



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1215218
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: _____

1215218

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: _____ _____
--	---	---

ACO-1 Supplemental Information:

SAMPLE TOPS

McCoy Petroleum Corp.
Patterson-O'Brate 'A' #2-17
C SE NW
1980'FNL & 1980'FWL
Sec 17-30s-30w
KB: 2825'

	Depth	Datum
Heebner	4226	-1401
Toronto	4248	-1423
Lansing	4298	-1473
Lansing G	4564	-1739
Stark	4738	-1913
Swope Pors.	4747	-1922
Hushpuckney	4798	-1973
Hertha Pors.	4818	-1993
Marmaton	4891	-2066
Pawnee	4990	-2165
Ft Scott	5022	-2197
Cherokee	5034	-2209
Atoka	5245	-2420
Morrow Sh.	5289	-2464
Chester	5294	-2469
St Genevieve	5462	-2637
St Louis	5598	-2773
RTD	5700	-2875

LOG TOPS

McCoy Petroleum Corp.
Patterson-O'Brate 'A' #2-17
C SE NW
1980'FNL & 1980'FWL
Sec 17-30s-30w
KB: 2825'

	Depth	Datum
Heebner	4226	-1401
Toronto	4248	-1423
Lansing	4298	-1473
Lansing G	4564	-1739
Stark	4738	-1913
Swope Pors.	4747	-1922
Hushpuckney	4798	-1973
Hertha Pors.	4818	-1993
Marmaton	4891	-2066
Pawnee	4990	-2165
Ft Scott	5022	-2197
Cherokee	5034	-2209
Atoka	5245	-2420
Morrow Sh.	5289	-2464
Chester	5294	-2469
St Genevieve	5462	-2637
St Louis	5598	-2773
LTD	5700	-2875



DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corporation**

880 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

17-30s-30w Meade,KS

Patterson-OBrate #2-17

Start Date: 2014.04.24 @ 20:05:29

End Date: 2014.04.25 @ 05:43:59

Job Ticket #: 58982 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.29 @ 11:04:47

McCoy Petroleum Corporation

Patterson-OBrate #2-17

17-30s-30w Meade,KS

DST # 1

LKC "G"

2014.04.24



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

ATTN: Dave Williams

Job Ticket: 58982

DST#: 1

Test Start: 2014.04.24 @ 20:05:29

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:23:44

Time Test Ended: 05:43:59

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 4550.00 ft (KB) To 4585.00 ft (KB) (TVD)

Reference Elevations: 2825.00 ft (KB)

Total Depth: 4585.00 ft (KB) (TVD)

2814.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6798

Inside

Press@RunDepth: 202.86 psig @ 4551.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.24

End Date:

2014.04.25

Last Calib.:

2014.04.25

Start Time: 20:05:30

End Time:

05:43:59

Time On Btm:

2014.04.24 @ 22:13:44

Time Off Btm:

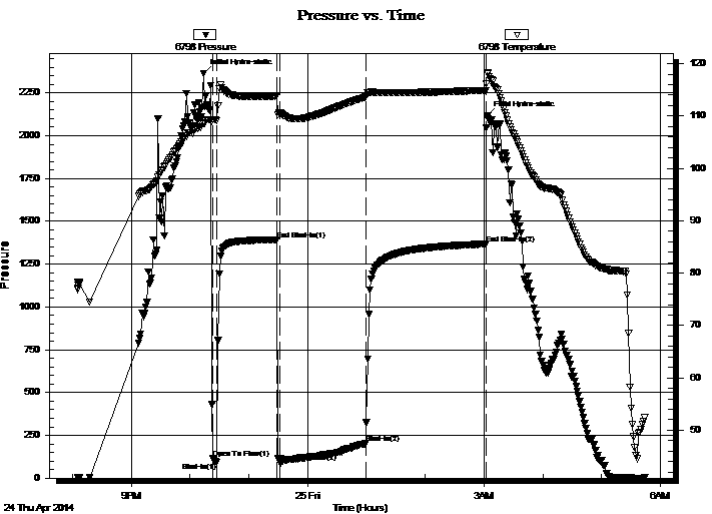
2014.04.25 @ 03:03:29

TEST COMMENT: IF: Strong Blow , BOB in 15 seconds

IS: No Blow Back

FF: Strong Blow , BOB Immediate, GTS in 2 minutes, Caught Sample & Guaged W/Merla

FS: 1/2" Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2364.55	108.58	Initial Hydro-static
10	116.85	109.26	Open To Flow (1)
14	92.66	109.11	Shut-In(1)
75	1392.87	113.82	End Shut-In(1)
78	94.61	110.65	Open To Flow (2)
166	202.86	113.67	Shut-In(2)
289	1367.86	114.87	End Shut-In(2)
290	2114.77	118.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
247.00	MCW 20%M 80%M	1.78
217.00	GWCM 10%G 30%W 60%M	3.04

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

ATTN: Dave Williams

Job Ticket: 58982 **DST#: 1**

Test Start: 2014.04.24 @ 20:05:29

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:23:44

Time Test Ended: 05:43:59

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 4550.00 ft (KB) To 4585.00 ft (KB) (TVD)

Reference Elevations: 2825.00 ft (KB)

Total Depth: 4585.00 ft (KB) (TVD)

2814.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8367 **Outside**

Press@RunDepth: psig @ 4551.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.24

End Date:

2014.04.25

Last Calib.:

2014.04.25

Start Time: 20:05:30

End Time:

05:43:59

Time On Btm:

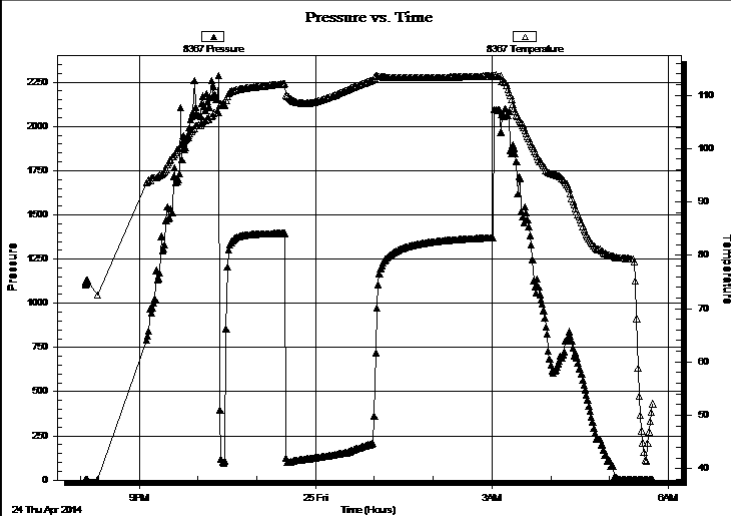
Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 15 seconds

IS: No Blow Back

FF: Strong Blow , BOB Immediate, GTS in 2 minutes, Caught Sample & Guaged W/Merla

FS: 1/2" Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
247.00	MCW 20%M 80%M	1.78
217.00	GWCM 10%G 30%W 60%M	3.04

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

Job Ticket: 58982

DST#: 1

ATTN: Dave Williams

Test Start: 2014.04.24 @ 20:05:29

Tool Information

Drill Pipe:	Length: 4366.00 ft	Diameter: 3.80 inches	Volume: 61.24 bbl	Tool Weight: 2100.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 62.15 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4550.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4529.00	
Hydraulic tool	5.00			4534.00	
Jars	5.00			4539.00	
Safety Joint	2.00			4541.00	
Packer	5.00			4546.00	26.00 Bottom Of Top Packer
Packer	4.00			4550.00	
Stubb	1.00			4551.00	
Recorder	0.00	6798	Inside	4551.00	
Recorder	0.00	8367	Outside	4551.00	
Perforations	31.00			4582.00	
Bullnose	3.00			4585.00	35.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

Job Ticket: 58982

DST#: 1

ATTN: Dave Williams

Test Start: 2014.04.24 @ 20:05:29

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:

60000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
247.00	MCW 20%M 80%M	1.779
217.00	GWCM 10%G 30%W 60%M	3.044

Total Length: 464.00 ft Total Volume: 4.823 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .2 @ 44 degrees

Serial #: 6798

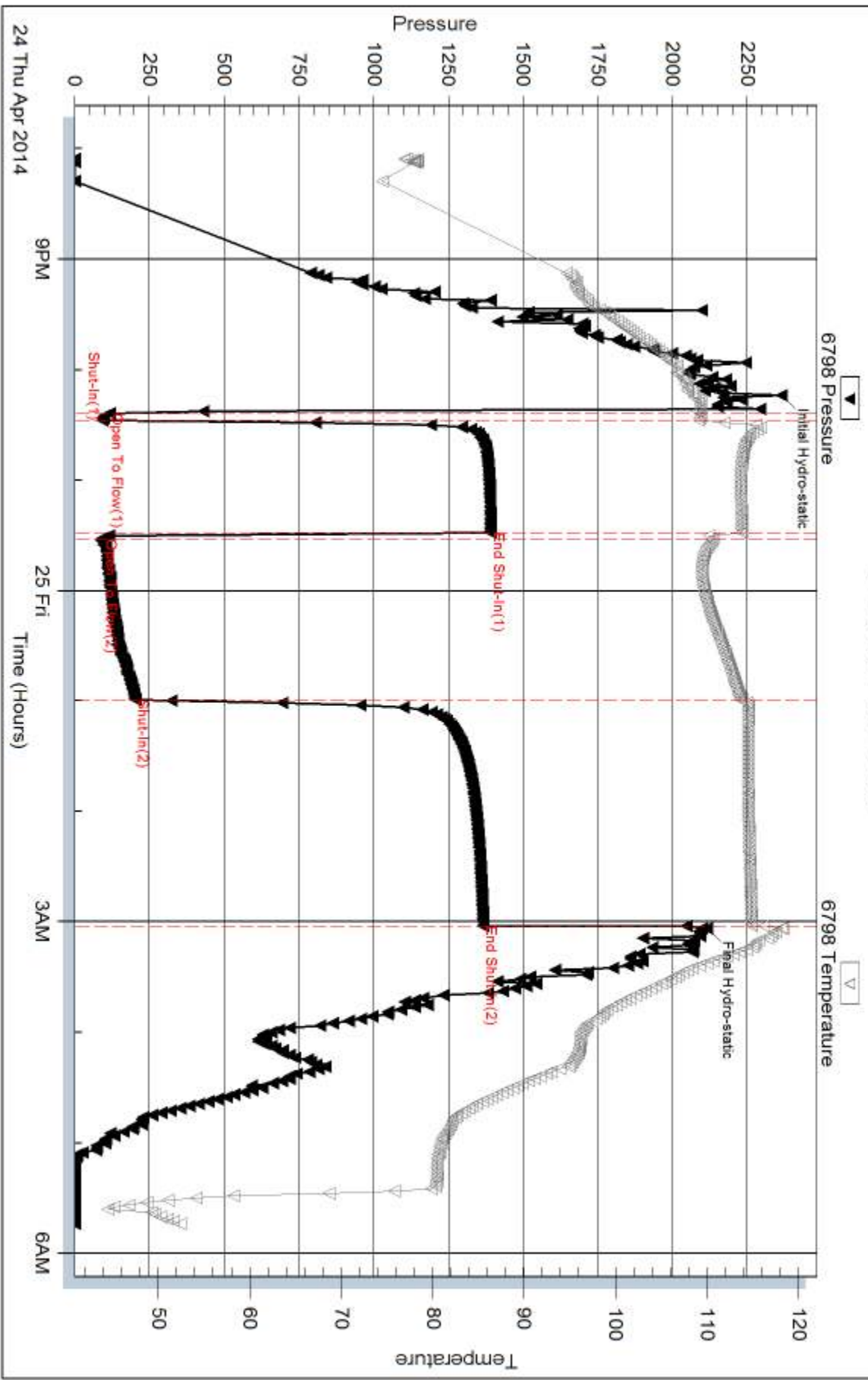
Inside

McCoy Petroleum Corporation

17-30s-30w Meade,KS

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 58982

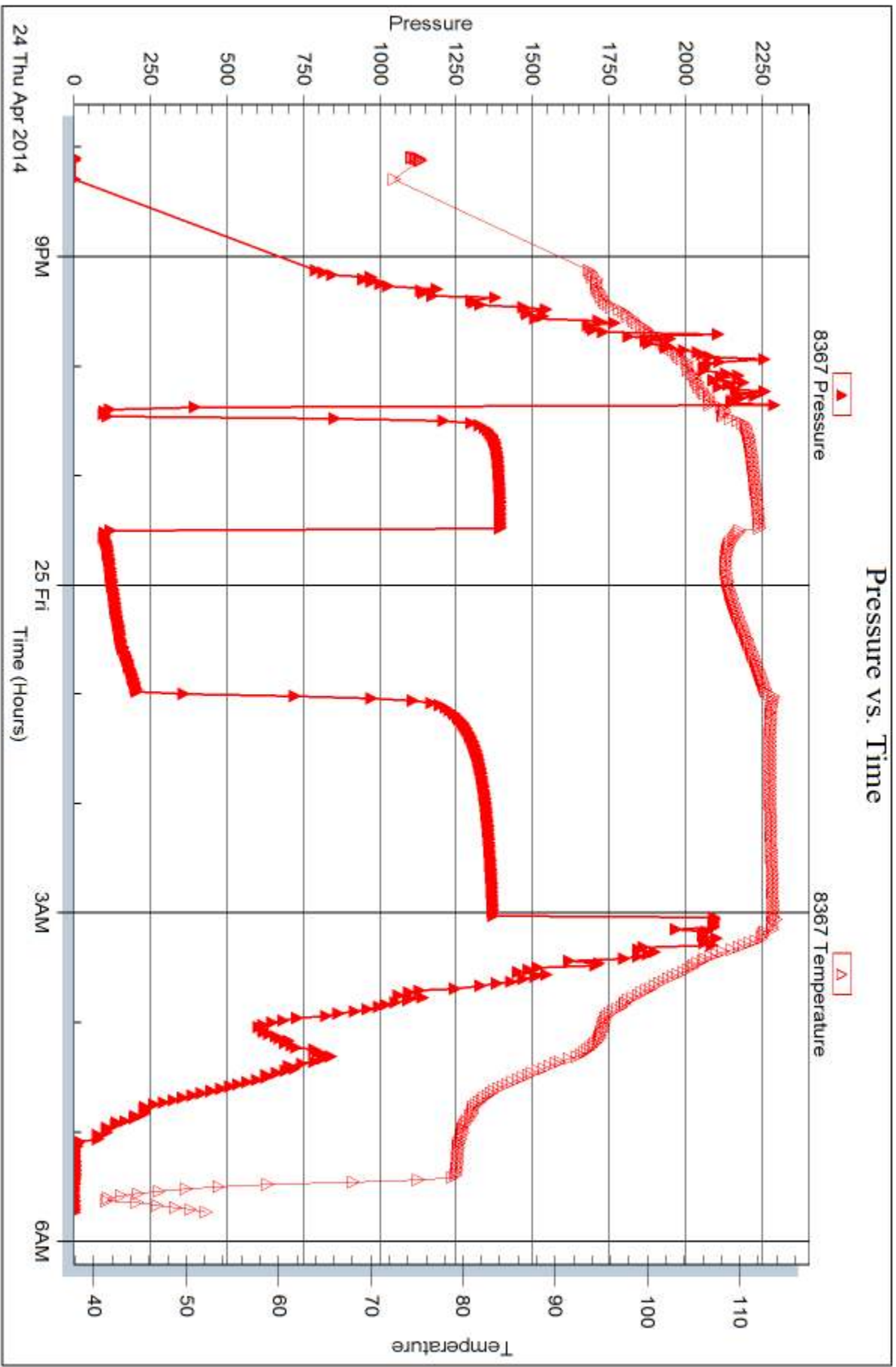
Printed: 2014.04.29 @ 11:04:48

Serial #: 8367

Outside McCoy Petroleum Corporation

17-30s-30w Meade, KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corporation**

880 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

17-30s-30w Meade,KS

Patterson-OBrate #2-17

Start Date: 2014.04.26 @ 13:45:12

End Date: 2014.04.27 @ 00:04:27

Job Ticket #: 58983 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.29 @ 11:04:14



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

ATTN: Dave Williams

Job Ticket: 58983

DST#: 2

Test Start: 2014.04.26 @ 13:45:12

GENERAL INFORMATION:

Formation: **Chester**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:21:42

Time Test Ended: 00:04:27

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 5283.00 ft (KB) To 5346.00 ft (KB) (TVD)

Reference Elevations: 2825.00 ft (KB)

Total Depth: 5346.00 ft (KB) (TVD)

2814.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 6798 Inside

Press@RunDepth: 35.99 psig @ 5284.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.26

End Date:

2014.04.27

Last Calib.:

2014.04.27

Start Time: 13:45:13

End Time:

00:04:27

Time On Btm:

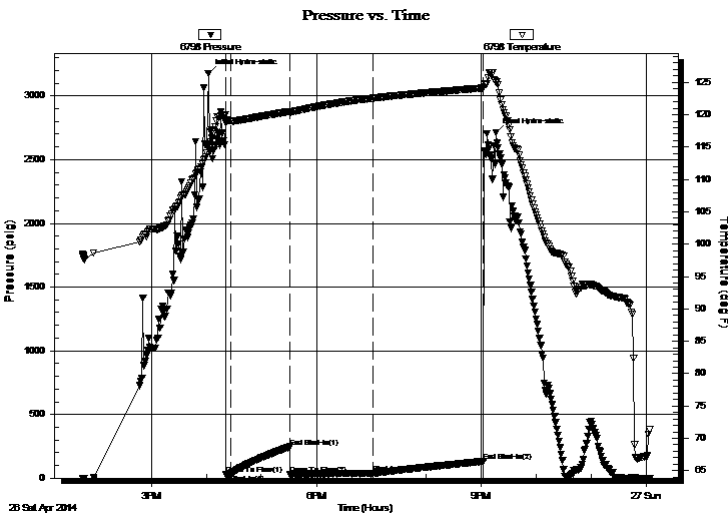
2014.04.26 @ 16:02:12

Time Off Btm:

2014.04.26 @ 21:15:57

TEST COMMENT: IF: Weak 1/2" Blow
IS: No Blow Back
FF: Weak 2" Blow
FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3177.85	115.21	Initial Hydro-static
20	27.19	119.16	Open To Flow (1)
25	30.93	119.02	Shut-In(1)
89	246.11	120.49	End Shut-In(1)
90	28.12	120.41	Open To Flow (2)
180	35.99	122.55	Shut-In(2)
300	131.96	124.14	End Shut-In(2)
314	2710.42	124.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SOCM 2&O 98%M	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

Job Ticket: 58983 **DST#: 2**

ATTN: Dave Williams

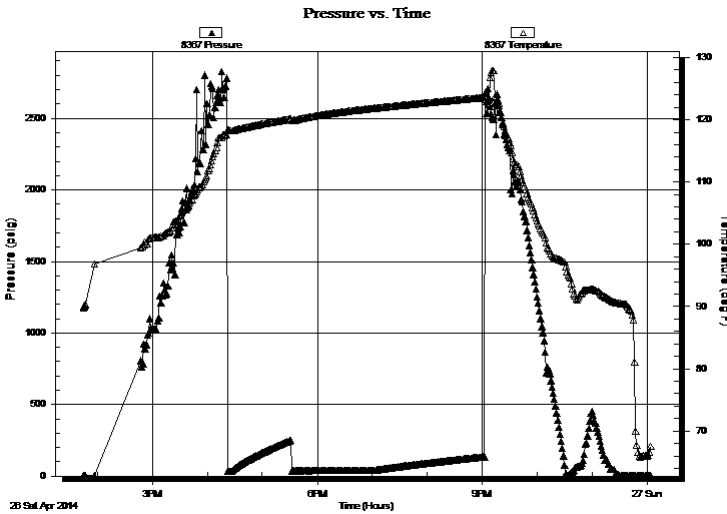
Test Start: 2014.04.26 @ 13:45:12

GENERAL INFORMATION:

Formation: **Chester**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:21:42
 Time Test Ended: 00:04:27
Interval: 5283.00 ft (KB) To 5346.00 ft (KB) (TVD)
 Total Depth: 5346.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 2825.00 ft (KB)
 2814.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8367 **Outside**
 Press@RunDepth: psig @ 5284.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.26 End Date: 2014.04.27 Last Calib.: 2014.04.27
 Start Time: 13:45:13 End Time: 00:04:12 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak 1/2" Blow
 IS: No Blow Back
 FF: Weak 2" Blow
 FS: No Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SOCM 2&O 98%M	0.10

* 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 Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

Job Ticket: 58983

DST#: 2

ATTN: Dave Williams

Test Start: 2014.04.26 @ 13:45:12

Tool Information

Drill Pipe:	Length: 5097.00 ft	Diameter: 3.80 inches	Volume: 71.50 bbl	Tool Weight: 2100.00 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: 185.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 130000.0 lb
			<u>Total Volume: 72.41 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 88000.00 lb
Depth to Top Packer:	5283.00 ft			Final 88000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	89.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5262.00	
Hydraulic tool	5.00			5267.00	
Jars	5.00			5272.00	
Safety Joint	2.00			5274.00	
Packer	5.00			5279.00	26.00 Bottom Of Top Packer
Packer	4.00			5283.00	
Stubb	1.00			5284.00	
Recorder	0.00	6798	Inside	5284.00	
Recorder	0.00	8367	Outside	5284.00	
Perforations	5.00			5289.00	
Change Over Sub	1.00			5290.00	
Drill Pipe	32.00			5322.00	
Change Over Sub	1.00			5323.00	
Perforations	20.00			5343.00	
Bullnose	3.00			5346.00	63.00 Bottom Packers & Anchor

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corporation

Patterson-OBrate #2-17

880 E Central Ste 300
Wichita, KS 67206

17-30s-30w Meade,KS

Job Ticket: 58983

DST#: 2

ATTN: Dave Williams

Test Start: 2014.04.26 @ 13:45:12

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 50.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3100.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	SOCM 2&O 98%M	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

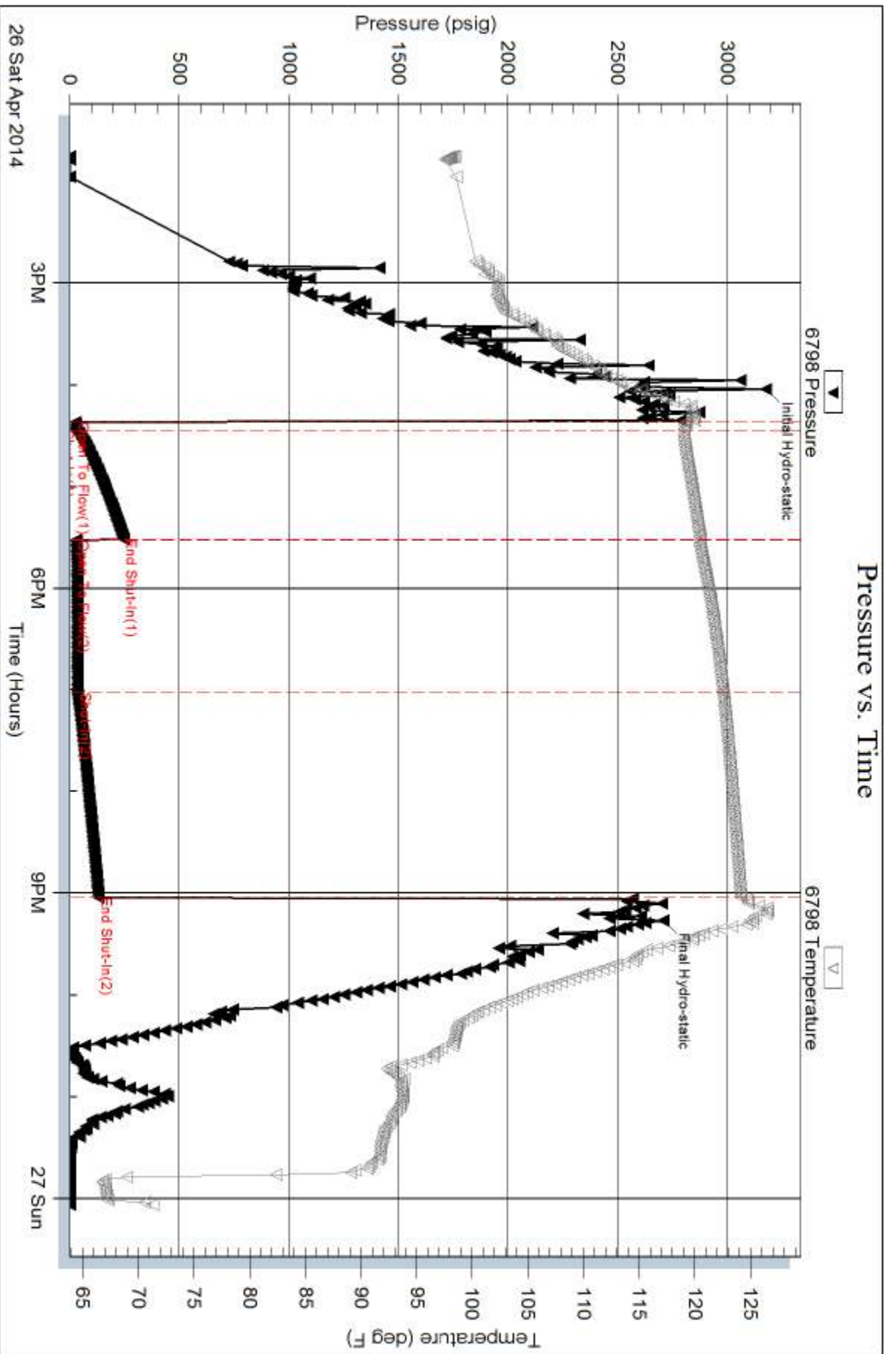
Serial #: 6798

Inside

McCoy Petroleum Corporation

17-30s-30w Meade,KS

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 58983

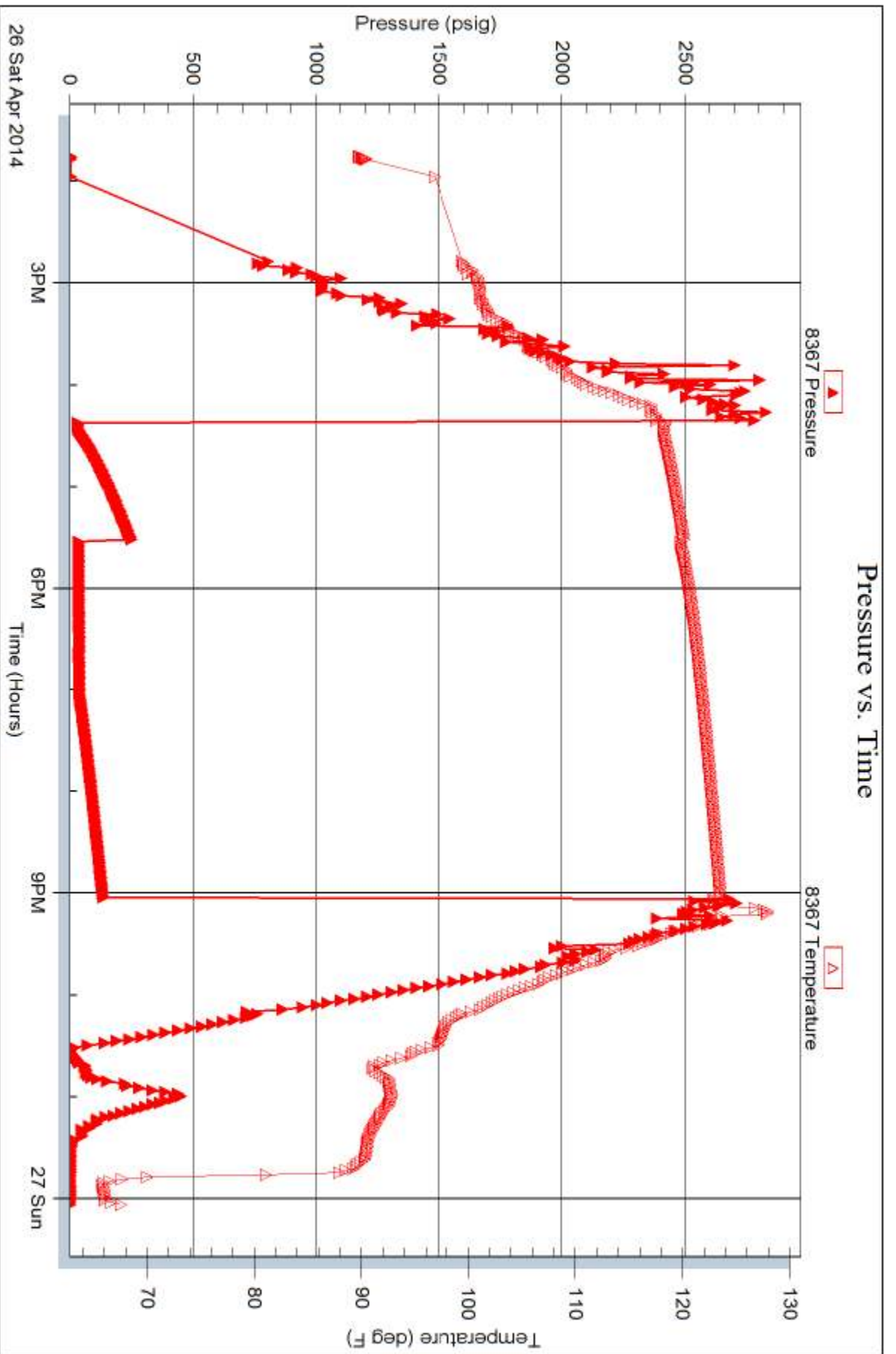
Printed: 2014.04.29 @ 11:04:15

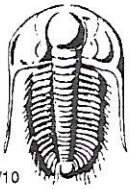
Serial #: 8367

Outside McCoy Petroleum Corporation

17-30s-30w Meade, KS

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58982

Well Name & No. Patterson-O'Brate A 2-17 Test No. 1 Date 04/24/14
 Company McCoy Petroleum Corporation Elevation 2875 KB 2814 GL
 Address 8080 F Central Ste 300 Wichita, KS 67206
 Co. Rep / Geo. Dave Williams Rig Sterling 2
 Location: Sec. 17 Twp. 30S Rge. 30W Co. Meade State KS

Interval Tested 4550 - 4585 Zone Tested Lansing "G"
 Anchor Length 35 Drill Pipe Run 4366 Mud Wt. 9.3
 Top Packer Depth 4545 Drill Collars Run 185 Vis 48
 Bottom Packer Depth 4550 Wt. Pipe Run 0 WL 9.2
 Total Depth 4585 Chlorides 2800 ppm System LCM 2

Blow Description IF: Strong Blow, BOB in 15 seconds
FSI: No Blow Back
FF: Strong Blow, BOB immediate, GTS in 2 minutes, caught sampler & gauged w/merka
FSI: 1/2 inch Blow Back

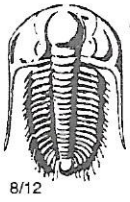
Rec	Feet of	%gas	%oil	%water	%mud
<u>4087</u>	<u>GIP</u>				
<u>217</u>	<u>GWCM</u>	<u>10%</u>		<u>30%</u>	<u>60%</u>
<u>247</u>	<u>MCW</u>			<u>80%</u>	<u>20%</u>
Rec Total	<u>464</u>	BHT <u>115</u>	Gravity <u>N/C</u>	API RW <u>.2</u>	@ <u>44°</u> F Chlorides <u>60,000</u> ppm

(A) Initial Hydrostatic 2365 Test 1250 T-On Location 18:45
 (B) First Initial Flow 117 Jars 250 T-Started 20:05
 (C) First Final Flow 93 Safety Joint 75 T-Open 22:23
 (D) Initial Shut-In 1393 Circ Sub _____ T-Pulled 03:02
 (E) Second Initial Flow 95 Hourly Standby 1 T-Out 05:43
 (F) Second Final Flow 203 Mileage (240) 372 Comments MOTEL
 (G) Final Shut-In 1368 Sampler _____
 (H) Final Hydrostatic 2114 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1947

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1947
 MP/DST Disc't _____

Approved By Dave Williams 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

Gas Volume Report

McCoy Petroleum Corporation
Operator

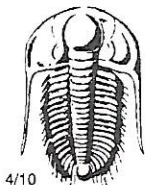
Patterson-O'Brate 2-17
Well Name and No.

1
DST No.

GTS - 2 minutes

Min.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	Ins. of Water PSIG	Orifice Size	m CF/D
				10	23	1/2	214.6
				20	22	1/2	208.9
				30	20	1/2	197.5
				40	18	1/2	186.1
				50	15	1/2	169.0
				60	6	1/2	117.7
				70	22	1/4	53.9
				80	25	1/4	58.3
				90	25	1/4	58.3

Remarks:



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58983

Well Name & No. Patterson - O'brate A 2-17 Test No. 2 Date 04/26/14
 Company McCoy Petroleum Corporation Elevation 2825 KB 2814 GL
 Address 3080 E Central Ste 300 Wichita, KS 67206
 Co. Rep / Geo. Dave Williams Rig Sterling 2
 Location: Sec. 17 Twp. 30S Rge. 30W Co. Meade State KS

Interval Tested 5283 - 5346 Zone Tested Chester
 Anchor Length 63 Drill Pipe Run 5097 Mud Wt. 9.3
 Top Packer Depth 5278 Drill Collars Run 185 Vis 50
 Bottom Packer Depth 5283 Wt. Pipe Run 0 WL 9.2
 Total Depth 5346 Chlorides 2100 ppm System LCM 4

Blow Description IF: weak 1/2 inch Blow
ISI: NO Blow Back
FF: weak 2 inch Blow
FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>50cm</u>	<u>2</u>		<u>98</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 20 BHT 125 Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic <u>3178</u>	<input checked="" type="checkbox"/> Test <u>1350</u>	T-On Location <u>12:00</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>13:45</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:21</u>
(D) Initial Shut-In <u>246</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>21:02</u>
(E) Second Initial Flow <u>28</u>	<input checked="" type="checkbox"/> Hourly Standby <u>1</u> .25h 25	T-Out <u>00:04</u>
(F) Second Final Flow <u>36</u>	<input checked="" type="checkbox"/> Mileage <u>(2407)</u> 744	Comments <u>Motel</u>
(G) Final Shut-In <u>132</u>	<input type="checkbox"/> Sampler	<u>Loaded Tools @ 11:00</u>
(H) Final Hydrostatic <u>2710</u>	<input type="checkbox"/> Straddle	<u>on 04/28/14</u>
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Final Flow <u>90</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
Final Shut-In <u>120</u>	<input checked="" type="checkbox"/> Day Standby <u>1</u> 1d 11h	Total <u>3564</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>2444</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.



**Scale 1:240 (5"=100') Imperial
Measured Depth Log**

Well Name: PATTERSON-O'BRATE "A" # 2-17
Location: SE - NW of Sec. 17 - T. 30 S. - R. 30 W.
License Number: A.P.I. # 15 - 119 - 21,364 - 00 - 00
Spud Date: 04/19/2014
Surface Coordinates: SPOT: 1980' FNL & 1980' FWL

Region: MEADE CO., KS.
Drilling Completed: 04/28/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2814' **K.B. Elevation (ft):** 2825'
Logged Interval (ft): SURFACE To: 5700' **Total Depth (ft):** 5700
Formation: MISSISSIPPIAN "ST. LOUIS"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2923'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003
Address: 8080 E. CENTRAL, STE. 300
WICHITA, KANSAS 67206-2366

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G.
Company: DW ENERGY, LLC
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

CASING & DEVIATION

Surface Casing: Spud at 9:15 pm on 04/19/14. Drilled 12-1/4" to 1832'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1813' Set at 1827' KB. Welded straps on shoe, bottom 3 joints and top 2 joints. Tacked collars on the remainder. Centralizers (4) on joints 1-3-5-27. Float insert in top of 1st joint. Cemented with 650 sks Class A; 3% CC, 6% Gel & 1/4# FS and 3#/sk Gilsonite. Tailed with 200 sks Class A; 3% CC; 1/4# FS. Cement did circulate. Plug down at 12:15 pm on 04/21/14. Basic Energy ticket #52444. Basket at 712' KB.

Deviation Survey's Taken: @ 1832'=1 degree; @ 4585'=1 degree; @ 5346' = 3/4 degree; @ 5700' = 3/4 degree.

DSTs

~~DST # 1~~ Interval: 4550'-4585'. Times: 5"-60"-90"-120";

Blow: IF= BOB/15 Sec.. No Blow Back During ISIP. FF= Strong Blow BOB/lmed & GTS @ 2" (See Gauge Report Below). 1/2" Blow Back During FSIP.

Recovery: 4087' GIP; 464' TF: 247' MCW (20% M & 80% W) & 217' GCMW (10% G, 36% W & 60% M).

Pressures: IH=2365#; FH=2115#; IF=117-93#; FF=95-202#; ISIP =1393#; FSIP=1368#; Temp.=115 degrees F.
 FF GAS GAUGE @ 10"=214.6 Mcf; @ 20"=208.7 Mcf; @ 30"= 197.5 Mcf; @ 40"=186.1 Mcf; @ 50"=119.0 Mcf; @ 60"=117.7 Mcf; @ 70"=53.9 Mcf; @ 80"=58.3 Mcf; @ 90"=58.3 Mcf.

~~DST # 2~~ Interval: 5283'-5346'. Times: 5"-60"-90"-120";

Blow: IF= Weak Surface/1/2" . No Blow Back During ISIP. FF= Weak/2". No Blow Back During FSIP.

Recovery: 20' SOCM (2% O, 98% M).

Pressures: IH=3177#; FH=2710#; IF=27-31#; FF=28-36#; ISIP= 246#; FSIP=124#; Temp.=125 degrees F.


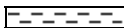

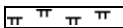
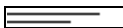
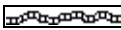




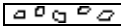


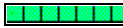




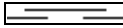




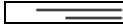
Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from all drill stem tests taken and analysis from the electric logs run, it was determined by all parties that production casing should be run in order to further evaluate this well.










































































Respectfully submitted,

David P. Williams, P. G # 88 Kansas

ROCK TYPES

 Anhy	 Clyst	 Gry shale	 Mrlst	 Shgy
 Bent	 Coal	 Gyp	 Red shale	 Sltst
 Brec	 Congl	 Igne	 Salt	 Ss
 Carb sh	 Dol	 Lmst	 Shale	 Till
 Cht	 Grn sh	 Meta	 Shcol	

ACCESSORIES

MINERAL			
 Anhy	 Hvymin	 Belm	 Pellet
 Arggrn	 Kaol	 Bioclst	 Pisolite
 Arg	 Marl	 Brach	 Plant
 Bent	 Minxl	 Bryozoa	 Strom
 Bit	 Nodule	 Cephal	STRINGER
 Brecfrag	 Phos	 Coral	 Anhy
 Calc	 Pyr	 Crin	 Arg
 Carb	 Salt	 Echin	 Bent
 Chtdk	 Sandy	 Fish	 Coal
 Chtlt	 Silt	 Foram	 Dol
 Dol	 Sil	 Fossil	 Grysh
 Feldspar	 Sulphur	 Fuss	 Gyp
 Ferrpel	 Tuff	 Gastro	 Ls
 Ferr	FOSSIL	 Oolite	 Mrst
 Glau	 Algae	 Oomold	 Sltstrg
 Gyp	 Amph	 Pelec	 Ssstrg
			TEXTURE
			 Boundst
			 Chalky
			 Cryxln
			 Earthy
			 Finexln
			 Grainst
			 Lithogr
			 Microxln
			 Mudst
			 Packst
			 Wackest

OTHER SYMBOLS

- POROSITY**
- [E] Earthy
 - [B] Fenest
 - [F] Fracture
 - [X] Inter
 - [Z] Moldic
 - [O] Organic
 - [P] Pinpoint

- [V] Vuggy
- SORTING**
- [W] Well
 - [M] Moderate
 - [P] Poor

- ROUNDING**
- [R] Rounded
 - [r] Subrnd
 - [a] Subang
 - [A] Angular

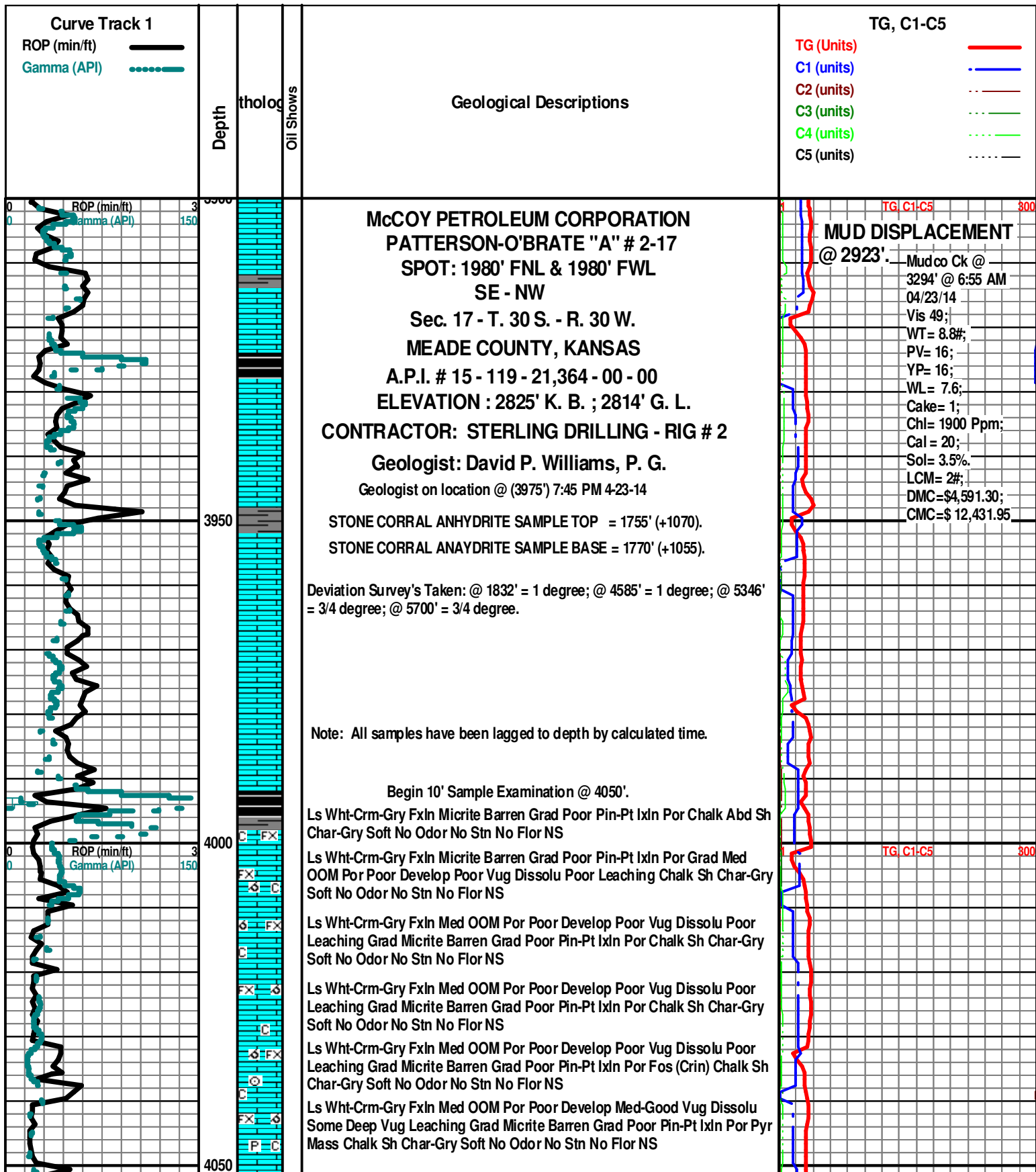
- [●] Even
- [○] Spotted
- [○] Ques
- [□] Dead

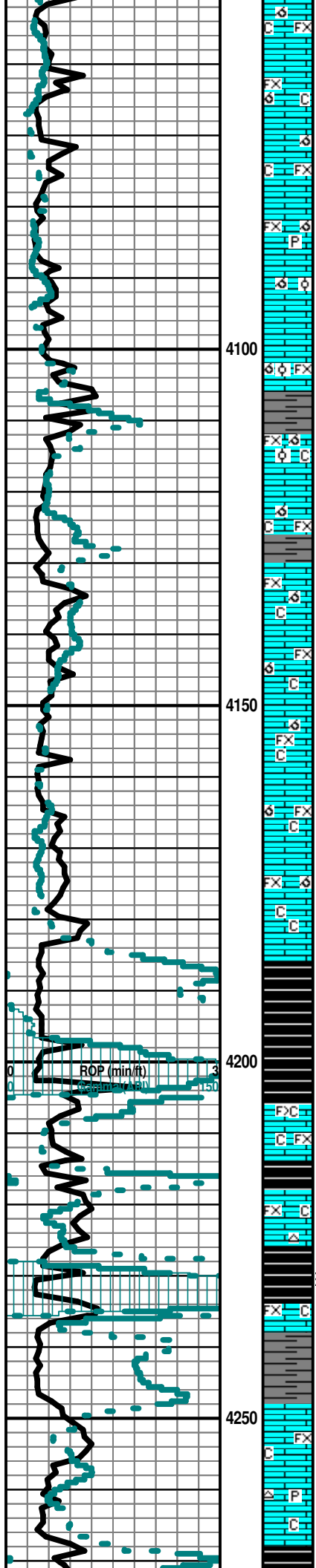
[■] Dst_alt

- EVENT**
- [▶] Rft
 - [▶] Sidewall

- OIL SHOW**
- [*] Gas show

- INTERVAL**
- [■] Core
 - [■] Dst





Ls Wht-Crm-Gry FxIn Med OOM Por Poor Develop Med-Good Vug Dissolu
 Some Deep Vug Leaching Grad Micrite Barren Grad Poor Pin-Pt IxIn Por
 Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Med OOM Por Poor Develop Med-Good Vug Dissolu
 Some Deep Vug Leaching Grad Micrite Barren Grad Poor Pin-Pt IxIn Por
 Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Med OOM Por Poor Develop Med-Good Vug Dissolu
 Some Deep Vug Leaching Grad Micrite Barren Grad Poor Pin-Pt IxIn Por
 Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Med OOM Por Poor Develop Med-Good Vug Dissolu
 Some Deep Vug Leaching Grad Micrite Barren Grad Poor Pin-Pt IxIn Por Pyr
 Mass Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Gry-Wht-Crm-FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Fair
 OOM Por (w/Small OOids in pl) Poor Develop Poor Dissolu Poor Leaching
 Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Gry-Wht-Crm-FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Fair
 OOM Por (w/Small OOids in pl) Poor Develop Poor Dissolu Poor Leaching
 Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Fair
 OOM Por (w/Small OOids in pl) Poor Develop Poor Dissolu Poor Leaching
 Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Tr Poor
 OOM Por AA Dec Chalk Abd Sh Char-Gry-Drk Gry Soft No Odor No Stn No
 Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Tr Poor
 OOM Por AA Dec Chalk Abd Sh Char-Gry-Drk Gry Soft No Odor No Stn No
 Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Tr Poor
 OOM Por AA Dec Chalk Abd Sh Char-Gry-Drk Gry Soft No Odor No Stn No
 Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Tr Poor
 OOM Por AA Dec Chalk Abd Sh Char-Gry-Drk Gry Soft No Odor No Stn No
 Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Grad Tr Poor
 OOM Por AA Dec Chalk Abd Sh Char-Gry-Drk Gry Soft No Odor No Stn No
 Flor NS

Sh Blk Carb-Char-Gry-Maroon Fissil Ls Wht-Crm-Gry FxIn Dns Micrite Grad
 Pin-Pt IxIn Por Chalk No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Maroon Fissil Ls Wht-Crm-Gry FxIn Dns Micrite Grad
 Pin-Pt IxIn Por Chalk No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Pin-Pt IxIn Por Chalk Sh Blk Carb
 Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Pin-Pt IxIn Por Chalk Sh Blk Carb
 Fissil No Odor No Stn No Flor NS

HEEBNER 4226' (- 1401)

Sh Blk Carb-Char-Gry (w/Pyr Inclus)-Maroon Soft-Fissil Ls Wht-Crm-Gry
 FxIn Dns Micrite Grad Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalk No Odor No
 Stn No Flor NS

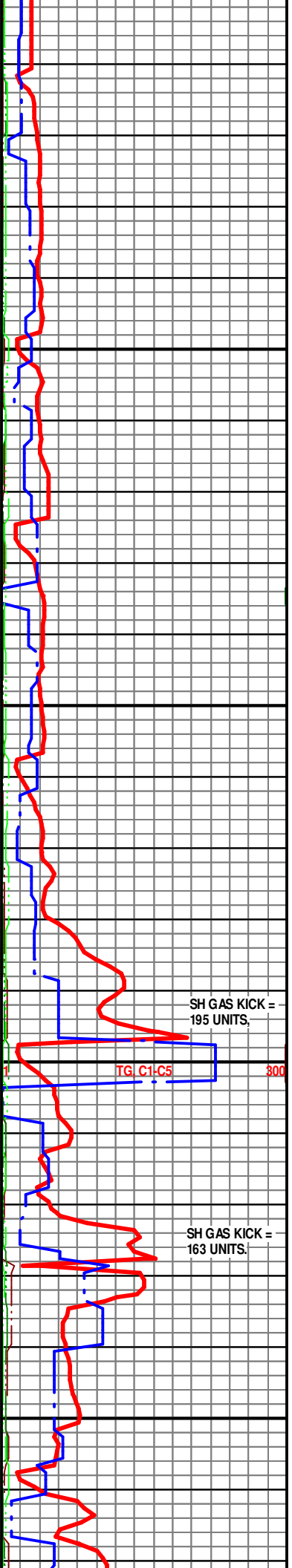
Ls Wht-Crm-Gry FxIn Dns Micrite Grad Pin-Pt IxIn Por Chalk No Odor No Stn
 No Flor NS

TORONTO 4248' (- 1423)

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Pin-Pt IxIn Por Chalk No Odor No Stn
 No Flor NS

Sh Char-Gry (w/Pyr Inclus)-Maroon Soft-Fissil Ls Wht-Crm-Gry FxIn Dns
 Micrite Grad Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalk No Odor No Stn No
 Flor NS

DOUGLAS 4268' (- 1443)



SH GAS KICK = 195 UNITS.

TG C1-C5 800

SH GAS KICK = 163 UNITS.

Sh Blk Carb-Char-Gry (w/Pyr Inclus)-Maroon Fossil Ls Wht-Crm-Gry FxIn Dns Micrite Grad Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry (w/Pyr Inclus) Soft-Fissil Ls Wht-Crm-Gry FxIn Dns Micrite Grad Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalk No Odor No Flor NS

IATAN 4294' (- 1469)

LANSING 4298' (- 1473)

Ls Wht-Crm-Tan-Gry (w/Pyr & Fos (Fuss) Inclus) MicroIxIn Dns Micritic Barren Grad FxIn Poor Pin-Pt IxIn Por Barren Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor

Ls Wht-Crm-Tan-Gry MicroIxIn Dns Micritic Barren Grad FxIn Poor Pin-Pt IxIn Por Barren Fos (Fuss Inclus) Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor

Ls Wht-Crm-Tan-Gry MicroIxIn Dns Micritic Barren Grad FxIn Poor Pin-Pt IxIn Por Barren Fos (Fuss) Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Fos (Brach w/Pyr Inclus) Chalk Sh Char-Gry-Blk Carb-Maroon Fissil Soft No Odor No Stn No Flor NS

Ls Wht-Crm MicroIxIn-FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft-Fissil Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Poor Pin-Pt IxIn Por Cht Wht Op Shp Vit Chalk Sh Char-Gry-Blk Carb-Maroon Fissil Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroIxIn Dns Micrite Barren Grad Poor IxIn Por ht Wht-Tan Op Shp Vit Chalk Fos (Fuss) Sh Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan FxIn Micrite Barren Cht Wht-Tan Translu-Op Shp Vit Chalk Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan FxIn Micrite Barren Cht Wht-Tan Translu-Op Shp Vit Chalk Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan FxIn Micrite Barren Cht Wht-Tan Translu-Op Shp Vit Chalk Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Fair-Med Pin-Pt IxIn Por Grad Poor OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Fair-Med Pin-Pt IxIn Por Grad Poor OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Fair-Med Pin-Pt IxIn Por Grad Poor OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Micrite Barren Grad Fair-Med Pin-Pt IxIn Por Grad Poor OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

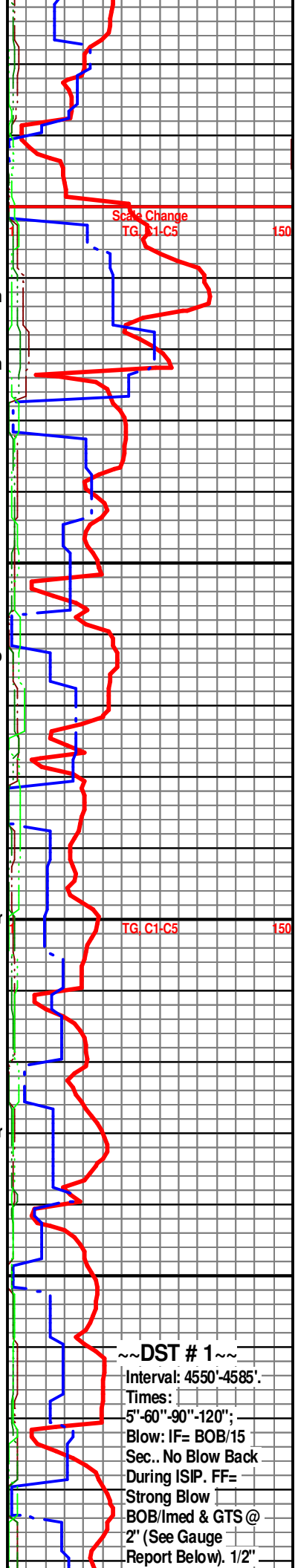
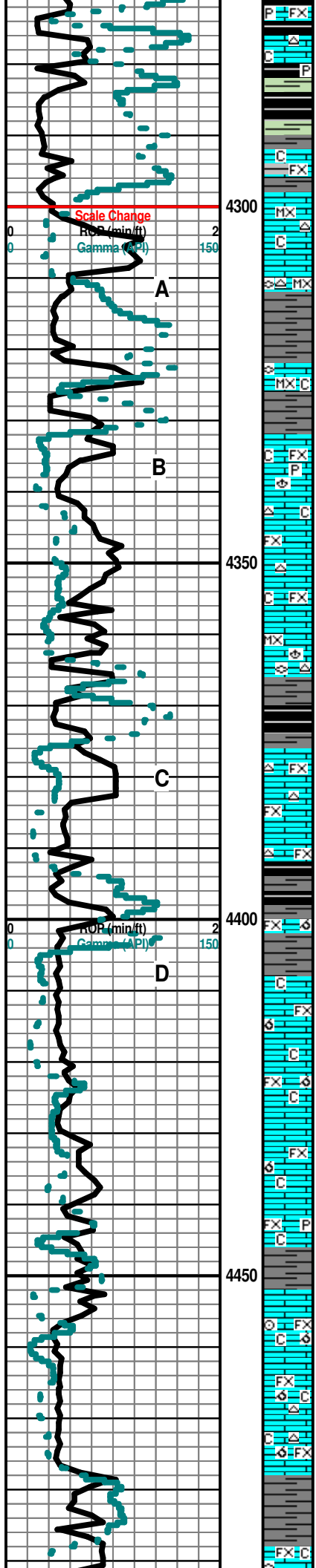
Ls Crm-Tan-Gry FxIn Dns Micrite Poor- IxIn Por Barren Chalky Sh Blk Carb-Char- Gry (w/Pyr Inclus) No Odor No Flor No Stn NS

Ls Crm-Tan-Gry FxIn Poor- IxIn Por Barren (w/Fos (Crin) Inclus) Grad Poor OOM Por Poor Leaching Poor Develop Chalk Abd Sh Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

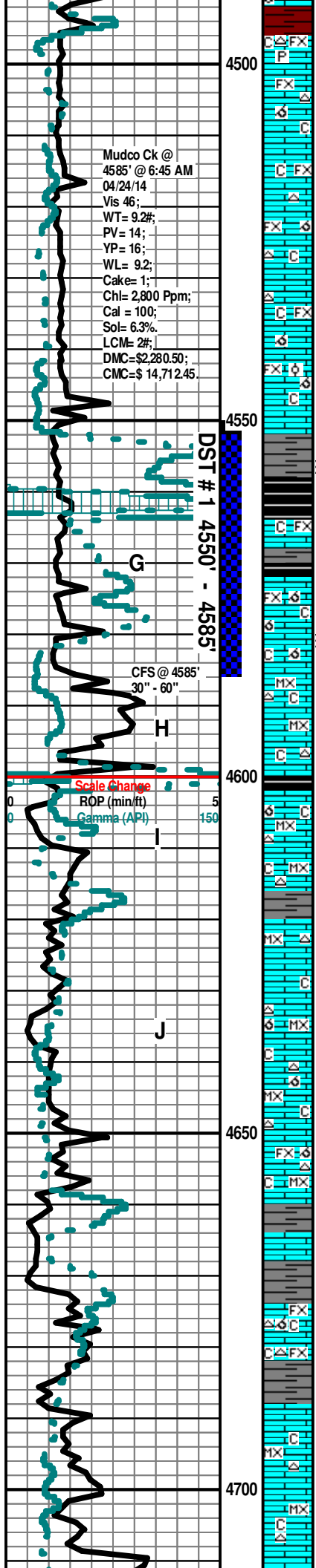
Ls Wht-Crm-Tan FxIn Fair-Med OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan FxIn Fair-Med OOM Por Poor InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Fos (Fuss) Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS



~DST # 1~
Interval: 4550'-4585'.
Times:
5"-60"-90"-120";
Blow: IF= BOB/15
Sec.. No Blow Back
During ISIP. FF=
Strong Blow
BOB/Imed & GTS @
2' (See Gauge
Report Below). 1/2"



Ls Tan-Crm-Gry Fxln Dns Micrite Poor Ixln Por Barren Fos (Fuss) Chalky Sh Blk Carb-Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

Ls Tan-Wht-Crm Fxln Good OOM Por Fair-Med InterOOM Vug Por Barren Chalk Abd Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor NS

Ls Wht-Crm-Tan Fxln Med-Good OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb - Char - Gry-Maroon Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln Med-Good OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb - Char - Gry-Maroon Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln Med-Good OOM Por Poor-Fair InterOOM Por Barren Chalk Abd Cht Wht-Tan Translu-Op Shp Vit Sh Blk Carb - Char - Gry-Maroon Fissil-Soft No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Fxln Med-Good OOM Por Poor-Fair InterOOM Vug Por (w/Small-Med OOids in pl) Barren Cht Wht Op Shp Vit Sh AA Sli ? Min Odor No Flor No Stn NS

30" CFS @ 4585' Sh Char-Gry Fissil-Soft Ls Crm-Tan-Gry Fxln Dns Micrite Poor Ixln Por Barren Cht Wht -Gry Translu-Op Shp Vit Chalky No Odor Sli ? Min Flor No Stn SSG

LANSING "G" 4564' (- 1739)

60" CFS @ 4585' Ls Wht-Crm-Tan Fxln Med-Good OOM PorMed InterOOM Vug Por Barren Cht Wht Op Shp Vit Sh No Odor Sli ? Min Flor (Dull Wht) No Stn ? SSG

--- NOTE: PIPE STUCK ON SHORT TOH PRIOR TO DST #1. SPOTTED 80 BBL. OIL. PIPE CAME FREE w/40 BCO RECOVERED..

Ls Wht-Crm-Tan Microxln Dns Micrite Cht Wht Op Shp Vit Chalky Abd Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan Microxln Dns Micrite Grad Poor Granular Ixln Por Barren Grad Poor OOM Por Poor Develop Poor Leaching Cht Wht Op Shp Vit Chalky Abd Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan Microxln Dns Micrite Cht Wht Op Shp Vit Chalky Abd Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Sh Char-Gry Soft-Fissil Ls Wht-Crm-Tan Microxln Dns Micrite Cht Wht Op Shp Vit Chalky Abd No Odor No Flor No Stn NS

Ls Wht-Crm Microxln Dns Micrite Grad Fair OOM Por Poor Develop Poor Leaching Soft Chalk Abd AA Cht Gry Translu-Op Shp Vit Sh Char-Gry No Odor No Flor No Stn NS

Ls Wht-Crm Microxln Dns Micrite Grad Fair OOM Por Poor Develop Poor Leaching Soft Chalk Abd AA Cht Gry Translu-Op Shp Vit Sh Char-Gry No Odor No Flor No Stn NS

Ls Wht-Crm Microxln Dns Micrite Grad Fxln Fair OOM Por Poor Develop Poor Leaching Soft Chalk Abd AA Cht Gry Translu-Op Shp Vit Sh Char-Gry No Odor No Flor No Stn NS

Sh Char-Gry Soft-Fissil Ls Wht-Crm Microxln Dns Micrite Grad Fair OOM Por Poor Develop Poor Leaching Soft Chalk Abd Cht Gry Translu-Op Shp Vit No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Grad Dns Micrite Cht Wht Op Shp Vit Chalky Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Grad Dns Mirite Cht Wht Op Shp Vit Chalky Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Microxln Dns Micrite Cht Gry Translu-Op Shp Vit Sh Char- Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm Microxln Dns Micrite Cht Gry Translu-Op Shp Vit Sh Char- Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm Microxln Dns Micrite Cht Gry Translu-Op Shp Vit Sh Char- Gry

Blow Back During FSIP.

Scale Change
Recovery: 4087' GIP; 750
464' TF: 247 MCW
(20% M & 80% W) &
217' GCMW (10% G,
36% W & 60% M).

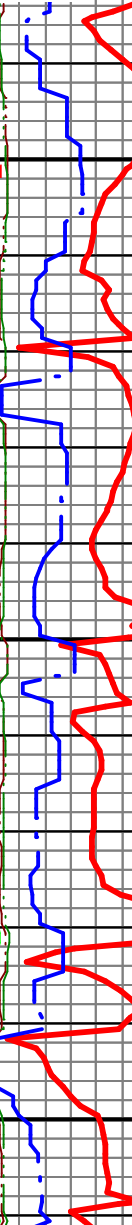
Pressures:
IH = 2365#;
FH = 2115#;
IF = 117-93#;
FF = 95-202#;
ISIP = 1393#;
FSIP = 1368#;
Temp. = 115 degrees F.

FF GAS GAUGE
@ 10" = 214.6 Mcf;
@ 20" = 208.7 Mcf;
@ 30" = 197.5 Mcf;
@ 40" = 186.1 Mcf;
@ 50" = 119.0 Mcf;
@ 60" = 117.7 Mcf;
@ 70" = 53.9 Mcf;
@ 80" = 58.3 Mcf;
@ 90" = 58.3 Mcf.

GAS KICK = 635

UNITS.
PIPE STRAP = <1.73'>
LONG TO BOARD. NO
COR. MADE..

Mudco Ck @ 4585' @ 5:25 AM
04/25/14
TG C Vis 45;
WT= 9.2#;
PV= 14;
YP= 15;
WL= 9.2;
Cake= 1;
Chl= 3,100 Ppm;
Cal = 120;
Sol= 6.3%
LCM= 2#;
DMC=\$ 0.00;
CMC=\$14,712.45.



Ls Wht-Crm MicroxIn Dns Micrite Cht Gry Translu-Op Shp Vit Sh Char- Gry
Soft No Odor No Stn No Flor NS

Ls Crm-Tan FxIn Dns Micrite Grad Poor OOM Por Poor InterOOM Por Poor
Dissolu Poor Leaching Cht Wht Op Shp Vit Chalky Sh Char-Gry Fissil No
Odor No Flor No Stn N

STARK SHALE 4738' (- 1913)

Sh Blk Carb Fissil (w/SG)

KANSAS CITY "SWOPE Ø" (K) 4747' (-1922)

30" CFS @ 4761' Ls Wht-Crm-Tan MicroxIn-FxIn Dns Micrite Grad FxIn Fair-Med Vug InterOOM
Por (w/Small-Med OOids in pl) Few Free OOids Med-Good Leaching Med Develop (w/MSG in
Heated Wtr & Sli Lt Brn Stn on Edges of OOids (10% in Tray) Cht Wht Op Shp Vit Chalky Sh
Blk Carb Fissil ? Sli Flor (35% of Tray-Lt Grn) ? Faint Odor MSG

60" CFS @ 4761' Ls Wht-Crm-Tan FxIn Med Vug InterOOM Por (w/Small-Med OOids in pl) Few
Free OOids Med-Good Leaching Med Develop (w/MSG in Heated Wtr) Sli Lt Brn Stn on Edges
of OOids (15% in Tray) Cht Wht Op Shp Vit Chalky Sh Blk Carb Fissil ? Sli Flor (60% of Tray-Lt
Grn) ? Faint Odor MSG

Ls Wht-Crm FxIn MicroxIn Dns Micrite (w/Pyr Includ) Barren Grad Chalky Sh
Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn MicroxIn Dns Micrite (w/Pyr Includ) Barren Grad Chalky Sh
Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn MicroxIn Dns Micrite (w/Pyr Includ) Barren Grad Chalky Sh
Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

HUSHPUCKNEY SHALE 4798' (- 1973)

Sh Blk Carb-Char-Gry Fissil-Soft Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn
Por Barren Cht Wht -Gry Translu-Op Shp Vit Chalky No Odor No Flor No Stn
NS

Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry Translu-Op Shp Vit
Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS

KANSAS CITY "HERTHA Ø" 4818' (-1993)

Ls Crm-Tan-Gry FxIn Dns Micrite Poor IxIn Por Barren Cht Wht -Gry
Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No
Flor No Stn NS

Sh Blk Carb-Char-Gry-Grn Fissil-Soft Ls Crm-Tan-Gry FxIn Dns Micrite Poor
IxIn Por Barren Cht Wht-Gry Translu-Op Shp Vit Chalky No Odor No Flor No
Stn NS

Sh Blk Carb-Char-Gry-Grn Fissil-Soft Ls Crm-Tan-Gry FxIn Dns Micrite Poor
IxIn Por Barren Cht Wht-Gry Translu-Op Shp Vit Chalky No Odor No Flor No
Stn NS

Ls Tan-Crm MicroxIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No
Flor No Stn NS

Ls Tan-Crm MicroxIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No
Flor No Stn NS

Ls Tan-Crm MicroxIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No
Flor No Stn NS

Sh Blk Carb-Char-Gry-Maroon-Aqua Soft-Fissil Ls Crm-Wht-Tan FxIn Poor
IxIn Por Micritic Dns Barren Grad FxIn Chalk No Odor No Flor No Stn NS

MARMATON 4891' (- 2066)

Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Chalk Sh
Char-Gry-Maroon-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Gry-Crm-Wht MicroxIn Poor IxIn Por Micritic Dns Barren Cht Gry Translu-Op Shp Vit Chalk
Abd Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Gry-Crm-Wht MicroxIn Poor IxIn Por Micritic Dns Barren Cht Gry
Translu-Op Shp Vit Chalk Abd Sh Blk Carb-Char-Gry Soft-Fissil No Odor No
Flor No Stn NS

Sh-Blk Carb-Char-Gry-Aqua Fissil Ls Wht Crm-Tan FxIn Poor IxIn Por Micritic Dns Barren
Chalk Cht Wht-Gry Translu-Op (w/Fos Includ) Shp Vit No Odor No Flor No Stn

MARMATON "B" 4925' (- 2100)

4750

4800

4850

4900

BKGD GAS =
250 UNITS.

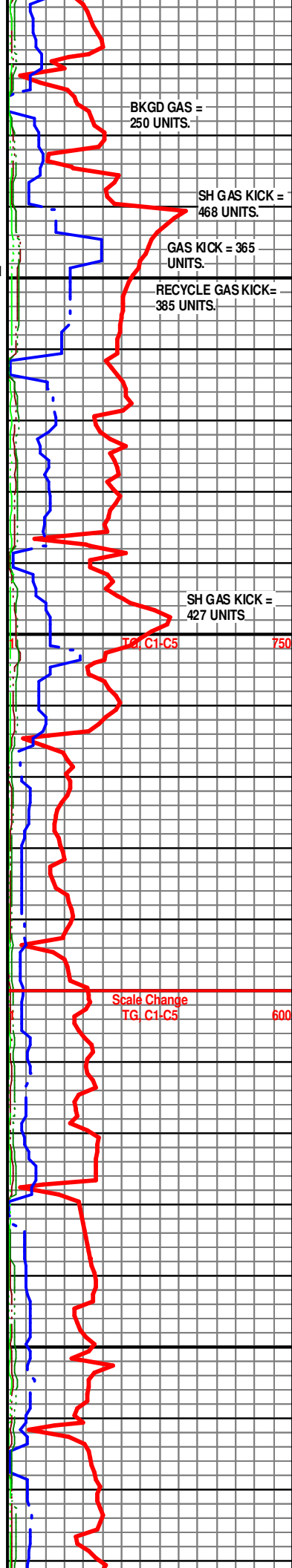
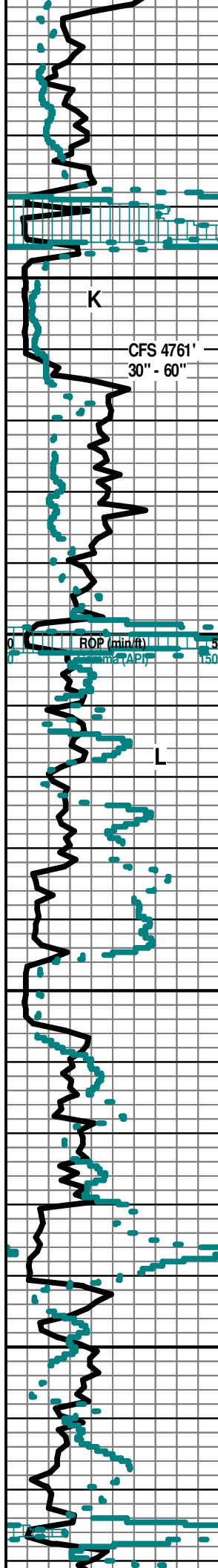
SH GAS KICK =
468 UNITS.

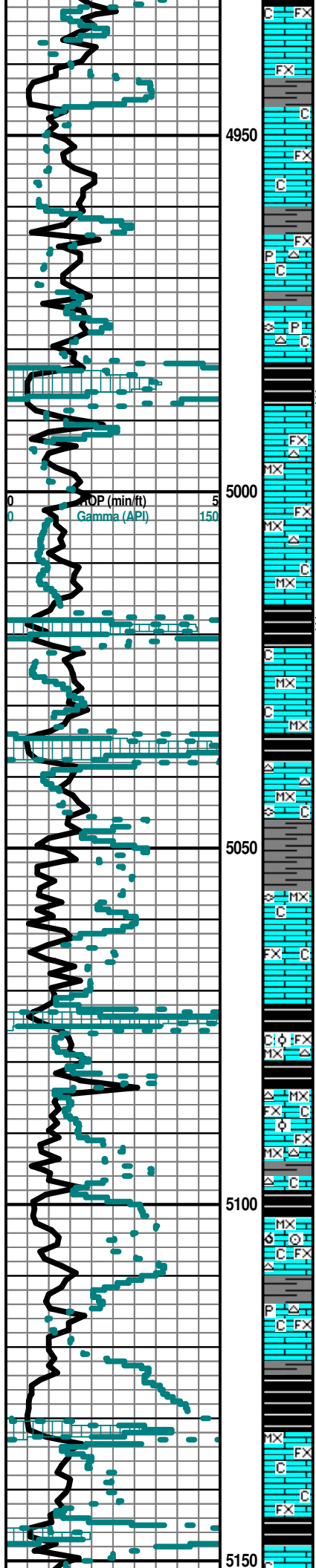
GAS KICK = 365
UNITS.

RECYCLE GAS KICK=
385 UNITS.

SH GAS KICK =
427 UNITS

Scale Change
TG C1-C5 600





Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Chalk Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor IxIn Pin-Pt Por Micritic (w/Pyr Inclus) Dns Barren Cht Wht Translu-Op Shp Vit Fos (Fuss) Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Poor IxIn Pin-Pt Por Micritic (w/Pyr Inclus) Dns Barren Cht Wht Translu-Op Shp Vit Fos (Fuss) Chalk Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

BANDERA SHALE 4984' (- 2159)

Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

PAWNEE 4990' (- 2165)

Ls Wht-Crm-Gry MicroxIn-FxIn Micrite Dns Grad Poor IxIn Gran Por Cht Wht Translu-Op Shp Vit Sh Blk Carb-Char- Grn/Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry MicroxIn-FxIn Micrite Dns Grad Poor IxIn Gran Por Cht Wht Translu-Op Shp Vit Sh Blk Carb-Char-Grn/Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroxIn Micrite Chalky Sh Blk Carb-Aqua No Odor No Flor No Stn NS

LABETTE SHALE 5016' (- 2191)

Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

FORT SCOTT 5022' (-2197)

Ls Wht-Crm-Tan MicroxIn Micrite Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

CHEROKEE SHALE 5034' (- 2209)

Sh Blk Carb Abd-Char-Gry Fissil Ls Wht-Crm-Tan MicroxIn Micrite Grad FxIn Poor Pin-Pt IxIn Por Cht Amber-Wht-Tan Translu-Op Shp Vit Fos (Fuss) Chalk No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroxIn Micrite Grad FxIn Poor Pin-Pt IxIn Por Cht Amber-Wht-Tan Translu-Op Shp Vit Fos (Fuss) Chalk Sh Blk Carb Abd-Char-Gry No Odor No Flor No Stn NS

Ls Crm-Wht FxIn Poor IxIn Por Micritic Dns Barren Chalk Sh Char- Gry Fissil No Odor No Flor No Stn NS

SECOND CHEROKEE SHALE 5072' (- 2247)

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MicroxIn-FxIn Poor IxIn Por Micritic Dns Barren Grad Poor OOL Por (w Small OOids in pl) Cht Wht Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan MicroxIn-FxIn Poor IxIn Por Micritic Dns Barren Grad Poor OOL Por (w Small OOids in pl) Cht Wht Op Shp Vit Chalk Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MicroxIn-FxIn Poor IxIn Por Micritic Dns Barren Grad Poor OOM Por (w Small OOids in pl) Cht Wht Op Shp Vit Chalk Fos (Crin) No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns (w/Pyr Inclus) Barren Chalk Cht Amber Op Shp Vit Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

THIRD CHEROKEE SHALE 5172' (- 2297)

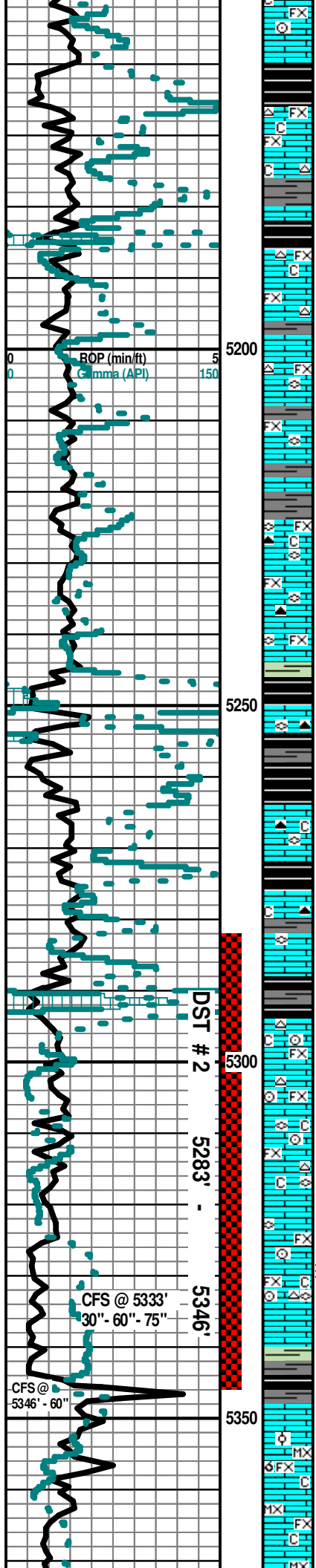
Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk No Odor No Flor No Stn NS

Sh Blk Carb (w/SG)-Char-Gry Fissil Ls Wht-Crm-Tan MicroxIn-FxIn Poor IxIn Por Micritic Dns Barren Chalk Wht Soft No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk No Odor No Flor No Stn NS

SH GAS KICK = 325 UNITS.

TG C1-C5 600



Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Fos (Crin) Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Wht Soft Cht-Wht-Amber Op Shp Vit No Odor No Flor No Stn NS

Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht-Wht-Amber Op Shp Vit Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

Sh Char-Gry-Tr Blk Carb Fissil Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht-Gry Op Shp Vit I No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissi Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht-Gry Op Shp Vit I No Odor No Flor No Stn NS

Sh Char-Gry Fissil Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Cht Wht (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Sh Char-Gry-Tr Blk Carb Fissil Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Cht Wht (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Sh Char-Gry-Tr Blk Carb Fissil Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Ls Crm-Wht-Tan Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Tr Blk Carb Fissil No Odor No Flor No Stn NS

ATOKA SHALE 5245' (- 2420)

Sh Char-Gry-Tr Blk Carb-Brn (w/SSG) Soft-Fissil Ls Crm-Wht-Tan MicroIn-Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht (w/Fos (Fuss) Includ) Op Shp Vit Faint Odor No Flor No Stn NS

Sh Char-Gry-Blk Carb Soft-Fissil Ls Crm-Wht-Tan MicroIn-Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit No Odor No Flor No Stn NS

Ls Crm-Wht-Tan MicroIn-Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Tan MicroIn-Fxln Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Sh Char-Gry-Blk Carb Soft-Fissil No Odor No Flor No Stn NS

MORROW SHALE 5289' (- 2464)

MISSISSIPPIAN CHESTER 5294' (- 2469)

30' CFS @ 5233' Ls Crm-Tan Fxln Fair-Med Ixln Pin-Pt Por (w/Fos Includ (Crin)) Friable Por Fair-Med SG & SO (Gas & Oil Do Not Flor) (FSG & FSFO w/Broken In Wtr Under Heat) Cht Tan Translu Shp Vit Chalky Fair Inc Odor Scat Lt Brn Stn No Flor FSG & FSO

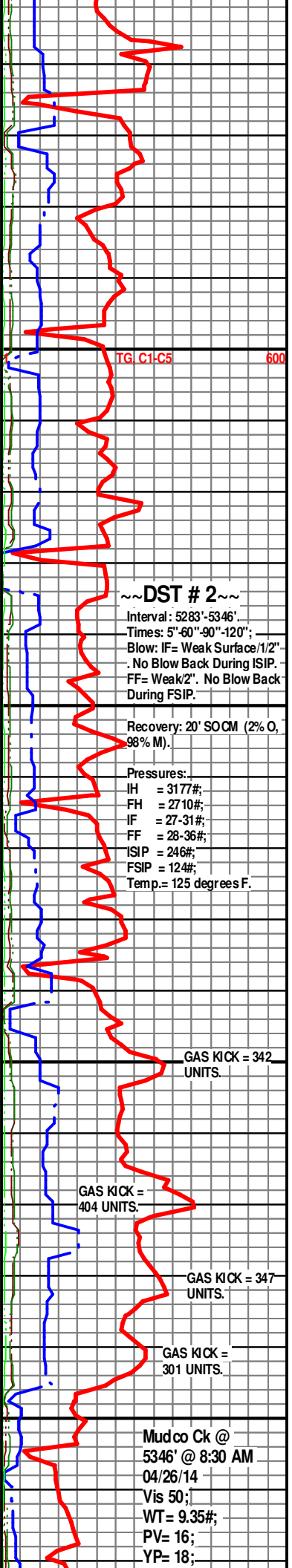
60' CFS @ 5233' Ls Crm-Tan Fxln Fair-Med Ixln Pin-Pt Por (w/Fos & Pyr Includ (Crin, Fuss)) Friable Por Fair-Med SG & SO AA (FSG & FSFO w/Broken In Wtr Under Heat) Cht Gry Translu Shp Vit Chalky Sh Blk Carb-Char-Gry Fissil Med Inc Odor Scat Lt Brn Stn No Flor FSG & FSO

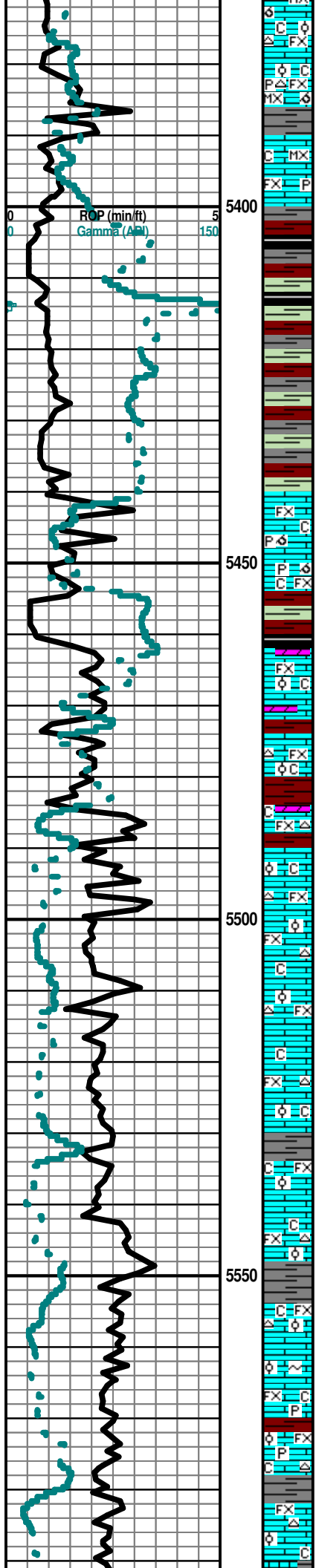
75' CFS @ 5233' Ls Crm-Tan Fxln Fair-Med Ixln Pin-Pt Por (w/Fos & Pyr Includ (Crin, Fuss)) Friable Por Fair-Med SG & SO AA (FSG & FSFO w/Broken In Wtr Under Heat) Cht Wht-Gry Translu Shp Vit Chalky Sh Blk Carb-Char-Gry-Aqua Fissil Med Inc Odor Scat Lt Brn Stn No Flor FSG & FSO

60' CFS @ 5246' Sh Blk Carb-Char-Gry-Aqua Fissil Ls Crm-Tan Fxln Fair-Med Ixln Pin-Pt Por Friable Por Fair-Med SG & SO AA Cht Wht-Gry Translu Shp Vit Chalky Faint ? Odor ? Scat Lt Brn Stn No Flor ? Sli SG & SO

Ls Wht-Crm MicroIn-Fxln Dns Micrite Grad Fair Pin-Pt Ixln Por Grad Tan Poor OOM Por (w/Small OOids in pl) Poor Dissolu Poor Leaching Chalky Sh Blk Carb-Char-Gry-Drab Grn Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroIn-Fxln Dns Micrite Grad Fair Pin-Pt Ixln Por Grad Tan Poor OOM Por (w/Small OOids in pl) Poor Dissolu Poor Leaching Chalky Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil No Odor No Flor No Stn NS





Ls Wht-Crm-Fair MicroxIn-FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por (w/Small OOids in pl) Poor Dissolu Poor Leaching Cht Wht Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroxIn-FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por (w/Small OOids in pl) Poor Dissolu Poor Leaching Cht Wht Op Shp Vit Chalky Pyr Mass Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroxIn-FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalky Pyr Mass Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil No Odor No Flor No Stn NS

Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd Ls Wht-Crm FxIn Micrite Grad Fair IxIn Por Barren Cht Amber Translu Vit Shp No Odor No Stn No Flor

Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd Ls Wht-Crm FxIn Micrite Grad Fair IxIn Por Barren Cht Amber Translu Vit Shp No Odor No Stn No Flor

Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd Ls Wht-Crm FxIn Micrite Grad Fair IxIn Por Barren Cht Amber Translu Vit Shp No Odor No Stn No Flor NS

Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd Ls Wht-Crm FxIn Micrite Grad Fair IxIn Por Barren Cht Amber Translu Vit Shp No Odor No Stn No Flor NS

LOWER CHESTER 5441' (-2616)

Ls Wht-Crm FxIn Micrite Grad Fair IxIn Por Barren Grad Poor OOM Por Poor Dissolu Poor Develop Pyr Mass Chalky Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd (Wash Red) No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Micrite Grad Fair IxIn Por Barren Grad Poor OOM Por Poor Dissolu Poor Develop Pyr Mass Chalky Sh Maroon-Yell-Purp-Char-Blk Carb Soft-Fissil Abd (Wash Red) No Odor No Stn No Flor NS

MISSISSIPPIAN "Ste. GEN" 5462' (-2637)

Ls Wht-Lt Aqua (in Aqua CaCo3 Matrix) FxIn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Grad Dolo Gry MicroxIn Dns Micrite Chalk Sh Char-Blk Carb-Gry-Grn-Aqua-Maroon Soft- Fissil No Odor No Flor No Stn NSNS

Ls Wht-Crm FxIn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Grad Dolo Gry MicroxIn Dns Micrite Cht Amber-Gry Translu-Shp Vit Chalky Sh Char-Blk Carb-Gry-Grn-Aqua-Maroon Soft- Fissil No Odor No Flor No Stn NS

Sh Maroon-Red-Char-Blk Carb-Gry-Grn-Aqua Soft-Fissil Ls Wht-Crm FxIn Poor OOL Por Friable Grad Dolo Gry MicroxIn Dns Micrite Cht Amber-Gry Translu Shp Vit Chalk No Odor No Flor No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Cht Yell Op Shp Vit Chalk Sh Varicolored AA Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Cht Yell Op Shp Vit Chalk Sh Varicolored AA Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Varicolored AA Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Varicolored AA Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Varicolored Dec Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Varicolored Dec Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Varicolored Dec Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" (w/Tr Glacu Inclus) Grad Dns Micrite Grad Poor OOM Por (Tr Only) Cht Gry Op Shp Vit Chalk Pyr Mass Sh AA Dec Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite (w/Pyr Inclus) Cht Gry Op Shp Vit Chalk Sh Red-Maroon-Gry Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Red-Maroon-Gry Soft-Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

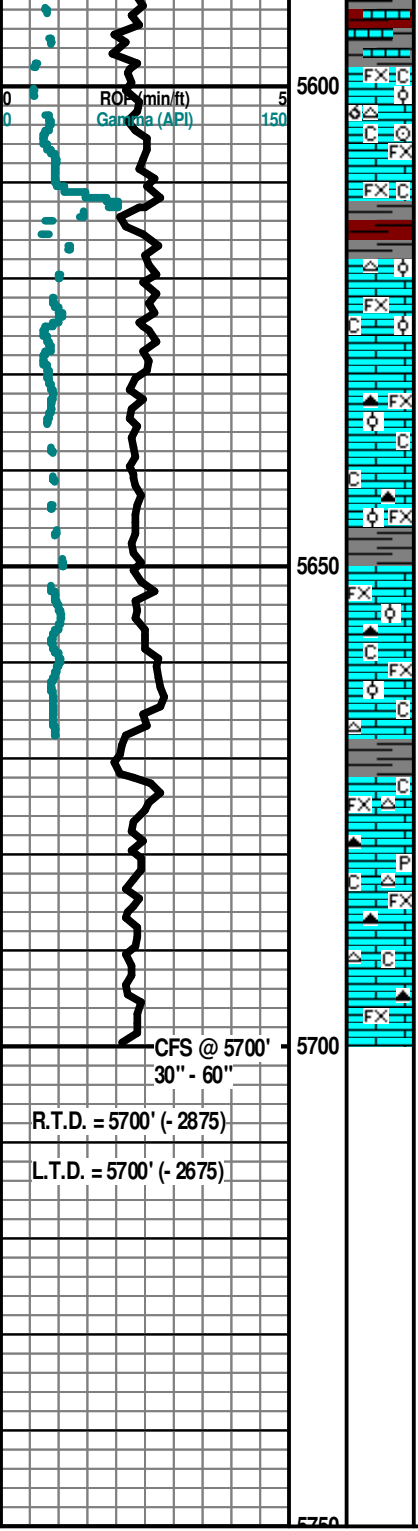
Ls Wht-Tan FxIn Poor OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Grn/Gry Op Shp Vit Fos (Crim) Chalk Pyr Mass Sh Char Grn Maroon Purpl Soft Fissil No Odor ? Min Flor Inc (10% in Tray) No Stn NS

WL= 9.2;
 Cake= 1;
 ChI= 3,100 Ppm;
 Cal = 40;
 Sol= 7.0%
 LCM= 4#;
 DMC=\$3,348.35;
 CMC=\$18,060.80..

TG C1-C5 600

SH GAS KICK= 176 UNITS.

Mudco Ck @
 5575' @ 3:30 PM
 04/27/14
 Vis 56;
 WT= 9.2#;
 PV= 18;



(Cht) Chalk Fxl Mass Sh Char-Gry-Maroon-Purpl Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

MISS. "ST. LOUIS" POROSITY 5598' (- 2773)

Ls Wht-Tan Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Grad Poor Vug OOM Por Barren Cht Wht-Gry Translu-Op Shp Vit Chalk Sh Char-Gry- Red -Maroon Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Ls Wht-Tan Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Wht- Gry Translu-Op Shp Vit Chalk Sh Char- Gry- Red- Maroon Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Ls Wht-Tan Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalk Sh Char- Gry- Red- Maroon Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Ls Wht-Tan Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Wht- Gry- Org-Peach Translu-Op Shp Vit Chalk Sh Char- Gry- Red- Maroon Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Ls Wht-Tan Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Org-Peach Translu-Op Shp Vit Chalk Sh Char- Gry- Red- Maroon Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Ls Wht-Gry Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Org-Peach Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Ls Wht-Gry Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

30" CFS @ 5700' Ls Wht-Gry Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Gry-Drk Gry (w/Org ?Fos Inclu) Translu-Op Shp Vit Pyr Mass Chalk Sh Char-Gry Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

60" CFS @ 5700' Ls Wht-Gry Fxln Poor-Fair OOL Por "Sandy OOL Ls" Grad Dns Micrite Cht Clear-Wht-Org-Peach Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor ? Min Flor Inc (5% in Tray) No Stn NS

Electric Logs Run: By Weatherford Logging: Dual Induction; Compensated Density-Neutron; Sonic; & Microresistivity Logs.

Geologist Left Location At: 11:15 AM on 04/28/2014

YP= 18;
 WL= 8.8;
 Cake= 1;
 Chl= 2,400 Ppm;
 Cal = 20;
 Sol= 6.3%
 LCM= 5#;
 DMC=\$ 858.75;
 CMC=\$18,919.55

600

CFS @ 5700' 30" - 60"

R.T.D. = 5700' (- 2875)

L.T.D. = 5700' (- 2675)

5750

ALLIED OIL & GAS SERVICES, LLC 052444

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberals, KS

DATE 4-21-14	SEC. 17	TWP. 30 S	RANGE 30 W	CALLED OUT	ON LOCATION	JOB START 10:30 am	JOB FINISH 12:20 pm
Patterson-Orate A LEASE		WELL# 2-17	LOCATION Copeland Ks, 6 miles south of	COUNTY Meade	STATE KS		
OLD OR NEW (Circle one)		CR-2, east into					

CONTRACTOR Sterling 2	OWNER McCoy Petroleum Corp
TYPE OF JOB Surface	
HOLE SIZE 12 1/4	T.D. 1827
CASING SIZE 8 5/8	DEPTH 1813
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX 2500	MINIMUM
MEAS. LINE	SHOE JOINT 41.32
CEMENT LEFT IN CSG. 41.32 Ft	
PERFS.	
DISPLACEMENT 113 bbls Fresh Water	

CEMENT
AMOUNT ORDERED 650 SKS CLASS A, 6% GEL, 3% CALCIUM, 0.5 LB/SK PLS SEAL, 3 LB/SK GILSONITE, 200 SKS CLASS A CEMENT, 3% CALCIUM, 0.25 LB/SK PLS SEAL.

COMMON Class A	200 SKS @	17.90	3580.00
POZMIX	@		
GEL	@		
CHLORIDE	8 SKS @	64.00	512.00
PLS SEAL	50 # @	2.97	148.50
ALWC - Class A	650 SKS @	16.50	10725.00
Calcium Chloride	22 SKS @	64.00	1408.00
PLS SEAL	325 # @	2.97	965.25
Gilsonite	1950 # @	0.98	1911.00

EQUIPMENT	
PUMP TRUCK CEMENTER	Fedyan Rodriguez
# 530-484	HELPER Heriberto Valenzuela
BULK TRUCK	
# 774-744	DRIVER Alex Ayala
BULK TRUCK	
# 868-842	DRIVER Ricardo Estrada

Materials:			
# 19,249.75	@		
# 5774.93 / 30%	@		
HANDLING 1015.31 Ft ³	@	2.48	2517.97
MILEAGE 1646.57 ton mile		2.60	4333.08

REMARKS:

SERVICE

DEPTH OF JOB		1813'
PUMP TRUCK CHARGE	1	2213.75
EXTRA FOOTAGE	@	
MILEAGE Light Vehicle 40 mi	@	4.40
MANIFOLD	1	275.00
Heavy Vehicle 40 mi	@	7.70

CHARGE TO: McCoy Petroleum Corp.
STREET _____
CITY _____ STATE _____ ZIP _____

\$ 2947.14 30%
TOTAL 9823.80

PLUG & FLOAT EQUIPMENT

Guide Shoe	1	@ 460.98	460.98
AFU float valve	1	@ 446.94	446.94
Cement Basket	1	@ 559.26	559.26
Centralizer	5	@ 74.88	374.40
Top Rubber Plug	1	@ 131.04	131.04
			TOTAL 1972.62

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 31,046.18
DISCOUNT 933.85 / 30% IF PAID IN 30 DAYS

PRINTED NAME Dave Oller
SIGNATURE *[Signature]*

Net = 21,732.33

ALLIED OIL & GAS SERVICES, LLC 052851

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberia 121

DATE <u>4-29-14</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Patterson Obrecht A</u>	WELL# <u>2-27</u>	LOCATION <u>Sublette - E to CR 2 - 2 1/2 S</u>			COUNTY <u>Haskell</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)				<u>E into</u>			

CONTRACTOR Sterling #2
 TYPE OF JOB 5 1/2 Production
 HOLE SIZE 7 7/8 T.D. 5700 ft
 CASING SIZE 5K 15.5 DEPTH 5700.00 ft
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 42.15
 CEMENT LEFT IN CSG. 1 BBL
 PERFS. _____
 DISPLACEMENT 134.6

OWNER _____
 CEMENT AMOUNT ORDERED 235 sk ASC

EQUIPMENT
 PUMP TRUCK CEMENTER Kimby Harper
 # 530-484 HELPER Cesar Pavia
 BULK TRUCK DRIVER Gregory Randall
 # 4154-251
 BULK TRUCK DRIVER _____
 # _____

50 sk 60/40-4
 COMMON 30 sk @ 17.90 = 537.00
 POZMIX 20 sk @ 9.35 = 187.00
 GEL 4 sk @ 23.00 = 93.00
 CHLORIDE _____
 ASC 235 sk @ 20.90 = 4911.00
Carlsonite 1152 # @ 1.79 = 2068.96
FL-160 12 @ 18.90 = 226.80
Flo Seal 59 @ 2.92 = 171.88
Stoploss 10 BBL @ 260.00 = 2600.00
 Material Total @ \$ 9840.09
\$ 29580.3 / 30%

HANDLING 373 ft³ @ 2.44 = 925.04
 MILEAGE 617.7m @ 2.60 = 1604.22

REMARKS:

SERVICE

DEPTH OF JOB 5700 ft
 PUMP TRUCK CHARGE 3799.25
 EXTRA FOOTAGE _____
 MILEAGE Heavy 40 MI @ 7.75 = 308.00
 MANIFOLD Head 1 Day @ 275.00 = 275.00
 Light Mileage 40 MI @ 4.40 = 176.00

CHARGE TO: McCoy Petroleum
 STREET _____
 CITY _____ STATE _____ ZIP _____

1916.25 / 30%
 TOTAL 6387.49

PLUG & FLOAT EQUIPMENT

AFU Float Shoe 1 EA @ 382.59 = 382.59
Latch Down Plug 1 EA @ 272.91 = 272.91
Turbolizers 10 EA @ 90.09 = 900.90
Basket 1 EA @ 315.90 = 315.90
 TOTAL 1872.30
\$ 561.64 / 30%

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 18,119.78
 DISCOUNT 5435.93 / 30% IF PAID IN 30 DAYS
Net - 12,683.85

PRINTED NAME Carroll Mickelson
 SIGNATURE [Signature]