

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 _____

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
--	---

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	LB Exploration, Inc.
Well Name	SANDY 31 1
Doc ID	1800210

All Electric Logs Run

Bore Hole Compensated Sonic
Dual Induction
Dual Compensated Porosity
Microresistivity

OPERATOR

Company: LB Exploration Inc.
 Address: 2135 2nd RD
 Holyrood, Kansas 67450

Contact Geologist: Jim Musgrove
 Contact Phone Nbr: 620-786-0839
 Well Name: Sandy 31 #1
 Location: 31-16s-8w SE-SW-NE-SW
 API: 15-053-21395-00-00
 Pool:
 State: Kansas

Field:
 Country: USA

Scale 1:240 Imperial

Well Name: Sandy 31 #1
 Surface Location: 31-16s-8w SE-SW-NE-SW
 Bottom Location:
 API: 15-053-21395-00-00
 License Number: 33186
 Spud Date: 5/28/2024 Time: 12:00 AM
 Region: Ellsworth
 Drilling Completed: 6/1/2024 Time: 12:00 AM
 Surface Coordinates: 1440' FSL & 1885' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1784.00ft
 K.B. Elevation: 1792.00ft
 Logged Interval: 0.00ft To: 2490.00ft
 Total Depth: 2490.00ft
 Formation: Grandhaven, Severy
 Drilling Fluid Type: Chemical/Fresh Water Gel

CASING SUMMARY

	Surface	Intermediate	Main		
Bit Size					
Hole Size					
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8 5/8" in	250 ft			
Int Casing					
Prod Casing	None in	None ft			

CASING SEQUENCE

Type	Hole Size	Casing Size	At
	0.00 in	0.00	0.00 ft

OPEN HOLE LOGS

Logging Company: Midwest Wireline
 Logging Engineer:
 Truck #:
 Logging Date: Time Spent:
 # Logs Run: 0 # Logs Run Successful: 0

LOGS RUN

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
	0.00ft	0.00ft	0.00		0

LOGGING OPERATION SUMMARY

Date	From	To	Description Of Operation
12/5/2007	0.00ft	0.00ft	

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 Latitude:
 N/S Co-ord: 1440' FSL

LOGGED BY



Company: James C Musgrove Petroleum LLC
Address: 212 Main Street/PO Box 215
Claflin, KS 67525

Phone Nbr: 620-588-4250 620-786-0839
Logged By: KLG #307

Name: James C Musgrove

CONTRACTOR

Contractor: Duke Drilling Inc.
Rig #: 2
Rig Type: mud rotary
Spud Date: 5/28/2024
TD Date: 6/1/2024
Rig Release:

Time: 12:00 AM
Time: 12:00 AM
Time:

ELEVATIONS

K.B. Elevation: 1792.00ft
K.B. to Ground: 8.00ft
Ground Elevation: 1784.00ft


NOTES

Remarks,

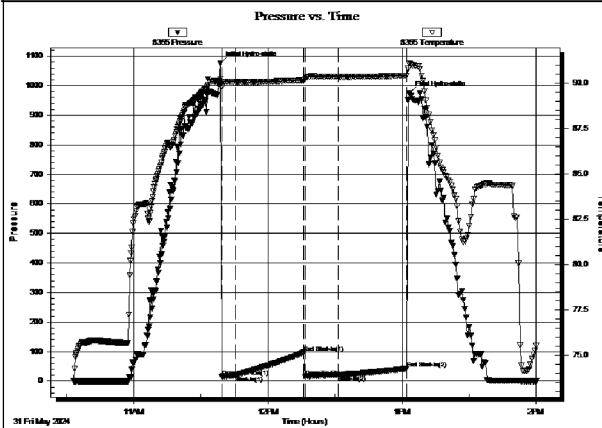
The LB Exploration Inc, Sandy 31-1, was plugged and abandoned at the RTD 2490-698.

Respectfully submitted,

James C. Musgrove
Petroleum Geologist

 TRILOBITE TESTING, INC	DRILL STEM TEST REPORT	
	LB Exploration 2135 2nd Rd Holyrood KS 67450 ATTN: Jim Musgrove	31-16S-8W/ Ellsworth, KS Sandy #31-1 Job Ticket: 72007 DST#: 1 Test Start: 2024.05.31 @ 10:33:00
GENERAL INFORMATION:		
Formation: Grand Haven Deviated: No Whipstock: ft (KB) Time Tool Opened: 11:39:20 Time Test Ended: 14:00:00	Test Type: Conventional Bottom Hole (Initial) Tester: Richie Samora Unit No: 66	
Interval: 2052.00 ft (KB) To 2080.00 ft (KB) (TVD) Total Depth: 2080.00 ft (KB) (TVD) Hole Diameter: 7.79 inches Hole Condition: Good	Reference Elevations: 1789.00 ft (KB) 1784.00 ft (CF) KB to GR/CF: 5.00 ft	
Serial #: 8355 Inside Press@RunDepth: 19.78 psig @ 2058.00 ft (KB) Start Date: 2024.05.31 End Date: 2024.05.31 Start Time: 10:33:10 End Time: 14:00:00	Capacity: 8000.00 psig Last Calib.: 1899.12.30 Time On Btm: 2024.05.31 @ 11:38:40 Time Off Btm: 2024.05.31 @ 13:03:20	
TEST COMMENT: 5-IF: Weak blow reached .75" 30-ISI: No Returns 15-FE: Weak blow reached 1.3"		

15-F: weak blow reached 1.5
30-FSI: No Returns



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1075.96	90.21	Initial Hydro-static
1	14.45	89.78	Open To Flow (1)
7	18.68	90.07	Shut-in(1)
38	97.30	90.15	End Shut-in(1)
38	15.15	90.20	Open To Flow (2)
53	19.78	90.34	Shut-in(2)
84	42.82	90.40	End Shut-in(2)
85	975.75	91.09	Final Hydro-static

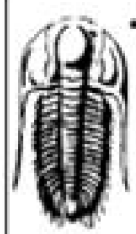
Recovery		
Length (ft)	Description	Volume (bbl)
8.00	MUD 100%M	0.04

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

TriLOBITE Testing, Inc

Ref. No: 72007

Printed: 2024.06.03 @ 15:34:55



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

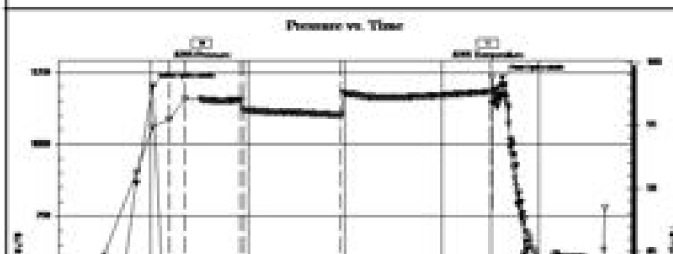
LB Exploration 31-16S-8W/ Ellsworth, KS
 2135 2nd Rd **Sandy #31-1**
 Holyrood KS 67450 Job Ticket: 72008 **DST#: 2**
 ATTN: Jim Musgrove Test Start: 2024.06.01 @ 07:19:00

GENERAL INFORMATION:

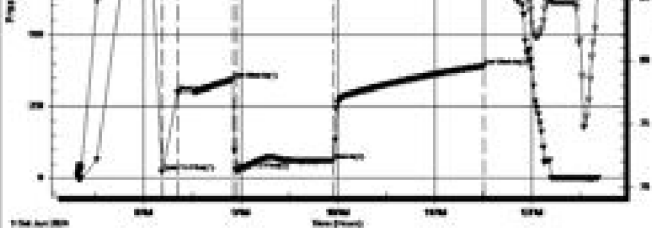
Formation: **Severy**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 08:11:05
 Time Test Ended: 12:41:07
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Richie Samora
 Unit No: 66
 Interval: **2411.00 ft (KB) To 2450.00 ft (KB) (TVD)**
 Reference Elevations: 1789.00 ft (KB)
 Total Depth: 2450.00 ft (KB) (TVD)
 1784.00 ft (CF)
 Hole Diameter: 7.79 inches Hole Condition: Good
 KB to GR/CF: 5.00 ft

Serial #: **8355** Inside
 Press@RunDepth: 62.34 psig @ 2417.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2024.06.01 End Date: 2024.06.01 Last Calib.: 1899.12.30
 Start Time: 07:19:01 End Time: 12:41:07 Time On Btm: 2024.06.01 @ 08:01:04
 Time Off Btm: 2024.06.01 @ 11:37:37

TEST COMMENT: 5-F: Strong blow BOB in 1 minute built to 152"
 30-FSI: No Returns
 60-FF: BOB immediate GTS in 11 minutes reached 45psi
 90-FSI: Weak blow built to 2"



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1200.00	94.85	Initial Hydro-static
11	24.66	95.42	Open To Flow (1)
21	297.63	97.04	Shut-in(1)
55	343.45	98.97	End Shut-in(1)
57	28.72	98.17	Open To Flow (2)
57			Final Hydro-static



117	62.34	95.78	Shut-in(2)
210	389.39	97.62	End Shut-in(2)
217	1230.62	97.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	GM 5%G 5%W 90%M	0.30

¹ Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	44.73	22.13
Last Gas Rate	0.25	31.69	73.12
Max. Gas Rate	0.13	44.73	22.13



DRILL STEM TEST REPORT

GAS RATES

LB Exploration **31-16S-8W/ Ellsworth, KS**
 2135 2nd Rd **Sandy #31-1**
 Holyrood KS 67450 Job Ticket: 72008 **DST#: 2**
 ATTN: Jim Musgrove Test Start: 2024.06.01 @ 07:19:00

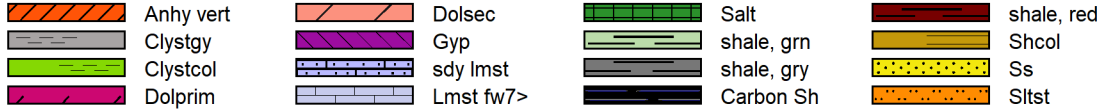
Gas Rates Information

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)
2	10	0.13	44.73	22.13
2	20	0.25	34.79	78.03
2	30	0.25	31.40	72.66
2	40	0.25	31.07	72.13
2	50	0.25	31.69	73.12

ROCK TYPES



ACCESSORIES

MINERAL

∟ Dolomitic
P Pyrite

OTHER SYMBOLS

INTERVALS

■ Core
· DST

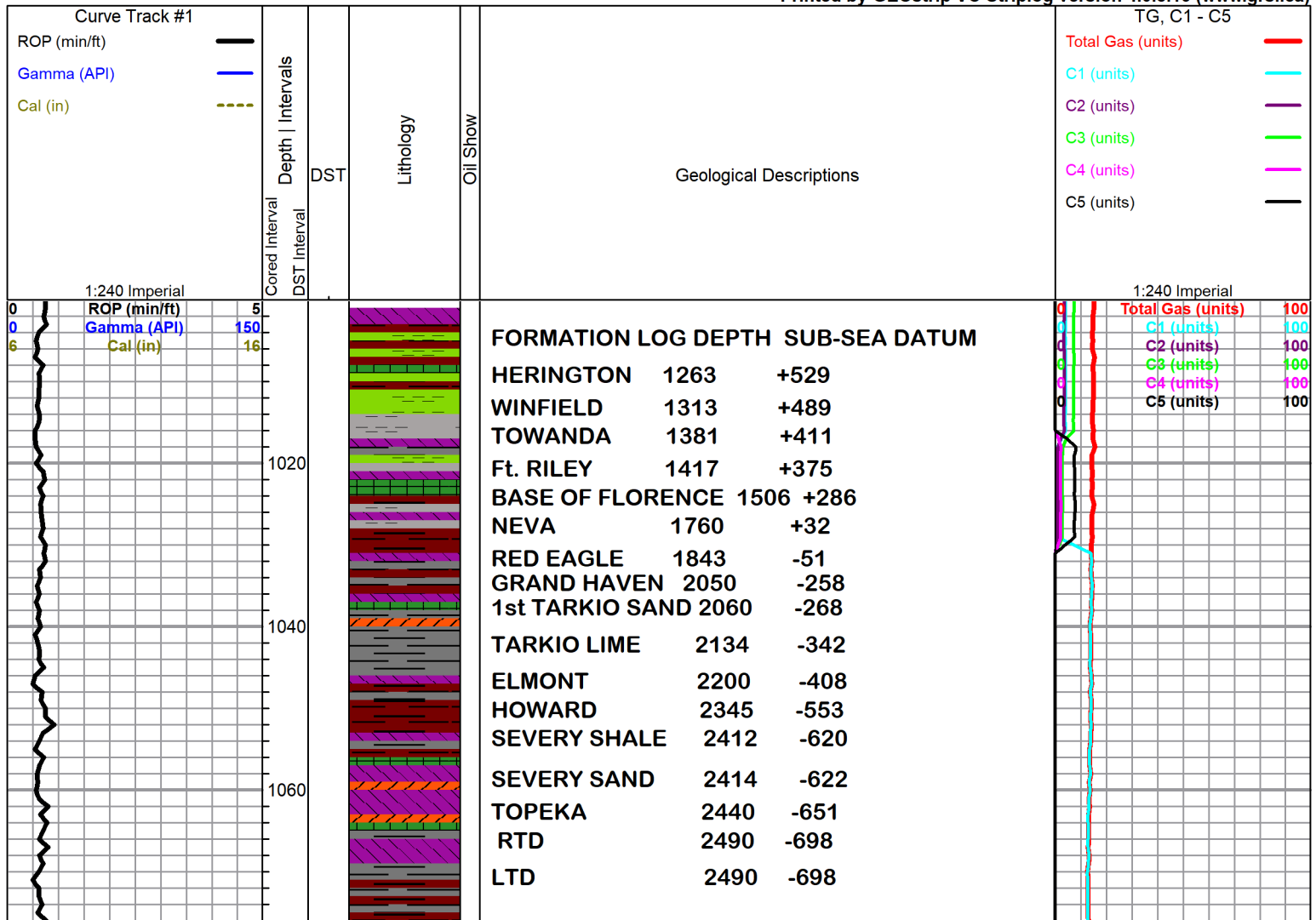
Oil Show

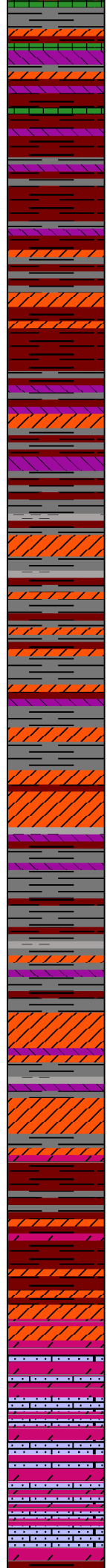
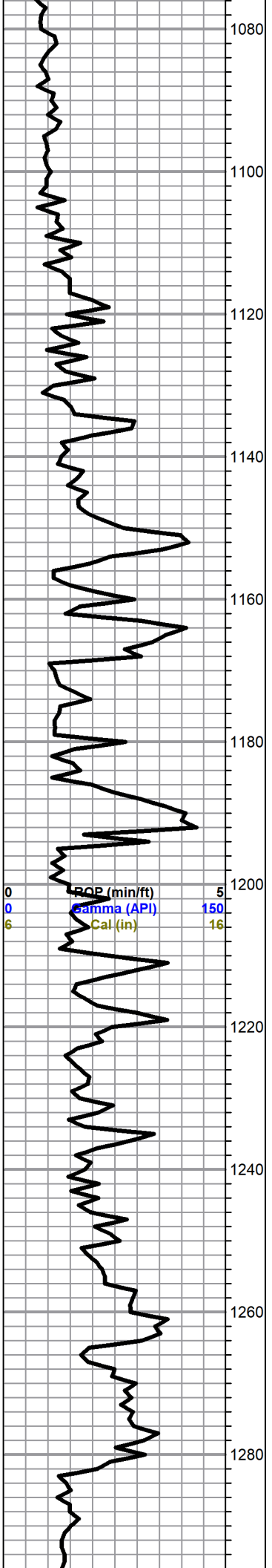
● Good Show
● Fair Show
● Poor Show
○ Spotted or Trace
○ Questionable Stn
D Dead Oil Stn
■ Fluorescence
* Gas

DST

■ DST Int
■ DST alt
■ Core
|| tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





Abundant anhydrite, shales and gyp

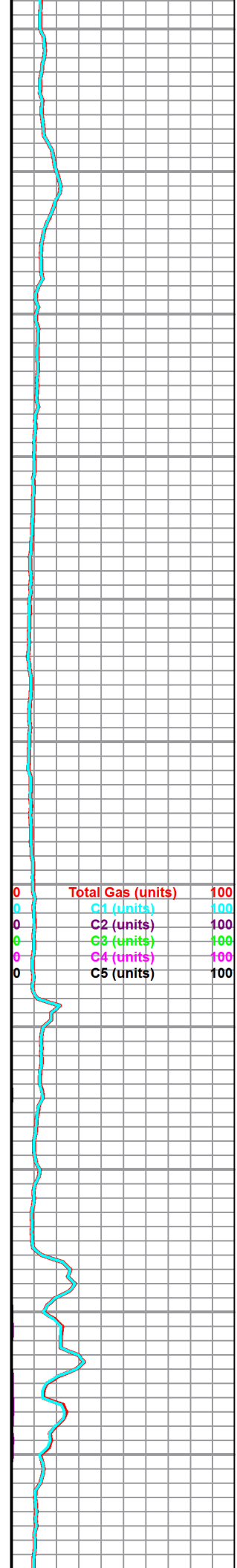
as above

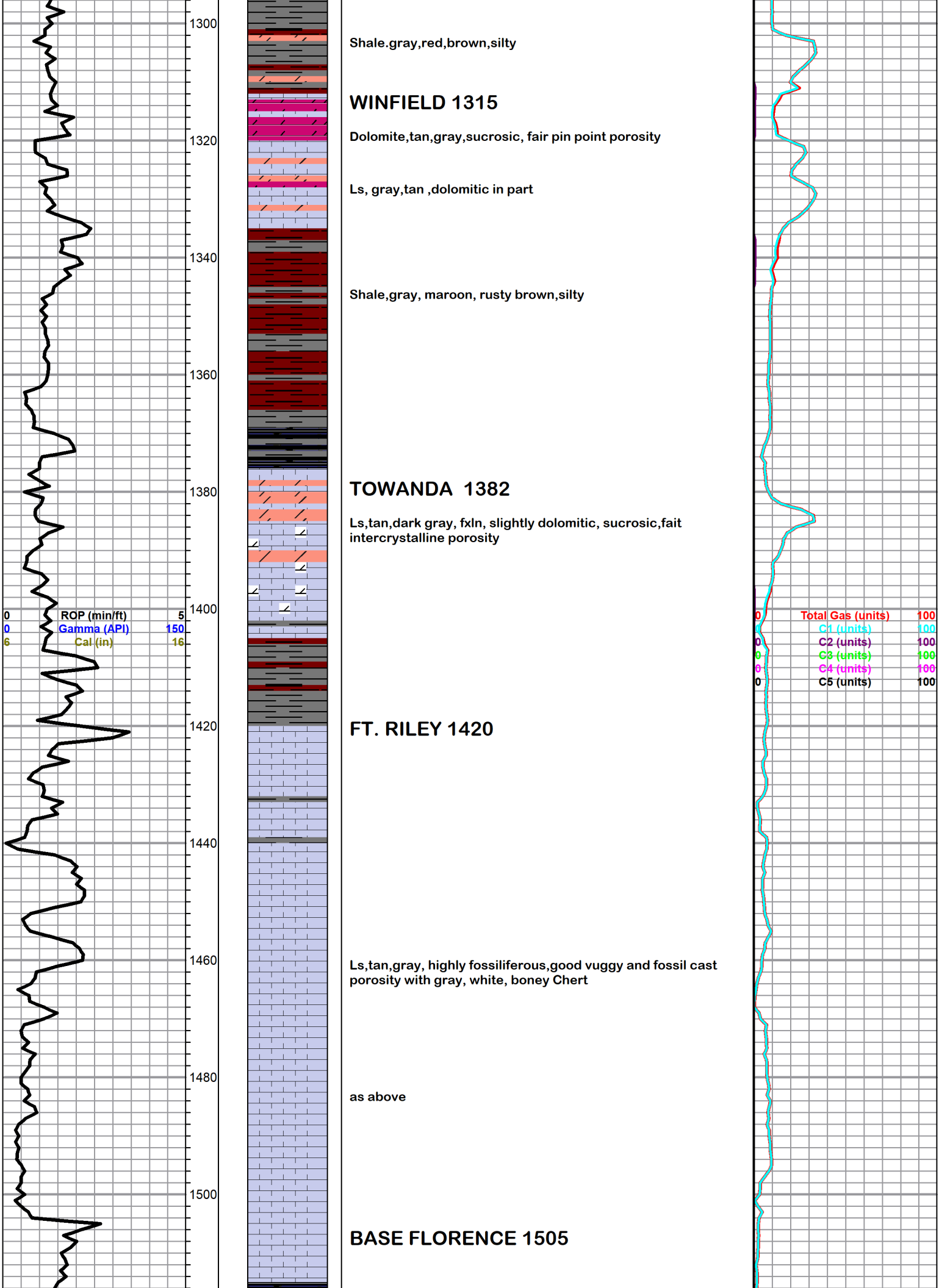
ditto

HERINGTON 1264

Ls, tan, fxln, dolomitic in part, sucrosic, scattered porosity..no show

as above





Shale,gray,red,brown,silty

WINFIELD 1315

Dolomite,tan,gray,sucrosic, fair pin point porosity

Ls, gray,tan ,dolomitic in part

Shale,gray, maroon, rusty brown,silty

TOWANDA 1382

Ls,tan,dark gray, fxl, slightly dolomitic, sucrosic,fair intercrystalline porosity

FT. RILEY 1420

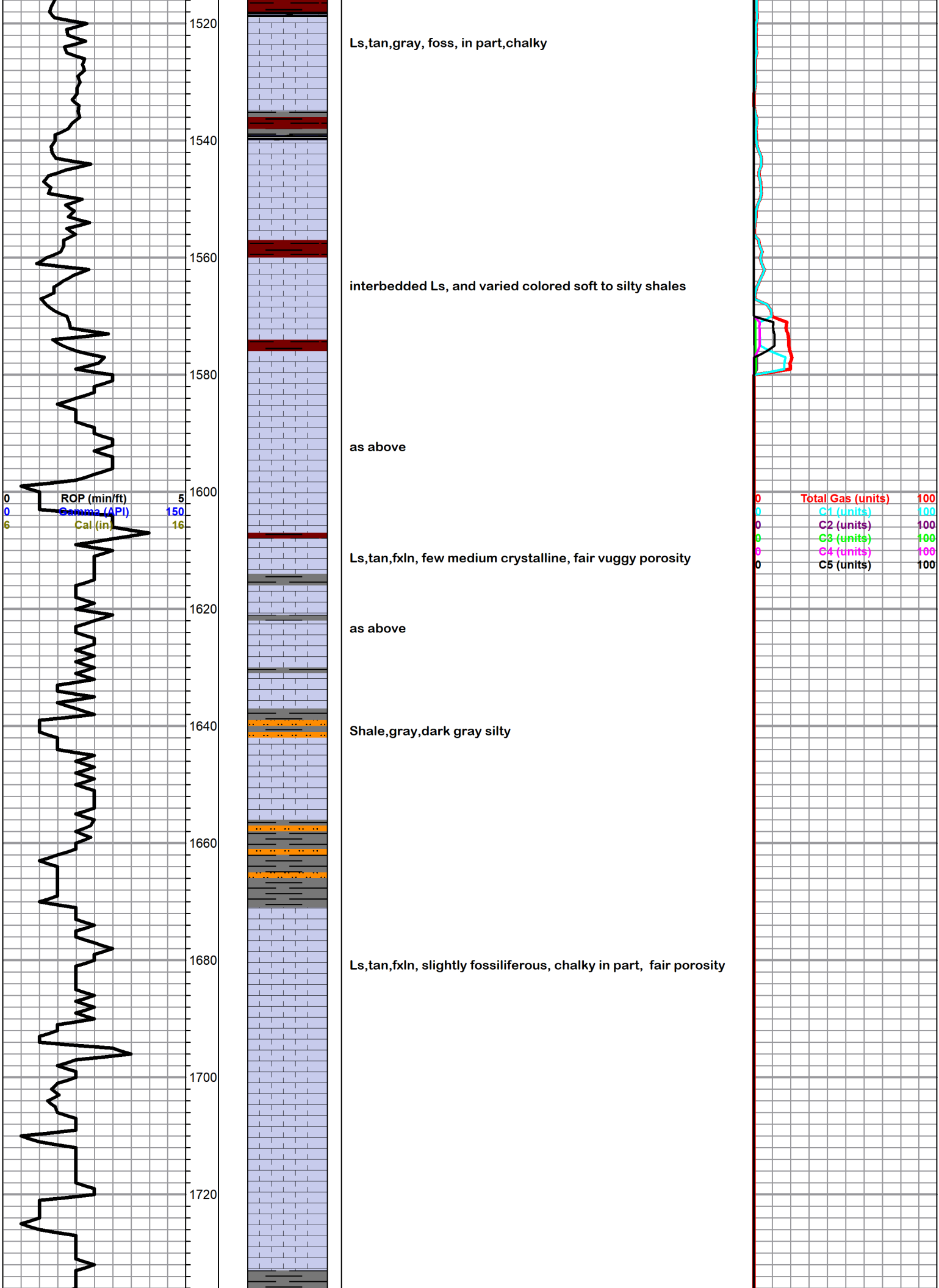
Ls,tan,gray, highly fossiliferous,good vuggy and fossil cast porosity with gray, white, boney Chert

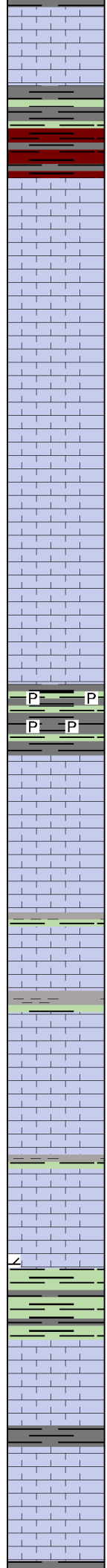
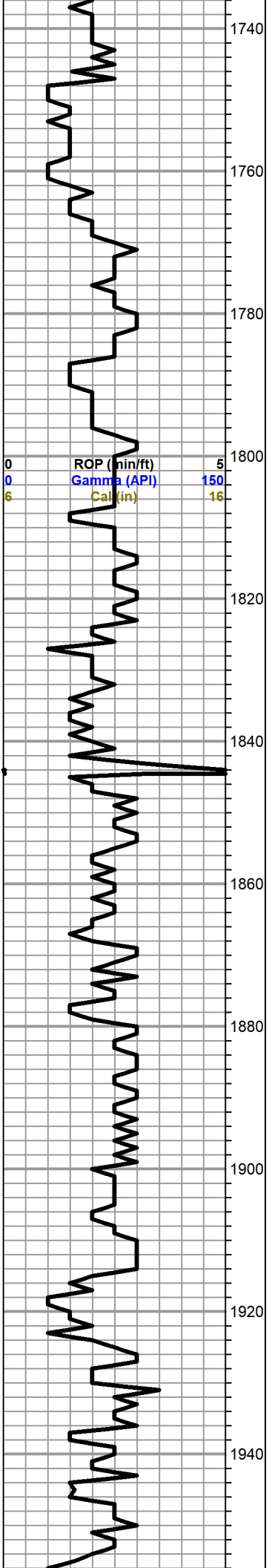
as above

BASE FLORENCE 1505

ROP (min/ft) 5
Gamma (API) 150
Cal (in) 16

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100
C5 (units) 100





Shale,maroon,rusty brown, red soft

NEVA 1762

Ls,white,gray,chalky, fossiliferous in part,

as above, granular(sandy???)

Shale,gray, green, pyrite inclusions

RED EAGLE 1843

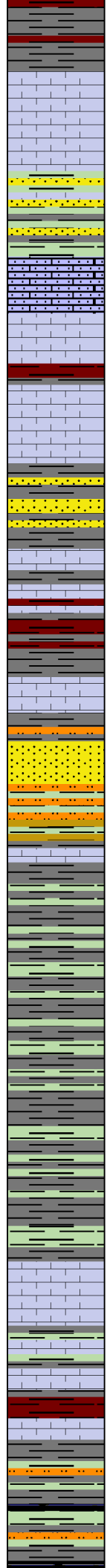
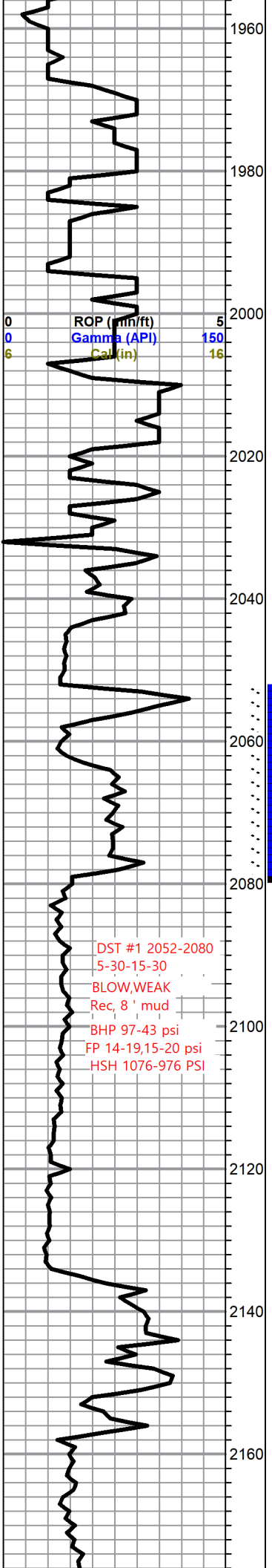
Ls,tan,gray, fossiliferous, chalky

as above, trace gray Chert

Shale,gray, black,green,silty with loose sponge spicules

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100

Shale,gray,grayish green, micaceous silty



Shale,gray,grayish green,micaeous,silty

Ls,tan,dense

Trace,Sand,gray,vfg,micaeous,silty

INDIAN CAVE 1985

Ls,gray,fxln,granular, chalky

Shale,maroon,rusty brown,soft

Sand,vfg, silty, micaeous, scattered intergranular porosity

Shale,gray,dark gray,red

GRAND HAVEN 2051(-259)

1st TARKIO SAND 2060 (-268)

Sand,brown, gray,grayish green, vfg,well sorted, friable,fair, intergranular porosity

DOVER 2076

Shale,gray,grayish green, brown, micaeous, silty

as above

TARKIO LIME 2137(-345)

Ls,tan,fxln,foss,chalky, poor porosity

as above

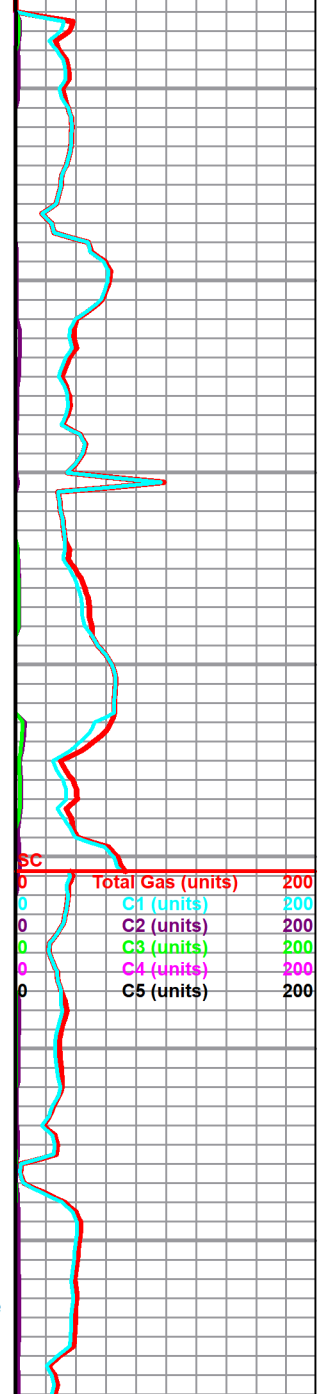
WILLARD 2152(-360)

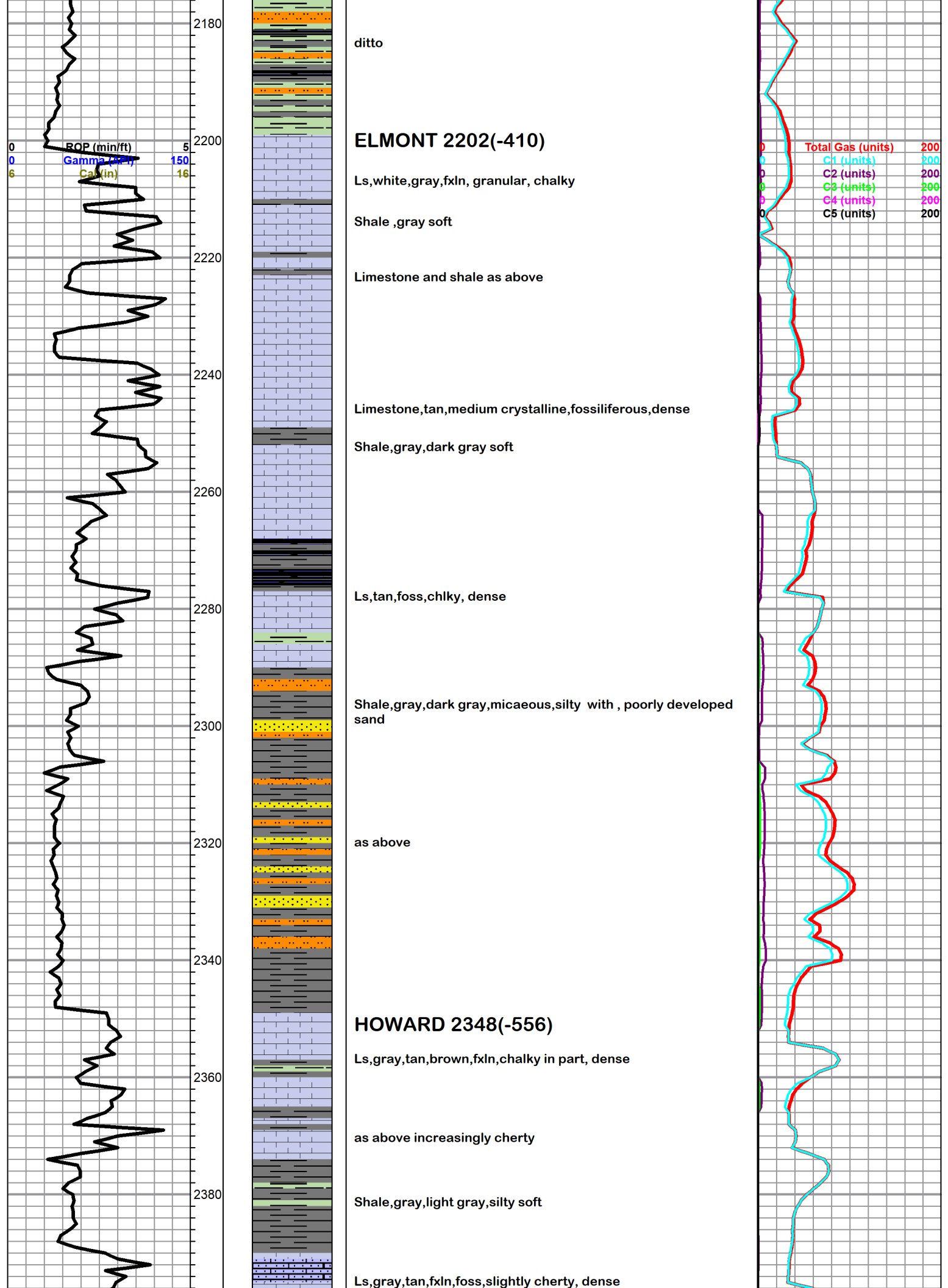
Shale,gray,dark gray, grayish green, silty , with abuntant pyrite

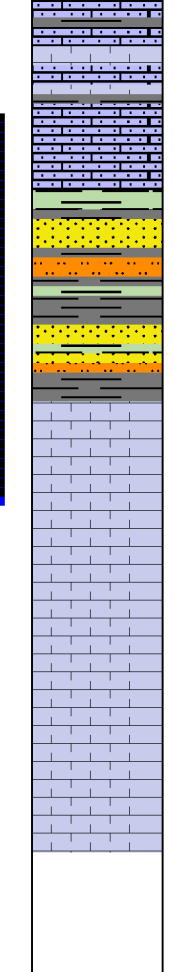
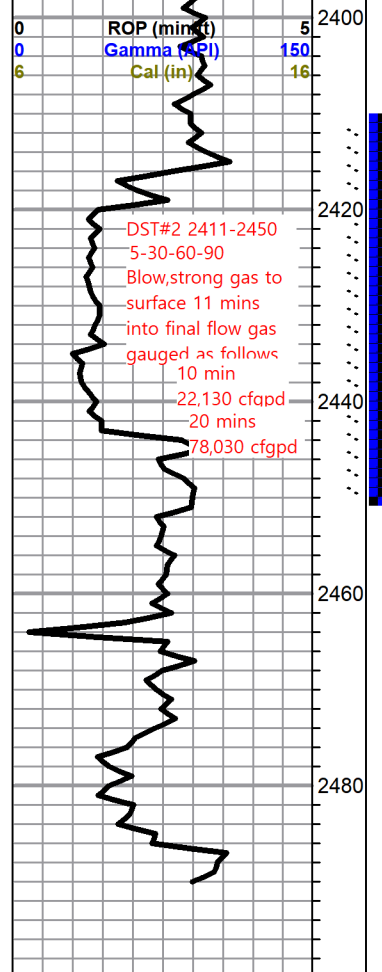
0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100
0	C5 (units)	100

SC

0	Total Gas (units)	200
0	C1 (units)	200
0	C2 (units)	200
0	C3 (units)	200
0	C4 (units)	200
0	C5 (units)	200







as above
DST #2 CONTINUE
 30 min 72,660 cfcpd, 40 mins 72,130 cfcpd, 50 mins 73,120 cfcpd
 Recovery, 61' gassy mud
 BHP 343-390, FP 25-297 (invalid) 29-62 psi HSH 1200-1231 PSI

SEVERY 2416(-624)
 Sand, gray, grayish green, vfg, micaceous, scattered porosity, trace gas bubbles

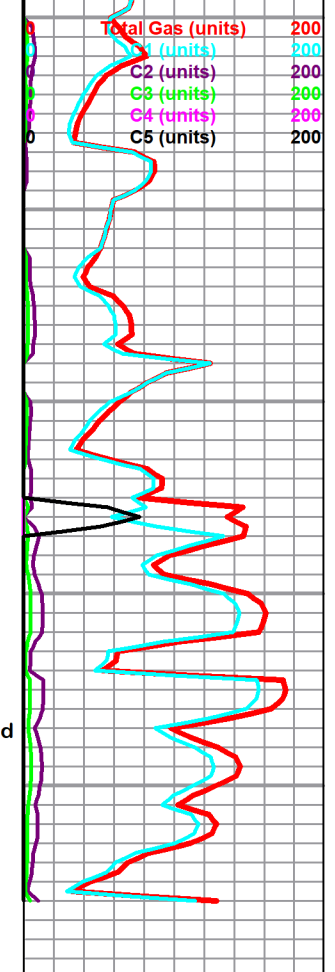
as above, silty

TOPEKA 2443 (-651)
 Ls, tan foss, chalky, poor porosity

Ls, white, fxl, foss, with white chalk

Ls, tan, highly foss, recrystallized, with sparry calcite cement and gray white fossiliferous chert

ROTARY TOTAL DEPTH 2490



DST#2 2411-2450
 5-30-60-90
 Blow, strong gas to surface 11 mins into final flow gas gauged as follows
 10 min 22,130 cfcpd
 20 mins 78,030 cfcpd



DRILL STEM TEST REPORT

Prepared For: **LB Exploration**
2135 2nd Rd
Holyrood KS 67450

ATTN: Jim Musgrove

Sandy #31-1

31-16S-8W/ Ellsworth,KS

Start Date: 2024.05.31 @ 10:33:00

End Date: 2024.05.31 @ 14:00:00

Job Ticket #: 72007 DST #: 1

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

Printed: 2024.06.03 @ 15:34:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

LB Exploration

31-16S-8W/ Ellsworth, KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72007

DST#: 1

ATTN: Jim Musgrove

Test Start: 2024.05.31 @ 10:33:00

GENERAL INFORMATION:

Formation: **Grand Haven**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:20

Time Test Ended: 14:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Richie Samora

Unit No: 66

Interval: 2052.00 ft (KB) To 2080.00 ft (KB) (TVD)

Reference Elevations: 1789.00 ft (KB)

Total Depth: 2080.00 ft (KB) (TVD)

1784.00 ft (CF)

Hole Diameter: 7.79 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8355 Inside

Press@RunDepth: 19.78 psig @ 2058.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2024.05.31

End Date:

2024.05.31

Last Calib.: 1899.12.30

Start Time: 10:33:10

End Time:

14:00:00

Time On Btm: 2024.05.31 @ 11:38:40

Time Off Btm: 2024.05.31 @ 13:03:20

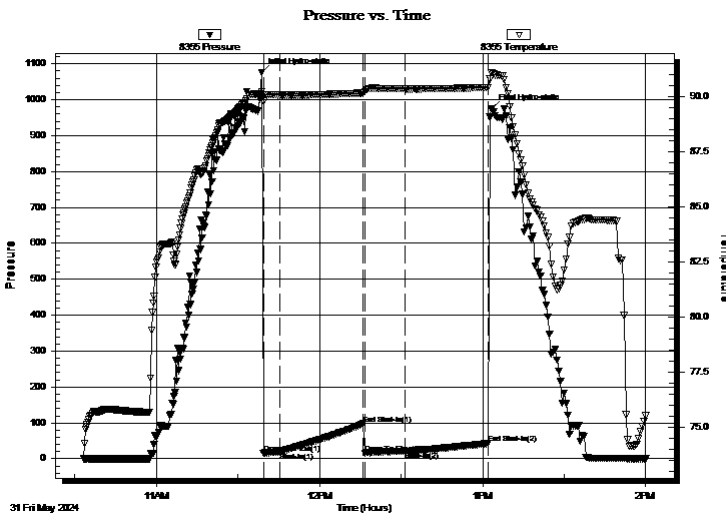
TEST COMMENT: 5-IF: Weak blow reached .75"

30-ISI: No Returns

15-FF: Weak blow reached 1.3"

30-FSI: No Returns

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1075.96	90.21	Initial Hydro-static
1	14.45	89.78	Open To Flow (1)
7	18.68	90.07	Shut-In(1)
38	97.30	90.15	End Shut-In(1)
38	15.15	90.20	Open To Flow (2)
53	19.78	90.34	Shut-In(2)
84	42.82	90.40	End Shut-In(2)
85	975.75	91.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
8.00	MUD 100%M	0.04

Gas Rates

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



DRILL STEM TEST REPORT

LB Exploration
 2135 2nd Rd
 Holyrood KS 67450
 ATTN: Jim Musgrove

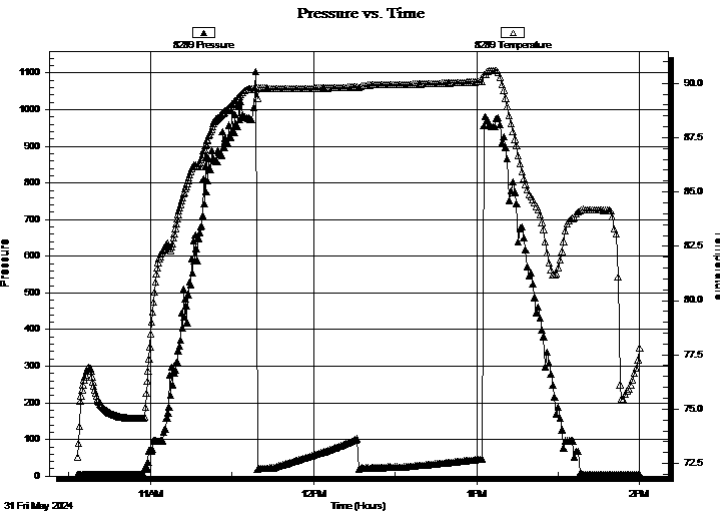
31-16S-8W/ Ellsworth,KS
Sandy #31-1
 Job Ticket: 72007 **DST#: 1**
 Test Start: 2024.05.31 @ 10:33:00

GENERAL INFORMATION:

Formation: **Grand Haven**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:39:20
 Time Test Ended: 14:00:00
Interval: 2052.00 ft (KB) To 2080.00 ft (KB) (TVD)
 Total Depth: 2080.00 ft (KB) (TVD)
 Hole Diameter: 7.79 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Richie Samora
 Unit No: 66
 Reference Elevations: 1789.00 ft (KB)
 1784.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside
 Press@RunDepth: psig @ 2058.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2024.05.31 End Date: 2024.05.31 Last Calib.: 1899.12.30
 Start Time: 10:33:10 End Time: 14:00:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 5-IF: Weak blow reached .75"
 30-ISI: No Returns
 15-FF: Weak blow reached 1.3"
 30-FSI: No Returns



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
8.00	MUD 100%M	0.04

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72007

DST#: 1

ATTN: Jim Musgrove

Test Start: 2024.05.31 @ 10:33:00

Tool Information

Drill Pipe:	Length: 1862.00 ft	Diameter: 3.80 inches	Volume: 26.12 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 3.25 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 173.00 ft	Diameter: 2.25 inches	Volume: 0.85 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 26.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2052.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	58.00 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	1.00			2023.00	
Shut In Tool	5.00			2028.00	
Hydraulic tool	8.00		Fluid	2036.00	
EM	4.00			2040.00	
Safety Joint	3.00			2043.00	
Packer	5.00			2048.00	30.00 Bottom Of Top Packer
Packer	4.00			2052.00	
Stubb	1.00			2053.00	
Recorder Carrier	5.00			2058.00	
Recorder	0.00	8355	Inside	2058.00	
Recorder	0.00	8289	Outside	2058.00	
Perforations	19.00			2077.00	
Bullnose	3.00			2080.00	28.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72007

DST#: 1

ATTN: Jim Musgrove

Test Start: 2024.05.31 @ 10:33:00

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: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
8.00	MUD 100%M	0.039

Total Length: 8.00 ft Total Volume: 0.039 bbl

Num Fluid Samples: 0

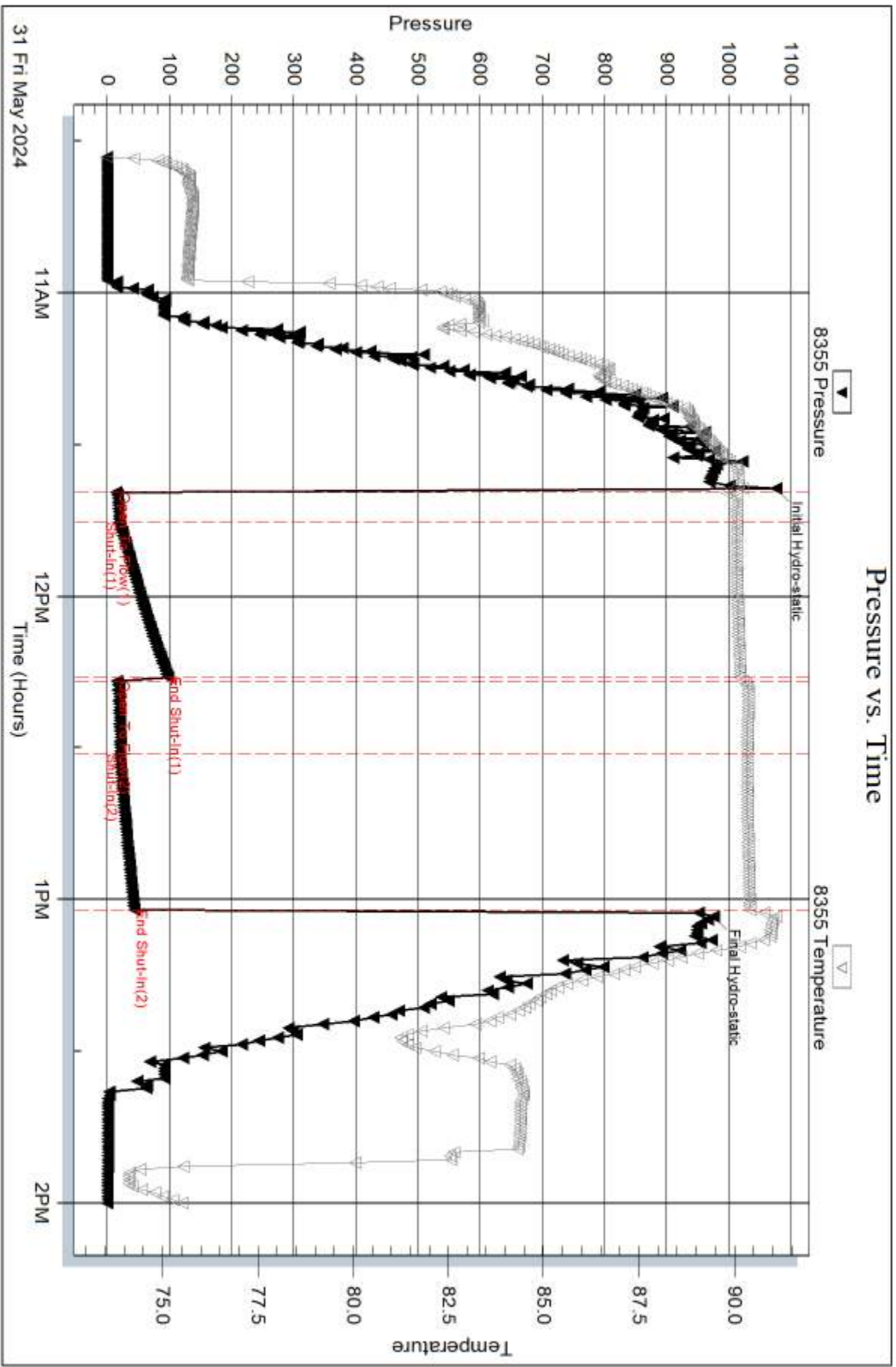
Num Gas Bombs: 0

Serial #:

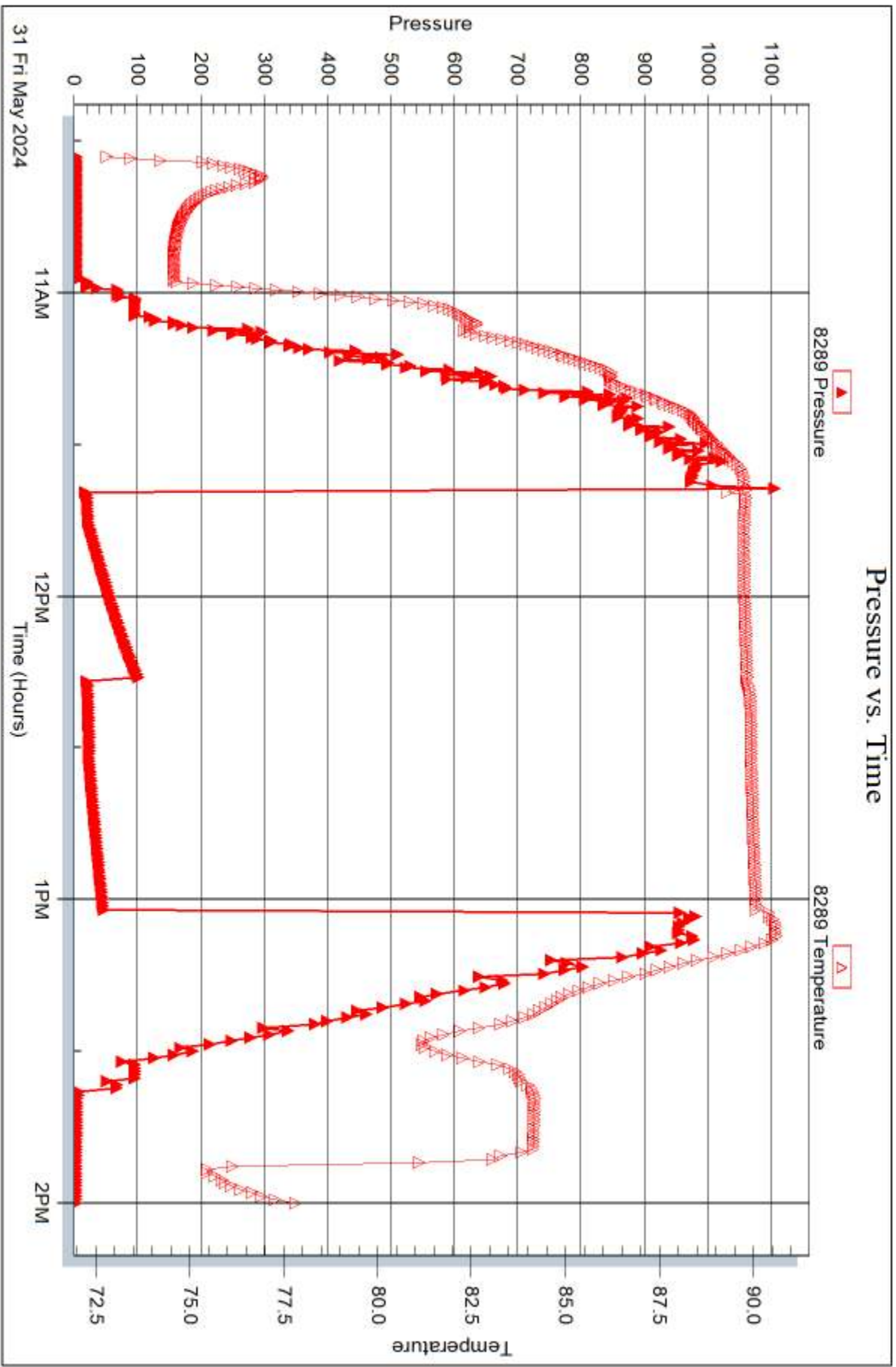
Laboratory Name:

Laboratory Location:

Recovery Comments:



31 Fri May 2024





DRILL STEM TEST REPORT

Prepared For: **LB Exploration**
2135 2nd Rd
Holyrood KS 67450

ATTN: Jim Musgrove

Sandy #31-1

31-16S-8W/ Ellsworth,KS

Start Date: 2024.06.01 @ 07:19:00

End Date: 2024.06.01 @ 12:41:07

Job Ticket #: 72008 DST #: 2

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

Printed: 2024.06.03 @ 14:37:54



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72008

DST#: 2

ATTN: Jim Musgrove

Test Start: 2024.06.01 @ 07:19:00

GENERAL INFORMATION:

Formation: **Severy**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:11:05

Time Test Ended: 12:41:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Richie Samora

Unit No: 66

Interval: 2411.00 ft (KB) To 2450.00 ft (KB) (TVD)

Reference Elevations: 1789.00 ft (KB)

Total Depth: 2450.00 ft (KB) (TVD)

1784.00 ft (CF)

Hole Diameter: 7.79 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8355 Inside

Press@RunDepth: 62.34 psig @ 2417.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2024.06.01 End Date: 2024.06.01

Last Calib.: 1899.12.30

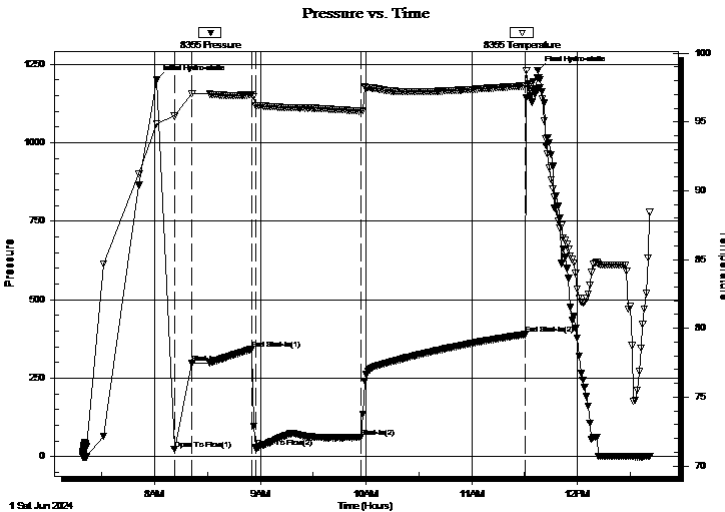
Start Time: 07:19:01 End Time: 12:41:07

Time On Btm: 2024.06.01 @ 08:01:04

Time Off Btm: 2024.06.01 @ 11:37:37

TEST COMMENT: 5-IF: Strong blow BOB in 1 minute built to 152"
30-ISI: No Returns
60-FF: BOB immediate GTS in 11 minutes reached 45psi
90-FSI: Weak blow built to 2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1200.00	94.85	Initial Hydro-static
11	24.66	95.42	Open To Flow (1)
21	297.83	97.04	Shut-In(1)
55	343.45	96.97	End Shut-In(1)
57	28.72	96.17	Open To Flow (2)
117	62.34	95.78	Shut-In(2)
210	389.39	97.62	End Shut-In(2)
217	1230.62	97.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	GM 5%G 5%W 90%M	0.30

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	44.73	22.13
Last Gas Rate	0.25	31.69	73.12
Max. Gas Rate	0.13	44.73	22.13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72008

DST#: 2

ATTN: Jim Musgrove

Test Start: 2024.06.01 @ 07:19:00

GENERAL INFORMATION:

Formation: **Severy**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:11:05

Time Test Ended: 12:41:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Richie Samora

Unit No: 66

Interval: 2411.00 ft (KB) To 2450.00 ft (KB) (TVD)

Reference Elevations: 1789.00 ft (KB)

Total Depth: 2450.00 ft (KB) (TVD)

1784.00 ft (CF)

Hole Diameter: 7.79 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: psig @ 2417.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2024.06.01 End Date: 2024.06.01

Last Calib.: 1899.12.30

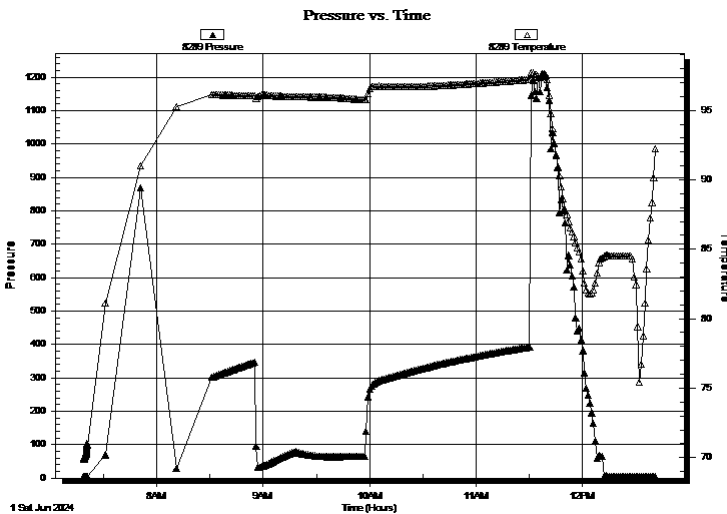
Start Time: 07:19:01 End Time: 12:41:07

Time On Btm:

Time Off Btm:

TEST COMMENT: 5-IF: Strong blow BOB in 1 minute built to 152"
30-ISI: No Returns
60-FF: BOB immediate GTS in 11 minutes reached 45psi
90-FSI: Weak blow built to 2"

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
61.00	GM 5%G 5%W 90%M	0.30

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	44.73	22.13
Last Gas Rate	0.25	31.69	73.12
Max. Gas Rate	0.13	44.73	22.13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72008

DST#: 2

ATTN: Jim Musgrove

Test Start: 2024.06.01 @ 07:19:00

Tool Information

Drill Pipe:	Length: 2274.00 ft	Diameter: 3.80 inches	Volume: 31.90 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 3.25 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 51000.00 lb
			<u>Total Volume: 32.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2411.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	69.00 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	1.00			2382.00	
Shut In Tool	5.00			2387.00	
Hydraulic tool	8.00		Fluid	2395.00	
EM	4.00			2399.00	
Safety Joint	3.00			2402.00	
Packer	5.00			2407.00	30.00 Bottom Of Top Packer
Packer	4.00			2411.00	
Stubb	1.00			2412.00	
Recorder Carrier	5.00			2417.00	
Recorder	0.00	8355	Inside	2417.00	
Recorder	0.00	8289	Outside	2417.00	
Perforations	30.00			2447.00	
Bullnose	3.00			2450.00	39.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72008

DST#: 2

ATTN: Jim Musgrove

Test Start: 2024.06.01 @ 07:19:00

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:

13000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
61.00	GM 5%G 5%W 90%M	0.300

Total Length: 61.00 ft Total Volume: 0.300 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gas Gauged & sample caught

2213' of GIP



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

LB Exploration

31-16S-8W/ Ellsworth,KS

2135 2nd Rd
Holyrood KS 67450

Sandy #31-1

Job Ticket: 72008

DST#: 2

ATTN: Jim Musgrove

Test Start: 2024.06.01 @ 07:19:00

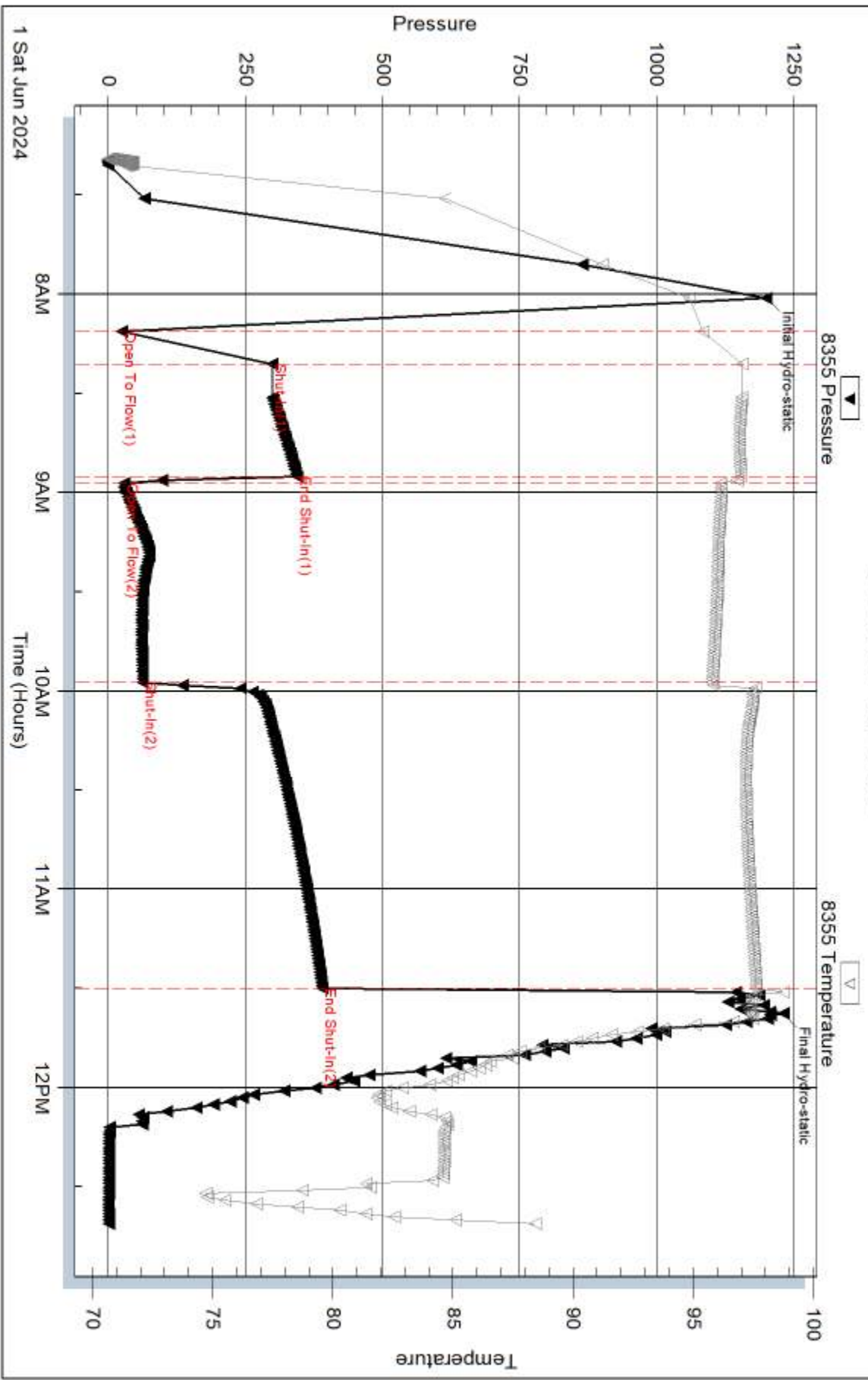
Gas Rates Information

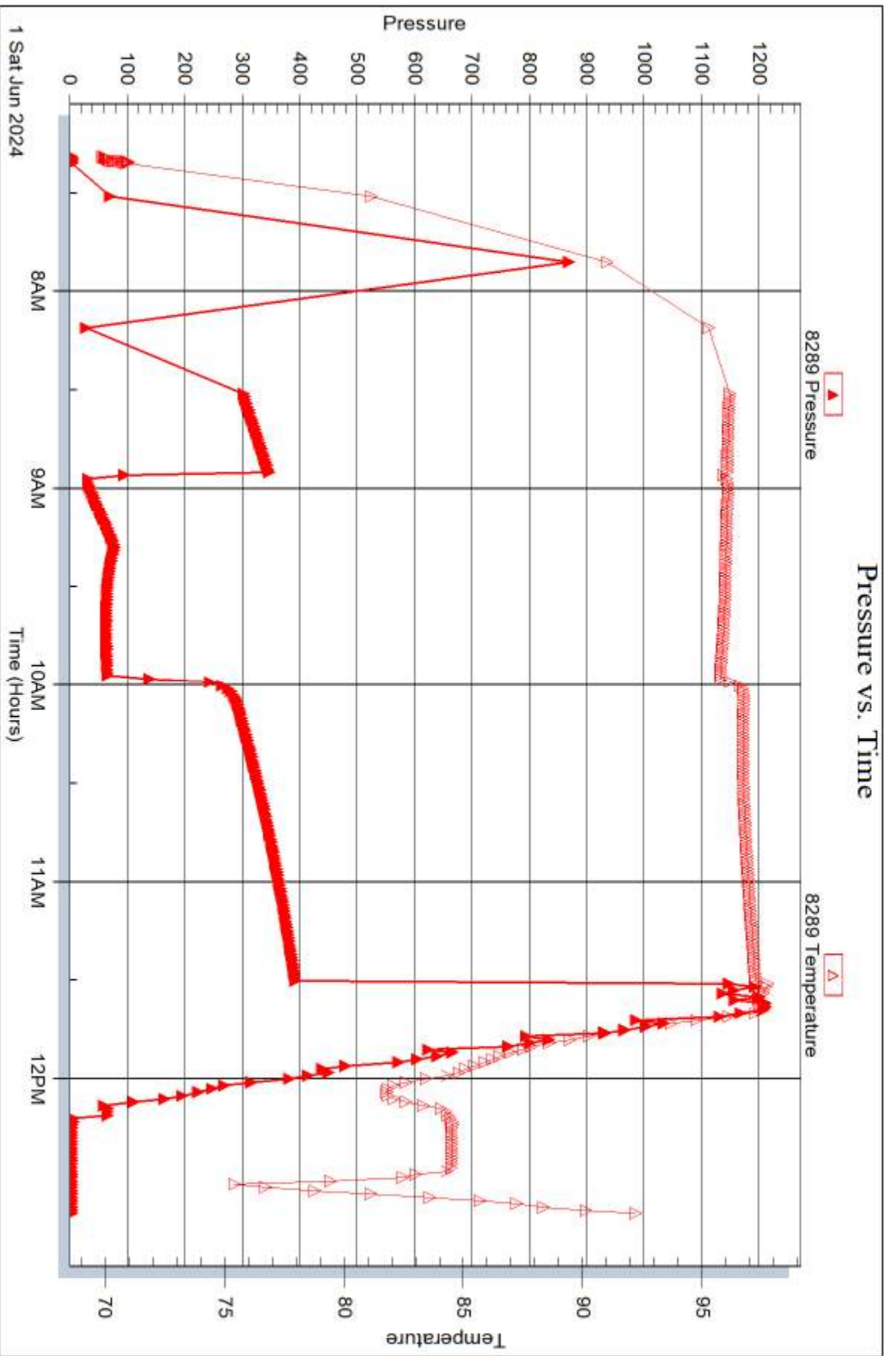
Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	44.73	22.13
2	20	0.25	34.79	78.03
2	30	0.25	31.40	72.66
2	40	0.25	31.07	72.13
2	50	0.25	31.69	73.12

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 72007

Well Name & No. Sandy 31-1 Test No. 1 Date 5-31-24
 Company LB Exploration Elevation 1789 KB 1784 GL
 Address 2135 2nd Rd Holyrood KS 67450
 Co. Rep / Geo Jim Musgrove Rig DUKE 2
 Location: Sec. 31 Twp 16S Rge. 8W Co. Ellsworth State KS

Interval Tested 2052-2080 Zone Tested Grand Haven
 Anchor Length 28' Drill Pipe Run 1862 Mud Wt. 9.2
 Top Packer Depth 2047 Drill Collars Run 173 Vis 50
 Bottom Packer Depth 2052 Wt. Pipe Run 0 WL 7.8
 Total Depth 2080 Chlorides 4000 ppm System LCM 2#

Blow Description IF: Weak blow reached 1.75"
ISL: No Returns
FF: Weak blow reached 1.5"
FSL: No Returns

Rec	Feet of	%gas	%oil	%water	%mud
<u>8</u>	<u>MUD</u>				

Rec Total 8 BHT 91.0 Gravity NA API RW @ *F Chlorides ppm
 Initial Hydrostatic 1076 Test 1800 Ruined Shale Packer
 Initial Flow 14 to 19 Jars Ruined Packer
 Initial Shut-In 97 Circ Sub Hotel
 Final Flow 15 to 20 Hourly Standby EM Tool Successful Good
 Final Shut-In 43 Mileage 44x2 154 Accessibility
 Final Hydrostatic 976 Sampler Gas Sample
 T-On Location 1000 Straddle Oversized Hole
 Initial Flow 5 T-Started 10:50 Shale Packer Sub Total 0
 Initial Shut-In 30 T-Open 11:37 Extra Packer Total 1954
 Final Flow 15 T-Pulled 13:01 Extra Recorder Tool Loaded @
 Final Shut-In 30 T-Out 14:00 Day Standby MP/DST Disc't
 Comments 3 tests @ 10:33

Approved By _____ Our Representative Ridnie Samson

Trilobite Testing Inc. shall not be liable for damage of any kind of 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **72008**

Well Name & No. Sandy 31-1 Test No. 2 Date 6-1-24
 Company LB Exploration Elevation 1789 KB 1784 GL
 Address 2135 2nd Rd Holyrood KS 67450
 Co. Rep / Geo Jim Musgrave Rig DUKE 2
 Location: Sec. 31 Twp 16S Rge. 8W Co. Ellsworth State KS

Interval Tested 2411-2450 Zone Tested Severy
 Anchor Length 39' Drill Pipe Run 2274 Mud Wt. 9.2
 Top Packer Depth 2406 Drill Collars Run 115 Vis 50
 Bottom Packer Depth 2411 Wt. Pipe Run 0 WL 7.8
 Total Depth 2450 Chlorides 4000 ppm System LCM 2#
 Blow Description IF: Strong blow BOB in 1 minute reached 152"
ISI: No Returns
EF: BOB immediate GTS in 11 minutes reached 45 psi
ESI: Weak surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>61</u>	<u>GM</u>	<u>5</u>	<u>0</u>	<u>5</u>	<u>90</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	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 61' BHT 97.9 Gravity N/A API RW 4.60 @ 74 *F Chlorides 13,000 ppm
 Initial Hydrostatic 1200 Test 1800 Ruined Shale Packer
 Initial Flow 25 to 28 Jars Ruined Packer
 Initial Shut-In 343 Circ Sub Hotel
 Final Flow 29 to 62 Hourly Standby EM Tool Successful GOOD
 Final Shut-In 389 Mileage 44x2 154 Accessibility
 Final Hydrostatic 1231 Sampler Gas Sample
 T-On Location 7:05 Straddle Oversized Hole
 Initial Flow 5 T-Started 7:35 Shale Packer Sub Total 0
 Initial Shut-In 30 T-Open 8:23 Extra Packer Total 1954
 Final Flow 60 T-Pulled 11:32 Extra Recorder Tool Loaded @ 1330
 Final Shut-In 90 T-Out 12:45 Day Standby MP/DST Disc't

Comments Batts on G 7:19

Approved By _____ Our Representative Richard Cameron

TriLOBITE TESTING INC. shall not be liable for damage of any kind of property or personnel of the one for whom a test is made, or for any loss offered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any tests lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

6-1-24

Gas Volume Report

LB Exploration

Operator

Sandy 31-1

Well Name and No.

FF

2

DST No.

Min.	In. of Water PSIG	Orifice Size	CF/D	Min.	In. of Water PSIG	Orifice Size	m ³ CF/D
				10	44.73	1/8	20.62
				10	34.79	1/4	72.73
				20	31.4	1/4	67.74
				30	31.07	1/4	67.25
				40	31.69	1/4	68.16

marks:

FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 1242
 LOCATION Hoxie
 FOREMAN Seck

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-2-14	33186	Sandy 31 #1	31	16	8	Ellsworth

CUSTOMER
 LB Exploration, Inc
 MAILING ADDRESS
 2135 2nd RD
 CITY
 Haysville
 STATE
 KS
 ZIP CODE
 67450

TRUCK #	DRIVER	TRUCK #	DRIVER
103	ST		
203	CK/ST		

JOB TYPE PTA HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 135 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting set up Duke-2 Plugged as ordered.
 1) 1075' 35sx
 2) 750' 35sx
 3) 310' 35sx
 4) 60' 25 ~~R#~~ 25 Mth20 + wooden plug
 Total 175sx

Thank you!

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PUMP	1	PUMP CHARGE PTA	\$1500.00	\$1500.00
MILE	56	MILEAGE	\$6.00	\$336.00
MISC	7.78 tons	ton mileage delivery	\$163.52	\$1263.52
CBVO	175sx	60/40 44gal 1/4# floxal.	\$17.35	\$3036.25
ROSS	1	8 3/4" wooden plug	\$115.00	\$115.00
			sub total	\$5,718.77
			less 5% discn	\$285.93
			sub total	\$5,432.84
			SALES TAX	228.09
			ESTIMATED TOTAL	5660.93

AUTHORIZATION _____ TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office and conditions of service on the back of this form are in effect for services identified on this form.