



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1098169
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: _____



1098169

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	WEGELE 2-32
Doc ID	1098169

All Electric Logs Run

DIL
MICRO
POR
SONIC
SPECTRAL

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	WEGELE 2-32
Doc ID	1098169

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3198-3202	300 GAL 28% MCA W/ 3% MAS	3198-3202
4	3207-3211	300 GAL 28% MCA W/ 3% MAS	3207-3211
4	3265-3280	400 GAL 28% MCA W/ 3% MAS	3265-3280
4	3354-3356	2500 GAL 28% MCA W/ 3% MAS	3354-3356
4	3379-3382	500 GAL 28% MCA W/ 3% MAS	3379-3382
4	3394-3398	250 GAL 28% MCA W/ 3% MAS	3394-3398
4	3410-3413	250 GAL 28% MCA W/ 3% MAS	3410-3413

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

October 22, 2012

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

Re: ACO1
API 15-167-23810-00-00
WEGELE 2-32
NE/4 Sec.32-15S-15W
Russell 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

WELL 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. 4816

Date	7-3-12	Sec.	32	Twp.	15	Range	15	County	Russell	State	KS	On Location	Finish	11:45 AM
------	--------	------	----	------	----	-------	----	--------	---------	-------	----	-------------	--------	----------

Lease	Wegele	Well No.	#2-32	Location	Bulta RD 2w ss 1/4 W S into
-------	--------	----------	-------	----------	-----------------------------

Contractor	Vat Rig - 6
Type Job	Seal
Hole Size	1 1/4
Csg.	8 5/8
Tbg. Size	
Tool	
Cement Left in Csg.	42
Meas Line	

Owner	To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Charge To	Samuel Gehy Jr
Street	
City	
State	
The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Amount Ordered	300 3% oil 2% gel

EQUIPMENT

Pumptrk	#9	No.	Cementer	Matt
			Helper	
Bulktrk	#4	No.	Driver	trans
			Driver	
Bulktrk	#4	No.	Driver	Doug
			Driver	

Common	300
Poz. Mix	
Gel.	6
Calcium	11

JOB SERVICES & REMARKS

Remarks:	Wegele 2-32
Rat Hole	
Mouse Hole	
Centralizers	
Baskets	
D/V or Port Collar	
Cement did Circulate	

Hulls	Salt
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	317
Mileage	

FLOAT EQUIPMENT

Guide Shoe	Centralizer
	3
Baskets	3
AFU Inserts	
Float Shoe	
Latch Down	8" Rubber Plug
Baffle plate	

Pumptrk Charge	Long Surface Job
Mileage	19

X Signature Randy Amant

Tax	
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: 7/12/2012
 Invoice # 904

P.O.#:
 Due Date: 8/11/2012
 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:
 WEGELE 2-32

Description of Work:
 PROD LONG STRING

RECEIVED

JUL 17 2012

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

DRLG COMP W/O LOE GG

Account	8300.238
Well/Prospect	
Deck	
AFE	
Approval	[Signature]
Description	

Services / Items Included:

Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor	\$ 963.85	No				
Common-Class A	\$ 2,897.50	Yes				
Gilsonite	\$ 1,673.58	Yes				
CFL 117	\$ 760.76	Yes				
CD-110	\$ 743.11	Yes				
5 1/2" Basket	\$ 728.33	Yes				
Bulk Truck Mat-Material Service Charge	\$ 536.22	No				
5 1/2" Turbolizer	\$ 489.78	Yes				
Mud Clear	\$ 390.56	Yes				
Defoamer A or CAF-38	\$ 369.44	Yes				
Auto Fill Float Shoe, 5 1/2"	\$ 323.00	Yes				
			Salt (Fine)	19	\$279.98	Yes
			Latch Down Plug & Baffle, 5 1/2"	1	\$236.44	Yes
			Pump Truck Mileage-Job to Nearest Camp	19	\$200.15	No
			Flo Seal	56	\$118.22	Yes
			Bulk Truck Mileage-Job to Nearest Bulk Plant	19	\$117.12	No
			KCL	2	\$63.04	Yes

Invoice Terms:

Net 30

SubTotal: \$ 10,891.10
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,633.66)

SubTotal for Taxable Items: \$ 7,712.68
 SubTotal for Non-Taxable Items: \$ 1,544.75
 Total: \$ 9,257.43
 Tax: \$ 640.15

8.30% Russell County Sales Tax

Thank You For Your Business!

Amount Due: \$ 9,897.58
Applied Payments:
Balance Due: \$ 9,897.58

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.

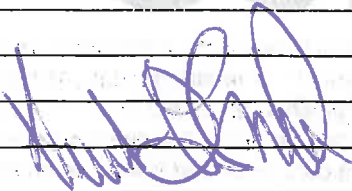
QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 904

Date	7-8-12	Sec.	32	Twp.	15	Range	15	County	Russell	State	Ks	On Location		Finish	8:15 AM			
Lease	Wegele	Well No.	2-32		Location Milberges, Ks - 4-5 miles west of Into													
Contractor	Val Energy #6							Owner										
Type Job	Production							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.										
Hole Size	7 7/8"		T.D.		3570'		Charge To Sam Gary Jr. & Associates											
Csg.	5 1/2" 1" New		Depth		3549.56'		Street											
Tbg. Size			Depth				City											
Tool			Depth				State											
Cement Left in Csg.	42.68'		Shoe Joint		42.68'		The above was done to satisfaction and supervision of owner agent or contractor.											
Meas Line			Displace		84 BLS		Cement Amount Ordered 2255x Q.P. - C 10% Salt 5% Gilsonite 4# E.S. 3% CD-110, 18% CFL-117 25% Caf 38, 500 gal mudclear 48, 20 BLS KCL											
EQUIPMENT																		
Pumptrk	3	No.	Cementor	Brett		Common												
			Helper															
Bulktrk	8	No.	Driver	Lonnie		Poz Mix CD 110 @ 176#												
			Driver															
Bulktrk	pin	No.	Driver	Rick		Gel. KCL 2 gal												
			Driver															
JOB SERVICES & REMARKS																		
Remarks:													Calcium					
Rat Hole													Hulls					
Mouse Hole													Salt 19					
Centralizers	1, 3, 5, 7, 9, 11, 13, 15												Flowseal 56#					
Baskets	3, 9, 15												Kol-Seal 1057#					
D/V or Port Collar	Pipe on bottom, break Circulation												Mud CLR 48 500 gal					
	pump 500 gal mudclear 48, plug Redhole												CFL-117 or CD110 CAF 38 50#					
	w/30sx, plug mousehole w/15sx, Hook												Sand 117					
	to 5 1/2" casing + mix 1805x Cement.												Handling 254					
	shut down, wash pump + lines,												Mileage					
	Released plug + Displaced with												FLOAT EQUIPMENT					
	84 BLS of water.												Guide Shoe					
	Lift pressure 800#												Centralizer 8 - turbos					
	Land plug to 1500#												Baskets 3					
	Released + held.												AFU Inserts					
													Float Shoe 1					
													Latch Down 1					
													1 - Rotating head Assy					
													Pumptrk Charge prod Long String					
													Mileage 19					
													Tax					
Signature													Discount					
													Total Charge					



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates**

1515 Wynkoop Suite 700
Denver CO 80202

ATTN: Clayton Camozzi

Wegele #2-32

32-15-15,Russell,KS

Start Date: 2012.07.06 @ 18:00:00

End Date: 2012.07.07 @ 01:19:30

Job Ticket #: 49266 DST #: 1

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

Printed: 2012.07.09 @ 09:46:46

Samuel Gary Jr & Associates
32-15-15,Russell,KS
Wegele #2-32
DST # 1
KC "A-D"
2012.07.06



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

32-15-15, Russell, KS

1515 Wynkoop Suite 700
Denver CO 80202

Wegele #2-32

Job Ticket: 49266

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2012.07.06 @ 18:00:00

GENERAL INFORMATION:

Formation: **KC "A-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:23:30

Time Test Ended: 01:19:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 3140.00 ft (KB) To 3220.00 ft (KB) (TVD)

Reference Elevations: 1912.00 ft (KB)

Total Depth: 3220.00 ft (KB) (TVD)

1902.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 30.54 psig @ 3141.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.06

End Date:

2012.07.07

Last Calib.:

2012.07.07

Start Time: 18:00:05

End Time:

01:19:29

Time On Btm:

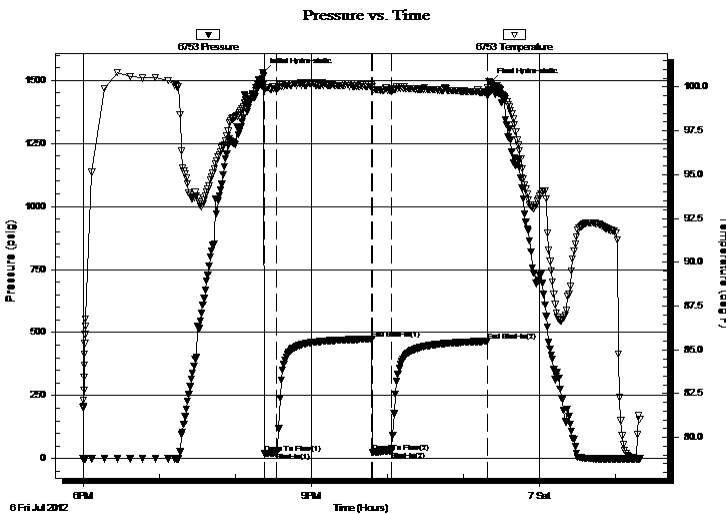
2012.07.06 @ 20:22:00

Time Off Btm:

2012.07.06 @ 23:21:30

TEST COMMENT: 10min IF-3/4in blow
75min ISI-No blow
15min FF-No blow
75min FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1531.29	100.14	Initial Hydro-static
2	19.41	99.86	Open To Flow (1)
11	24.94	99.92	Shut-In(1)
86	473.59	100.01	End Shut-In(1)
87	25.36	99.86	Open To Flow (2)
101	30.54	99.82	Shut-In(2)
177	465.89	99.70	End Shut-In(2)
180	1491.30	99.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates

32-15-15, Russell, KS

1515 Wynkoop Suite 700
Denver CO 80202

Wegele #2-32

Job Ticket: 49266

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2012.07.06 @ 18:00:00

Tool Information

Drill Pipe:	Length: 3126.00 ft	Diameter: 3.80 inches	Volume: 43.85 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3140.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	114.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	5.00			3111.00	
Recorder	0.00	8319	Fluid	3111.00	
Shut In Tool	5.00			3116.00	
Sampler	2.00			3118.00	
Hydraulic tool	5.00			3123.00	
Jars	5.00			3128.00	
Safety Joint	2.00			3130.00	
Packer	5.00			3135.00	34.00 Bottom Of Top Packer
Packer	5.00			3140.00	
Stubb	1.00			3141.00	
Recorder	0.00	6753	Inside	3141.00	
Recorder	0.00	8369	Outside	3141.00	
Perforations	2.00			3143.00	
Change Over Sub	1.00			3144.00	
Drill Pipe	63.00			3207.00	
Change Over Sub	1.00			3208.00	
Perforations	9.00			3217.00	
Bullnose	3.00			3220.00	80.00 Bottom Packers & Anchor

Total Tool Length: 114.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates

32-15-15, Russell, KS

1515 Wynkoop Suite 700
Denver CO 80202

Wegele #2-32

Job Ticket: 49266

DST#: 1

ATTN: Clayton Camozzi

Test Start: 2012.07.06 @ 18:00:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.00 cm³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

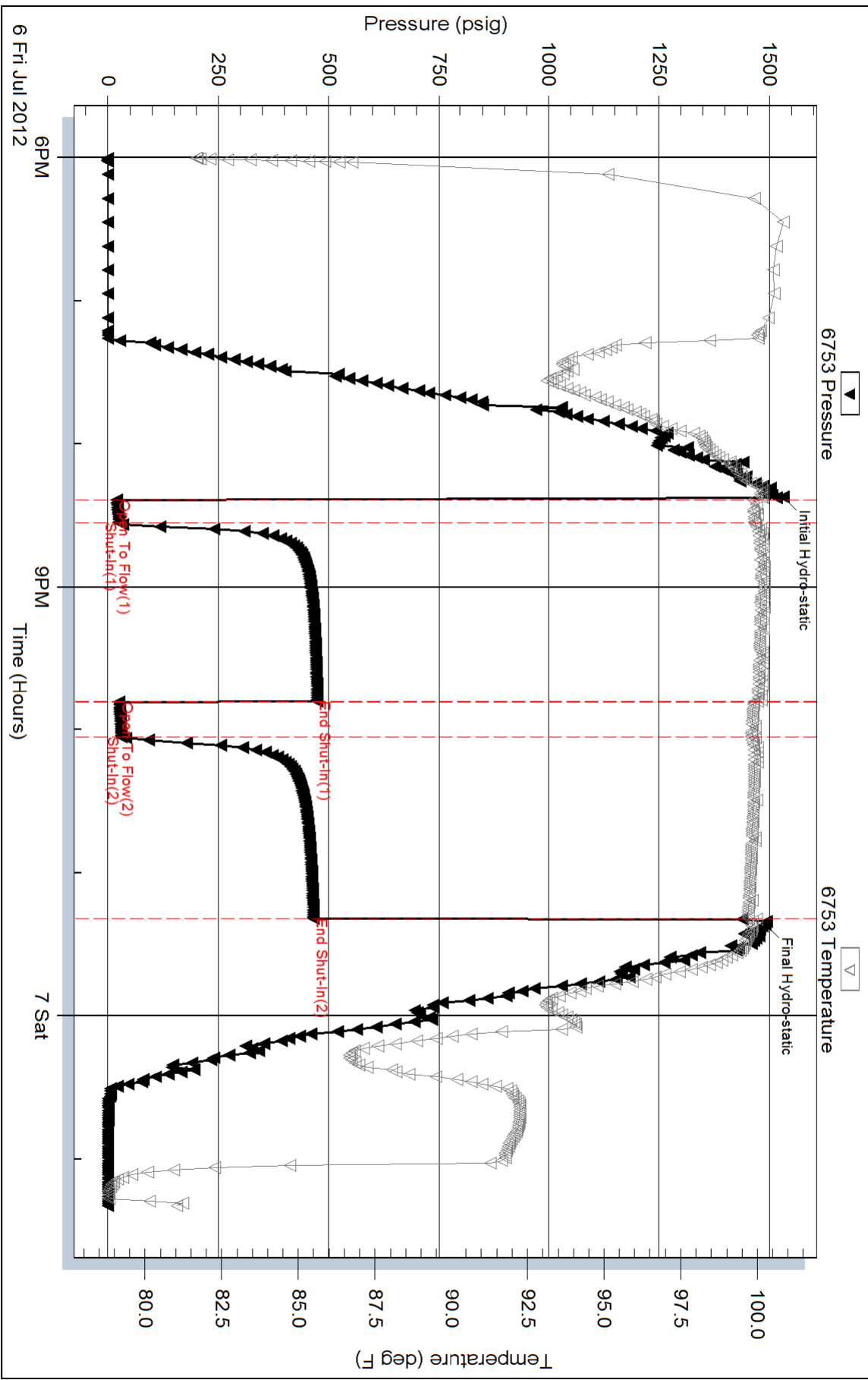
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data 3000ml mud 150psi

Pressure vs. Time

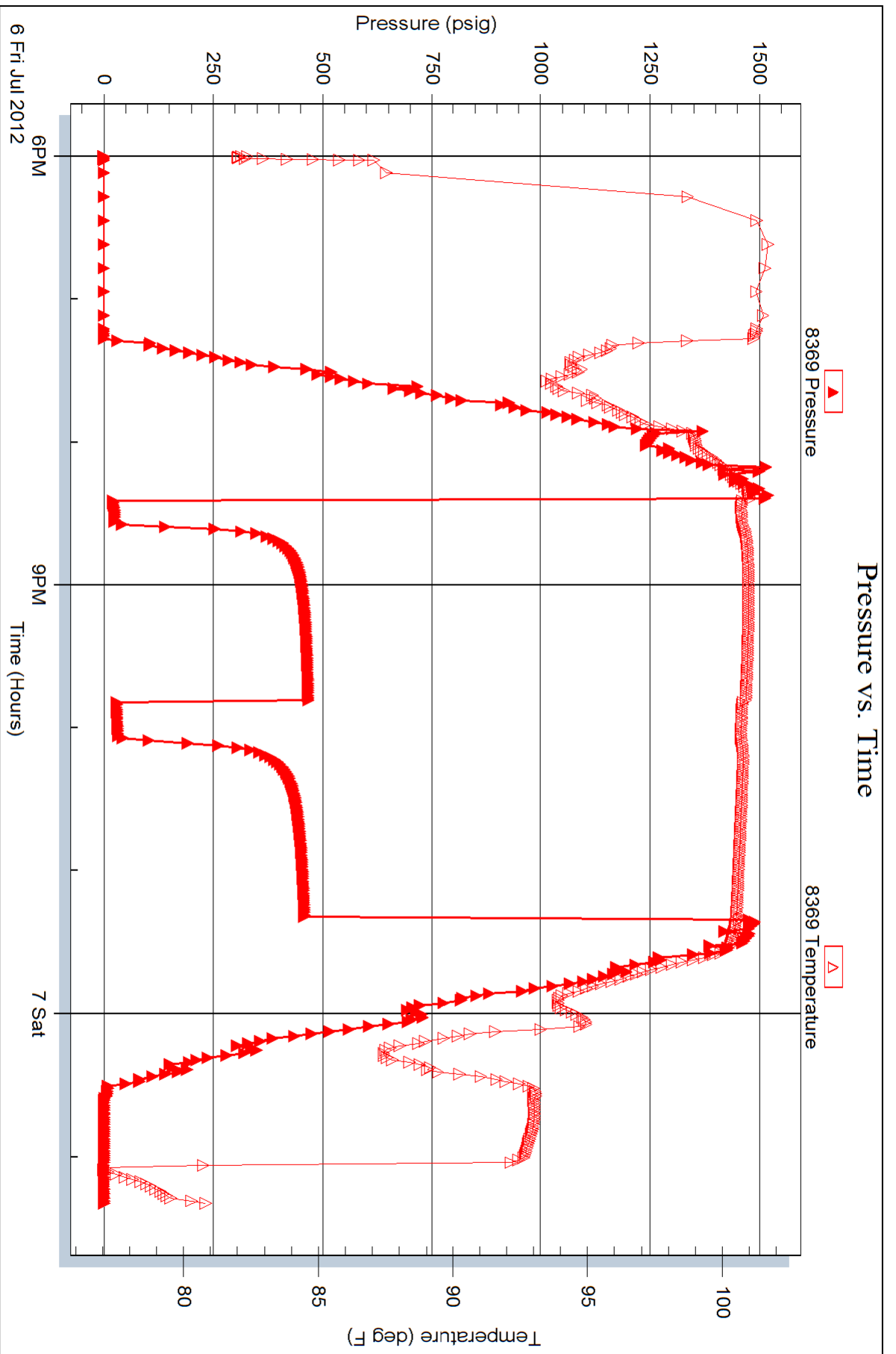


Serial #: 8369

Outside Samuel Gary Jr & Associates

Wegele #2-32

DST Test Number: 1



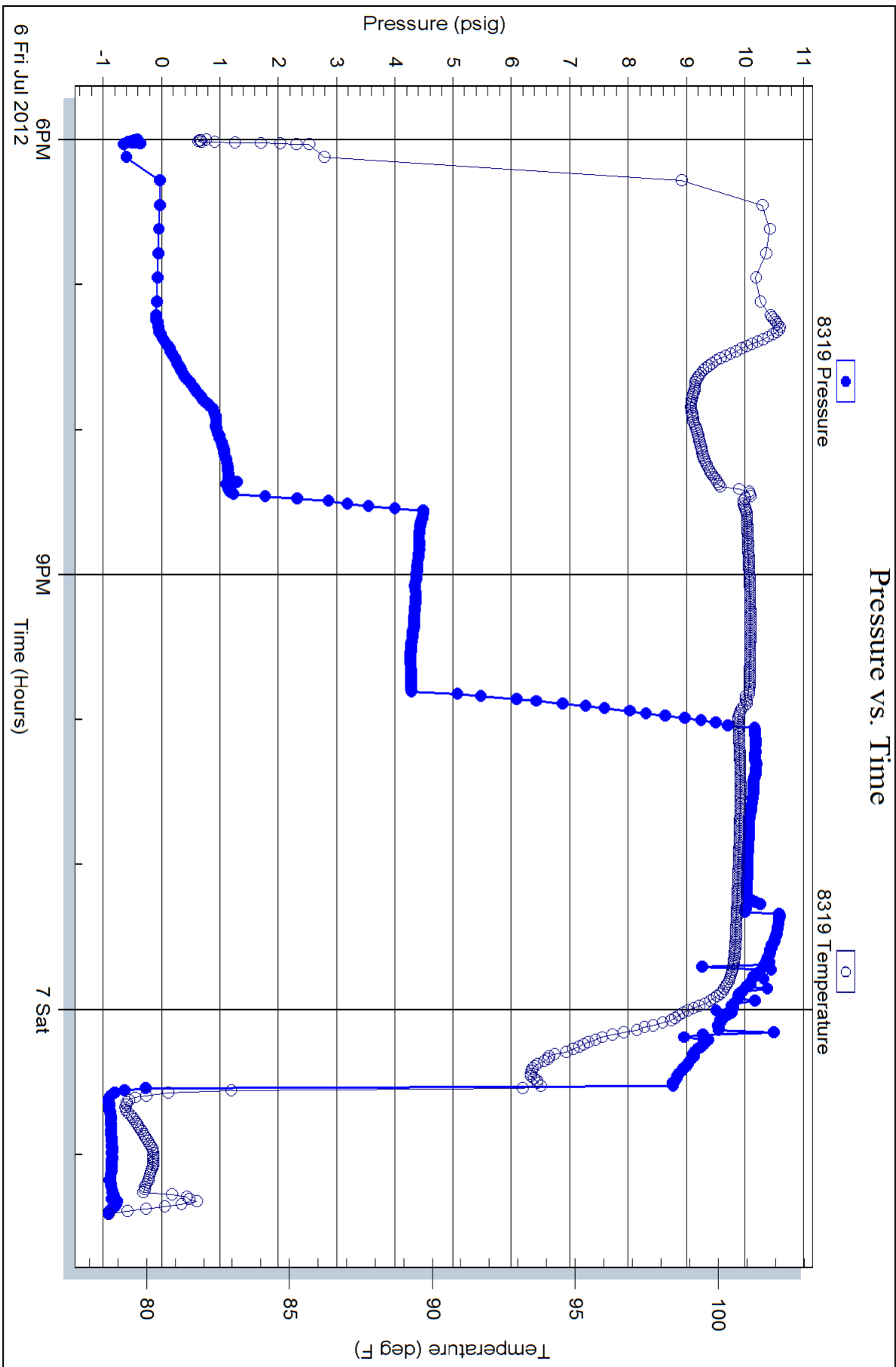
Serial #: 8319

Fluid

Samuel Gary Jr & Associates

Wegele #2-32

DST Test Number: 1





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

Well Name: SGA WEGELE 2-32
 Location: SEC. 32-15S-15W RUSSEL CO., KANSAS
 License Number: 15-167-23810-0000
 Spud Date: 7/3/12
 Surface Coordinates: 2015 FNL / 5 FEL
 Region: WILDCAT
 Drilling Completed: 7/08/12

Bottom Hole Coordinates:
 Ground Elevation (ft): 1902' K.B. Elevation (ft): 1912'
 Logged Interval (ft): 2850' To: 3570' Total Depth (ft): 3570'
 Formation: Lansing, Arbuckle
 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: Schuyler Hedrick
 Company: Earth Tech OGL, Inc.
 Address: PO Box 683
 Hooker, Okla . 73945
 Off. 888-543-8378

DST's Report

DST# 1 3140'-3220' 10-75-15-75
 IF- 3/4" BLOW, ISI- NO BLOW, FF-NO BLOW, FSI- NO BLOW
 IH- 1531, FH- 1491/ IF- 19 TO 25, FF- 25 TO 31/ ISI- 474, FSI- 466
 REC. 15' OF TF/ 15' OF MUD/ BHT-100/ CHLOR.- 3800

ROCK TYPES

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

ACCESSORIES

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

OTHER SYMBOLS

POROSITY TYPE

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

SORTING

- W Well
- M Moderate
- P Poor

ROUNDING

- R Rounded
- r Subrnd
- a Subang

- A Angular

OIL SHOWS

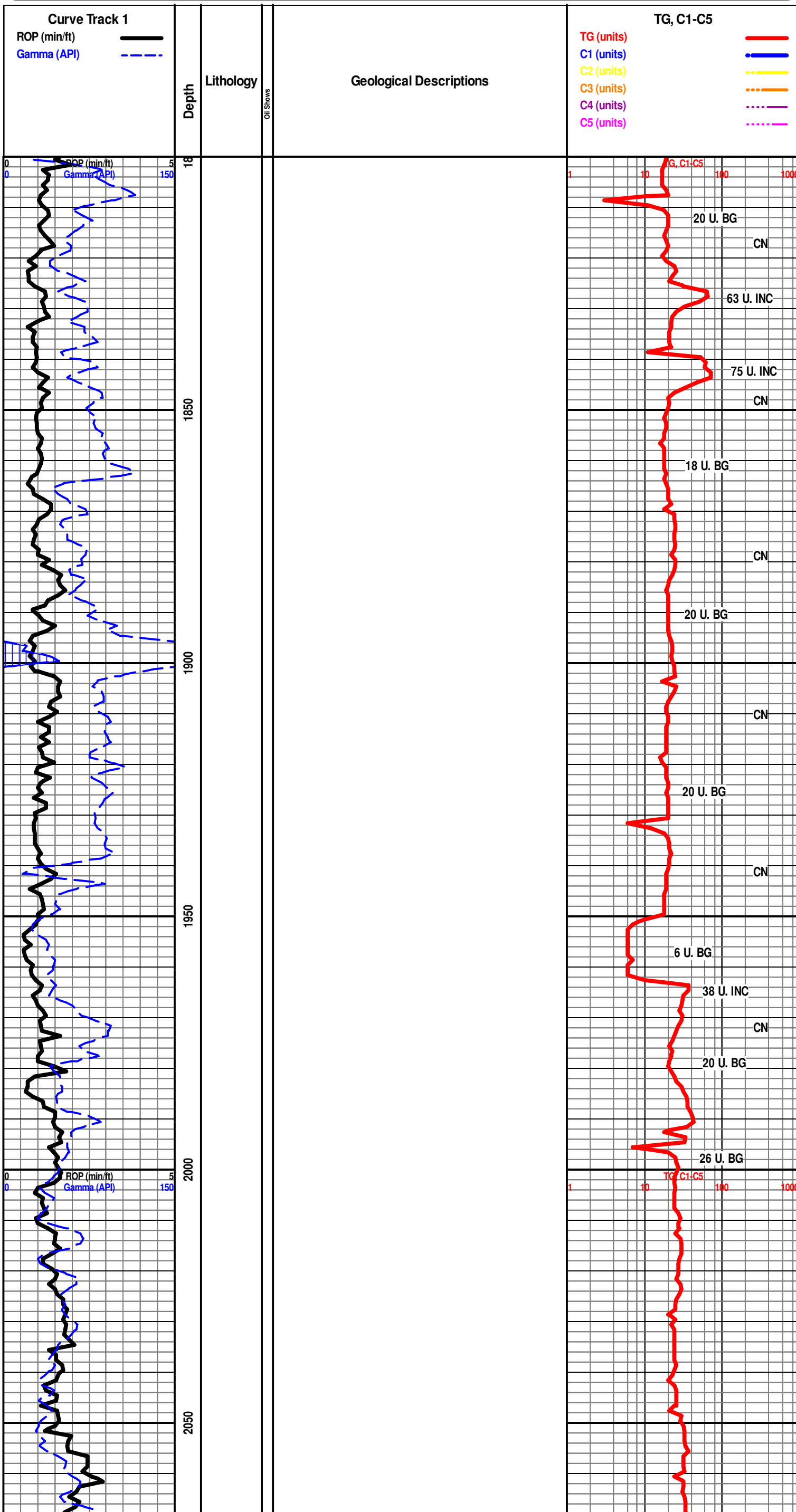
- Even
- ◐ Spotted
- ◑ Ques
- ◒ Dead
- ⊠ Gas show

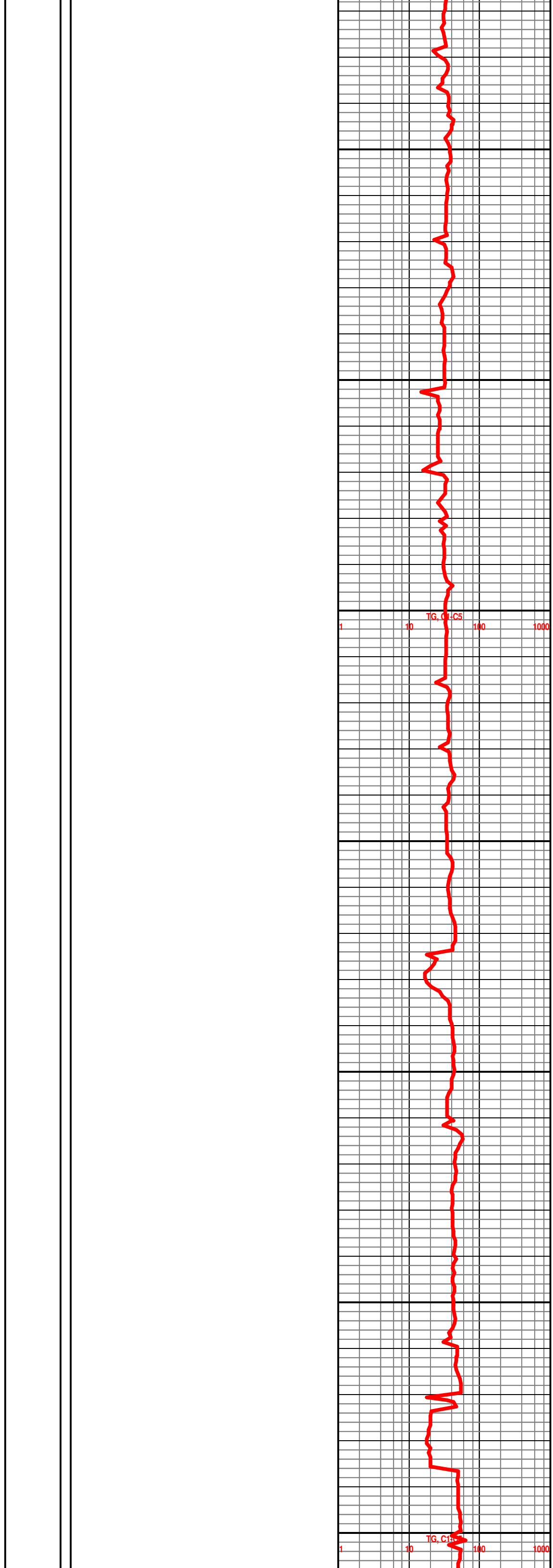
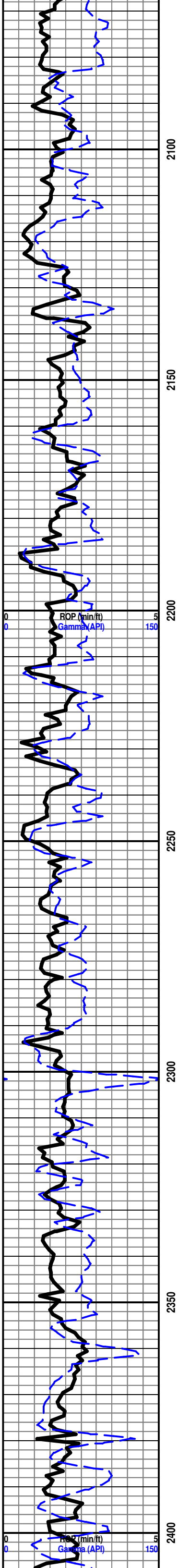
INTERVALS

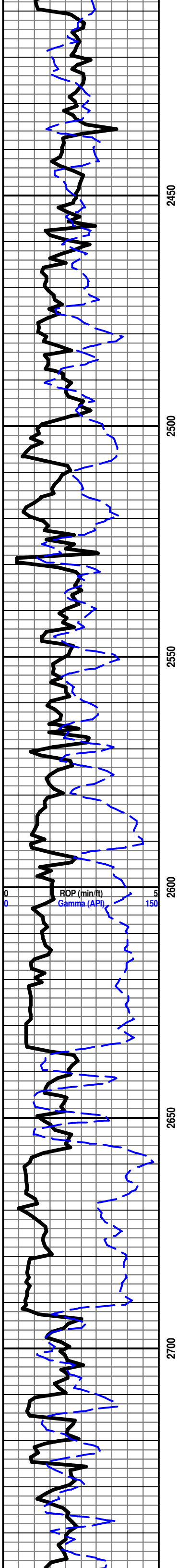
- Core
- ◻ Dst
- ◼ Dst

EVENTS

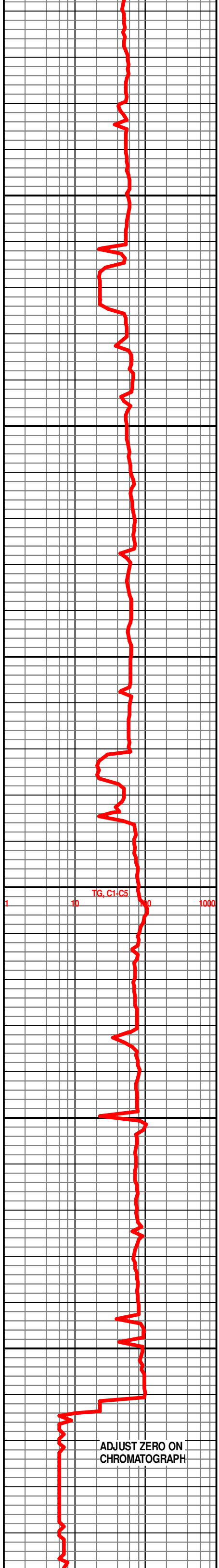
- ◻ Rft
- ◼ Sidewall

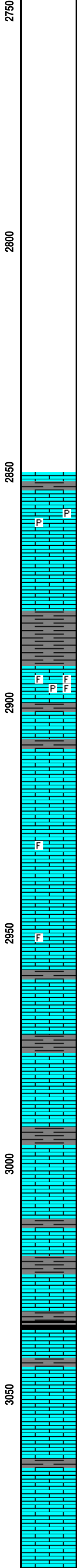
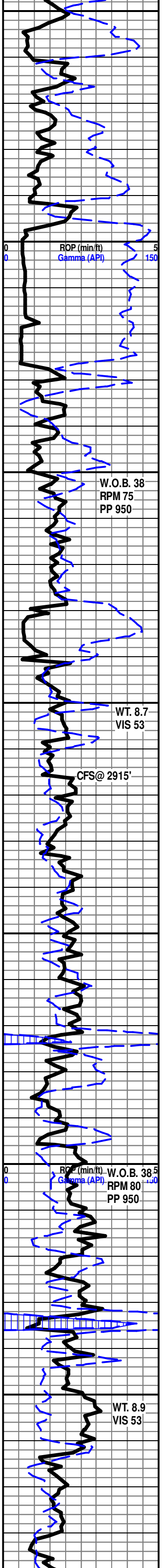






BRS 2635'-723'





MUD DISPLACEMENT

HOWARD 2826'-914'

START 24 HR. MANNED UNIT 7/05/12

W.O.B. 38
RPM 75
PP 950

LS- CRM TO LT TN, HD DNS TO BRTT, MD-XLN, RE-XLN IP, SLI TR S-CHLKY IP, SCAT DISS PYR, IMB SM CALC-XLS IP, DUL YEL FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

TOPEKA 2891'-979'

WT. 8.7
VIS 53

LS- CRM TO LT TN LT GY MOTT, HD DNS TO BRTT, MD-XLN, RE-XLN MTRX, S-CHLKY IP, IMB FOSS FRAGS, SCAT PYR IN TRAY, TR IMB SFT WHT CHLK IP, TR FREE FOSSIL IP, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

CFS@ 2915'

LS- LT GY TO GY, HD DNS TO BRTT IP, F-XLN MTRX, RE-XLN IP, TR S-CHLKY IP, TR IMB FOSS FRAGS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT GY, HD DNS TO BRTT, MD-F-XLN MTRX, SCAT IMB SM CALC-XLS, SLI TR IMB FOSS FRAGS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO GY, FRM TO V SFT, SPLNTY SMTH TXT

LE COMPTON 2996'-1084'

W.O.B. 38.5
RPM 80
PP 950

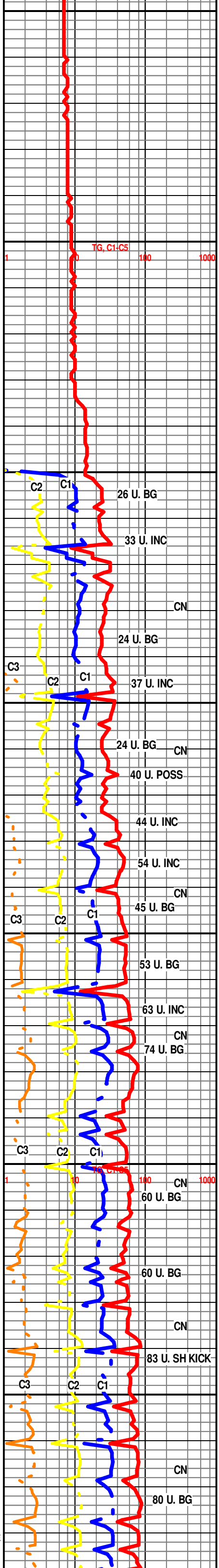
LS- CRM TO LT TN, HD DNS TO BRTT IP, MD-F-XLN MTRX, S-SUCRO IP, SCAT IMB CALC-XLS THRU, TR FREE FOSSIL IP, DUL YEL FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

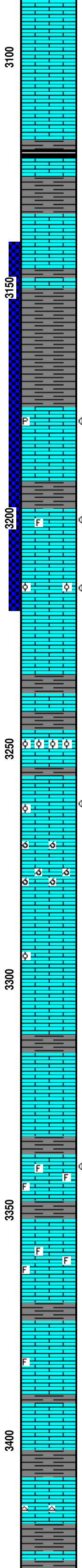
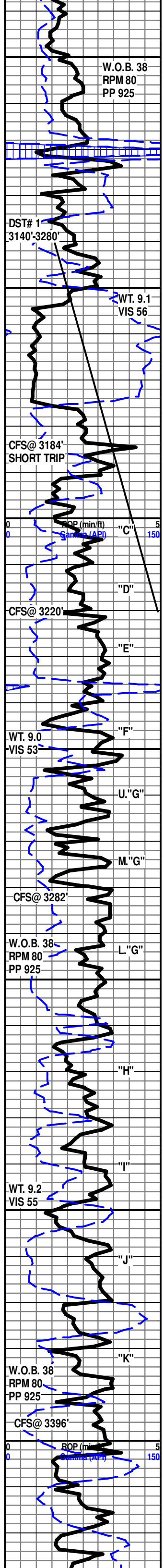
SH- BLCK SFT CARB

WT. 8.9
VIS 53

LS- OFF WHT TO CRM, V HD DNS, F/VF-XLN MTRX, TR RE-XLN IP, TR WHT CHRT IP, YEL FLO IN 80%, DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

3082'-3084' LS- OFF WHT TO CRM W/ LIVE TAR OIL STN IN 15% (ON ONE FACES OF ROCK), HD DNS TO BRTT, MD-F-XLN, S-CHLKY IP, SCAT SFT WHT CHLK IP, V DUL YEL GLD FLO IN 10% (ON ONE FACES, V PR TO PR MICRO VISC POR IN 5%, POSS FRACT POR, GD FLSH CUT IN 20% (ON





MICRO-VUG POR IN 5%, POSS FRACT POR, GD FLSH CUT IN 30% (ON ONE FACES), V GD SLW STRM CUT IN 30% (ON ONE FACES), LT TN LCH ON DSH, NO OIL ODOR

HEEBNER 3119'-1207'
SH- BLCK SFT CARB

LS- CRM TO LT TN, HD DNS TO BRTT, MD/F-XLN MTRX, RE-XLN IP, S-SUCRO IP, SCAT IMB SM CALC-XLS IP, SLI TR SFT WHT CHLK IP, V DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

DOUGLAS 3151'-1239'
SH- LT GRN TO LT GY, V SFT TO GMMY IP, BLCKY SMTH TXT

LANSING 3176'-1264'
3178'-3180' LS- OFF WHT TO LT GY W/ TN OIL STN IN 30% & LIVE OIL STN IN 20%, V HD DNS TO TR BRTT IP, MD/F-XLN, RE-XLN MTRX, S-CHLKY THRU, S-SUCRO IP, ABDT IMB SM CALC-XLS THRU, SCAT DISS PYR IP, TR SFT WHT CHLK IP, TR FREE FLOATING OIL IN TRAY, DUL YEL GLD FLO IN 40%, PR MICRO-VUG POR SCAT IN 10%, POSS FRACT POR, V PR INTER-XLN POR IP, FR FLSH CUT IN 50%, GD SLW STRM CUT IN 60%, TN LCH ON DHS, LT OIL ODOR

LANSING "C" 3197'-1285'
3199'-3201' LS- OFF WHT TO CRM W/ V LT TN OIL STN IN 25%, HD DNS TO BRTT, MD/F-XLN MTRX, RE-XLN IP, S-CHLKY THRU, S-SUCRO IP, ABDT SFT WHT CHLK THRU, TR SCAT FREE FOSSIL IP, SLI TR IMB FOSS FRAGS IP, DUL YEL GLD FLO IN 20%, SPTD BR YEL GLD FLO IN 5%, V PR TO PR MICRO VUG POR IN 5%, V PR FLSH CUT IN 20%, FR TO TR GD SLW STRM CUT IN 40%, V LT TN LCH ON DSH, V LT OIL ODOR

3214'-3216' LS- CRM TO LT TN W/ TN TO DK TN OIL STN IN 20%, HD DNS TO BRTT IP, F/XLN MTRX, S-CHLKY, S-SUCRO IP, SCAT IMB OOLITES IP, SLI TR IMB SFT WHT CHLK IP, YEL GLD FLO IN 60%, BR YEL GLD FLO IN 20%, PR TO TR FR VUG POR IN 10%, V PR MICRO VUG POR IP, FR FLSH CUT IN 40%, FR TO GD SLW STRM CUT IN 50%, TN LCH ON DSH, V GD OIL ODOR

LANSING "F" 3246'-1334'
LS- LT TN TO TN, V HD DNS, VF-XLN MTRX, RE-XLN, S-SUCRO, ABDT IMB OOLITES, V OOLITIC, V DUL YEL FLO IN 15%, NO VIS POR, NO VIS CUT OR SHOW

3261'-3263' LS- CRM TO LT TN LT GYMOTT W/ DK TN OIL STN IN 30%, V HD DNS, VF-XLN MTRX, RE-XLN, S-SUCRO, S-CHLKY IP, TR IMB OOLITES IP, DUL YEL GLD FLO IN 50%, V PR TO PR INTER-XLN POR IN 5%, V PR VUG POR IP, FR FLSH CUT IN 40%, FR TO TR GD SLW STRM CUT IN 50%, LT TN LCH ON DSH, NO OIL ODOR

LS- CRM TO LT TN, HD DNS TO BRTT, MD-XLN, S-CHLKY, S-SUCRO IP, ABDT SFT WHT CHLK THRU, V-OOLMOLDIC, V DUL YEL FLO IN 20%, V PR OOLMOLDIC POR IN 10%, NO VIS CUT OR SHOW

LS- CRM TO L TN, HD DNS TO TR BRTT IP, F/VF-XLN MTRX, V SLI TR IMB OOLITES IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

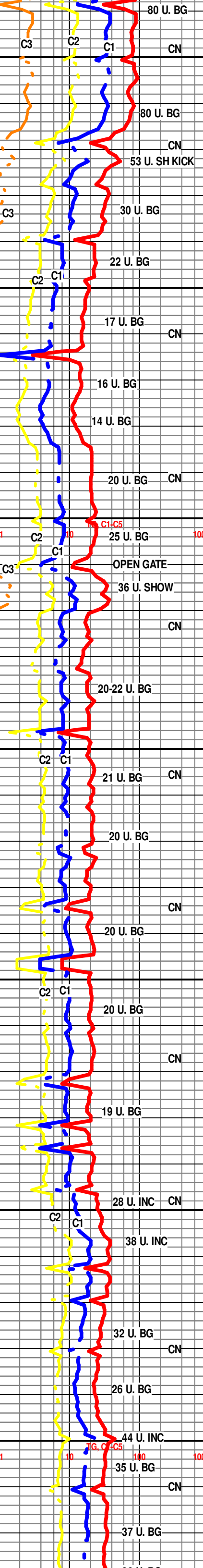
LANSING "H" 3316'-1404'
LS- CRM BFF TO LT TN, HD DNS TO BRTT IP, MD/F-XLN MTRX, RE-XLN IP, TR S-CHLKY IP, SCAT IMB SM CALC-XLS IP, YEL FLO IN 50%, NO VIS POR, NO VIS CUT OR SHOW

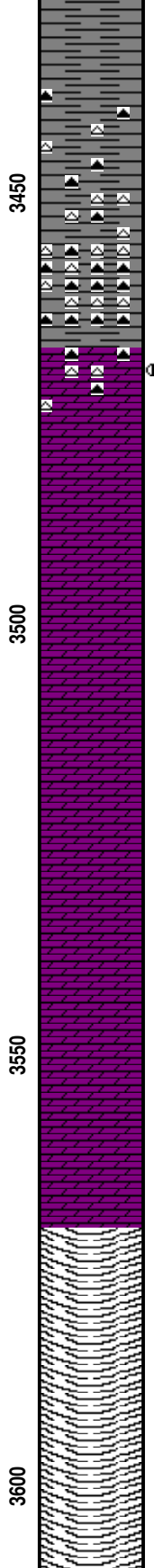
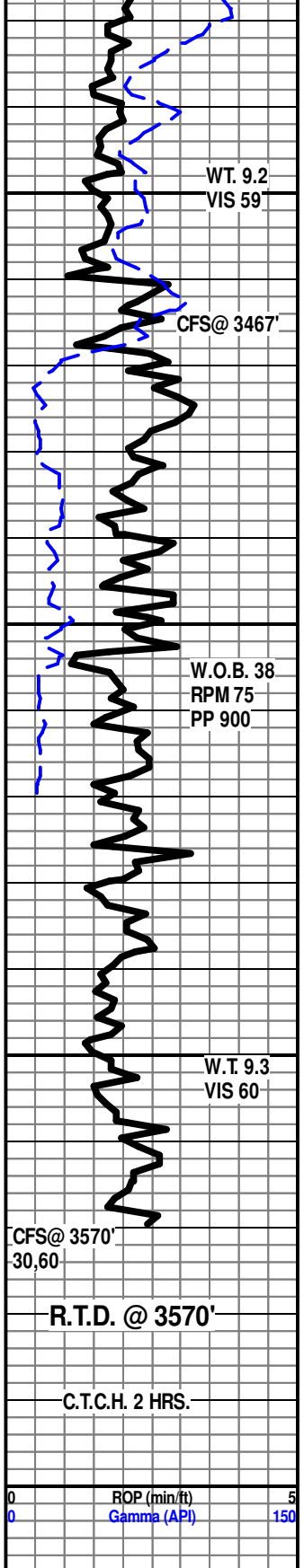
3339'-3341' LS- CRM TO LT TN (DK TN OIL STN IN 30%), HD DNS TO BRTT IP, MD/F-XLN MTRX, RE-XLN, S-CHLKY THUR, S-SUCRO IP, SCAT FREE FOSSILS IP, SLI TR IMB SM CALC-XLS IP, YEL GLD FLO IN 50%, PR TO TR FR MICRO VUG POR IN 5%, V PR INTER-XLN POR IP, POSS FRACT POR, FR TO TR GD FLSH CUT IN 50%, FR TO GD SLW STRM CUT IN 60%, TN LCH ON DSH, V LT OIL ODOR

LS- OFF WHT TO CRM, HD DNS TO TR BRTT IP, F/V-XLN MTRX, S-CHLKY IP, SCAT IMB FOSS FRAGS IP, TR SFT WHT CHLK IP, BR YEL FLO IN 30%, DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM TO LT TN, HD DNS TO BRTT, MD/F-XLN MTRX, RE-XLN IP, S-CHLKY, SCAT SFT WHT CHLK, TR IMB FOSS FRAGS IP, DUL YEL FLO IN 30%, NO VIS POR, NO VIS CUT OR SHOW

BKC 3403'-1491'
LS- CRM TO LT TN, HD DNS TO BRTT IP, F-XLN MTRX, RE-XLN IP, S-CHLKY IP, IMB SM CALC-XLS, SCAT WHT CHRT IP, DUL YEL FLO IN 30%, NO VIS POR, NO VIS SHOW





SH- RD TO DK RD, FRM TO V SFT GMMY IP, BLCKY

SH- RD, FRM TO V SFT, BLCKY W/ MOTT CHRTS THRU

SH-RD, V FRM, ABDT PINK ORANGE MOTT CHRTS THU

ARBUCKLE 3469'-1557'

3470'-3471' DOLO- TN (W/ LIVE OIL STN IN 10%), V HD DNS, F-XLN, RE-XLN MTRX, ABDT IMB SM TO MD S-ANG TO RND DOLO GRNS, TR IMB SM RND CLR QRTZ GRNS IP, SCAT IMB MOTT CHRTS, V DUL YEL GLD FLO SCAT IN 20%, V PR INTER GRN POR IP, V PR WK FLSH CUT IN 20%, V PR SLW STRM CUT IN 20%, NO VIS LCH ON DSH, V LT OIL ODOR

DOLO- LT TN TO TN, V HD DNS, F/VF-XLN MTRX, RE-XLN, ABDT IMB SM RND DOLO GRNS THRU, YEL MIN FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

DOLO- CRM TO LT TN, V HD DNS, F/VF-XLN MTRX, RE-XLN, S-SUCRO IP, SCAT IMB SM RND TO S-RND DOLO GRNS THRU, DUL YEL MIN FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

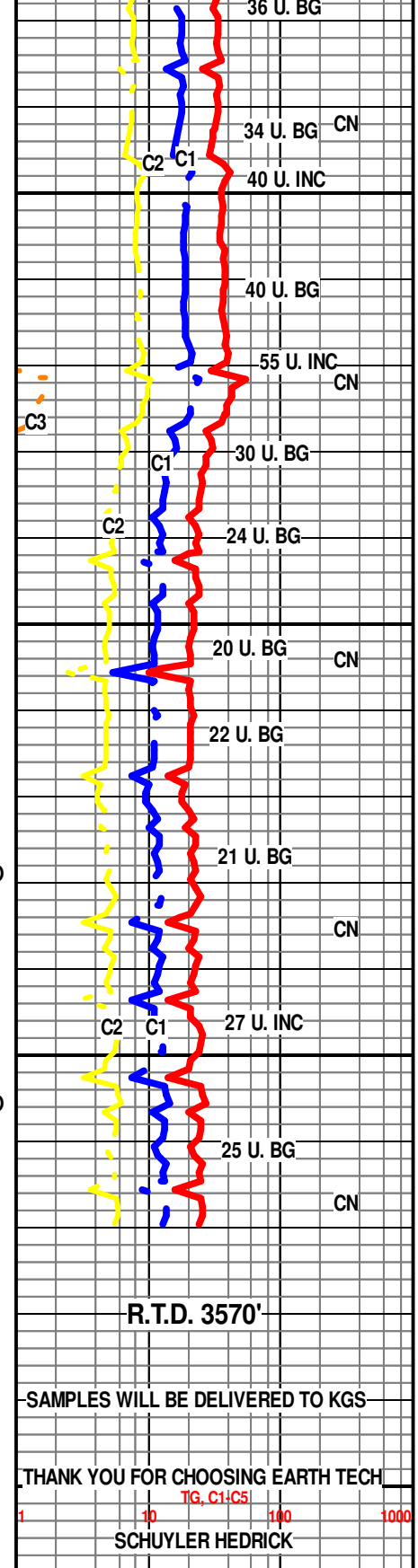
DOLO- WHT TO OFF WHT, HD DNS TO TR BRTT IP, MD/F-XLN MTRX, RE-XLN, ABDT IMB SM TO MD S-ANG TO RND DOLO GRNS THRU, BRT YEL MIN FLO IN 30%, DUL YEL MIN FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

R.T.D. @ 12:40 A.M. 7/08/12

DROP SURVEY

T.O.F.L. @ 2:40 A.M. 7/08/12

WEATHERFORD/ LIBERAL, KS



THANK YOU FOR CHOOSING EARTH TECH

TG, C1-C5

SCHUYLER HEDRICK