



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1108583  
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: \_\_\_\_\_



1108583

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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

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

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

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

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

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	PFANNENSTIEL 1-20
Doc ID	1108583

All Electric Logs Run

DENSITY-NEUTRON
INDUCTION
MICRO
SONIC
SPECTRAL GR

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

January 18, 2013

CHRISTOPHER MITCHELL  
Samuel Gary Jr. & Associates, Inc.  
1515 WYNKOOP, STE 700  
DENVER, CO 80202

Re: ACO1  
API 15-051-26395-00-00  
PFANNENSTIEL 1-20  
SW/4 Sec.20-14S-17W  
Ellis 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,  
CHRISTOPHER MITCHELL



**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: 10/3/2012  
 Invoice # 6015

P.O.#:

Due Date: 11/2/2012

Division: Russell

# Invoice

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

**Reference:**  
 PFANNENSTIEL 1-20

**Description of Work:**  
 LONG SURFACE JOB

**RECEIVED**

OCT 12 2012

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

<input type="checkbox"/> W/O JOB <input type="checkbox"/> COMP <input type="checkbox"/> W/O <input type="checkbox"/> JOB <input type="checkbox"/> JGG	
Account	8-200-138
Well/Prospect	
Deck	
A/E	<i>[Signature]</i>
Approval	
Description	

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 937.80	No	Bulk Truck Mileage-Job to Nearest Bulk Plant	9	\$53.98	No
Common-Class A	450	\$ 5,795.51	Yes				
8 5/8" Basket	3	\$ 973.62	Yes				
Bulk Truck Matl-Material Service Charge	475	\$ 975.68	No				
Calcium Chloride	16	\$ 783.17	Yes				
Flo Seal	112	\$ 230.05	Yes				
8 5/8" Centralizer	3	\$ 197.19	Yes				
Premium Gel (Bentonite)	9	\$ 150.48	Yes				
8 5/8" Top Rubber Plug	1	\$ 108.86	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 92.43	Yes				
Pump Truck Mileage-Job to Nearest Camp	9	\$ 92.25	No				

**Invoice Terms:**

Net 30

SubTotal: \$ 10,391.03  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,558.65)

SubTotal for Taxable Items:	\$ 7,081.63
SubTotal for Non-Taxable Items:	\$ 1,750.75
<b>Total:</b>	<b>\$ 8,832.37</b>
<b>Tax:</b>	<b>\$ 446.14</b>

6.30% Ellis County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 9,278.52**  
**Applied Payments:**  
**Balance Due: \$ 9,278.52**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# 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. 6015

Date	9-29-12	Sec.	20	Twp.	14	Range	17	County	ELLIS	State	KANSAS	On Location		Finish	12:00 PM
Location								MUNJOR 1 1/2 E							
Lease	PFANNENSTIEL			Well No.	#1-20			Owner	SAM GARY						
Contractor	VAL #6			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	L. SURFACE			Charge To								SAM GARY Jr & Assoc.			
Hole Size	12 1/4"			T.D.	939'			Street	1515 WYNKOOP						
Csg.	8 5/8			Depth	939'			City	DENVER			State CO, 80202			
Tbg. Size				Depth				The above was done to satisfaction and supervision of owner agent or contractor.							
Tool				Depth				Cement Amount Ordered	450 Com-3cc - 2cc						
Cement Left in Csg.				Shoe Joint	42			1/4 floored							
Meas Line				Displace	57			EQUIPMENT							
Pumptrk #5 No. Cementer Helper BRETT								Common							
Bulktrk #12 No. Driver LONNIE								Poz. Mix							
Bulktrk #14 No. Driver CISCO								Gel. 9							
JOB SERVICES & REMARKS								Calcium 10							
Remarks:								Hulls							
Rat Hole								Salt							
Mouse Hole								Flowseal 112#							
Centralizers								Kol-Seal							
Baskets								Mud CLR 48							
D/V or Port Collar								CFL-117 or CD110 CAF 38							
CEMENT DID CIRCULATE!								Sand							
								Handling 475							
								Mileage							
								FLOAT EQUIPMENT							
								Guide Shoe 1 8 3/4 Rubber plug							
								Centralizer 3							
								Baskets 3							
								AFU Inserts							
								Float Shoe 1 Baffle plate							
								Latch Down 8 3/4 Head & Man							
								Pumptrk Charge Long Surface							
								Mileage 9							
THANK YOU!								Tax							
Signature								Discount							
								Total Charge							



**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: 10/8/2012  
 Invoice # 6021

P.O.#:

Due Date: 11/7/2012

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**

**OCT 16 2012**

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

**Reference:**  
 PFANNENSITEL 1-20

**Description of Work:**  
 PLUG JOB

DRLG  COMP  W/O  LOE  GG

Account	7200-145
Well/Prospect	
Deck	
AFE	
Approval	RG
Description	

**Services / Items Included:**

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	Yes				
Common-Class A	129	\$ 1,756.32	Yes				
Bulk Truck Mat-Material Service Charge	223	\$ 484.23	Yes				
POZ Mix-Standard	86	\$ 429.51	Yes				
Premium Gel (Bentonite)	8	\$ 141.40	Yes				
Flo Seal	50	\$ 108.57	Yes				
Pump Truck Mileage-Job to Nearest Camp	9	\$ 97.52	Yes				
Dry Hole Plug	1	\$ 60.80	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	9	\$ 57.07	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 4,126.80  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (619.02)

SubTotal for Taxable Items:	\$ 3,507.78
SubTotal for Non-Taxable Items:	\$ -
<b>Total:</b>	<b>\$ 3,507.78</b>
<b>Tax:</b>	<b>\$ 220.99</b>
<b>Amount Due:</b>	<b>\$ 3,728.77</b>
<b>Applied Payments:</b>	
<b>Balance Due:</b>	<b>\$ 3,728.77</b>

6.30% Ellis County Sales Tax

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# 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. 6021

Date	10-5-12	Sec.	20	Twp.	14	Range	17	County	ELLIS	State	On Location	Finish	7:30 AM
------	---------	------	----	------	----	-------	----	--------	-------	-------	-------------	--------	---------

Location

Lease	PFANNENSTIEL	Well No.	1-20	Owner	SAM GARY J
Contractor	VAL #10	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	P.T.A	Charge To SAM GARY Jr & Assoc			
Hole Size	7 7/8"	T.D.	3560	Street	1515 WYNKOOP
Csg.	7 7/8"	Depth		City	DENVER
Tbg. Size	4 1/2"	Depth		State	CO, 80202
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.		Shoe Joint		Cement Amount Ordered	215 40 202 - 4 1/2" 4 PLS

Meas Line	Displace	Common	129
-----------	----------	--------	-----

EQUIPMENT			
Pumptrk #9	No.	Cementer	
		Helper	MATT
Bulktrk #13	No.	Driver	
		Driver	DOUG
Bulktrk PLU	No.	Driver	
		Driver	CISCO

JOB SERVICES & REMARKS

Remarks:	Salt
Rat Hole 30 SKS	Flowseal 5" #
Mouse Hole 15 SKS	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
1st @ 3540	25 SKS
2nd @ 1195	45 SKS
3rd @ 540	90 SKS
4th @ 40	10 SKS
RAT HOLE	30 SKS
MOUSE HOLE	15 SKS
	215 SKS
	Handling 223
	Mileage
	FLOAT EQUIPMENT
	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	1-8 3/8 WOODEN PLUG

Pumptrk Charge	plug	Tax	
Mileage	9	Discount	
		Total Charge	

X Signature Randy D. M... (handwritten signature)





## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. & Ass.**

1515 Wynkoop St. Suite 700  
Denver CO, 80202

ATTN: Chris Mitchell

### **Pfannenstiel 1-20**

#### **20-14s-17w Ellis KS**

Start Date: 2012.10.03 @ 02:25:00

End Date: 2012.10.03 @ 10:35:00

Job Ticket #: 51004                      DST #: 1

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

Printed: 2012.12.12 @ 13:06:04



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Ass.

**20-14s-17w Ellis KS**

1515 Wynkoop St. Suite 700  
Denver CO, 80202

**Pfannenstiel 1-20**

Job Ticket: 51004

**DST#: 1**

ATTN: Chris Mitchell

Test Start: 2012.10.03 @ 02:25:00

## GENERAL INFORMATION:

Formation: **KC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:40:30

Time Test Ended: 10:35:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 38

**Interval: 3275.00 ft (KB) To 3320.00 ft (KB) (TVD)**

Reference Elevations: 1976.00 ft (KB)

Total Depth: 3320.00 ft (KB) (TVD)

1966.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8354**

**Inside**

Press@RunDepth: 51.29 psig @ 3279.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.03

End Date:

2012.10.03

Last Calib.: 2012.10.03

Start Time: 02:35:00

End Time:

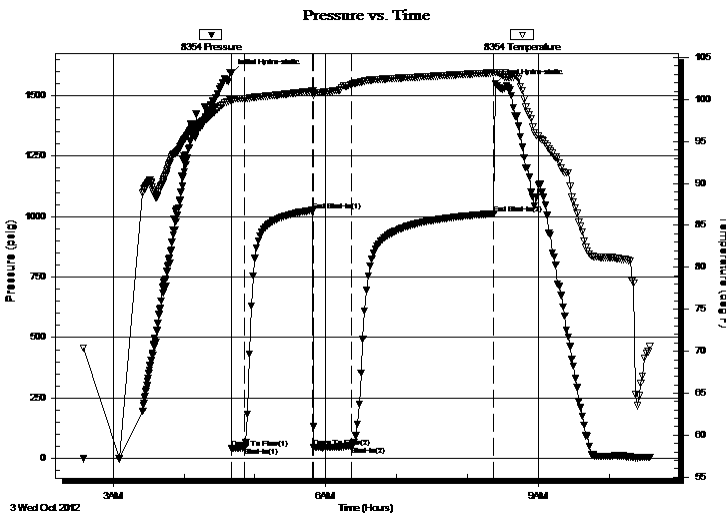
10:35:00

Time On Btm: 2012.10.03 @ 04:40:00

Time Off Btm: 2012.10.03 @ 08:24:00

**TEST COMMENT:** 010 - IF- 1 1/4" blow .  
060 - IS- No blow back  
030 - FF- 3/4" blow .  
120 - FS- No blow back.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1592.51	100.05	Initial Hydro-static
1	40.20	99.84	Open To Flow (1)
12	45.60	100.07	Shut-In(1)
69	1025.79	101.01	End Shut-In(1)
70	45.42	100.85	Open To Flow (2)
102	51.29	101.82	Shut-In(2)
223	1012.14	103.19	End Shut-In(2)
224	1549.79	103.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud - w ith oil spots, 100%M	0.21

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Samuel Gary Jr. & Ass.

**20-14s-17w Ellis KS**

1515 Wynkoop St. Suite 700  
Denver CO, 80202

**Pfannenstiel 1-20**

Job Ticket: 51004

**DST#: 1**

ATTN: Chris Mitchell

Test Start: 2012.10.03 @ 02:25:00

## Tool Information

Drill Pipe:	Length: 3250.00 ft	Diameter: 3.80 inches	Volume: 45.59 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 53000.00 lb
			<u>Total Volume: 45.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3275.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	8653	Fluid	3241.00	
Change Over Sub	5.00			3246.00	
Shut In Tool	5.00			3251.00	
Sampler	2.00			3253.00	
Hydraulic tool	5.00			3258.00	
Jars	5.00			3263.00	
Safety Joint	3.00			3266.00	
Packer	5.00			3271.00	34.00 Bottom Of Top Packer
Packer	4.00			3275.00	
Stubb	1.00			3276.00	
Perforations	3.00			3279.00	
Recorder	0.00	8354	Inside	3279.00	
Recorder	0.00	8520	Outside	3279.00	
Change Over Sub	1.00			3280.00	
Drill Pipe	31.00			3311.00	
Change Over Sub	1.00			3312.00	
Perforations	5.00			3317.00	
Bullnose	3.00			3320.00	45.00 Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. & Ass.

**20-14s-17w Ellis KS**

1515 Wynkoop St. Suite 700  
Denver CO, 80202

**Pfannenstiel 1-20**

Job Ticket: 51004

**DST#: 1**

ATTN: Chris Mitchell

Test Start: 2012.10.03 @ 02:25:00

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud - with oil spots, 100%M	0.210

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Samuel Gary Jr. & Ass.

**20-14s-17w Ellis KS**

1515 Wynkoop St. Suite 700  
Denver CO, 80202

**Pfannenstiel 1-20**

Job Ticket: 51004

**DST#: 1**

ATTN: Chris Mitchell

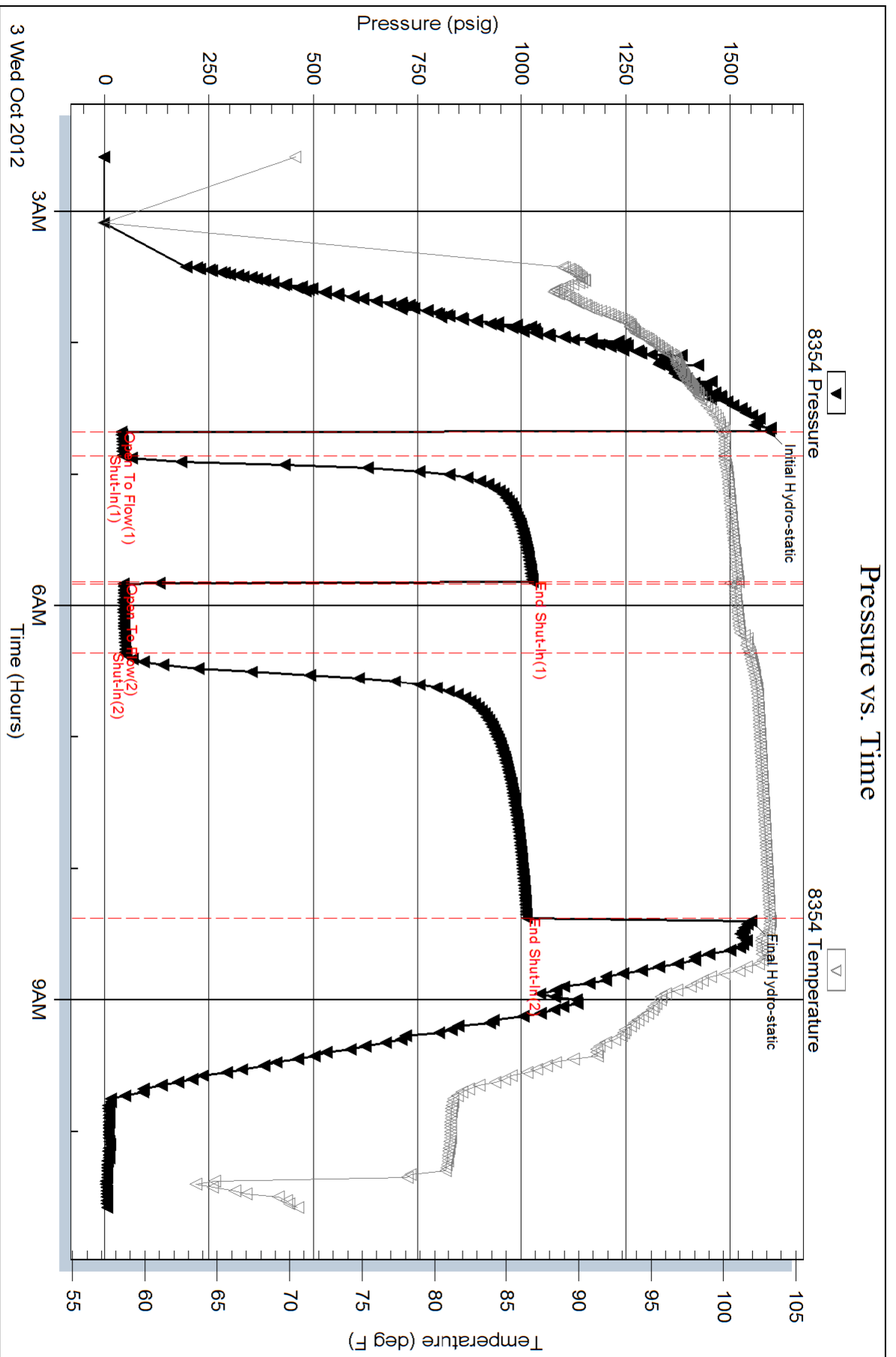
Test Start: 2012.10.03 @ 02:25:00

### Gas Rates Information

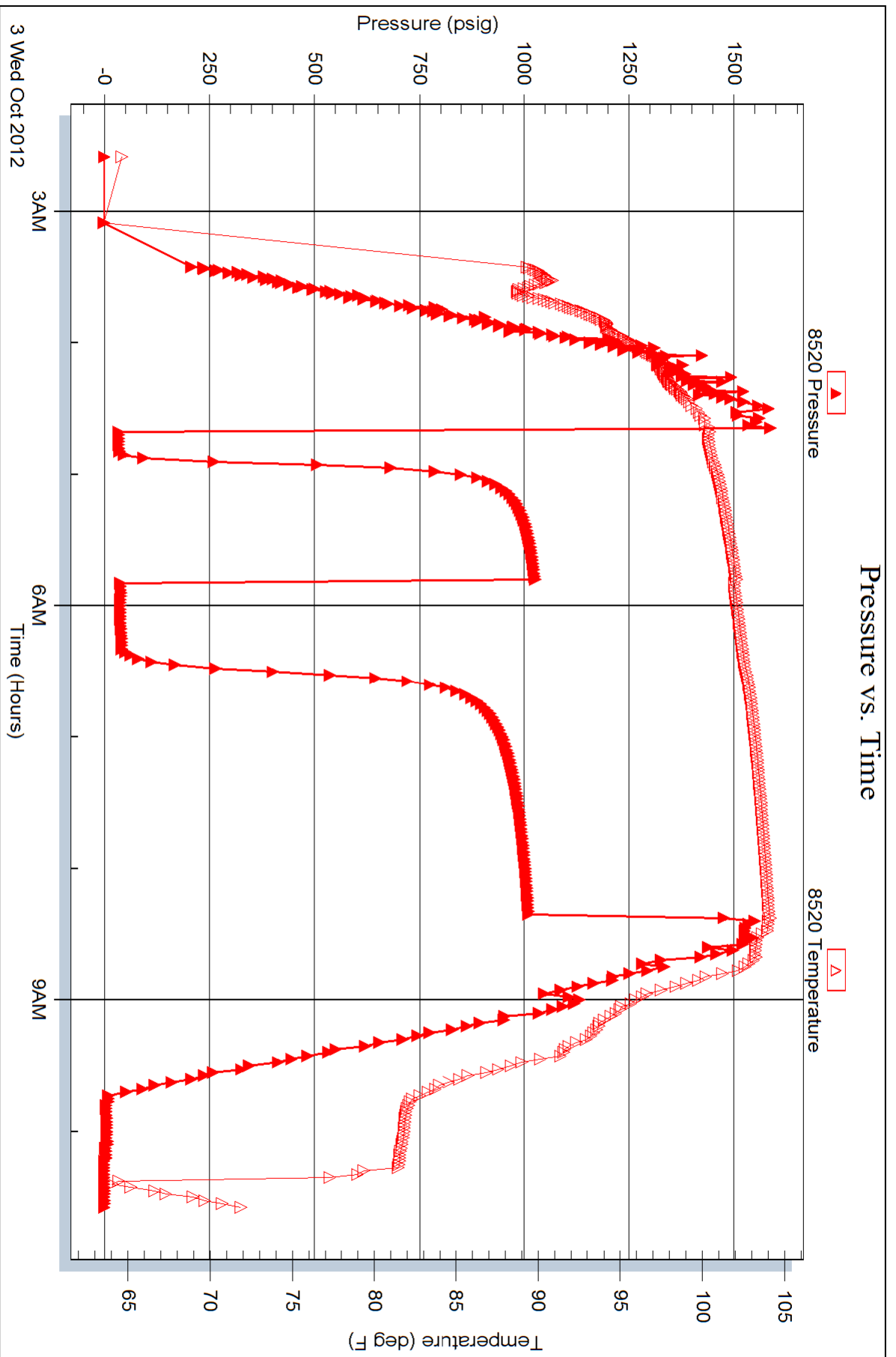
Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
		0.00	0.00	0.00







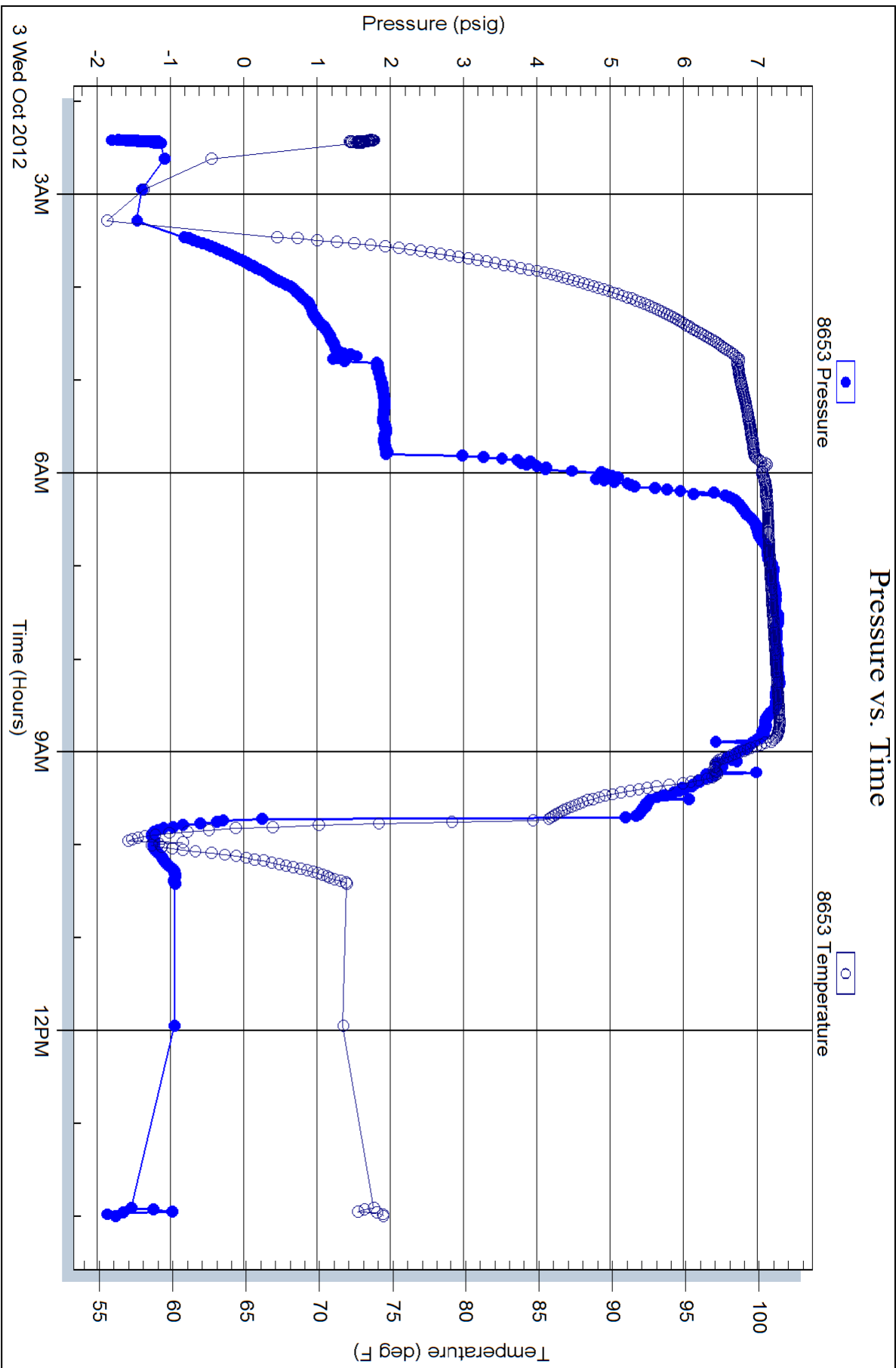
Serial #: 8653

Fluid

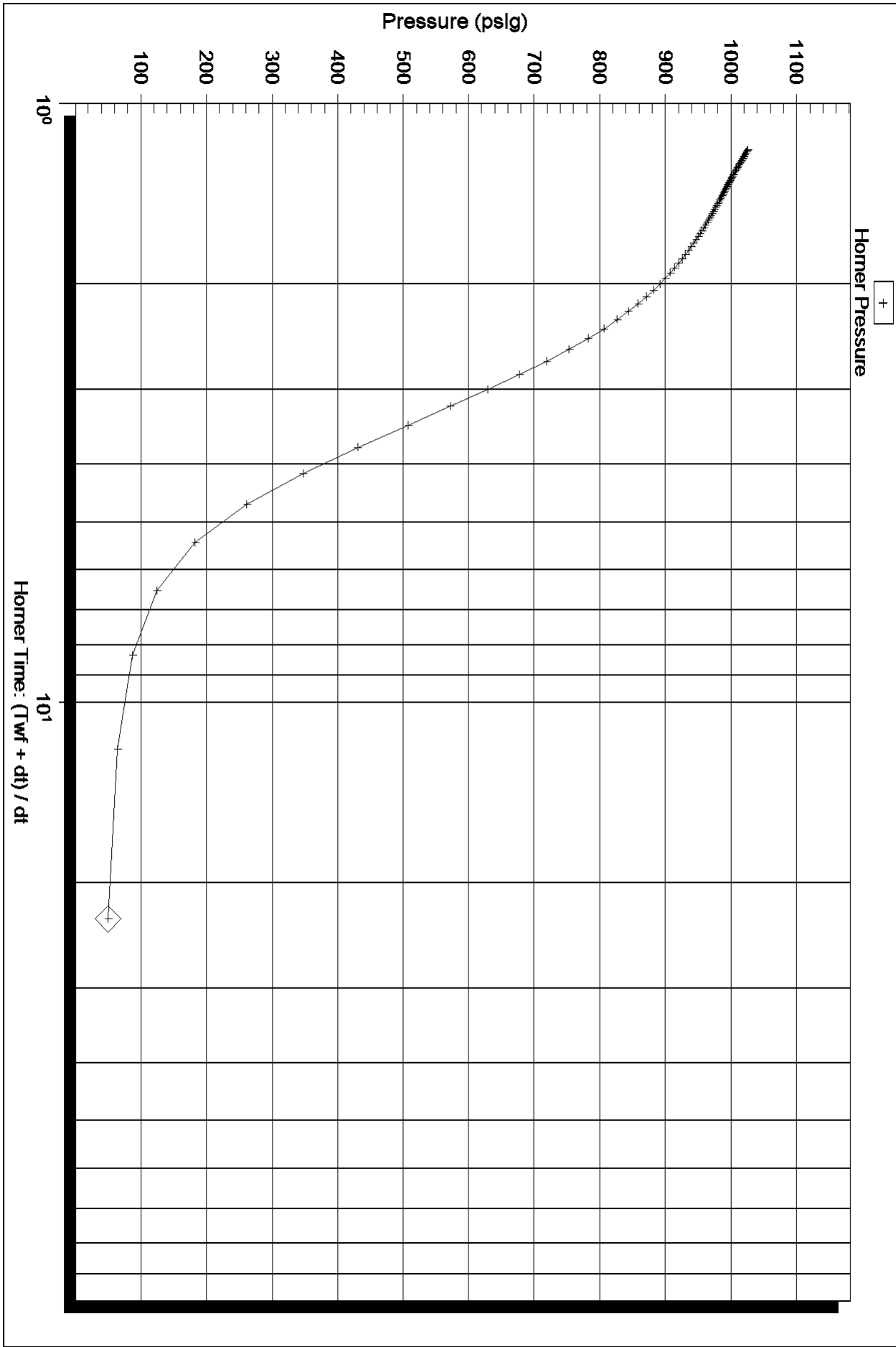
Samuel Gary Jr. & Ass.

Pfannenstiel 1-20

DST Test Number: 1



# Horner Plot



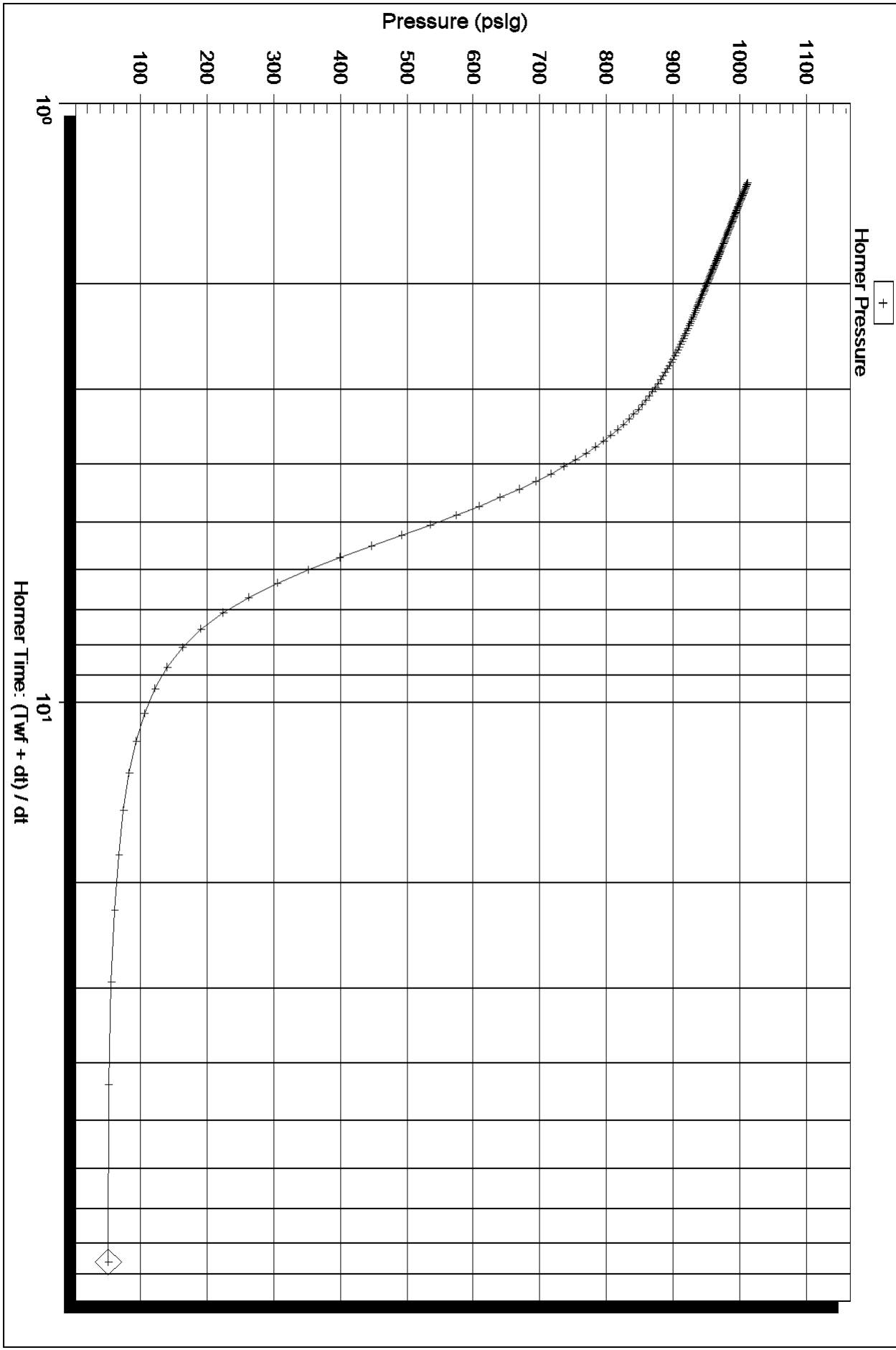
Serial Number: 8354 (Inside)

P\* :

Slope (m) : kpa/log cycle

Flow Cycle: 1

# Horner Plot



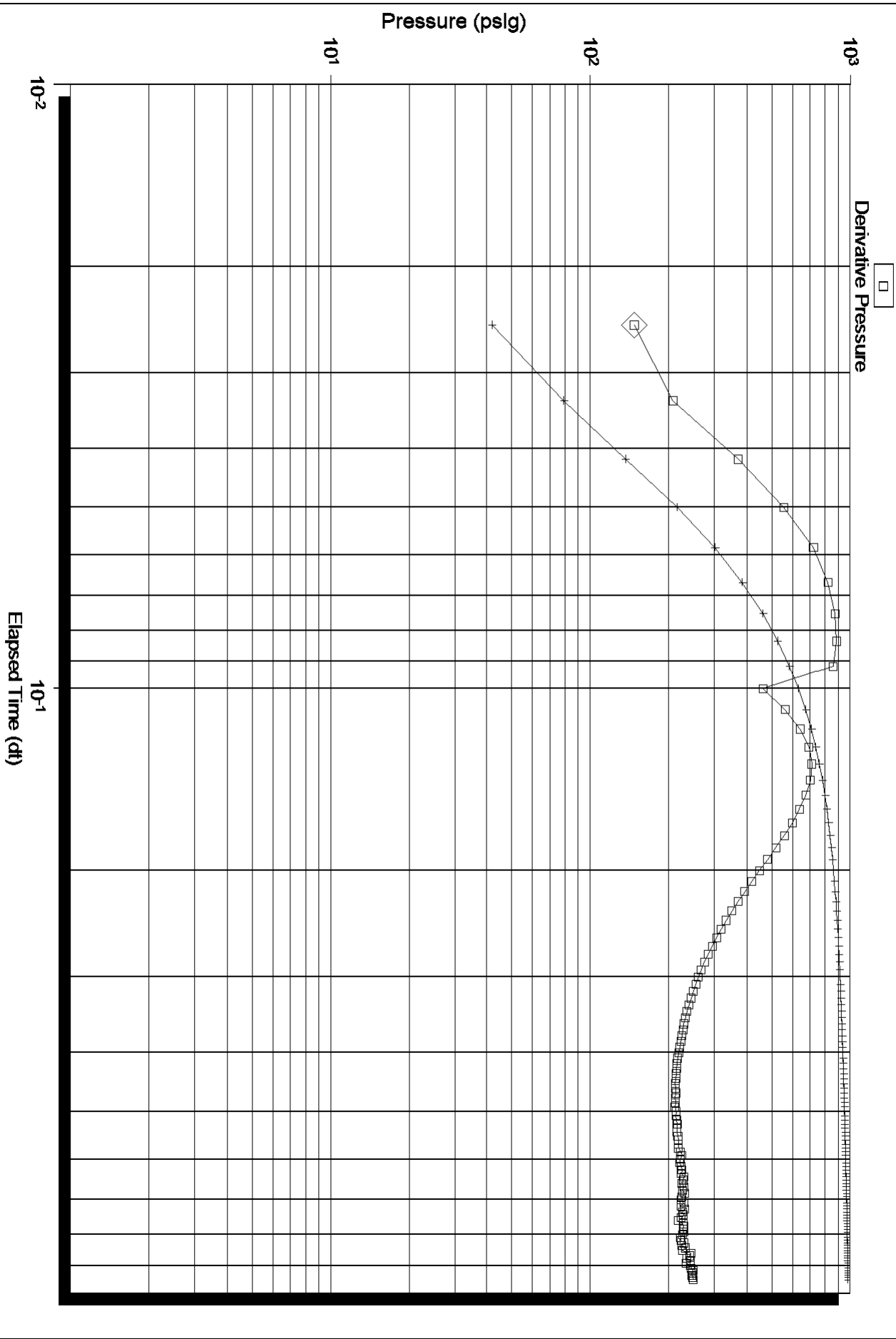
Serial Number: 8354 (Inside)

P\* :

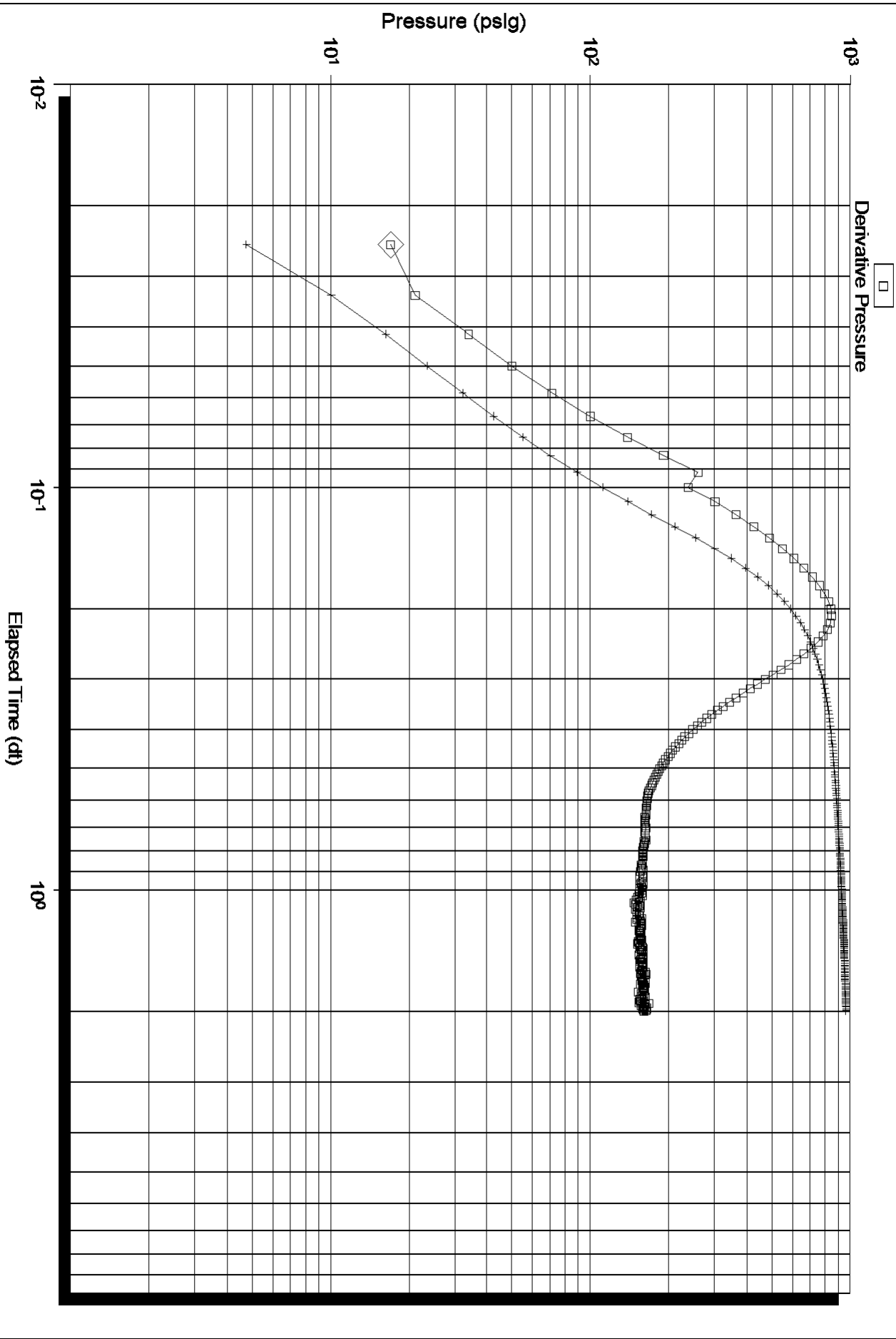
Slope (m) : kpa/log cycle

Flow Cycle: 2

# Log-Log and Pseudo-Derivative



# Log-Log and Pseudo-Derivative





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr. & Ass.  
 1515 Wynkoop St. Suite 700  
 Denver CO, 80202  
 ATTN: Chris Mitchell

**20-14s-17w Ellis KS**  
**Pfannenstiel 1-20**  
 Job Ticket: 47940 **DST#: 2**  
 Test Start: 2012.10.04 @ 15:21:20

## GENERAL INFORMATION:

Formation: **LKC "J&K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:58:10  
 Time Test Ended: 22:13:20  
 Interval: **3430.00 ft (KB) To 3463.00 ft (KB) (TVD)**  
 Total Depth: 3660.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Initial)  
 Tester: Dustin Rash  
 Unit No: 38  
 Reference Elevations: 1976.00 ft (KB)  
 1966.00 ft (CF)  
 KB to GR/CF: 10.00 ft

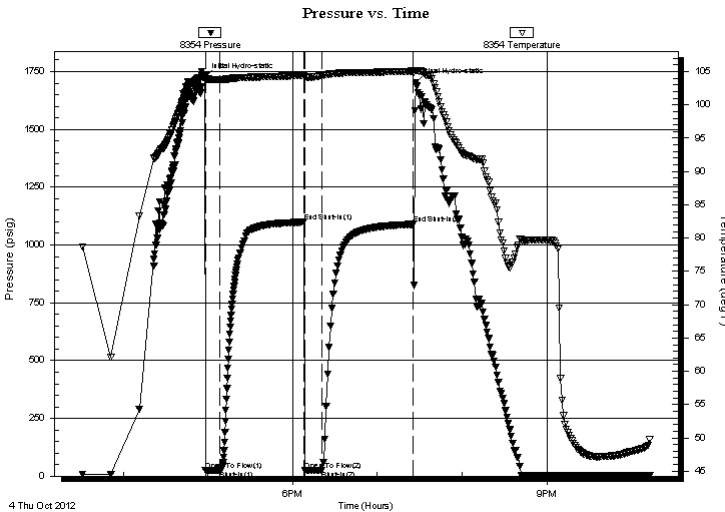
## Serial #: 8354

Inside

Press @ Run Depth: 26.05 psig @ 3434.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.10.04 End Date: 2012.10.04 Last Calib.: 2012.10.04  
 Start Time: 15:31:20 End Time: 22:13:20 Time On Btm: 2012.10.04 @ 16:58:00  
 Time Off Btm: 2012.10.04 @ 19:27:20

TEST COMMENT: IF-Very weak steady surface blow.  
 IS-No Return.  
 FF-No Blow.  
 FSI-No Return. Flow Times-10-60-10-60

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1723.72	104.31	Initial Hydro-static
1	24.92	103.68	Open To Flow (1)
11	24.82	103.76	Shut-In(1)
70	1098.93	104.42	End Shut-In(1)
71	26.05	104.22	Open To Flow (2)
83	26.05	104.40	Shut-In(2)
148	1089.14	105.07	End Shut-In(2)
150	1703.37	105.13	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.07

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. & Ass.

**20-14s-17w Ellis KS**

1515 Wynkoop St. Suite 700  
Denver CO, 80202

**Pfannenstiel 1-20**

Job Ticket: 47940

**DST#: 2**

ATTN: Chris Mitchell

Test Start: 2012.10.04 @ 15:21:20

## 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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%Mud	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

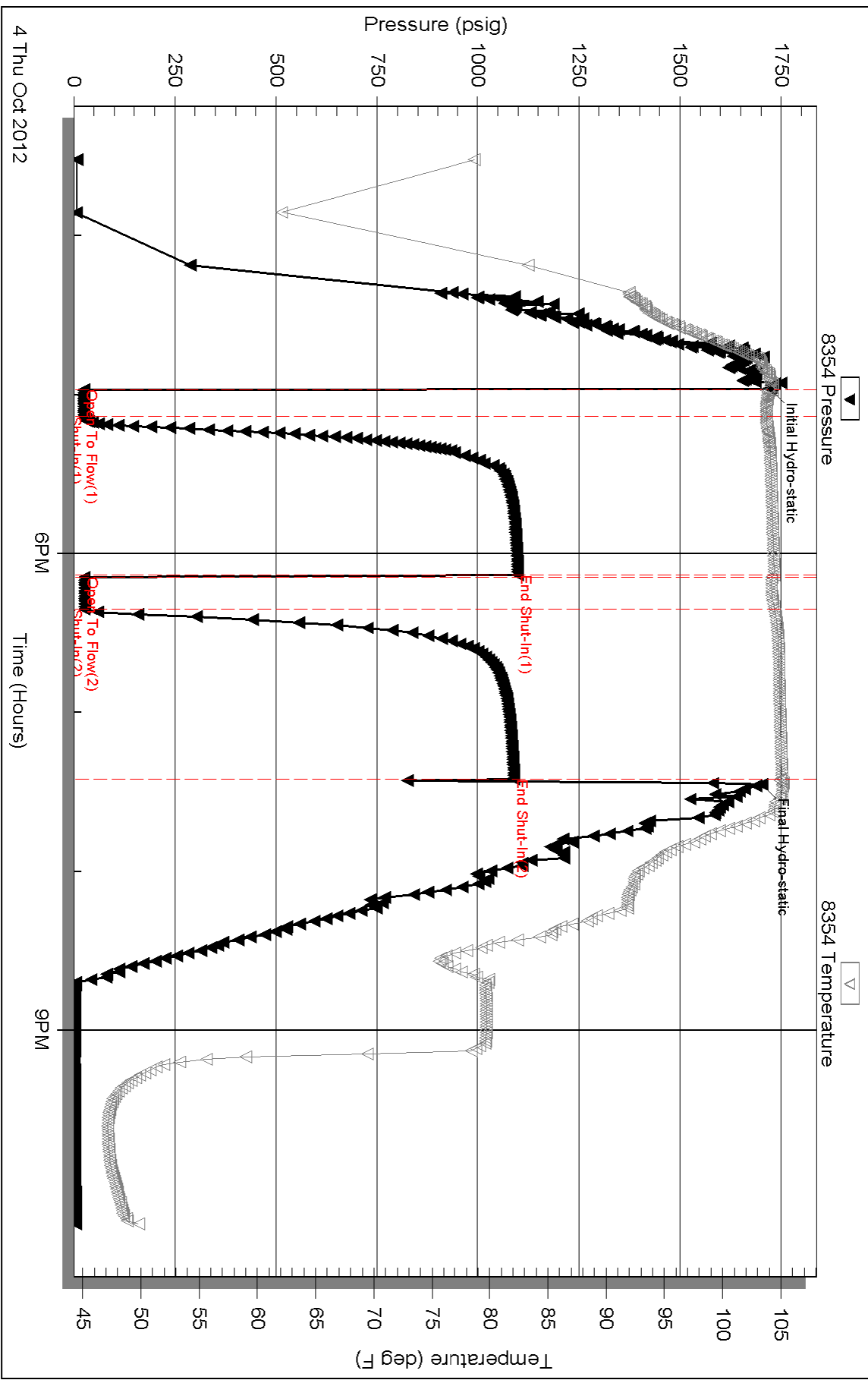
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: Sampler- 2000 ML- 100% Mud  
100# Pressure.



### Pressure vs. Time





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

Well Name: Pfannenstiel 1-20  
 Location: Sec. 20-14S-17W Ellis County, Kansas  
 License Number: 15-051-26395-0000  
 Spud Date: Sept. 29, 2012  
 Surface Coordinates: 560 FSL/ 925 FWL  
 Region: WILDCAT  
 Drilling Completed: Oct. 4, 2012

Bottom Hole Coordinates:  
 Ground Elevation (ft): 1966' K.B. Elevation (ft): 1976'  
 Logged Interval (ft): 2950' To: 3660' Total Depth (ft): 3660'  
 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: Chris Metchell

**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 3275'-3320' 10 60 30 120  
 IF- 1 1/4" BLOW/ ISI- NO BLOW/ FF- 3/4" BLOW/ FSI- NO BLOW  
 IH- 1592, FH 1549/ IF-40 TO 45/ FF-45 TO 51/ ISI- 1025, FSI- 1012  
 RECOVERY- 15' MUD WITH OIL SPOTS  
 SAMPLER- 1500 ML MUD, BHT- 103, PRESSURE- 110

**DST's Report**

**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**

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

OTHER SYMBOLS

POROSITY TYPE

- E Earthy
- B Fenest
- F Fracture
- X Inter
- M Moldic
- O Organic
- P Pinpoint
- V Vuggy

SORTING

- W Well
- M Moderate
- P Poor

ROUNDING

- R Rounded
- S Subrnd
- a Subang

- A Angular

OIL SHOWS

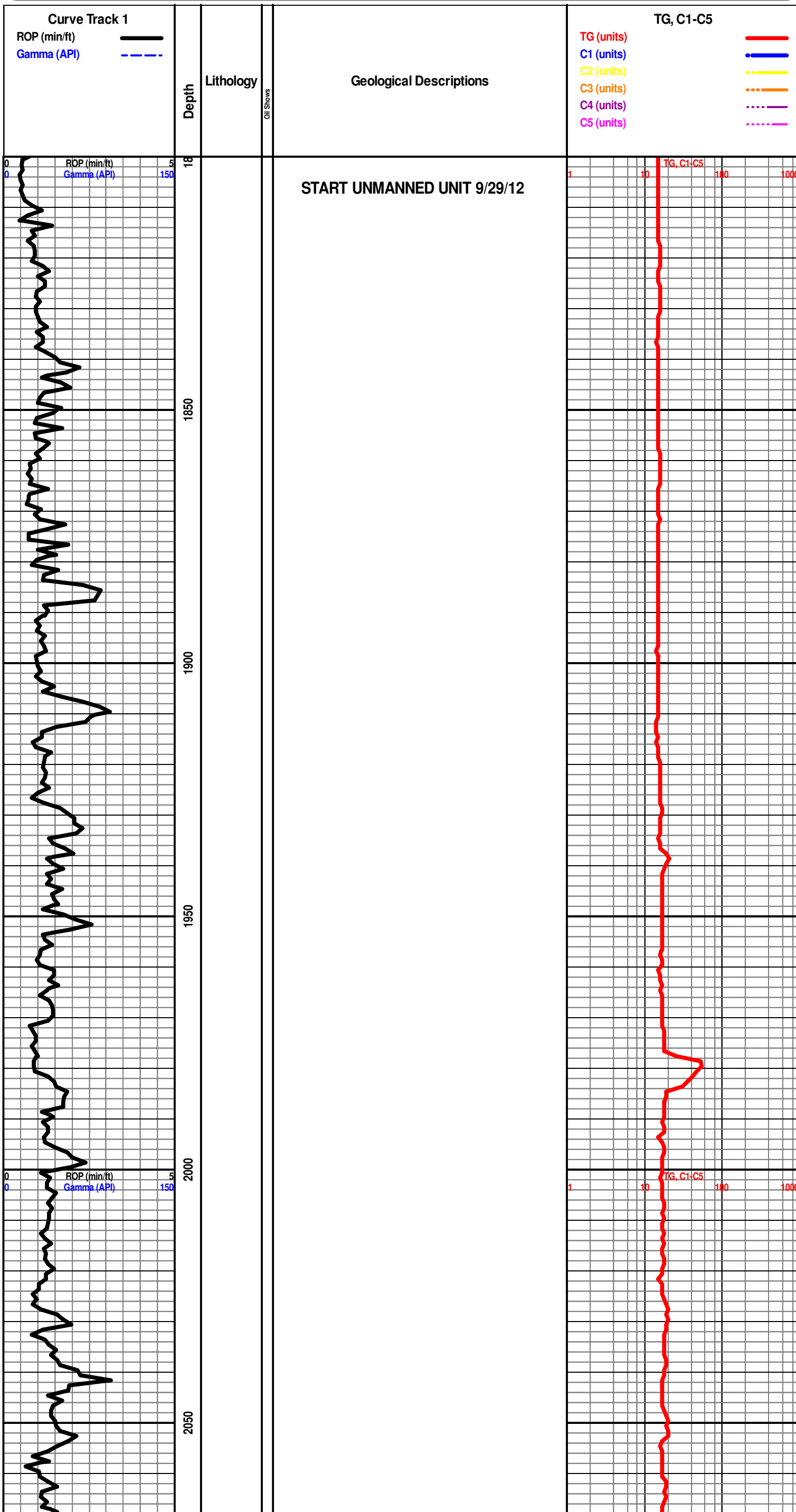
- E Even
- S Spotted
- Q Ques
- D Dead
- G Gas show

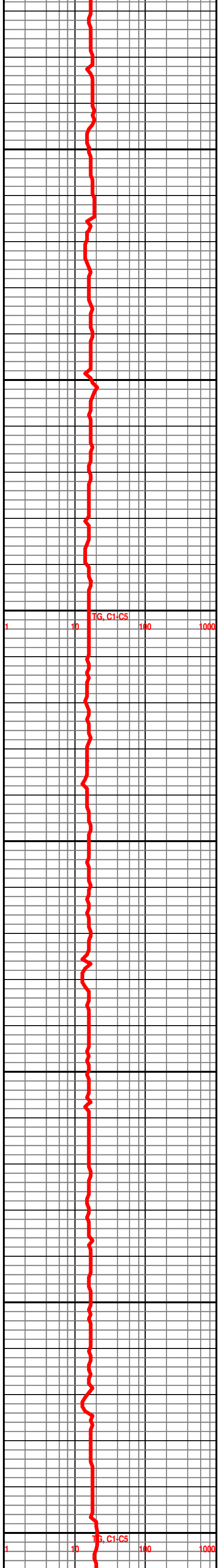
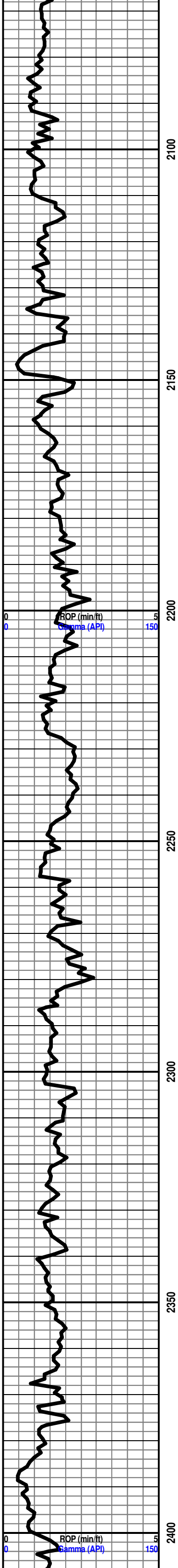
INTERVALS

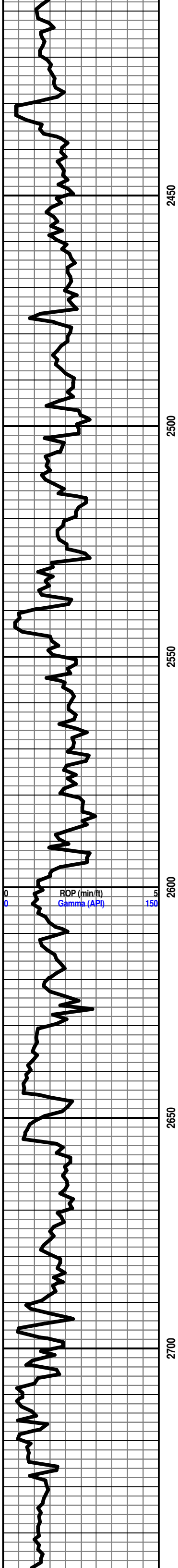
- C Core
- Dst Dst
- Dst Dst

EVENTS

- Rft Rft
- S Sidewall







2450

2500

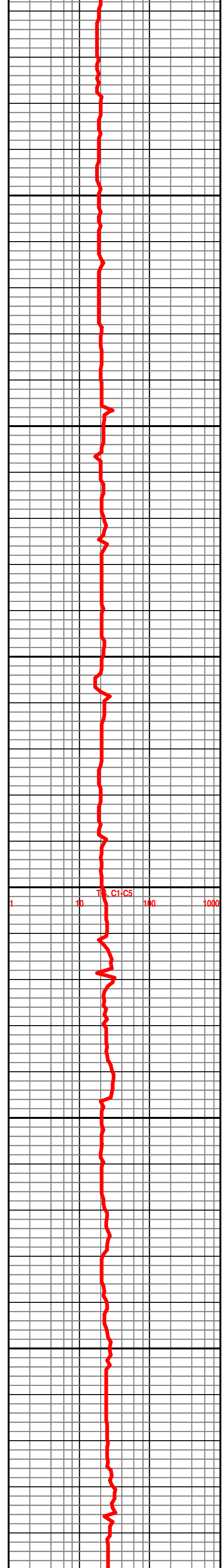
2550

2600

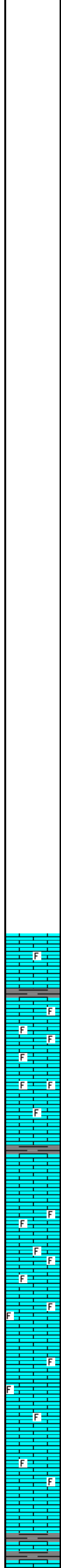
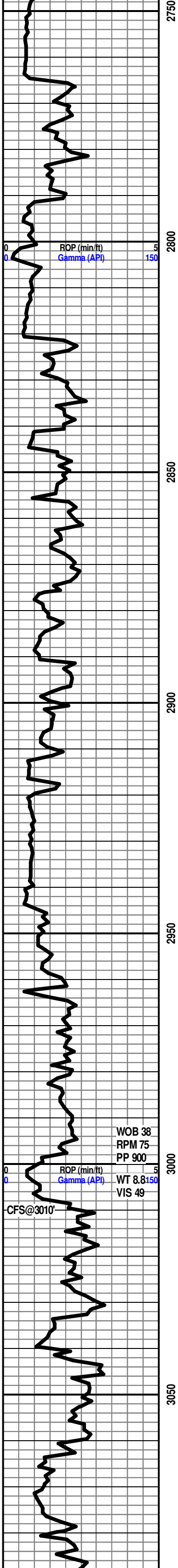
2650

2700

ROP (min/ft)  
Gamma (API)



TSP, C1-C5



**HOWARD 2944' -968'**

**START 24 HOUR MANNED UNIT 10/1/12**

LS- LT TN TO TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, SLI TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

**SEVERY 2995'- 1019'**

**TOPEKA 2998' -1022'**

LS- OFF WHT TO LT TN, FRM DNS TO V/BRIT, F XLN SUCRO MTRX, S-CHLKY, ABDT SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- GY TO TN, HD DNS TO BRIT IP, F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

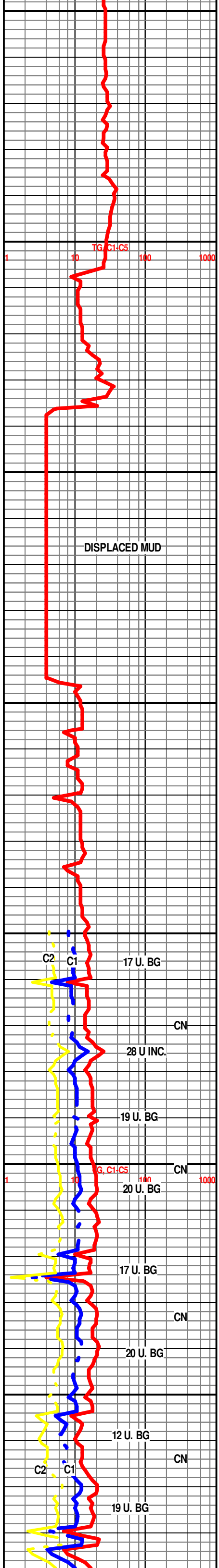
LS- GY TO TN, HD DNS TO BRIT IP, F TO MD RE-XLN MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

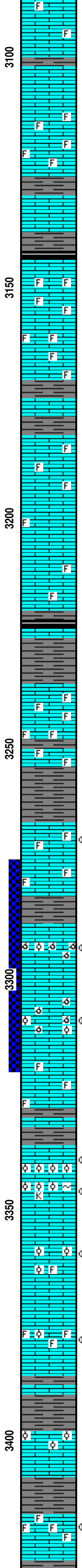
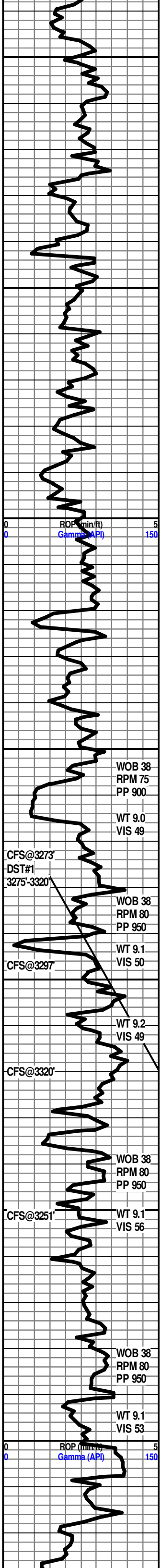
LS- LT TN, HD DNS TO BRIT, F XLN SUCRO MTRX, S-CHLKY IP, TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- GY TO TN, HD DNS TO BRIT, F TO MD XLN SUCRO MTRX, S-CHLKY, TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

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



DISPLACED MUD



LS- CRM TO TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, S-CHLKY, TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

**LE COMPTON 3102' -1126'**

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

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

SH- LT GY TO GY, FRM BLKY, SMTH TXT

LS- LT TN TO TN, HD DNS, F TO MD XLN RE-XLN MTRX, IMBD FOSS FRG THRU, TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

LS- LT TN, TO TN, HD DNS, F XLN RE-XLN MTRX, TR S-CHLKY IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

LS- OFF WHT TO LT TN, HD DNS TO BRIT, F XLN SUCRO MTRX, TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

**HEEBNER 3220' -1244'**

SH- BLCK, SFT, CARB

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

LS- LT TN TO TN, HD DNS TO BRIT IP, F XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD FOSS FRG THRU, TR IMBD DISS PYR IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

**DOUGLAS 3253'-1377'**

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

**LANSING 3265' -1289'**

3268'-3270' LS- OFF WHT TO CRM W/ DOS IN 20%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG IP, NO VIS FLO, PR VUG POR IN 1%, WK FLSH CUT IN 20%, FR SLW STRM IN 30%, NO LCH ON DISH, WK OIL ODOR

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

**LANSING "C" 3288' -1312**

3291'-3294' LS- CRM TO LT TN W/ LT TN OIL STN IN 25%, HD DNS TO BRIT, F XLN SUCRO MTRX, SLI TR IMBD OOL IP, DUL YEL GLD FLO IN 10%, BRT YEL GLD FLO IN 15%, GD OOLMLD POR IN 25%, FR TO GD VUG POR IN 5%, V/WK FLSH CUT IN 20%, PR SLW STRM IN 30%, NO LCH ON DISH

3307'-3311' LS- OFF WHT TO LT TN W/ LT TN OIL STN IN 35%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, IMBD OOL IP, ABDT OOLMD THRU, DUL YEL GLD FLO IN 20%, BRT YEL GLD FLO IN 15%, GD OOLMLD POR IN 40%, PR VUG POR IN 5%, WK FLSH CUT IN 40%, FR SLW STRM IN 50%,

SH- GRN TO GY, SFT GMMY

**LANSING "F" 3337' -1361'**

3339'-3341' LS- CRM TO LT TN W/ TN OIL STN IN 25%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD OOL THRU, DUL YEL GLD FLO IN 15%, V/PR TO PR INTR OOL POR IN 7%, WK FLSH CUT IN 20%, PR SLW STRM IN 25%, V/LT TH LCH ON DISH

3344'-3346' LS- LT TN TO TN W/ TN OIL STN IN 50% LOS IN 1%, HD DNS TO BRIT, F XLN SUCRO MTRX, ABDT IMBD OOL THRU, TR IMBD KAOL OR GLAUC, DUL YEL GLD FLO IN 50%, PR TO FR INTR OOL POR IN 5%, FR VUG POR IN 2%, GD FLSH CUT IN 60%, GD SLW STRM IN 60%, DK TN LCH ON DISH, FR OIL ODOR

3360'-3361' LS- OFF WHT W/ TN OIL STN IN 40%, HD DNS TO BRIT, F XLN SUCRO MTRX, IMBD OOL THRU, IMBD FOSS FRG IP, OOLMLD IP, DUL YEL GLD FLO IN 40%, BRT YEL GLD FLO IN 1%, PR VUG POR IN 7%, FR OOLMLD POR IN 5%, FR FLSH CUT IN 30%, PR TO FR SLW STRM IN 40%, LT TN LCH ON DISH

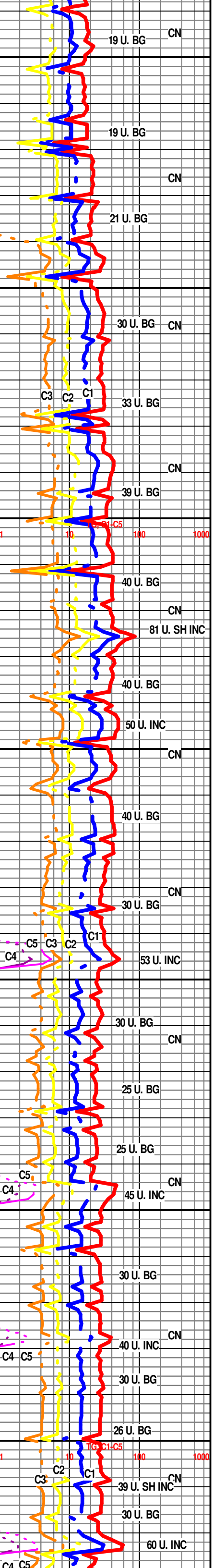
3377'-3380' LS- CRM TO TN W/ TN OIL STN IN 25% DOS IN 10%, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-SUCRO IP, IMBD FOSS FRG IP, SLI TR IMBD KAOL OR GLAUC, TR SFT WHT CHLK IN TRAY, DUL YEL GLD FLO IN 20%, BRT YEL GLD FLO IN 5%, PR INTR FOSS POR IN 3%, PR MICRO VUG POR IN 3%, WK FLSH CUT IN 25%, PR TO FR SLW STRM IN 30%, LT TN LCH ON DISH

**LANSING "H" 3397' -1421'**

LS- CRM TO LT TN, HD DNS TO BRIT IP, F XLN RE-XLN MTRX, S-CHLKY IP, IMBD OOL IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- GRN GY TO BLCK, FRM BLKY, SLTY TXT

3418'-3420' LS- CRM TO LT TN W/ TN OIL STN IN 30%, HD DNS TO BRIT, F XLN SUCRO MTRX, ABDT IMBD FOSS FRG IP, BRT YEL GLD FLO IN 15%, DUL YEL GLD FLO IN 15%, PR INTR FOSS POR IN 5%, PR TO FR VUG POR IN 2%, FR TO GD FLSH CUT IN 40%, FR SLW STRM IN 40%, TN LCH ON DISH



ROP (min/ft)  
Gamma (API)

CFS@3273'  
DST#1  
3275'-3320'

CFS@3297'

CFS@3320'

CFS@3251'

ROP (min/ft)  
Gamma (API)

WOB 38  
RPM 75  
PP 900

WT 9.0  
VIS 49

WOB 38  
RPM 80  
PP 950

WT 9.1  
VIS 50

WT 9.2  
VIS 49

WOB 38  
RPM 80  
PP 950

WT 9.1  
VIS 56

WOB 38  
RPM 80  
PP 950

WT 9.1  
VIS 53

C3 C2 C1

C5 C3 C2 C1  
C4

C5  
C4

C4 C5

C3 C2 C1

C4 C5

19 U. BG CN

19 U. BG

21 U. BG

30 U. BG CN

33 U. BG

39 U. BG

40 U. BG

40 U. BG CN

81 U. SH INC

40 U. BG

50 U. INC

40 U. BG

30 U. BG CN

53 U. INC

30 U. BG

25 U. BG

25 U. BG

45 U. INC

30 U. BG

40 U. INC CN

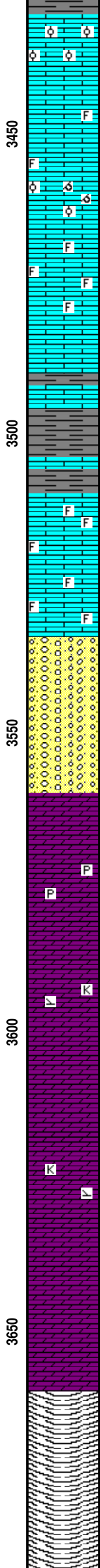
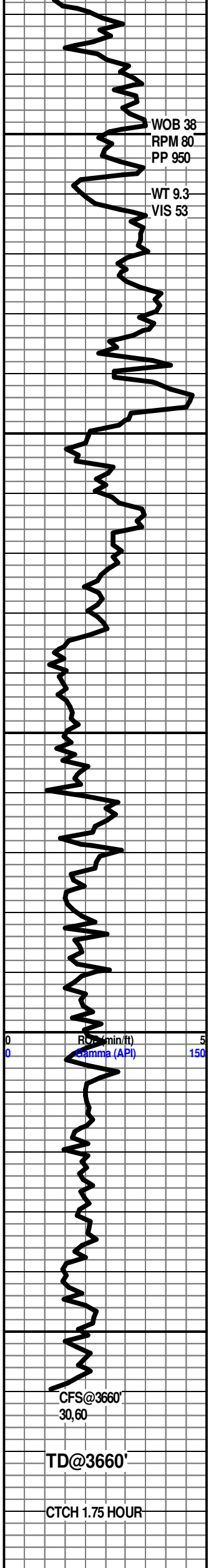
30 U. BG

26 U. BG

39 U. SH INC CN

30 U. BG

60 U. INC



3434'-3437' LS- CRM TO LT TN W/ TN OIL STN IN 50%, HD DNS TO BRIT, V/F TO F SUCRO MTRX, ABDT IMBD OOL THRU, DUL YEL GLD FLO IN 40%, BRT YEL GLD FLO IN 10%, FR INTR OOL POR IN 10%, FR VUG POR IN 3%, FR FLSH CUT IN 60%, FR TO GD SLW STRM IN 60%, TN LCH ON DISH, FR OIL ODOR

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

LS- CRM TO LT TN, HD DNS TO BRIT, F XLN SUCRO MTRX, S-CHLKY, IMBD OOL IP, OOLMLD IP, SFT WHT CHLK IN TRAY, NO VIS FLO, FR OOLMLD POR IN 3%, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT, F XLN SUCRO MTRX, S-CHLKY IP, SCAT IMBD FOSS FRG THRU, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- WHT TO OFF WHT, FRM DNS TO V/BRIT, F XLN CHLKY MTRX, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- GRN BRWN TO GY, SFT GMMY

**BKC 3506' -1530'**

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

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

CONG- LS- LT TN, HD DNS TO BRIT, F XLN SUCRO MTRX, SH- RED BRWN TO GY, SFT GMMY, CHRT- OFF WHT TO RED

**ARBUCKLE 3550' -1574'**

3567'-3569' DOLO- LT TN TO TN W/ TN OIL STN IN 10%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S- RND TO S-ANG DOLO GRNS THRU, BRT YEL GLD FLO IN 10%, PR INTR GRN POR IN 10%, PR FLSH CUT IN 10%, PR SLW STRM CUT IN 15%, NO LCH ON DISH

3573'-3575' DOLO- LT TN TO TN W/ TN OIL STN IN 15%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS THRU, IMBD DISS PYR IP, BRT YEL GLD FLO IN 15%, PR INTR GRN POR IN 10%, FR FLSH CUT IN 15%, PR TO FR SLW STRM IN 15%, NO LCH ON DISH

DOLO- CRM TO LT TN, HD DNS, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS THRU, TR IMBD KAOL OR GLAUC, NO VIS FLO, PR INTR GRN POR IN 5%, NO VIS SHOW

DOLO- OFF WHT TO CRM, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO ANG DOLO GRNS THRU, TR IMBD KAOL OR GLAUC, NO VIS FLO, PR TO FR INTR GRN POR IN 10%, NO VIS SHOW

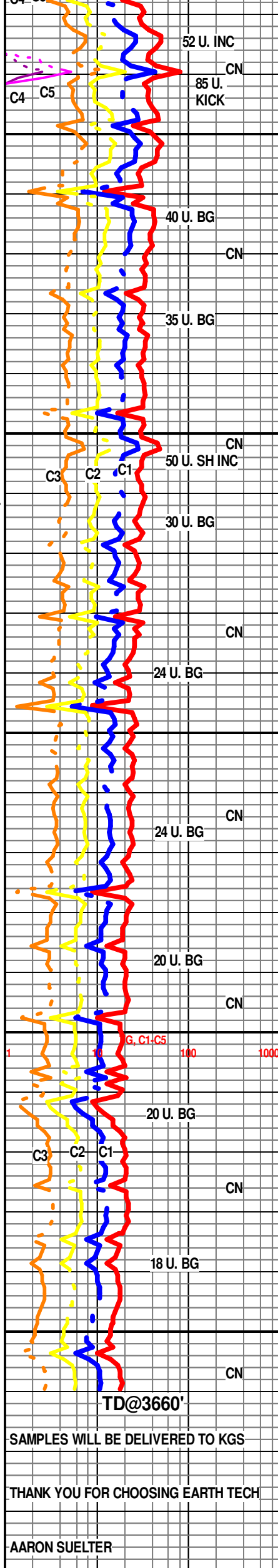
DOLO- OFF WHT TO CRM, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD MD TO CRS S-ANG TO ANG DOLO GRNS THRU, NO VIS FLO, FR INTR GRN POR IN 10%, NO VIS SHOW

R.T.D. @6:10 AM 10/4/12'

DROP SURVEY

TOFL @ 7:55 AM

WEATHERFORD/LIBERAL



SAMPLES WILL BE DELIVERED TO KGS

THANK YOU FOR CHOOSING EARTH TECH

AARON SUELTER