



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1208589
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: _____

1208589

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

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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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UMCC "A" #1-17 ACO-1 Supplemental Information

API: 15-119-21363

SAMPLE TOPS

McCoy Petroleum Corp.

UMCC "A" #1-17

NE NW SW

2310'FNL & 990'FWL

Sec 17-30s-30w

KB: 2827'

	Depth	Datum
Heebner	4225	-1398
Toronto	4247	-1420
Lansing	4296	-1469
Lansing G	4582	-1755
Stark	4738	-1911
Swope Pors.	4747	-1920
Hushpuckney	4796	-1969
Hertha Pors.	4816	-1989
Marmaton	4884	-2057
Pawnee	4984	-2157
Ft Scott	5021	-2194
Cherokee	5028	-2201
Atoka	5238	-2411
Morrow Sh.	5286	-2459
Chester	5289	-2462
St Genevieve	5480	-2653
St Louis	5601	-2774
RTD	5700	-2873

LOG TOPS

McCoy Petroleum Corp.

UMCC "A" #1-17

NE NW SW

2310'FNL & 990'FWL

Sec 17-30s-30w

KB: 2827'

	Depth	Datum
Heebner	4225	-1398
Toronto	4247	-1420
Lansing	4296	-1469
Lansing G	4582	-1755
Stark	4738	-1911
Swope Pors.	4747	-1920
Hushpuckney	4796	-1969
Hertha Pors.	4816	-1989
Marmaton	4884	-2057
Pawnee	4984	-2157
Ft Scott	5021	-2194
Cherokee	5028	-2201
Atoka	5238	-2411
Morrow Sh.	5286	-2459
Chester	5289	-2462
St Genevieve	5480	-2653
St Louis	5601	-2774
LTD	5702	-2875



DRILL STEM TEST REPORT

Prepared For: **McCoy Petro. Corp.**

8080 E. Central Ste. 300
Wichita, KS 67206-2366

ATTN: Dave Williams

UMCC "A" #1-17

17-30s-30w Meade,KS

Start Date: 2014.03.02 @ 15:39:46

End Date: 2014.03.03 @ 04:04:01

Job Ticket #: 52478 DST #: 1

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

Printed: 2014.03.05 @ 10:01:42



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

McCoy Petro. Corp.

17-30s-30w Meade, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

UMCC "A" #1-17

Job Ticket: 52478

DST#: 1

ATTN: Dave Williams

Test Start: 2014.03.02 @ 15:39:46

GENERAL INFORMATION:

Formation: **Chester**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:06:31

Time Test Ended: 04:04:01

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Reynolds

Unit No: 68

Interval: 5264.00 ft (KB) To 5336.00 ft (KB) (TVD)

Reference Elevations: 2827.00 ft (KB)

Total Depth: 5336.00 ft (KB) (TVD)

2816.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8790

Inside

Press@RunDepth: 375.71 psig @ 5270.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.02

End Date:

2014.03.03

Last Calib.:

2014.03.03

Start Time: 15:39:51

End Time:

04:04:01

Time On Btm:

2014.03.02 @ 19:04:16

Time Off Btm:

2014.03.02 @ 23:44:46

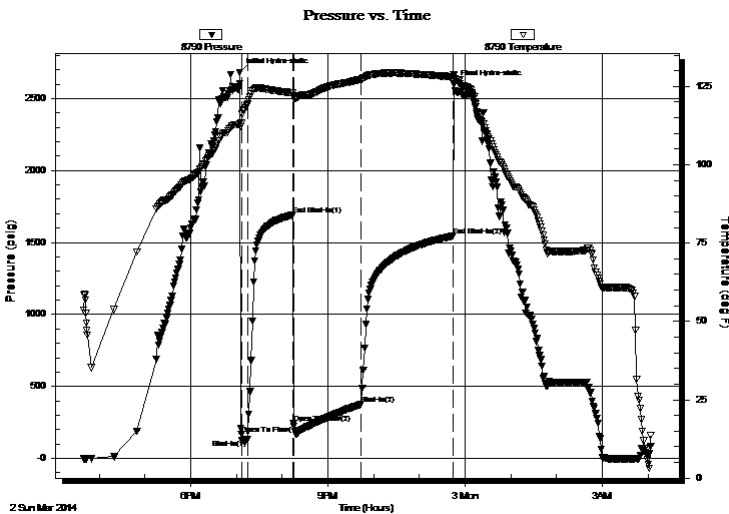
TEST COMMENT: IF: Strong blow . BOB @ 1min.

IS: No blow

FF: Strong blow . BOB immed. GTS @ 27 min.

FS: Strong BOB BB

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2681.79	113.08	Initial Hydro-static
3	165.67	113.29	Open To Flow (1)
10	132.19	118.98	Shut-In(1)
70	1691.04	122.87	End Shut-In(1)
71	244.03	121.89	Open To Flow (2)
160	375.71	127.20	Shut-In(2)
280	1544.36	128.07	End Shut-In(2)
281	2600.51	128.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
250.00	MCGO 20%gas, 36%mud, 44%oil	1.27
810.00	Clean G O 5%gas, 95%oil	11.36

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	21.00	13.25
Last Gas Rate	0.13	23.00	14.00
Max. Gas Rate	0.13	25.00	14.75



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petro. Corp.

17-30s-30w Meade,KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

UMCC "A" #1-17

Job Ticket: 52478

DST#: 1

ATTN: Dave Williams

Test Start: 2014.03.02 @ 15:39:46

Tool Information

Drill Pipe:	Length: 5003.00 ft	Diameter: 3.80 inches	Volume: 70.18 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 21000.00 lb
Drill Collar:	Length: 246.00 ft	Diameter: 2.25 inches	Volume: 1.21 bbl	Weight to Pull Loose: 114000.0 lb
			<u>Total Volume: 71.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 86000.00 lb
Depth to Top Packer:	5264.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.00 ft			
Tool Length:	99.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5238.00	
Shut In Tool	5.00			5243.00	
Hydraulic tool	5.00			5248.00	
Jars	5.00			5253.00	
Safety Joint	2.00			5255.00	
Packer	5.00			5260.00	27.00 Bottom Of Top Packer
Packer	4.00			5264.00	
Stubb	1.00			5265.00	
Perforations	4.00			5269.00	
Change Over Sub	1.00			5270.00	
Recorder	0.00	8790	Inside	5270.00	
Recorder	0.00	8792	Outside	5270.00	
Drill Pipe	32.00			5302.00	
Change Over Sub	1.00			5303.00	
Perforations	30.00			5333.00	
Bullnose	3.00			5336.00	72.00 Bottom Packers & Anchor
Total Tool Length:	99.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petro. Corp.

17-30s-30w Meade, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

UMCC "A" #1-17

Job Ticket: 52478

DST#: 1

ATTN: Dave Williams

Test Start: 2014.03.02 @ 15:39:46

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

2500 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
250.00	MCGO 20%gas, 36%mud, 44%oil	1.266
810.00	Clean G O 5%gas, 95%oil	11.362

Total Length: 1060.00 ft

Total Volume: 12.628 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: RR-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

McCoy Petro. Corp.

17-30s-30w Meade, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

UMCC "A" #1-17

Job Ticket: 52478

DST#: 1

ATTN: Dave Williams

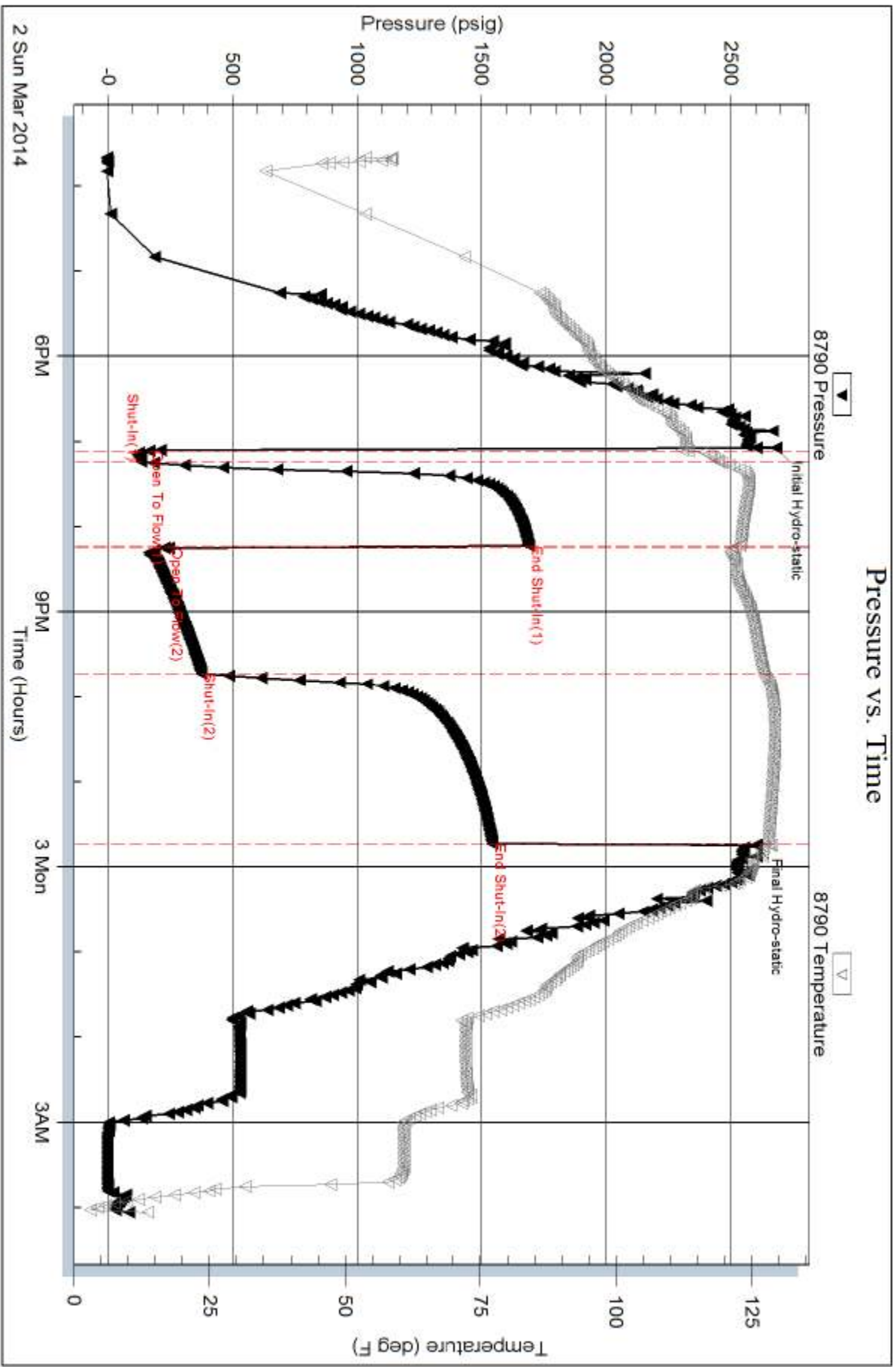
Test Start: 2014.03.02 @ 15:39:46

Gas Rates Information

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

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	30	0.13	21.00	13.25
2	40	0.13	23.00	14.00
2	50	0.13	24.00	14.37
2	60	0.13	24.00	14.37
2	70	0.13	25.00	14.75
2	80	0.13	25.00	14.75
2	90	0.13	23.00	14.00

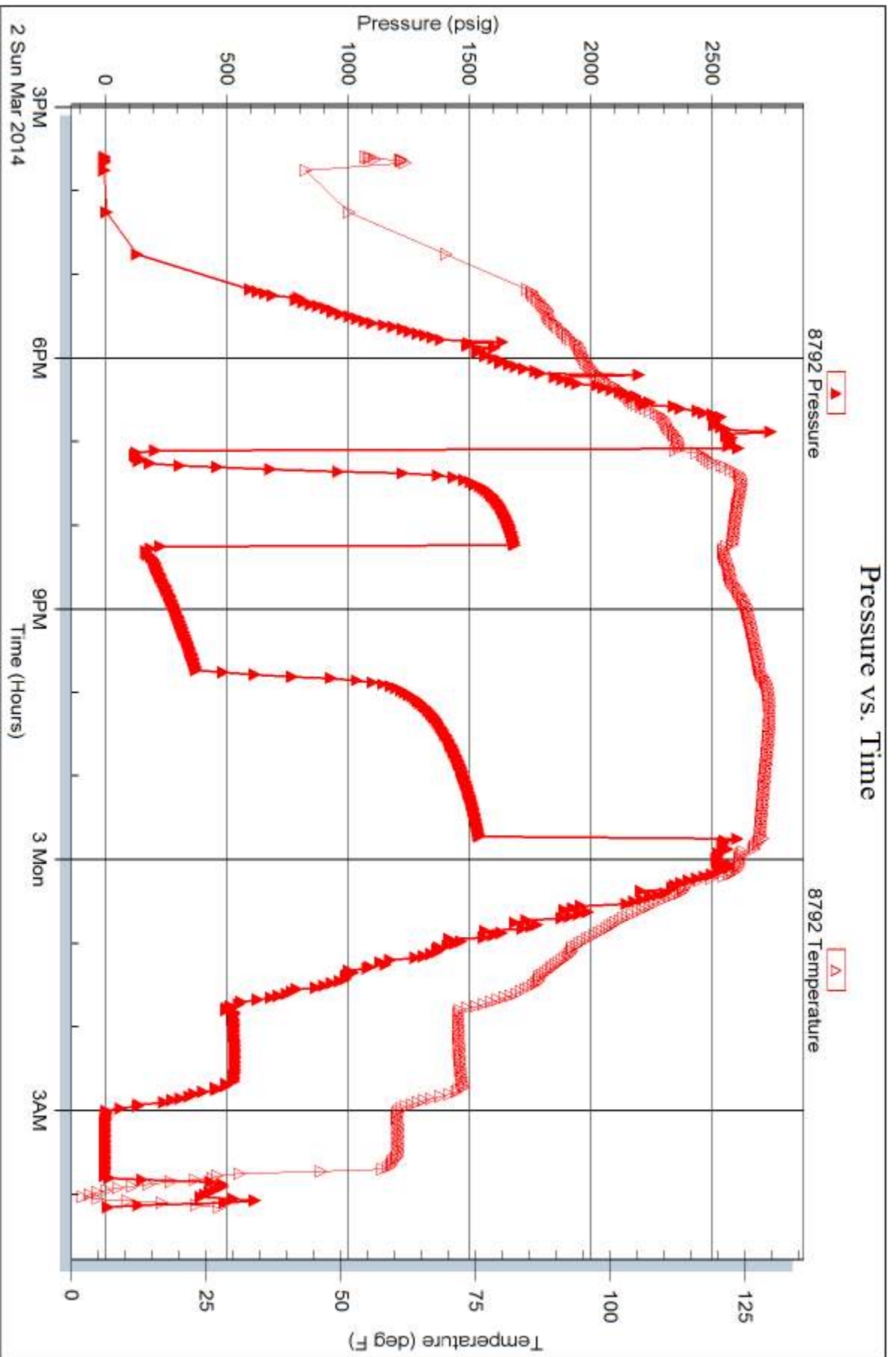


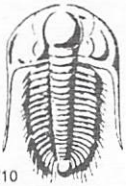
Serial #: 8792

Outside McCoy Petro. Corp.

UMCC "A" #1-17

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52478

Well Name & No. UMCC "A" 1-17 Test No. 1 Date 3-2-14
 Company McCoy Petro. Corp. Elevation 2827 KB 2816 GL
 Address 8080 E. Central Ste. 300 Wichita, KS 67206-2366
 Co. Rep / Geo. Dave Williams Rig Sterling #2
 Location: Sec. 17 Twp. 30s. Rge. 30 w. Co. Meade State KS

Interval Tested 5264-5336 Zone Tested Chester
 Anchor Length 72 Drill Pipe Run 5003 Mud Wt. 9.1+
 Top Packer Depth 5259 Drill Collars Run 246 Vis 57
 Bottom Packer Depth 5264 Wt. Pipe Run Ø WL 7.2
 Total Depth 5336 Chlorides 2500 ppm System LCM 4#
 Blow Description IF: Strong blow, BoB @ 1 min. ISI: No blow.
FF: Strong blow, BoBimmed, GTS @ 27 min.
FSI: Strong BB, BoB 10 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>810</u>	<u>Clean gassy oil</u>	<u>5</u>	<u>95</u>		
<u>250</u>	<u>MCGO</u>	<u>20</u>	<u>44</u>	<u>36</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1060 BHT 128 Gravity 35 API RW M/C @ W/C °F Chlorides 2500 ppm
 (A) Initial Hydrostatic 2682 Test 1350 T-On Location 1415
 (B) First Initial Flow 166 Jars 250 T-Started 1540
 (C) First Final Flow 132 Safety Joint 75 T-Open 1907
 (D) Initial Shut-In 1691 Circ Sub _____ T-Pulled 2341
 (E) Second Initial Flow 244 Hourly Standby 2 3/4 1.25h 125 T-Out 0404
 (F) Second Final Flow 376 Mileage 240 180rt 558 Comments _____
 (G) Final Shut-In 1544 Sampler _____
 (H) Final Hydrostatic 2601 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby 1 day Pick ↑ fms 3/4 @ 2pm
 Accessibility _____
 Sub Total 2358

Initial Open 5
 Initial Shut-In 60
 Final Flow 90
 Final Shut-In 120
 Sub Total 800
 Total 3158
 MP/DST Disc't _____
 Approved By Dave Williams Our Representative Ryan Reynolds
 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: UMCC "A" #1-17
Location: NE-NW-SW of Sec. 17 - T. 30 S. - R. 30 W.
License Number: A.P.I. # 15 - 119 - 21,363 - 00 - 00
Spud Date: 02/25/2014
Surface Coordinates: SPOT: 2310' FSL & 990' FWL

Region: MEADE CO., KS.
Drilling Completed: 03/04/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2816' **K.B. Elevation (ft):** 2827'
Logged Interval (ft): 1828' **To:** 5702' **Total Depth (ft):** 5702'
Formation: MISSISSIPPIAN "ST. LOUIS"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2921'.
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 (DWE)
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

CASING & DEVIATION

Surface Casing: Spud at 10:15 PM on 02/25/14. Drilled 12-1/4" to 1833'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 814'. Set at 1828' KB. Welded straps on shoe, bottom 3 joints and top 2 joints. Tacked collars on the remainder. (5) Centralizers on joints 1-3-5-7-27. Float insert in top of 1st joint. Cemented with 650 sks Class A; 3% CC, 6% Gel & 1/4# FS. Tailed with 200 sks Class A; 3% CC; 1/4# FS. Cement did circulate. Plug down at 3:00 PM on 02/26/14. Allied Cementing ticket #52423. Basket at 742' KB. At 8:00 PM cement was down 40'. Cemented from top with 50 sks Class A with 2% CC at 10:15 pm. By 12:00 PM it down 20'. Cemented with 50 sks Class; 2% CC at 12:15 AM. Cement held. Ticket #52424.

Deviation Sruvey Taken: @ 1833' = 1/4 degree; @ 5336' = 1 degree; @ 5700' = 1 3/4 degree.

DSTs

~~DST #11~~ Interval = 5264'-5336'. Times: 5"-60"-90"-120";

Blow: IF= BOB/1" . No Blow Back During ISIP. FF= Strong Blow BOB/lmed 10 Sec. GTS @ 27" (See Gauge Report Below). BOB Blow Back During FSIP/10".

Recovery: 1060' TF: 810' CGO (5% G & 95% O); 250' MCGO (20% G, 36% M & 44% O).

Pressures: IH = 2682#; FH= 2601#; IF=166-132#; FF=244-376#; ISIP=1691#; FSIP=1544#; Temp.=128 degrees F.. API Grv.=35 degrees F.,

FF GAS GAUGE: @ 30"=15.1 Mcf; @ 40"=15.9 Mcf; @ 50"=16.5 Mcf; @ 60"=16.5 Mcf; @ 70"=16.9 Mcf; @ 80"=16.9 Mcf; @ 90"= 15.9 Mcf.


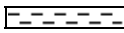

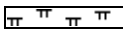
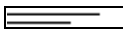
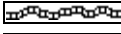




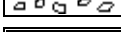



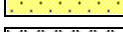
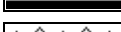


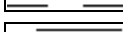
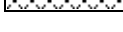




Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from the drill stem test 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  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 FOSSIL  Algae  Amph	 Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Fuss  Gastro  Oolite  Oomold  Ostra  Pelec	 Pellet  Pisolite  Plant  Strom STRINGER  Anhy  Arg  Bent  Coal  Dol  Grysh  Gryslt  Gyp  Ls  Mrst  Sltstrg	 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

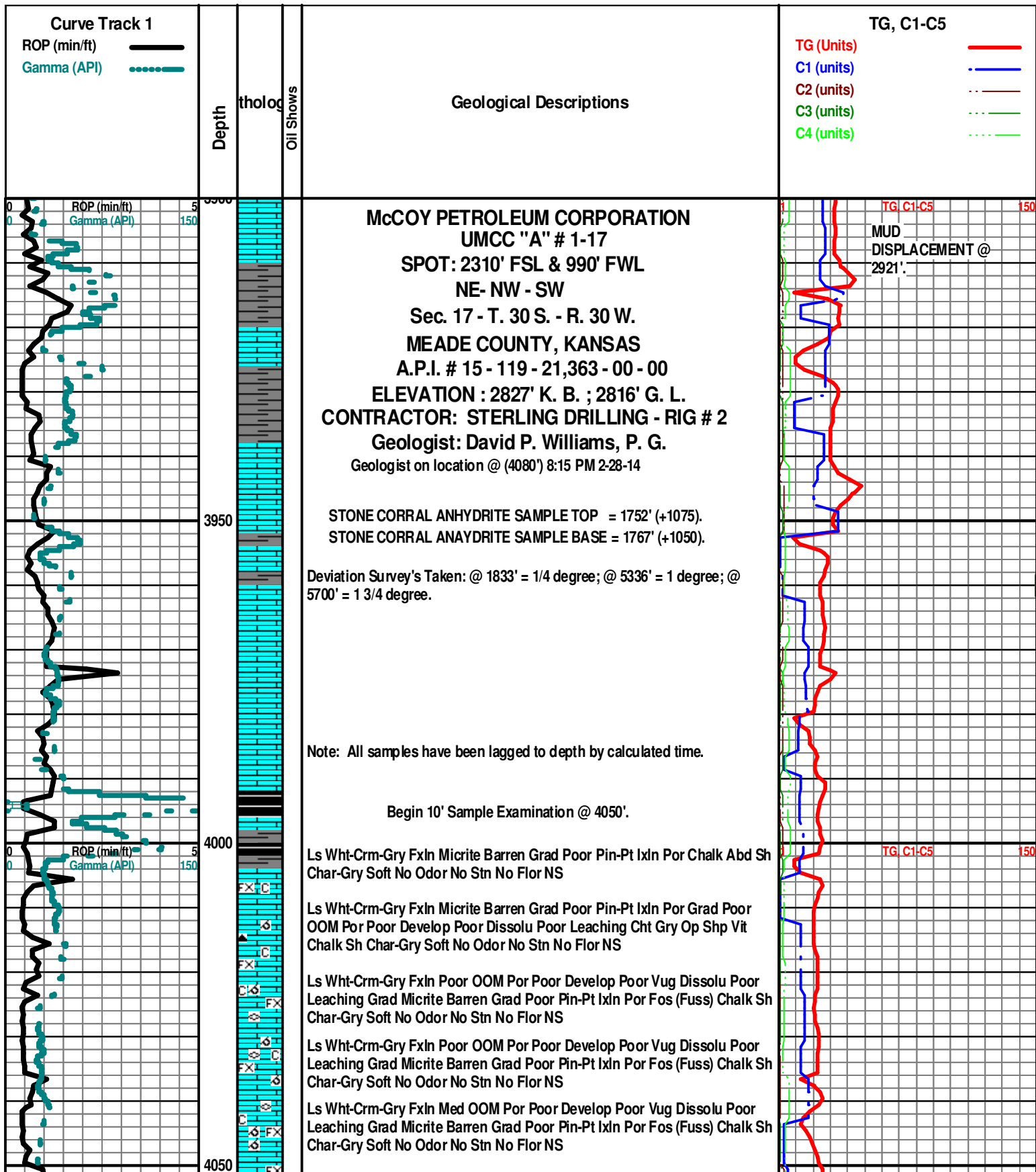
- [●] Even
- [◉] Spotted
- [○] Ques
- [◻] Dead

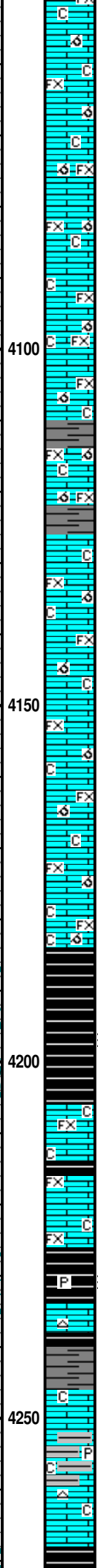
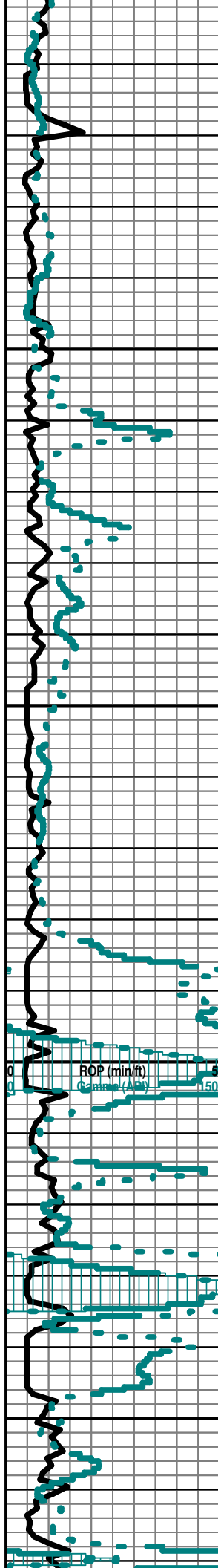
[■] Dst_alt

- EVENT**
- [▶] Rft
 - [▶] Sidewall

- OIL SHOW**
- [*] Gas show

- INTERVAL**
- [■] Core
 - [■] Dst





Ls Wht-Crm-Gry Fxln Poor OOM Por Poor Develop Poor Vug Dissolu Poor Leaching Grad Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Poor OOM Por Poor Develop Poor Dissolu Poor Leaching Grad Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Med OOM Por Poor Develop Med Vug Dissolu Fair Leaching Grad Micrite Barren Grad Poor Pin-Pt Ixln Por Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Gry-Wht-Crm-Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por Poor Develop Poor Dissolu Poor Leaching Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Fair OOM Por Poor Develop Poor Dissolu Poor Leaching Fos (Brach) Chalk Sh Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Blk Carb-Char-Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Tr Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor-Fair OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Tan-Crm-Wht Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

Ls Tan-Crm-Wht Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por Chalk (Abd) Sh Char-Gry-Drk Gry Soft No Odor No Stn No Flor NS

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

Sh Blk Carb (w/GSG) -Char-Gry Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk No Odor No Stn No Flor NS

Sh Blk Carb (w/GSG)-Char-Gry Fissil Ls Wht-Crm-Tan-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor NS

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

HEEBNER 4226' (- 1410)

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

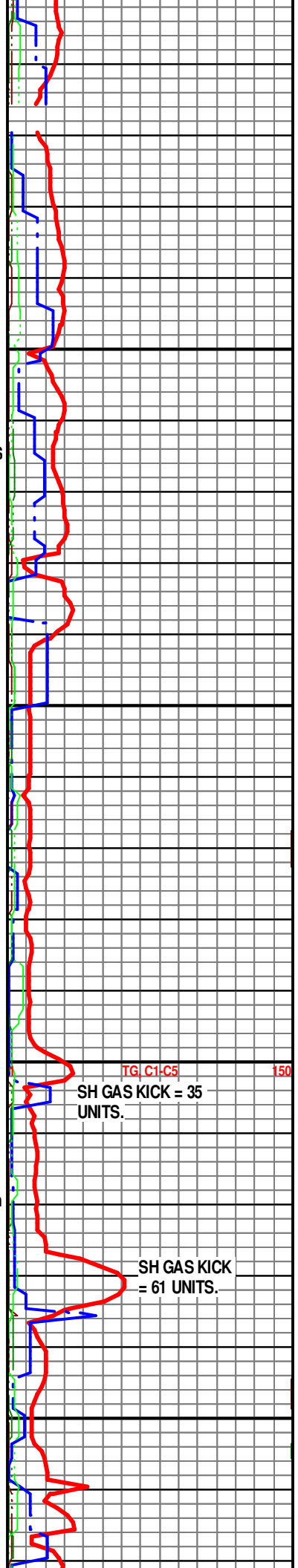
Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor NS

TORONTO 4247' (- 1420)

Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln Por Chalk Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor NS

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

DOUGLAS 4268' (- 1441)



Sh Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln
Por Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

Sh Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Pin-Pt Ixln
Por Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

LANSING 4296' (- 1469)

Ls Wht-Crm-Tan-Gry (w/Pyr & Fos (Crin) Inklus) Microxln Dns Micritic
Barren Grad Fxln Poor Pin-Pt Ixln Por Barren Cht Wht Op Shp Vit Chalk Sh
Char-Gry Soft-Fissil No Odor No Stn No Flor

Ls Wht-Crm-Tan-Gry Microxln Dns Micritic Barren Grad Fxln Poor Pin-Pt Ixln
Por Barren Fos (Fuss, Spiculitic Inklus) Cht Wht Op Shp Vit Chalk Sh Blk
Carb-Char-Gry Soft-Fissil No Odor No Stn No Flor

Ls Wht-Crm-Tan-Gry Microxln Dns Micritic Barren Grad Fxln Poor Pin-Pt Ixln
Por Barren Fos (Fuss) Cht Wht Op Shp Vit Chalk Sh Blk Carb-Char-Gry No
Odor No Stn No Flor

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

Ls Wht-Crm Microxln-Fxln Micrite Barren Grad Poor Pin-Pt Ixln Por Cht
Amber-Gry Op Shp Vit Fos (Spicule) Chalk Sh Char-Gry Soft-Fissil Soft No
Odor No Stn No Flor NS

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

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

Ls Wht-Crm-Tan Fxln 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 Fxln Micrite Barren Cht Amber-Tan Translu-Op Shp Vit
Chalk (Abd) Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxln 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 Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por (w/Pyr
Inklus) Grad Poor OOM Por Poor InterOOM Por Barren Chalk Abd Cht
Amber Translu-Op Shp Vit Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Stn
No Flor NS

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por Grad Poor OOM Por Poor
InterOOM Por Barren Chalk Abd Sh Char-Gry Fissil-Soft No Odor No Stn No Flor NS

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

Ls Wht-Crm-Gry Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln Por Grad Poor
OOM Por Poor-Fair 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 Fxln Micrite Barren Grad Fair-Med Pin-Pt Ixln 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 Fxln Dns Micrite Poor- Ixln Por Barren Chalky Sh Blk Carb-
Char- Gry (w/Pyr Inklus) No Odor No Flor No Stn NS

Ls Crm-Tan-Gry Fxln Poor- Ixln Por Barren Grad Poor OOM Por AA Poor
Leahing Poor Develop Chalk Abd Sh Char-Gry-Aqua Fissil No Odor No Flor
No Stn NS

Ls Wht-Crm-Tan Fxln 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 Fxln 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

4300

A

4350

B

C

4400

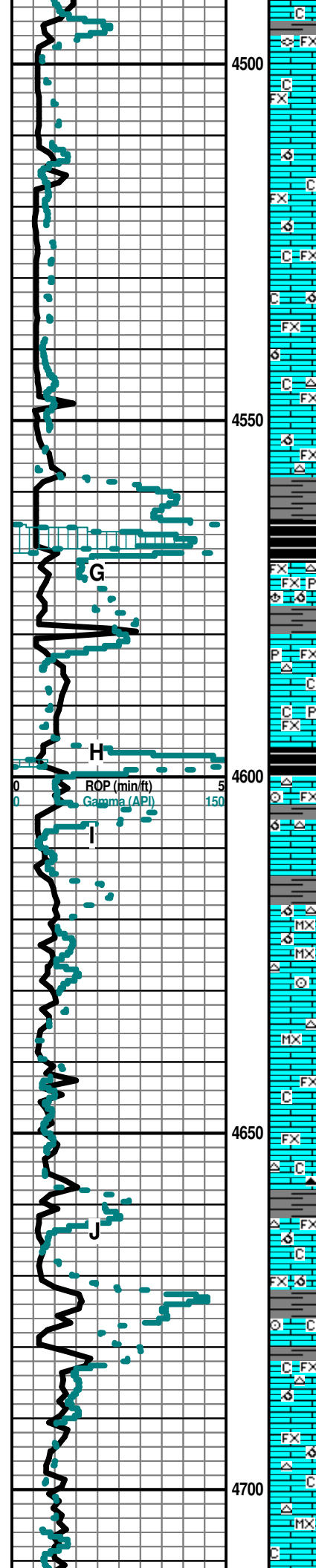
D

4450

ROP (min/ft)
Gamma (API)

TG C1-C5

150



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

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

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

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

Ls Wht-Crm-Tan FxIn Med-Good OOM Por Poor-Fair 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

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

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

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 Wht FxIn Dns Micrite (w/Pyr Includ) Poor IxIn Por Barren Grad TrGood OOM Por AA Fos (Brach) Chalk Sh Blk Carb-Char-Gry Fissil-Soft y No Odor No Flor No Stn NS

LANSING "G" 4582' (- 1765)

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

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

Ls Wht-Crm-Tan-Gry MicroxIn Dns Micrite Grad Fair IxIn Por Barren Grad Poor OOM Por Poor Develop Poor Leaching Cht Wht (w/Ooids in pl)-Gry Transp-Op Shp Vit Sh AA No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad Fair IxIn Por Barren Grad Poor OOM Por Poor Develop Poor Leaching Cht Gry Op Shp Vit Fos (Crin) Sh AA No Odor No Flor No Stn NS

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

Ls Crm-Tan FxIn Soft Chalk V Abd Grad Dns Micrite Sh Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Soft Chalk V Abd Grad Dns Micrite Cht Wht-Drk Gry Op Shp Vit Sh Char Soft No Odor No Flor No Stn NS

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

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

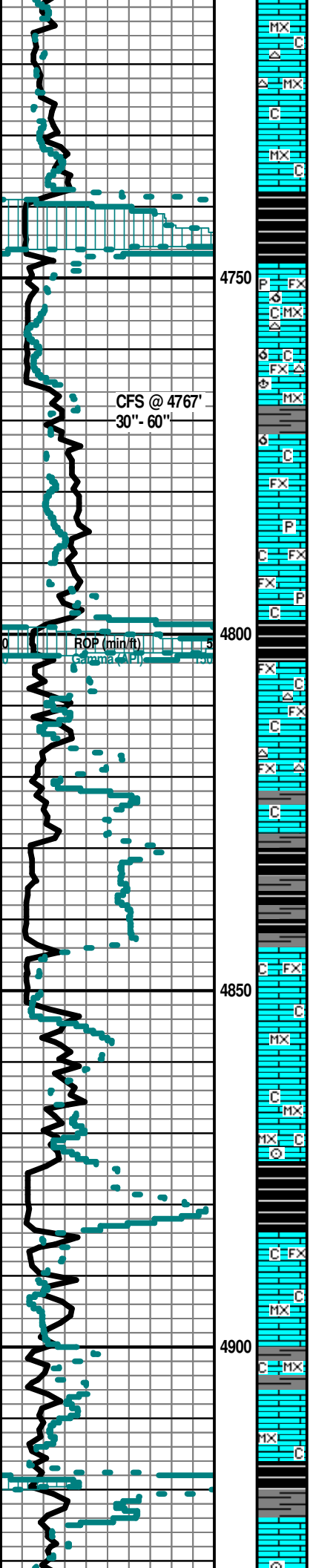
Ls Crm-Tan FxIn Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Cht Wht-Gry Op Shp Vit Chalky Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Poor OOM Por Poor InterOOM Por Poor Dissolu Poor Leaching Grad Dns Micrite Cht Wht Op Shp Vit Fos (Crin) Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

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

TG C1-C5 150

Mudco Ck @
4704' @ 10:25 AM
3/01/14
Vis 47;
WT= 9.15#;
PV= 14;



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

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

Ls Wht-Crm-Tan-Gry MicroIn Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb- Char- Gry Soft No Odor No Stn No Flor NS

STARK SHALE 4738' (- 1911)

Sh Blk Carb-Char Fissil (w/SG)

KANSAS CITY "SWOPE" 4747' (- 1930)

30" CFS @ 4767' Ls Wht-Crm-Tan FxIn-MicroIn Dns Micrite (w/Pyr Inclus) Grad Poor OOM Por Poor Develop Poor Leaching Chalky Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor SG in Blk Sh

60" CFS @ 4767' Ls Wht-Crm FxIn-MicroIn Dns Micrite Grad Poor OOM Por Poor Develop Poor Leaching Cht Wht-Gry Op Shp Vit Fos (Brach) Chalky Sh Blk Carb (w/GSG)-Char-Gry Fissil No Odor No Stn No Flor SG in Blk Sh

Ls Wht-Crm FxIn Poor OOM Por Poor Leaching Poor Dissolu Barren Grad MicroIn Dns Micrite Chalk (Abd) Cht Gry Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

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

Ls Wht-Crm FxIn MicroIn Dns Micrite Barren Grad Chalky Sh Char-Gry (w/Pry Inclus) Fissil No Odor No Stn No Flor NS

HUSHPUCKNEY SHALE 4798' (- 1971)

KANSAS CITY "HERTHA (L)" 4803' (- 1976)

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

KANSAS CITY "HERTHA Ø" 4816' (-2000)

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 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 FxIn Micritic Barren Chalk Sh Char-Grn Fissil No Odor No Flor No Stn NS

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

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

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

MARMATON 4884' (- 2057)

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

Ls Gry-Crm-Wht MicroIn Poor IxIn Por Micritic Dns Barren Cht Gry Translu-Op Shp Vit Fos (Fuss) 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 Wht Cht Wht-Gry Translu-Op (w/Fos Inclus) Shp Vit No Odor No Flor No Stn

MARMATON "B" 4924' (- 2107)

Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Fos (Crin)

YP = 15;
WL = 7.6#;
Cake = 1;
Chl = 3100 Ppm;
Cal = 30;
Sol = 5.6%
LCM = 2#;
DMC = \$10,664.20;
CMC = \$17,993.70.

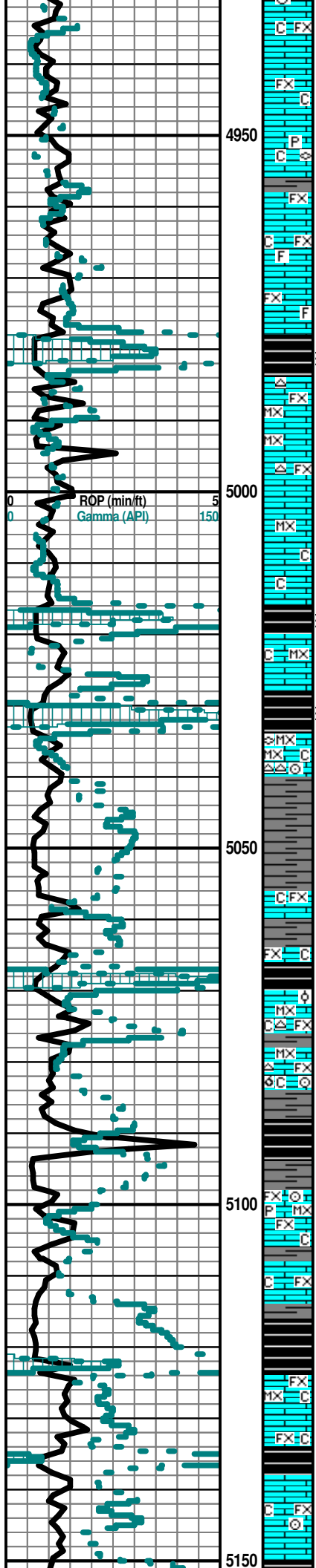
SH GAS KICK = 157 UNITS.

SH GAS KICK = 135 UNITS.

SH GAS KICK = 92 UNITS.

CFS @ 4767'
30" - 60"

ROP (min/ft)



Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Grad FxIn Fos (Crin)
V Abd 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

No Sample Caught (Crew Change)

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

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

BANDERA SHALE 4978' (- 2151)

PAWNEE 4984' (- 2167)

Ls Wht-Crm-Gry MicroIxIn-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 MicroIxIn-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 MicroIxIn Micrite Chalky Sh Blk Carb-Aqua No Odor No Flor
No Stn NS

LABETTE SHALE 5016' (- 2199)

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

FORT SCOTT 5021' (-2204)

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

CHEROKEE SHALE 5028' (- 2211)

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

Ls Wht-Crm-Tan MicroIxIn Micrite Grad FxIn Poor Pin-Pt IxIn Por Cht
Amber-Wht-Tan Translu-Op Shp Vit Fos (Crin, 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

No Sample Caught

SECOND CHEROKEE SHALE 50' (- 22)

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan MicroIxIn-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

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

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

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

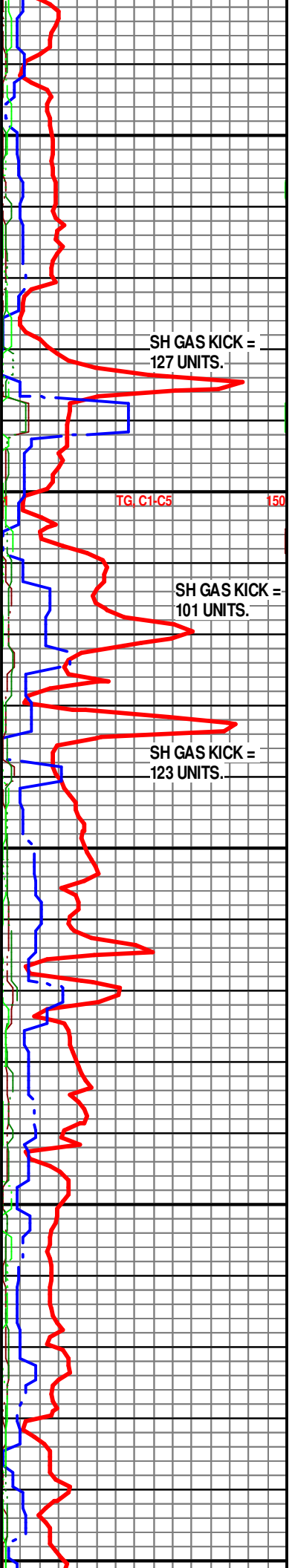
THIRD CHEROKEE SHALE 5114' (- 2287)

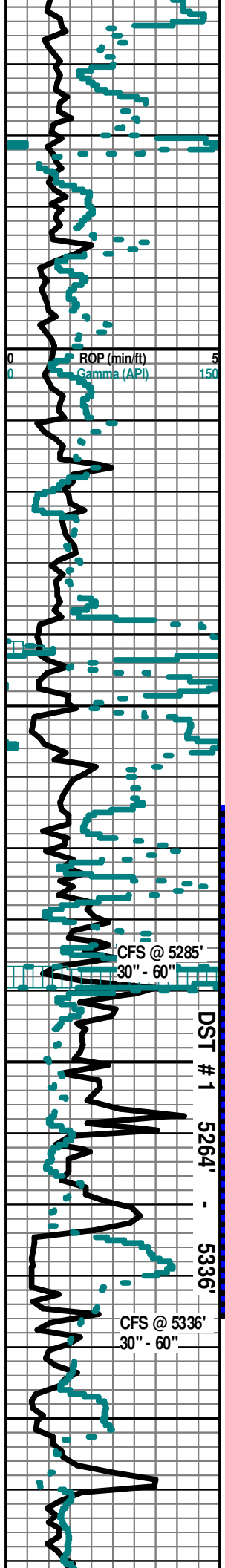
Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns
Barren Chalk No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm-Tan MicroIxIn-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

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





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

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

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

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

Ls Crm-Wht-Tan Fxn 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

Ls Crm-Wht-Tan Fxn 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 5238' (- 2411)

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

30" CFS @ 5285' Sh Char-Gry-Blk Carb Soft-Fissil Ls Crm-Wht-Tan Microxln-Fxn Poor Ixln Por Micritic Dns Barren Chalk Cht Drk Blk-Wht Banding (w/Fos (Fuss) Includ) Op Shp Vit Faint Inc Odor No Flor No Stn NS

60" CFS @ 5285' Ls Crm-Wht-Tan Microxln-Fxn 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 Fair Odor No Flor No Stn NS

MORROW SHALE 5286' (- 2459)

MISSISSIPPIAN CHESTER 5290' (- 2463)

Ls Crm-Wht-Tan Microxln-Fxn 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-Tan Fxn Fair OOL Por (w/Small-Med Ooids in pl) Grad Med Ixln Pin-Pt Por (w/Matted Fos Includ (Crin)) Por Fair SG & SO (Gas & Oil Do Not Flor) (FSG & FSFO w/Broken In Wtr Under Heat) Fair Inc Odor Drk Brn Stn No Flor FSG & FSFO

30" CFS @ 5336' Ls Crm-Tan Fxn Fair-Med OOL Vug Por (w/Small-Med Ooids in pl) Grad Med-Good Ixln Pin-Pt Por (V Soft) (w/Matted Fos (Crin)) Por Med-Good SFG & SFO (Gas & Oil Do Not Flor) (GSG & GSFO w/Broken In Wtr Under Heat & SFO in tray) Med-Good Inc Odor Drk Brn Hvy Stn No Flor GSG & GSFO

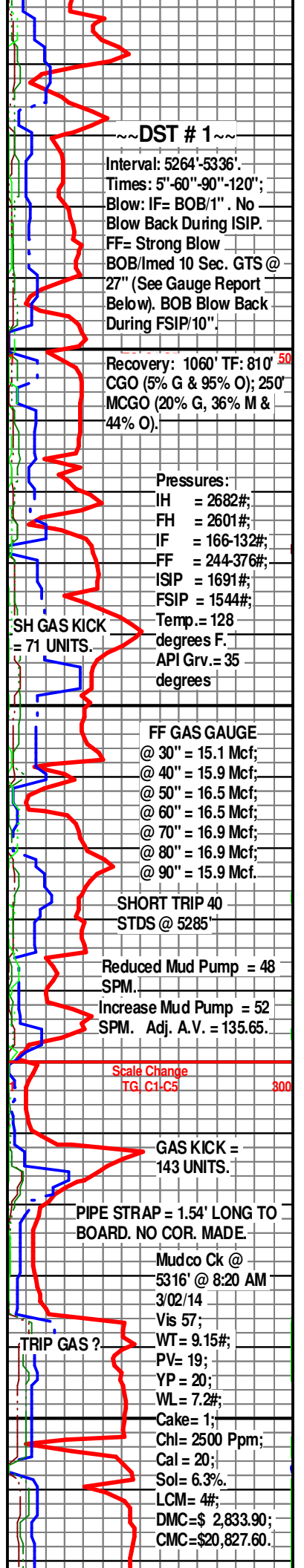
60" CFS @ 5336' Ls Crm-Tan Fxn Fair-Med OOL Vug Por (w/Small-Med Ooids in pl) Grad Med-Good Ixln Pin-Pt Por (w/Pyr Includ) (w/Matted Fos Includ (Lg Crin Fenestral Bry, Coral, Pelec, Etc.)) Por Med-Good GSG & GSFO Sh Blk Carb-Char-Aqua Fissil Inc. Good Odor Good Sat Stn (Lt Brn-Hvy ? Gillsontic) No Flor GSG & GSFO

Sh Char- Gry- Drab Grn- Blk Carb Fissil Ls Wht- Crm- Gry Microxln-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Streaks Pyr Includ) Pyr Mass Fos (Brach) No Odor No Flor NS

Sh Char- Gry- Drab Grn- Blk Carb Fissil Ls Wht- Crm- Gry Microxln-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/Streaks Pyr Includ) Pyr Mass Fos (Brach) No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/streaks Pyr Includ) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixln Por (w/streaks Pyr Includ) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS



~DST # 1~
 Interval: 5264'-5336'.
 Times: 5"-60"-90"-120";
 Blow: IF= BOB/1". No
 Blow Back During ISIP.
 FF= Strong Blow
 BOB/lmed 10 Sec. GTS @
 27" (See Gauge Report
 Below). BOB Blow Back
 During FSIP/10".

Recovery: 1060' TF: 810' 50
 CGO (5% G & 95% O); 250'
 MCGO (20% G, 36% M &
 44% O).

Pressures:
 IH = 2682#;
 FH = 2601#;
 IF = 166-132#;
 FF = 244-376#;
 ISIP = 1691#;
 FSIP = 1544#;
 Temp.= 128
 degrees F.
 API Grv.= 35
 degrees

FF GAS GAUGE
 @ 30" = 15.1 Mcf;
 @ 40" = 15.9 Mcf;
 @ 50" = 16.5 Mcf;
 @ 60" = 16.5 Mcf;
 @ 70" = 16.9 Mcf;
 @ 80" = 16.9 Mcf;
 @ 90" = 15.9 Mcf.

SHORT TRIP 40
 STDS @ 5285'

Reduced Mud Pump = 48
 SPM.
 Increase Mud Pump = 52
 SPM. Adj. A.V. = 135.65.

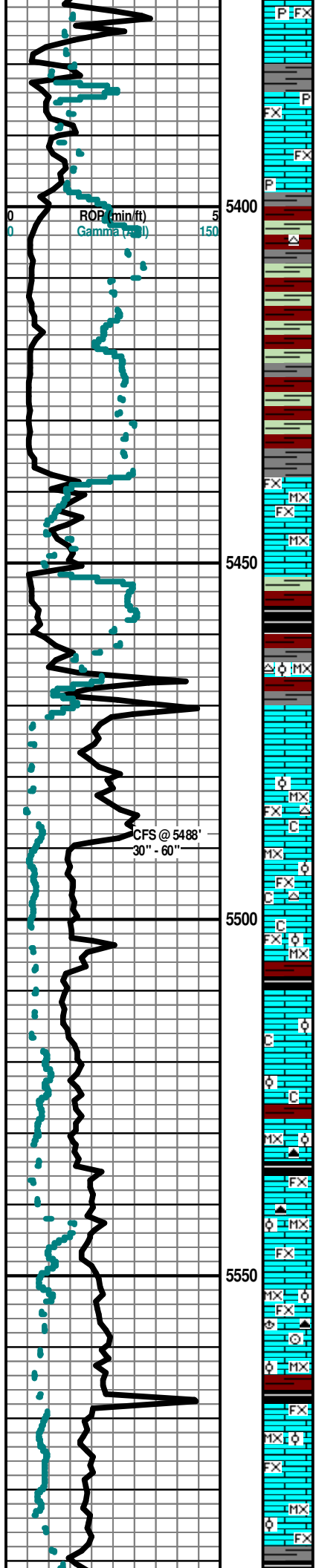
Scale Change
 TG C1:CS 800

GAS KICK =
 143 UNITS.

PIPE STRAP = 1.54' LONG TO
 BOARD. NO COR. MADE

Mudco Ck @
 5316' @ 8:20 AM
 3/02/14
 Vis 57;

TRIP GAS ?
 WT= 9.15#;
 PV= 19;
 YP= 20;
 WL= 7.2#;
 Cake= 1;
 Chl= 2500 Ppm;
 Cal= 20;
 Sol= 6.3%.
 LCM= 4#;
 DMC=\$ 2,833.90;
 CMC=\$20,827.60.



Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixn Por (w/Streaks Pyr Inclus) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

Sh Char- Gry-Drab Grn- Blk Carb- Fissil Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixn Por (w/Streaks Pyr Inclus) Pyr Mass Abd Sh Char-Gry-Drab Grn-Blk Carb Fissil No Odor No Flor NS

Ls Wht-Fxn Dns Micrite Grad Fair Pin-Pt Ixn Por (w/streaks Pyr Inclus) Pyr Mass Abd Sh Char-Gry- Drab Grn-Blk Carb Fissil No Odor No Flor NS

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

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry Soft-Fissil (Wash Red) V Abd Ls AA Fxn-Microxin Dns Micrite Barren Chalk No Odor No Stn No Flor NS

MISSISSIPPIAN "Ste. GEN" 5466' (- 2639)

30" CFS @ 5488' Sh Red-Maroon-Char-Aqua-Grn/Gry-Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

60" CFS @ 5488'5488' Sh Red-Maroon-Char-Aqua-Grn/Gry Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry-Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Sh Red-Maroon-Char-Aqua-Grn/Gry-Yell-Purple Soft-Fissil (Wash Red) V Abd Ls Wht Fxn-Microxin Dns Micrite Grad Fair OOL (w/Small OOids in pl) "Sandy OOL LS" Barren Chalk Cht Wht Op Shp Vit No Odor No Stn No Flor NS

Ls Wht-Lt Brn (in CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Micritie Chalk Sh Varicolored Soft- Fissil No Odor No Flor No Stn NS

Ls Wht-Lt Brn (in CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Friable Micritie Chalk Sh Varicolored Soft- Fissil No Odor No Flor NS

Ls Wht-Lt Brn (in CaCo3 Matrix) Fxn Poor OOL Por (w/V Small OOids in pl) "Sandy OOL Ls" Micritie Cht Org-Peach Translu-Op Shp Vit Chalk Sh Varicolored Soft- Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por (w/V Small OOids in pl) Friable "Sandy OOL Ls" Cht Aqua-Gry Op Shp Vit Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por (w/V Small OOids in pl) Friable "Sandy OOL Ls" Cht Aqua-Gry Translu-Op Shp Vit Fos (Brach, Crin) Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Gry Microxin-Fxn Poor Ixn Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

BKGD GAS = 130 UNITS.

TG C1-C5 800

Mudco Ck @ 5487' @ 1:30 PM 3/03/14
 Vis 62;
 WT= 9.3#;
 PV= 20;
 YP = 22;
 WL= 8.0#;
 Cake= 1;
 Chl= 1800 Ppm;
 Cal = 20;
 Sol= 7.0%
 LCM= 6#;
 DMC=\$ 1,973.55;
 CMC=\$22,801.15

Gas Kick= 181 Units

Gas Kick= 180 Units

Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por Friable "Sandy OOL Ls" Sh Char-Blk Carb-Lt Gry-Aqua Fissil No Odor No Stn No Flor NS

MISS. "ST. LOUIS" POROSITY 5601' (- 2774)

30" CFS @ 5620' Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Cht Wht-Org-Peach Translu-Op Shp Vit Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5620' Ls Wht-Crm-Lt Gry Microxln-Fxl n Poor Ixln Por Dns Micrite (w/Tr Glacu Includ) Grad Poor InterOOL Por (w/V Smal-I-Med OOids in pl) Friable "Sandy OOL Ls" VSSO (1 Pc w/Drk Blk Stn ? Gillsontic) Cht Wht-Org-Peach Translu Shp Vit Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Wht-Peach Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Wht-Peach Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

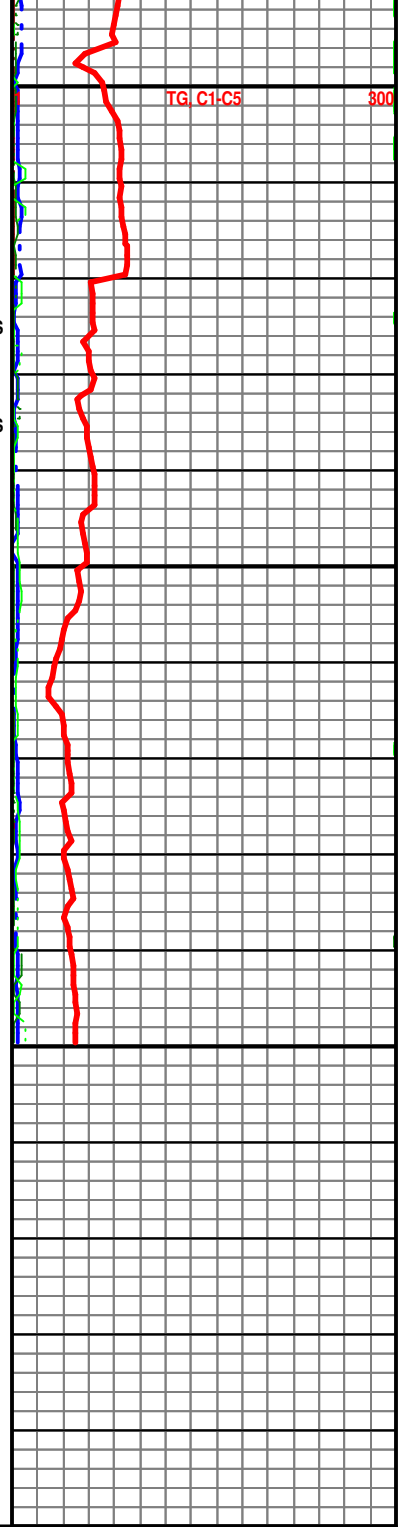
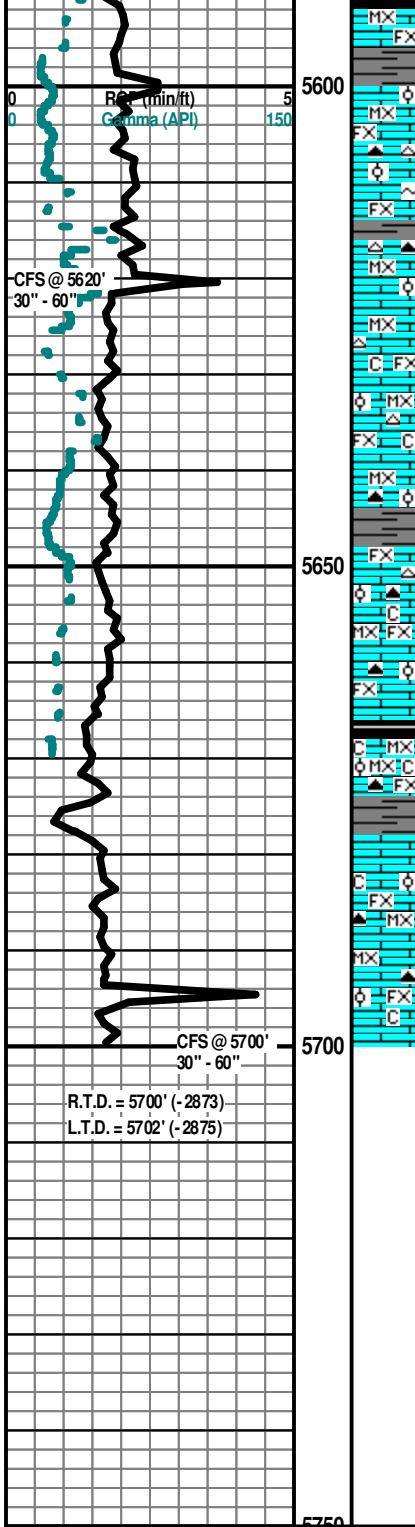
Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Peach-Org Inc Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

30" CFS @ 5700' Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Blk Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5700' Ls Wht-Gry Microxln-Fxl n Poor Ixln Por Dns Micrite Grad Poor InterOOL Por (w/Small-Med OOids in pl) Friable "Sandy OOL Ls" Grad Med OOL Por (w/Tr Poor Vug Leaching) Cht Blk Translu-Op Shp Vit Chalky Sh Char-Blk Carb-Maroon Abd Inc-Gry Fissil No Odor No Stn No Flor NS

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

Geologist Left Location At: 3:00 P M on 3/04/2014



ALLIED OIL & GAS SERVICE, LLC 052423

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Liberall, ks

DATE <u>2/26/14</u>	SEC. <u>17</u>	TWP. <u>30S</u>	RANGE <u>30W</u>	CALLED OUT	ON LOCATION	JOB START <u>1:15 pm</u>	JOB FINISH <u>3:10 pm</u>
LEASE <u>Umcc "A"</u>		WELL# <u>1-17</u>		LOCATION <u>Sublette ks 13 east on CR-190</u>		COUNTY <u>Meade</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)				<u>2 1/2 South, east into location</u>			

CONTRACTOR Stirling #2 OWNER McCoy Petroleum Corp.

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 1833

CASING SIZE 8 5/8 24# DEPTH 1827.15

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 1500 psi MINIMUM

MEAS. LINE SHOE JOINT 41.29

CEMENT LEFT IN CSG. 41.29 ft

PERFS.

DISPLACEMENT 114 bbls Fresh water

EQUIPMENT

PUMP TRUCK CEMENTER Edgar Rodriguez
531-541 HELPER Heriberto Valenzuela

BULK TRUCK
705-3642 DRIVER Alex Ayala

BULK TRUCK
868-542 DRIVER Greg Randall

REMARKS:

CEMENT
AMOUNT ORDERED 650 SKS Class A, 60 cc gel, .25 #/sk
Flo Seal, 39.6 cc .200 SKS Class A, 39.6 cc, .25 #/sk
Flo Seal.

COMMON	@		
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC	@		
ALC2A-CLASS A	650 SKS @	14.50	10725.00
CAC-CLASS A Common	200 SKS @	17.40	3580.00
Calcium Chloride	28 SKS @	64.00	1792.00
Flo Seal	375 # @	2.97	1113.75
	@		
	@		
	@		
	@		
HANDLING	971.00 ft ³ @	2.48	2408.08
MILEAGE	1628.00 Ton Mile	2.60	4232.80

TOTAL 23,851.63

SERVICE

DEPTH OF JOB			1827.15
PUMP TRUCK CHARGE	1	2213.75	2213.75
EXTRA FOOTAGE	@		
MILEAGE Light Vehicle	40 mile @	4.40	176.00
MANIFOLD	1 @	275.00	275.00
Heavy Vehicle	40 mile @	7.70	308.00
	@		

TOTAL 2472.75

PLUG & FLOAT EQUIPMENT

Guide Shoe	1 @	460.98	460.98
AFU Float Valve	1 @	446.94	446.94
Top Rubber Plug	1 @	131.04	131.04
Centralizer	5 @	74.88	374.40
Basket	1 @	560.00	560.00

TOTAL 1973.36

SALES TAX (If Any) _____

TOTAL CHARGES 28,797.74

DISCOUNT _____ IF PAID IN 30 DAYS

Net = 20,158.42

CHARGE TO: McCoy Petroleum Corp.
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 _____

SIGNATURE _____

ALLIE OIL & GAS SERVICE, LLC 052424

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberals KS

DATE <u>2/26/14</u>	SEC. <u>17</u>	TWP. <u>30s</u>	RANGE <u>30w</u>	CALLED OUT	ON LOCATION	JOB START <u>10:00 AM</u>	JOB FINISH <u>2:30 PM</u>
LEASE <u>Umcc "A"</u>		WELL# <u>1-17</u>		LOCATION <u>Sublette, KS. 13 East on LR-190</u>		COUNTY <u>Marade</u>	STATE <u>KS</u>
<input checked="" type="radio"/> OLD <input type="radio"/> NEW (Circle one)				<u>2 1/2 South, east into</u>			

CONTRACTOR <u>Stanley #2</u>	OWNER <u>McCoy Petroleum</u>
TYPE OF JOB <u>Miscellaneous (Top out)</u>	CEMENT
HOLE SIZE <u>12 1/4</u> T.D.	AMOUNT ORDERED <u>100 Sks Class A.</u>
CASING SIZE <u>8 5/8</u> DEPTH	<u>2% Calcium Chloride on side</u>
TUBING SIZE DEPTH	
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	
MEAS. LINE SHOE JOINT	
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

COMMON	Class A	100 ^{Sks}	@	17.90	1790.00
POZMIX			@		
GEL			@		
CHLORIDE		5 Sks	@	64.00	320.00
ASC			@		
			@		
			@		
			@		
			@		
			@		
HANDLING	205 ft ³		@	2.48	508.40
MILEAGE	354 Ten Mile		@	2.40	998.40
TOTAL					<u>3616.80</u>

EQUIPMENT

PUMP TRUCK	CEMENTER	<u>Edgar Rodriguez</u>
# <u>531-541</u>	HELPER	<u>Hernando Valenzuela</u>
BULK TRUCK		
# <u>412-554</u>	DRIVER	<u>Alex Carona</u>
BULK TRUCK		
#	DRIVER	

REMARKS:

SERVICE

DEPTH OF JOB	PUMP TRUCK CHARGE	1	@	1718.75	1718.75
EXTRA FOOTAGE			@		
MILEAGE	Heavy Vehicle	40 mile	@	7.70	308.00
MANIFOLD			@		
	Light Vehicle	40 mile	@	4.40	176.00
TOTAL					<u>2202.75</u>

CHARGE TO: McCoy Petroleum

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

@	@	@	@	@	@
TOTAL					<u>0</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 Walter Martinez

SIGNATURE

SALES TAX (If Any) _____

TOTAL CHARGES 5819.55

DISCOUNT _____ IF PAID IN 30 DAYS

Net = 4073.68

ALLIED OIL & GAS SERVICES, LLC 052396

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberal KS.

DATE <u>03-05-14</u>	SEC <u>17</u>	TWP. <u>30S.</u>	RANGE <u>30 W</u>	CALLED OUT	ON LOCATION	JOB START <u>8:00</u>	JOB FINISH <u>9:00 a.m.</u>
LEASE <u>UMCC A</u>		WELL# <u>1-17</u>		LOCATION <u>Coopeland KS. S.E.</u>		COUNTY <u>Meade</u>	STATE <u>KS.</u>
OLD OR <u>(NEW)</u> (Circle one)							

CONTRACTOR Sterling
 TYPE OF JOB Long String
 HOLE SIZE 7 7/8 T.D.
 CASING SIZE 5 1/2 15.5# DEPTH 5704.64 ft
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX 1600 PSI MINIMUM
 MEAS. LINE SHOE JOINT 43.1 ft
 CEMENT LEFT IN CSG. 1 BBIS.
 PERFS.
 DISPLACEMENT 134.7 BBIS.
 EQUIPMENT

PUMP TRUCK CEMENTER Ruben Chavez
 # 530-541 HELPER Jaime Torres
 BULK TRUCK
 # 869-841 DRIVER Gregory Randall
 BULK TRUCK
 # DRIVER

REMARKS:

OWNER MC Coy Petroleum.

CEMENT
 AMOUNT ORDERED 175 sk ASC - 'A'
5% FL-160, 5lb/6.16-16/sk, 2% Determen.
50 sk 60/40 14 Gal.

COMMON <u>'A' 30 sk</u>	@ <u>17.90</u>	<u>537.00</u>
POZMIX <u>20 sk</u>	@ <u>9.35</u>	<u>187.00</u>
GEL <u>4 sk</u>	@ <u>23.40</u>	<u>93.60</u>
CHLORIDE	@	
ASC - A <u>175 sk</u>	@ <u>20.90</u>	<u>3,657.50</u>
<u>Super Flush 18 GAL</u>	@ <u>58.70</u>	<u>1,056.60</u>
<u>FL-160 83 lb</u>	@ <u>18.90</u>	<u>1,568.70</u>
<u>Gilsonite 875 lb</u>	@ <u>.78</u>	<u>687.50</u>
<u>Determen 33 lb</u>	@ <u>9.80</u>	<u>323.40</u>
	@	
	@	
	@	
	@	
HANDLING <u>290.00 6 ft</u>	@ <u>2.48</u>	<u>721.61</u>
MILEAGE <u>604.90 7.2 mi.</u>	@ <u>2.60</u>	<u>1,572.74</u>

TOTAL 10,575.65

SERVICE

DEPTH OF JOB	<u>5001 - 6000 ft</u>	
PUMP TRUCK CHARGE		<u>3,099.25</u>
EXTRA FOOTAGE	@	
MILEAGE <u>heavy 50 Mi.</u>	@ <u>7.70</u>	<u>385.00</u>
MANIFOLD <u>7 head</u>	@ <u>275.00</u>	<u>275.00</u>
<u>light 1/2 hole 50 Mi.</u>	@ <u>4.40</u>	<u>220.00</u>
	@	

TOTAL 3,979.25

CHARGE TO: MC Coy Petroleum.
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>Float Shoe 1</u>	@ <u>636.45</u>	<u>636.45</u>
<u>Light Down Plug 1</u>	@ <u>324.09</u>	<u>324.09</u>
<u>Centralizers 6</u>	@ <u>93.00</u>	<u>558.00</u>
	@	
	@	

TOTAL 1,522.17

To: Allied Oil & Gas Services, LLC.
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SALES TAX (If Any) _____
 TOTAL CHARGES 16,077.07

PRINTED NAME _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Dave Allen

NET = 11,253.95