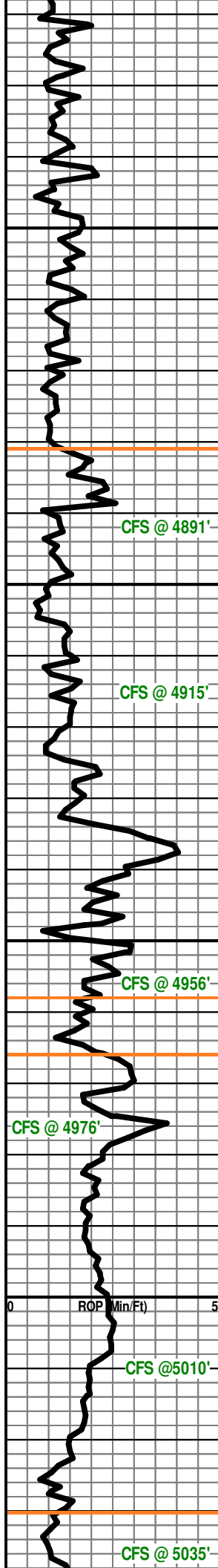
Mud-Co Mud Ck @ 4733'  
 7:15 AM  
 11/23/2012  
 WT: 9.4 VS: 61  
 PV: 18 YP: 21  
 CHL: 4,700 LCM: 2#

**PAWNEE**  
 4770' (-2016)

**FT. SCOTT**  
 4793' (-2039)

**CHEROKEE**  
 4808' (-2054)





Limestone: gray-tan, microIn, dense, fossiliferous, trc poor pp porosity, vsso on break, fair odor, scattered spotty-saturated lt brown stain, dk brown-black shale

Limestone: lt gray-tan, microIn, dense-chalky, fossiliferous, trc poor pp porosity, vsso on break, good odor, scattered spotty lt brown stain, interbedded w/ dk gray-black-green shale

Limestone: lt gray-brown-tan, vfxIn-granular, good vuggy porosity, some fair channel porosity, gso on break w/ v strong odor, v fossiliferous w/ gso on break of several fenestrate specimens, free lt brown oil droplets in sample cup and tray, interbedded w/ black-dk gray shale

Limestone: gray-tan-brown, vfxIn-granular, sl fossiliferous, sl chalky, fair-good interIn-vuggy porosity, oolitic in part w/ fair moldic porosity and dk brown-black inter-oolitic saturation, s-fso on break w/ strong odor, scattered dk brown-black stain, scattered dk gray pyritic shale and tan chert, trc scattered free oil droplets in sample tray

NOTE GAS CURVE SCALE CHANGE @ 4914'

Limestone: off white-gray-tan-dk brown, microIn-granular-oolitic, fossiliferous, dense, some fair-good vuggy-interIn porosity w/ sso on break, fair odor, scattered lt brown saturated stain, trc free oil droplets in sample tray, Interbedded green-gray shale, black limey fossiliferous shale, tan-dk brown chert, and trc red-brown siltstone

Limestone: off white-gray-tan, fxIn, granular, arenaceous, poor interIn/intergranular porosity, some glauconitic, sl chalky and oolitic, trc dead black oil stain, no vis shows, v faint odor

Interbedded limestones (A.A.) and green-red-dk gray shales

Limestone: gray-tan, v sandy/arenaceous, poor-fair interIn/intergranular porosity, some glauconitic, less chalky and oolitic than above, no vis shows or odor

Limestone: white-tan, arenaceous, poor-no vis interIn/intergranular porosity, trc sub-oolitic w/ no vis porosity

A.A. w/ no vis porosity

Limestone: white-tan, arenaceous, poor-no vis interIn/intergranular porosity, trc oolitic w/ poor moldic porosity, no vis shows

Limestone: white-tan, oolitic, chalky, poor-fair inter-oolitic porosity, gso on break, strong odor, scattered free oil droplets in sample tray

**DST #3**  
 4852'-4915'  
 30-60-60-90  
 1/4" blow BOB 3 min  
 IF: 98-288# FF: 301-527#  
 SIP: 1334-1312#  
 Hydro: 2463-2410#  
 BHT: 125°  
 Recovery:  
 2142' GIP  
 189' OCM (5 O, 95 M)  
 504' MCGO (40 G, 50 O, 10 M)  
 126' MWCGO (35 G, 30 O, 30 W, 5 M)  
 189' MCW (90 W, 10 M)  
 315' Water

**MIDDLE CHEROKEE LIME**

4881' (-2127)

6:00 AM  
 11/24/2012

Mud-Co Mud Ck  
 @ 4951'  
 11:15 AM  
 11/24/2012  
 WT: 9.1 VIS: 60  
 PV: 19 YP: 22  
 CHL: 2,800 LCM: 2#

**MORROW SHALE**

4958' (-2004)

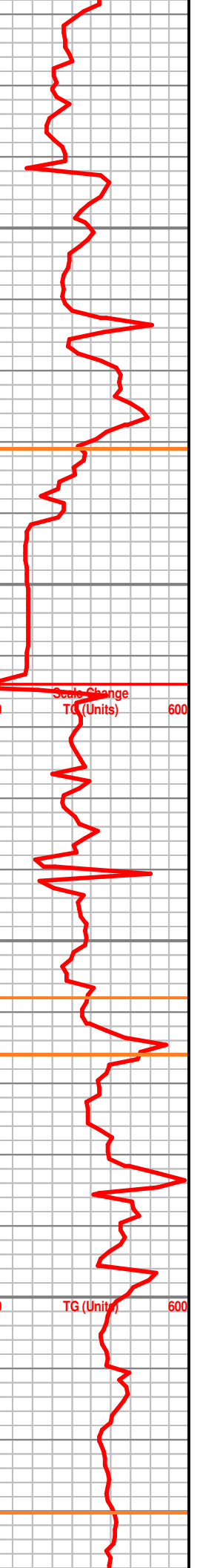
**ST. GENEVIEVE**

4966' (-2212)

**DST #4**  
 5005'-5050'  
 30-60-60-90  
 1st Open:  
 weak blow built to 1"  
 2nd Open:  
 1" blow built to 6"  
 IF: 23-29# FF: 26-39#  
 SIP: 263-243#  
 Hydro: 2561-2423#  
 BHT: 121°  
 Recovery:  
 210' GIP  
 30' OCM (10 O, 90 M)

**ST. LOUIS 'A'**

5030' (-2276)



scattered red oil droplets in sample tray

6:00 AM  
11/25/2012

**ST. LOUIS 'B'**

5054' (-2300)

Mud-Co Mud Ck

@ 5050'

10:00 AM

11/25/2012

WT: 8.95

PV: 20

CHL: 3,000

VIS: 65

YP: 22

LCM: 2#

**DST #5**

5050'-5070'

30-60-30-60

Surface blow died in 6min

IF: 16-18# FF: 12-20#

SIP: 80-63#

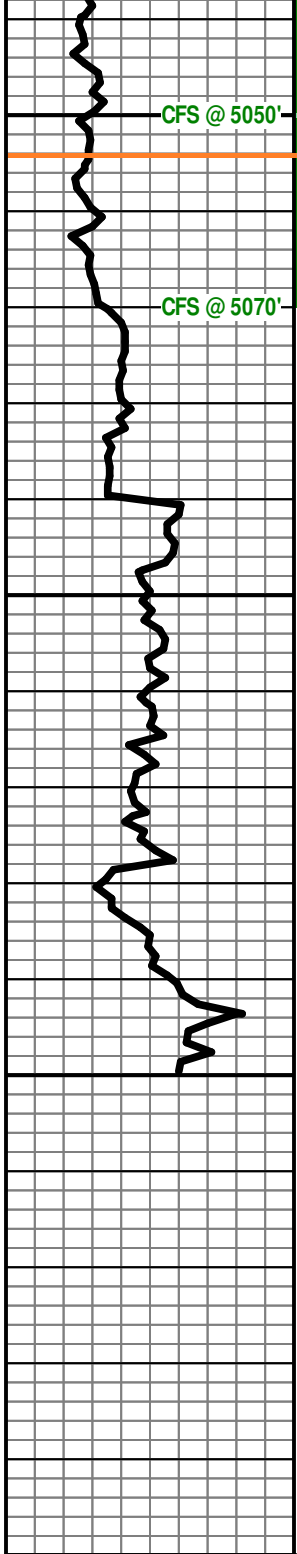
Hydro: 2480-2430#

BHT: 119°

Recovery:

5' OCM (5 O, 95 M)

6:00 AM  
11/26/2012



**DST #5**

5100

5150

5200



Limestone: white-tan, fxl, sub-oolitic w/ poor vis moldic porosity, sso on break, good odor, trc lt brown saturated stain

Limestone: white-tan, vfxln, sub-oolitic w/ poor vis moldic porosity, trc sso on break, fair odor, some glauconitic

Limestone: lt gray-off white-tan, fxl, sub-oolitic in part w/ no vis porosity, some glauconitic, trc brown chert w/ scattered dead black oil stain, v faint odor

Limestone: gray-white-tan, fxl-granular, dense, some arenaceous and glauconitic, no vis shows, trc interbedded green-dk gray shale

Limestone: off white-tan, vfxln, less dense than above, arenaceous, chalky, some glauconitic, trc red-green-gray shale

Limestone: white-tan, vfxln, arenaceous, poor-no vis porosity, mixed w/ Chert: white-tan, sharp, fresh, trc dk brown stain, no vis shows, less shale than above

**RTD 5150' (-2396)**

