

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1243524
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: _____

1243524

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	JACOBS TRUST ET AL 1-9
Doc ID	1243524

All Electric Logs Run

DEN-NEUT
INDUCTION
MICRO
SONIC
SPECTRAL

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 786

Date	11-3-14	Sec.	9	Twp.	5	Range	22	County	Norton	State	KS	On Location	9.00 pm	Finish	11.00 pm
								Location	Edmond 3/4 E Ninto						

Lease: Jacobs Trust et al Well No. 1-9

Contractor: Discovery 4

Type Job: Surface

Hole Size: 12 1/4 T.D.: S3C

Csg. 8 5/8 Depth

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 20 ft Shoe Joint 20 ft

Meas Line Displace 32.3/4 BBL

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To: Sam Gary Jr, Assoc.

Street

City

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 300 Com

30% CC 20% gel 1/2 flow

EQUIPMENT

Pumptrk	20	No.	Cementer	<u>Mit</u>
			Helper	
Bulktrk	21	No.	Driver	<u>Nick</u>
			Driver	
Bulktrk	<u>pu</u>	No.	Driver	<u>Yson</u>
			Driver	

Common 300

Poz. Mix

Gel. 6

Calcium 11

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers # 1

Baskets

D/V or Port Collar

Cement did Circulate

Signature: Nick [unclear]

Hulls

Salt

Flowseal

Kol-Seal

Mud CLR 48

CFL-117 or CD110 CAF 38

Sand

Handling 317

Mileage 8 5/8

FLOAT EQUIPMENT

Guide Shoe

Centralizer 1

Baskets

AFU Inserts

Float Shoe

Latch Down

Baffle plate

Rubber plug

Pumptrk Charge Long Surface

Mileage 50

Tax

Discount

Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 885

Date	11-18-14	Sec.	9	Twp.	5	Range	22	County	Norton	State	Ks	On Location		Finish	7:45pm
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Lease: Jacobs Trust ET AL
Well No. 1-9
Location: Edmond, Ks - 3/4 E N 4th

Contractor	Discoverly	4	Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
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Type Job	Longstring	Charge To	Samuel Gary Jr. & Associates
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Hole Size	7 7/8"	T.D.	3686'	Street	
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Csg.	15.50" 5 1/2" New	Depth	3681.27'	City		State	
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Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
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Tool		Depth		Cement Amount Ordered	450 QMBC 1/2 # Flowseal, 150 Q Pro C
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Cement Left in Csg.	30.33'	Shoe Joint	30.33'	Meas Line	Displace	86 3/4 BLS	1/2 # Flowseal - 500 gal mud Clear 48 20 BLS KCL
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EQUIPMENT				Common	150 QMBC 3/8 CD 110, 25% CAF 38, 1.8% CFL 117
Pumptrk	16	No.	Cementer	Poz. Mix	450 QMBC
			Helper	Get.	CD 110 94#
Bulktrk	21	No.	Driver	Calcium	
			Driver		
Bulktrk	9	No.	Driver		
			Driver		

JOB SERVICES & REMARKS				Hulls	
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Remarks:		Salt	13
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Rat Hole		Flowseal	300#
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Mouse Hole		Kol-Seal	750#
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Centralizers	1, 3, 5, 7, 9, 11, 13	Mud CLR 48	500 gal
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Baskets	2, 45, 55, 65	CFL-117 or CD110, CAF 38	50#
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D/V or Port Collar	pipe on bottom break	Sand	154
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Circulation pump	500 gal mud Clear	Handling	621
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48 plug	Bottom hole w/ 30 sv, plug Marshall	Mileage	
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w/ 15 sv	Hook to 5 1/2" casing + mix	FLOAT EQUIPMENT	
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Cement	405 QMBC 1/2 # Flowseal, 150	Guide Shoe	
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5x Q Pro C	1/2 # Flowseal shut down	Centralizer	7 turbis
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wash pump + lines	Released plug +	Baskets	3 Blue 1 Red
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Displaced	w/ 20 BLS KCL water 66 3/4	AFU Inserts	
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BLS water	86 3/4 BLS total.	Float Shoe	1
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Released + held		Latch Down	1
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Lift pressure	1200 #	Rotating head Assembly	
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Land plug to	1750 #	Pumptrk Charge	prod string
		Mileage	50

X Signature 

Tax
Discount
Total Charge



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60779

DST#: 1

ATTN: Dan Pritchard

Test Start: 2014.11.06 @ 22:51:00

GENERAL INFORMATION:

Formation: **Platismouth**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:41:15

Time Test Ended: 06:09:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: 3238.00 ft (KB) To 3293.00 ft (KB) (TVD)

Reference Elevations: 2179.00 ft (KB)

Total Depth: 3293.00 ft (KB) (TVD)

2171.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8791 Inside

Press @ Run Depth: 137.68 psig @ 3239.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.06

End Date:

2014.11.07

Last Calib.:

2014.11.07

Start Time:

22:51:05

End Time:

06:09:29

Time On Btm:

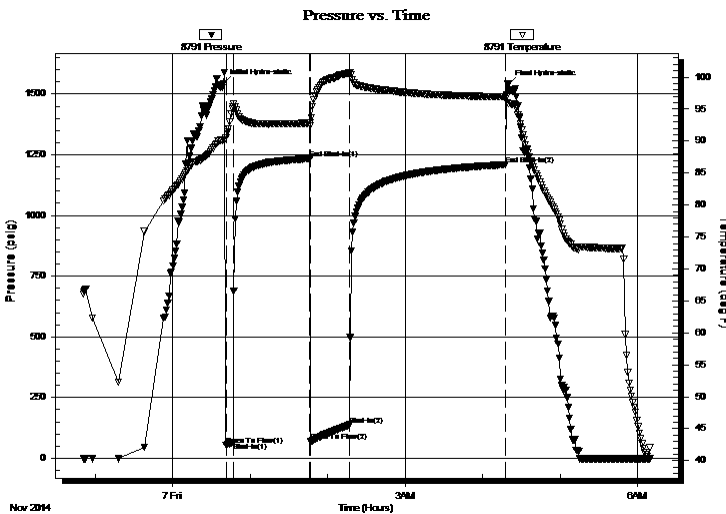
2014.11.07 @ 00:39:15

Time Off Btm:

2014.11.07 @ 04:19:30

TEST COMMENT: 5 - IF: 6" surge blow at open, built to 8 3/4"
60 - IS: No blow back
30 - FF: Blow built to 9 1/4"
120 - FS: No blow back

PRESSURE SUMMARY



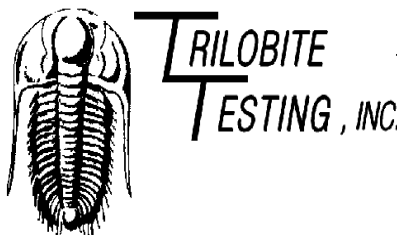
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1541.58	90.17	Initial Hydro-static
2	52.98	90.53	Open To Flow (1)
8	65.94	95.42	Shut-In(1)
67	1233.70	92.85	End Shut-In(1)
68	69.94	92.38	Open To Flow (2)
98	137.68	100.66	Shut-In(2)
219	1209.01	96.94	End Shut-In(2)
221	1538.48	95.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
194.00	MCW 90%w, 10%m	2.44
62.00	SWCM 96%m, 4%w	0.87
4.00	Mud 100%	0.06

Gas Rates

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



DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60779

DST#: 1

ATTN: Dan Pritchard

Test Start: 2014.11.06 @ 22:51:00

GENERAL INFORMATION:

Formation: **Platismouth**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:41:15

Time Test Ended: 06:09:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **3238.00 ft (KB) To 3293.00 ft (KB) (TVD)**

Reference Elevations: 2179.00 ft (KB)

Total Depth: 3293.00 ft (KB) (TVD)

2171.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **8320** Outside

Press @RunDepth: psig @ 3239.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.06

End Date: 2014.11.07

Last Calib.: 2014.11.07

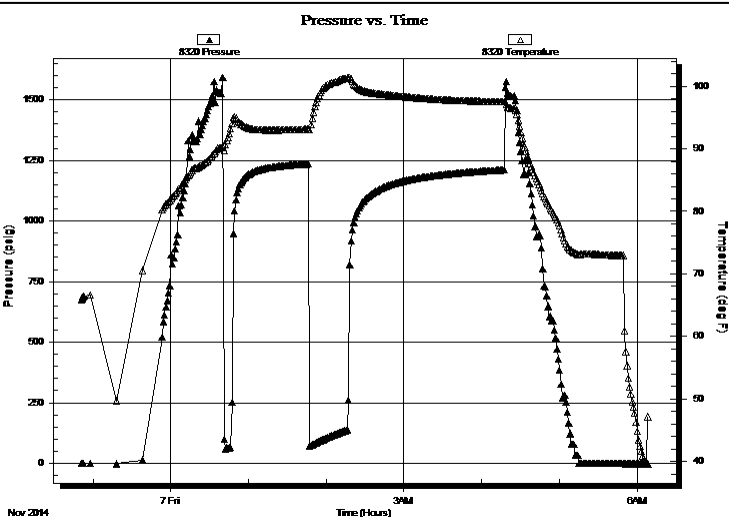
Start Time: 22:51:05

End Time: 06:08:14

Time On Btm:

Time Off Btm:

TEST COMMENT: 5 - IF: 6" surge blow at open, built to 8 3/4"
60 - IS: No blow back
30 - FF: Blow built to 9 1/4"
120 - FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
194.00	MCW 90%w, 10%m	2.44
62.00	SWCM 96%m, 4%w	0.87
4.00	Mud 100%	0.06

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

ATTN: Dan Pritchard

Job Ticket: 60779

DST#: 1

Test Start: 2014.11.06 @ 22:51:00

GENERAL INFORMATION:

Formation: **Platismouth**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:41:15

Time Test Ended: 06:09:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **3238.00 ft (KB) To 3293.00 ft (KB) (TVD)**

Reference Elevations: 2179.00 ft (KB)

Total Depth: 3293.00 ft (KB) (TVD)

2171.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8366 Fluid

Press @ Run Depth: psig @ 3203.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.06

End Date:

2014.11.07

Last Calib.:

2014.11.07

Start Time:

22:51:05

End Time:

06:06:59

Time On Btm:

Time Off Btm:

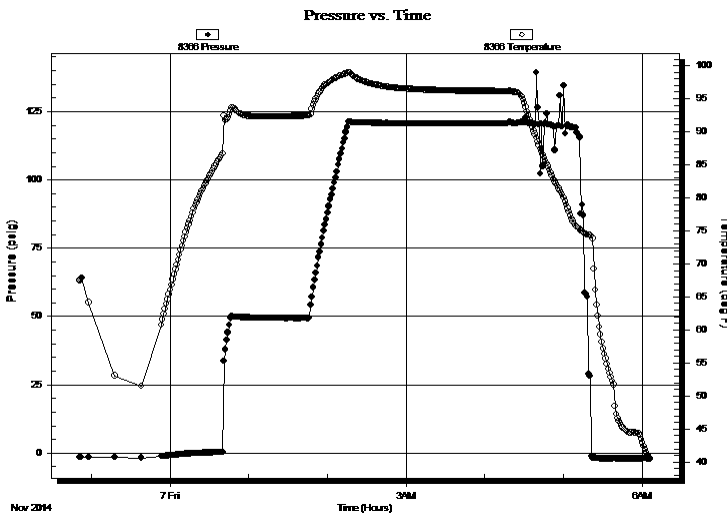
TEST COMMENT: 5 - IF: 6" surge blow at open, built to 8 3/4"

60 - IS: No blow back

30 - FF: Blow built to 9 1/4"

120 - FS: No blow back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
194.00	MCW 90%w, 10%m	2.44
62.00	SWCM 96%m, 4%w	0.87
4.00	Mud 100%	0.06

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60779

DST#: 1

ATTN: Dan Pritchard

Test Start: 2014.11.06 @ 22:51:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

50000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
194.00	MCW 90%w , 10%m	2.439
62.00	SWCM 96%m, 4%w	0.870
4.00	Mud 100%	0.056

Total Length: 260.00 ft Total Volume: 3.365 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

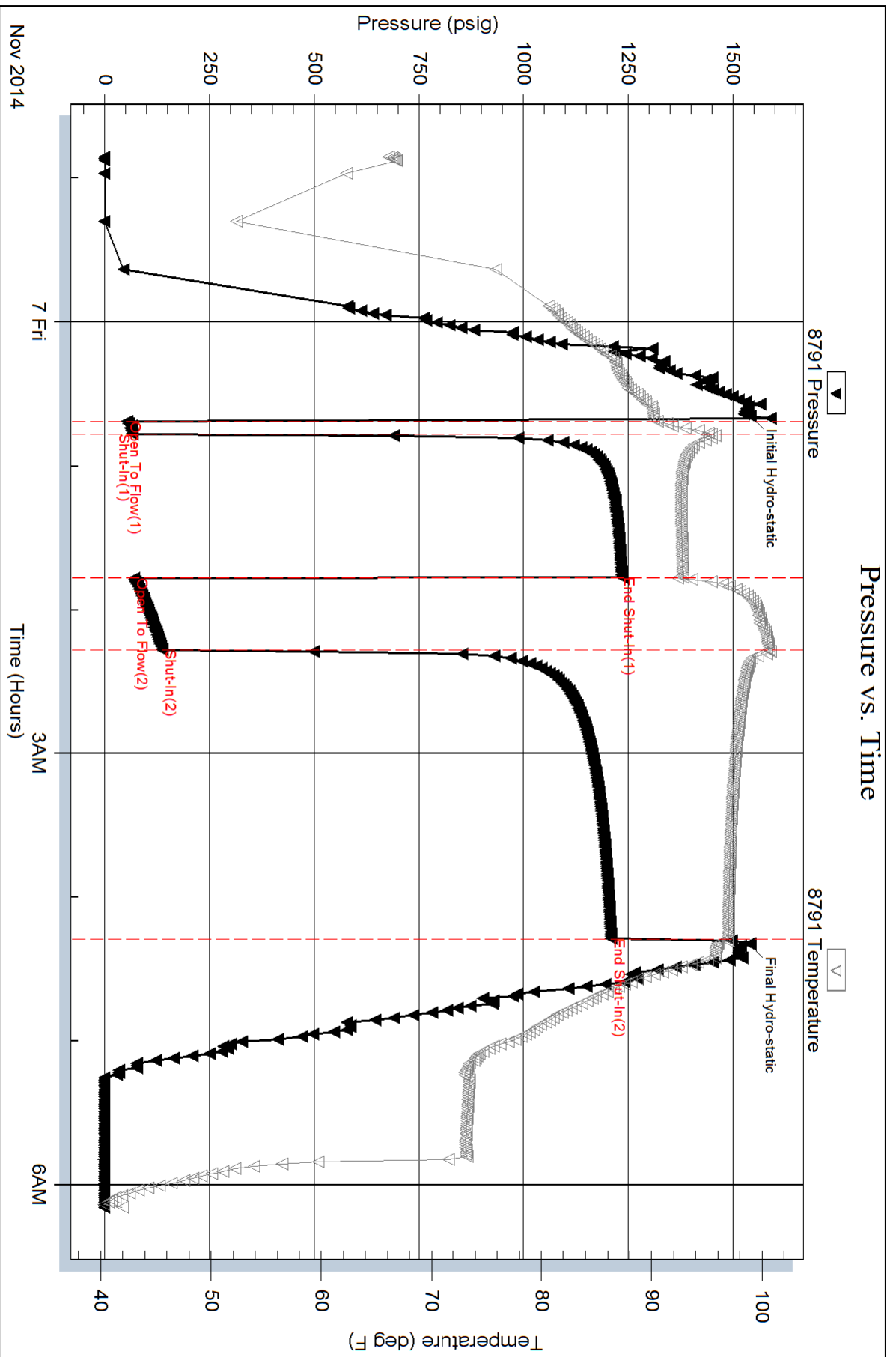
Serial #:

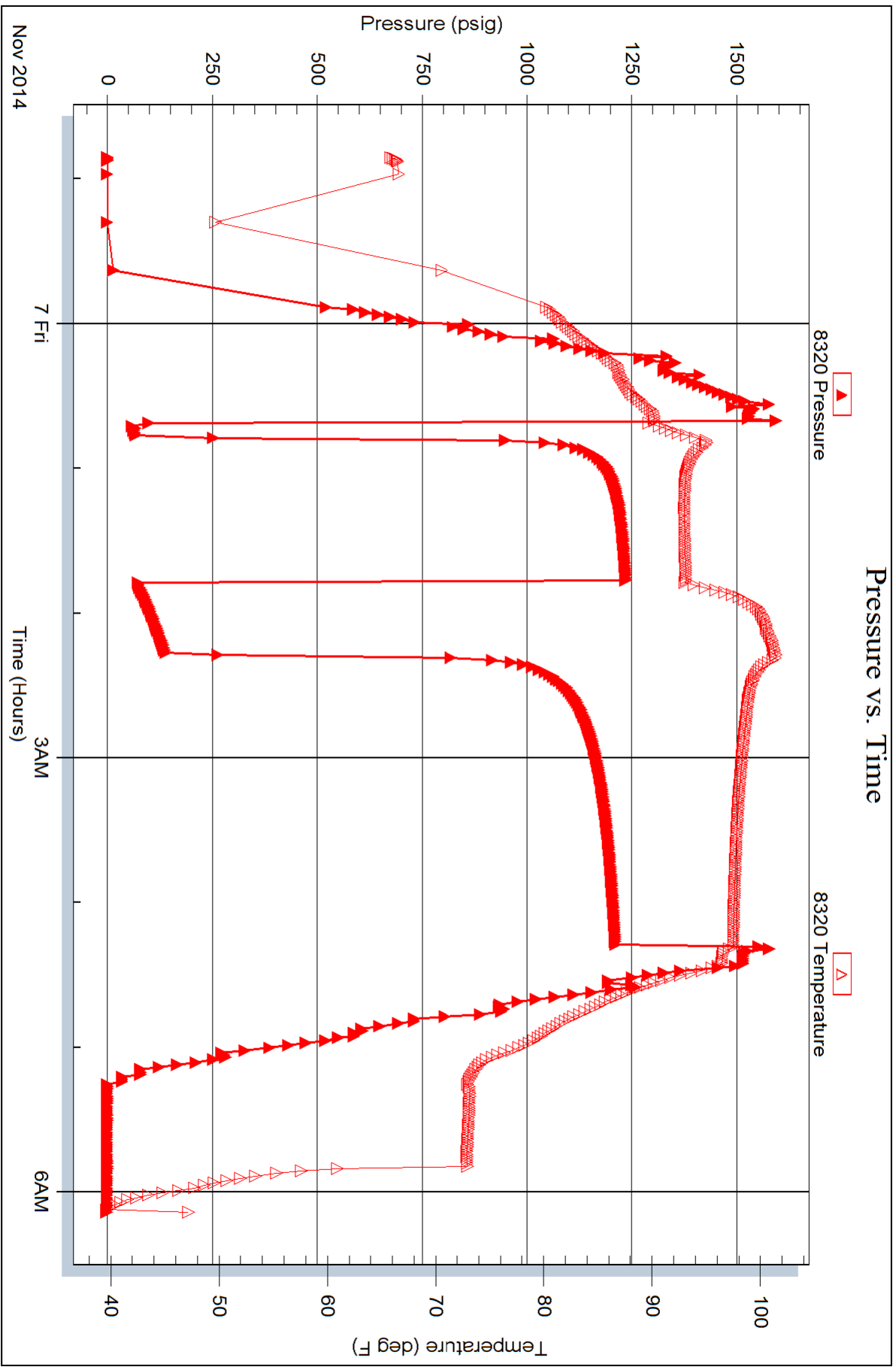
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .243 ohms @ 48 deg F Chlorides = 46,000 ppm

Sampler = 480 PSI, 2400 mL SMCW 98%w , 2%m, RW = .211 ohms @ 49.4 deg F Chlorides = 50,000 ppm





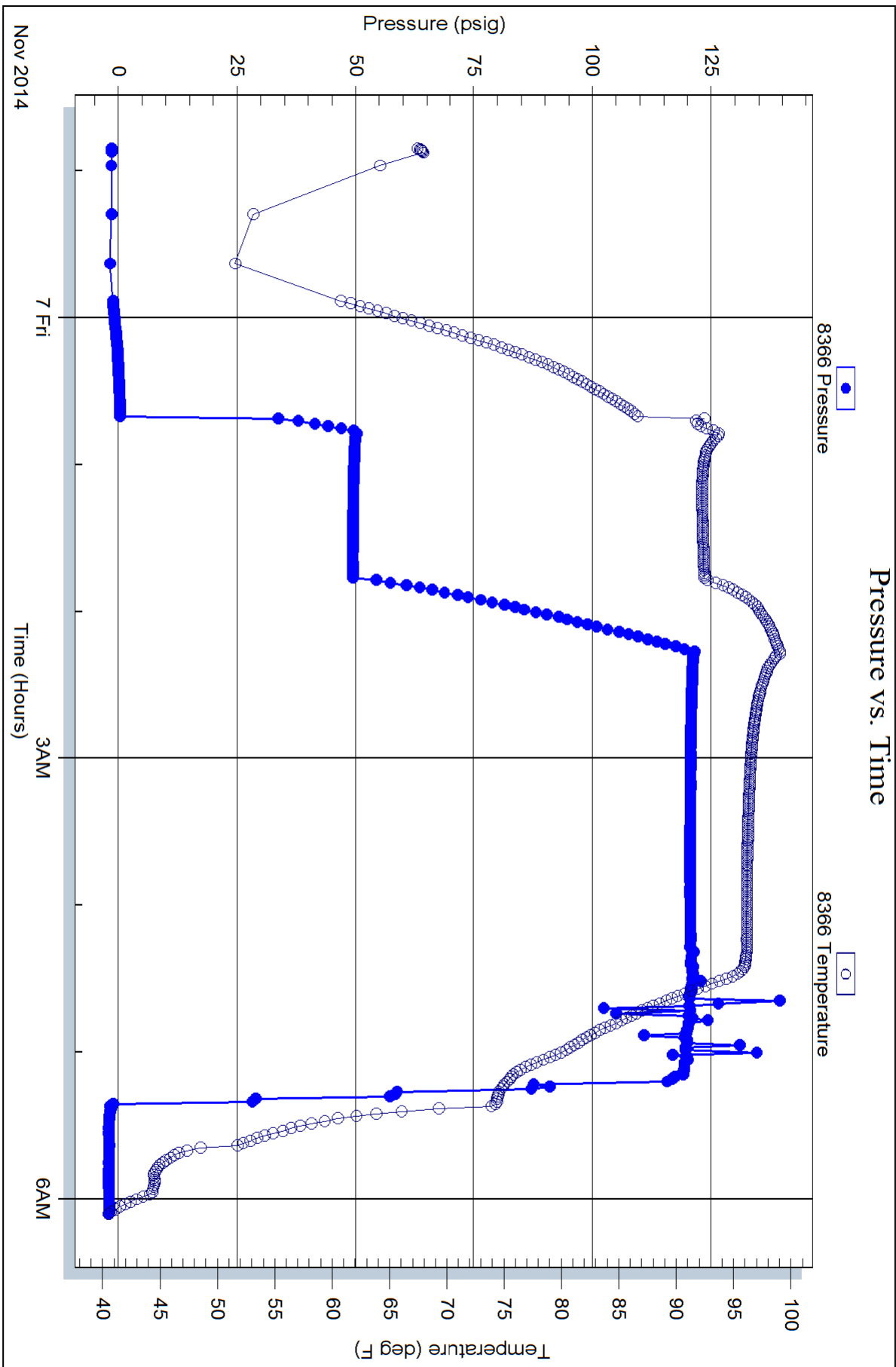
Serial #: 8366

Fluid

Samuel Gary Jr. & Associates

Jacobs Trust#1-9

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

ATTN: Dan Pritchard

Job Ticket: 60780

DST#: 2

Test Start: 2014.11.07 @ 14:11:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:59:15

Time Test Ended: 22:41:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3288.00 ft (KB) To 3341.00 ft (KB) (TVD)

Reference Elevations: 2179.00 ft (KB)

Total Depth: 3341.00 ft (KB) (TVD)

2171.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8791 Inside

Press @ RunDepth: 94.72 psig @ 3289.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.07 End Date: 2014.11.07

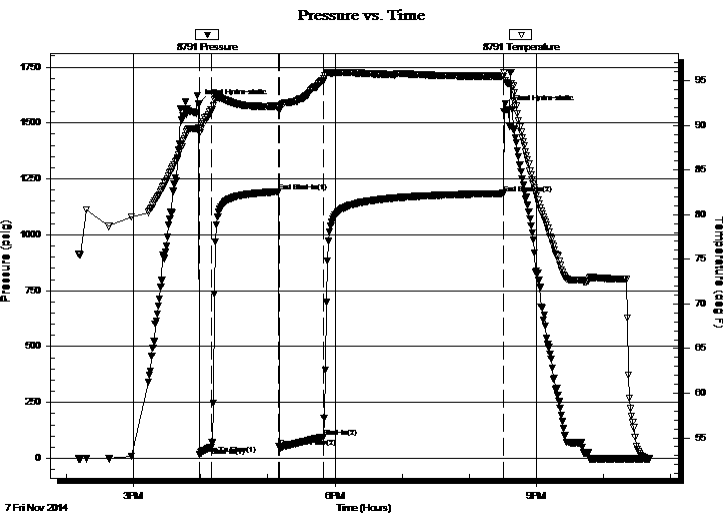
Last Calib.: 2014.11.07

Start Time: 14:11:05 End Time: 22:41:44

Time On Btm: 2014.11.07 @ 15:58:15

Time Off Btm: 2014.11.07 @ 20:33:15

TEST COMMENT: 10 - IF: 1/4" Blow at open, built to 4"
60 - IS: No blow back
40 - FF: 1/2" Blow at open, built to 9 1/2"
160 - FS: Surface blow back, dead at 25 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1584.90	89.73	Initial Hydro-static
1	17.45	89.18	Open To Flow (1)
11	49.75	91.69	Shut-In(1)
71	1192.86	92.15	End Shut-In(1)
72	51.88	91.69	Open To Flow (2)
111	94.72	94.92	Shut-In(2)
272	1185.19	95.48	End Shut-In(2)
275	1559.89	94.80	Final Hydro-static

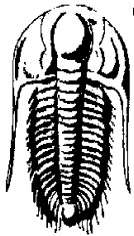
Recovery

Length (ft)	Description	Volume (bbl)
68.00	SO/MCW 67%w, 30%m, 3%o	0.67
62.00	WOCM 55%m, 22%o, 18%w, 5%g	0.87
30.00	SW/MCO 60%o, 32%m, 8%w	0.42
25.00	SMCO 94%o, 4%m, 2%g	0.35
0.00	GIP = 70'	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60780

DST#: 2

ATTN: Dan Pritchard

Test Start: 2014.11.07 @ 14:11:00

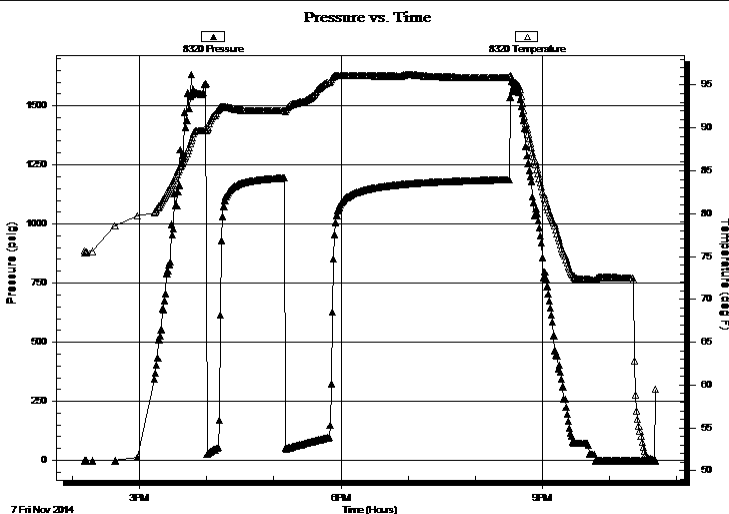
GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:59:15
 Time Test Ended: 22:41:45
 Interval: **3288.00 ft (KB) To 3341.00 ft (KB) (TVD)**
 Total Depth: 3341.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Reference Elevations: 2179.00 ft (KB)
 2171.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8320 Outside

Press @ Run Depth: psig @ 3289.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.11.07 End Date: 2014.11.07 Last Calib.: 2014.11.07
 Start Time: 14:11:05 End Time: 22:41:14 Time On Btm:
 Time Off Btm:

TEST COMMENT: 10 - IF: 1/4" Blow at open, built to 4"
 60 - IS: No blow back
 40 - FF: 1/2" Blow at open, built to 9 1/2"
 160 - FSI: Surface blow back, dead at 25 min.



PRESSURE SUMMARY

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

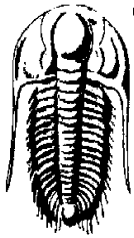
Recovery

Length (ft)	Description	Volume (bbl)
68.00	SO/MCW 67%w , 30% m, 3% o	0.67
62.00	WOCM 55% m, 22% o, 18% w , 5% g	0.87
30.00	SW/MCO 60% o, 32% m, 8% w	0.42
25.00	SMCO 94% o, 4% m, 2% g	0.35
0.00	GIP = 70'	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

1515 Wynkoop St. STE 700
Denver, CO 80202

ATTN: Dan Pritchard

9/5s/22w Norton KS

Jacobs Trust #1-9

Job Ticket: 60780

DST#: 2

Test Start: 2014.11.07 @ 14:11:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:59:15

Time Test Ended: 22:41:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3288.00 ft (KB) To 3341.00 ft (KB) (TVD)

Total Depth: 3341.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2179.00 ft (KB)

2171.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8366 Fluid

Press @RunDepth: psig @ 3253.00 ft (KB)

Start Date: 2014.11.07

End Date: 2014.11.07

Start Time: 14:11:05

End Time: 22:39:14

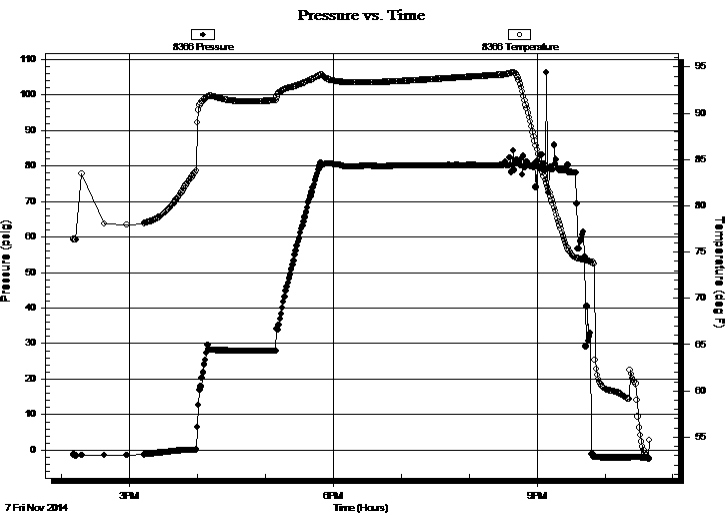
Capacity: 8000.00 psig

Last Calib.: 2014.11.07

Time On Btm:

Time Off Btm:

TEST COMMENT: 10 - IF: 1/4" Blow at open, built to 4"
60 - IS: No blow back
40 - FF: 1/2" Blow at open, built to 9 1/2"
160 - FS: Surface blow back, dead at 25 min.



7 Fri Nov 2014

PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
68.00	SO/MCW 67%w , 30%m, 3%o	0.67
62.00	WOCM 55%m, 22%o, 18%w , 5%g	0.87
30.00	SW/MCO 60%o, 32%m, 8%w	0.42
25.00	SMCO 94%o, 4%m, 2%g	0.35
0.00	GIP = 70'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60780

DST#: 2

ATTN: Dan Pritchard

Test Start: 2014.11.07 @ 14:11:00

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: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
68.00	SO/MCW 67%w , 30%m, 3%o	0.671
62.00	WOCM 55%m, 22%o, 18%w , 5%g	0.870
30.00	SW/MCO 60%o, 32%m, 8%w	0.421
25.00	SMCO 94%o, 4%m, 2%g	0.351
0.00	GIP = 70'	0.000

Total Length: 185.00 ft Total Volume: 2.313 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

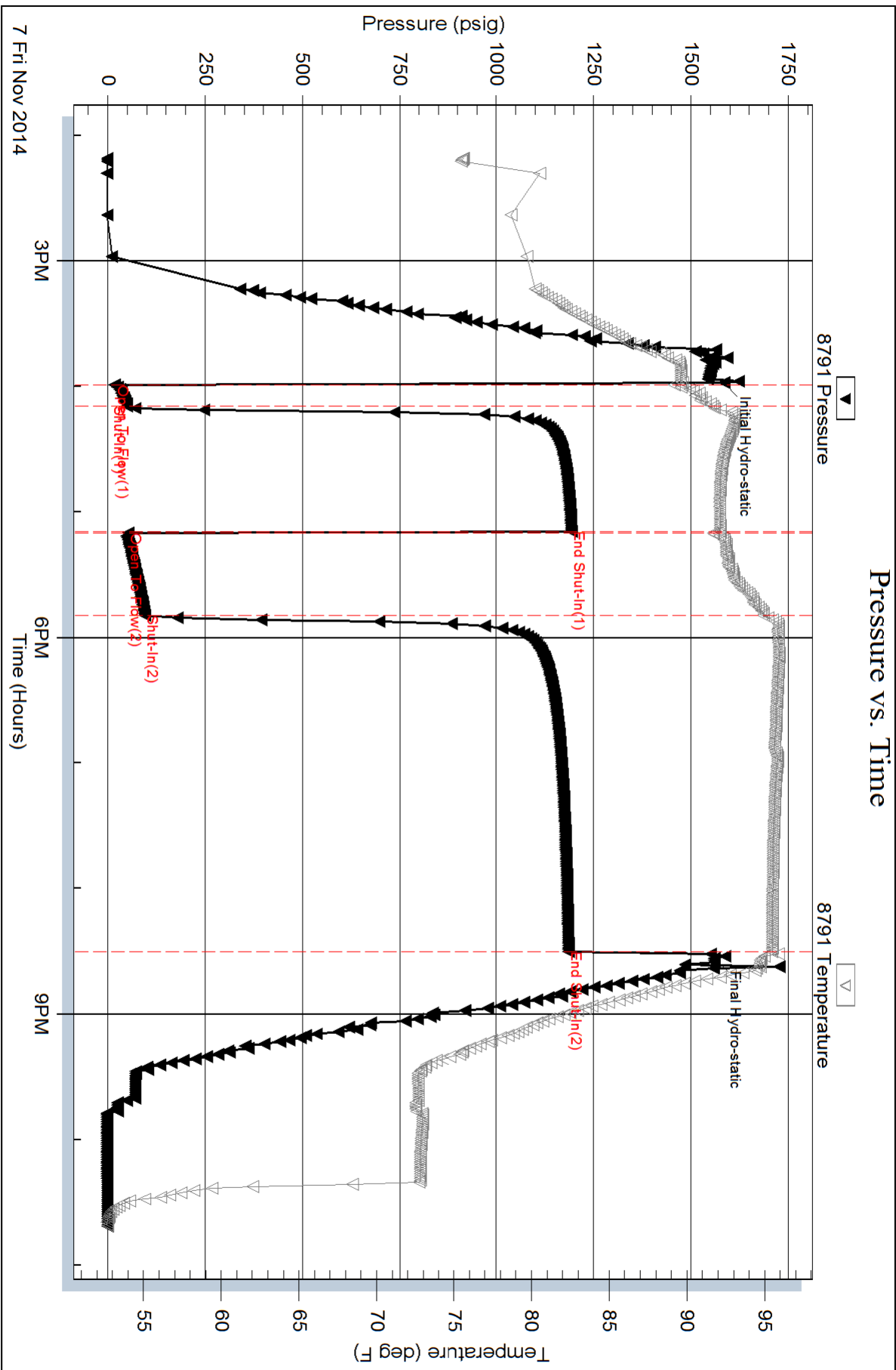
Laboratory Name:

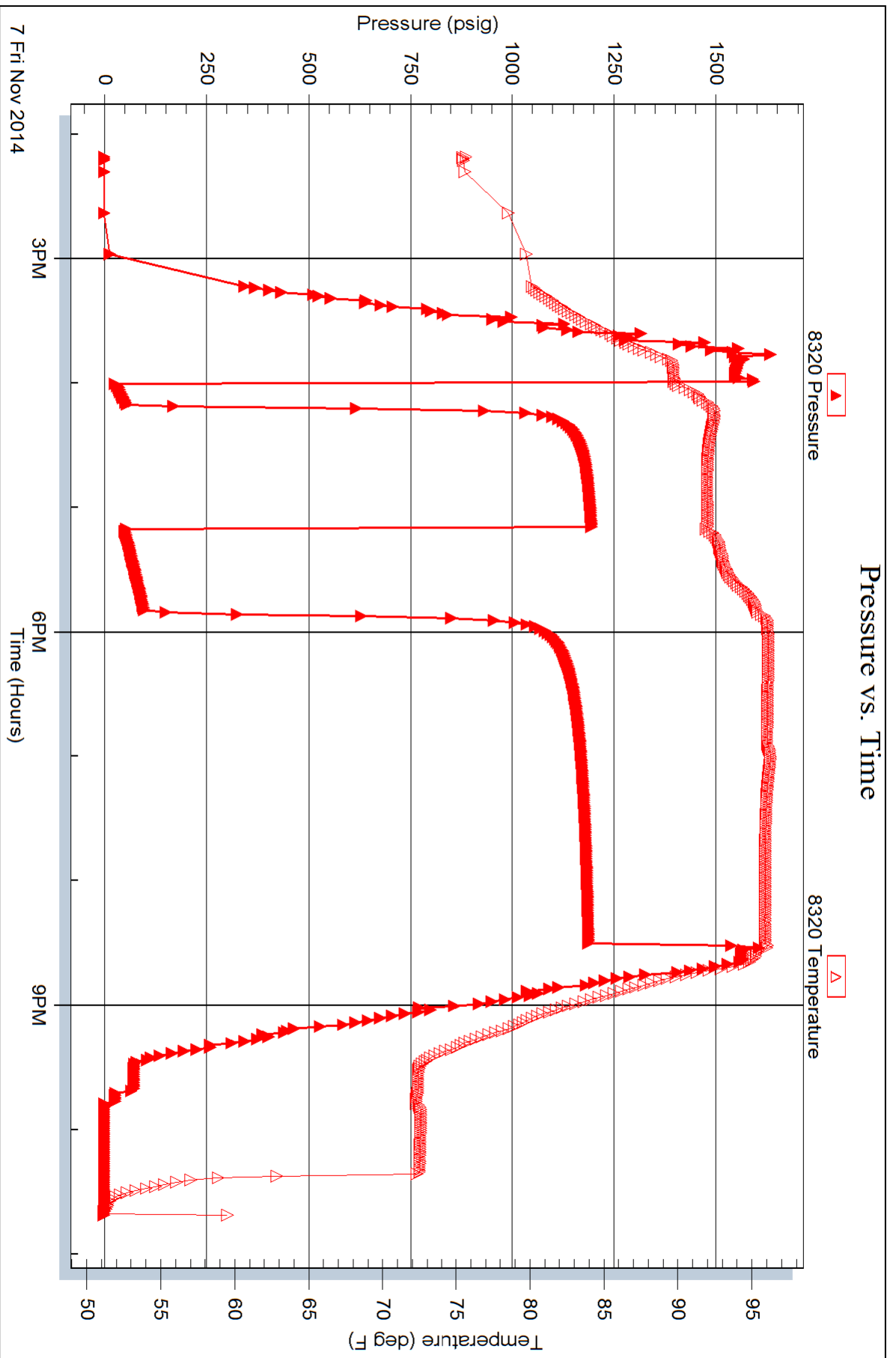
Laboratory Location:

Recovery Comments: Gravity = 28.6 api @ 56 deg F Corrected Gravity = 29 api

RW = .190 ohms @ 63.2 deg F Chlorides = 44,000 ppm

Sampler = 450 PSI, 1200 mL Water, 1100 mL SMWCO 96%o, 3%w , 1%m





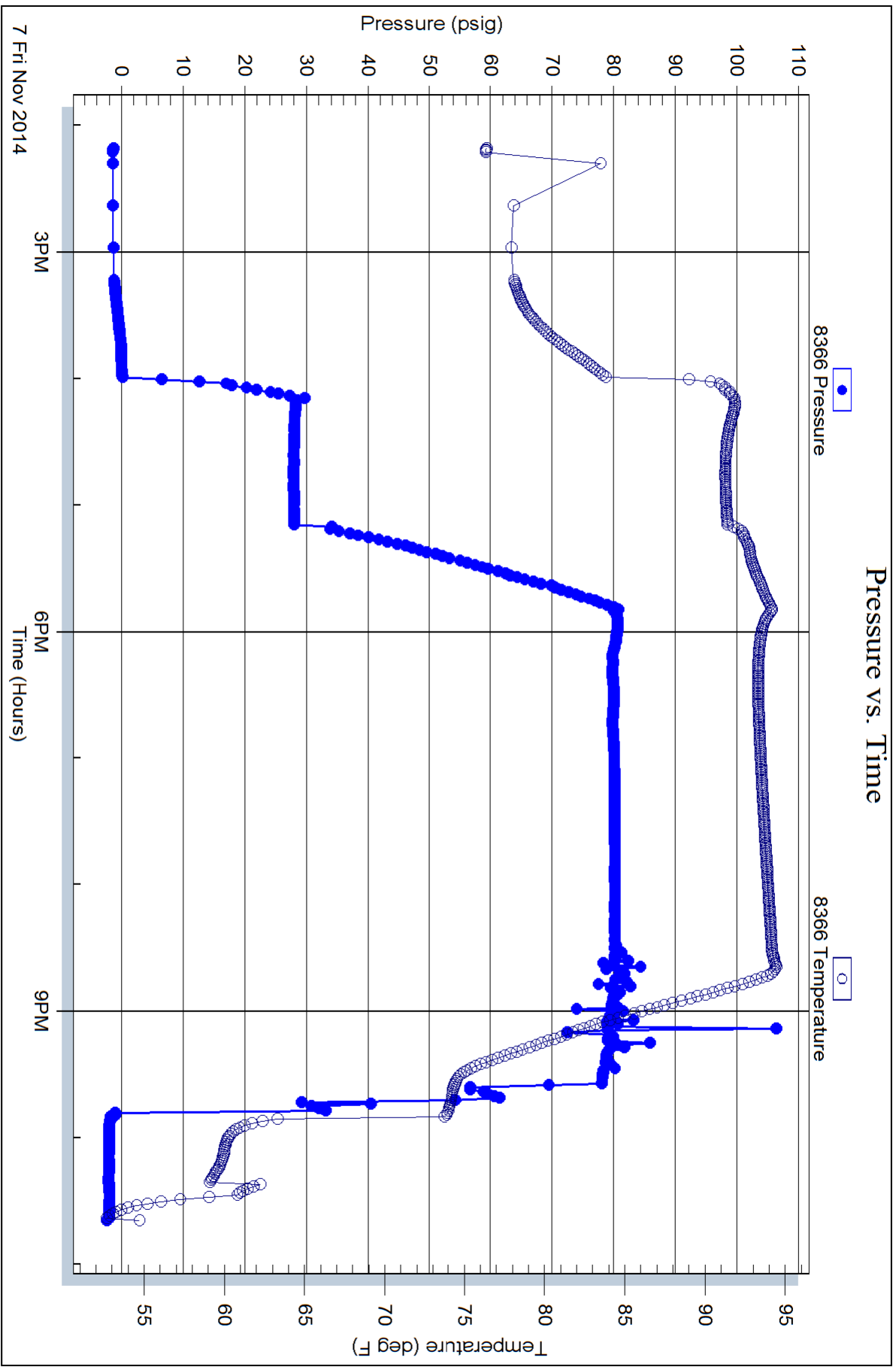
Serial #: 8366

Fluid

Samuel Gary Jr. & Associates

Jacobs Trust#1-9

DST Test Number: 2





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60781

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.11.08 @ 08:08:00

GENERAL INFORMATION:

Formation: **LKC "B - C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:57:30

Time Test Ended: 16:35:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3343.00 ft (KB) To 3378.00 ft (KB) (TVD)

Reference Elevations: 2179.00 ft (KB)

Total Depth: 3378.00 ft (KB) (TVD)

2171.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press@RunDepth: 120.78 psig @ 3344.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.08

End Date:

2014.11.08

Last Calib.:

2014.11.08

Start Time: 08:08:05

End Time:

16:34:59

Time On Btm:

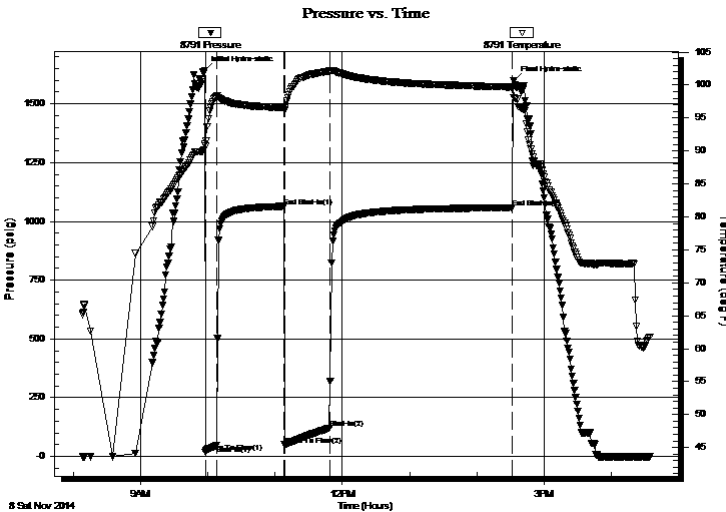
2014.11.08 @ 09:57:15

Time Off Btm:

2014.11.08 @ 14:33:00

TEST COMMENT: 10 - IF: Blow built to 4"
60 - ISI: No blow back
40 - FF: Blow built to 5 1/4"
160 - FSI: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1642.61	91.09	Initial Hydro-static
1	18.47	90.75	Open To Flow (1)
11	46.73	98.32	Shut-In(1)
71	1064.12	96.60	End Shut-In(1)
71	49.22	96.22	Open To Flow (2)
112	120.78	102.09	Shut-In(2)
274	1058.57	99.69	End Shut-In(2)
276	1600.70	98.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
218.00	SMCW w/trace oil 96%w, 4%m	2.78
1.00	Oil 100%o	0.01
0.00	GIP = 155'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60781

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.11.08 @ 08:08:00

GENERAL INFORMATION:

Formation: **LKC "B - C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:57:30

Time Test Ended: 16:35:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3343.00 ft (KB) To 3378.00 ft (KB) (TVD)**

Reference Elevations: 2179.00 ft (KB)

Total Depth: 3378.00 ft (KB) (TVD)

2171.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8320 Outside

Press@RunDepth: psig @ 3344.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.08 End Date: 2014.11.08

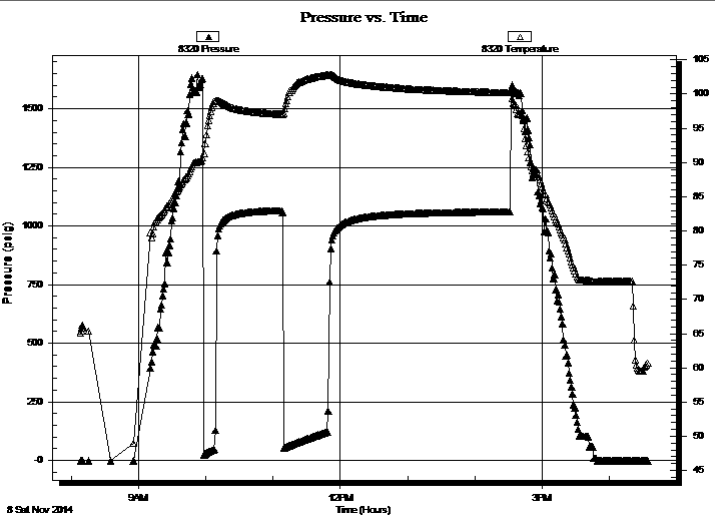
Last Calib.: 2014.11.08

Start Time: 08:08:05 End Time: 16:34:44

Time On Btm:

Time Off Btm:

TEST COMMENT:
10 - IF: Blow built to 4"
60 - ISI: No blow back
40 - FF: Blow built to 5 1/4"
160 - FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
218.00	SMCW w/trace oil 96%w , 4%m	2.78
1.00	Oil 100%o	0.01
0.00	GIP = 155'	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60781

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.11.08 @ 08:08:00

GENERAL INFORMATION:

Formation: **LKC "B - C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:57:30

Time Test Ended: 16:35:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3343.00 ft (KB) To 3378.00 ft (KB) (TVD)

Total Depth: 3378.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2179.00 ft (KB)

2171.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8366

Fluid

Press@RunDepth: psig @ 3308.00 ft (KB)

Start Date: 2014.11.08

End Date:

2014.11.08

Start Time: 08:08:05

End Time:

16:33:29

Capacity: 8000.00 psig

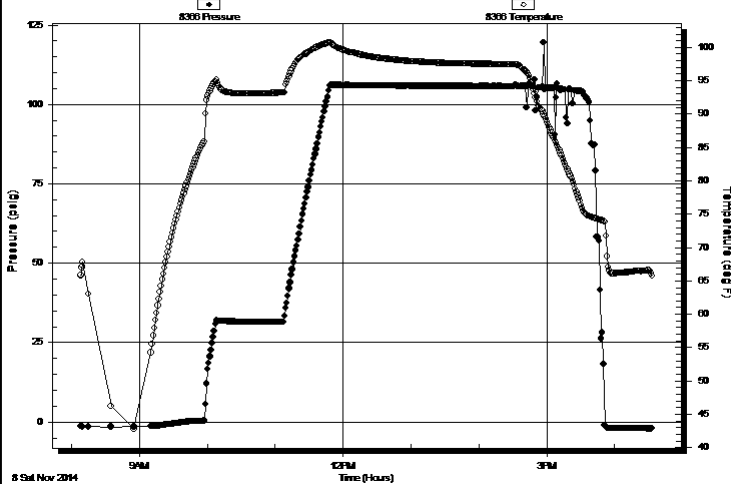
Last Calib.: 2014.11.08

Time On Btm:

Time Off Btm:

TEST COMMENT: 10 - IF: Blow built to 4"
60 - ISI: No blow back
40 - FF: Blow built to 5 1/4"
160 - FSI: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
218.00	SMCW w/trace oil 96%w, 4%m	2.78
1.00	Oil 100%o	0.01
0.00	GIP = 155'	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60781

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.11.08 @ 08:08:00

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:

68000 ppm

Viscosity: 77.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
218.00	SMCW w /trace oil 96%w , 4%m	2.776
1.00	Oil 100%o	0.014
0.00	GIP = 155'	0.000

Total Length: 219.00 ft Total Volume: 2.790 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

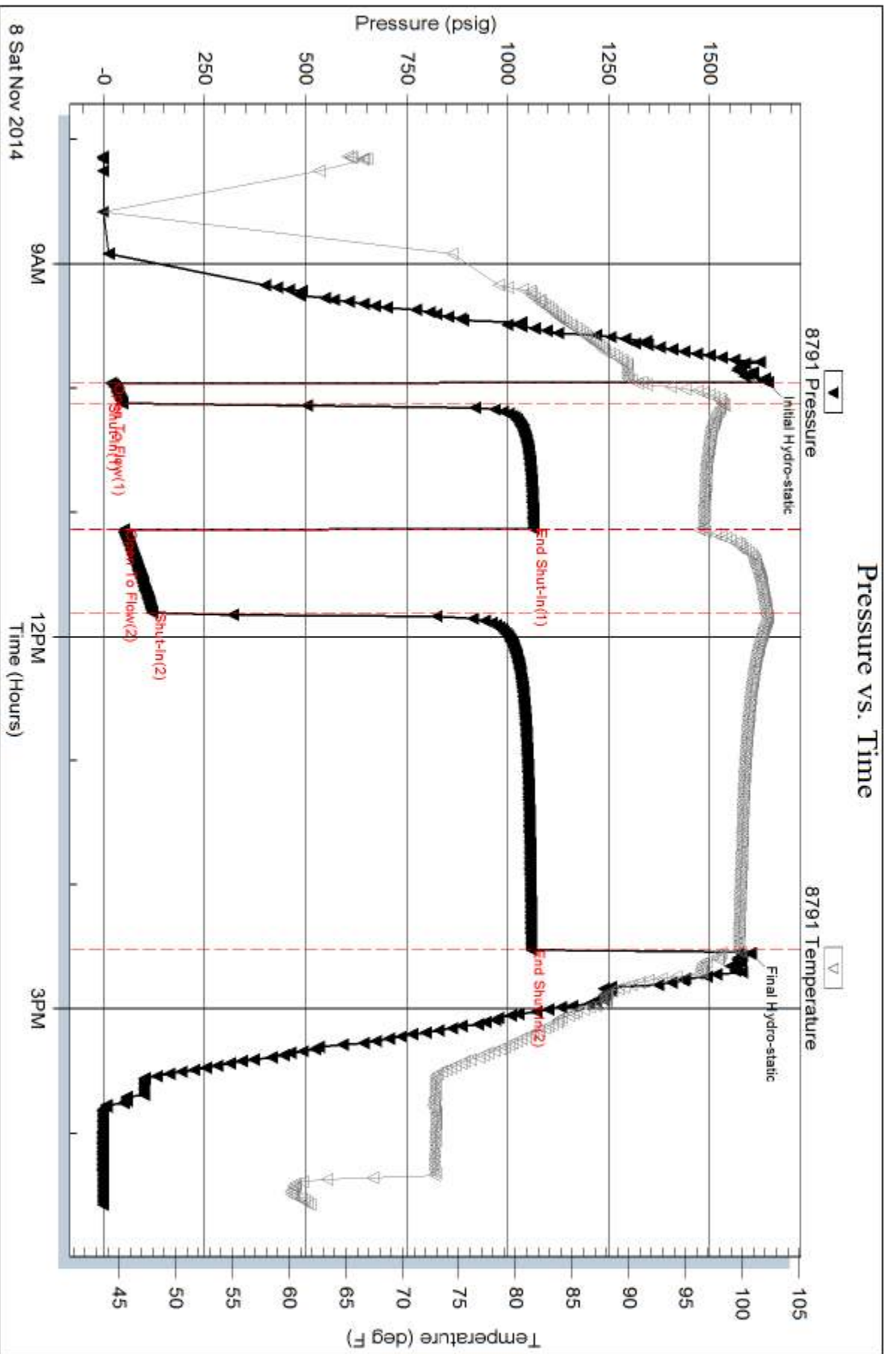
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = . 124 ohms @ 64 deg F Chlorides = 68,000 ppm

Sampler = 410 PSI, 2200 mL Water 98%w , 2%m, trace oil, 200 mL oil

Signs of Very low level H2S gas, too low to register on meter but had odor and staining of equipment (recorders, perf)

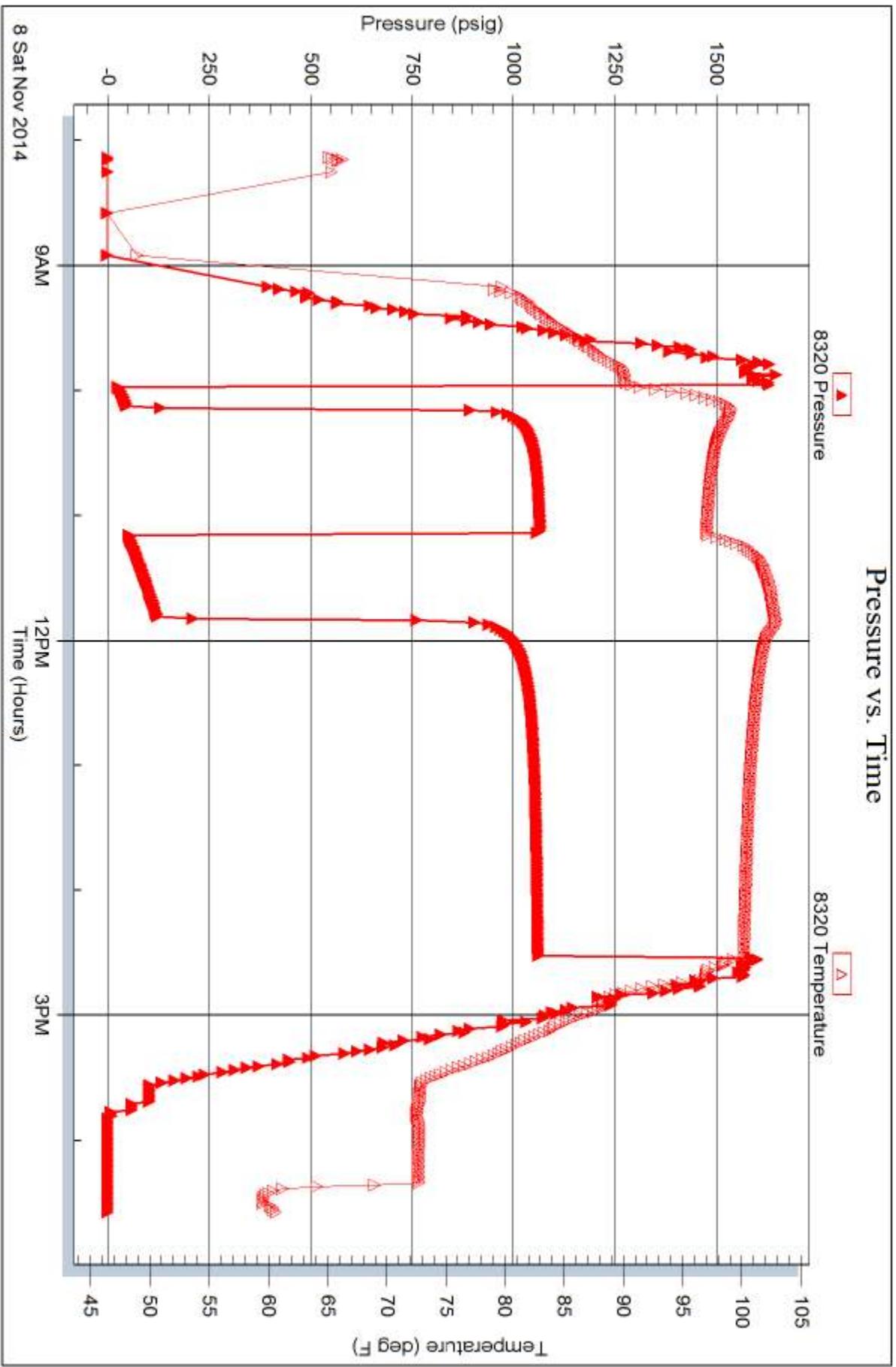


Serial #: 8320

Outside Samuel Gary Jr. & Associates

Jacobs Trust #1-9

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 60781

Printed: 2014.11.08 @ 22:58:11

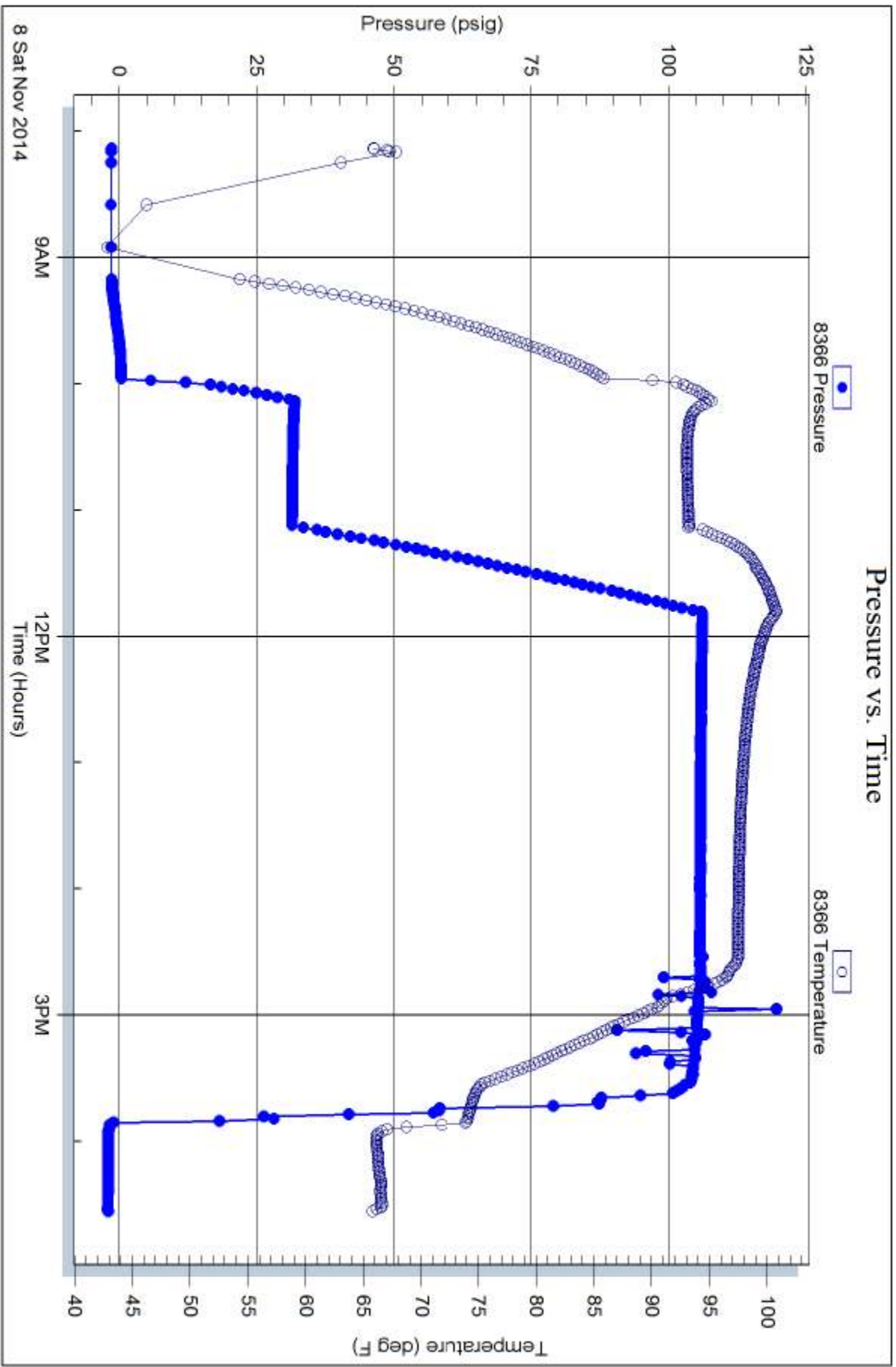
Serial #: 8366

Fluid

Samuel Gary Jr. & Associates

Jacobs Trust #1-9

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 60781

Printed: 2014.11.08 @ 22:58:11



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

Well Name: Jacobs Trust et al 1-9
Well Id:
Location: Sec. 9 5S 22W Norton County, Kansas
License Number: 15-137-20717-0000
Spud Date: Nov 3, 2014
Surface Coordinates: 1315' FNL & 1300' FEL
Region: Wildcat
Drilling Completed: Nov 17, 2014

Bottom Hole
Coordinates:
Ground Elevation (ft): 2171' K.B. Elevation (ft): 2179'
Logged Interval (ft): 3025' To: 3686' Total Depth (ft): 3686'
Formation:
Type of Drilling Fluid: Natural Chemical

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

OPERATOR

Company: Samuel Gary Jr & Associates, inc
Address: 1515 Wynkoop Street, Suite 700
Denver, Colorado 80202
Geo: Dan Pritchard

GEOLOGIST

Name: Aaron Suelter
Company: EARTH TECH OGL, Inc.
Address: PO Box 683
Hooker, Okla 73945
1-580-652-3924
8918 5Th St
Great Bend, Ks. 67530
1-888-543-8378



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60779

DST#: 1

ATTN: Dan Pritchard

Test Start: 2014.11.06 @ 22:51:00

GENERAL INFORMATION:

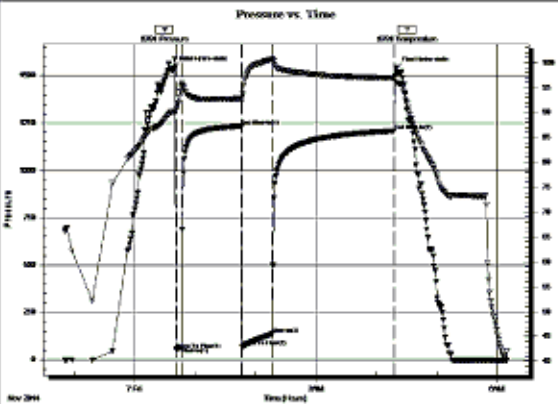
Formation: **Platismouth**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:41:15
 Time Test Ended: 06:09:30
 Test Type: Conventional Bottom Hole (Initial)
 Tester: James Winder
 Unit No: 57
 Interval: **3238.00 ft (KB) To 3293.00 ft (KB) (TVD)**
 Total Depth: 3293.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 2179.00 ft (KB)
 2171.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press@RunDepth: 137.68 psig @ 3239.00 ft (KB)
 Start Date: 2014.11.06 End Date: 2014.11.07
 Start Time: 22:51:05 End Time: 06:09:29
 Capacity: 8000.00 psig
 Last Calib.: 2014.11.07
 Time On Btm: 2014.11.07 @ 00:39:15
 Time Off Btm: 2014.11.07 @ 04:19:30

TEST COMMENT: 5 - F: 6" surge blow at open, built to 8 3/4"
 60 - IS: No blowback
 30 - FF: Blow built to 9 1/4"
 120 - FSI: No blowback



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1541.58	90.17	Initial Hydro-static
2	52.98	90.53	Open To Flow (1)
8	65.94	95.42	Shut-in(1)
67	1233.70	92.85	End Shut-in(1)
68	69.94	92.38	Open To Flow (2)
98	137.68	100.66	Shut-in(2)
219	1209.01	96.94	End Shut-in(2)
221	1538.48	95.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
194.00	MCW 90%w, 10%m	2.44
62.00	SWCM 96%m, 4%w	0.87
4.00	Mud 100%	0.06

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60780

DST#: 2

ATTN: Dan Pritchard

Test Start: 2014.11.07 @ 14:11:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:59:15

Time Test Ended: 22:41:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3288.00 ft (KB) To 3341.00 ft (KB) (TVD)

Total Depth: 3341.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2179.00 ft (KB)

2171.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press@RunDepth: 94.72 psig @ 3289.00 ft (KB)

Start Date: 2014.11.07 End Date:

Start Time: 14:11:05 End Time:

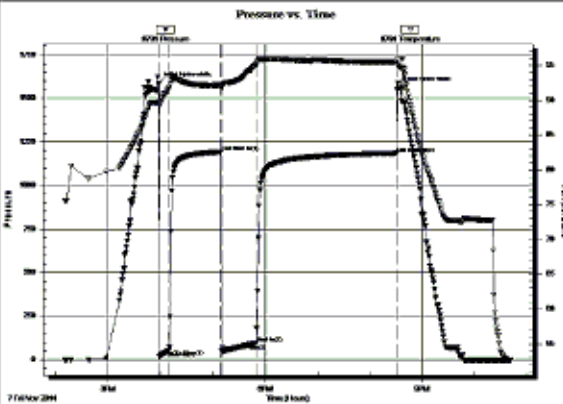
Capacity: 8000.00 psig

Last Calib.: 2014.11.07

Time On Btm: 2014.11.07 @ 15:58:15

Time Off Btm: 2014.11.07 @ 20:33:15

TEST COMMENT: 10 - IF: 1/4" Blow at open, built to 4"
60 - IS: No blowback
40 - FF: 1/2" Blow at open, built to 9 1/2"
160 - FSI: Surface blow back, dead at 25 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1584.90	89.73	Initial Hydro-static
1	17.45	89.18	Open To Flow (1)
11	49.75	91.69	Shut-in(1)
71	1192.86	92.15	End Shut-in(1)
72	51.88	91.69	Open To Flow (2)
111	94.72	94.92	Shut-in(2)
272	1185.19	95.48	End Shut-in(2)
275	1559.89	94.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
68.00	SO/MCW 67%w, 30%o, 3%g	0.67
62.00	WOCM 55%o, 22%g, 18%w, 5%g	0.87
30.00	SW/MCO 60%o, 32%o, 8%w	0.42
25.00	SMCO 94%o, 4%o, 2%g	0.35
0.00	GIP = 70'	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)

Trilobite Testing, Inc

Ref. No: 60780

Printed: 2014.11.17 @ 22:10:15



**TRIBOLITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

9/5s/22w Norton KS

1515 Wynkoop St. STE 700
Denver, CO 80202

Jacobs Trust #1-9

Job Ticket: 60781

DST#: 3

ATTN: Dan Pritchard

Test Start: 2014.11.08 @ 08:08:00

GENERAL INFORMATION:

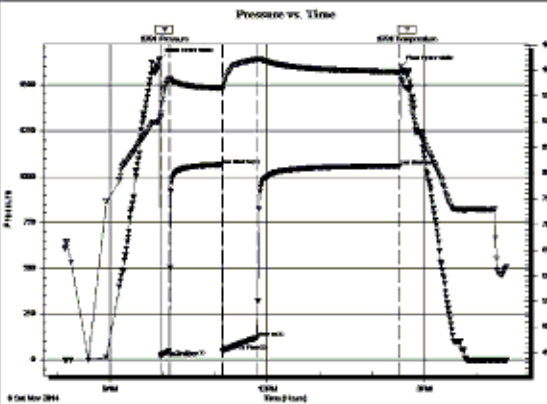
Formation: **LKC "B - C"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:57:30
 Time Test Ended: 16:35:00
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 57
 Interval: 3343.00 ft (KB) To 3378.00 ft (KB) (TVD)
 Total Depth: 3378.00 ft (KB) (TVD)
 Reference Elevations: 2179.00 ft (KB)
 2171.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press@RunDepth: 120.78 psig @ 3344.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2014.11.08 End Date: 2014.11.08
 Last Calib.: 2014.11.08
 Start Time: 08:08:05 End Time: 16:34:59
 Time On Btm: 2014.11.08 @ 09:57:15
 Time Off Btm: 2014.11.08 @ 14:33:00

TEST COMMENT: 10 - IF: Blow built to 4"
 60 - IS: No blow back
 40 - FF: Blow built to 5 1/4"
 160 - FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1642.61	91.09	Initial Hydro-static
1	18.47	90.75	Open To Flow (1)
11	46.73	98.32	Shut-in(1)
71	1064.12	96.60	End Shut-in(1)
71	49.22	96.22	Open To Flow (2)
112	120.78	102.09	Shut-in(2)
274	1058.57	99.69	End Shut-in(2)
276	1600.70	98.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
218.00	SMCW w/trace oil 96%w, 4%m	2.78
1.00	Oil 100%	0.01
0.00	GIP = 155'	0.00

* Recovery from multiple tests

Gas Rates

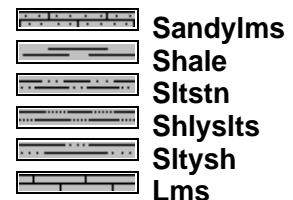
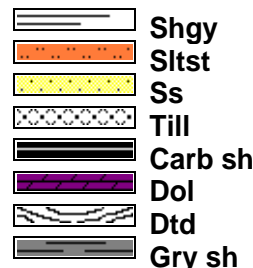
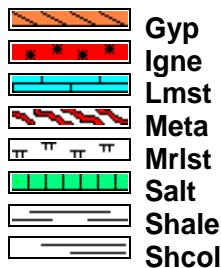
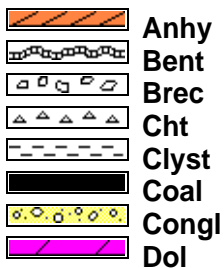
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Tribolite Testing, Inc

Ref. No: 60781

Printed: 2014.11.17 @ 22:10:33

ROCK TYPES



ACCESSORIES

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

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

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

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

TEXTURE

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

OTHER SYMBOLS

POROSITY TYPE

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

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOWS

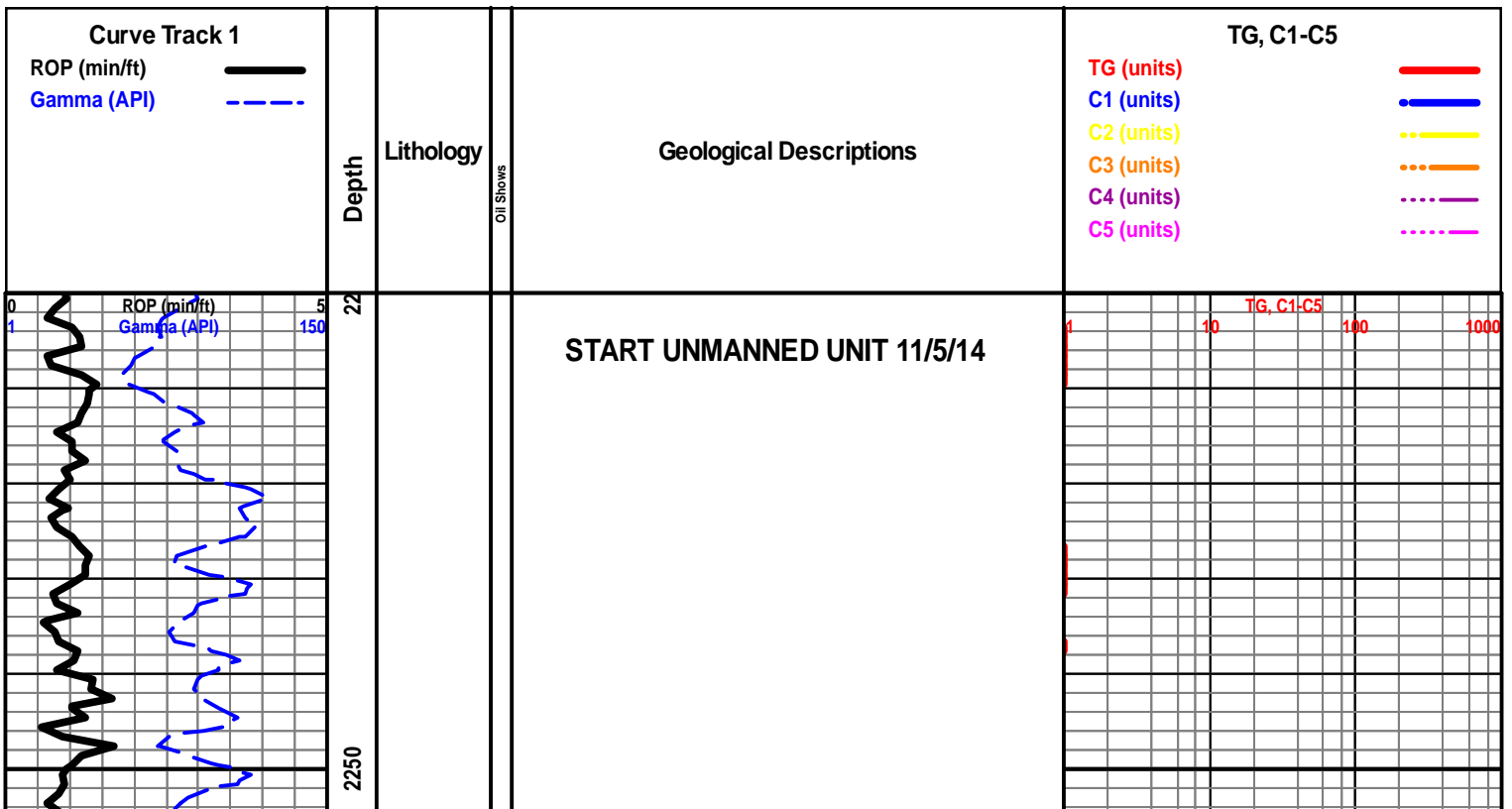
- Even
- Spotted
- Ques
- Dead
- Gas show

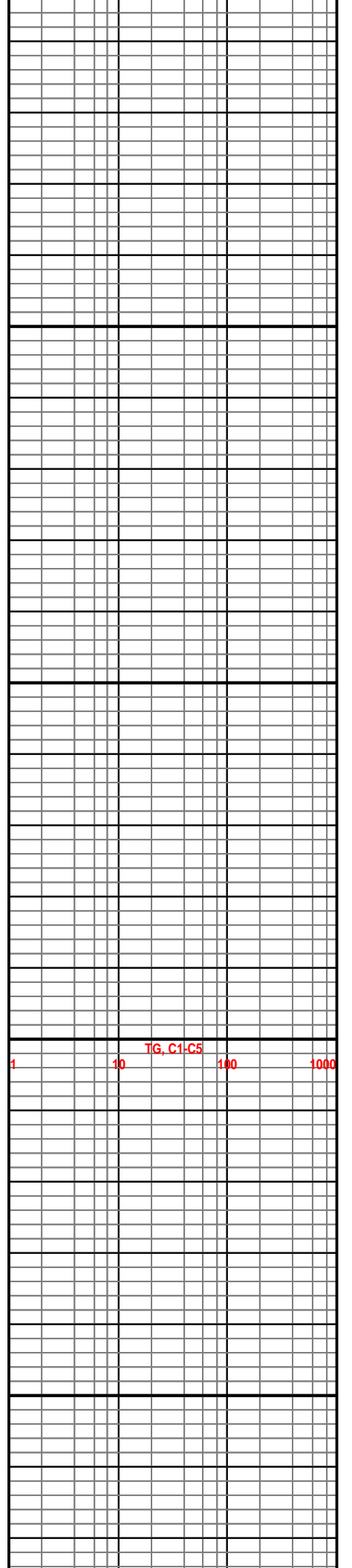
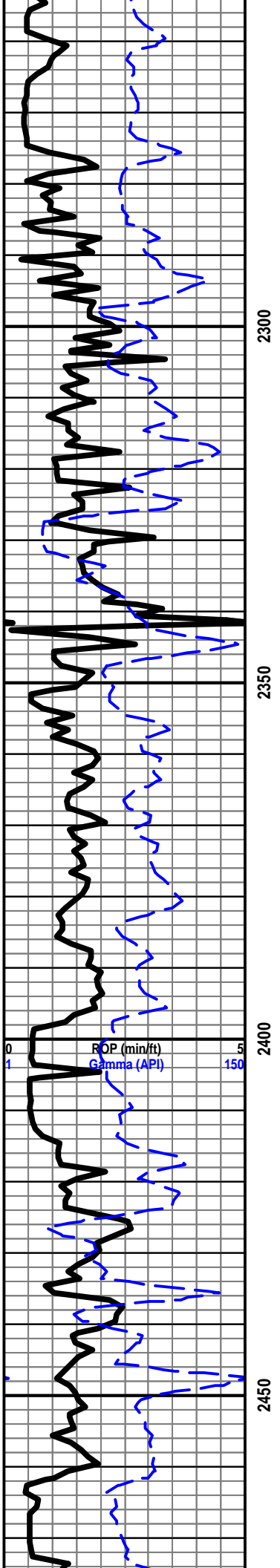
INTERVALS

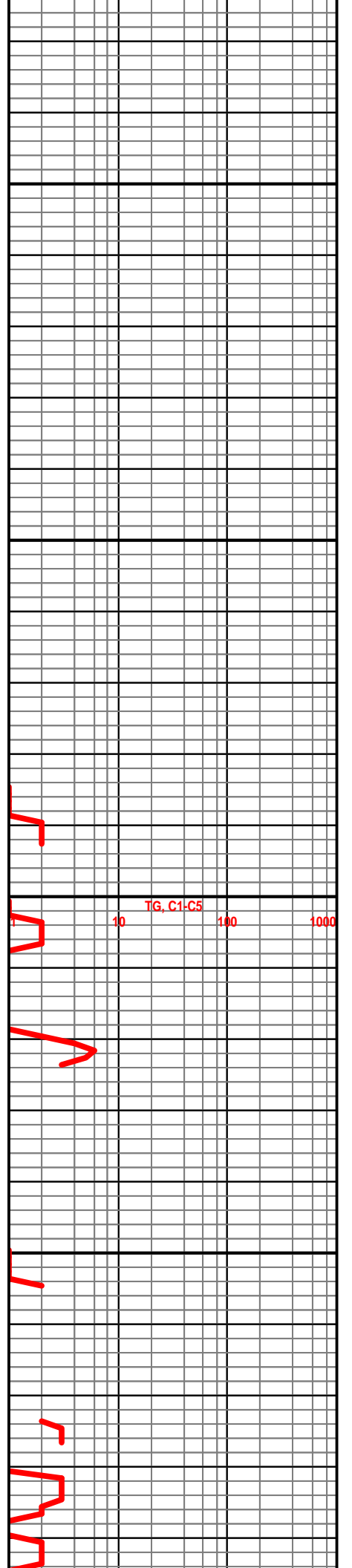
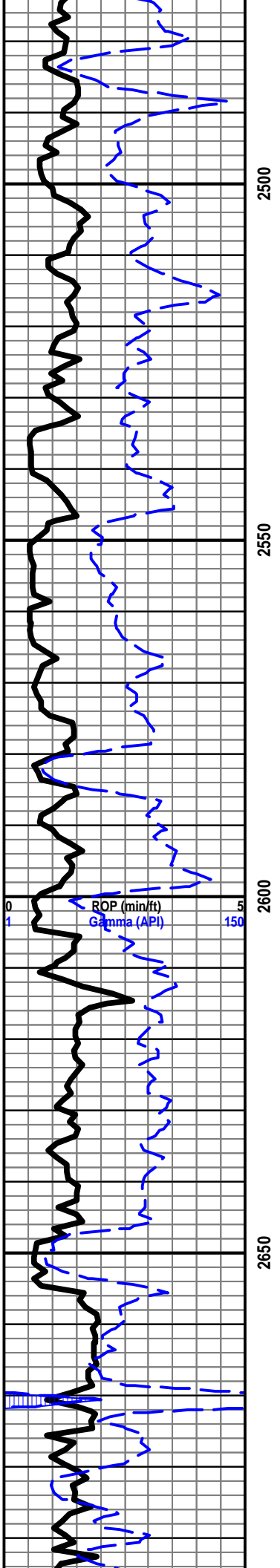
- Core
- Dst
- Dst

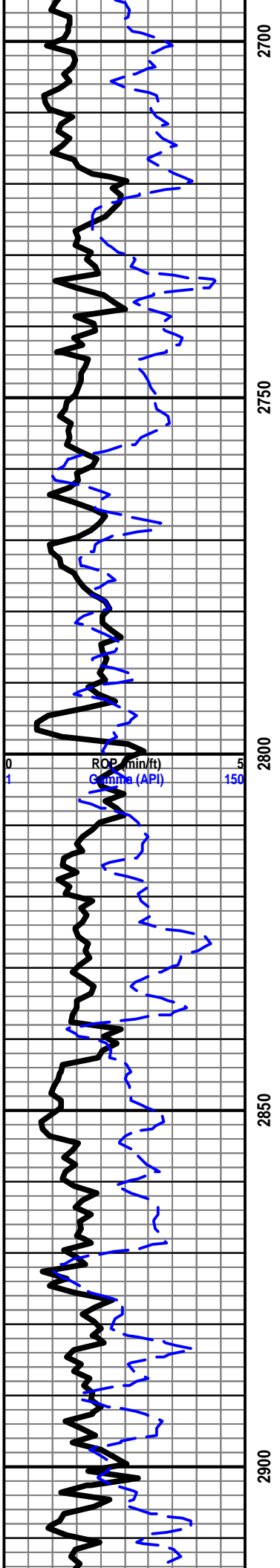
EVENTS

- Rft
- Sidewall

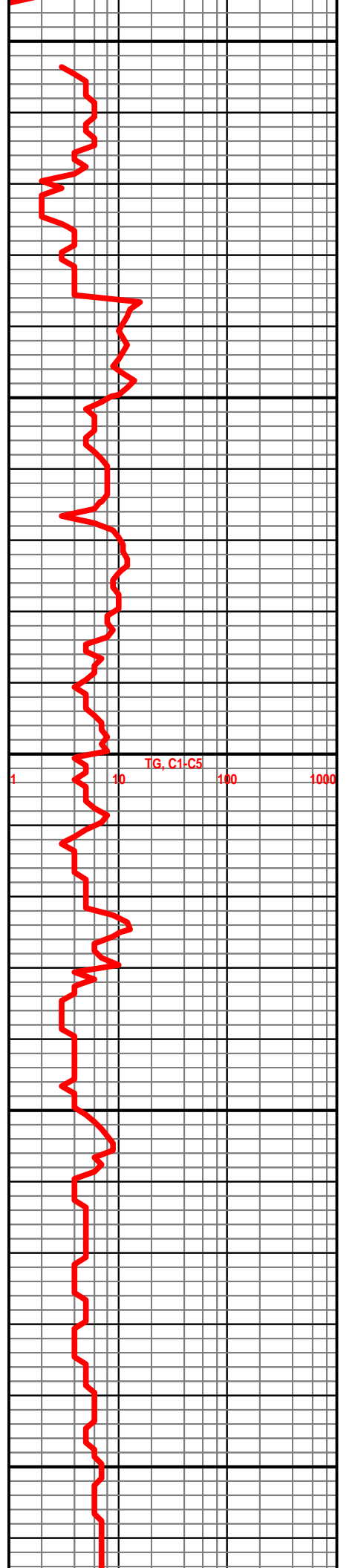


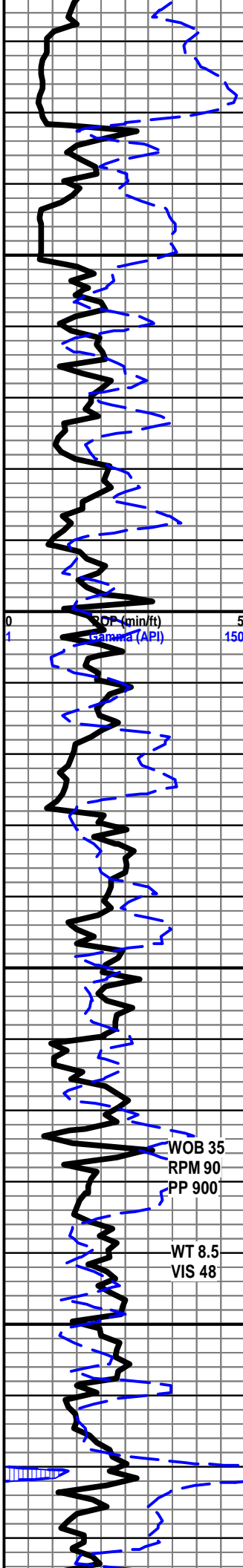




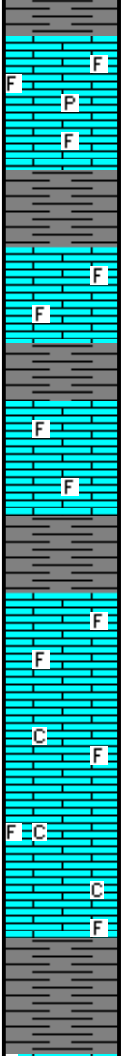


JANESVILLE 2810' -631'





2950
3000
3050
3100



START 24 HOUR MANNED UNIT 11/6/14

LS- TO DK TN, HD DNS TO BRIT, V/F T F XLN CHLKY MTRX, IMBD FOSS FRG IP, TR PYR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- RED BRWN TO GY, FRM BLKY, SMY TO SLTY TXT

LS- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- TN TO GY, HD DNS, F TO MD XLN RE-XLN MTRX, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

TOPEKA 3086' -907'

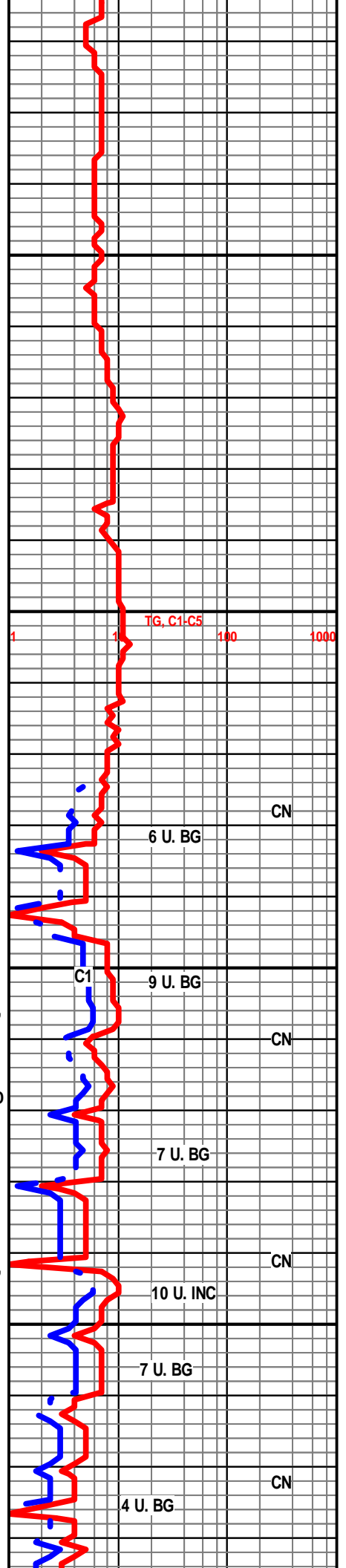
LS- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TO TN, HD DNS TO BRIT, V/F TO F XLN MTRX, IMBD FOSS FRG THRU, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO GY , FRM BLKY TO HD DNS, SLTY TXT

WOB 35
RPM 90
PP 900

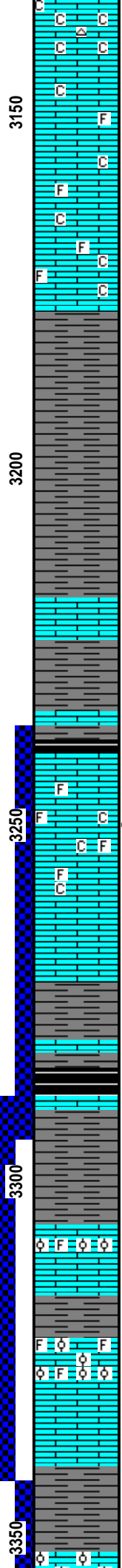
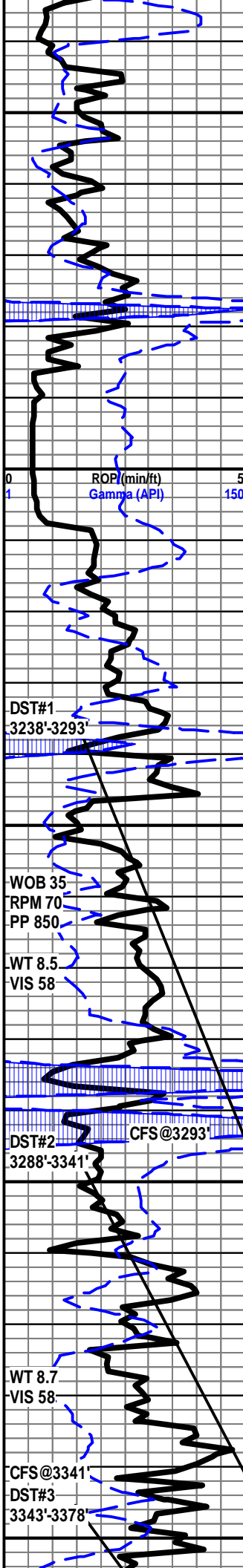
WT 8.5
VIS 48



TIG, C1-C5
100 1000

6 U. BG
9 U. BG
7 U. BG
10 U. INC
7 U. BG
4 U. BG

CN
CN
CN
CN
CN
CN



LS- OFF WHT CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN CHLKY MTRX, ABDT SFT WHT CHLK IN TRAY, SLI TR OFF WHT CHRT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO CRM, V/HD DNS TO BRIT, V/F TO CRYPTO XLN MTRX, S-CHLKY IP, SLI TR IMBD FOSS FRG IP, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS, V/F TO F XLN MTRX, S-CHLKY, IMBD FOSS FRG IP, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- RED BRWN LT GY TO DK GY, SFT GMMY TO FRM SPLNTY IP, SMTH TO SLTY TXT

SH- GRN BRWN LT GY TO DK GY, FRM BLKY, SLTY TXT

LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- BLCK, SFT, CARB

3251'-3252' LS- CRM TO LT TN W/TN OIL STN IN 65%, LOS IN 1%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD FOSS FRG THRU, SFT WHT CHLK IN TRAY, DUL YEL GLD FLO IN 80%, PR TO FR INTR FOSS POR IN 2%, FR VUG POR IN 2%, GD FLSH CUT IN 80%, GD TO VGD SLW STRM IN 80%, TN LCH ON DISH, OIL DROPLETS IN DISH, STRNG OIL ODOR

LS- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, NO VIS FLO, NO VIS POR, NO VIS SHOW

HEEBNER 3283' -1104'

SH- BLCK, SFT, CARB

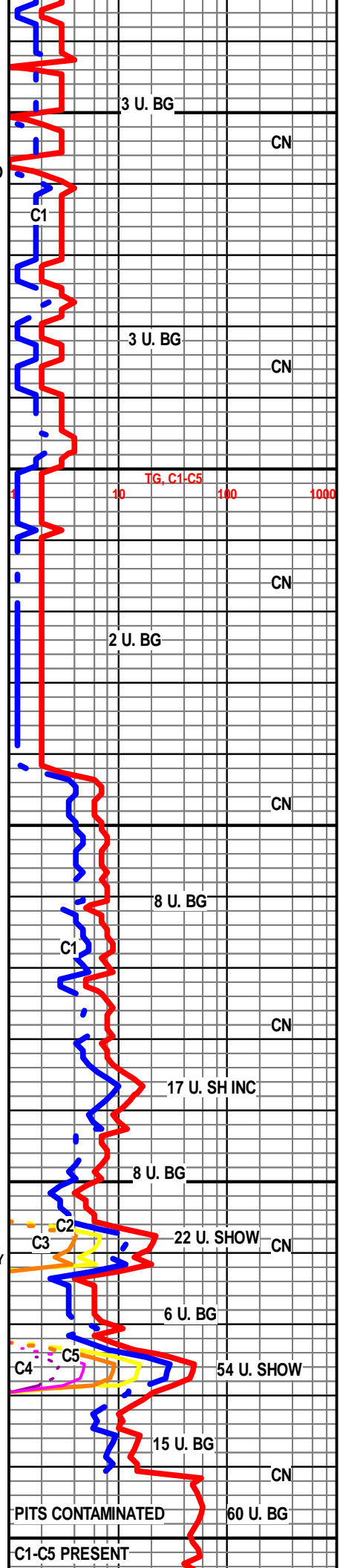
SH- BRWN TO GY, SFT GMMY TO FRM BLKY, SMTH TXT

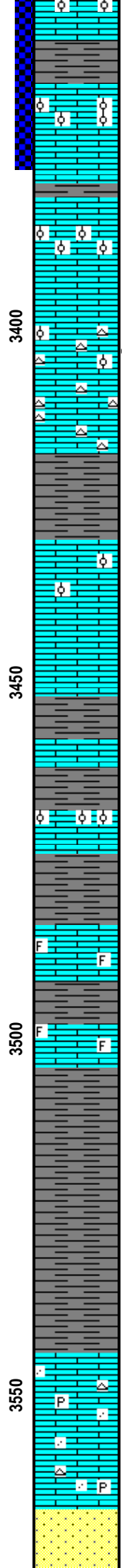
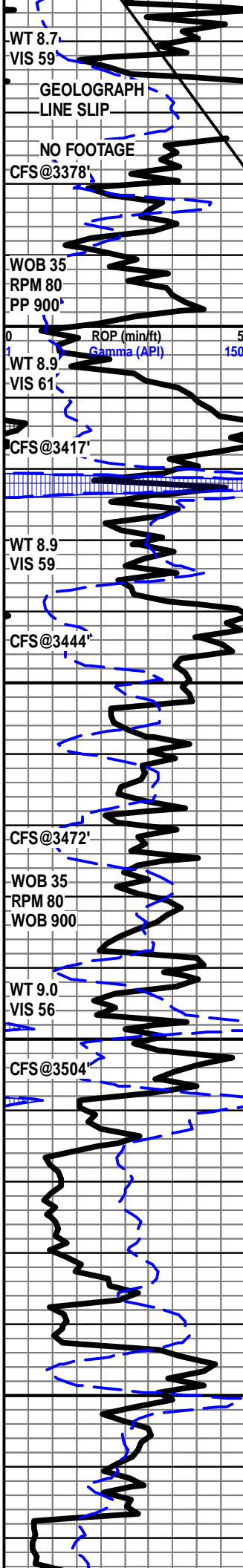
3308'-3310' LS- CRM TO LT TN W/TN OIL STN IN 80%, LOS IN 1%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, SCAT IMBD FOSS FRG IP, DUL YEL GLD FLO IN 80%, BRT YEL GLD FLO IN 10%, PR TO FR INTR OOL POR IN 6%, GD FLSH CUT IN 90%, GD TO VGD MLKY BLU SLW STRM IN 90%, DK TN LCH ON DISH, STRNG OIL ODOR

LANSING 3322' -1143'

3323'-3327' LS- CRM TO LT TN, W/TN OIL STN IN 80%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, IMBD LRG FOSS FRGS THRU, SLI TR SFT WHT CHLK IN TRAY, DUL YEL GLD FLO IN 80%, BRT YEL GLD FLO IN 10%, FR TO GD INTR OOL/FOSS POR IN 7%, VGD INSTNT FLSH CUT IN 90%, VGD MLKY BLU SLW STRM IN 90%, DK TN LCH ON DISH, FR OIL ODOR

3352'-3355' LS- OFF WHT TO CRM W/TN OIL STN IN 70%





3332-3333' LS- OFF WHT TO CRM W/ TN OIL STN IN 70%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABTD IMBD OOL THRU, BRT YEL GLD FLO IN 70%, FR INTR OOL POR IN 5%, FR FLSH CUT IN 70%, FR SLW STRM IN 70%, TN LCH ON DISH, FR OIL ODOR

LS- CRM LT TN W/ OIL STN IN 60%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABTD IMBD OOL THRU, BRT YEL GLD FLO IN 60%, PR TO FR INTR OOL POR IN 4%, WK FLSH CUT IN 60%, PR TO FR SLW STRM IN 60%, LT TN LCH ON DISH, WK OIL ODOR

3387'-3389' LS- OFF WHT CRM TO LT TN W/ TN OIL STN IN 60%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, IMBD OOL THRU, BRT YEL GLD FLO IN 70%, PR INTR OOL POR IN 2%, PR TO FR VUG POR IN 2%, FR FLSH CUT IN 70%, PR TO FR SLW STRM IN 70%, TN LCH ON DISH, STR SLFR ODOR

LS- OFF WHT TO CRM W/ TN OIL STN IN 25%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SCAT IMBD OOL IP, ABTD FRSTY TO OFF WHT CHRT IN TRAY, DUL YEL GLD FLO IN 25%, PR INTR OOL POR IN 2%, PR VUG POR IN 1%, WK FLSH CUT, PR SLW STRM IN 30%, NO LCH ON DISH, STRNG SLFR ODOR

LANSING "F" SHALE 3418' -1239'
SH- LT GY TO DK GY, FRM BLKY TO SFT GMMY, SLTY TXT

3435'-3438' LS- OFF WHT TO CRM W/ TN OIL STN IN 60%, HD DNS TO VBRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD OOL IP, DUL YEL GLD FLO IN 30%, BRT YEL GLD FLO IN 40%, PR INTR OOL POR IN 1%, PR VUG POR IN 1%, PP POR IN 3%, WK FLSH CUT, PR TO FR SLW STRM IN 65%, NO LCH ON DISH, WK SLFR ODOR

SH- BRWN GY TO DK GY, FRM BLKY, SLTY TXT

LANSING "G" 3466' -1287'
3468'-3470' LS- CRM TO LT TN W/ TN OIL STN IN 50%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, IMBD OOL IP, BRT YEL GLD FLO IN 55%, PR INTR OOL POR IN 3%, NO FLSH CUT, PR TO FR SLW STRM IN 50%, NO LCH ON DISH, NO ODOR

3486'-3488' LS- LT TN TO TN W/ TN OIL STN IN 20%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SCAT IMBD FOSS FRG, BRT YEL GLD FLO IN 30%, TT INTR FOSS POR IN 1%, NO FLSH CUT, WK SLW STRM IN 20%, LCH ON DISH

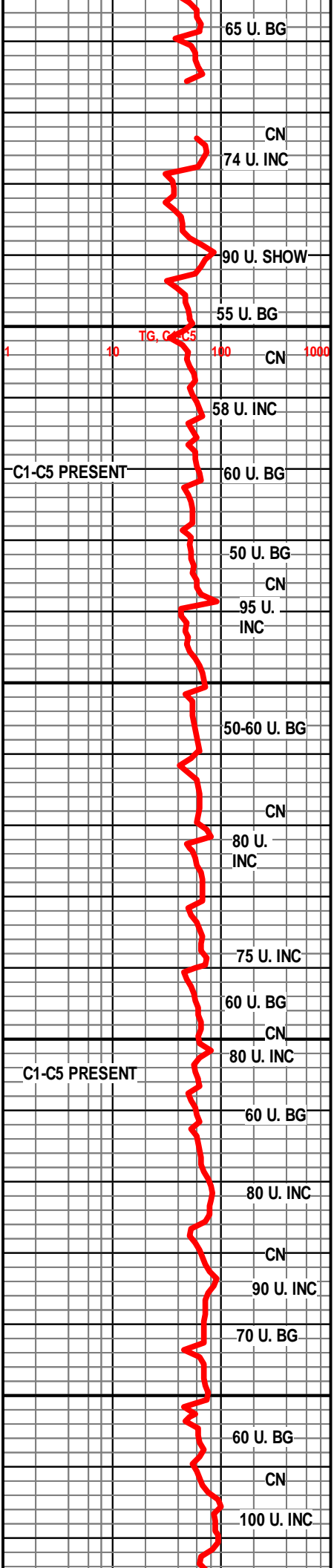
LS- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SCAT IMBD FOSS FRG, NO VIS FLO, NO VIS POR, NO VIS SHOW

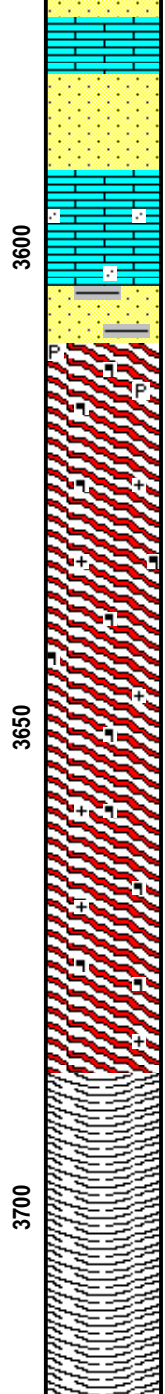
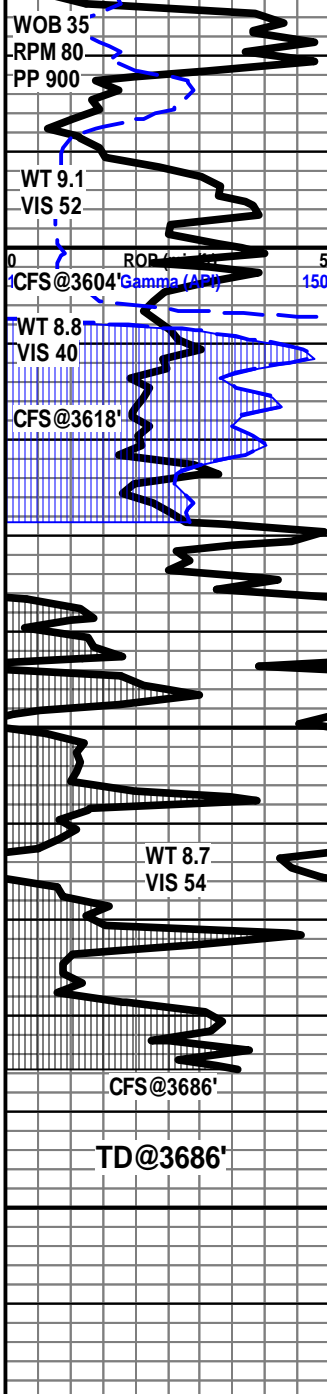
BKC 3504' -1325'
SH- RED BRWN TO GY, FRM BLKY TO SFT GMMY, SMTH TO SLTY TXT

SH- BRWN GY TO DK GY, FRM BLKY TO SPLNTY, SLTY TO SMTH TXT

LS- LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, IMBD MD TO CRS RND TO S-RND QRTZ GRNS IP, SLI TR IMBD PYR IP, SLI TR OFF WHT CHRT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

GORHAM SAND 3567' -1388'
3567'-3575' SS- CLR TO FRSTY WITH TN OIL STN IN 90%, LOS IN 5%, HD DNS TO BRIT, ABTD IMBD SM TO CRST S-ANG TO ANG QRTZ GRNS, PR SRT, CALC CMNT DUL YEL GLD FLO THRU, FR TO GD INTR GRN POR IN 10%, GD FLSH CUT THRU, GD SLW STRM THRU, DK TN LCH ON DISH





3582'-3591' SS- CLR OFF WHT TO FRSTY, W/ TN OIL STN IN 80%, HD DNS TO BRIT IP, ABDT IMBD SM TO MD S-ANG TO ANG QRTZ XLS THRU, WLL SRT, CALC CMNT, DUL YEL GLD FLO THRU, PR TO FR INTR GRN POR IN 6%, GD FLSH CUT THRU, GD SLW STRM THRU, TN LCH ON DISH, FR SLFR/OIL ODOR, FREE OIL IN DISH

REAGAN SAND 3603' -1424'
3604'-3609' SS- CLR FRSTY TO TN, HD TT TO FRI, ABDT IMBD SM S-RND TO S-ANG QRTZ GRNS, WLL SORT, CALC CMNT, IMBD DISS GY THRU, NO VIS FLO, TT INTR GRN POR IN 6%, NO FLSH CUT, WK SLW STRM IN 10%, NO LCH ON DISH, NO OIL ODOR

GRANITE WASH 3610' -1431'
GRNITE WASH- CLR FRSTY CRM TO LT TN, HD DNS, ABDT QRTZ, ABDT IMBD BIOTITE, SCAT IMBD PYR, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

GRNITE WASH- CRL FRSTY ORNG TO DK ORNG, HD DNS, ABDT QRTZ, ABDT FELDSPAR, ABDT IMBD BIOTITE, SCAT IMBD HEMATITE, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRNITE WASH- CLR FRSTY LT ORNG TO ORNG, HD DNS, ABDT QRTZ, ABDT FELSPAR, ABDT IMBD BIOTITE, TR SCAT IMBD HEMATITE, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRNITE WASH- CLR FRSTY TO LT ORNG, HD DNS ABDT QRTZ, SCAT FELDSPAR, ABDT IMBD BIOTITE, TR IMBD HEMATITE, NO VIS FLO, NO VIS POR, NO VIS SHOW

R.T.D. @ 9:45 PM 11/17/14
CFS 1 HOUR
SHORT TRIP
CTCH 1.5 HOURS
DROP SURVEY
TOFL
WEATHERFORD/ LIBERAL

