

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1256528  
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: \_\_\_\_\_

1256528

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:  Yes  No

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

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Commingled <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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# ALLIED OIL & GAS SERVICES, LLC 064667

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley, KS

DATE <u>3-11-15</u>	SEC. <u>3</u>	TWP. <u>4</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION <u>5:00 pm</u>	JOB START <u>7:00 pm</u>	JOB FINISH <u>7:30 pm</u>
LEASE <u>Fishersville</u>	WELL# <u>2-3</u>	LOCATION <u>McDonald St to Rd. S</u>			COUNTY <u>Racine</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>				<u>2 1/2 E, N, E, S into</u>			

CONTRACTOR Martin S

TYPE OF JOB Surface

HOLE SIZE 12 1/4 TD. 260

CASING SIZE 8 7/8 DEPTH 261'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 151

PERFS.

DISPLACEMENT 15.74 661

OWNER Some

CEMENT AMOUNT ORDERED 220 sfs com 3% CC  
270 gal

COMMON 220 sfs @ 17.90 3958.00

POZMIX @

GEL 419# @ .50 209.50

CHLORIDE 620# @ 1.10 682.00

ASC @

EQUIPMENT

PUMP TRUCK CEMENTER Larone Edward

# 422 HELPER Wayne McChy

BULK TRUCK DRIVER George Grant

# 890/241

BULK TRUCK DRIVER

MATERIAL TOTAL @ 4,827.00

(2172.15/45%)

HANDLING 237.89 47 @ 2.45 589.97

MILEAGE 14.86 mi x 7.95 @ 2.75 1179.60

TOTAL

REMARKS:  
mix 220 sfs cement  
displace with water  
cement did circulate  
3661 to pit

Thank you

CHARGE TO: Sam Gary

STREET \_\_\_\_\_

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

SERVICE

DEPTH OF JOB 261'

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @

MILEAGE MTR 40 @ 7.70 308.00

MANIFOLD @ 295.00

MTR 40 @ 4.40 176.00

TOTAL 4,655.82

PLUG & FLOAT EQUIPMENT

Centralizer 8 1/2 @ 75 75.00

TOTAL 75.00

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 Travis Martin

SIGNATURE Travis Martin

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 8,957.82

DISCOUNT 3,997.26 (45%) IF PAID IN 30 DAYS

4,960.55 Net.

# ALLIED OIL & GAS SERVICES, LLC 063853

Federal Tax I.D. # 20-8651476

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Rolling K

DATE <u>3/20/17</u>	SEC <u>3</u>	TWP. <u>4</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION	JOB START <u>8:00am</u>	JOB FINISH <u>3:00pm</u>
LEASE <u>Fisher Cattle</u> WELL # <u>23</u>			LOCATION <u>McDonell STO L. 5 2 E 9th heading</u>				
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR <u>Mark B</u>	OWNER <u>Same</u>
TYPE OF JOB <u>PTA</u>	
HOLE SIZE <u>7 7/8</u> T.D. <u>4650'</u>	CEMENT
CASING SIZE <u>8 5/8</u> DEPTH <u>261</u>	AMOUNT ORDERED <u>255 60/40 unregal 1/4 P60</u>
TUBING SIZE DEPTH	
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	COMMON <u>255</u> @ <u>18 1/2</u> <u>4824.00</u>
MEAS. LINE SHOE JOINT	POZMIX @
CEMENT LEFT IN CSG.	GEL @
PERFS.	CHLORIDE @
DISPLACEMENT	ASC @

<b>EQUIPMENT</b>		
PUMP TRUCK CEMENTER <u>Alton Ryan</u>		<u>Material Total</u> @ <u>504.68</u>
# <u>485281</u> HELPER <u>Kevin Ryan</u>		<u>(2256.60/45.2)</u>
BULK TRUCK		@
# <u>373</u> DRIVER <u>George Grant</u>		@
BULK TRUCK		@
# DRIVER		@
	HANDLING <u>2.15</u> @ <u>2.40</u> <u>679.20</u>	
	MILEAGE <u>257 per mile</u> @ <u>1.1</u> <u>282.70</u>	

**REMARKS:**

905K @ 2975'

1005K @ 3200'

505K @ 310'

405K @ 40'

155K - MH

305K - RH

CHARGE TO: Sam Gary

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 Travis Martin

SIGNATURE [Signature]

TOTAL \_\_\_\_\_

**SERVICE**

DEPTH OF JOB	
PUMP TRUCK CHARGE	<u>2483.32</u>
EXTRA FOOTAGE @	<u>202</u>
MILEAGE <u>40</u> @ <u>2.30</u>	<u>308.00</u>
MANIFOLD <u>40</u> @ <u>4.42</u>	<u>176.80</u>

(2207.05/45.2) TOTAL 4,904.56

**PLUG & FLOAT EQUIPMENT**

<u>257 per mile</u> @ <u>1</u>	<u>110.00</u>
@	
@	
@	
@	

0 TOTAL 110.00

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 10,029.24

DISCOUNT 4,463.65 (45%) IF PAID IN 30 DAYS

5,565.58 Net.



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

**3-4S-36W Rawlins, KS**

1515 Wynkoop STE #700  
Denver, CO 80202

**Fisher Cattle Co#2-3**

Job Ticket: 60897

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2015.03.16 @ 02:04:00

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:47:00

Time Test Ended: 10:11:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

**Interval: 4108.00 ft (KB) To 4123.00 ft (KB) (TVD)**

Total Depth: 4123.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3206.00 ft (KB)

3201.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8874 Inside**

Press@RunDepth: 15.97 psig @ 4109.00 ft (KB)

Start Date: 2015.03.16

End Date:

2015.03.16

Start Time: 02:05:00

End Time:

10:11:30

Capacity: 8000.00 psig

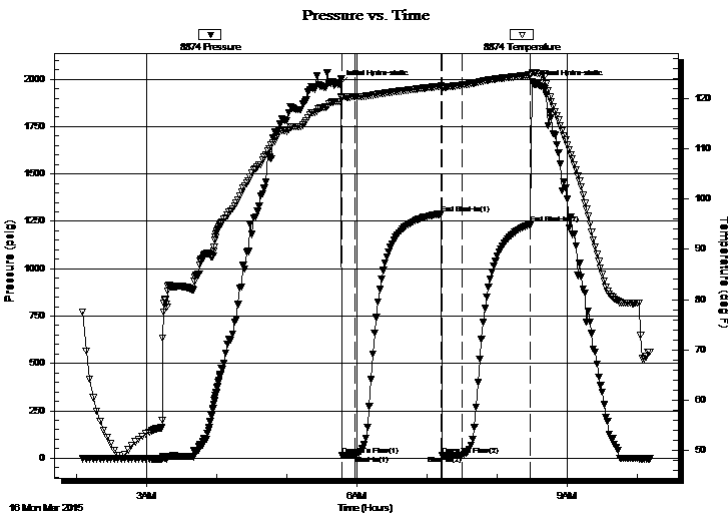
Last Calib.: 2015.03.16

Time On Btm: 2015.03.16 @ 05:45:00

Time Off Btm: 2015.03.16 @ 08:32:30

**TEST COMMENT:** 10 - IF- Weak Surface Blow did not build or die.  
75 - IS- No Return  
15 - FF- Surface blow died in 15 min.  
60 - FS- No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1971.75	119.40	Initial Hydro-static
2	14.16	120.07	Open To Flow (1)
13	15.99	120.31	Shut-In(1)
87	1288.98	122.45	End Shut-In(1)
88	16.15	122.10	Open To Flow (2)
105	15.97	122.66	Shut-In(2)
164	1234.42	124.64	End Shut-In(2)
168	1970.37	125.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100M	0.01

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. & Associates, Inc.

**3-4S-36W Rawlins, KS**

1515 Wynkoop STE #700  
Denver, CO 80202

**Fisher Cattle Co#2-3**

Job Ticket: 60897

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2015.03.16 @ 02:04:00

## 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud 100M	0.015

Total Length: 3.00 ft      Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

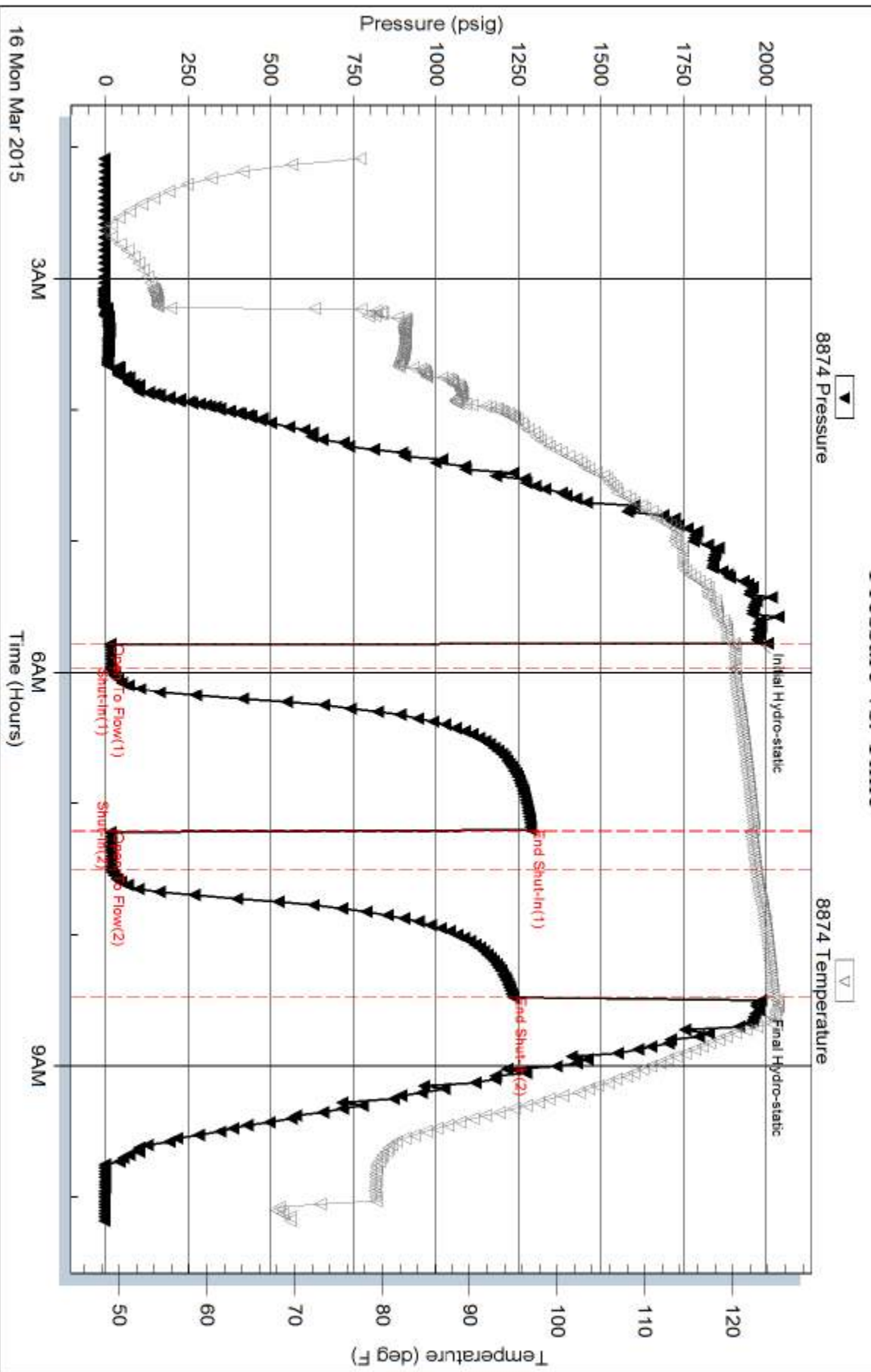
Laboratory Name:

Laboratory Location:

Recovery Comments:



### Pressure vs. Time



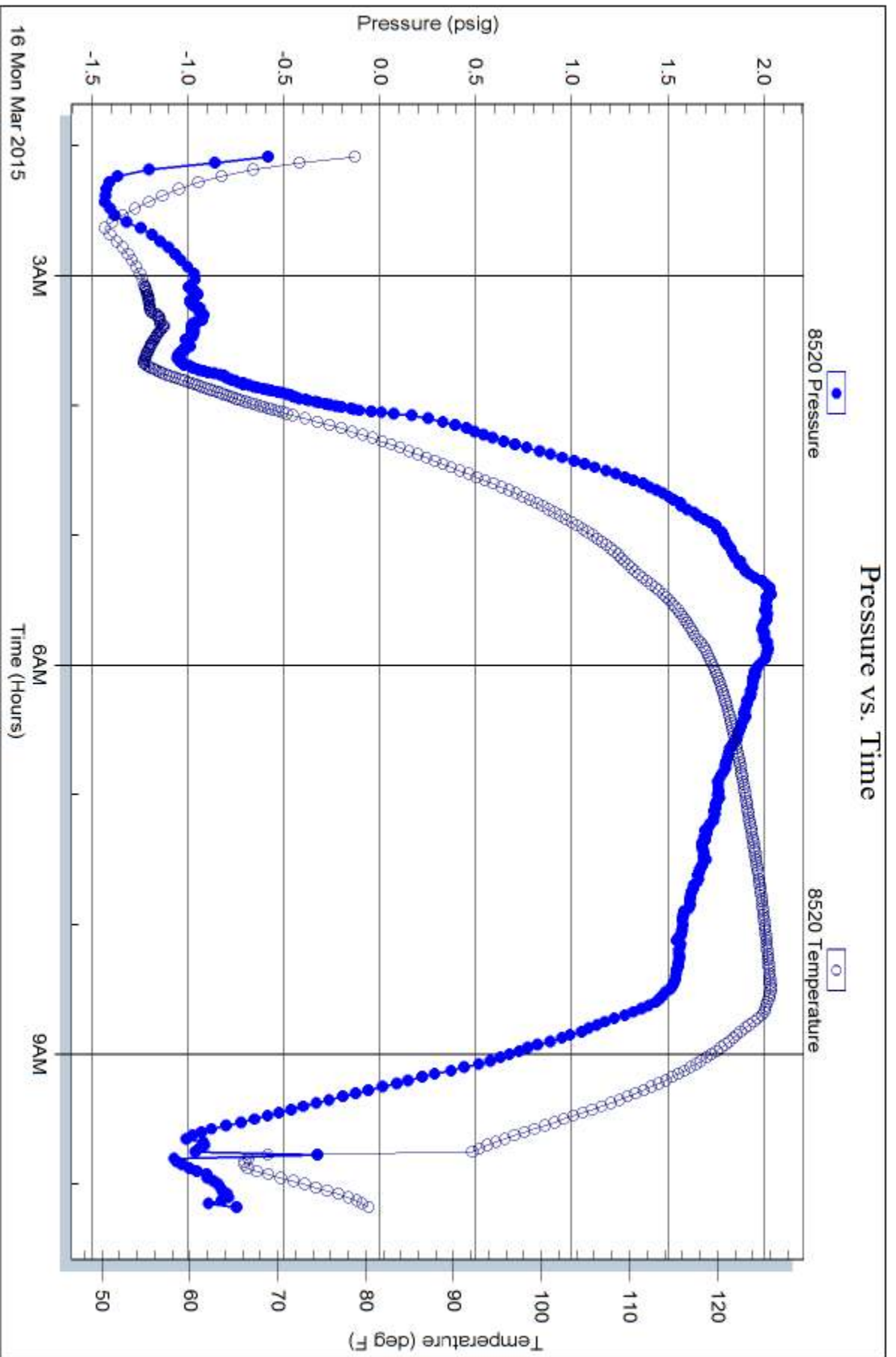
Serial #: 8520

Fluid

Samuel Gary Jr. & Associates, Inc.

Fisher Cattle Co#2-3

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60897

Printed: 2015.03.16 @ 11:54:15



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

**3-4S-36W Rawlins, KS**

1515 Wynkoop STE #700  
Denver, CO 80202

**Fisher Cattle Co#2-3**

Job Ticket: 60898

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2015.03.18 @ 03:44:00

## GENERAL INFORMATION:

Formation: **Upper Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:22:00

Time Test Ended: 11:09:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

**Interval: 4465.00 ft (KB) To 4500.00 ft (KB) (TVD)**

Reference Elevations: 3206.00 ft (KB)

Total Depth: 4500.00 ft (KB) (TVD)

3201.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8874 Inside**

Press@RunDepth: 17.69 psig @ 4466.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.03.18

End Date:

2015.03.18

Last Calib.: 2015.03.18

Start Time: 03:45:00

End Time:

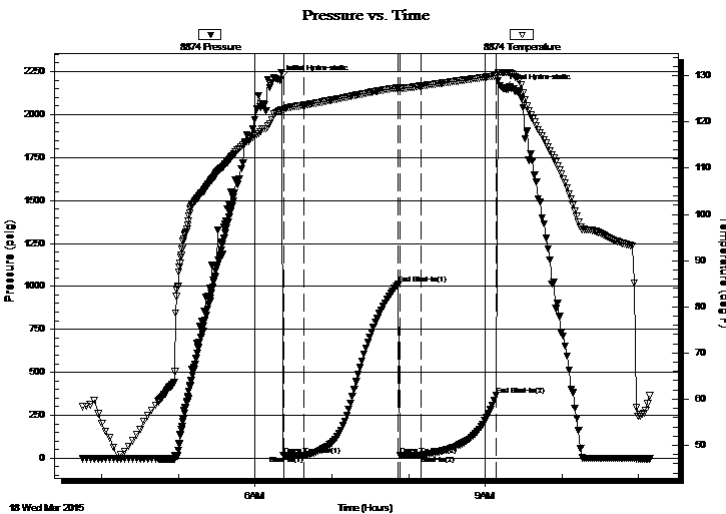
11:09:30

Time On Btm: 2015.03.18 @ 06:19:30

Time Off Btm: 2015.03.18 @ 09:14:00

**TEST COMMENT:** 15 - IF- 1/4" Blow built to 1"  
75 - IS- No Return  
15 - FF- Weak Surface Blow did not build or die  
60 - FS- No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2200.90	122.38	Initial Hydro-static
3	16.91	122.76	Open To Flow (1)
19	16.24	123.62	Shut-In(1)
93	1015.82	127.44	End Shut-In(1)
94	16.15	127.19	Open To Flow (2)
110	17.69	127.79	Shut-In(2)
169	364.82	130.02	End Shut-In(2)
175	2153.10	130.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 30o 70M	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. & Associates, Inc.

**3-4S-36W Rawlins, KS**

1515 Wynkoop STE #700  
Denver, CO 80202

**Fisher Cattle Co#2-3**

Job Ticket: 60898

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2015.03.18 @ 03:44:00

## 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: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 30o 70M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8874

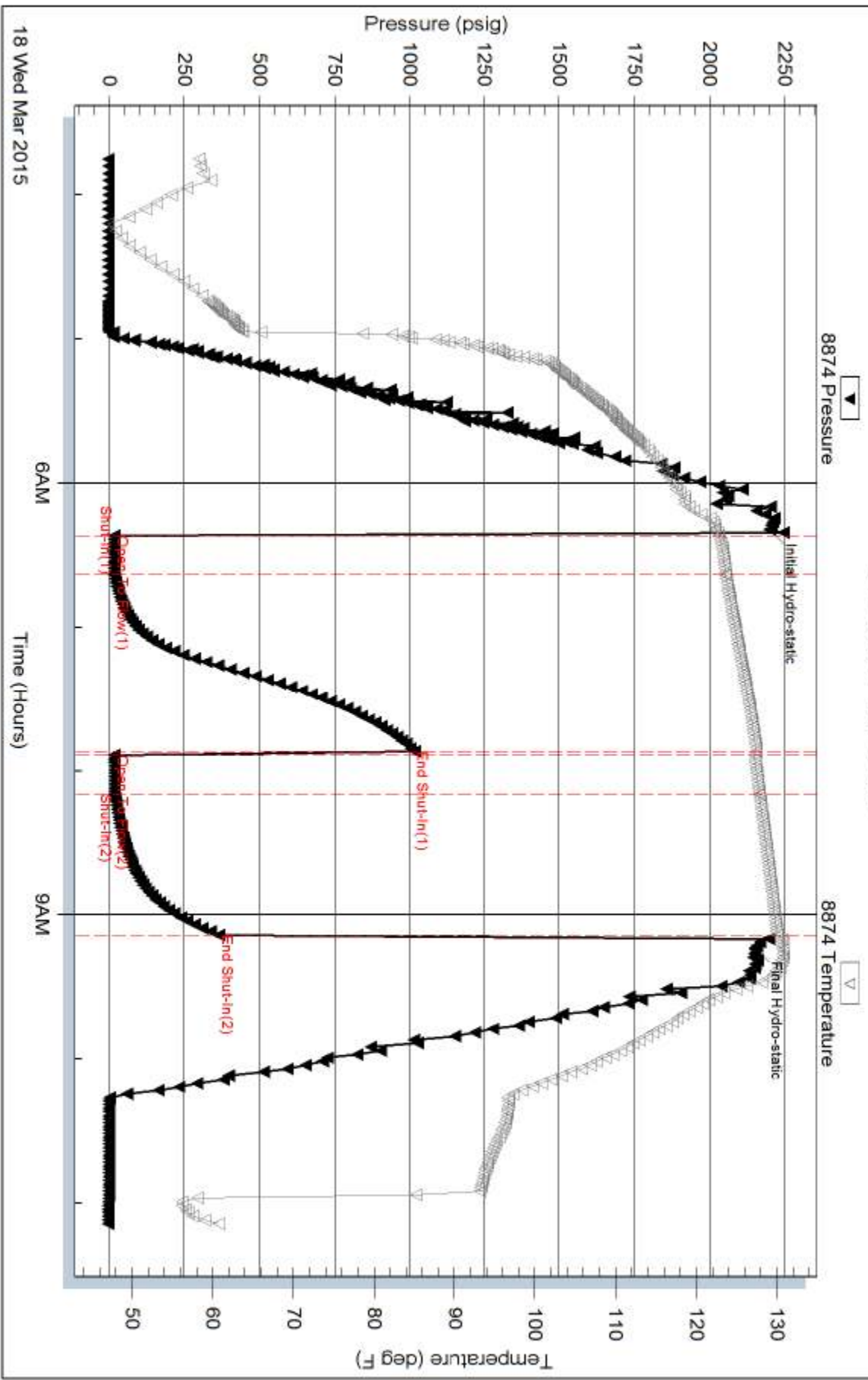
Inside

Samuel Gary Jr. & Associates, Inc.

Fisher Cattle Co#2-3

DST Test Number: 2

### Pressure vs. Time



18 Wed Mar 2015

Trilobite Testing, Inc

Ref. No: 60898

Printed: 2015.03.18 @ 11:47:29

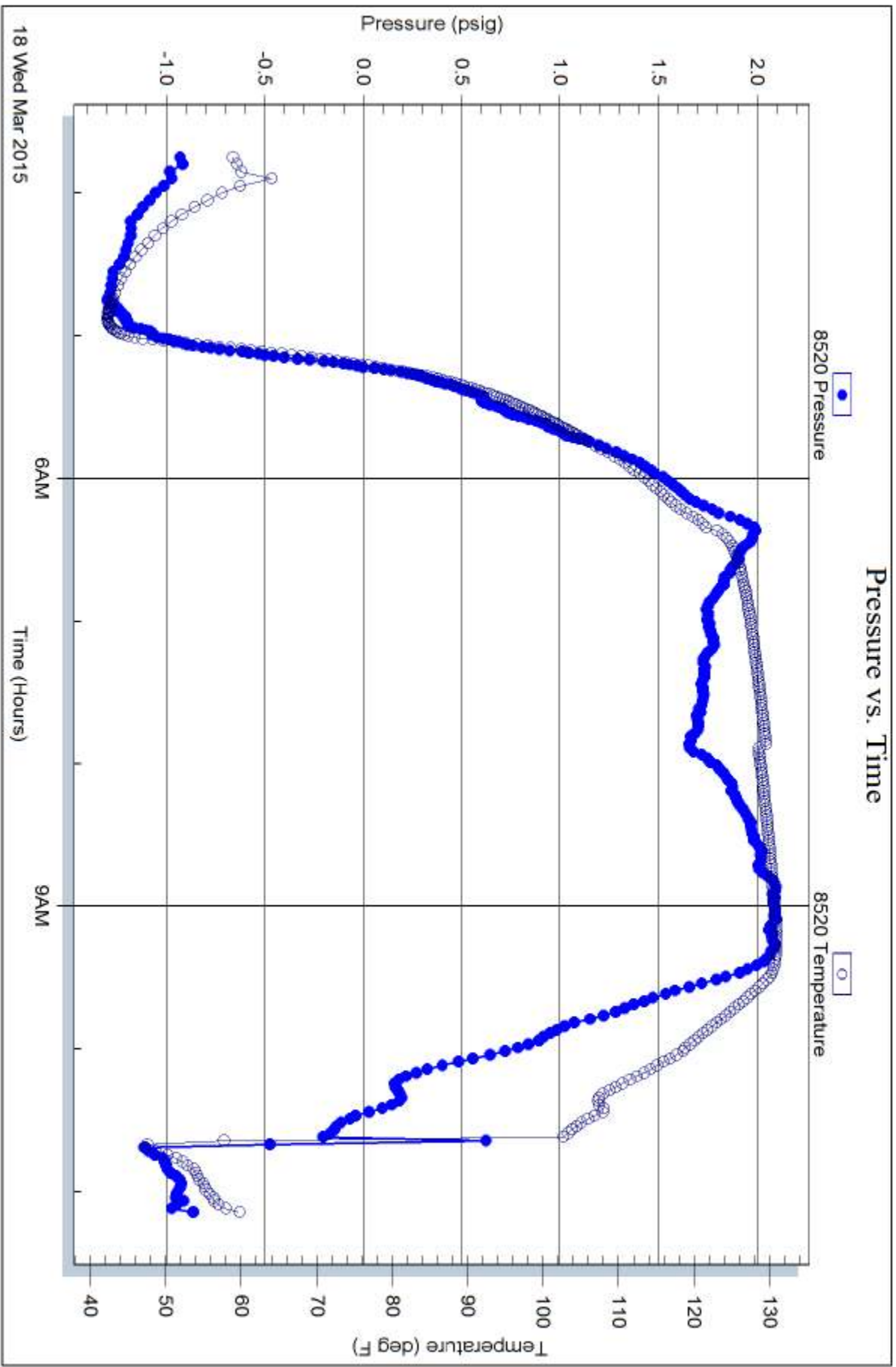
Serial #: 8520

Fluid

Samuel Gary Jr. & Associates, Inc.

Fisher Cattle Co#2-3

DST Test Number: 2



18 Wed Mar 2015

6AM

Time (Hours)

9AM



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

**3-4S-36W Rawlins, KS**

1515 Wynkoop STE #700  
Denver, CO 80202

**Fisher Cattle Co#2-3**

Job Ticket: 60899

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2015.03.19 @ 02:41:00

## GENERAL INFORMATION:

Formation: **Cheorkee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:07:30

Time Test Ended: 11:20:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Donovan Baumann

Unit No: 82

**Interval: 4544.00 ft (KB) To 4584.00 ft (KB) (TVD)**

Total Depth: 4584.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3206.00 ft (KB)

3201.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8874 Inside**

Press@RunDepth: 20.11 psig @ 4545.00 ft (KB)

Start Date: 2015.03.19

End Date: 2015.03.19

Start Time: 02:42:00

End Time: 11:20:00

Capacity: 8000.00 psig

Last Calib.: 2015.03.19

Time On Btm: 2015.03.19 @ 05:07:00

Time Off Btm: 2015.03.19 @ 09:09:00

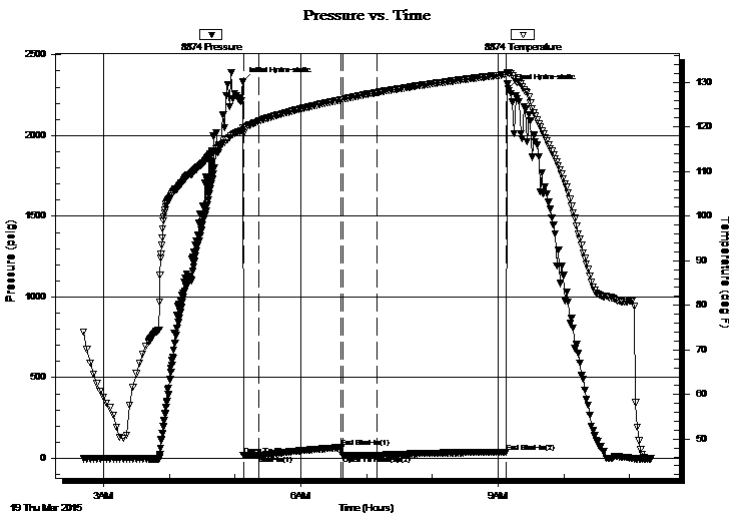
TEST COMMENT: 15 - IF - Weak surface blow built to 3/4 in. in 15 min.

75 - ISI - No return

30 - FF - No surface blow

120 - FSI - No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2332.28	119.70	Initial Hydro-static
1	16.56	118.60	Open To Flow (1)
15	17.67	121.33	Shut-In(1)
90	66.42	126.11	End Shut-In(1)
91	18.55	126.17	Open To Flow (2)
122	20.11	127.70	Shut-In(2)
240	38.53	131.75	End Shut-In(2)
242	2289.80	132.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100M	0.02

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. & Associates, Inc.

**3-4S-36W Rawlins, KS**

1515 Wynkoop STE #700  
Denver, CO 80202

**Fisher Cattle Co#2-3**

Job Ticket: 60899

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2015.03.19 @ 02:41:00

## 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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	Mud - 100M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

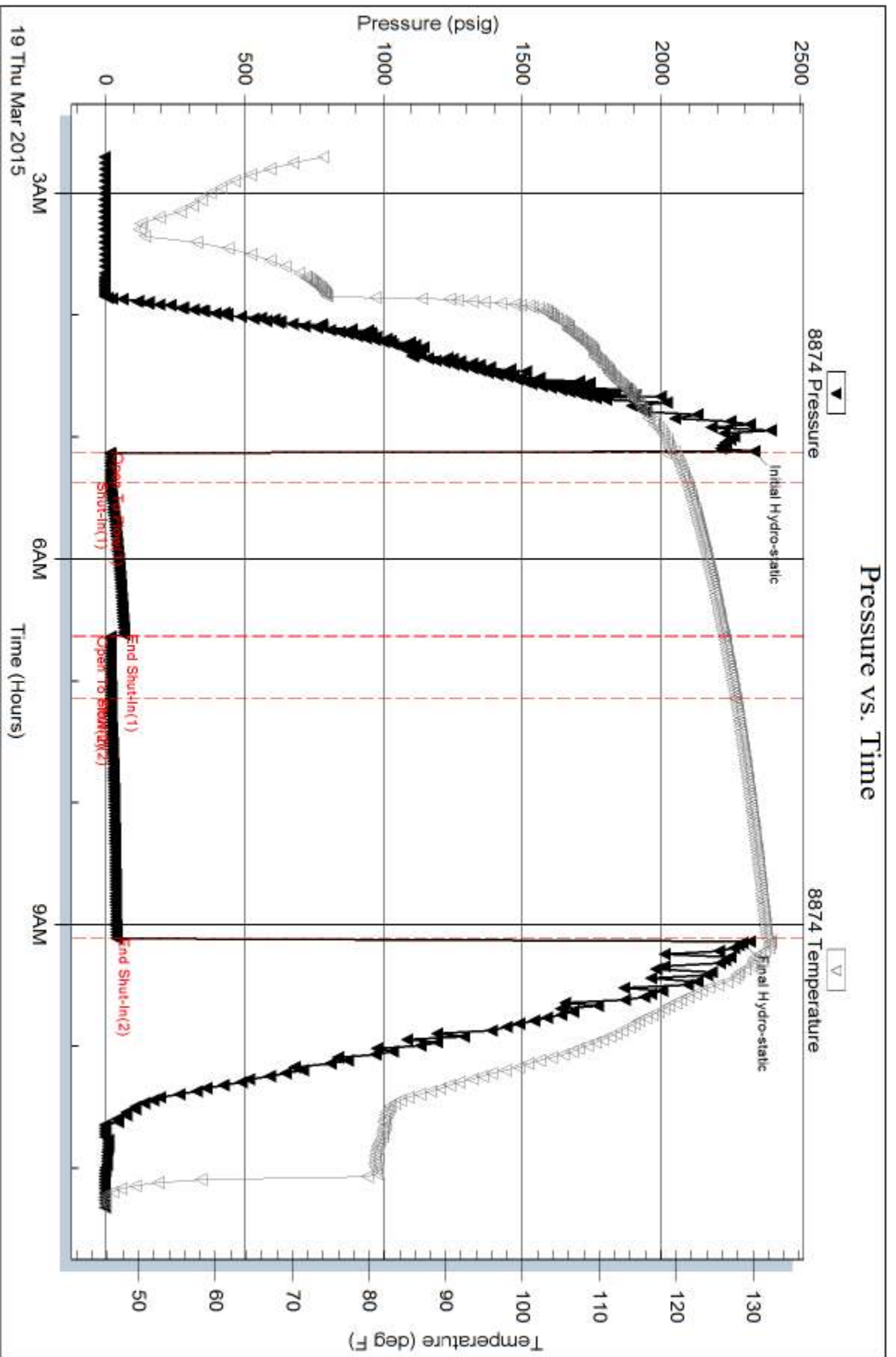
Serial #: 8874

Inside

Samuel Gary Jr. & Associates, Inc.

Fisher Cattle Co#2-3

DST Test Number: 3



Serial #: 8520

Fluid

Samuel Gary Jr. & Associates, Inc.

Fisher Cattle Co#2-3

DST Test Number: 3





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

Well Name: FISHER CATTLE 2-3  
Well Id:  
Location: Sec 3 T4S R36W Rawlins County, Kansas  
License Number: 15-153-21116-0000  
Spud Date: March 11, 2015  
Surface Coordinates: 1975' FSL & 2210 FEL  
Region: Wildcat  
Drilling Completed: March 19, 2015

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 3194' K.B. Elevation (ft): 3199'  
Logged Interval (ft): 3850' To: 4680' Total Depth (ft): 4680'  
Formation: Lansing, Arbuckle  
Type of Drilling Fluid: Natural Chemical

Printed by WellSight Log Manager from WellSight Systems 1-800-447-1534 www.WellSight.com

#### OPERATOR

Company: Sam Gary Jr. & Assoc.  
Address: 1515 Wynkoop, Ste. # 700  
Denver, Co. 80202  
Co. Geo: Chris Mitchell

#### GEOLOGIST

Name: Tim Hedrick / Schuyler Hedrick  
Company: Earth Tech OGL, Inc  
Address: PO Box 683  
Hooker, Okla. 73945  
1-888-543-8378 Cell 580-754-0062



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

3-4S-36W Rawlins, KS

1515 Wynkoop STE #700  
Denver, CO 80202

Fisher Cattle Co#2-3

Job Ticket: 60897      DST#: 1

ATTN: Clayton Camozzi

Test Start: 2015.03.16 @ 02:04:00

### GENERAL INFORMATION:

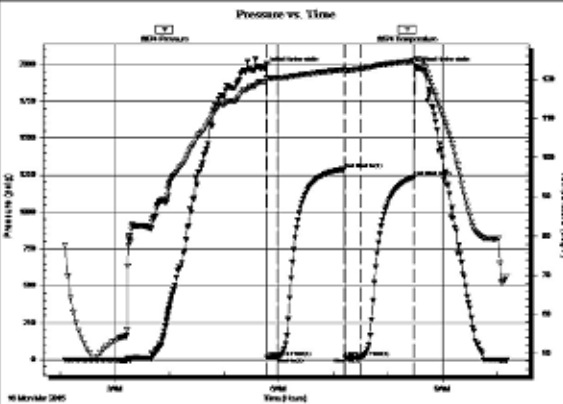
Formation: **LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:47:00  
 Time Test Ended: 10:11:30  
 Interval: **4108.00 ft (KB) To 4123.00 ft (KB) (TVD)**  
 Total Depth: **4123.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Kevin Mack  
 Unit No: 82  
 Reference Elevations: 3206.00 ft (KB)  
 3201.00 ft (CF)  
 KB to GR/CF: 5.00 ft

### Serial #: 8874

Inside

Press@RunDepth: 15.97 psig @ 4109.00 ft (KB)  
 Start Date: 2015.03.16      End Date: 2015.03.16  
 Start Time: 02:05:00      End Time: 10:11:30  
 Capacity: 8000.00 psig  
 Last Callb.: 2015.03.16  
 Time On Btm: 2015.03.16 @ 05:45:00  
 Time Off Btm: 2015.03.16 @ 08:32:30

TEST COMMENT: 10 - IF- Weak Surface Blow did not build or die.  
 75 - IS- No Return  
 15 - FF- Surface blow died in 15 min.  
 60 - FSI- No Return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1971.75	119.40	Initial Hydro-static
2	14.16	120.07	Open To Flow (1)
13	15.99	120.31	Shut-in(1)
87	1288.98	122.45	End Shut-in(1)
88	16.15	122.10	Open To Flow (2)
105	15.97	122.66	Shut-in(2)
164	1234.42	124.64	End Shut-in(2)
168	1970.37	125.17	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100M	0.01

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

3-4S-36W Rawlins, KS

1515 Wynkoop STE #700  
Denver, CO 80202

Fisher Cattle Co#2-3

Job Ticket: 60898 DST#: 2

ATTN: Clayton Camozzi

Test Start: 2015.03.18 @ 03:44:00

### GENERAL INFORMATION:

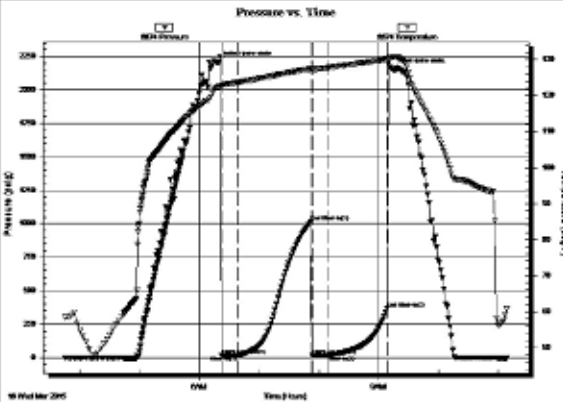
Formation: **Upper Pawnee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:22:00  
 Time Test Ended: 11:09:30  
 Interval: **4465.00 ft (KB) To 4500.00 ft (KB) (TVD)**  
 Total Depth: **4500.00 ft (KB) (TVD)**  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Kevin Mack  
 Unit No: 82  
 Reference Elevations: 3206.00 ft (KB)  
 3201.00 ft (CF)  
 KB to GR/CF: 5.00 ft

### Serial #: 8874

Inside

Press@RunDepth: 17.69 psig @ 4466.00 ft (KB)  
 Start Date: 2015.03.18 End Date: 2015.03.18  
 Start Time: 03:45:00 End Time: 11:09:30  
 Capacity: 8000.00 psig  
 Last Callb.: 2015.03.18  
 Time On Btm: 2015.03.18 @ 06:19:30  
 Time Off Btm: 2015.03.18 @ 09:14:00

TEST COMMENT: 15 - IF- 1/4" Blow built to 1"  
 75 - IS! No Return  
 15 - FF- Weak Surface Blow did not build or die  
 60 - FSI- No Return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2200.90	122.38	Initial Hydro-static
3	16.91	122.76	Open To Flow (1)
19	16.24	123.62	Shut-in(1)
93	1015.82	127.44	End Shut-in(1)
94	16.15	127.19	Open To Flow (2)
110	17.69	127.79	Shut-in(2)
169	364.82	130.02	End Shut-in(2)
175	2153.10	130.71	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 30o 70M	0.02

### Gas Rates

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



**TRIBOLITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates, Inc.

3-4S-36W Rawlins, KS

1515 Wynkoop STE #700  
Denver, CO 80202

Fisher Cattle Co#2-3

Job Ticket: 60899 DST#: 3

ATTN: Clayton Camozzi

Test Start: 2015.03.19 @ 02:41:00

### GENERAL INFORMATION:

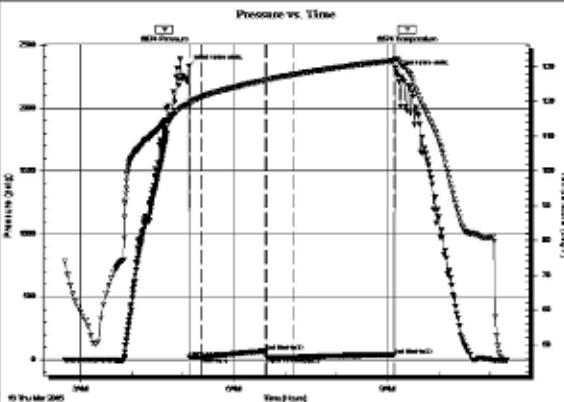
Formation: **Cheorkee**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 05:07:30 Tester: Donovan Baumann  
 Time Test Ended: 11:20:00 Unit No: 82  
 Interval: 4544.00 ft (KB) To 4584.00 ft (KB) (TVD) Reference Elevations: 3206.00 ft (KB)  
 Total Depth: 4584.00 ft (KB) (TVD) 3201.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

### Serial #: 8874

Inside

Press@RunDepth: 20.11 psig @ 4545.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.03.19 End Date: 2015.03.19 Last Callb.: 2015.03.19  
 Start Time: 02:42:00 End Time: 11:20:00 Time On Btm: 2015.03.19 @ 05:07:00  
 Time Off Btm: 2015.03.19 @ 09:09:00

TEST COMMENT: 15 - IF - Weak surface blow built to 3/4 in. in 15 min.  
 75 - ISL - No return  
 30 - FF - No surface blow  
 120 - FSI - No return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2332.28	119.70	Initial Hydro-static
1	16.56	118.60	Open To Flow (1)
15	17.67	121.33	Shut-in(1)
90	66.42	126.11	End Shut-in(1)
91	18.55	126.17	Open To Flow (2)
122	20.11	127.70	Shut-in(2)
240	38.53	131.75	End Shut-in(2)
242	2289.80	132.16	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100M	0.02

### Gas Rates

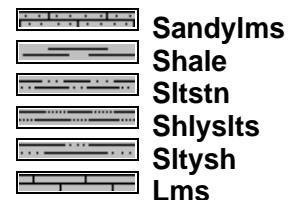
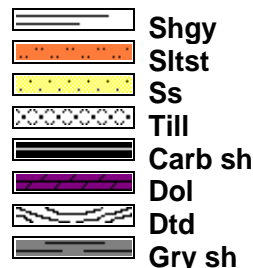
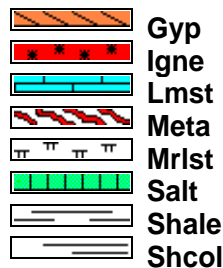
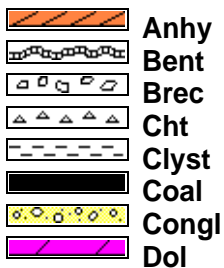
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Tribolite Testing, Inc

Ref. No: 60899

Printed: 2015.03.19 @ 19:23:06

## ROCK TYPES





### ACCESSORIES

#### FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

#### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

#### STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn

#### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

### OTHER SYMBOLS

#### INTERVALS

- Core
- Dst
- Dst

#### EVENTS

- Rft
- Sidewall

#### POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

#### SORTING

- Well
- Moderate
- Poor

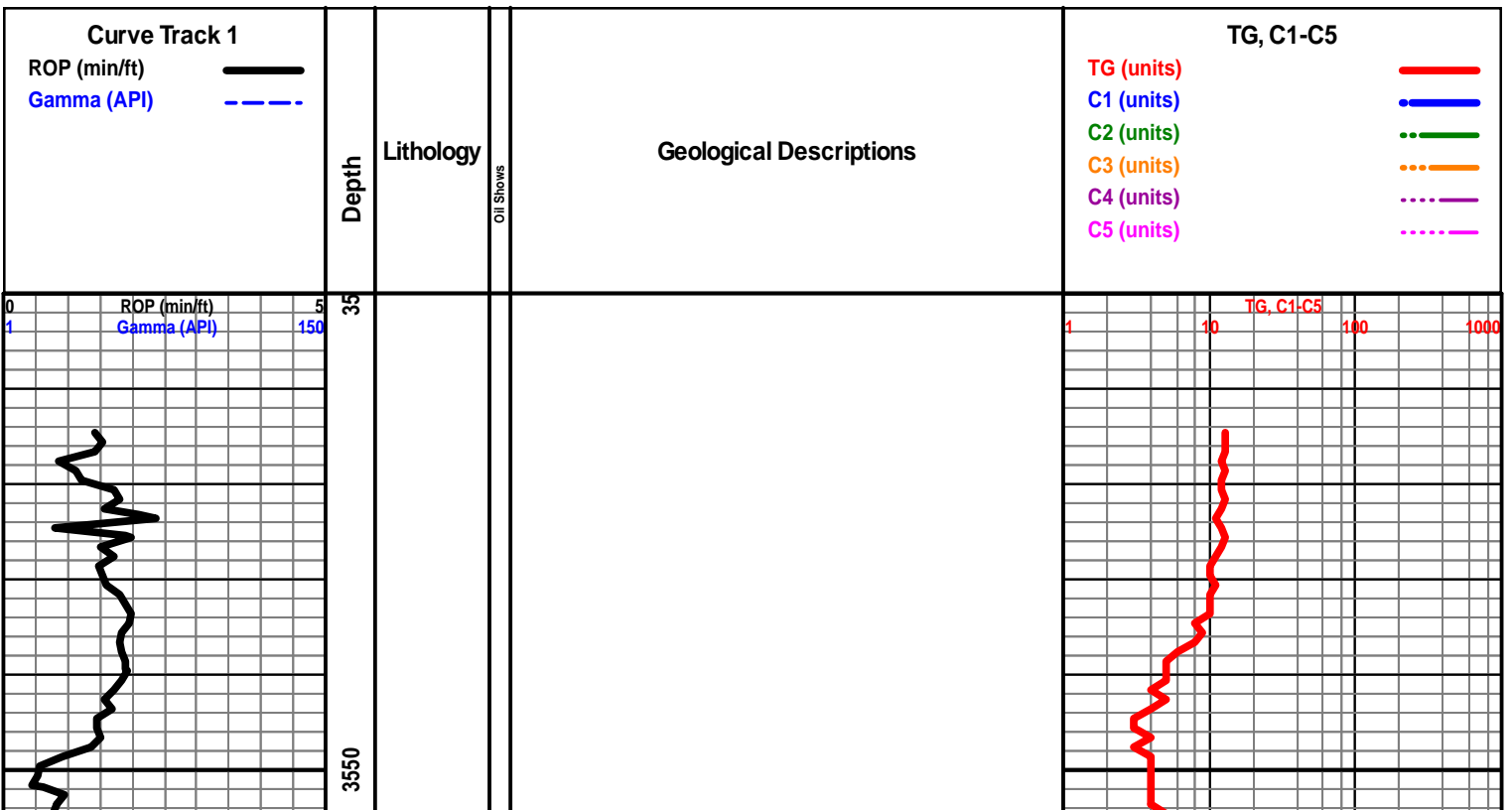
#### ROUNDING

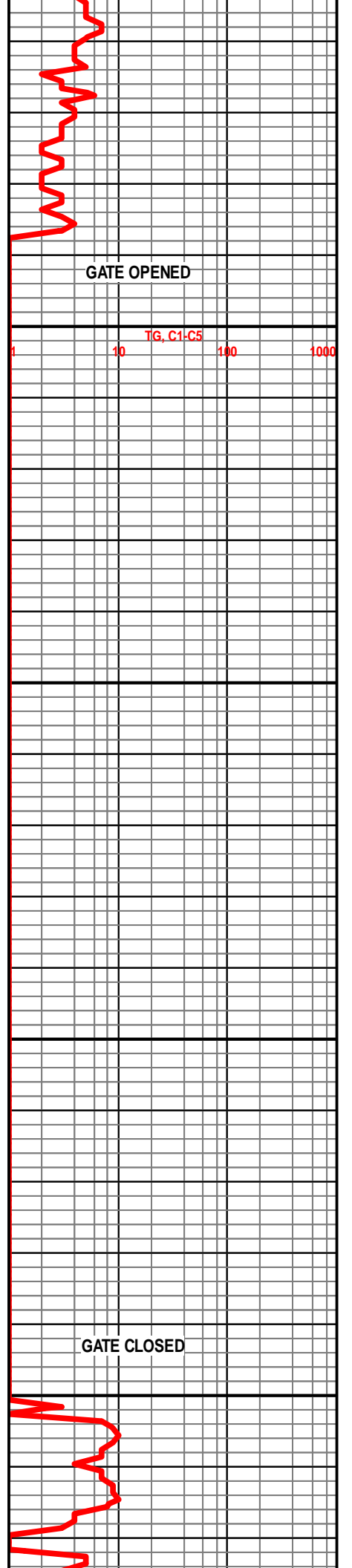
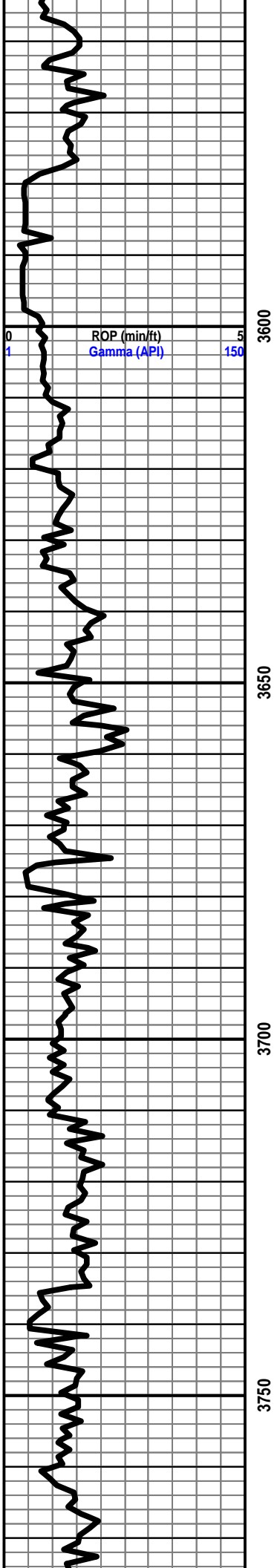
- Rounded
- Subrnd
- Subang

- Angular

#### OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

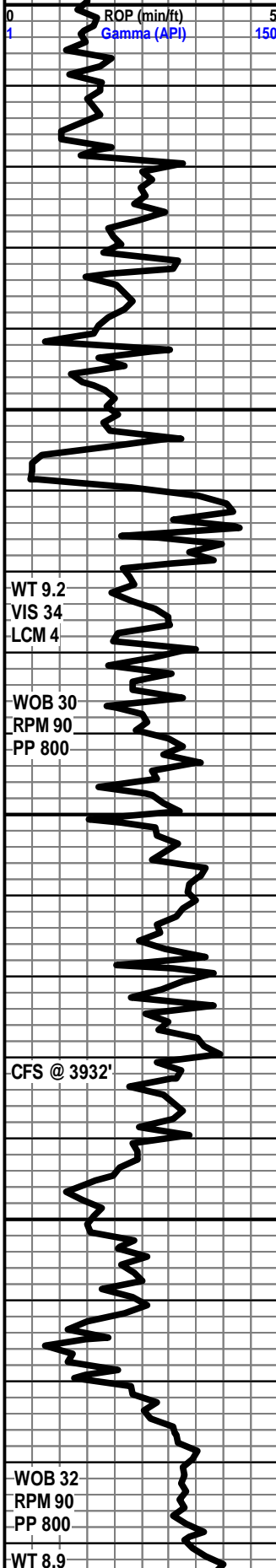




FORAKER 3631' - 432'

BIT #2 TRICONE  
HR / GX18  
SER. #S25081  
7 7/8"

ROP (min/ft)  
Gamma (API)



WT 9.2  
VIS 34  
LCM 4

WOB 30  
RPM 90  
PP 800

CFS @ 3932'

WOB 32  
RPM 90  
PP 800

WT 8.9

3800  
3850  
3900  
3950



START 24 HR MANNED UNIT MARCH 14, 2014

LS- CRM LT TN - HD DNS TO BRITT, MD-F-XLN, RE-XLN MTRX, IMBD FOSS FRGS SCAT THRU, HVY TR SFT WHT CHLK, TR TRNSLCNT ORNGE WHT MOTT CHRT, LT BRIT YEL MIN FLO SCAT THRU, NO VIS POR, NO VIS SHOW OR CUT

SH- RED LT RED- FRM IP SMTH TXT TO V/ SFT GMMY TXT

LS- CRM BFF LT TN- HD DNS TO BRITT IP, MD-XLN TO SUCRO IP, RE-XLN MTRX, TR SCAT IMBD FOSS FRGS IP, TR IMBD ORANGE CHRT IP, LT YEL MIN FLO SCAT IN 40%, NO VIS POR, NO VIS CUT OR SHOW

3896'-3901' LS- CRM LT TN TN ( DK TN TO BLK OIL STN SCAT THRU) TR TARRY OIL STN IP, HD DNS TO SLI BRITT IP, MD-F-XLN, RE-XLN MTRX, HVY TR SCAT IMBD FOSS FRGS THRU, SLI TR S-CHLKY IP, LT BRIT YEL MIN FLO SCAT IP TO DLL YEL FLO IN 40%, TR PR INTER-XLN MICRO PP POR IP, GD FLSH CUT IN 40%, GD SLO STRM CUT THRU, NO ODOR, DK TN LCH ON DISH

SH- RED - V. SFT SLTY TO GMMY TXT

**TOPEKA 3918' - 719'**

LS- WHT OFF WHT CRM, HD DNS IP TO BRITT, F-XLN TO SUCRO S-CHLKY IP, TR SCAT IMBD FOSS FRGS IP, V/ SLI TR GLAUC OR KAOL IP, TR ABDT FRM WHT CHLK, LT YEL MIN FLO SCAT IN 30%, NO VIS POR, NO VIS CUT OR SHOW

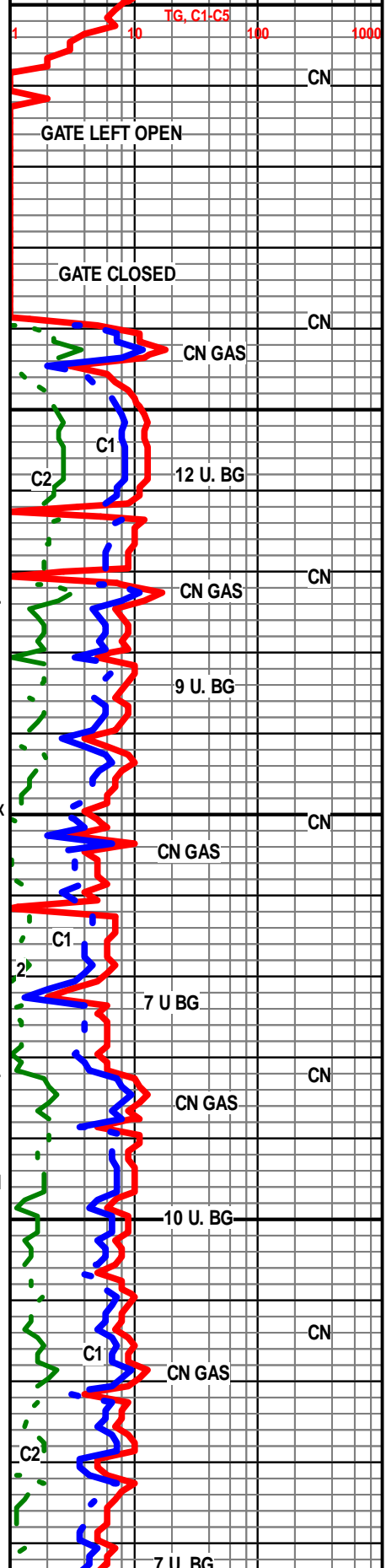
SH- RED - V/ SFT GMMY IP TO V/ SLTY TXT W/ GRN, FRM SMTH TXT

LS- CRM LT TN TN - HD DNS TO BRITT IP, MD-FXLN RE-XLN MTRX, V/ FOSS IP, TR IMBD CALC XLS, SCAT MICRO OOLMD IP, HVY TR ABDT SFT WHT CHLK IP, DLL YEL FLO SCAT THRU, PR SCAT VIS MICRO VUG POR IN 5%, SLI TR MICRO OOLMD POR IN 2%, NO VIS CUT OR SHOW

3970-3976' LS- CRM LT TN TN- HD DNS V/F-CRYPTO-XLN, FRLY NON DESCRIPT, LT YEL MIN FLO THRU, NO VIS POR, NO VIS SHOW

SH- LT GY TO DK GY- FRM BLKY SLTY TXT, V/ CALC TO LMY

TIG, C1-C5



GATE LEFT OPEN

GATE CLOSED

CN GAS

C1  
C2  
12 U. BG

CN GAS

9 U. BG

CN GAS

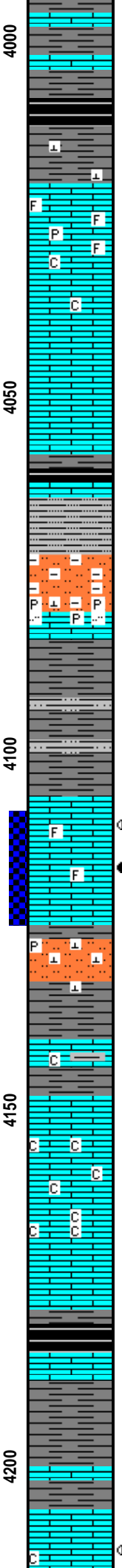
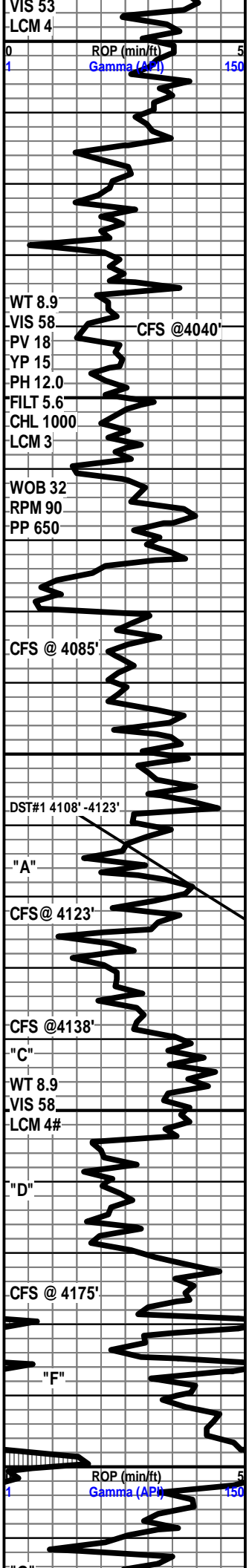
C1  
2'  
7 U. BG

CN GAS

10 U. BG

C1  
CN GAS

C2  
7 U. BG



SH & LS INTERBEDS- GY TO LT TN IP HD DNS TO BRITT, LMNTD AND DISS GY TO DK GY SH THRU, SLI TR SFT CHLK IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

SH- DK GY TO BLK - FRM BLKY CALC IP TO BLK SFT CARB

LS- OFF WHT CRM BFF- HF TO BRITT, MD-XLN TO SUCRO , RE-XLN MTRX IP, ABTD IMBD SMLL FOSS FRGS IP, SMLL CALC XLS IMBD THRU, TR LRG CALC XLS IMBD IP, HVY TR S-CHLKY IP, HVY TR DISS PYR IP, V/ DLL YEL FLO IN 10%, PR VIS MICRO VUG POR IN 1%, TR MICRO PP POR IP, NO VIS SHOW OR CUT

**HEEBNER 4059' - 860'**

SH- BLK SFT CARB

SH- LT GY TO LT GRN- FRM BLKY IP TO SFT SLTY TXT

4073' -4080' SLTST- WHT OFF WHT GRN- HD TO FRI- F-VF-GRN S-RND TO RND FRSTY TO CLR QRTZ GRNS, ABTD IMBD FNLY DISS LT GRN SH THRU, TR DISS PYR IP,BECOMING V/ CALC TO LMY W/ LMNTD PYR IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

4080' - 4085' LS-LT TN TN BRN- HD DNS TR BRITT, V/TT SUCRO MTRX W. IMBD VF-GRN QRTZ IP, IMBD DISS PYR IPGRDNG TO MD-F-XLN , NO FLO, NO VIS POR, NO VIS SHOW OR CUT

SH- RED GRN MOTT- FRM BLCKY, FRM IP TO SFT, V/ SLTY TXT

**LANSING 4107' - 908'**

LS- CRM LT TN DK TN BRN ( DUE TO TN DK TN , BLK OIL STN IN 70-80%) TR TAR STN SCAT THRU, HD DNS TO BRITT, MD-F-XLN, RE-XLN MTRX, SCAT IMBD FOSS FRGS IP, TR LRG CALC XLS IP, BRIT YEL GLD FLO IN 60%, DLL YEL GLD FLO IN 20%, PR TO FR SCAT VIS MICROVUG TO VUG POR IN 3-5 % , FR OIL ODOR, EXCEL INST FLSH CUT THRU, EXCEL SLO STRM CUT THRU, DK TN LCH ON DISH, LIVE OIL DROPS IN CUPS AND ON TRAY

SLTST- WHT TO FRSTY, V HD TO FRI IP, VF-GRNS RND CLR GRNS, V CALC, HVY TR IMBD DISS PYR, SLI TR IMBD GY SH, TR V DLL YEL FLO IP, NO VIS POR, NO VIS CUT OR SHOW

LS- WHT TO CRM, HD DNS, VF/F-XLN, RE-XLN IP, HVY TR IMBD RD SH THRU, TR SFT WHT CHLK, DLL YEL FLO, NO VIS POR, NO VIS CUT OR SHOW

**LANSING "D" 4149' (-950')**

LS- OFF WHT TO CRM LT TN, HD DNS TO SLI TR BRTT IP, VF/F-XLN, RE-XLN, ABTD SFT TO GMMYWHT CHLK THRU, HVY TR IMBD F/MD S-ANG TO S-RND QRTZ GRNS, YEL FLO IN 60%, FR TO PR VUG POR IN 3%, FR TO TR GD INTER-XLN POR IN 1%, NO VIS CUT OR SHOW

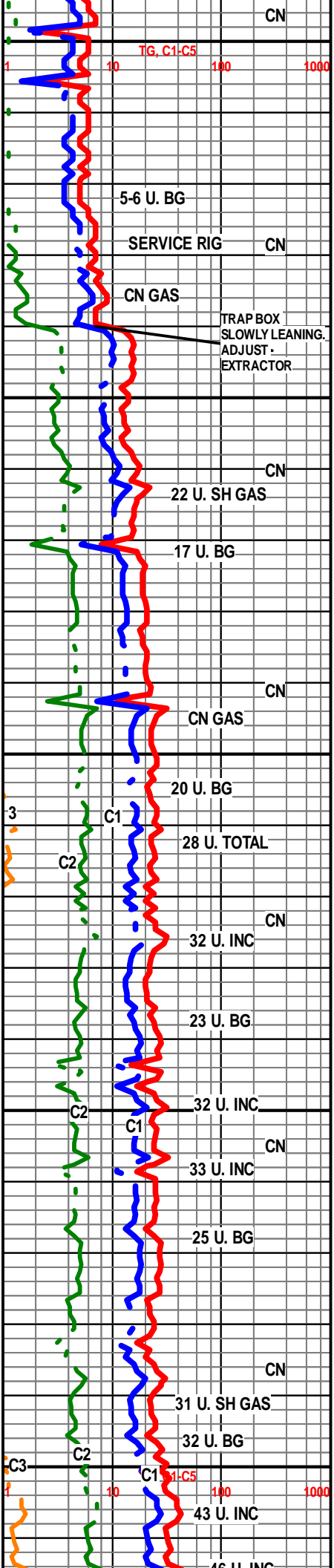
LS- CRM TO LT TN, V HD DNS, VF-XLN, CRYPTO-XLN IP, HVY TR SFT WHT CHLK, TR IMB F-GRNS S-ANG QRTZ GRNS, DLL YEL FLO IN 50%, NO VIS POR, NO VIS CUT OR SHOW

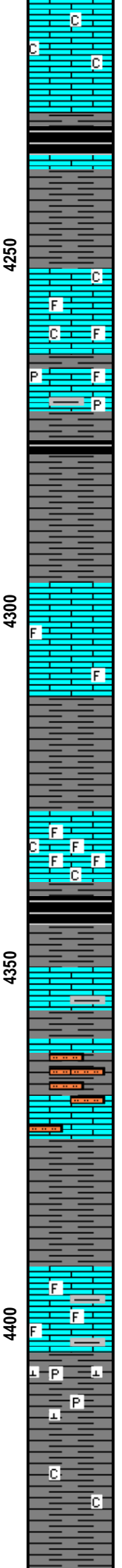
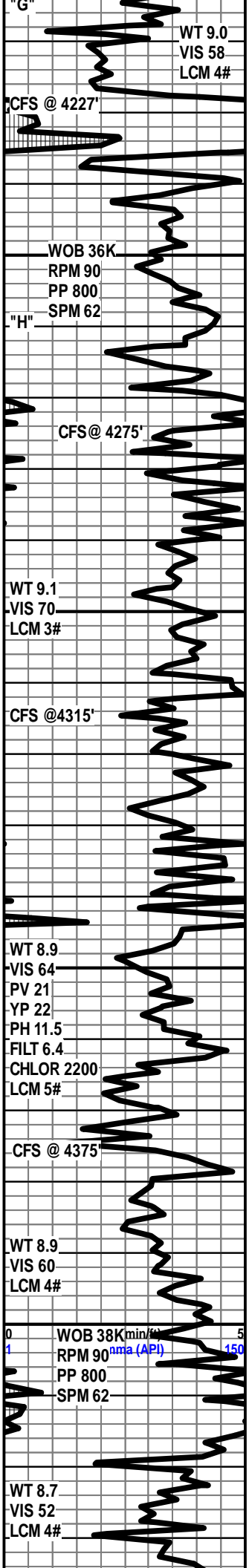
SH- BLK SFT CARB, IMBD DISS PYR IP

LS- TN TO DK TN, V HD DNS, VF-XLN, RE-XLN, HVY TR IMBD FOSS FRGS, TR FREE FOSS, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

**LANSING "G" 4206' (-1007')**

4210'-4212' LS- OFF WHT TO CRM (W/ DK BRN OIL STN IN 10%), HD DNS TO SLI TR BRTT IP, F/MD-XLN, S-SUCRO,





TR IMBD SFT WHT CHLK IP, SLI TR IMBD FOSS FRGS, DLL YEL FLO IN 15%, TR PR INTER-XLN POR IP, GD FLSH CUT, GD SLW STRM IN 15%, NO LCH ON DSH, NO OIL ODOR (2 ROCKS)

SH- BLK SFT CARB, HVY TR PYR

SH- GY TO DK GY, FRM TO SFT, BLCKY, SLTY TXT, GRN CLY

LS- CRM TO LT TN OFF WHT IP, HD DNS TO TR BRTT IP, VF/F-XLN, S-SUCRO IP, TR IMBD FOSS FRGS IP, TR SFT WHT CHLK, DLL YEL FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO LT TN, HD DNS, VF-XLN, S-CHLKY, TR IMBD DISS PYR, TR IMBD GY SH, SLI TR IMBD SM FOSS FRGS IP, V DLL YEL TO YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

SH- RD TO DK RD GRN GY MOTT, SFT TO FRM, SLTY TXT

**LANSING "J" 4296' (-1097')**

LS- OFF WHT TO CRM, HD DNS, VF/F-XLN, RE-XLN IP, SCAT IMBD CALC-XLS, TR IMBD FOSS FRGS IP, DLL YEL MIN FLO IN 30%, NO VIS POR. NO VIS CUT OR SHOW

SH- RD TO BRN GRN MOTT, FRM TO GMMY, SLTY TXT

LS- OFF WHT TO CRM LT TN IP, HD DNS, VF/F-XLN, RE-XLN IP, HVY TR IMBD SM FOSS FRGS, TR SFT WHT CHLK IN TRAY, DLL YEL TO YEL FLO IN 50%, NO VIS POR, NO VIS CUT OR SHOW

SH- BLK SFT CARB, W/DK GY TO MD GY, FRM TO SFT IP, BLCKY, SMTH TXT

LS- OFF WHT TO WHT CRM IP, HD DNS, VF/F-XLN, S-CHLKY, TR IMBD GRN SH, SLI TR SCAT IMBD F-GRN RND CLR QRTZ GRNS, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

**BKC 4355' (-1156')**

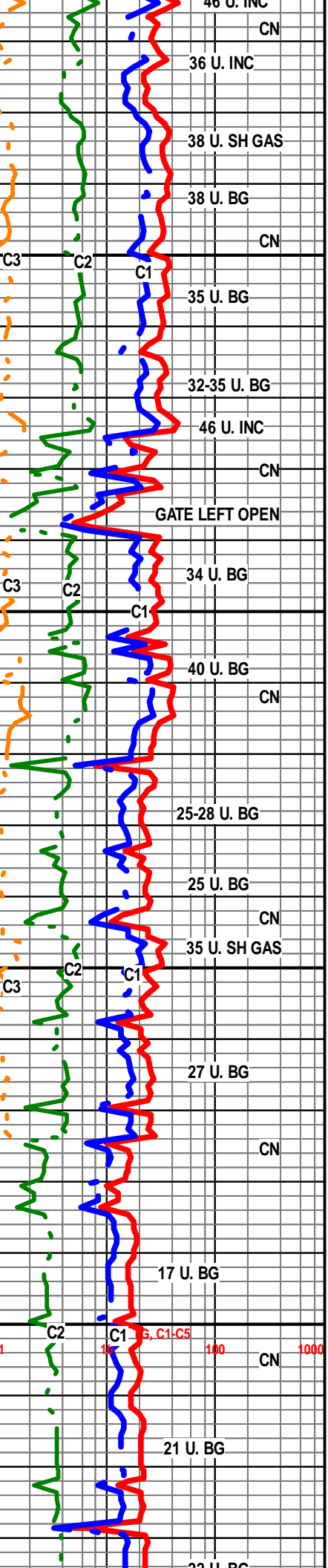
LS- CRM TO OFF WHT, HD DNS, VF/F-XLN, RE-XLN IP, SCAT IMBD VF-GRNS S-RND CLR QRTZ GRNS, TR INTER-BD SLTST, NO VIS FLO, NO VIS POR, NO VIS SHOW

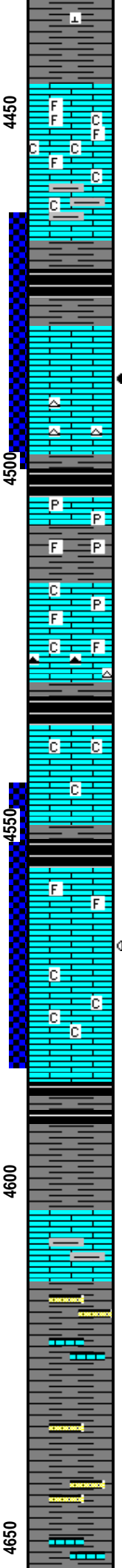
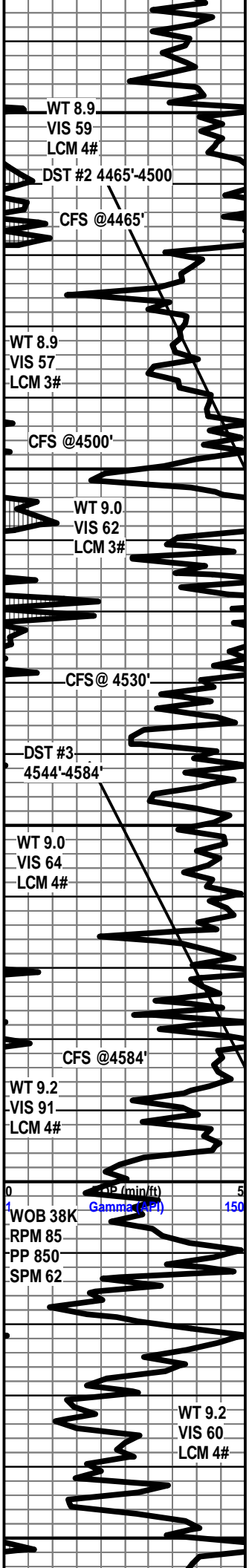
SH- RD TO ORNG GY MOTT, FRM TO SFT, BLCKY SLTY TXT, CALC-IP

LS- CRM TO OFF WHT LT GY IP, HD DNS TO BRTT, F-XLN, RE-XLN, HVY TR IMBD FOSS FRGS, TR IMBD RD SH, DLL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

SH- MD TO DK GY RD, FRM TO SFT, BLCKY SLTY TXT, V CALC, TR PYR CLSTRS

SH- GY PRP BRN MOTT, FRM TO SFT, BLCKY, GRNY TXT, TR SFT WHT CHLK





SH- RD TO DK FRM TO SFT, BLCKY, V SLTY TXT, CALC-IP

LS- CRM TO OFF WHT GY IP, HD DNS TO BRTT IP, MD/F-XLN, RE-XLN, S-CHLKY, HVY TR IMBD FOSS FRGS, TR IMBD SFT WHT CHLK, IMBD GY SH IP, V DLL YEL FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

**LABETTE SHALE 4469' (1270')**

4485'-4487' LS- OFF WHT TO CRM (W/ DK TN TO BRN OIL STN IN 30%-40%), HD DNS TO TR BRTT, MD/F-XLN, V SUCRO, RE-XLN IP, IMBD VF-GRNS THRU, SLI TR WHT CHRT IN TRAY, DLL YEL FLO IN 50%, YEL GLD FLO IN 10%, FR TO TR PR INTER-XLN POR IN 2%, PR TO FR VUG POR IN 1%, TR PR MICRO-VUG POR IP, FR FLW CUT, GD SLW STRM IN 60%, TN LCH ON DSH, NO OIL ODOR, LIVE OIL DROPS IN SAMPLE CUP

LS- TN TO LT TN GY IP, HD DNS, F-XLN, V RE-XLN, HVY TR IMBD F/MD-GRNS S-ANG QRTZ GRNS, SCAT IMBD PYR IP, TR IMBD SH, V DLL YEL FLO IN 5%, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO OFF WHT, HD DNS TO SLI TR BRTT IP, VF/F-XLN, S-CHLKY IP, TR IMBD FOSS FRGS IP, TR CLR TO FRSTY WHT TRANS CHRT, SLI TR IMBD DISS PYR, DLL YEL FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

**FORT SCOTT 4535' (-1336')**

LS- CRM TO OFF WHT, V HD DNS, VF/F-XLN, RE-XLN IP, TR IMBD CALC-XLS, TR SFT WHT CHLK, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

**CHEROKEE 4556' (-1357')**

4568'-4572' LS- TN TO LT TN (W/ BLK OIL STN IN 20%-30%), HD DNS, VF/F-XLN, S-SUCRO IP, IMBD F-GRNS CLR S-ANG CLR QRTZ GRNS IP, SLI TR IMBD SFT WHT CHLK IP, DLL YEL FLO IN 30%, SPTTD BRT YEL GLD FLO IN 5%, PR TO FR INTER-XLN POR IN 4%, TR GD INTER-XLN POR IP, SCAT FR TO PR MICRO-VUG POR IN 1%, GD FLW CUT, GD SLW STRM IN 50%, DK BRN LCH ON DSH, NO OIL ODOR

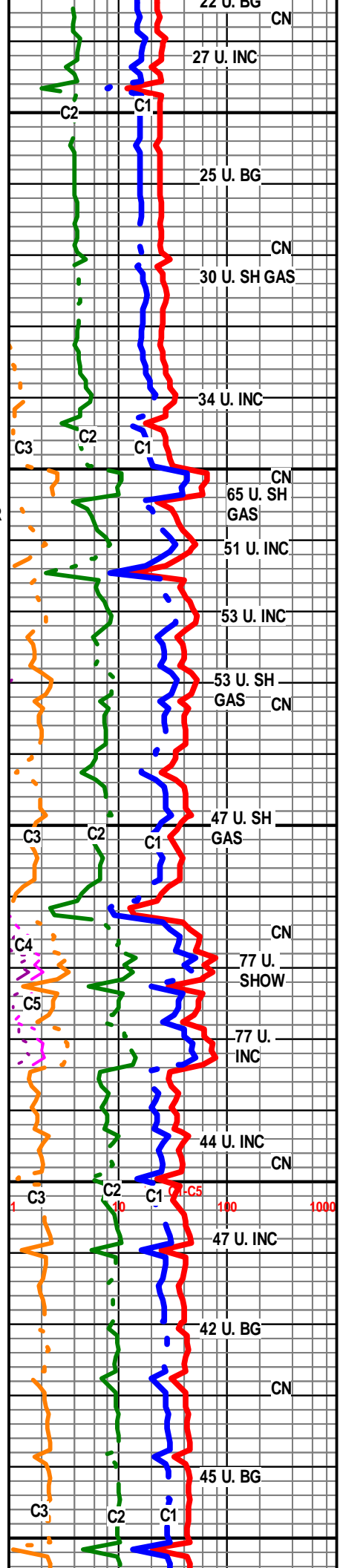
SH- GY TO DK GY PRP RD GRN MOTT, SFT TO FRM IP, SLTY TXT, TR PYR CLSTRS

LS- OFF WHT TO WHT, HD DNS, VF-XLN, RE-XLN MTRX, IMBD F/MD-GRNS S-ANG TO S-RND CLR QRTZ GRNS, TR IMBD RD & GRN SH, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- RD TO DK RD GRN, SFT TO FRM IP, SLTY TXT, ABDT PRED UNCONSOLIDATED QRTZ GRNS, LG S-RND GRNS

SH- RD TO DK RD GRN GY PRP MOTT, FRM TO SFT, BLCKY, SLTY TXT, TR PRED UNCONSOLIDATED QRTZ GRNS

SH- RD TO DK RD GRN, FRM TO SFT, HVY TR INTER-BD LS, TR PRED UNCONSOLIDATED QRTZ GRNS



WT 9.2  
VIS 58  
LCM 4#

R.T.D. @ 4680'

SHORT TRIP  
10 STANDS

C.T.C.H. 1.5 HRS

4700

P

SH- RD TO PRP, FRM TO SFT IP, V GRNY TXT, IMBD  
VF/F-GRNS RND CLR QRTZ GRNS, TR IMBD DISS PYR

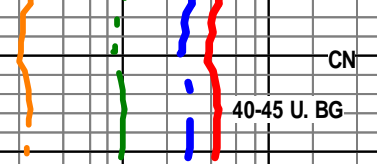
SS- CLR TO FRST RD IP, HD TT, VF/F-GRNS QRTZ, S-ANG  
TO S-RND GRNS, SIL CMNT, FR SRT, TR IMBD RD SH, TR  
IMBD GRN CLY, NO VIS FLO, NO VIS POR, NO VIS CUT  
OR SHOW

R.T.D. @ 8:00 P.M. 3/19/15

DROP SURVEY

T.O.F.L. @ 10:15 P.M. 3/19/15

WEATHERFORD/ LIBERAL, KS



R.T.D. @ 4680'

SAMPLES WILL BE DELIVERED TO KGS

THANK YOU FOR CHOOSING EARTH TECH

LOGGED BY: SCHUYLER HEDRICK