



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1160647
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: _____



1160647

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	SPROUL-KNAPE 1-26
Doc ID	1160647

All Electric Logs Run

DIL
MICRO
POR
SONIC
SPECTRAL

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



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

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

Sam Brownback, Governor

September 30, 2013

CLAYTON CAMOZZI
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-137-20654-00-00
SPROUL-KNAPE 1-26
SW/4 Sec.26-04S-23W
Norton County, Kansas

Dear Production Department:

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

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

Respectfully,
CLAYTON CAMOZZI



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 6/11/2013
 Invoice # 6916

P.O.#:
 Due Date: 7/11/2013
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

RECEIVED

JUN 24 2013

**SAMUEL GARY JR.
& ASSOCIATES, INC.**

Reference:
 SPROUL-KNAPE 1 26

Description of Work:
 SURFACE JOB

<input checked="" type="checkbox"/> DRLG	<input type="checkbox"/> COMP	<input type="checkbox"/> W/O	<input type="checkbox"/> LOE	<input type="checkbox"/> GG
Account	8200.138			
Well/Prospect				
Deck				
AFE				
Approval	<i>[Signature]</i>			
Description				

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	No				
Common-Class A	250	\$ 3,403.71	Yes				
8 5/8" Basket	2	\$ 686.17	Yes				
Bulk Truck Mat-Material Service Charge	263	\$ 571.09	No				
Pump Truck Mileage-Job to Nearest Camp	51	\$ 552.61	No				
Calcium Chloride	8	\$ 413.96	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	51	\$ 323.37	No				
8 5/8" Centralizer	2	\$ 138.97	Yes				
8 5/8" Top Rubber Plug	1	\$ 115.09	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 97.71	Yes				
Premium Gel (Bentonite)	5	\$ 88.38	Yes				

Invoice Terms:

Net 30

SubTotal:	\$	7,382.44
Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(1,107.37)
SubTotal for Taxable items:	\$	4,202.40
SubTotal for Non-Taxable Items:	\$	2,072.68
Total:	\$	6,275.07
Tax:	\$	296.27

7.05% Norton County Sales Tax

Thank You For Your Business!

Amount Due: \$ 6,571.34
Applied Payments:
Balance Due: \$ 6,571.34

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

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. 6916

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-11-13	26	4	23	Norton	KS		03:30 AM

Location Norton SRD x DE Ninto

Lease	Well No.	Owner
Sprawl Knape	1-26	To Quality Oilwell Cementing, Inc.

Contractor	Type Job	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Discovery #2	Surface		

Hole Size	T.D.	Charge To
12 1/4	561	Sam Gary Jr & Associate

Csg.	Depth	Street
8 5/8	560	

Tbg. Size	Depth	City	State

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

Cement Left in Csg.	Shoe Joint	Cement Amount Ordered
42.40	42.40	250 com 3%CL 2%LEL

Meas Line	Displace
	33BL

EQUIPMENT

Pumptrk	No.	Cementer	Common
17		Edig	250
		Helper	Poz. Mix
Bulktrk	No.	Driver	Gel.
		Cody	5
		Driver	Calcium
Bulktrk	No.	Driver	8
14		Doug	

JOB SERVICES & REMARKS

Remarks:	Hulls
	Salt
Rat Hole	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
8 5/8 on bottom Est. Circulation.	Handling
Mix 250CL + Displace Plug.	Mileage
	263

FLOAT EQUIPMENT

Guide Shoe	8 5/8
Centralizer	2
Baskets	2
AFI Inserts	Battle Plate
Float Shoe	Rubber Plug
Latch Down	

Pumptrk Charge	Surface
Mileage	51

Tax
Discount
Total Charge

X Signature 

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. 6923

Date	6-17-13	Sec.	26	Twp.	4	Range	23	County	Vernon	State	KS	On Location		Finish	4:45 A.M.
Lease								Location		Vernon 2834 Hwy 93N 2E Vinto					
SPROUL KNAPE								Well No.		1-26					
Contractor								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.					
Type Job								Charge To		Sam Conroy Jr & Associates					
Hole Size								T.D.		3870					
Csg.								Depth		Street					
Tbg. Size								Depth		City State					
Tool								Depth		The above was done to satisfaction and supervision of owner agent or contractor.					
Cement Left in Csg.								Shoe Joint		Cement Amount Ordered 270 60/40 4 1/2 1/2 1/2 1/2					
Meas Line								Displace							
EQUIPMENT								Common		162					
Pumptrk 17 No. Cementer								Poz. Mix		108					
Bulktrk No. Helper								Gel.		10					
Bulktrk No. Driver								Calcium							
Bulktrk 14 No. Driver								Hulls							
JOB SERVICES & REMARKS								Salt							
Remarks:								Flowseal		67#					
Rat Hole 30SK								Kol-Seal							
Mouse Hole 15SK								Mud CLR 48							
Centralizers								CFL-117 or CD110 CAF 38							
Baskets								Sand							
D/V or Port Collar								Handling		280					
1st 3703 50SK								Mileage							
2nd 1928 25SK								FLOAT EQUIPMENT							
3rd 1175 100SK								Guide Shoe							
4th 610 40SK								Centralizer		8 5/8 wearin Plug					
5th 40 10SK								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge							
								Mileage		plug 51					
								Tax							
								Discount							
X Signature								Total Charge							



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. and Associates, Inc.

26 4s 23w Norton

1515 Wynkoop St. Ste 700
Denver, CO 80202

Sproul Knappe 1-26

Job Ticket: 53816

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2013.06.14 @ 01:45:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:02:40

Time Test Ended: 10:05:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 41

Interval: 3416.00 ft (KB) To 3468.00 ft (KB) (TVD)

Reference Elevations: 2333.00 ft (KB)

Total Depth: 3468.00 ft (KB) (TVD)

2325.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8322 Outside

Press @ Run Depth: 93.85 psig @ 3432.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.14

End Date:

2013.06.14

Last Calib.:

2013.06.14

Start Time: 01:45:01

End Time:

10:04:50

Time On Btm:

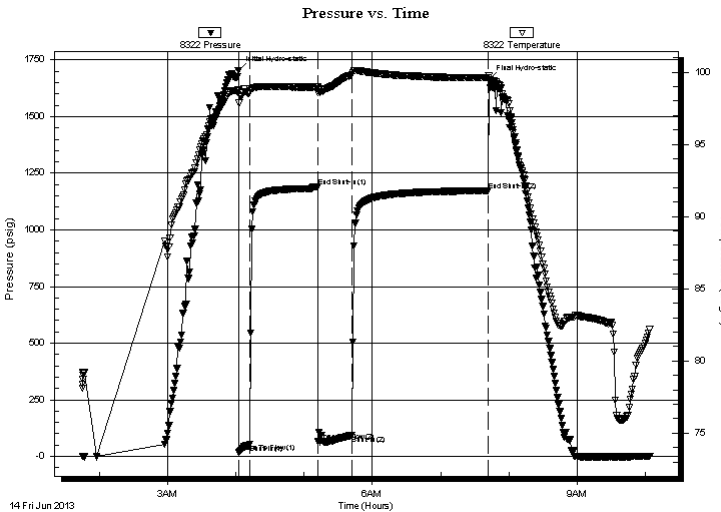
2013.06.14 @ 04:02:30

Time Off Btm:

2013.06.14 @ 07:42:20

TEST COMMENT: 10-IFP- Surface Blow Building to 4 in,
60-ISIP- No Blow
30-FFP- Surface Blow Building to 9 1/2 in.
120-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.71	98.80	Initial Hydro-static
1	19.68	97.85	Open To Flow (1)
10	54.23	98.54	Shut-In(1)
70	1189.42	98.96	End Shut-In(1)
70	67.82	98.59	Open To Flow (2)
100	93.85	99.81	Shut-In(2)
220	1173.30	99.60	End Shut-In(2)
220	1661.67	99.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
67.00	MCW 20% m 80% w	0.67
102.00	WCM 25% w 75% m Show of Oil	1.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. and Associates, Inc.

26 4s 23w Norton

1515 Wynkoop St. Ste 700
Denver, CO 80202

Sproul Knappe 1-26

Job Ticket: 53816

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2013.06.14 @ 01:45:00

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:

64000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
67.00	MCW 20%m 80%w	0.667
102.00	WCM 25%w 75%m Show of Oil	1.431

Total Length: 169.00 ft Total Volume: 2.098 bbl

Num Fluid Samples: 0

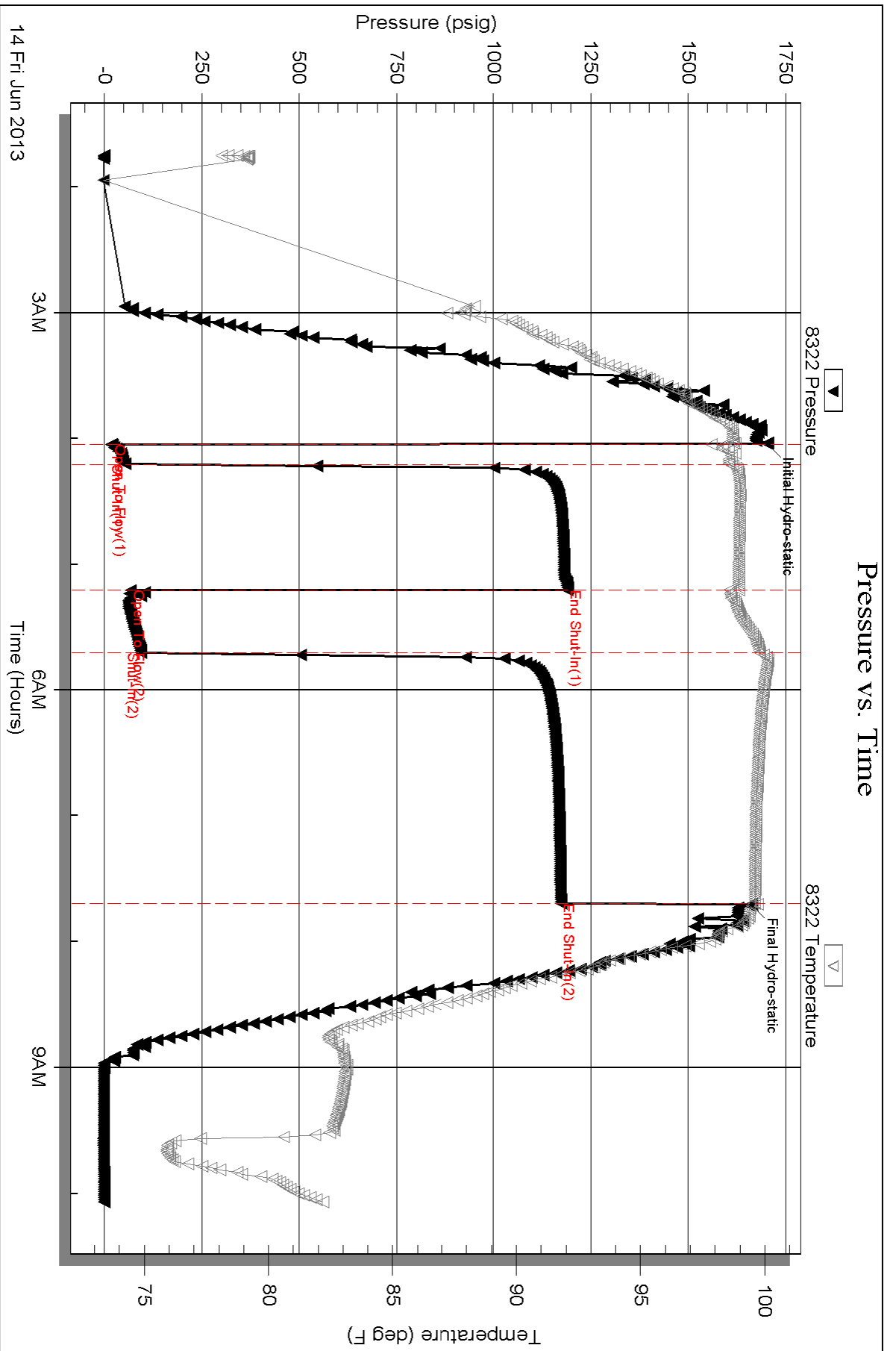
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER .112 @ 78 = 64000



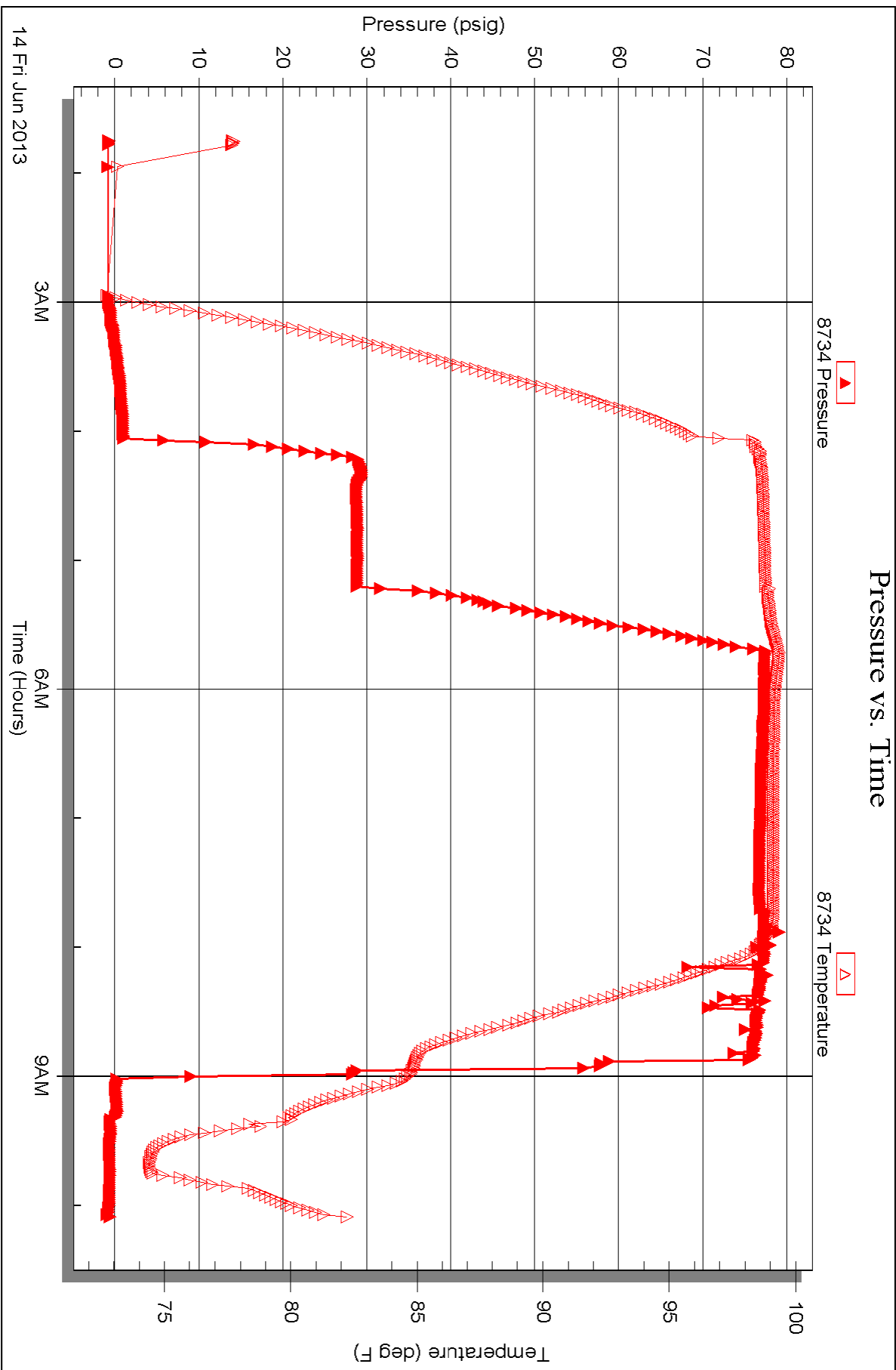
Serial #: 8734

Fluid

Samuel Gary Jr. and Associates, Inc.

Sproull Knape 1-26

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. and Associates, Inc.

26 4s 23w Norton

1515 Wynkoop St. Ste 700
Denver, CO 80202

Sproul Knappe 1-26

Job Ticket: 53817

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2013.06.15 @ 07:10:00

GENERAL INFORMATION:

Formation: **Gorham Sand**

Deviated: No Whipstock: 2333.00 ft (KB)

Time Tool Opened: 09:50:20

Time Test Ended: 15:22:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: 3691.00 ft (KB) To 3721.00 ft (KB) (TVD)

Total Depth: 3721.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2333.00 ft (KB)

2325.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 17.94 psig @ 3718.00 ft (KB)

Start Date: 2013.06.15

End Date: 2013.06.15

Start Time: 07:10:01

End Time: 15:21:40

Capacity: 8000.00 psig

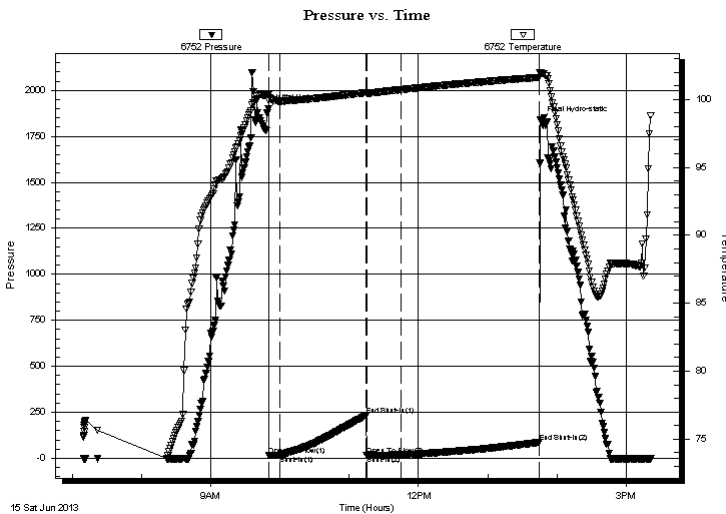
Last Calib.: 2013.06.15

Time On Btm: 2013.06.15 @ 09:50:10

Time Off Btm: 2013.06.15 @ 13:45:30

TEST COMMENT: 10-IFP- Very Weak Surging Blow When Cradled Tube
75-ISIP- No Blow
30-FFP- Good Surge on Open No Blow Unless Cradled Tube
120-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1902.01	100.38	Initial Hydro-static
1	16.06	99.93	Open To Flow (1)
10	18.04	99.88	Shut-In(1)
85	232.82	100.51	End Shut-In(1)
85	17.74	100.44	Open To Flow (2)
115	17.94	100.72	Shut-In(2)
235	86.84	101.62	End Shut-In(2)
236	1837.75	101.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

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. and Associates, Inc.

26 4s 23w Norton

1515 Wynkoop St. Ste 700
Denver, CO 80202

Sproul Knappe 1-26

Job Ticket: 53817

DST#: 2

ATTN: Clayton Camozzi

Test Start: 2013.06.15 @ 07:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

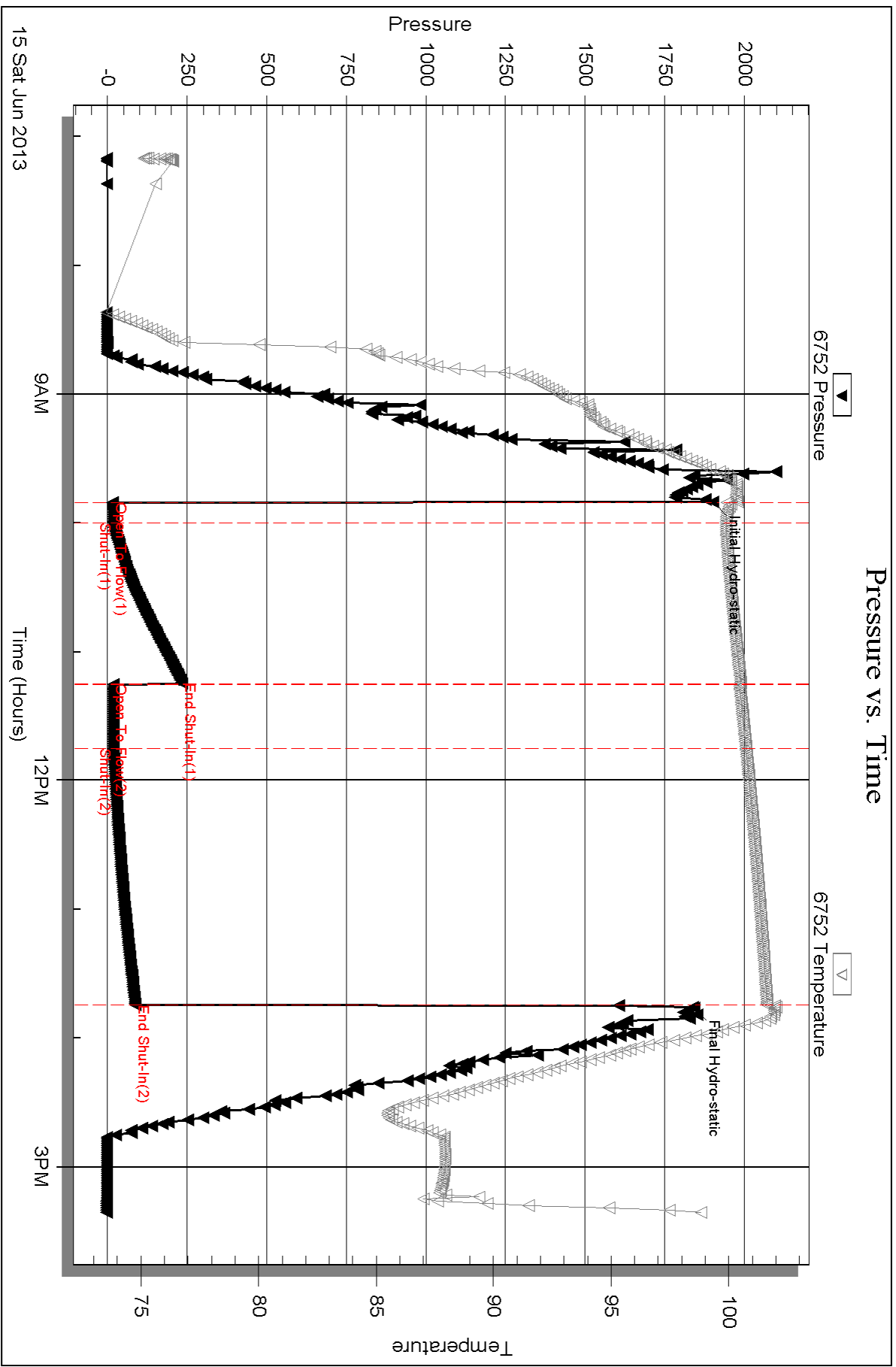
Length ft	Description	Volume bbbl

Total Length: ft Total Volume: bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:



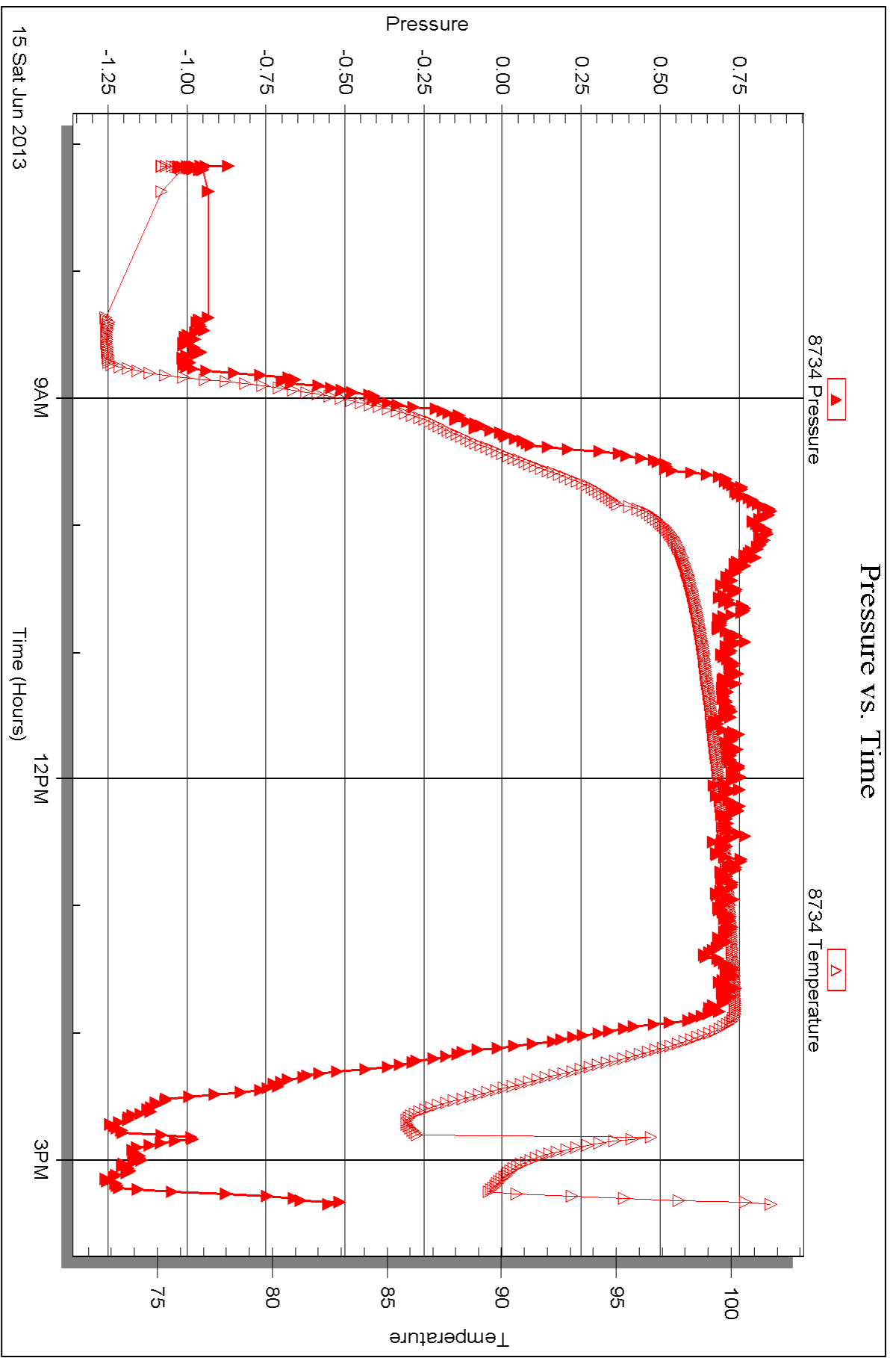
Serial #: 8734

Fluid

Samuel Gary Jr. and Associates, Inc.

Sproull Knape 1-26

DST Test Number: 2





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. and Associates, Inc.

26 4s 23w Norton

1515 Wynkoop St. Ste 700
Denver, CO 80202

Sproul Knappe 1-26

Job Ticket: 53818

DST#: 3

ATTN: Clayton Camozzi

Test Start: 2013.06.16 @ 12:45:00

GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: 2333.00 ft (KB)

Time Tool Opened: 15:06:13

Time Test Ended: 20:46:00

Test Type: Conventional Straddle (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: 3697.00 ft (KB) To 3742.00 ft (KB) (TVD)

Total Depth: 3868.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2333.00 ft (KB)

2325.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6752 Inside

Press @ RunDepth: 21.52 psig @ 3702.00 ft (KB)

Start Date: 2013.06.16

End Date: 2013.06.16

Start Time: 12:45:01

End Time: 20:45:43

Capacity: 8000.00 psig

Last Calib.: 2013.06.16

Time On Btm: 2013.06.16 @ 15:06:03

Time Off Btm: 2013.06.16 @ 18:09:23

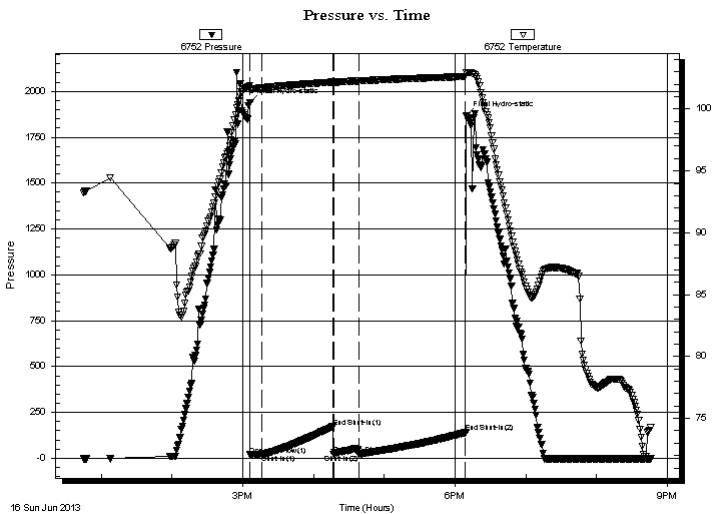
TEST COMMENT: 10-IFP-Surging Surface Blow in 5 min.

60-ISIP- No Blow

20-FFP- No Blow

90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1938.74	101.90	Initial Hydro-static
1	19.50	101.55	Open To Flow (1)
10	20.03	101.71	Shut-In(1)
71	171.76	102.18	End Shut-In(1)
71	22.01	102.15	Open To Flow (2)
93	21.52	102.27	Shut-In(2)
183	140.78	102.63	End Shut-In(2)
184	1868.50	102.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.02

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. and Associates, Inc.

26 4s 23w Norton

1515 Wynkoop St. Ste 700
Denver, CO 80202

Sproul Knappe 1-26

Job Ticket: 53818

DST#: 3

ATTN: Clayton Camozzi

Test Start: 2013.06.16 @ 12:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

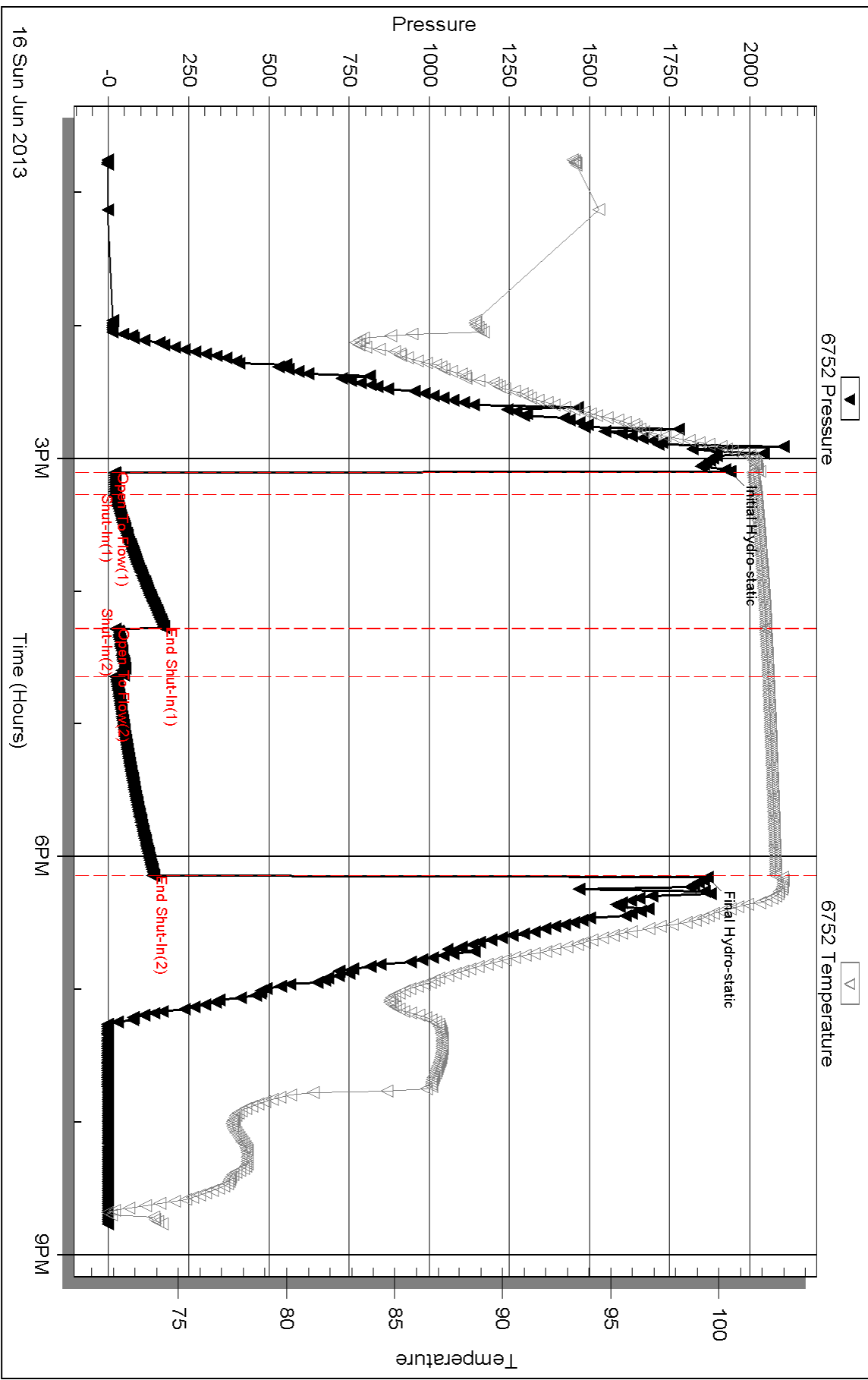
Serial #:

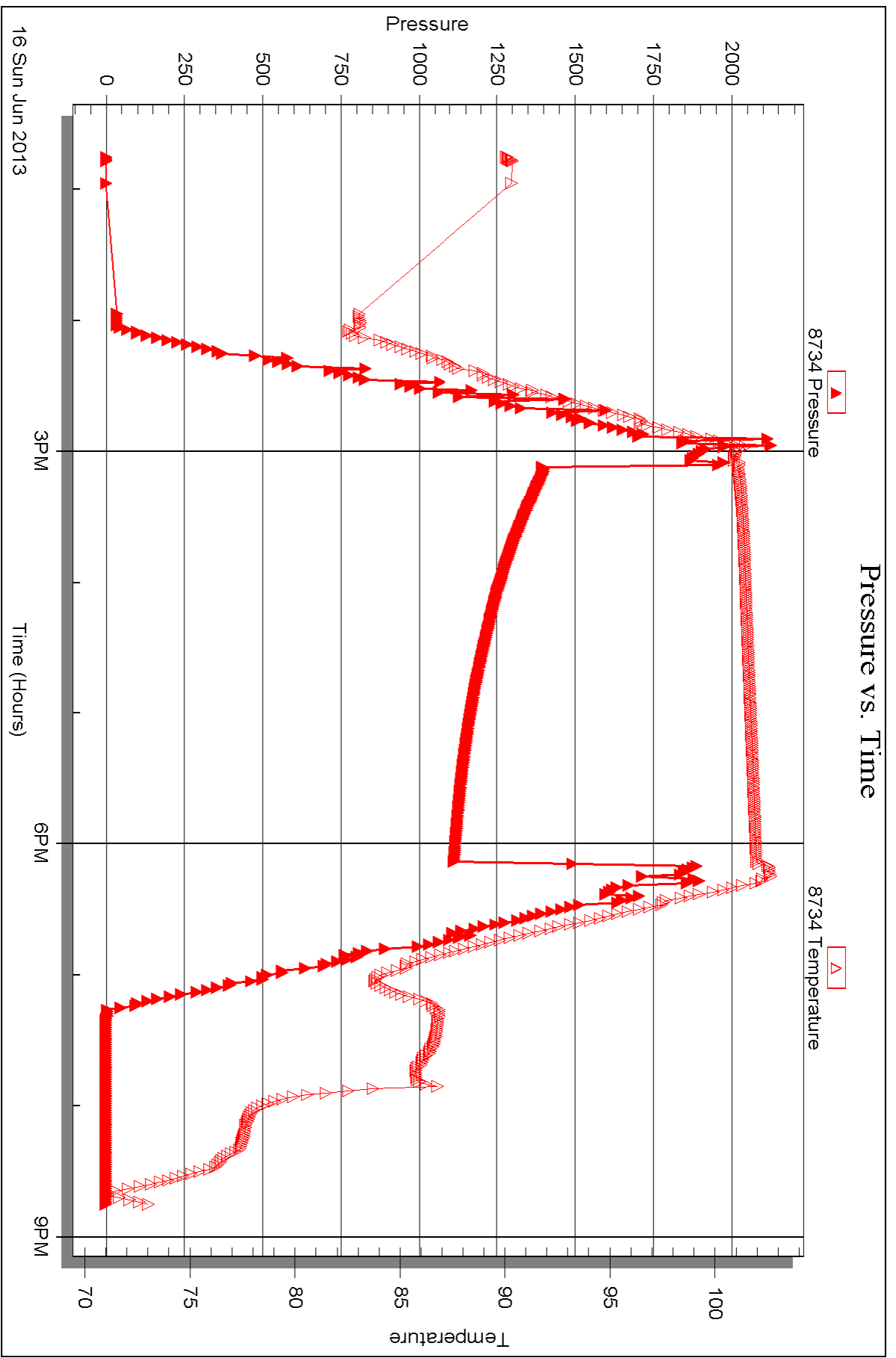
Laboratory Name:

Laboratory Location:

Recovery Comments: SAMPLER 200ml Mud 100% 40 psi

Pressure vs. Time







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

Well Name: Sproul-Knape 1-26
 Location: Sec. 26-4S-23W Norton County, Kansas
 License Number: 15-1371-20654-0000
 Spud Date: June 10, 2013
 Surface Coordinates: 1330 FSL/ 2600 FEL
 Region: WILDCAT
 Drilling Completed: June 16, 2013

Bottom Hole Coordinates:
 Ground Elevation (ft): 2325' K.B. Elevation (ft): 2333'
 Logged Interval (ft): 3150' To: 3870' Total Depth (ft): 3780'
 Formation:
 Type of Drilling Fluid:

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

OPERATOR

Company: Samuel Gary Jr. & Assoc.
 Address: 1515 Wynkoop, Ste. # 700
 Denver, Colo. 80202
 Geo: Clayton Camozzi

GEOLOGIST

Name: Aaron Suelter
 Company: Earth Tech OGL, Inc.
 Address: PO Box 683
 Hooker, Okla . 73945
 Off. 888-543-8378 Cell: 620-600-0777



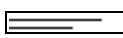

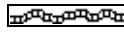



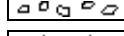



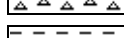








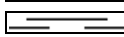
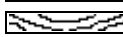


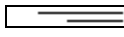




DST's Report

DST#1 3416'-3468' 10 60 30 120
 IF- SURFACE BLOW BUILDING TO 4 IN./ ISI- NO BLOW/ FF- SURFACE BLOW BUILDING TO 9 1/2 IN/ FSI- NO BLOW
 IH- 1702, FH- 1661/ IF- 19 TO 67/ FF-54 TO 93/ ISI- 1189, FSI- 1173
 RECOVERY- 67' MCW 80% WATER, 20% MUD/ 102' WCM W/ SHOW OF OIL 25% WATER, 75% MUD
 SAMPLER- 80 ML MUD, 720 ML WATER, 800 ML TOTAL, 210# PRESSURE

DST's Report

DST#2 3691'-3721' 10 75 30 120
 IF- V/WEAK SURGING BLOW WHEN CRADLED TUBE/ ISI- NO BLOW/ FF- GOOD SURGE ON OPEN- NO BLOW UNLESS CRADLED TUBE SURGE/ FSI- NO BLOW
 IH- 1902, FH- 1837/ IF- 16 TO 17/ FF- 18 TO 17/ ISI- 232, FSI- 86
 NO RECOVERY- CLUMP OF MUD TOP OF TOOL

ROCK TYPES

 Anhy	 Gyp	 Shgy	 Sandylms
 Bent	 Igne	 Sltst	 Shale
 Brec	 Lmst	 Ss	 Sltstn
 Cht	 Meta	 Till	 Shlyslts
 Clyst	 Mrlst	 Carb sh	 Sltyslts
 Coal	 Salt	 Dol	 Lms
 Congl	 Shale	 Dtd	
 Dol	 Shcol	 Gry sh	

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brefracg
- 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
- Slty

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
- Slstgr
- Ssstrg
- Carbsh

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandyms
- Sh
- Slstsn

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

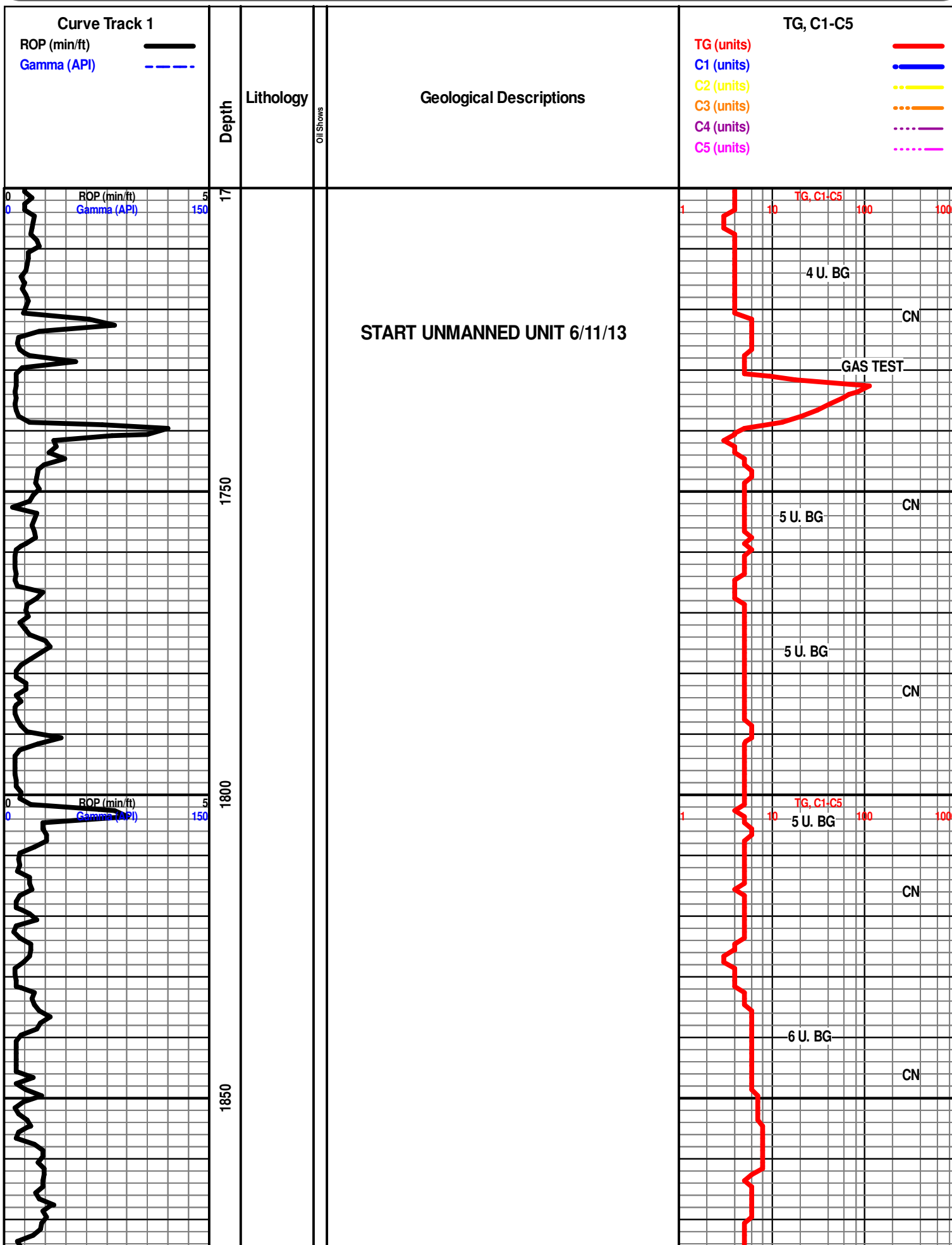
- Even
- Spotted
- Ques
- Dead
- Gas show

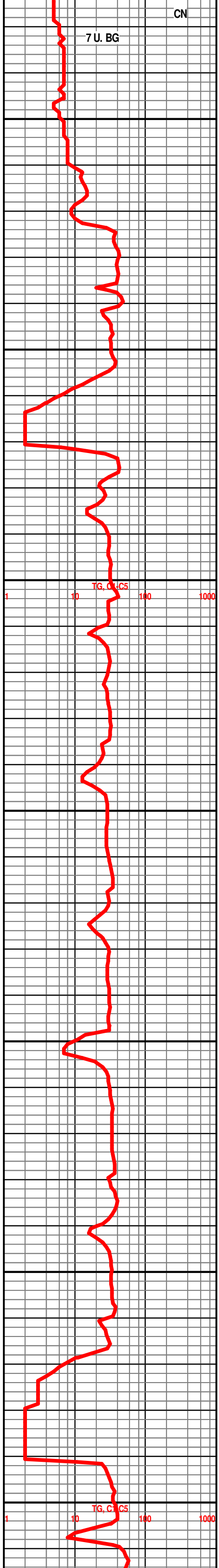
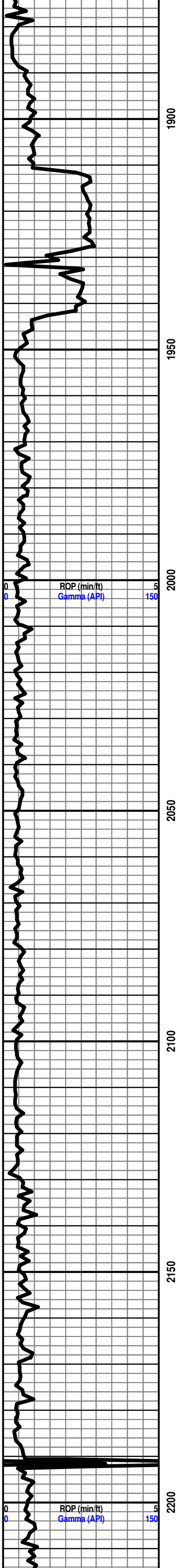
INTERVALS

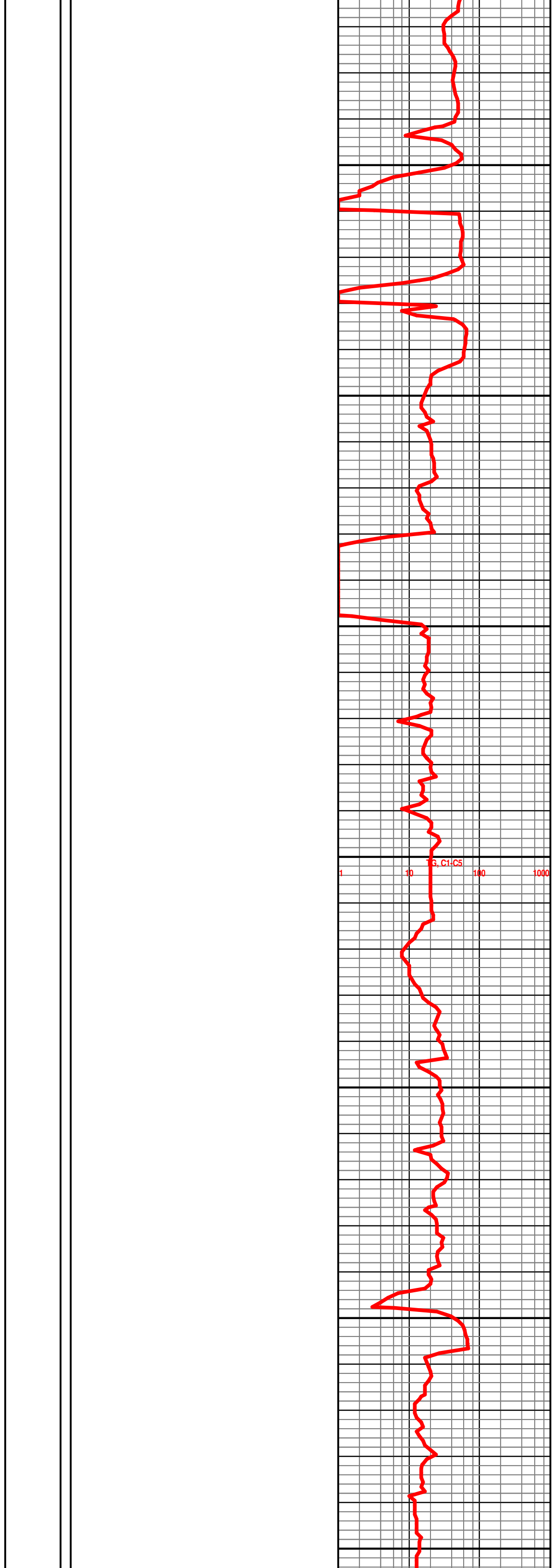
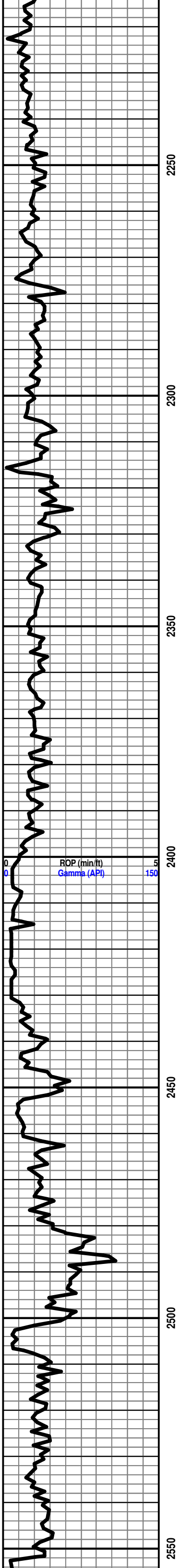
- Core
- Dst
- Dst

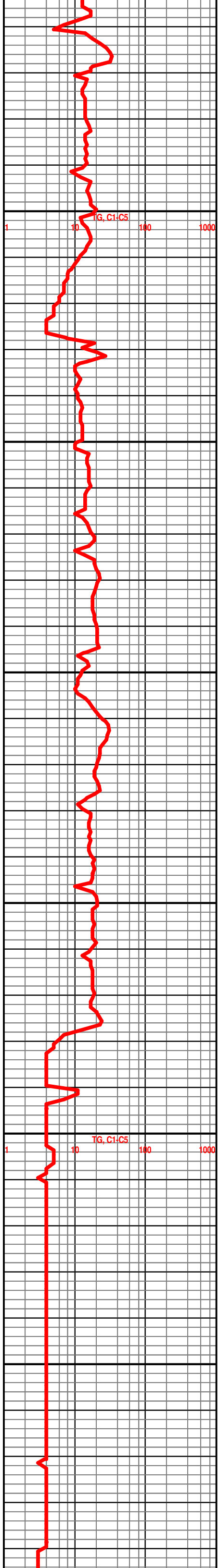
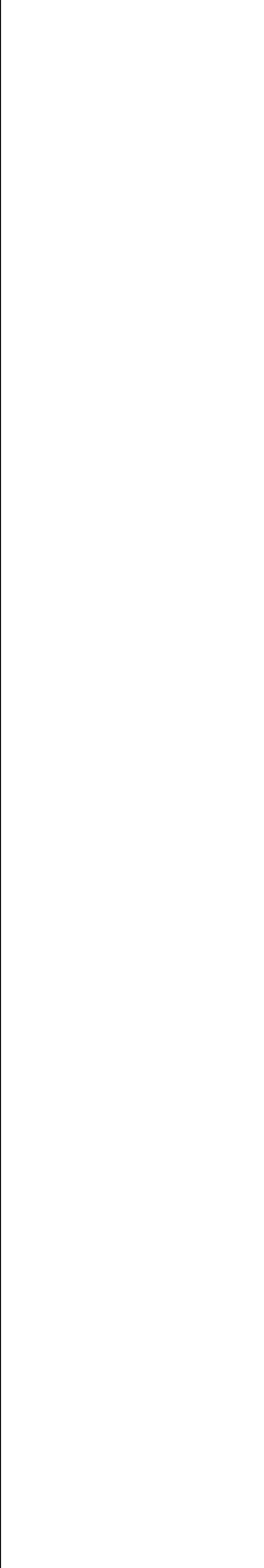
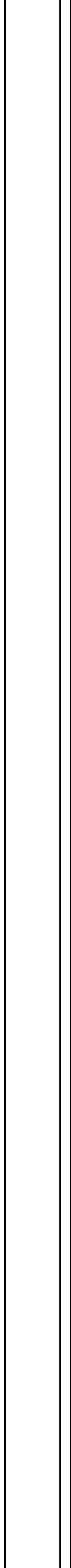
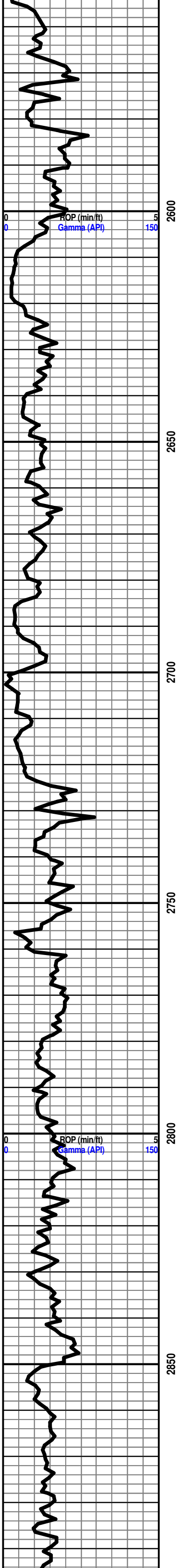
EVENTS

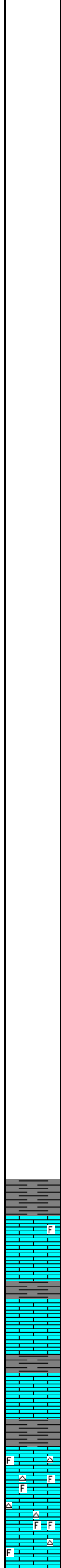
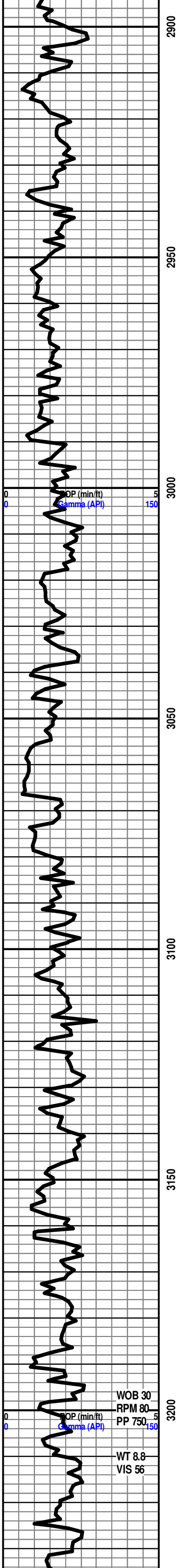
- Rft
- Sidewall











JANESVILLE SHALE 2950' -617'

START 24 HOUR MANNED UNIT 6/13/13

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

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

SH- GRN BRWN TO GY, FRM BLKY, SMTH TO SLTY TXT

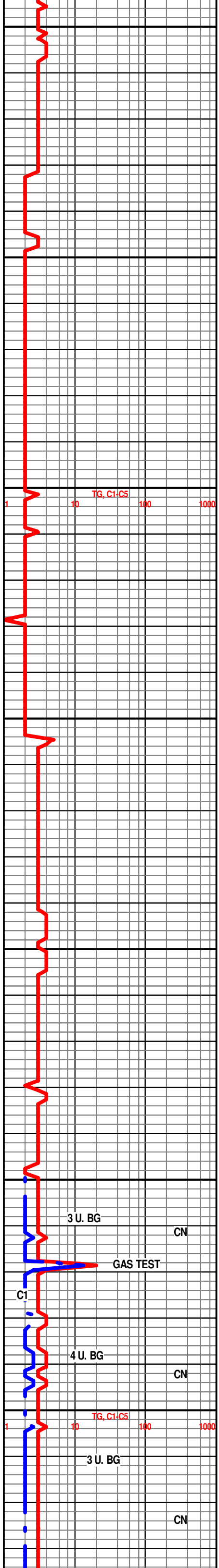
LS- LT GY TO LT TN, HD DNS TO BRIT BRIT IP, V/F TO MD XLN RE-XLN MTRX, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLK IP, RE-XLN IP, SLI TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

TOPEKA 3208' -875'

LS- LT TN TO TN, HD DNS TO BRIT IP, V/F TO MD XLN RE-XLN MTRX, S-CHLKY IP, S-SUCRO IP, IMBD FOSS FRG THRU, SLI TR IMBD CALC XLS IP, TN TO ORNG CHRT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TO TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, S-SUCRO IP, ABTD IMBD FOSS FRAG THRU. TR CRM TO ORNG CHRT IN TRAY. NO VIS FLO. NO

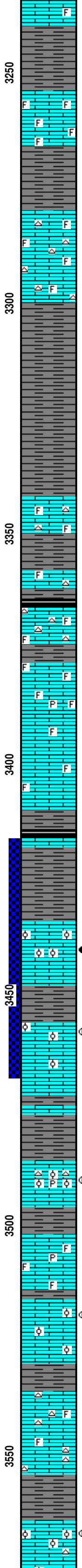
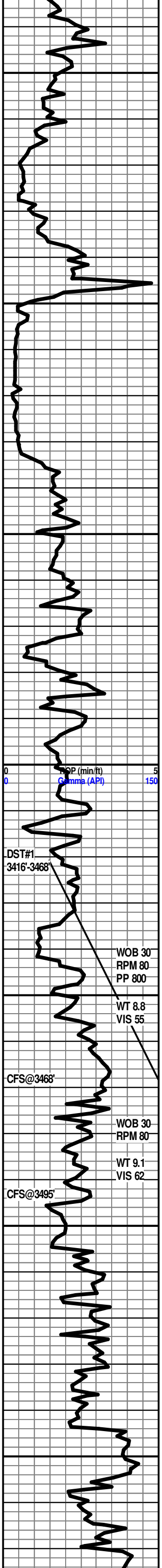


WOB 30
RPM 80
PP 750

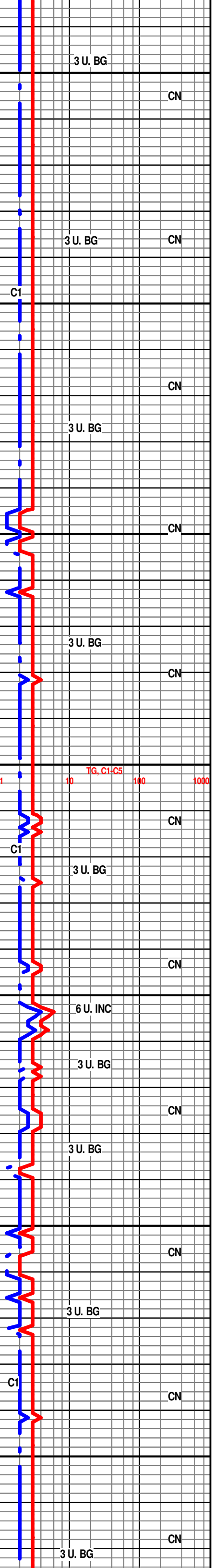
WT 8.8
VIS 56

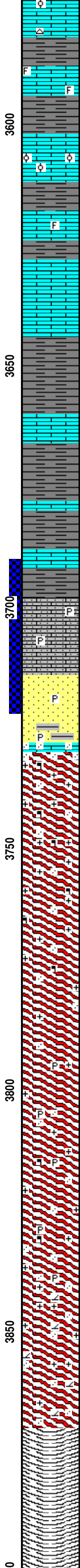
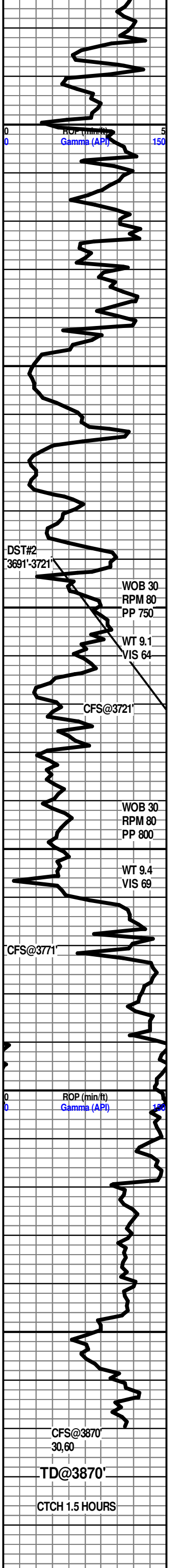
3 U. BG
GAS TEST
C1
4 U. BG

3 U. BG



VIS POR, NO VIS SHOW
 SH- GRN BRWN TO GY, FRM BLKY TO SFT GMMY, SLTY TXT
 LS- CRM TO LT TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, ABDT IMBD FOSS FRG THRU, SLI TR FREE CALC XLS IN TRAY, NO VIS FLO, FR TO GD INTR FOSS POR IN 3%, NO VIS SHOW
 SH- BRWN TO GY FRM BLKY, SLTY TXT
 LS- OFF WHT CRM TO LT TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, S-SUCRO, S-CHLKY IP, SCAT IMBD FOSS FRG THRU, TR IMBD CALC XLS IP, ABDT TN TO ORNG CHRT IN TRAY, SFT WHT CHLK IN TRAY NO VIS FLO, NO VIS POR, NO VIS SHOW
 SH- GRN BRWN TO RED, FRM BLKY TO SFT GMMY, SLTY TXT
 SH- GRN BRWN TO RED, FRM BLKY TO SFT GMMY, SLTY TXT
 LS- CRM TO LT TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-CHLKY IP, SCAT IMBD FOSS FRG THRU, TR TN TO ORNG CHRT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW
 SH- BLCK SFT CARB
 LS- CRM TO LT TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-CHLKY IP, SCAT IMBD FOSS FRG THRU, SLI TR IMBD CALC XLS IP, CRM TO ORNG CHRT IN TRAY MOTT, NO VIS FLO, NO VIS POR, NO VIS SHOW
 LS- OFF WHT CRM TO LT TN, HD DNS TO BRIT IP, V/F TO MD XLN RE-XLN MTRX, S-CHLKY IP, ABDT IMBD FOSS FRG THRU, IMBD CALC XLS IP, SLI TR IMBD PYR IP, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW
 LS- LT GY CRM TO LT TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, TR IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW
HEEBNER 3411' -1078'
 SH- BLCK, SFT, CARB
 SH- GRN BRWN TO GY, FRM BLKY, SPLNTY, TO SFT GMMY, SLTY TXT
 3440'-3442' LS- CRM TO LT TN W/ TN TO DK TN OIL STN IN 60%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD S-ANG TO S-RND SM TO CRS LS GRNS THRU, IMBD OOL THRU, BRT YEL GLD FLO IN 60%, FR TO GD INTR GRN/OOL POR IN 7%, PR TO FR VUG POR IN 2%, V/GD INSTNT FLSH CUT IN 80%, V/GD GASSY SLW STRM IN 80%, DK TN LCH ON DISH, FR TO GD OIL ODOR
LANSING 3456' -1123
 3458'-3459' LS- LT TN TO TN W/ TN OIL STN IN 40%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL IP, TR SCAT IMBD S-ANG TO ANG CRS LS GRNS IP, SCAT IMBD CALC XLS IP, BRT YEL GLD FLO IN 40%, PR TO FR INTR XLN POR IN 3%, PR INTR GRN/OOL POR IN 2%, FR TO GD VUG POR IN 2%, FR FLSH CUT IN 45%, FR SLW STRM IN 45%, TN LCH ON DISH, WK OIL ODOR
 SH- RED BRW TO GY, FRM BLKY, SLTY TXT
LANSING "B" 3487' -1154'
 3490'-3492' LS- 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, ABDT IMBD OOL THRU, SLI TR PYR IN TRAY, TR WHT TO FRSTY CHRT IN TRAY BRT YEL GLD FLO IN 60%, PR TO FR INTR OOL POR IN 4%, FR VUG POR IN 2%, GD FLSH CUT IN 60%, GD TO V/GD GSSY SLW STRM IN 60%, TN LCH ON DISH, GD OIL ODOR
 LS- LT TN TO DK TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, SLI TR IMBD DISS PYR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW
 3518'-3521' LS- OFF WHT TO CRM W/ LT TN OIL STN IN 35%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, IMBD OOL IP, SLI TR IMBD PYR IP, DUL YEL GLD FLO IN 35%, PR INTR OOL POR IN 4%, V/WK FLSH CUT IN 3%, V/PR TO PR SLW STRM IN 20%, NO LCH ON DISH, WK OIL ODOR
 LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO FL XLN SUCRO MTRX, SLI TR IMBD FOSS FRG IP, ABDT OFF WHT TN TO ORNG CHRT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW
LANSING "F" SHALE 3555' -1222'
 SH- RED BRWN TO GY, FRM BLKY, SLTY TXT
 3567'-3570' LS- CRM TO LT TN W/ TN OIL STN IN 50%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, SLI TR IMBD CALC XLS IP, SLI TR CRM TO TN CHRT IN TRAY, DUL YEL GLD FLO IN 50%, PR TO FR INTR OOL POR IN 4%, FR FLSH CUT IN 50%, FR SLW STRM IN





50%, LT TN LCH ON DISH, WK OIL ODOR

SH- RED TO GRY, SFT GMMY TO FRM BLKY, SLTY TXT

LS- OFF WHT TO TN, HD DNS TO BRIT, V/F TO F XLN SUCRO TMRX, S-CHLKY, SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LANSING "G" 3601' -1268'

3607'-3608' LS- CRM TO LT TN W/ LT TN TO TN OIL STN IN 40% HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SLI S-CHLKY IP, IMBD OOL IP, DUL YEL GLD FLO IN 40%, PR TO FR INTR OOL POR IN 3%, PP POR IN 3%, WK FLSTH CUT IN 15%, PR TO FR SLW STRM IN 15%, NO LCH ON DISH

SH- RED BRWN TO GY, SFT GMMY TO FRM BLKY, SLTY TXT

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

BKC 3645' -1312'

SH- RED TO BRWN, SFT GMMY

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

SH- RED BRWN, SFT GMMY

SH- RED BRWN, SFT GMMY

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

LS- WHT OFF WHT TO CRM, HD DNT TO SFT GMMY, F TO MD XLN SUCRO MTRX, S-CHLKY, ABDT IMBD S-RND TO S-ANG SM TO MD QRTZ GRNS THRU, SLI TR IMBD PYR IP, ABDT SFT WHT CHLK IN TRAY, NO VIS FLO, FR INTR GRN POR IN 5%, NO VIS SHOW

GORHAM SAND 3714' -1381'

3714'-3720' SS- PRED UNCONSOLIDATED GRNS, CLR FRST TO TN, QRTZ GRN, V/FRI, MD TO CRS GRN, ANG TO RND, FR SORT, SIL CMNT, SLI TR PYR IN TRAY, DUL YEL GLD FLO IN 25%, V/GD INTR GRN POR THRU, FR FLSTH CUT IN 50%, GD SLW STRM CUT IN 75%, NO LCH ON DISH, NO OIL ODOR

3725'-3728' SS- PRED UNCONSOLIDATED GNRS, CLR FRST TO TN, QRTZ GRN, FRI, MD CRST TO PEBBLE GRN, AND TO RND, FR SRT, SIL SMNT, SLI TR PYR IN TRAY, ABDT QRTZ LG CLR QRTZ XLS IN TR W/ IMBD BIOTITE, TR RED TO GY SH IN TRAY, NO FLO THRU, GD INTR GRN POR THRU, WK SLW STRM IN 40%, FR SLW STRM IN 50%, NO LCH ON DISH

3728'-3729' LS- OFF WHT TO CRM W/ TN OIL STN IN 60%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, TR IMBD QRTZ XLS IP, DUL YEL GLD FLO IN 60%, TT INTR XLN POR IN 3%, GD FLSTH CUT IN 60%, GD SLW STRM IN 60%, LT TN LCH ON DISH

GRANITE WASH 3729' -1396'

3729'-3749' GRANTE WASH- CLR ORNG PNK TO RED, HD DNS, ANG TO S-RND, ABDT QRTZ, ABDT IMBD BIOTITE, IMBD HEMATITE, FELDSPAR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

3750'-3771' GRANTE WASH- CLR ORNG TO PNK, HD DNS, ANG TO S-RND, ABDT QRTZ, ABDT IMBD BIOTITE, IMBD HEMATIE, TR FELDSPAR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRANTE WASH- CLR ORNG TO PNK, HD DNS, AND TO S-ANG, ABDT QRTZ, ABDT IMBD BIOTITE, SCAT IMBD HEMATITE IP, SCAT FELDSPAR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRANTE WASH- CLR ORNG TO PNK, HD DNS, AND TO S-ANG, ABDT QRTZ, ABDT IMBD BIOTITE, SCAT FELDSPAR IN TRAY, SLI TR PYR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRANTE WASH- CLR ORNG TO PNK, HD DNS, AND TO S-ANG, ABDT QRTZ, ABDT IMBD BIOTITE, TR SCAT IMBD HEMATITE IP, SCAT FELDSPAR IN TRAY, TR PYR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRANTE WASH- CLR ORNG TO PNK, HD DNS, AND TO S-ANG, ABDT QRTZ, ABDT IMBD BIOTITE, TR SCAT IMBD HEMATITE IP, SCAT FELDSPAR IN TRAY, TR PYR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

GRANTE WASH- CLR ORNG TO PNK, HD DNS, AND TO S-ANG, ABDT QRTZ, ABDT IMBD BIOTITE, ABDT FELDSPAR IN TRAY, SCAT IMBD DOLO IN TRAY NO VIS FLO, NO VIS POR, NO VIS SHOW

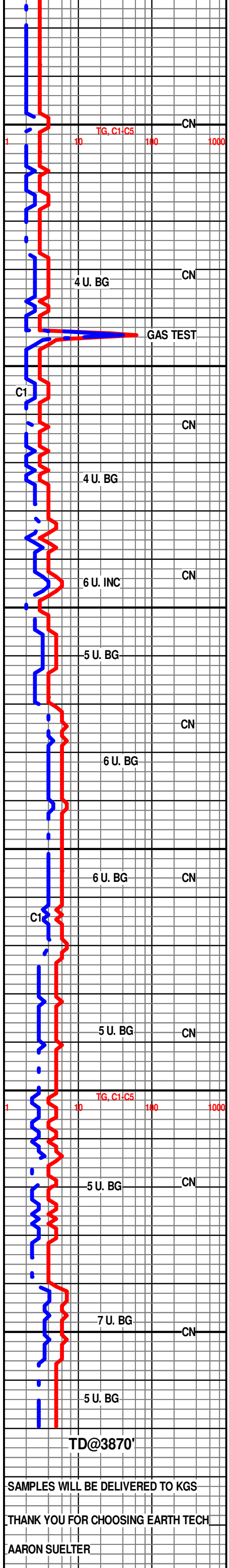
GRANTE WASH- CLR ORNG TO PNK, HD DNS, AND TO S-ANG, ABDT QRTZ, ABDT IMBD BIOTITE, ABDT FELDSPAR IN TRAY, SCAT IMBD DOLO IN TRAY NO VIS FLO, NO VIS POR, NO VIS SHOW

R.T.D. @ 4:00 AM 6/16/13

DROP SURVEY

TOFL

WEATHERFORD/ LIBERAL



SAMPLES WILL BE DELIVERED TO KGS

THANK YOU FOR CHOOSING EARTH TECH

AARON SUELTER