

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Black Oak Exploration, LLC
Well Name	STECKEL TRUST 1-16
Doc ID	1605531

All Electric Logs Run

POR
MICRO
SONIC
DIL



CEMENT TREATMENT REPORT

Customer: Black Oak Exploration	Well: Steckel Trust 1-16	Ticket: WP 1979
City, State:	County: Russell KS	Date: 10/13/2021
Field Rep: Rick Popp	S-T-R: 16-12S-14W	Service: Surface

Downhole Information

Hole Size:	12 1/4 in
Hole Depth:	558 ft
Casing Size:	8 5/8 in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	32.8 bbls

Calculated Slurry - Lead

Blend:	H-325
Weight:	14.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.41 ft³ / sx
Annular Bbls / Ft.:	0.0735 bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	100.4 bbls
Total Sacks:	400 sx

Calculated Slurry - Tail

Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	BBLs	STAGE TOTAL BBLs	REMARKS
900P			-	-	ON LOCATION RIG STILL DRILLING 10/12/21
910P				-	SAFETY MEETING
920P				-	RIG UP
530A				-	RUN FLOAT EQUIPMENT, CENTRALIZERS IN JTS 1, 2, 3, 5, 7
700A				-	CASING ON BOTTOM
705A				-	BREAK CIRCULATION WITH RIG PUMP
720A	4.0	200.0	5.0	5.0	H2O AHEAD
723A	6.0	160.0	100.4	105.4	CEMENT 400 SX H-325 MIXED @ 14.8 PPG
750A				105.4	DROP PLUG
755A	5.0	160.0	25.0	130.4	DISPLACE H2O
800A	2.5	7.8		130.4	SLOW RATE
805A		450.0			LAND PLUG
810A					SHUT IN
815A					WASH UP
830A					RIG DOWN
900A					LEFT LOCATION

CREW		UNIT	SUMMARY		
Cementer:	Scotty	VAP	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Jimmie	180/520	4.4 bpm	196 psi	130 bbls
Bulk #1:	Mo	194/254			
Bulk #2:					



CEMENT TREATMENT REPORT

Customer:	BLACK OAK EXPLORATION	Well:	STECKEL TRUST 1-16	Ticket:	WP2005
City, State:	RUSSELL KS	County:	RUSSELL KS	Date:	10/19/2021
Field Rep:	DALTON POPP	S-T-R:	16-12S-14W	Service:	TWO STAGE LS

Downhole Information		Calculated Slurry - Lead				Calculated Slurry - Tail			
Hole Size:	7 7/8 in	Blend:	H-LD			Blend:	H-CON		
Hole Depth:	ft	Weight:	14.8 ppg			Weight:	12 ppg		
Casing Size:	5 1/2 in	Water / Sx:	6.5 gal / sx			Water / Sx:	14.5 gal / sx		
Casing Depth:	3353 ft	Yield:	1.54 ft ³ / sx			Yield:	2.47 ft ³ / sx		
Tubing / Liner:	in	Annular Bbls / Ft.:	bbs / ft.			Annular Bbls / Ft.:	bbs / ft.		
Depth:	ft	Depth:	ft			Depth:	ft		
Tool / Packer:		Annular Volume:	0.0 bbls			Annular Volume:	0 bbls		
Tool Depth:	ft	Excess:				Excess:			
Displacement:	78.7 bbls	Total Slurry:	34.0 bbls			Total Slurry:	175.0 bbls		
		Total Sacks:	125 sx			Total Sacks:	400 sx		

TIME	RATE	PSI	BBLs	TOTAL BBLs	REMARKS
			-	-	RUN 5 1/2 15.5# CASING 43' SHOE JOINT D.V. TOOL TOP OF JOINT42 AT1567' BASKETS ON 7,11,41,42
				-	TURBOS ON1-13 AND 41
4:15 PM				-	CASING ON BOTTOM
4:30 PM				-	HOOK TO CASING, BREAK CIRCULATION WITH RIG
5:30 PM	1.0	25.0	7.0	7.0	MIX 30 SKS H-PLUG FOR RAT HOLE
5:35 PM	1.0	25.0	5.0	12.0	MIX 25 SKS H-PLUG FOR MOUSE HOLE
5:40 PM	3.7	170.0	5.0	17.0	PUMP 5 BBL WATER
5:42 PM	3.7	170.0	12.0	29.0	PUMP 500 GALLON MUD FLUSH
5:45 PM	3.5	150.0	5.0	34.0	PUMP 5 BBL WATER
5:54 PM	4.0	200.0	34.0	68.0	MIX 125 SKS H-LD
6:04 PM	4.0	50.0	4.0	72.0	WASH PUMP AND LINE, DROP PLUG
6:10 PM	6.5	200.0		72.0	START WATER DISPLACEMENT
6:20 PM	5.0	175.0	42.0	114.0	START MUD DISPLACEMENT
6:24 PM	4.0	500.0	65.0	179.0	LIFT PRESSURE
6:26 PM	2.5	460.0	68.0	247.0	SLOW RATE
6:29 PM		1,500.0	78.7	325.7	PLUG DOWN, RELEASED AND HELD
6:33 PM				325.7	DROP D.V. OPENING TOOL
6:43 PM		700.0		325.7	OPEN D.V. TOOL
6:50 PM				325.7	CIRCULATE WITH RIG
8:57 AM	6.0	110.0	175.0	500.7	MIX 400 SKS H-CON
9:37 PM	4.0	50.0	4.0	504.7	WASH PUMP AND LINE, DROP PLUG
9:45 PM	4.0	350.0		504.7	START DISPLACEMENT
9:50 PM	3.0	350.0	28.0	532.7	SLOW RATE
9:55 PM		1,500.0	37.3	570.0	PLUG DOWN, RELEASED AND HELD
					CEMENT TO SURFACE
				-	CIRCULATION THROUGH JOB
				-	JOB COMPLETE, THANK YOPU! MIKE MATTAL RILEY & RUEBEN

CREW		UNIT	SUMMARY		
Cementer:	MATTAL	912	Average Rate	Average Pressure	Total Fluid
Pump Operator:	OSBORN	176/521	3.7 bpm	371 psi	570 bbls
Bulk #1:	WHITFIELD	181/533			
Bulk #2:	RUEBEN	182/256			



DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St. Paul St
Denver CO 80210+2514

ATTN: Tom Fertal

Steckel Trust #1-16

16-12s-14w Russell,KS

Start Date: 2021.10.16 @ 02:15:00

End Date: 2021.10.16 @ 07:19:37

Job Ticket #: 68303 DST #: 1

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

Printed: 2021.10.18 @ 11:45:49



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Oak Exploration LLC

16-12s-14w Russell,KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68303

DST#: 1

ATTN: Tom Fertal

Test Start: 2021.10.16 @ 02:15:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:15:27

Time Test Ended: 07:19:37

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: 2647.00 ft (KB) To 2678.00 ft (KB) (TVD)

Reference Elevations: 1776.00 ft (KB)

Total Depth: 2678.00 ft (KB) (TVD)

1768.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6838 Inside

Press@RunDepth: 27.89 psig @ 2648.00 ft (KB)

Capacity: psig

Start Date: 2021.10.16 End Date: 2021.10.16

Last Calib.: 2021.10.16

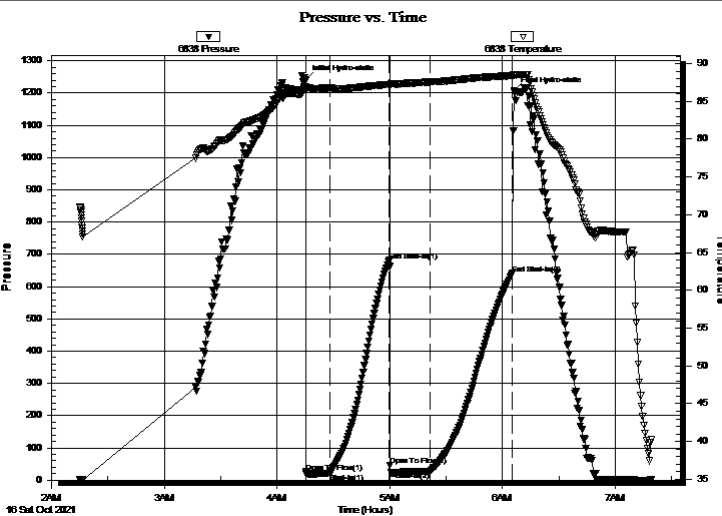
Start Time: 02:15:01 End Time: 07:19:37

Time On Btm: 2021.10.16 @ 04:15:22

Time Off Btm: 2021.10.16 @ 06:06:17

TEST COMMENT: 10-IF-Surface to 3.75"
30-ISI-No Return
20-FF-4" right away Built to 6" Died back to 5"
30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1240.41	86.98	Initial Hydro-static
1	25.62	86.73	Open To Flow (1)
13	21.96	86.76	Shut-In(1)
45	680.69	87.22	End Shut-In(1)
45	45.53	87.04	Open To Flow (2)
67	27.89	87.58	Shut-In(2)
110	640.72	88.42	End Shut-In(2)
111	1206.03	88.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	MO 30%M 70%O	0.15
0.00	300 GIP 100%G	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Oak Exploration LLC

16-12s-14w Russell, KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68303

DST#: 1

ATTN: Tom Fertal

Test Start: 2021.10.16 @ 02:15:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:15:27

Time Test Ended: 07:19:37

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: 2647.00 ft (KB) To 2678.00 ft (KB) (TVD)

Reference Elevations: 1776.00 ft (KB)

Total Depth: 2678.00 ft (KB) (TVD)

1768.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8875 Outside

Press@RunDepth: psig @ 2648.00 ft (KB)

Capacity: psig

Start Date: 2021.10.16 End Date: 2021.10.16

Last Calib.: 2021.10.16

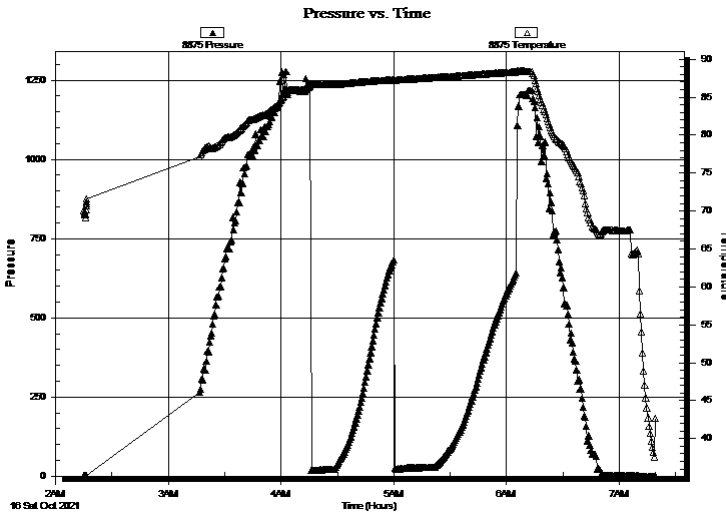
Start Time: 02:15:01 End Time: 07:19:37

Time On Btm:

Time Off Btm:

TEST COMMENT: 10-IF-Surface to 3.75"
30-ISI-No Return
20-FF-4" right away Built to 6" Died back to 5"
30-FSI-No Return

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	MO 30%M 70%O	0.15
0.00	300 GIP 100%G	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Oak Exploration LLC

16-12s-14w Russell,KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68303

DST#: 1

ATTN: Tom Fertal

Test Start: 2021.10.16 @ 02:15:00

Tool Information

Drill Pipe:	Length: 2588.00 ft	Diameter: 3.82 inches	Volume: 36.69 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	45000.00 lb
Drill Pipe Above KB:	4.00 ft			Final	45000.00 lb
Depth to Top Packer:	2647.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	31.00 ft				
Tool Length:	64.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2615.00	
Change Over Sub	1.00			2616.00	
Shut In Tool	5.00			2621.00	
Hydraulic tool	5.00		Fluid	2626.00	
Jars	5.00			2631.00	
Gap Sub	4.00			2635.00	
Safety Joint	3.00			2638.00	
Packer	5.00			2643.00	33.00 Bottom Of Top Packer
Packer	4.00			2647.00	
Stubb	1.00			2648.00	
Recorder	0.00	6838	Inside	2648.00	
Recorder	0.00	8875	Outside	2648.00	
Perforations	27.00			2675.00	
Bullnose	3.00			2678.00	31.00 Bottom Packers & Anchor

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Oak Exploration LLC

16-12s-14w Russell,KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68303

DST#: 1

ATTN: Tom Fertal

Test Start: 2021.10.16 @ 02:15:00

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: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	MO 30%M 70%O	0.148
0.00	300 GIP 100%G	0.000

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

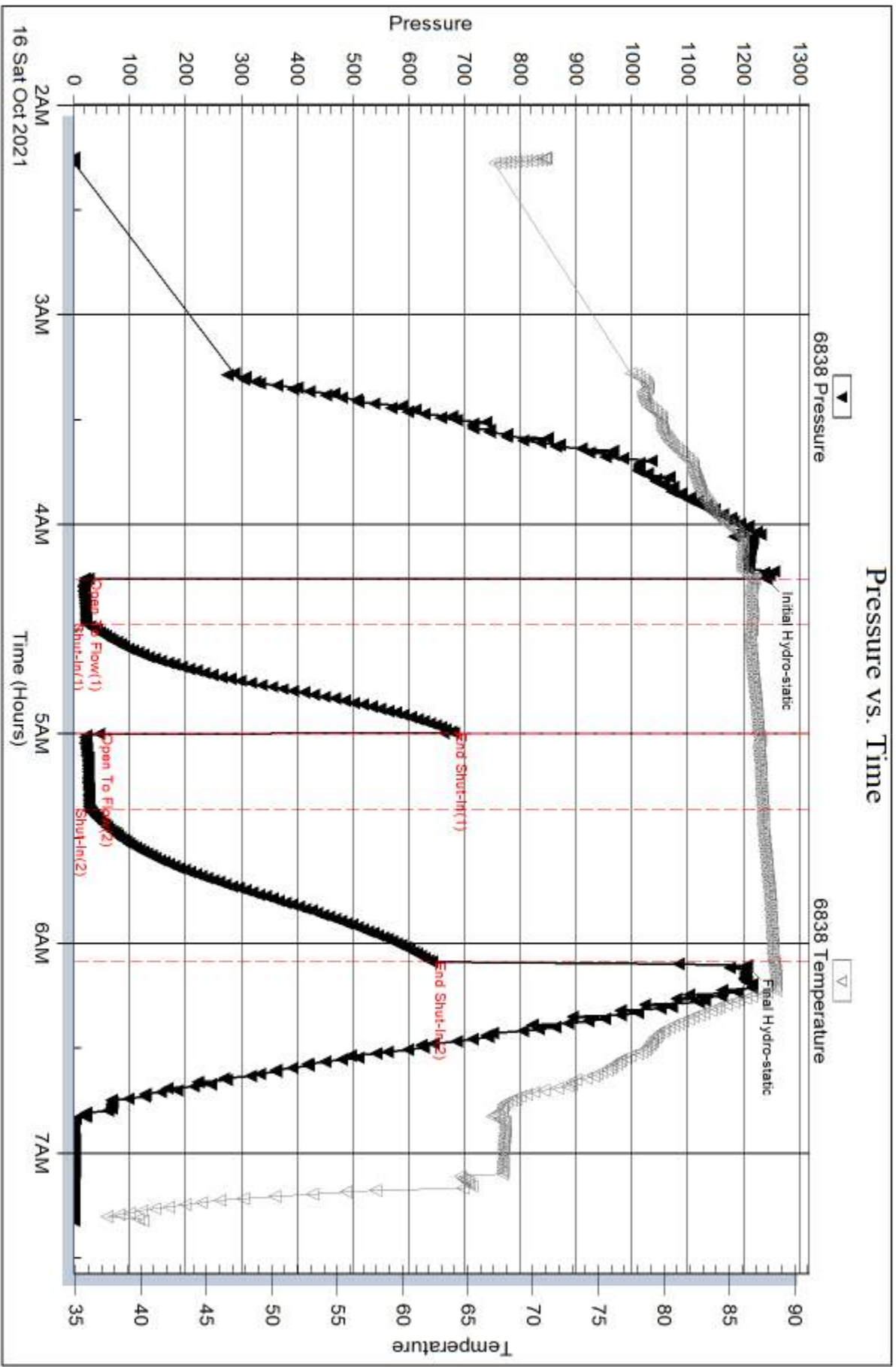
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

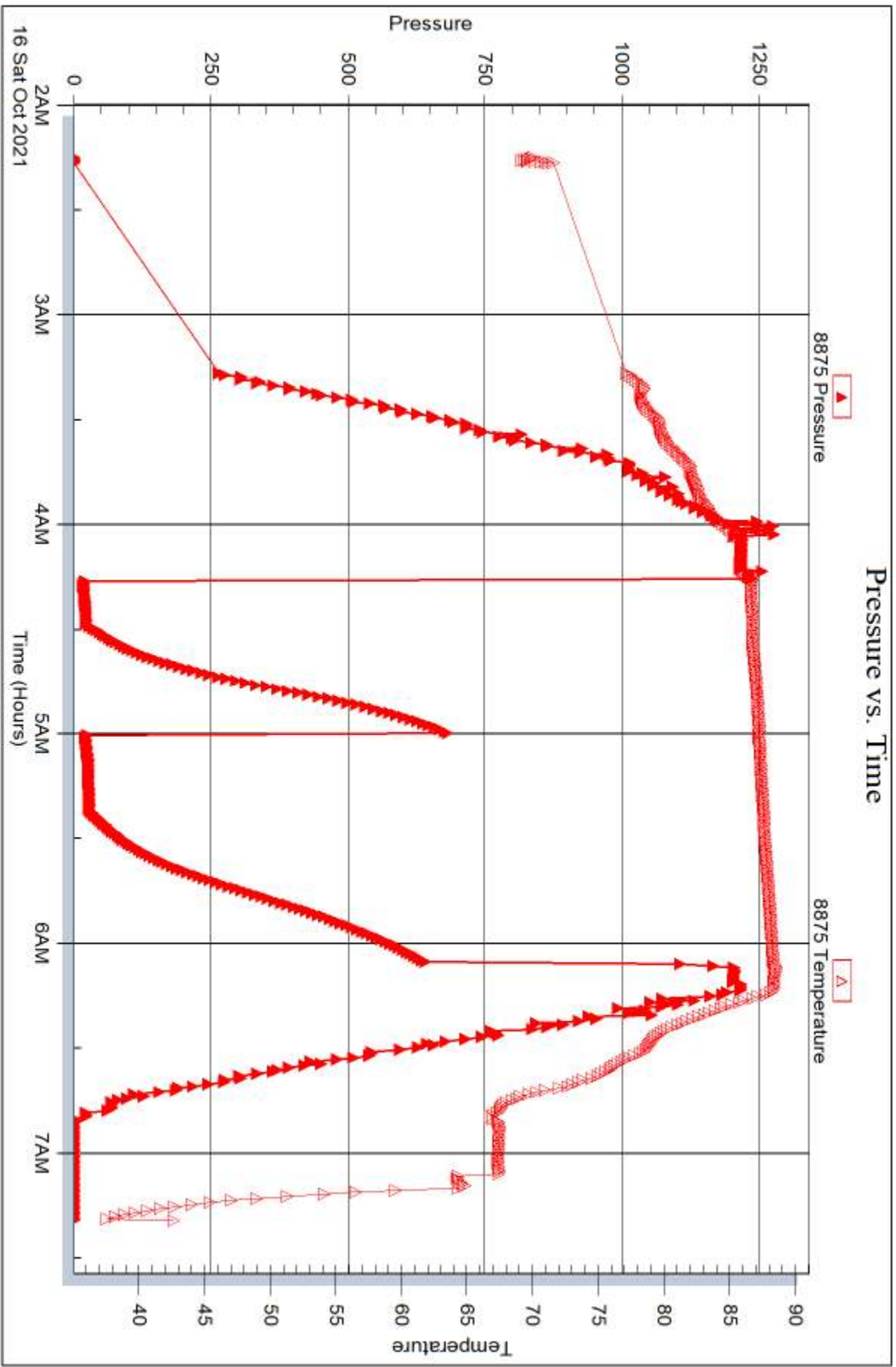


Serial #: 8875

Outside Black Oak Exploration LLC

Steckel Trust #1-16

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St. Paul St
Denver CO 80210+2514

ATTN: Tom Fertal

Steckel Trust #1-16

16-12s-14w Russell,KS

Start Date: 2021.10.17 @ 13:15:00

End Date: 2021.10.17 @ 18:15:37

Job Ticket #: 68304 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.10.18 @ 11:41:30



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Oak Exploration LLC

16-12s-14w Russell, KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68304

DST#: 2

ATTN: Tom Fertal

Test Start: 2021.10.17 @ 13:15:00

GENERAL INFORMATION:

Formation: **LKC G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:12:22
 Time Test Ended: 18:15:37
 Interval: **3041.00 ft (KB) To 3048.00 ft (KB) (TVD)**
 Total Depth: 3048.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 1776.00 ft (KB)
 1768.00 ft (CF)
 KB to GR/CF: 8.00 ft

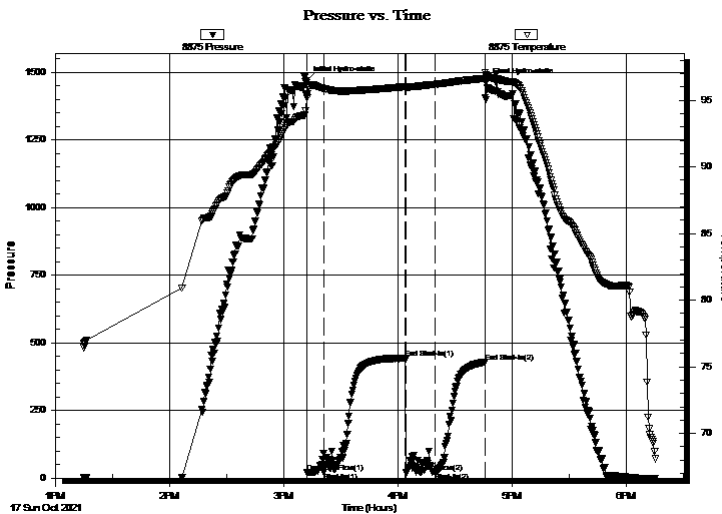
Serial #: 8875

Inside

Press@RunDepth: 23.42 psig @ 3042.00 ft (KB) Capacity: psig
 Start Date: 2021.10.17 End Date: 2021.10.17 Last Calib.: 2021.10.17
 Start Time: 13:15:01 End Time: 18:15:37 Time On Btm: 2021.10.17 @ 15:12:07
 Time Off Btm: 2021.10.17 @ 16:46:12

TEST COMMENT: 10-IF-Surface to 1/2"
 40-ISI-No Return
 15-FF-No Blow
 30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1469.67	95.42	Initial Hydro-static
1	21.63	95.20	Open To Flow (1)
10	22.62	95.85	Shut-In(1)
52	442.79	96.00	End Shut-In(1)
53	22.24	95.97	Open To Flow (2)
68	23.42	96.19	Shut-In(2)
94	429.12	96.65	End Shut-In(2)
95	1461.44	96.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100%M	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Black Oak Exploration LLC

16-12s-14w Russell, KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68304

DST#: 2

ATTN: Tom Fertal

Test Start: 2021.10.17 @ 13:15:00

GENERAL INFORMATION:

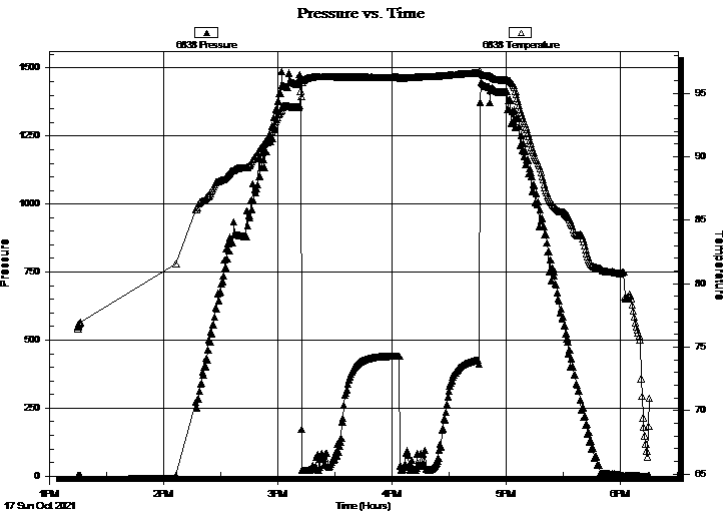
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 Unit No: 84
 Reference Elevations: 1776.00 ft (KB)
 1768.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6838

Inside

Press@RunDepth: psig @ 3042.00 ft (KB) Capacity: psig
 Start Date: 2021.10.17 End Date: 2021.10.17 Last Calib.: 2021.10.17
 Start Time: 13:15:01 End Time: 18:15:37 Time On Btm:
 Time Off Btm:

TEST COMMENT: 10-IF-Surface to 1/2"
 40-ISI-No Return
 15-FF-No Blow
 30-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100%M	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Oak Exploration LLC

16-12s-14w Russell,KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68304

DST#: 2

ATTN: Tom Fertal

Test Start: 2021.10.17 @ 13:15:00

Tool Information

Drill Pipe:	Length: 3000.00 ft	Diameter: 3.82 inches	Volume: 42.53 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	45000.00 lb
Drill Pipe Above KB:	22.00 ft			Final	45000.00 lb
Depth to Top Packer:	3041.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	7.00 ft				
Tool Length:	40.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3009.00	
Change Over Sub	1.00			3010.00	
Shut In Tool	5.00			3015.00	
Hydraulic tool	5.00		Fluid	3020.00	
Jars	5.00			3025.00	
Gap Sub	4.00			3029.00	
Safety Joint	3.00			3032.00	
Packer	5.00			3037.00	33.00 Bottom Of Top Packer
Packer	4.00			3041.00	
Stubb	1.00			3042.00	
Recorder	0.00	6838	Inside	3042.00	
Recorder	0.00	8875	Inside	3042.00	
Perforations	3.00			3045.00	
Bullnose	3.00			3048.00	7.00 Bottom Packers & Anchor

Total Tool Length: 40.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Oak Exploration LLC

16-12s-14w Russell, KS

1474 S St. Paul St
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68304

DST#: 2

ATTN: Tom Fertal

Test Start: 2021.10.17 @ 13:15:00

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:

bbl

Water Loss: 5.80 in³

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
10.00	OSM 100%M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

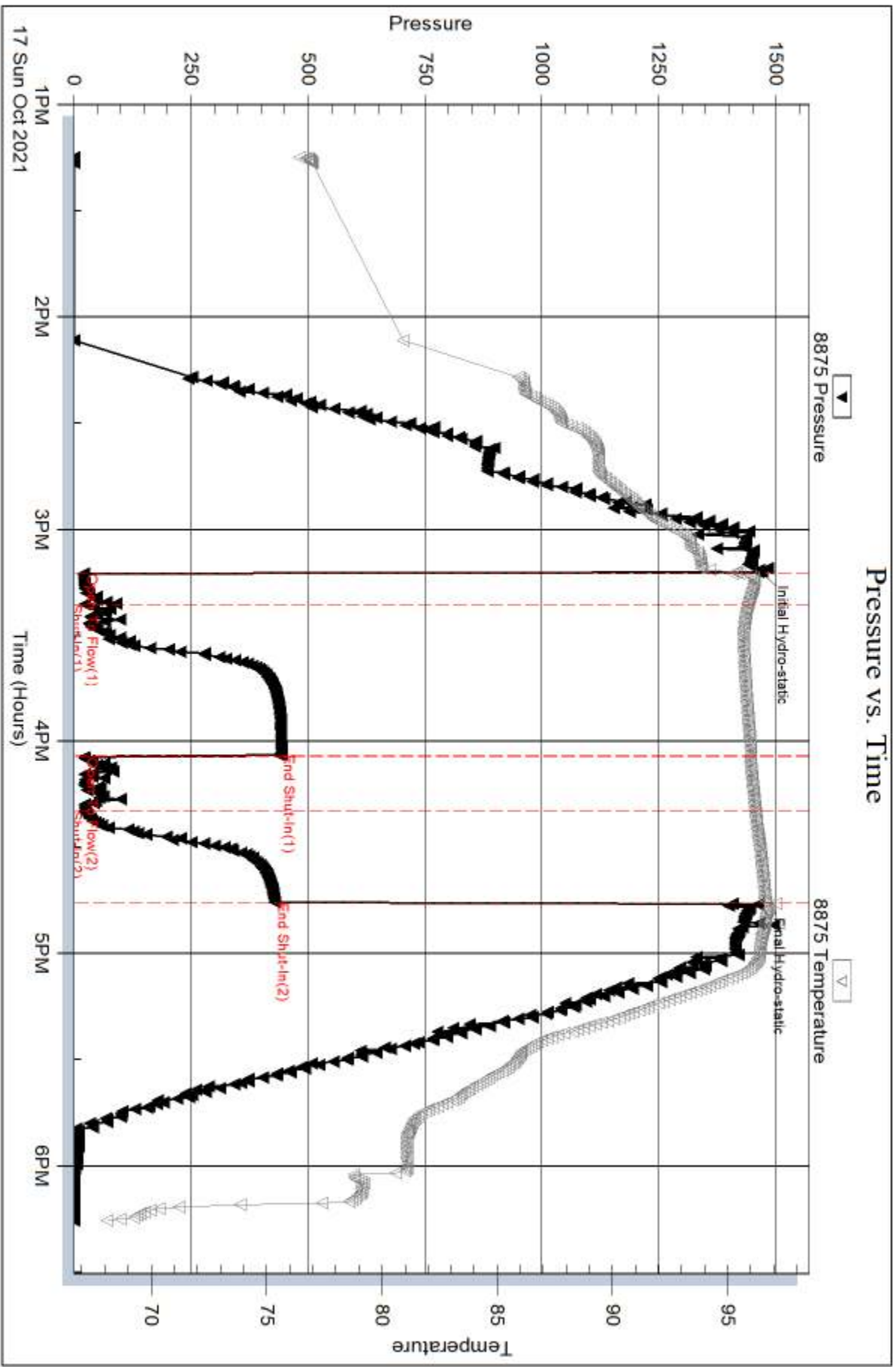
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM



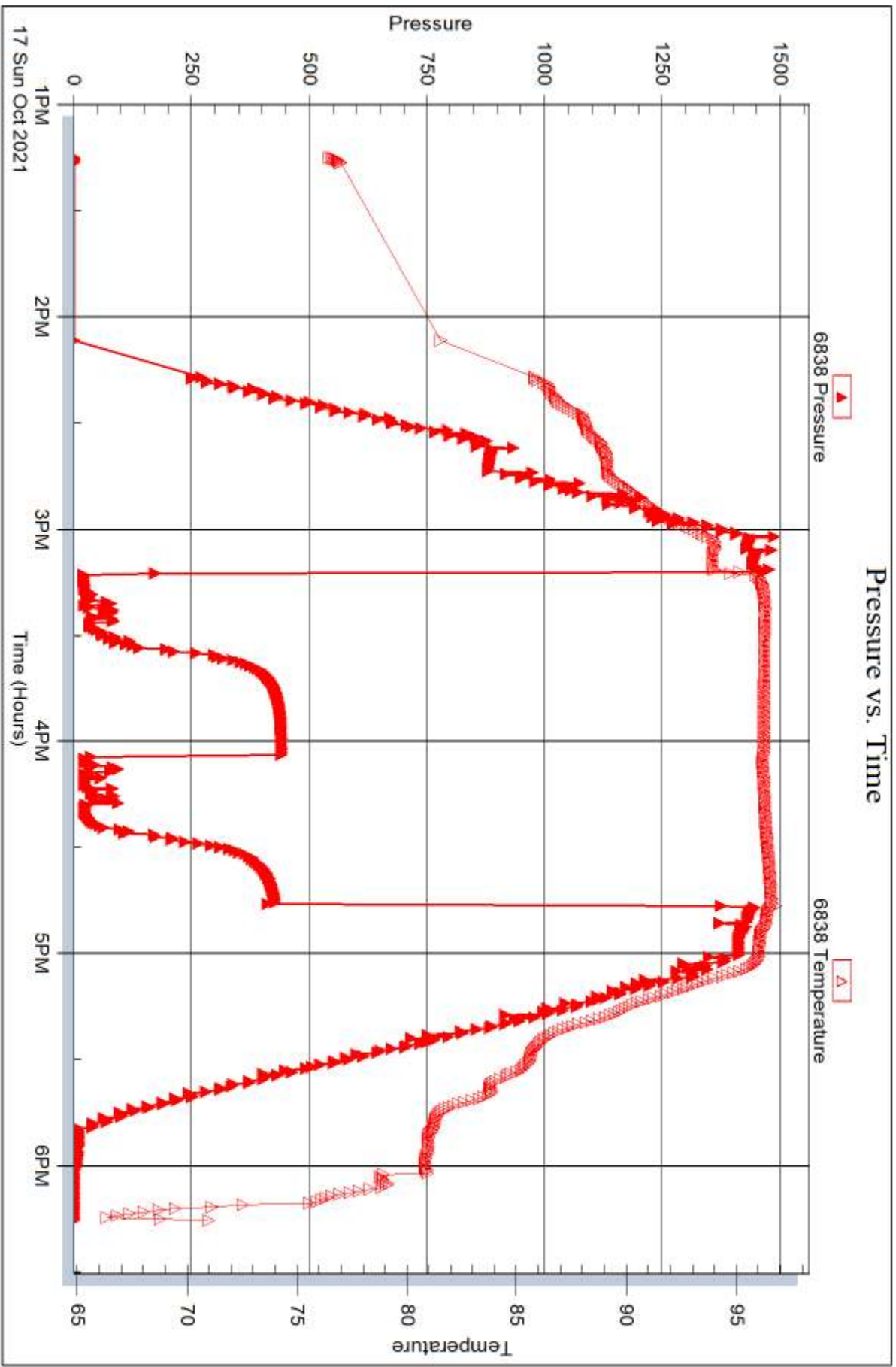
Serial #: 6838

Inside

Black Oak Exploration LLC

Steckel Trust #1-16

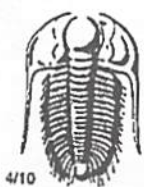
DST Test Number: 2



Tribble Testing, Inc

Ref. No: 68304

Printed: 2021.10.18 @ 11:41:31



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **68303**

Well Name & No. Steckel Trust #1-16 Test No. 1 Date 10/16/2021
 Company Black Oak Exploration LLC Elevation 1776 KB 1768 GL
 Address 1474 S 57. Paul 57 Denver CO 80210+2514
 Co. Rep / Geo. Tom Ferial Rig Discovery #4
 Location: Sec. 16 Twp 12s Rge. 14w Co. Russell State KS

Interval Tested 2647'-2678' Zone Tested Topoka
 Anchor Length 31' Drill Pipe Run 2588 Mud Wt. 9.2
 Top Packer Depth 2642' Drill Collars Run 30' Vis 50
 Bottom Packer Depth 2647' Wt. Pipe Run - WL -
 Total Depth 2678' Chlorides - ppm System LCM -

Blow Description 77- Surface to 3 3/4"
77- No Return
77- 4" right away; Built to 6"; Died to 5"
78- No Return

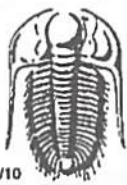
Rec	Feet of	%gas	%oil	%water	%mud
30'	MO	70		30	
	300' GIP	100			

Rec Total 30' BHT 88° Gravity - API RW - @ -° F Chlorides - ppm

(A) Initial Hydrostatic <u>1240</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>01:05</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>02:15</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>04:15</u>
(D) Initial Shut-In <u>680</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>05:45</u>
(E) Second Initial Flow <u>45</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>07:17</u>
(F) Second Final Flow <u>27</u>	<input checked="" type="checkbox"/> Mileage <u>7627</u> 95	Comments
(G) Final Shut-In <u>640</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1206</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>10</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Flow <u>20</u>	<input type="checkbox"/> Day Standby	Sub Total <u>350</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	Total <u>2070</u>
	Sub Total <u>1720</u>	MP/DST Disc't

Approved By _____ Our Representative Spencer J. Frank Thoms!
 TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

cket

NO. 68304

Well Name & No. Stechel Trust # 1-16 Test No. 2 Date 10/17/2021
 Company Black Oak Exploration LLC Elevation 1776' KB 1768' GL
 Address 1474 S 57 Paul St Denver CO 80210 + 2514
 Co. Rep / Geo. Tom Furtal Rig Discovery #4
 Location: Sec. 16 Twp 2s Rge. 14w Co. Russell State Ks

Interval Tested 3041' - 3048' Zone Tested LKC J
 Anchor Length 7' Drill Pipe Run 3000' Mud Wt. 9.2
 Top Packer Depth 3036' Drill Collars Run 30' Vis 50
 Bottom Packer Depth 3041' Wt. Pipe Run - WL 5.8
 Total Depth 3048' Chlorides 8000 ppm System LCM #

Blow Description 17 - Surface to 1/2"
15D - No Return
17 - No Blow
7D - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10'</u>	<u>OSM</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10' BHT 96° Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1469</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>11:30</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>13:15</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:31</u>
(D) Initial Shut-In <u>442</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>17:05</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>18:33</u>
(F) Second Final Flow <u>23</u>	<input checked="" type="checkbox"/> Mileage <u>7627</u> <u>95</u>	Comments
(G) Final Shut-In <u>429</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1461</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open 10
 Initial Shut-In 40
 Final Flow 15
 Final Shut-In 30

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1720 MP/DST Disc't

Sub Total 350
 Total 2070

Approved By _____ Our Representative Tom Furtal
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



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

Well Name: STECKEL TRUST 1-16
Well Id:
Location: Sec 16 12s 14w Russell Coutny, Kansas
License Number: 15-617-24110-0000
Spud Date: OCT. 12TH 2021
Surface Coordinates: Sec 16 12S 14W, Russell county, Kansas
Region:
Drilling Completed: OCT. 18TH 2021

Bottom Hole
Coordinates:
Ground Elevation (ft): 1768' K.B. Elevation (ft): 1776'
Logged Interval (ft): 2400 To: 3365' Total Depth (ft): 3365'
Formation:
Type of Drilling Fluid: Natural Chemical

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

OPERATOR

Company: Black Oak Exploration,LLC
Address: 1474 S. St. Paul Avenue
Denver, Co. 80210

GEOLOGIST

Name: Tim Hedrick
Company: Earth Tech OGL,Inc.
Address: PO Box 822
Hooker, Okla. 73945



**TRIOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Oak Exploration LLC

16-12s-14w Russell KS

1474 S St. Paul ST
Denver CO 80210+2514

Steckel Trust #1-16

Job Ticket: 68303

DST#: 1

ATTN: Tom Fertal

Test Start: 2021.10.16 @ 02:15:00

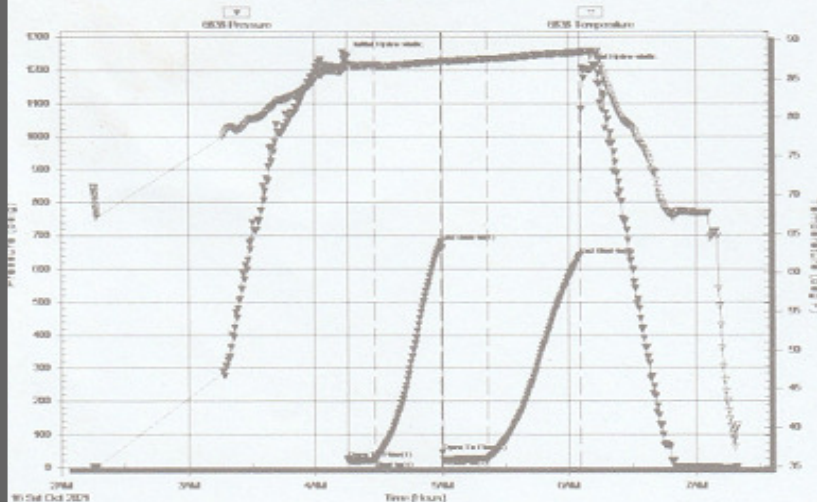
GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 04:15:27
 Tester: Spencer J Staab
 Time Test Ended: 07:19:37
 Unit No: 84
 Interval: 2647.00 ft (KB) To 2678.00 ft (KB) (TVD)
 Reference Elevations: 1776.00 ft (KB)
 Total Depth: 2678.00 ft (KB) (TVD)
 1768.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: **6838** Inside
 Press@RunDepth: 27.89 psig @ 2648.00 ft (KB) Capacity: psig
 Start Date: 2021.10.16 End Date: 2021.10.16 Last Calib.: 2021.10.16
 Start Time: 02:15:00 End Time: 07:19:37 Time On Btm: 2021.10.16 @ 04:15:22
 Time Off Btm: 2021.10.16 @ 06:06:17

TEST COMMENT: 10-IF-Surface to 3.75"
 30-ISI-No Return
 20-FF-4" right aw ay Built to 6" Died back to 5"
 30-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1240.41	86.98	Initial Hydro-static
1	25.62	86.73	Open To Flow (1)
13	21.96	86.76	Shut-In(1)
45	680.69	87.22	End Shut-In(1)
45	45.53	87.04	Open To Flow (2)
67	27.89	87.58	Shut-In(2)
110	640.72	88.42	End Shut-In(2)
111	1206.03	88.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	MO 30%M 70%O	0.15
0.00	300 GIP 100%G	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Oak Exploration LLC

16-12s-14w Russell KS

1474 S St. Paul ST
Denver CO 80210+2514

Steckel Trust #1-16

ATTN: Tom Fertal

Job Ticket: 68304 DST#: 2

Test Start: 2021.10.17 @ 13:15:00

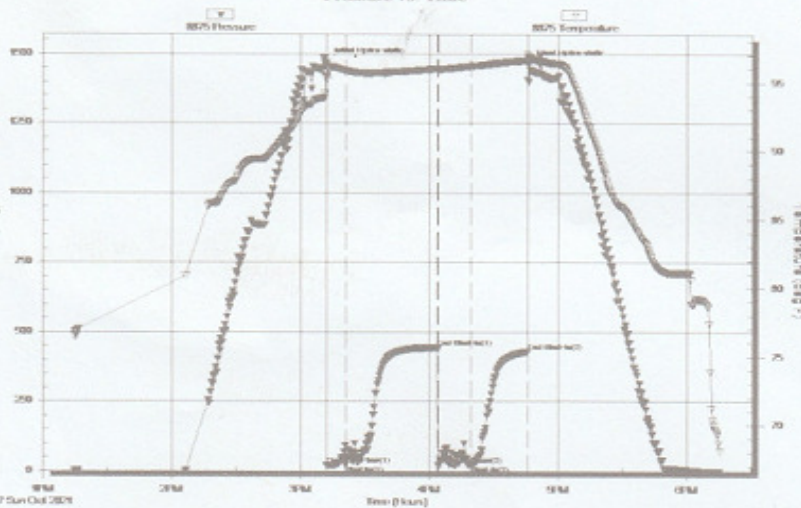
GENERAL INFORMATION:

Formation: LKC G
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 15:12:22 Tester: Spencer J Staab
 Time Test Ended: 18:15:37 Unit No: 84
 Interval: 3041.00 ft (KB) To 3048.00 ft (KB) (TVD) Reference Elevations: 1776.00 ft (KB)
 Total Depth: 3048.00 ft (KB) (TVD) 1768.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8875 Inside
 Press@RunDepth: 23.42 psig @ 3042.00 ft (KB) Capacity: psig
 Start Date: 2021.10.17 End Date: 2021.10.17 Last Calib.: 2021.10.17
 Start Time: 13:15:00 End Time: 18:15:37 Time On Btm: 2021.10.17 @ 15:12:07
 Time Off Btm: 2021.10.17 @ 16:46:12

TEST COMMENT: 10-IF-Surface to 1/2"
 40-ISI-No Return
 15-FF-No Blow
 30-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1469.67	95.42	Initial Hydro-static
1	21.63	95.20	Open To Flow (1)
10	22.62	95.85	Shut-In(1)
52	442.79	96.00	End Shut-In(1)
53	22.24	95.97	Open To Flow (2)
68	23.42	96.19	Shut-In(2)
94	429.12	96.65	End Shut-In(2)
95	1461.44	96.84	Final Hydro-static

Recovery

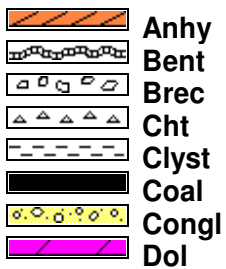
Length (ft)	Description	Volume (bbl)
10.00	OSM 100%M	0.05

Gas Rates

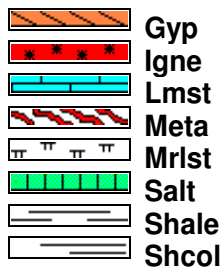
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

* Recovery from multiple tests

ROCK TYPES



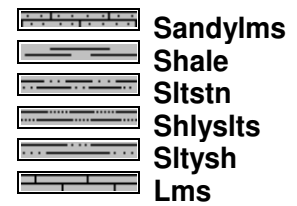
Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta
Mrlst
Salt
Shale
Shcol



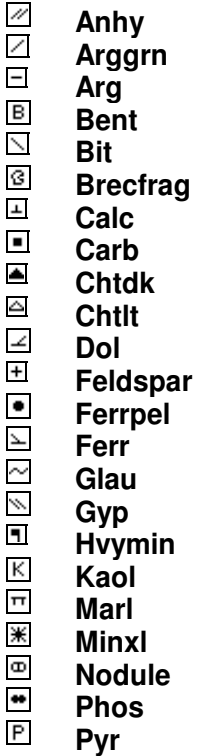
Shgy
Sltst
Ss
Till
Carb sh
Dol
Dtd
Gry sh



Sandylms
Shale
Sltstn
Shlyslts
Sitysh
Lms

ACCESSORIES

MINERAL

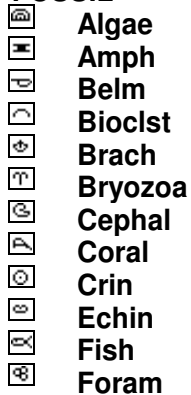


Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl
Minxl
Nodule
Phos
Pyr

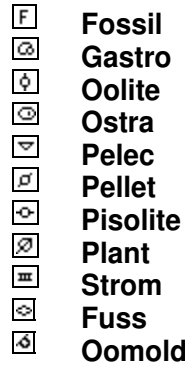


Salt
Sandy
Silt
Sil
Sulphur
Tuff
Chlorite
Dol
Sand
Sity

FOSSIL

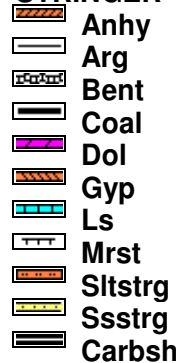


Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram



Fossil
Gastro
Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom
Fuss
Oomold

STRINGER

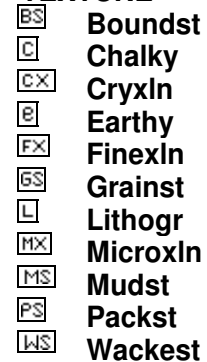


Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh



Clystn
Dol
Grysh
Gryslt
Lms
Sandylms
Sh
Sltstn

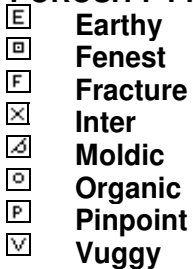
TEXTURE



Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

POROSITY TYPE



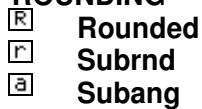
Earthy
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

SORTING



Well
Moderate
Poor

ROUNDING



Rounded
Subrnd
Subang



Angular

OIL SHOWS



Even
Spotted
Ques
Dead
Gas show

INTERVALS

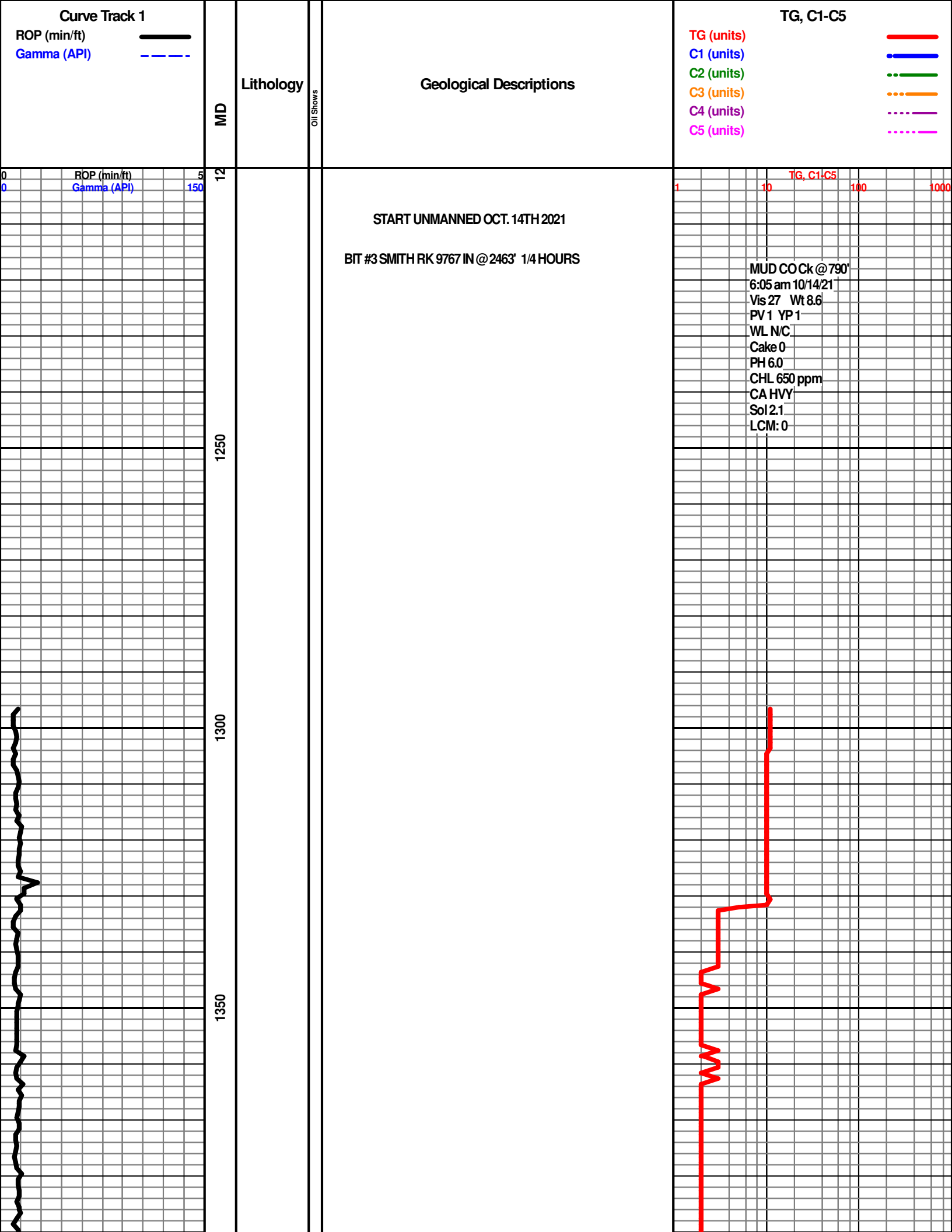


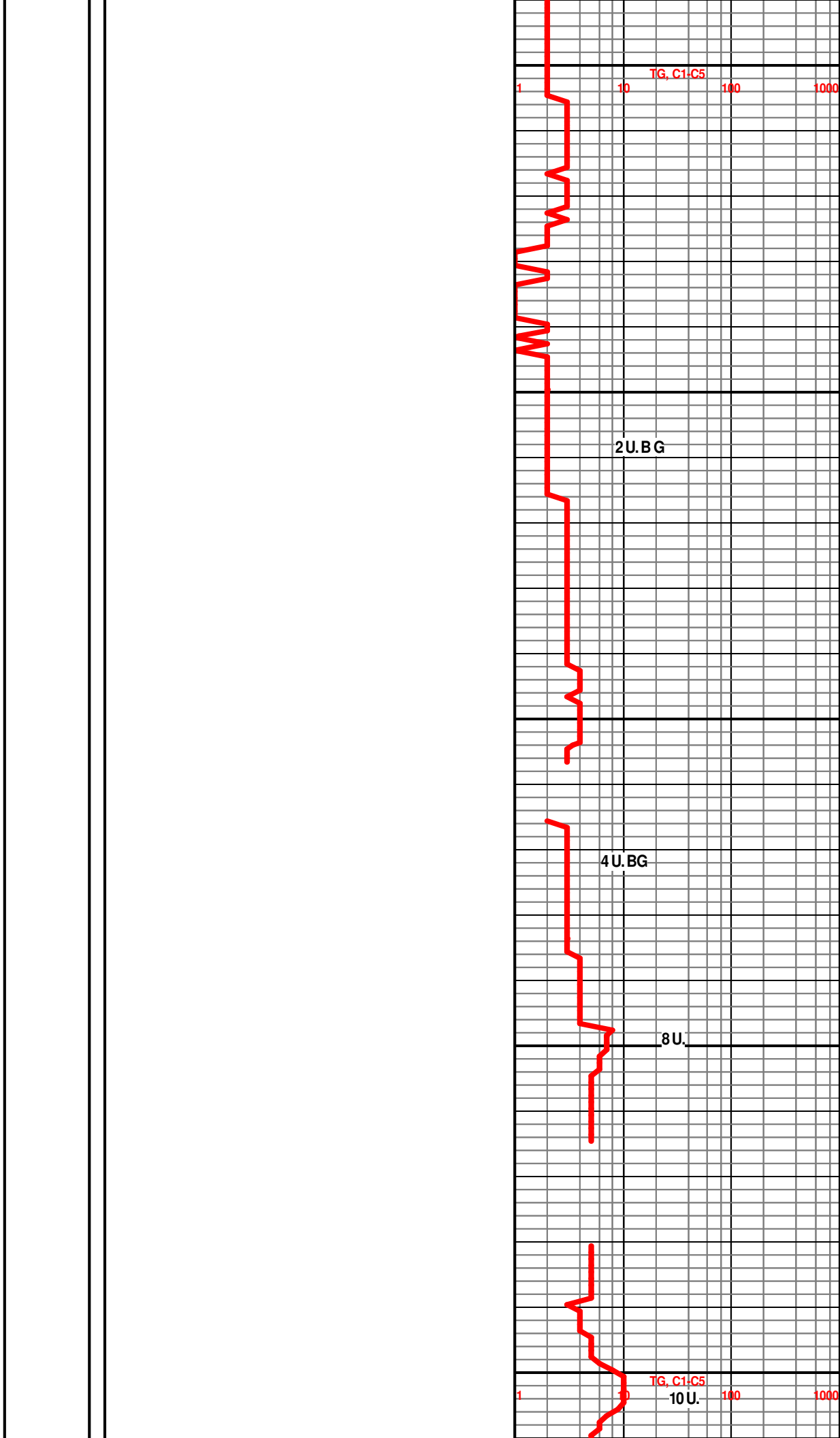
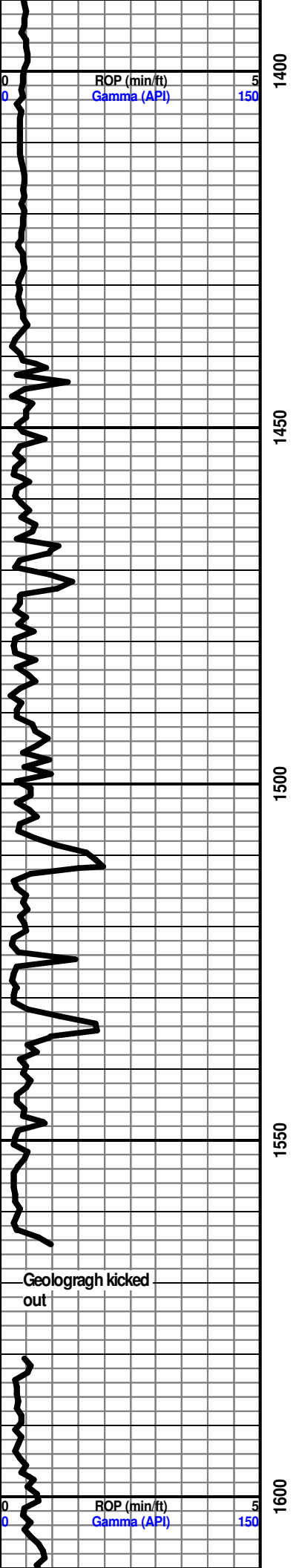
Core
Dst
Dst

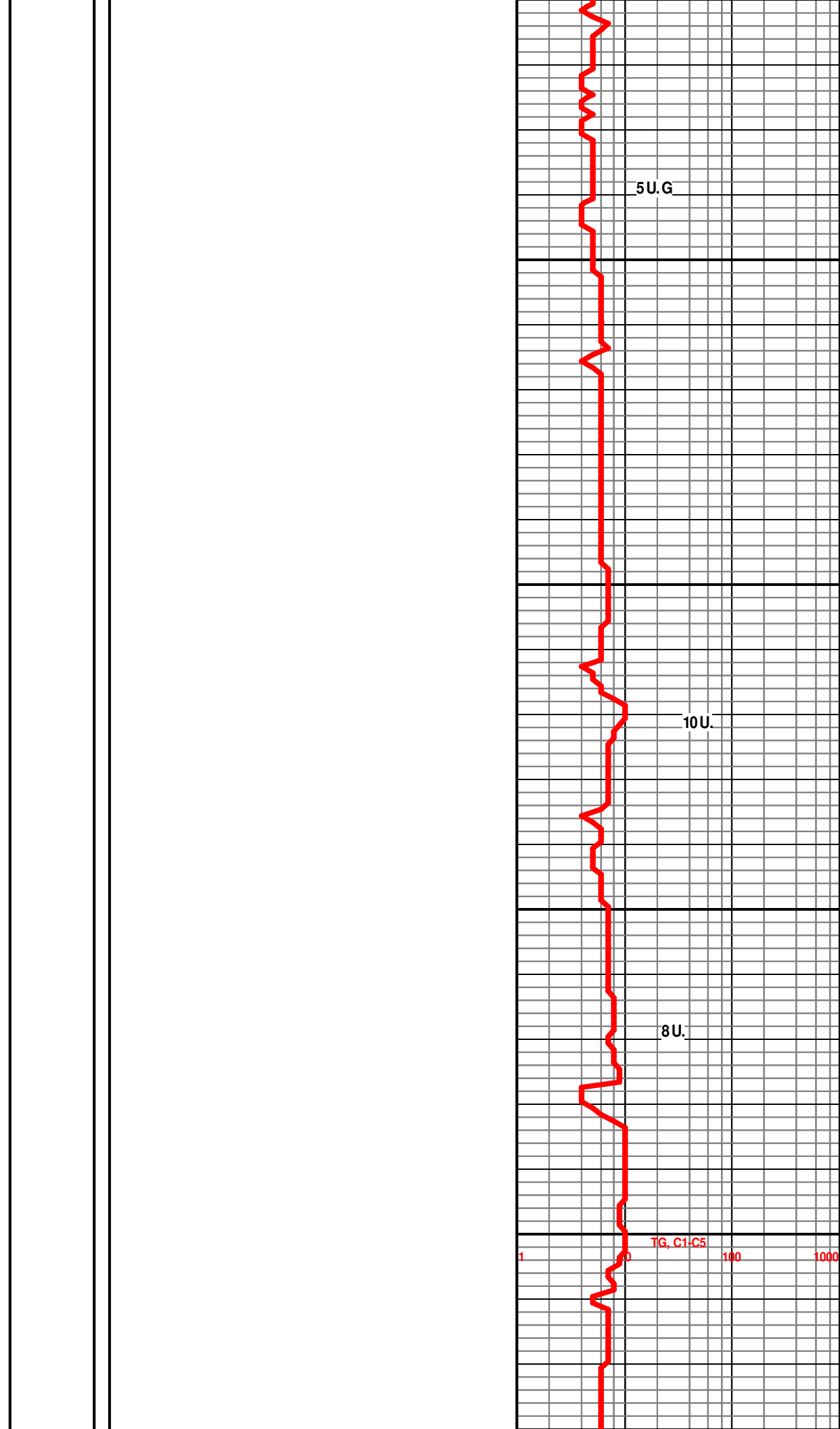
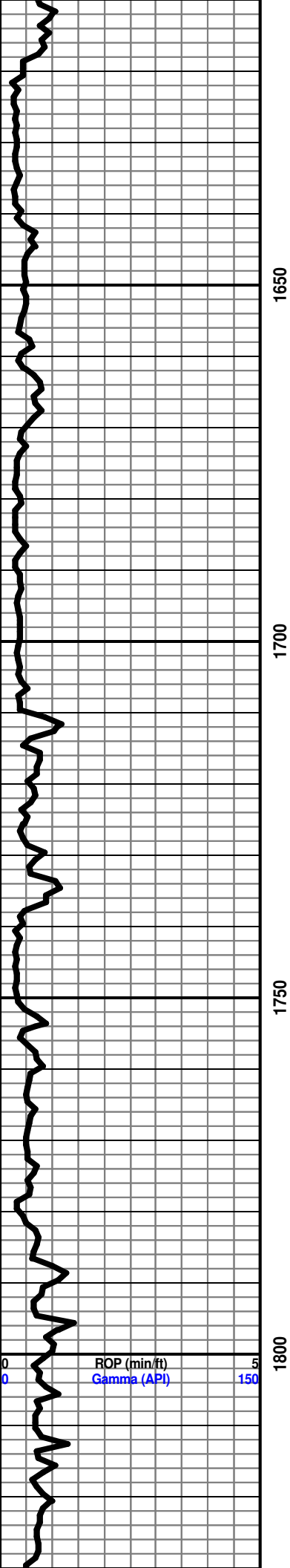
EVENTS

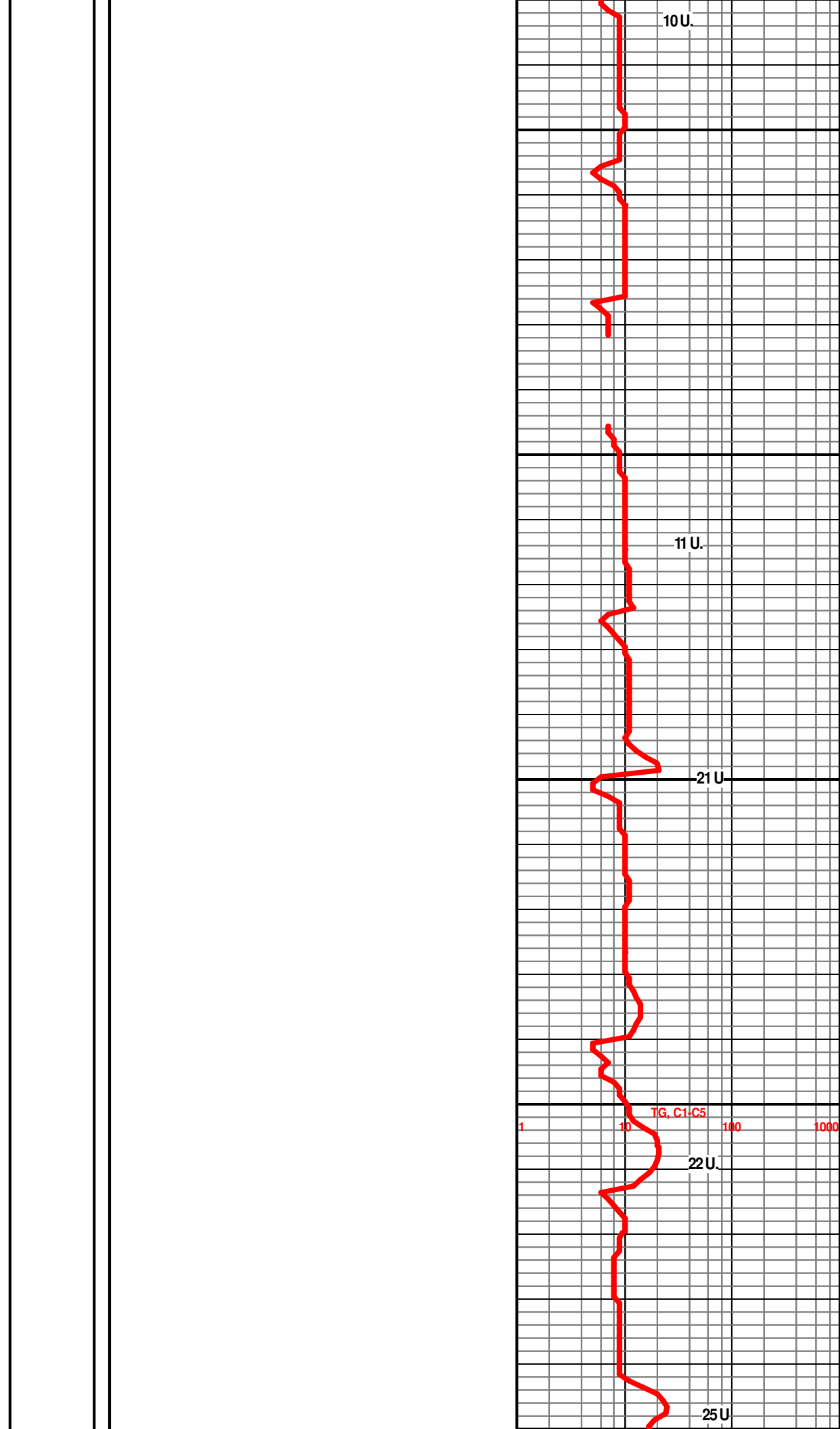
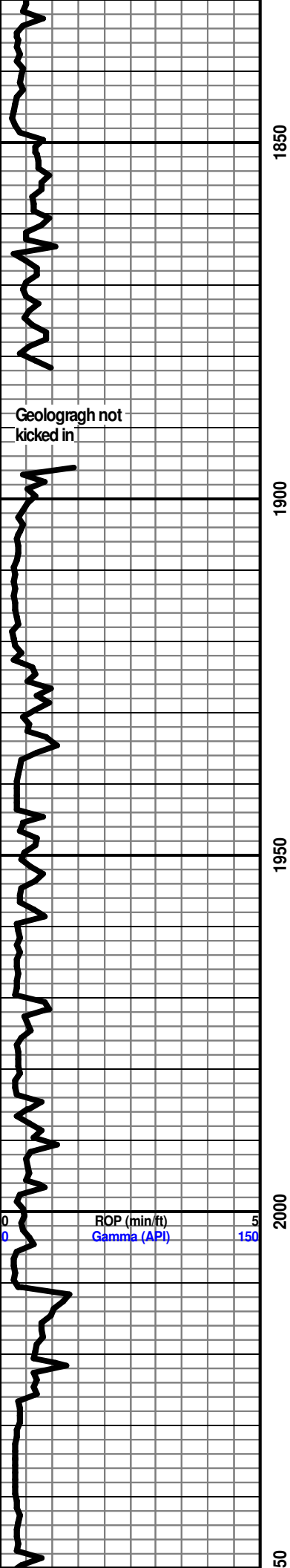


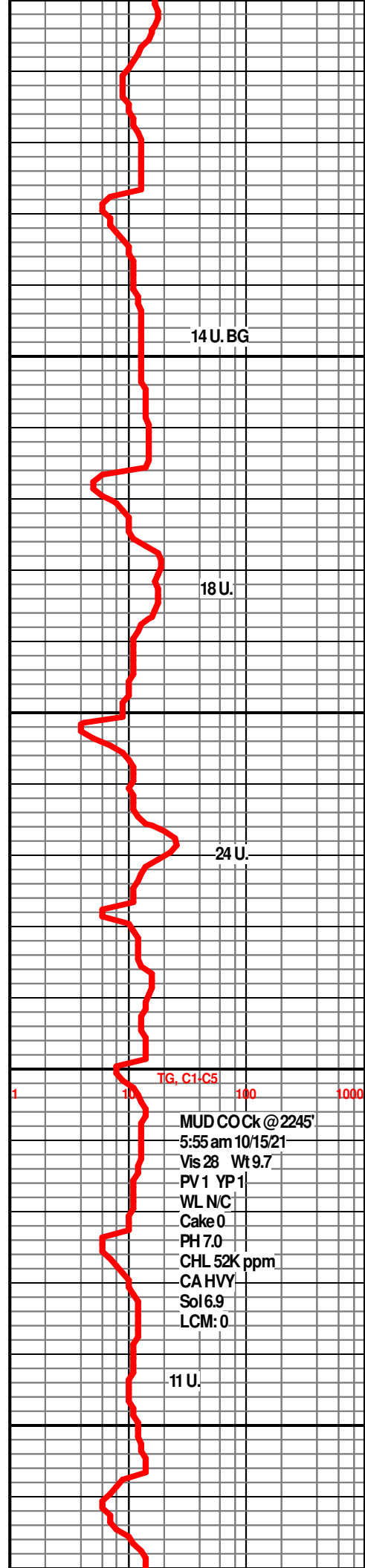
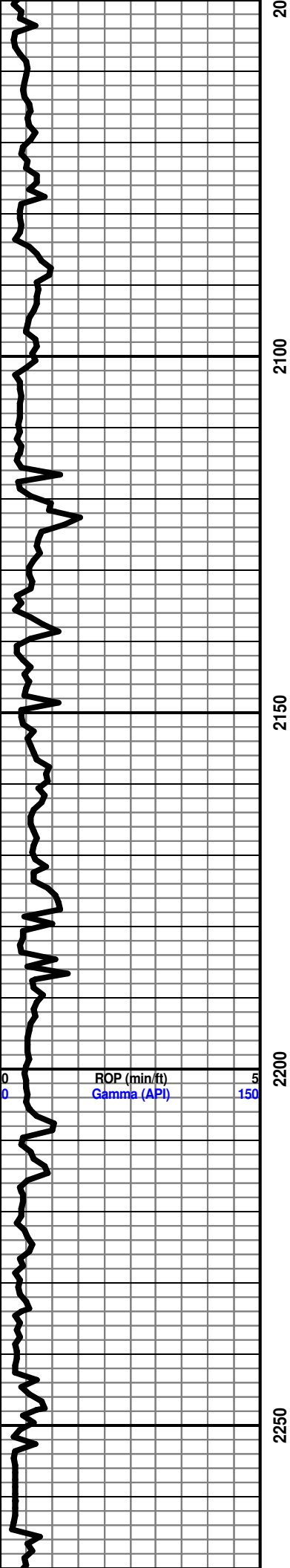
Rft
Sidewall

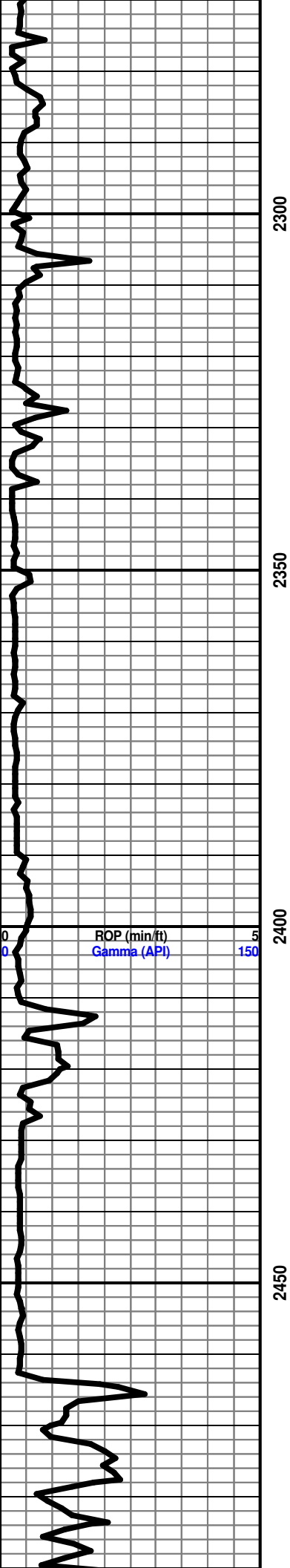












2300

2350

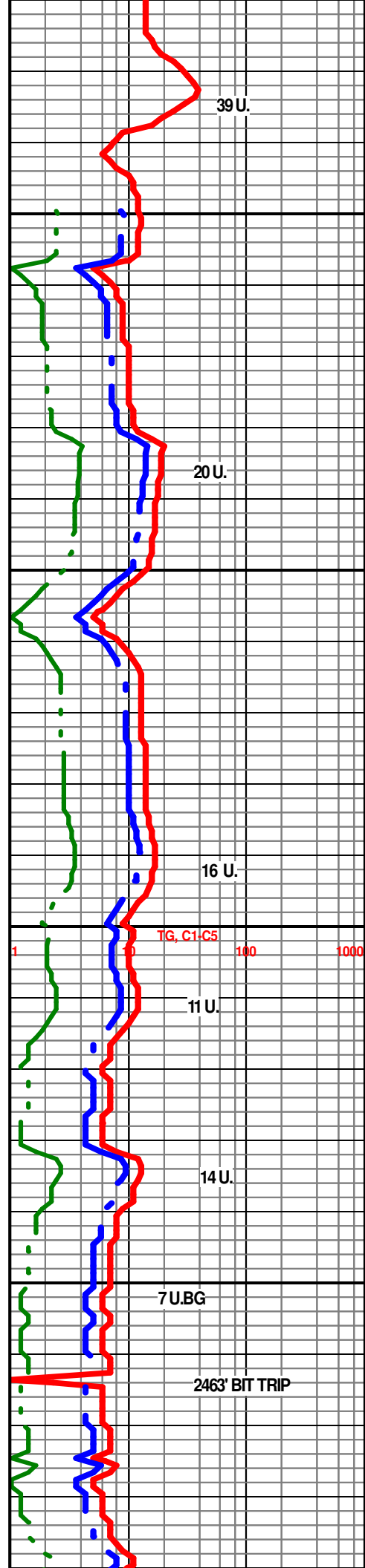
2400

2450

ROP (min/ft)
Gamma (API)

0
0

5
150



39 U.

20 U.

16 U.

11 U.

14 U.

7 U.BG

2463' BIT TRIP

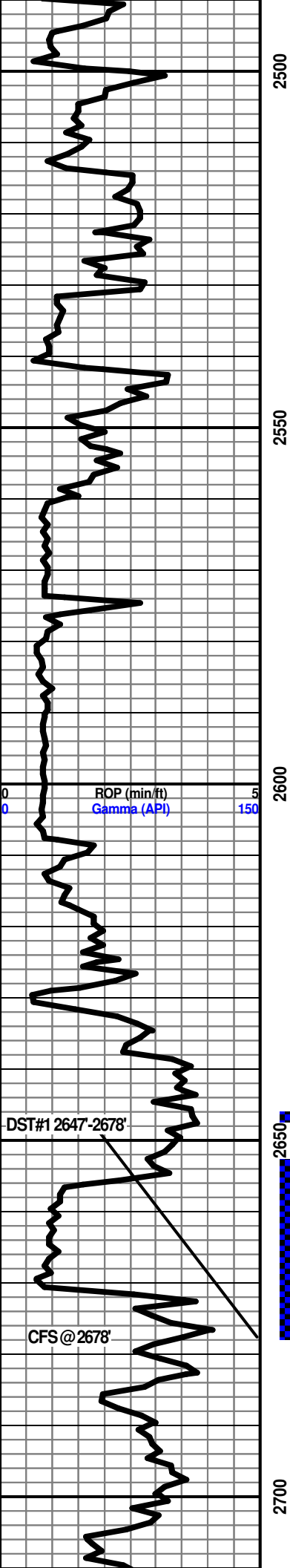
TG, C1-C5

1

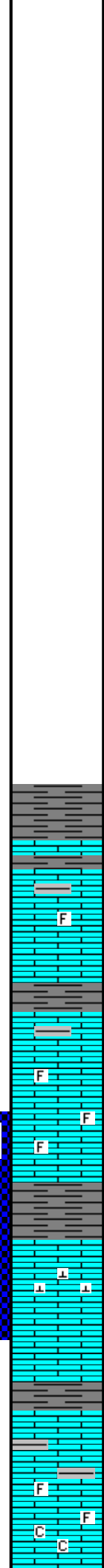
10

100

1000



2500
2550
2600
2650
2700



START SAMPLES AT 2620'

LS- CRM LT TAN TO DK GY- HR DNS F-XLN TO TT SUCRO IP, MOTT, EMBED DK GY SH IP, SCAT FOSS FRGS IP, NO FLO, NO VIS POR, NO VIS HOW OR CUT

SH- LT GRY TO LT GREEN- FRM BLKY SMOOTH TXT TO GMMY IP

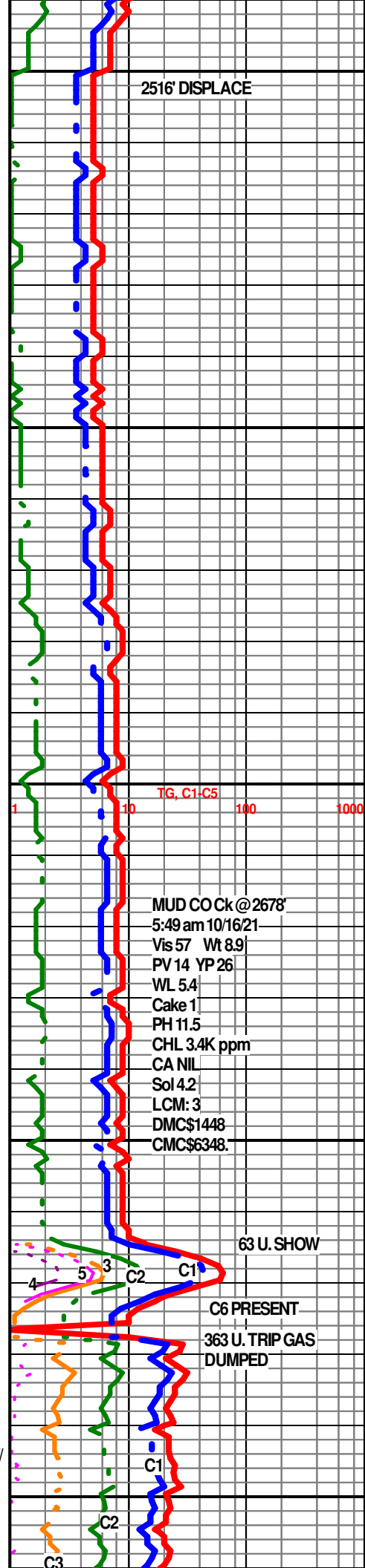
LS- CRM LT TN - HD DNS TO SLI TR BRITTLE MEDIUM TO FINE XLN- RE-XLN IP, SCAT EMBED FOSS FRGS, DULL YEL MIN FLUOR IP, NO VIS POR, NO VISIBLE SHOW OR CUT

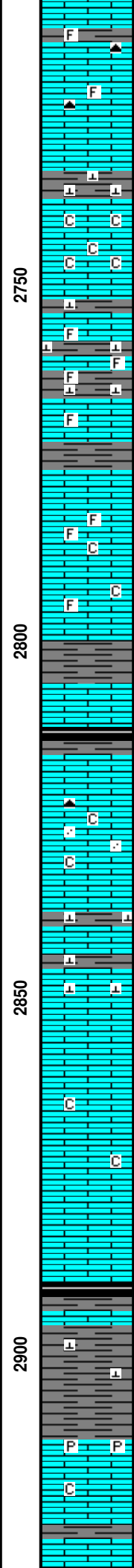
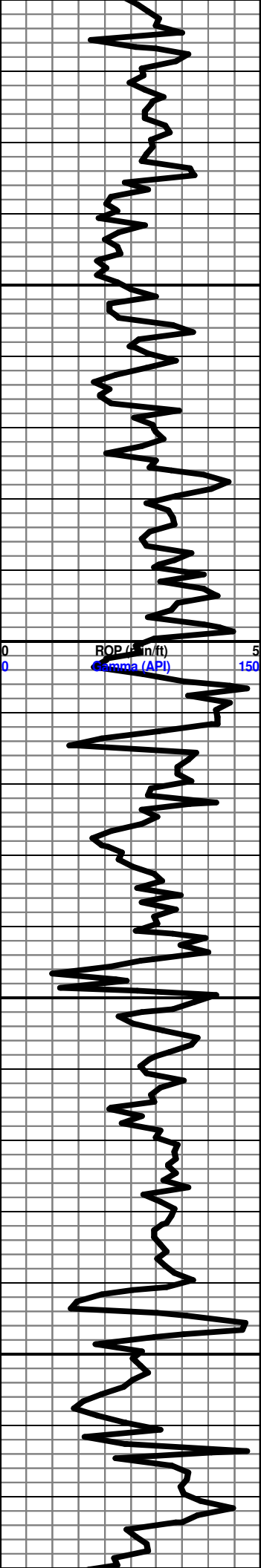
SH- LIGHT TO DK GRY- VERY SFT GMMY TEXT

TOPEKA 2665' - 889'

LS- DK TAN TO BROWN (DUE TO SAT OIL STAIN THRUOUT) ABDT LIVE OIL IN TRAY, HD V/ V/BRITT, V/FINE TO COARSE SUCRO MATRIX, LRG FREE CALC XLS W/ OIL STAIN AND SMALL CALC XLS ON ONE FACES ROCK, DULL YEL GLDN FLUOR THRUOUT, POOR VISIBLE MICRO PP POR IN PART, SCAT PR MICROVUG POR IN PART, POSS FRACT POR, EXCEL FLUSH CUT THRUOUT, EXCEL SLO STREAM CUT THRU, STRONG OIL ODOR, OIL ODOR PRESENT AT PITS B4 SAMPLES CAUGHT

LS- CRM LT TN TAN, HD DENSE SLIGHTLY BRITT, V/F-XLN TO V/ TT SUCRO IP, TR SCATTERED FOSS FRGS, TRACE OF EMBED GRAY SH IP, GRADING TO FIRM TO SFT WHITE CHALK, LT YEL FLUOR IP, NO VIS POR, N VIS BLE SHOW OR CUT





LS- CRM LT TAN TO TAN, HDDENSE SLIGHTLY BRITT, V/F-XLN TO V/TT SUCRO IP, TR SCATTERED FOSS FRGS, HVYT RACES OF RE-WORKED DARK GRAY CHERT IP, LIGHT YELLOW MIN FLUOR, NO VISIBLE POR, NO VISIBLE SHW OR CUT

22 U. BG

SH- GY DK GY- FIRM BLKY SMOOTH TXT IP, V/ CALC TO LMY IP

LS- OFF WHT WHITE TO CREAM- HD TO SFT IP, MED-XLN SUCRO TO SUCRO S-CHLKY, ABDT FREE FIRM TO SFT WHITE CHLKY, NO FLO, NO VIS POR, NO VISIBLE SHOW

SH- GRYDK GY- FIRM BLKY SMOOTH TXT, V/ CALC TO LMY WITH INTERBEDDED FOSSIL FRGS, AND LAMINATED SHALE

LECOMPTON 2776' - 1000'

LS- CREAM OFF WHT TO WHT- HD DNS TO TR BRITT, F-V/F-XLN IP TO TT SUCRO IP, TR FOSS FRGS IP, SLI TR INTERBED SFT CHLK IP, LT YEL MIN FLO, NO VIS POR

20 U. BG

SH- GRYLT GREEN- FRM BLKY SMOOTH TXT

SH- BLK SFT CARB LOOKING TO DK GRY SLI CALC IP

21 U. BG

LS- OFF WHT TO CRM HD DNS IP TO V/BRITT, MED -F-XLN TO SUCRO S-CHLKY IP, TR S-RND CLR QURTZ GRINS IP, FREE SFT WHT CHLK IP, TR BLACK REWORKED CHERT, NO FLUOR, NO VIS POR, NO VIS SHOW

SH- LT GRY TO LT GREEN- FRM BLKY SMOOTH TO SLI GRNY TXT, SLI CALC IP

17. BG

LS- CRM LT TN - HD DNS, F-XLN TO CRYPTO-XLN IP, SLI TR CALC XLS ON ONE FACES, SLI TR LIGHT FLUOR ON ONE FACES TO LT YELLOW MIN FLUOR IP, NO VIS CUT OR SHOW

25 U.

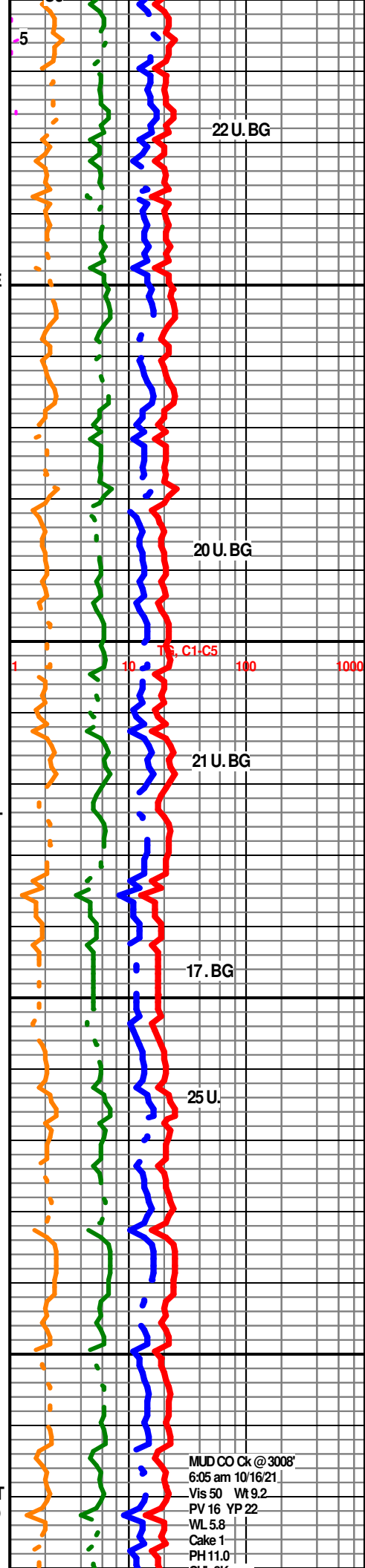
LS- OFF WHT CRM - HD DNS TO BRITT, MED-XLN TO V/FINE XLN IP, V/S-CHLKY IP, FREE SFT WHT CHLK IP, NO FLUOR, NO VIS POR, NO VIS SHOW

HEEBNER 2891' - 1115'

SH- BLK SFT TO FIRM CARBONACEOUS LOOKING

SH- DK GRY TO GREEN IP MOTT, FIRM BLKY SMOOTH TO GRAINY TXT, CALC IP,

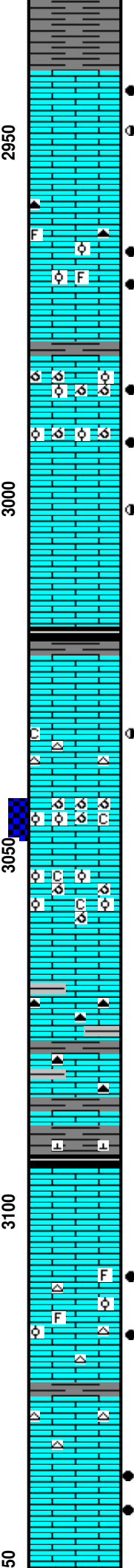
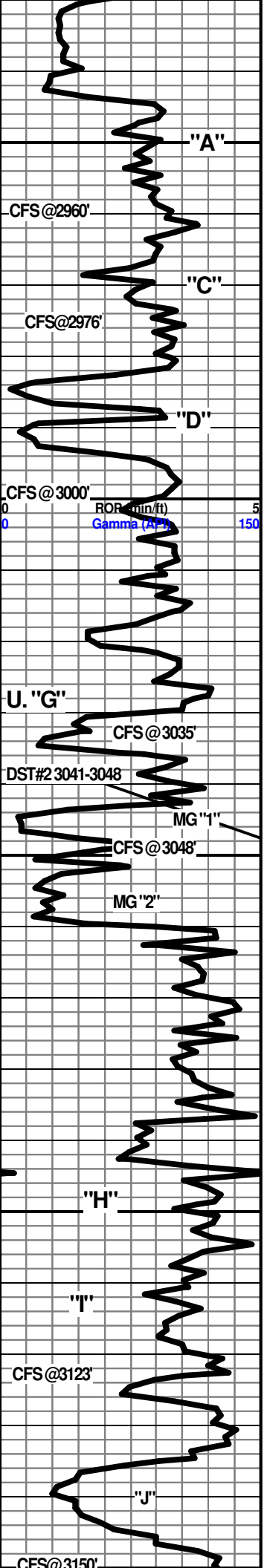
LS- CRM OFF WHT -HD DNS TO BRITT, F-XLN TRACE OF SFT WHT CHLK IP, TRACE OF DISSAND LAMINATED PYR IP, SLIGHT TRACE EMBEDDED SH, LIGHT YELLOW MIN FLUOR THRU, NO VIS POR, NO VIS CUT



MUD CO Ck @ 3008'
 6:05 am 10/16/21
 Vis 50 W 9.2
 PV 16 YP 22
 WL 5.8
 Cake 1
 PH 11.0

LANISING 2939' - 1163'

CHL 8K ppm
CA TR
Sol 6.0
LCM: 1
DMCS239.54
CMCS6587



("A") LS- CRM LT TN TN DUE TO SCATTERED LT BROWN OIL STAIN IN 50%, HD DNS TO V/ BRITT, V/ SUCRO MTRX W/ HVY TRACE CALC XLS EMBED AND FREE CALCITE XLS, DULL YELLOW GOLD FLUOR THRUOUT, POOR VISIBLE MICRO PP POR, POSS FRACT. POR, FAIR TO GOOD FLUSH CUT TO GOOD SLOW STREAM CUT, FAIR OIL ODOR, SKIM OIL IN CUP

("C") LS- CRM LT TN (DUE TO LT BRN OIL STAIN THRUOUT, HD DNS TO BRITT MED F-XLN RE-XLN, EMBED FOSS FRGS IP, SCAT EMBED SMLL TO MED OOLITES IP, SMALL TO MED CALC XLS, HVY TR ORANGE CHERT, DULL YEL GOLD FLUOR IN 60%, PR FR TO TR GOOD INTER-XLN POR IN PART, MICRO VUG POR IP, FAIR TO GOOD FLUSH CUT TO GOOD SLOW STREAM CUT IN 60%, GOOD OIL ODOR

2982-2987 LS- LT TN TN LT BRN-DUE TO OILSTN THRUOUT, HD V/ BRITT, V/ OOLMLD, OOLITIC IP, SMALL CALCITE XLS IN OOLMLD DLL YEL TO BRIGHT YEL GLD FLUOR THRU, EXCELLENT OOLMLD POR, V/GOOD FLUSH CUT TO V/GOOD SLOW STREAM CUT THRU, VERY STRONG OIL ODOR, SKIM OIL ON CUP

2989-2994' LS-CRM LT TN TN LT BRN THRU DUE TO OILSTN THRUOUT, HD V/ BRITT DNS IP, MED TO F-XLN RE-XLN, MICRO OOLICAST IP EMBED SMLL TO MED CALCITE XLS IP, EMBED SMLL OOLITES IP, DLL YEL TO BRIT YEL GLD FLUOR THRU, GOOD MICRO OOLICAST TO GD VUG POR, PR FR TO GD INTER-XLN POR SCAT THRU, V/GD FLSH CUT TO VERY GOOD SLOW STRM CUT

3000-3003' LS- OFF WHT CRM LT TAN IN 50-60% DUE TO OILS TAIN, HD DNS TO BRITT IP, V/F-XLN TO MED-XLN RE-XLN, SCATTERED CALC XLS IN VUGS AND VISIBLE POR, DLL TO BRIGHT YEL GLD FLUOR THRU, FAIR TO GD SCAT VUG POROSITY IN 20%, POOR TO TR FAIR INTER-XLN POR IN PART, GOOD FLUSH TO GOOD SLOW STREAM CUT IN ALL POROSITY, FAIR OIL ODOR

SH- BLK SFT CARB LOOKING

(U.'G' 3030-3035) MED HD V/BRITT, CRM LT TN IN 20%. TAN OILS TN V/ FINE SUCRO MTRX SLI S-CHILKY IP, TR FOSS FRGS IP, DLL YEL GLD FLO TO TR BRIGHT YEL GLD FLO IP, NO VISIBLE POR, WKFLSH CUT IN 20% TO POOR SLO STRM CUT IN PAR. NO ODOR

(M.'G' 3043-3047) LS-OFF WHT CREAM BFF- HD BRITT, V/SUCRO MTRX, V/ MICRO OOLMLD THRU, TRACE OF SMLL OOLITES EMBED IP, ABDT SFT WHT FREE CHLK, ABDT WHT OPQUE CRT, DLL YEL FLJORIP TO NO FLUOR, SCATTERED PR FAIR TO GOOD VISIBLE OOLMLD POR, POOR SCAT VUG POR IP, NO VIS CUT OR SHOW

3052'-3059' LS- WHITE OFF WHITE CRM- HD BRITT, V/SUCRO MTRX, OOLMLD TO SMLL EMBED OOLITES SCAT THRUOUT, HVY TR FREE SFT WHITE CHLK, V/ DLL YEL MIN FLO THRU, PR TO FR SCAT OOLMLD TO MICRO VUG POR SCAT THRU, POSS INTER-XLN POR IP, NO VIS SHOW OR CUT

3059-3070- LS CRM BFF- HD DNS, CRYPTO-V/V/FV-XLN, FRLY NON DESCRIPT, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

3070-3085' LS- CRM TAN GRY DK GY IP, MOTT, HD DNS V/F-XLN TO V/ TT SUCRO IP, W/ IMBD LT TO DK GRY SH LAMINATED AND DISS IP, ABDT DK GY TO BLCK CHERT, NO FLO, NO VIS POR, NO VIS SHOW

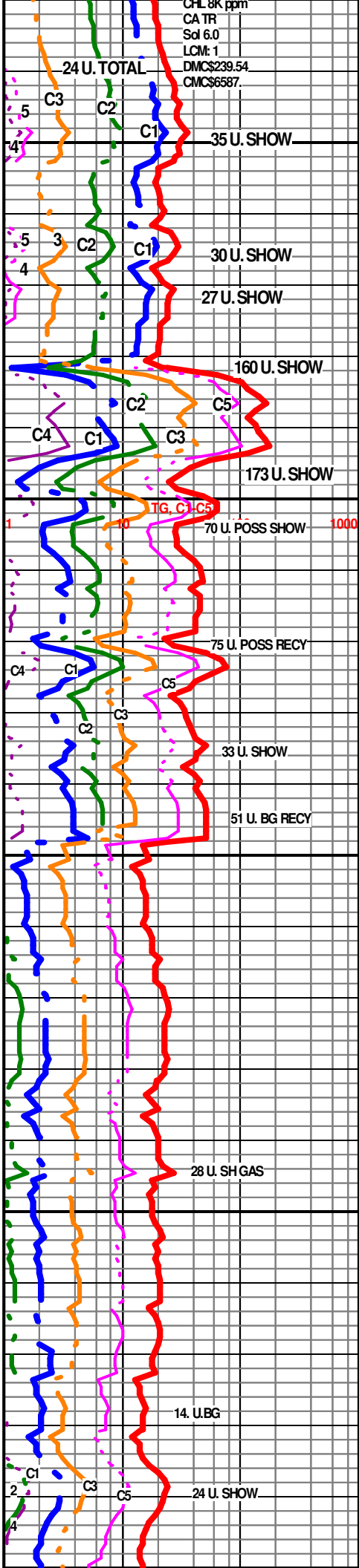
SH- DK GRY TO BLACK SOFT CARBONACEOUS IN PART SLI CALC

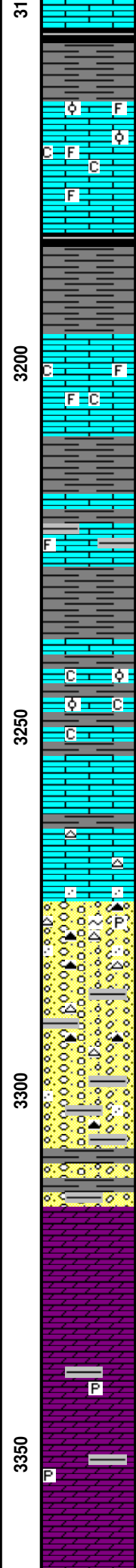
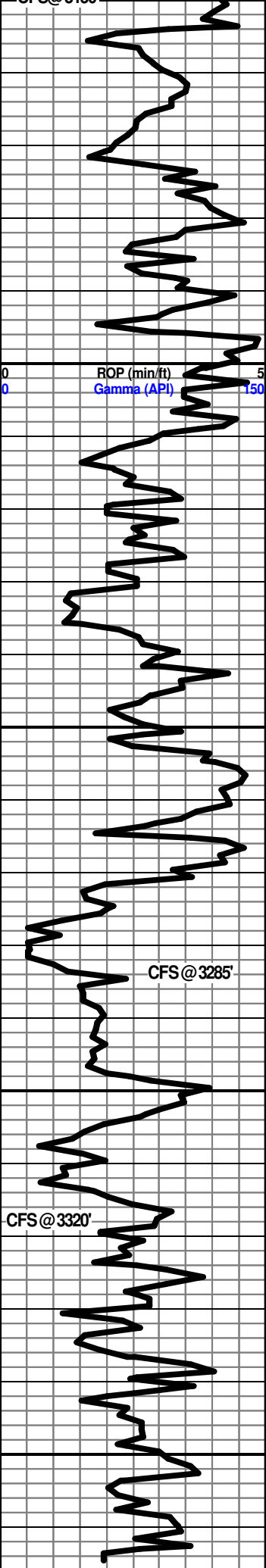
3095'-3105' LS- CRM TAN BRN - MOTT- HARD DENS V/F-CRYPTO-XLN FRLY NON DESCRIPT, NO FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TN DUE TO EVEN BRN OIL STAIN, HD DNS TO V/ BRITT IP, MD-F-XLN, V/RE-XLN, ABDT IMBD SMLLANG POSS DOLO GRAINS & SCATT EMBED CALC XLS IN POROSITY, SUCRO IP W/ EMBED SMLL OOLITES IP, TR WHT CHERT IP, DULL YEL GLD FLUOR THRU, PR FR TO GOOD VISIBLE INTER-XLN TO MICRO PP POR, SCAT MICROVUG POR IP, GOOD FLSH CUT TO GOOD SLO STREAM CUT THRU. GOOD OIL ODOR, OILY SKIM IN CUP

LS- CRM LT GY- HD DNS V/F-CRYPTO-XLN FRLY NON DESCRIPT WITH WHITE OPQUE RE-WORKED CHERT, NO FLO, NO VIS POR, NO VISIBLE SHOW

LS- LT TAN TAN CRM DUE TO OIL STAIN IN 70%, HD DNS IP TO V/ BRITT, V/SUCRO MTRX, RE-XLN IP, SCATT EMBED SMLL CLC XLS, TR FREE LRG CALCITE XLS W/ OIL STN, BRIT YELLOW GLD FLUOR THRU, FR TO GOOD VISIBLE INTER-XLN SCAT THRU TO FR MICRO VUG POROSITY IN 30%, GOOD FLUSH CUT TO V/GOOD SLO STRM CUT, VERY STRONG OIL ODOR, LT TN STN ON DISH





SH- BLACK SFT CARB TO LT GRY TO LT GREEN FRM BLKY SMOOTH TXT

3164-3172' LS- OFF WHT CRM - HD BRITT MED-F-XLN RE-XLN , EMBED FOSS FRGS EMBED OOLITIC IP, FREE SFT WHT CHLK, LIGHT YEL MINFLUOR THRU, NO VIS POR, NO VIS SHOW

3173-3181' LS- BRN DK BRN - HD DNS V/F-CRYPTO-XLN TRACE OF EMBED FOSS FRGS IP TO FRLY NON DESCRIP, NO FLO ,NO VIS POR, NO VIS SHOW

SH- BLK SFT CARB TO RED GRY MOTT, FRM BLKY SMOOTH TXT TO GMMY GREEN SH IP

LS- CRM LT TAN OFF WHT HD DNS TO BRITT CRYPTO-XLN TO SUCRO IP S-CHLKY , TR FREE SFT WHT CHLK, TR FREE FOSS CRIN STEMS, NO FLO NO VIS POR

BKC 3209' -1433'

SH- RED GREEN V/SFT GMMY TXT

LS-CRM TN BRN - HD DNS MOTT, V/F-XLN RE-XLN IP, TR SUCRO , TR IMBD RED AND GREEN SH SCATTERED, NO FLO NO VIS POR, NO VIS SHOW

SH- RED GREEN MOTT, VERY SOFT TO SFT GMMY

LS- OFF WHT CRM REDDISH- MOTT, HD DNS TO BRITT MED-XLN RE-XLN EMBED FOSS FRGS , EMBED LAMINATED RED SH, TR S-CHLKY IP, TR EMBED OOL , NO FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN - HD DNS V/F-CRYPTO-XLN TO V/V/TT SUCRO IP IMBD CALC XLS IP, NO FLO ,NO VIS POR NO VIS SHOW

LS- CRM TN - HD DNS F-V/F-XLN TO TT SUCRO IP, HVY TR CLRWHT CHERT, TR CLEAR ANG QUARTZ GRAINS IP, TRCALC XLS, NO FLO ,NO VIS POR, NO VIS SHOW

LS-CRM LT TN RED GREEN- HD DNS TO BRITT, MED-XLN RE-XLN MTRX, IMBD QUARTZ GRAINS , OOLITES, RED SHALE, ABDT ORANGE WHT TAN REWORKED CHERT, NO FLO, NO VIS POR, NO VIS SHOW

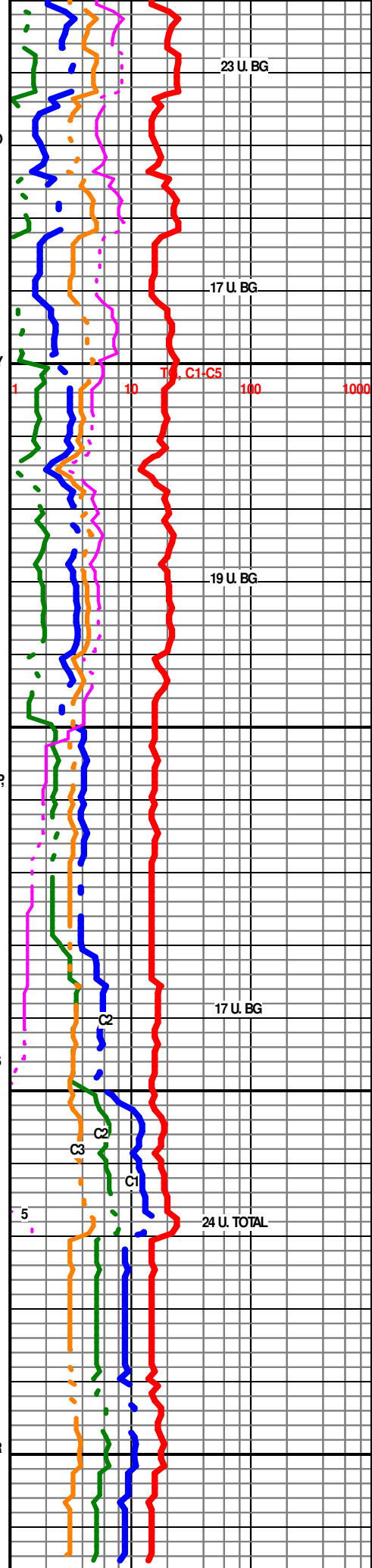
LS-CRM LT TN- HD DNS TO BRITT, MED-XLN RE-XLN MTRX, IMBD QUARTZ GRAINS , OOLITES, ABDT RED GREEN SHALE V/ GMMY TXT ABDT ORANGE WHT TAN REWORKED CHERT, NO FLO, NO VIS POR, NO VIS SHOW

SHALE- RED VERY SOFT TO GUMMY

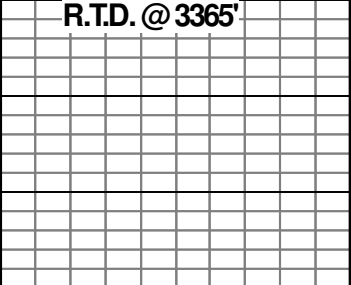
ARBUCKLE 3315' - 1539'

DOLO- LT TN- HD DNS TO V/ BRITT, V/TT SUCRO MTRXT TO V/COARSE SUCRO MTRX, DLL YEL FLUOR THRU, NO POROSITY IP TO GD INTER-XLN POR, NO VISIBLE CUT OR SHOW

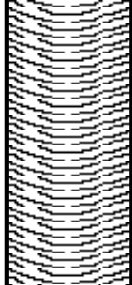
DOLO- LT TN- HD DNS TO V/ BRITT, V/TT SUCRO TO V/COARSE SUCRO MTRX, TR LAMINATED PYR & TRACE GREEN SH, DLL YEL FLUOR THRU, NO POROSITY TO GD INTER-XLN POR, NO VISIBLE CUT OR SHOW



R.T.D. @ 3365'



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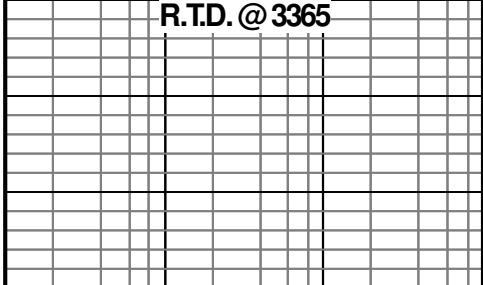
CFS 1 HOUR

SHORT TRIP 10 STANDS

CTCH 1.5 HOURS/TOFL

LOGGERS HALLIBURTON

R.T.D. @ 3365'



STECKEL TRUST 1-16
2500 FNL / 1500 FWL
SW SE NW 16 - 12S - 14W
KB
1776

FORMATION

STONE CORRAL	845	(931)	
			36
BASE STONE CORRAL	881	(895)	
			342
HUTCHINSON SALT	1223	(553)	
			213
BASE HUTCHINSON SALT	1436	(340)	
			885
GRAND HAVEN	2321	(-545)	
			103
BASE STOTLER LIMESTONE	2424	(-648)	
			241
TOPEKA	2665	(-889)	
			220
HEEBNER SHALE	2885	(-1109)	
			54
LANSING	2939	(-1163)	
			267
BASE KANSAS CITY	3206	(-1430)	
			106
ARBUCKLE	3312	(-1536)	
			51
TD	3363	(-1587)	