KOLAR Document ID: 1679256

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 # 33328
Name: Packard, Lynn
Address 1: 8113 NW RIVER RD
Address 2:
City: MEDICINE LODGE State: KS Zip: 67104 + 8144
Contact Person: Lynn Packard
Phone: (620) 886-0135
CONTRACTOR: License # 34484
Name: Fossil Drilling, Inc.
Wellsite Geologist: Aaron Young
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 #:

12/05/2022	12/12/2022	12/12/2022
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-007-24456-00-00
Spot Description:
NW - NE - NW - NE Sec. 27 Twp. 31 S. R. 13 ☐ East ☑ West
255 Feet from ☑ North / ☐ South Line of Section
1860 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barber
Lease Name: PACKARD Well #: 3-27
Field Name:
Producing Formation: n/a
Elevation: Ground: 1578 Kelly Bushing: 1586
Total Vertical Depth: 4490 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 223 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: 4500 ppm Fluid volume: 320 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Packard Energy
Lease Name: Packard 5-23 OWWO License #: 34627
Quarter SW Sec. 23 Twp. 31 S. R. 13 ☐ East ☑ West
County: Barber Permit #: D28492

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:** David Befort **Date:** 01/17/2023

Operator Name: Packard, Lynn Lease Name: PACKARD Well #: 3-27

Sec. 27 Twp. 31 S. R. 13 ☐ East ☑ West County: Barber

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☐ Yes	☑ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:

Micro
Dual Induction
Density/Neutron

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Upper Douglas	3591	2005
Drum	3946	2360
Mississippi	4221	2635
Viola	4479	2893

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	222	Common/Pho	220	60/40

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Packard, Lynn
Well Name	PACKARD 3-27
Doc ID	1679256

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	222	Common/ Pho	220	60/40

QUALITY WELL SERVICE, INC.

8187

Federal Tax I.D. # 481187368
Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468

Office 620-786-6992
Fax 620-672-3663

Todd's Cell 620-388-4967
Brady's Cell 620-727-6964

Date 12-13-22	Sec. 27	Twp. 31S	Range 13W	County BARBER	State KS	On Location	Finish

Lease PACKARD | Well No. 3-27 | Location MEDICINE LODGE, KS 8.5 W on RIVER Rd

Contractor		Owner SAME	
Type Job PTA		To Quality Well Service, 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.		
Csg.	Depth	Charge To LYNN PACKARD	
Tbg. Size 4 1/2 DP	Depth	Street	
Tool	Depth	City State	
Cement Left in Csg.	Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.	
Meas Line	Displace	Cement Amount Ordered 170sx 60/40 4% GEL	

EQUIPMENT

Pumptrk 9	No.			Common 102sx	
Bulktrk 10	No.			Poz. Mix 68sx	
Bulktrk	No.			Gel. 5sx	
Pickup	No.			Calcium	

JOB SERVICES & REMARKS

Rat Hole 30sx 60/40 4% GEL	Hulls
Mouse Hole 20sx 60/40 4% GEL	Salt
Centralizers	Flowseal
Baskets	Kol-Seal
D/V or Port Collar	Mud CLR 48
1ST Plug @ 600'	CFL-117 or CD110 CAF 38
Pump H2O	Sand
Mix Pump 50sx 60/40 4% GEL	Handling 170
Pump H2O	Mileage 25/4400
2nd Plug @ 270'	**FLOAT EQUIPMENT**
Pump H2O	Guide Shoe
Mix Pump 50sx 60/40 4% GEL	Centralizer
Pump H2O	Baskets
3RD Plug @ 60	AFU Inserts
Mix Pump 20sx 60/40 4% GEL	Float Shoe
	Latch Down
	SERVICE SUP 1 EA
	Pumptrk Charge PTA
THANK YOU	Mileage 50
PLEASE CALL AGAIN	
TODD MIKE	Tax
	Discount
X Signature	Total Charge

QUALITY WELL SERVICE, INC.

8175

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Home Office 30060 N. Hwy 281, Pratt, KS 67124
Mailing Address P.O. Box 468

Office 620-786-6992
Fax 620-672-3663

Todd's Cell 620-388-4967
Brady's Cell 620-727-6964

Date 12-5-22	Sec. 27	Twp. 31S	Range 13W	County Barber	State Ks	On Location	Finish

Lease PACKARD Well No. 3-27 Location

Contractor FOSS. L DRLG RIG #5 Owner

Type Job SURFACE

To Quality Well Service, 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 12¼	T.D. 223	Charge To LYNN PACKARD
Csg. 8⅝	Depth 222	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint 20	Cement Amount Ordered 220sx 60/40 2% Gel 3% CC ¼#/sk
Meas Line	Displace 12.9	

EQUIPMENT

Pumptrk 8	No.	Common	132sx
Bulktrk 10	No.	Poz. Mix	88sx
Bulktrk	No.	Gel.	3 sx
Pickup	No.	Calcium	5 sx

JOB SERVICES & REMARKS

Rat Hole	Salt
Mouse Hole	Flowseal 110#
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
Ran 5 JTS 8⅝ #CSG SET @ 222	Sand
START CSG, CSG ON Bottom	Handling 236
Hook up to CSG; Break Circ W/RG	Mileage 251 5900
START Pumping H2O	**FLOAT EQUIPMENT**
START MIC Pump 220sx 60/40	Guide Shoe
2% Gel 3% CC ¼#/sk @ 14.7#/GAL	Centralizer
START Disp	Baskets
Plug Down 12.9 Bbl	AFU Inserts
Close Valve on CSG	Float Shoe
Good Circ thru JOB	Latch Down
Circ CMT to Pit	SERVICE SUP 1 EA
	LMV 25
THANK YOU	Pumptrk Charge SURFACE
PLEASE Call AGAIN	Mileage 50
FOR MORE Work	Tax
	Discount
X Signature	Total Charge

Geologic Report

Aaron L. Young

Drilling Time and Sample Log

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

Well Name:	**Packard #3-27**		
API:	**15-007-24456**		
Location:	**Section 27 - T31S - R13W**		
License Number:	**33328**	**Region:**	**Barber Co., KS**
Spud Date:	**12/05/2022**	**Drilling Completed:**	**12/11/2022**
Surface Coordinates:	**255' FNL and 1860' FEL**		
	Approx. NW - NE - NW -NE		
Bottom Hole Coordinates:			
Ground Elevation (ft):	**1578'**	**K.B. Elevation (ft):**	**1586'**
Logged Interval (ft):	**2570'** **To: 4490'**	**Total Depth (ft):**	**4490'**
Formation:	**Viola**		
Type of Drilling Fluid:	**Chemical - MudCo**		

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

OPERATOR

Company: Packard, Lynn
Address: 8113 NW River Rd
Medicine Lodge, KS 67104-8144

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Young Consulting LLC
Address: 100 S Main, Suite 505
Wichita, Kansas 67202

General Info

CONTRACTOR: Fossil Drilling Rig #5

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	RR	16-16-16	223'	223'	3.5
2	7-7/8	MI 616	15-15-15	4490'	4267'	71.25

Surveys: 223'-1, 717'-.75, 1222'-.75, 1758'-1, 2294'-1, 2830'-.75, 3461'-.75, 3616'-1.25, 3964'-1.25, 4490'-1.25

GENERAL DRILLING AND PUMP INFORMATION:
Drilling with 10,000-12,000 lbs. on bit and approx 90-100 RPM.
Running 8 stands of collards; 483.74'
Pumping approx 980 - 1025 psi at standpipe @ 62 SPM

Daily Status

12/05/22 MIRT. Spud at 8:45pm. Drilled 223'. Ran surface casing
12/06/22 WOC @ 223'
12/07/22 Drilling @ 1600'
12/08/22 Drilling @ 2862'
12/09/22 Short trip @ 3616', DST #1
12/10/22 Drilling @ 3880', DST #2
12/11/22 CFS @ 4072'
12/12/22 Testing. DST #3. Logged. Plugged well.

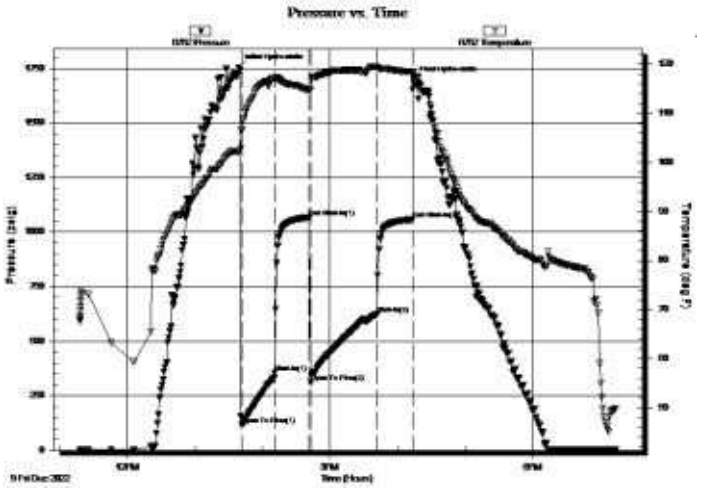
DST #1 Upper Douglas SS 3564' - 3616'
30" - 30" - 60" - 30"

IF: BOB in 30 sec.GTS in 19 min.
ISI: 4" Blow back
FF: BOB immed. Guaged gas
FSI: 105" Blow back

Rec'd: 2558' GIP, 868' GW (10% G, 90% W), 124' GMCW (10% G, 42% M, 48% W, 62' GWCM (20% G, 10% W, 70% M)

Gauged gas: 35.80 mcf/d

SIP: 1067-1057# FP: 117-355#, 310-624# HP: 1753-1697#

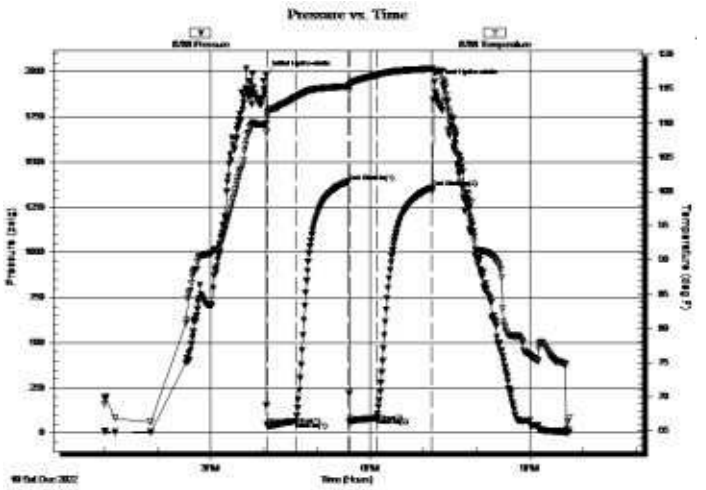


DST #2 LKC 'H' (DRUM) 3937' - 3964'
30" - 60" - 30" - 60"

IF: BOB in 4 min. Built to 51.75"
ISI: No Blow back
FF: BOB in 3.5 min. Built to 42.49"
FSI: No Blow back

Rec'd: 1164' GIP, 33' GSOCM (2% G, 7% O, 91% M), 60' GOWCM (10% G, 45% O, 10% W, 35% M), 60' GVSOCM (5% G, 5% O, 40% W, 50% M)

SIP: 1392-1358#
FP: 46-67#, 61-85#
HP: 1984-1941#

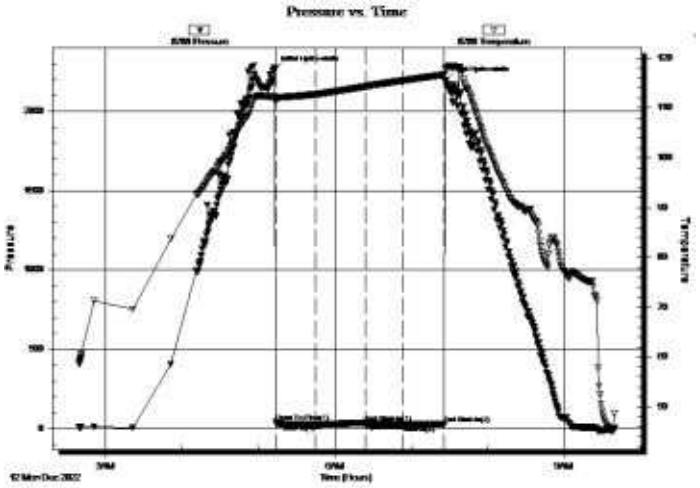


DST #3 Viola
4457' - 4490'
30" - 30" - 30" - 30"

IF: Weak surface blow, built to .62"
ISI: No Blow back
FF: Noblow
FSI: No Blow back

Rec'd: 2' Oil spec'd mud

SIP: 38-31#
FP: 42-27#, 35-26#
HP: 2264-2195#



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
- Sltysh
- 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
- Slty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

OTHER SYMBOLS

POROSITY TYPE
- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING
- Well
- Moderate
- Poor

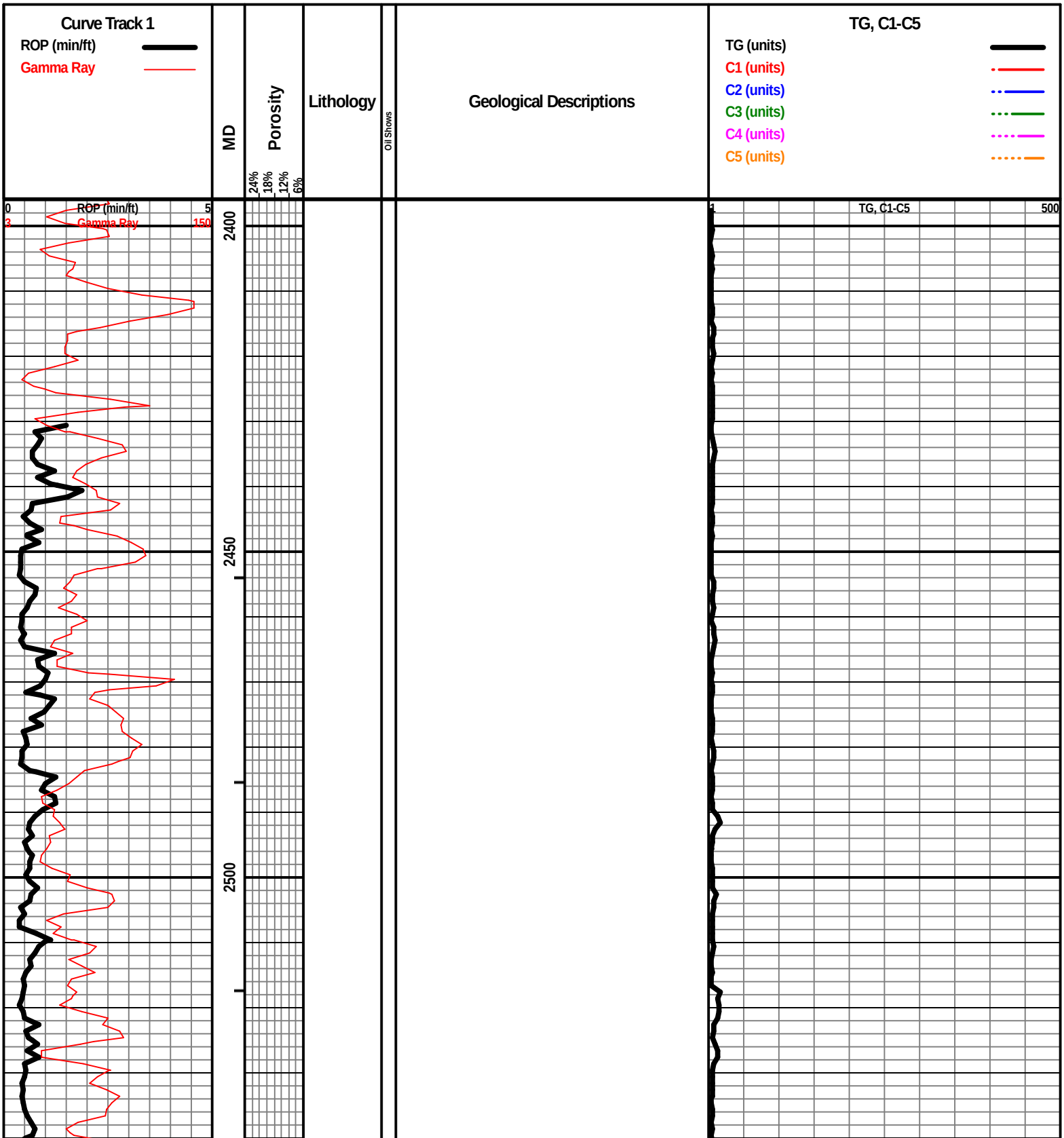
ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

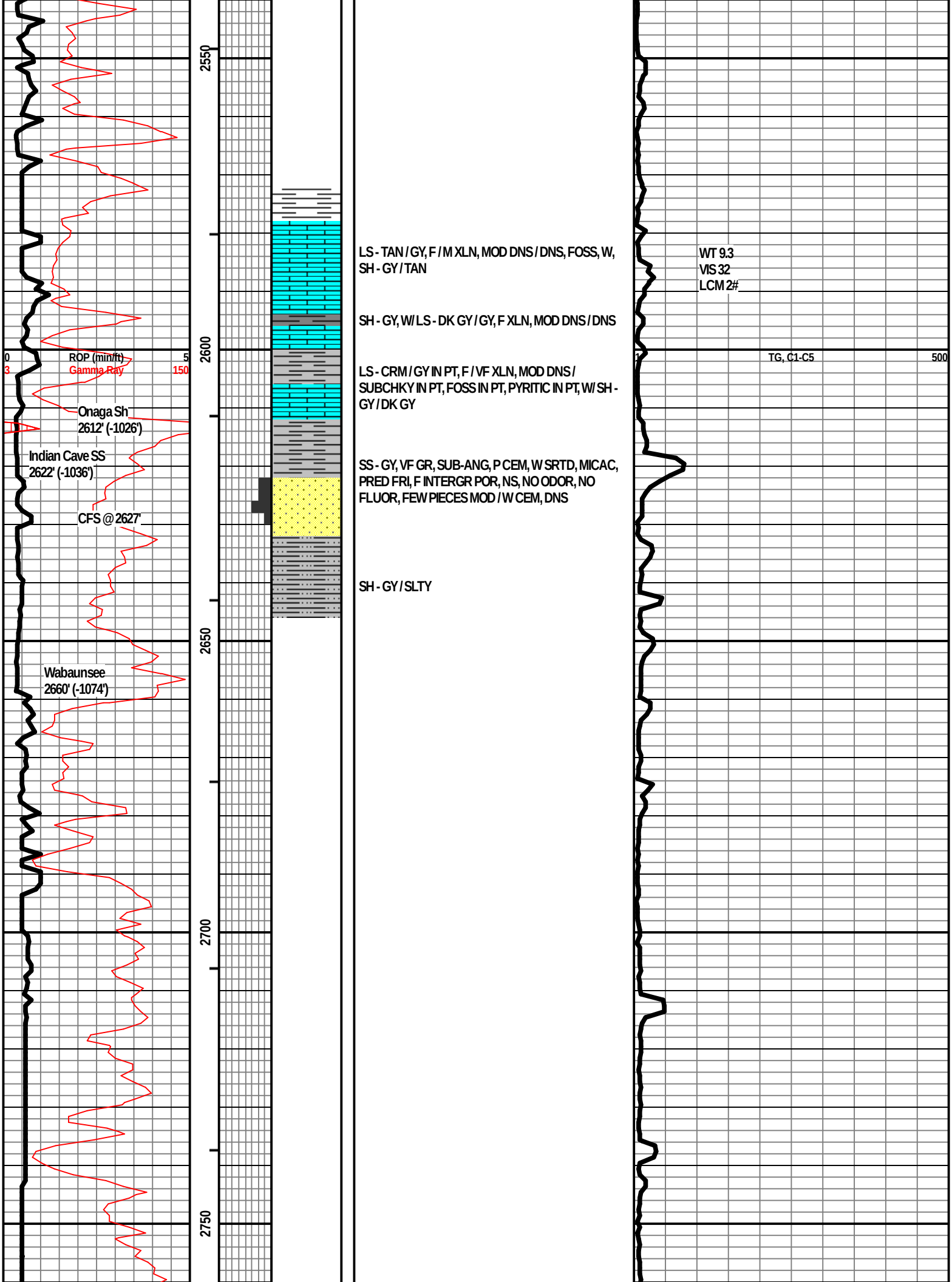
OIL SHOWS
- Even
- Spotted
- Ques
- Dead
- Gas show

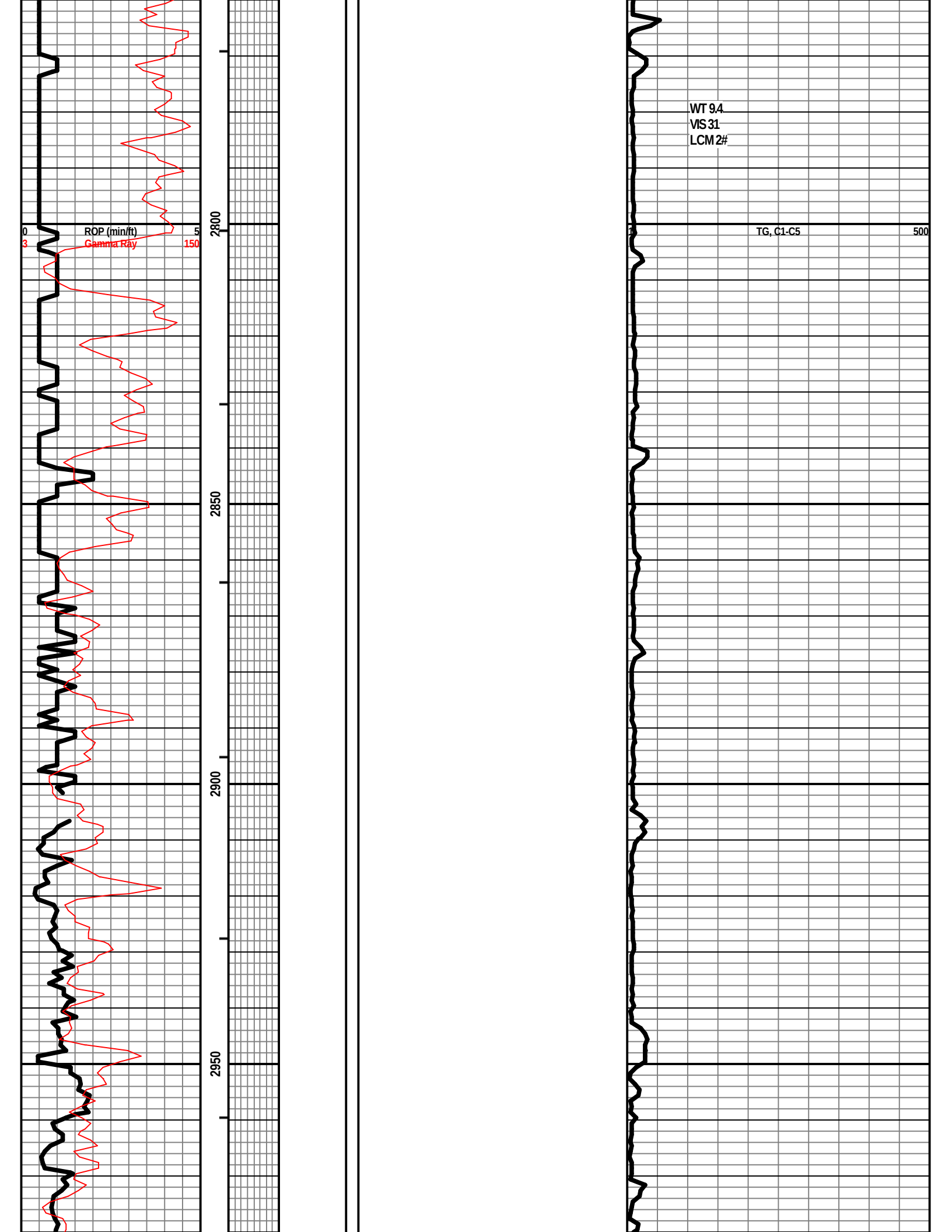
INTERVALS
- Core
- Dst

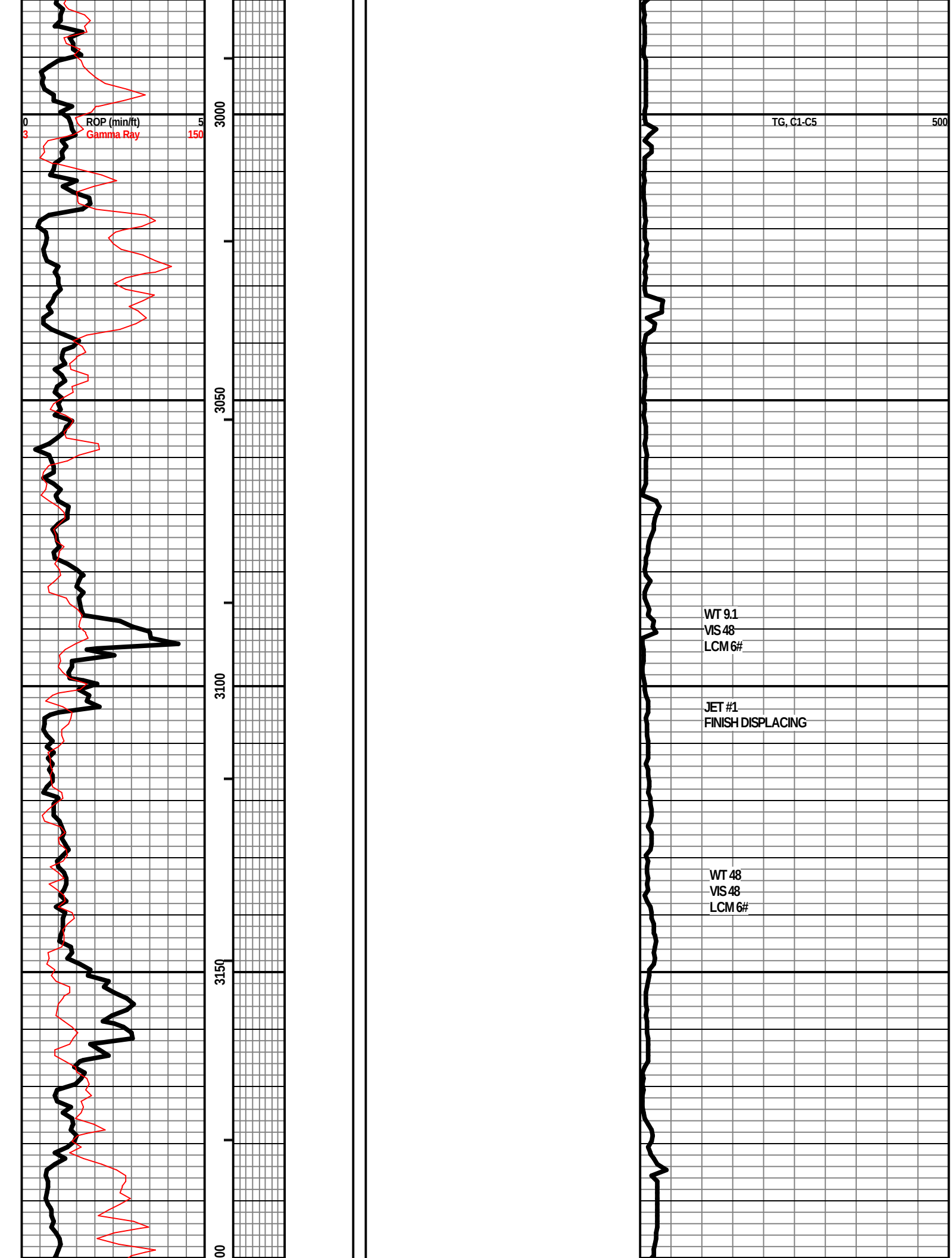
- Dst

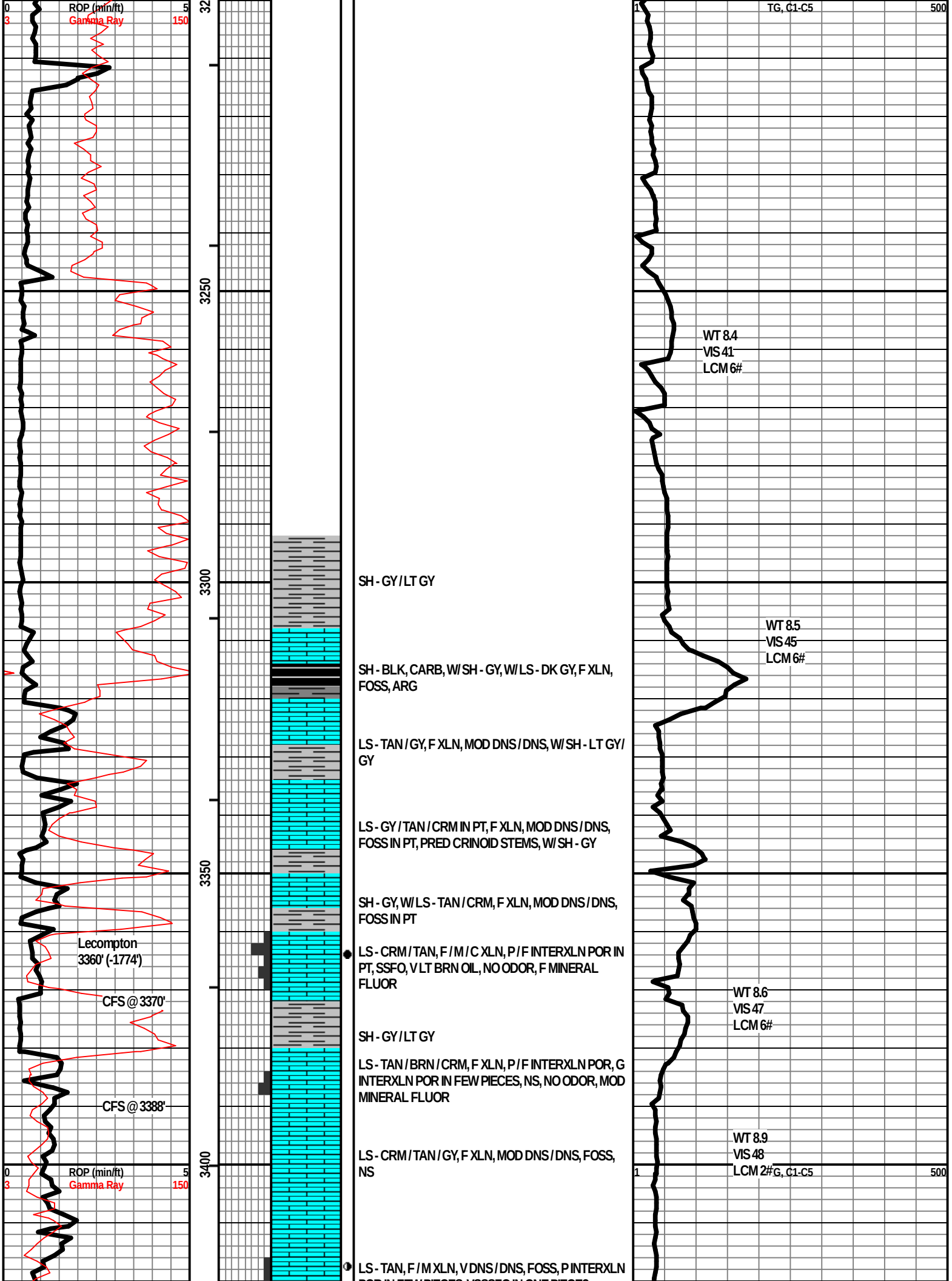
EVENTS
- Rft
- Sidewall
- Conn

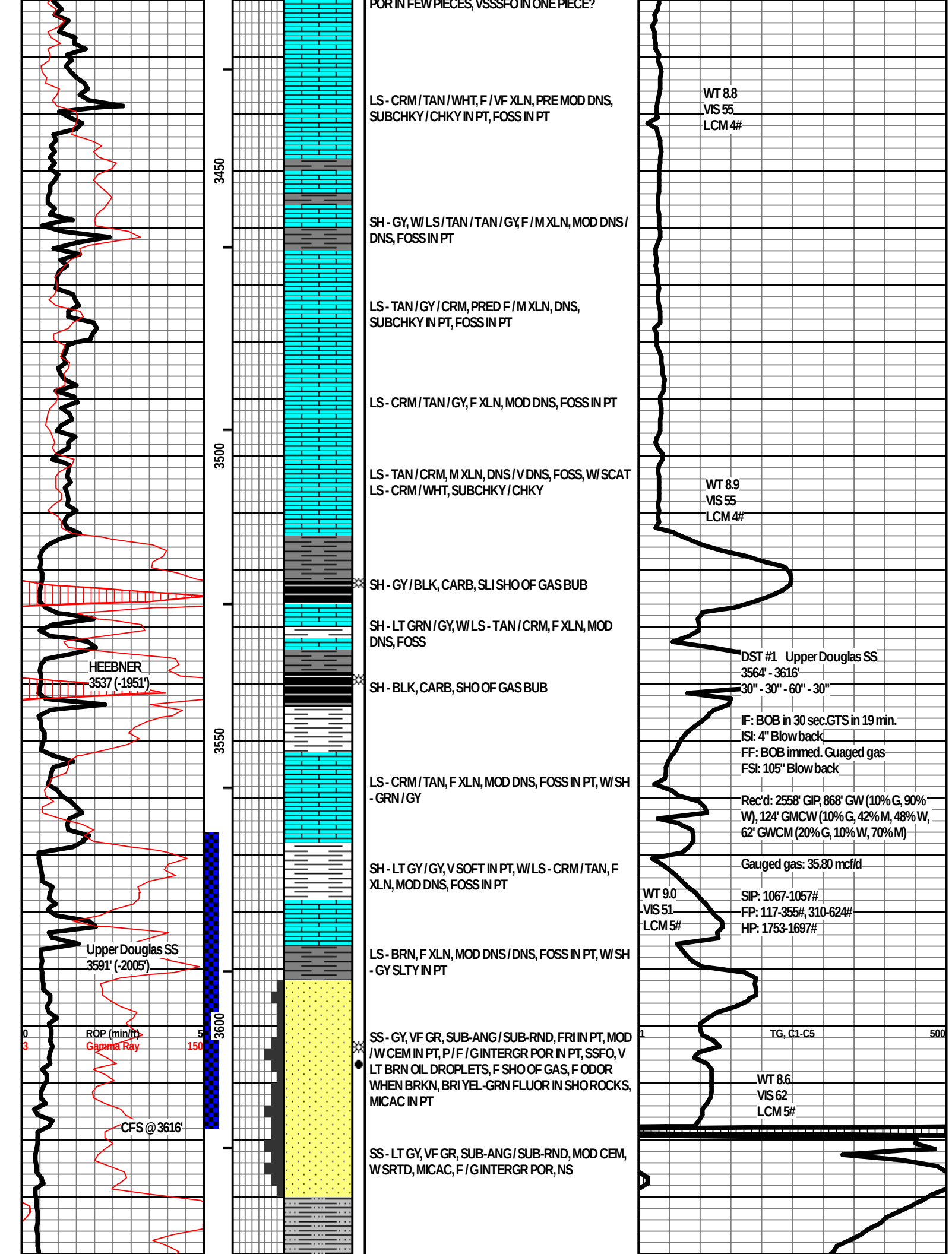


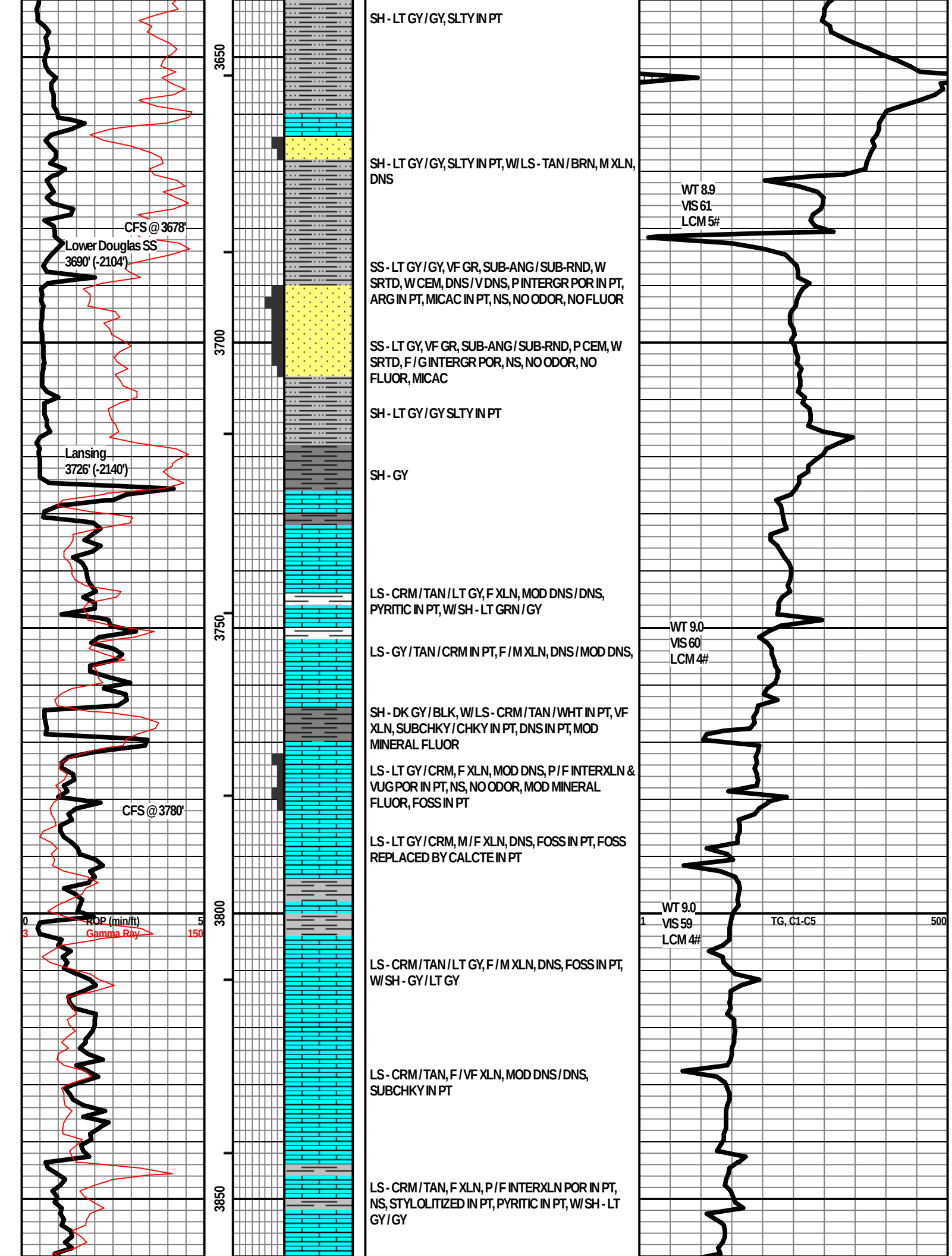

2550
2600
2650
2700
2750
0
ROP (min/ft)
5
3
Gamma Ray
150
Onaga Sh
2612' (-1026')
Indian Cave SS
2622' (-1036')
CFS @ 2627'
Wabaunsee
2660' (-1074')
LS - TAN / GY, F / M XLN, MOD DNS / DNS, FOSS, W,
SH - GY / TAN
SH - GY, W/ LS - DK GY / GY, F XLN, MOD DNS / DNS
LS - CRM / GY IN PT, F / VF XLN, MOD DNS /
SUBCHKY IN PT, FOSS IN PT, PYRITIC IN PT, W/ SH -
GY / DK GY
SS - GY, VF GR, SUB-ANG, P CEM, W SRTD, MICAC,
PRED FRI, F INTERGR POR, NS, NO ODOR, NO
FLUOR, FEW PIECES MOD / W CEM, DNS
SH - GY / SLTY
WT 9.3
VIS 32
LCM 2#
1
TG, C1-C5
500

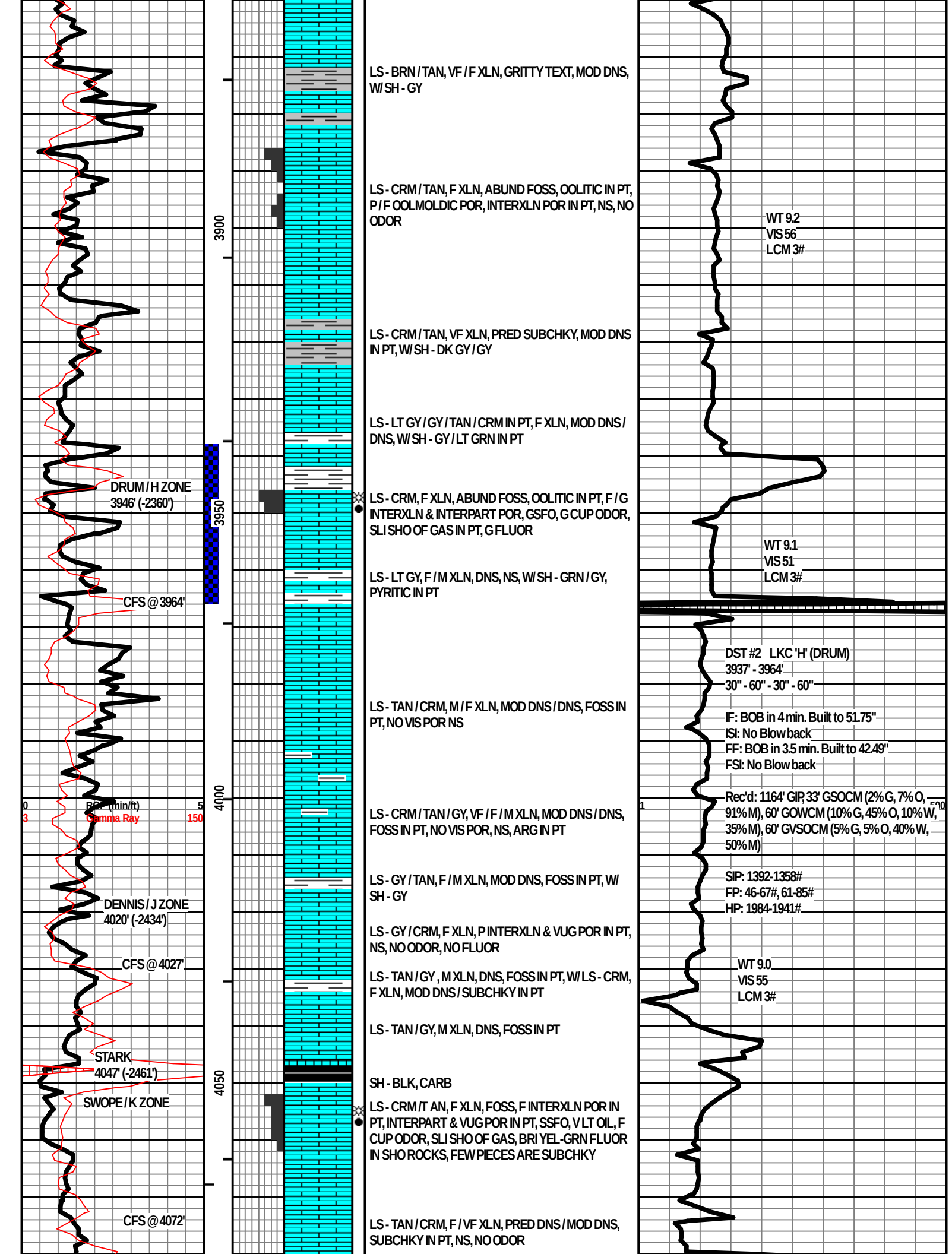

0
ROP (min/ft)
5
3
Gamma Ray
150
2800
2850
2900
2950
WT 9.4
VIS 31
LCM 2#
TG, C1-C5
500

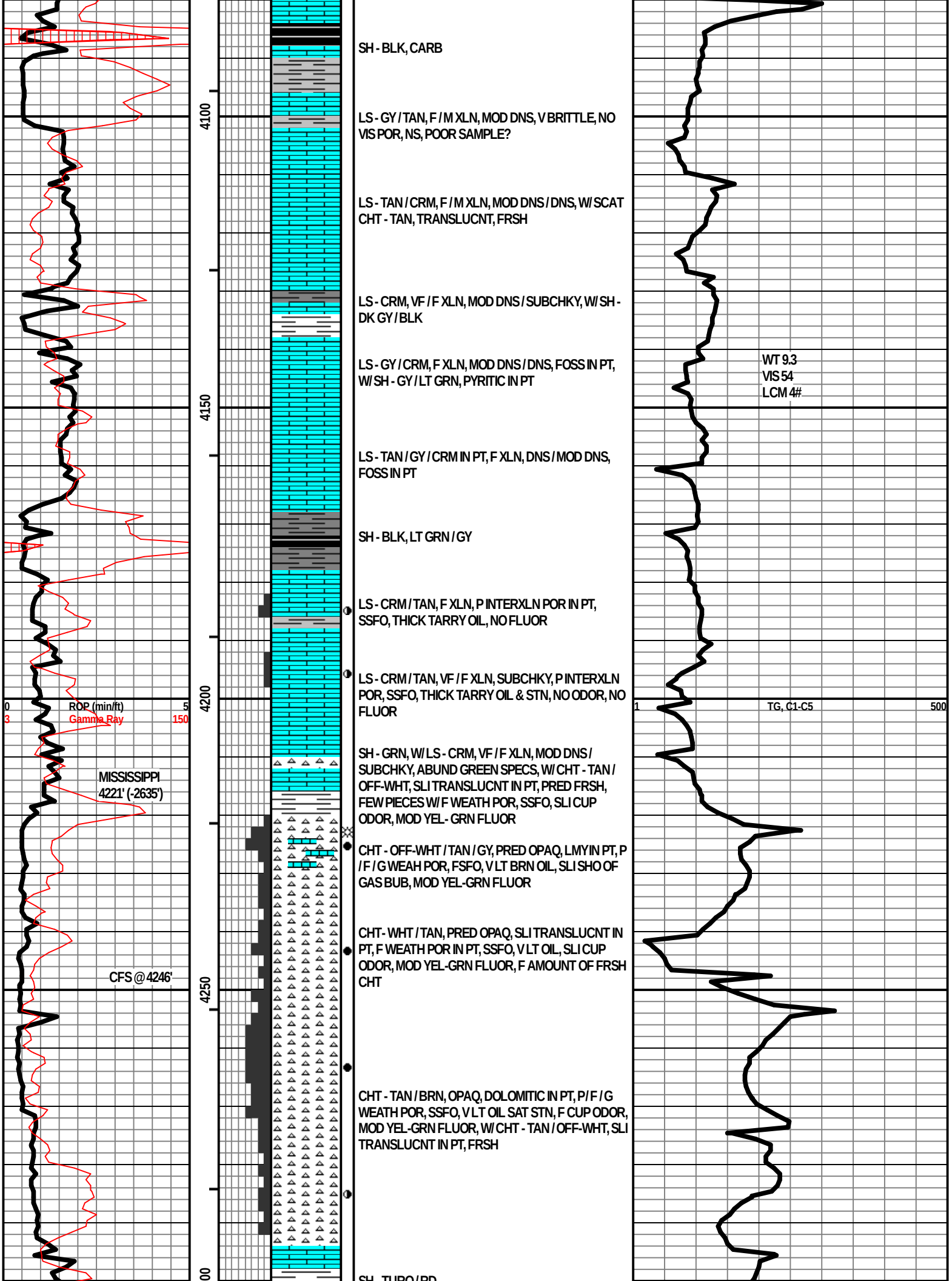

0
ROP (min/ft)
5
3
Gamma Ray
150
3000
3050
3100
3150
TG, C1-C5
500
WT 9.1
VIS 48
LCM 6#
JET #1
FINISH DISPLACING
WT 48
VIS 48
LCM 6#

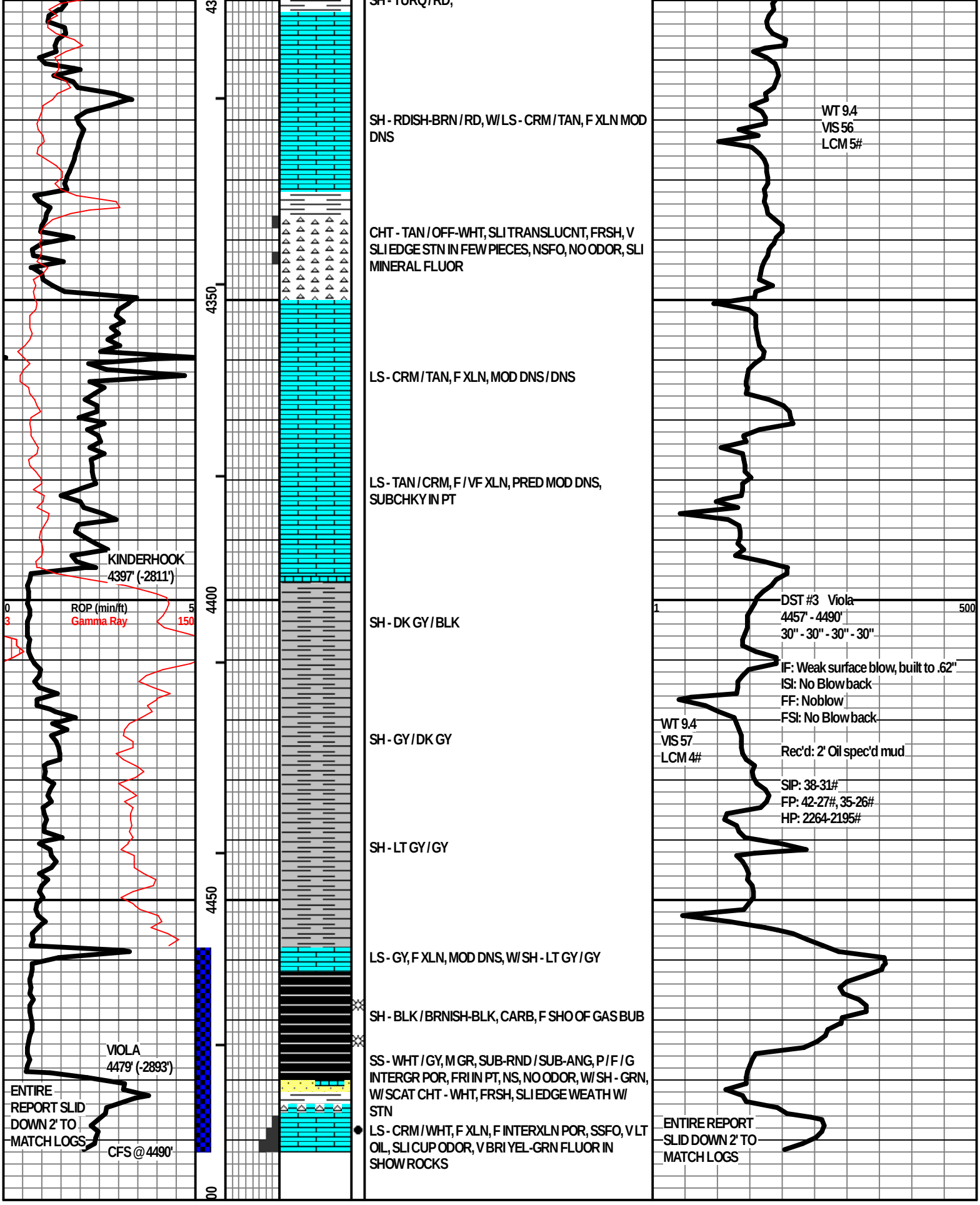

0
3
ROP (min/ft)
Gamma Ray
5
150
3250
3300
3350
3400
Lecompton
3360' (-1774')
CFS @ 3370'
CFS @ 3388'
SH - GY / LT GY
SH - BLK, CARB, W/ SH - GY, W/ LS - DK GY, F XLN, FOSS, ARG
LS - TAN / GY, F XLN, MOD DNS / DNS, W/ SH - LT GY / GY
LS - GY / TAN / CRM IN PT, F XLN, MOD DNS / DNS, FOSS IN PT, PRED CRINOID STEMS, W/ SH - GY
SH - GY, W/ LS - TAN / CRM, F XLN, MOD DNS / DNS, FOSS IN PT
LS - CRM / TAN, F / M / C XLN, P / F INTERXLN POR IN PT, SSFO, V LT BRN OIL, NO ODOR, F MINERAL FLUOR
SH - GY / LT GY
LS - TAN / BRN / CRM, F XLN, P / F INTERXLN POR, G INTERXLN POR IN FEW PIECES, NS, NO ODOR, MOD MINERAL FLUOR
LS - CRM / TAN / GY, F XLN, MOD DNS / DNS, FOSS, NS
LS - TAN, F / M XLN, V DNS / DNS, FOSS, P INTERXLN
1
TG, C1-C5
500
WT 8.4
VIS 41
LCM 6#
WT 8.5
VIS 45
LCM 6#
WT 8.6
VIS 47
LCM 6#
WT 8.9
VIS 48
LCM 2#
0
3
ROP (min/ft)
Gamma Ray
5
150
1
G, C1-C5
500


POR IN FEW PIECES, VSSSFO IN ONE PIECE?
LS - CRM / TAN / WHT, F / VF XLN, PRE MOD DNS, SUBCHKY / CHKY IN PT, FOSS IN PT
SH - GY, W/ LS / TAN / TAN / GY, F / M XLN, MOD DNS / DNS, FOSS IN PT
LS - TAN / GY / CRM, PRED F / M XLN, DNS, SUBCHKY IN PT, FOSS IN PT
LS - CRM / TAN / GY, F XLN, MOD DNS, FOSS IN PT
LS - TAN / CRM, M XLN, DNS / V DNS, FOSS, W/ SCAT
LS - CRM / WHT, SUBCHKY / CHKY
SH - GY / BLK, CARB, SLI SHO OF GAS BUB
SH - LT GRN / GY, W/ LS - TAN / CRM, F XLN, MOD DNS, FOSS
SH - BLK, CARB, SHO OF GAS BUB
LS - CRM / TAN, F XLN, MOD DNS, FOSS IN PT, W/ SH - GRN / GY
SH - LT GY / GY, V SOFT IN PT, W/ LS - CRM / TAN, F XLN, MOD DNS, FOSS IN PT
LS - BRN, F XLN, MOD DNS / DNS, FOSS IN PT, W/ SH - GY SLTY IN PT
SS - GY, VF GR, SUB-ANG / SUB-RND, FRI IN PT, MOD / W CEM IN PT, P / F / G INTERGR POR IN PT, SSFO, V LT BRN OIL DROPLETS, F SHO OF GAS, F ODOR WHEN BRKN, BRI YEL-GRN FLUOR IN SHO ROCKS, MICAC IN PT
SS - LT GY, VF GR, SUB-ANG / SUB-RND, MOD CEM, W SRTD, MICAC, F / G INTERGR POR, NS
3450
3500
3550
3600
HEEBNER
3537 (-1951')
Upper Douglas SS
3591' (-2005')
0
ROP (min/ft)
5
3
Gamma Ray
150
CFS @ 3616'
WT 8.8
VIS 55
LCM 4#
WT 8.9
VIS 55
LCM 4#
DST #1 Upper Douglas SS
3564' - 3616'
30" - 30" - 60" - 30"
IF: BOB in 30 sec.GTS in 19 min.
ISI: 4" Blow back
FF: BOB immed. Guaged gas
FSI: 105" Blow back
Rec'd: 2558' GIP, 868' GW (10% G, 90% W), 124' GMCW (10% G, 42% M, 48% W, 62' GWCM (20% G, 10% W, 70% M)
Gauged gas: 35.80 mcf/d
WT 9.0
VIS 51
LCM 5#
SIP: 1067-1057#
FP: 117-355#, 310-624#
HP: 1753-1697#
1
TG, C1-C5
500
WT 8.6
VIS 62
LCM 5#


3650
3700
3750
3800
3850
CFS @ 3678'
Lower Douglas SS
3690' (-2104')
Lansing
3726' (-2140')
CFS @ 3780'
0
ROP (min/ft)
5
3
Gamma Ray
150
SH - LT GY / GY, SLTY IN PT
SH - LT GY / GY, SLTY IN PT, W/ LS - TAN / BRN, M XLN, DNS
SS - LT GY / GY, VF GR, SUB-ANG / SUB-RND, W SRTD, W CEM, DNS / V DNS, P INTERGR POR IN PT, ARG IN PT, MICAC IN PT, NS, NO ODOR, NO FLUOR
SS - LT GY, VF GR, SUB-ANG / SUB-RND, P CEM, W SRTD, F / G INTERGR POR, NS, NO ODOR, NO FLUOR, MICAC
SH - LT GY / GY SLTY IN PT
SH - GY
LS - CRM / TAN / LT GY, F XLN, MOD DNS / DNS, PYRITIC IN PT, W/ SH - LT GRN / GY
LS - GY / TAN / CRM IN PT, F / M XLN, DNS / MOD DNS,
SH - DK GY / BLK, W/ LS - CRM / TAN / WHT IN PT, VF XLN, SUBCHKY / CHKY IN PT, DNS IN PT, MOD MINERAL FLUOR
LS - LT GY / CRM, F XLN, MOD DNS, P / F INTERXLN & VUG POR IN PT, NS, NO ODOR, MOD MINERAL FLUOR, FOSS IN PT
LS - LT GY / CRM, M / F XLN, DNS, FOSS IN PT, FOSS REPLACED BY CALCTE IN PT
LS - CRM / TAN / LT GY, F / M XLN, DNS, FOSS IN PT, W/ SH - GY / LT GY
LS - CRM / TAN, F / VF XLN, MOD DNS / DNS, SUBCHKY IN PT
LS - CRM / TAN, F XLN, P / F INTERXLN POR IN PT, NS, STYLOLITIZED IN PT, PYRITIC IN PT, W/ SH - LT GY / GY
WT 8.9
VIS 61
LCM 5#
WT 9.0
VIS 60
LCM 4#
WT 9.0
VIS 59
LCM 4#
1
TG, C1-C5
500


LS - BRN / TAN, VF / F XLN, GRITTY TEXT, MOD DNS, W/ SH - GY
LS - CRM / TAN, F XLN, ABUND FOSS, OOLITIC IN PT, P / F OOLMOLDIC POR, INTERXLN POR IN PT, NS, NO ODOR
LS - CRM / TAN, VF XLN, PRED SUBCHKY, MOD DNS IN PT, W/ SH - DK GY / GY
LS - LT GY / GY / TAN / CRM IN PT, F XLN, MOD DNS / DNS, W/ SH - GY / LT GRN IN PT
LS - CRM, F XLN, ABUND FOSS, OOLITIC IN PT, F / G INTERXLN & INTERPART POR, GSFO, G CUP ODOR, SLI SHO OF GAS IN PT, G FLUOR
LS - LT GY, F / M XLN, DNS, NS, W/ SH - GRN / GY, PYRITIC IN PT
LS - TAN / CRM, M / F XLN, MOD DNS / DNS, FOSS IN PT, NO VIS POR NS
LS - CRM / TAN / GY, VF / F / M XLN, MOD DNS / DNS, FOSS IN PT, NO VIS POR, NS, ARG IN PT
LS - GY / TAN, F / M XLN, MOD DNS, FOSS IN PT, W/ SH - GY
LS - GY / CRM, F XLN, P INTERXLN & VUG POR IN PT, NS, NO ODOR, NO FLUOR
LS - TAN / GY , M XLN, DNS, FOSS IN PT, W/ LS - CRM, F XLN, MOD DNS / SUBCHKY IN PT
LS - TAN / GY, M XLN, DNS, FOSS IN PT
SH - BLK, CARB
LS - CRM /T AN, F XLN, FOSS, F INTERXLN POR IN PT, INTERPART & VUG POR IN PT, SSFO, V LT OIL, F CUP ODOR, SLI SHO OF GAS, BRI YEL-GRN FLUOR IN SHO ROCKS, FEW PIECES ARE SUBCHKY
LS - TAN / CRM, F / VF XLN, PRED DNS / MOD DNS, SUBCHKY IN PT, NS, NO ODOR
3900
3950
4000
4050
DRUM / H ZONE
3946' (-2360')
CFS @ 3964'
DENNIS / J ZONE
4020' (-2434')
CFS @ 4027'
STARK
4047' (-2461')
SWOPE / K ZONE
CFS @ 4072'
0
3
ROP (min/ft)
Gamma Ray
5
150
WT 9.2
VIS 56
LCM 3#
WT 9.1
VIS 51
LCM 3#
DST #2 LKC 'H' (DRUM)
3937' - 3964'
30" - 60" - 30" - 60"
IF: BOB in 4 min. Built to 51.75"
ISI: No Blow back
FF: BOB in 3.5 min. Built to 42.49"
FSI: No Blow back
Rec'd: 1164' GIP, 33' GSOCM (2% G, 7% O, 91% M), 60' GOWCM (10% G, 45% O, 10% W, 35% M), 60' GVSOCM (5% G, 5% O, 40% W, 50% M)
SIP: 1392-1358#
FP: 46-67#, 61-85#
HP: 1984-1941#
WT 9.0
VIS 55
LCM 3#
1
500


SH - BLK, CARB
LS - GY / TAN, F / M XLN, MOD DNS, V BRITTLE, NO VIS POR, NS, POOR SAMPLE?
LS - TAN / CRM, F / M XLN, MOD DNS / DNS, W/ SCAT CHT - TAN, TRANSLUCNT, FRSH
LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, W/ SH - DK GY / BLK
LS - GY / CRM, F XLN, MOD DNS / DNS, FOSS IN PT, W/ SH - GY / LT GRN, PYRITIC IN PT
LS - TAN / GY / CRM IN PT, F XLN, DNS / MOD DNS, FOSS IN PT
SH - BLK, LT GRN / GY
LS - CRM / TAN, F XLN, P INTERXLN POR IN PT, SSFO, THICK TARRY OIL, NO FLUOR
LS - CRM / TAN, VF / F XLN, SUBCHKY, P INTERXLN POR, SSFO, THICK TARRY OIL & STN, NO ODOR, NO FLUOR
SH - GRN, W/ LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, ABUND GREEN SPECS, W/ CHT - TAN / OFF-WHT, SLI TRANSLUCNT IN PT, PRED FRSH, FEW PIECES W/ F WEATH POR, SSFO, SLI CUP ODOR, MOD YEL- GRN FLUOR
CHT - OFF-WHT / TAN / GY, PRED OPAQ, LMY IN PT, P / F / G WEAH POR, FSFO, V LT BRN OIL, SLI SHO OF GAS BUB, MOD YEL-GRN FLUOR
CHT- WHT / TAN, PRED OPAQ, SLI TRANSLUCNT IN PT, F WEATH POR IN PT, SSFO, V LT OIL, SLI CUP ODOR, MOD YEL-GRN FLUOR, F AMOUNT OF FRSH CHT
CHT - TAN / BRN, OPAQ, DOLOMITIC IN PT, P/ F / G WEATH POR, SSFO, V LT OIL SAT STN, F CUP ODOR, MOD YEL-GRN FLUOR, W/ CHT - TAN / OFF-WHT, SLI TRANSLUCNT IN PT, FRSH
SH - TURO / RD
4100
4150
4200
4250
0
ROP (min/ft)
5
3
Gamma Ray
150
MISSISSIPPI
4221' (-2635')
CFS @ 4246'
WT 9.3
VIS 54
LCM 4#
1
TG, C1-C5
500


SH - TURQ / RD,
SH - RDISH-BRN / RD, W/ LS - CRM / TAN, F XLN MOD DNS
CHT - TAN / OFF-WHT, SLI TRANSLUCNT, FRSH, V SLI EDGE STN IN FEW PIECES, NSFO, NO ODOR, SLI MINERAL FLUOR
LS - CRM / TAN, F XLN, MOD DNS / DNS
LS - TAN / CRM, F / VF XLN, PRED MOD DNS, SUBCHKY IN PT
SH - DK GY / BLK
SH - GY / DK GY
SH - LT GY / GY
LS - GY, F XLN, MOD DNS, W/ SH - LT GY / GY
SH - BLK / BRNISH-BLK, CARB, F SHO OF GAS BUB
SS - WHT / GY, M GR, SUB-RND / SUB-ANG, P / F / G INTERGR POR, FRI IN PT, NS, NO ODOR, W/ SH - GRN, W/ SCAT CHT - WHT, FRSH, SLI EDGE WEATH W/ STN
LS - CRM / WHT, F XLN, F INTERXLN POR, SSFO, V LT OIL, SLI CUP ODOR, V BRI YEL-GRN FLUOR IN SHOW ROCKS
KINDERHOOK
4397' (-2811')
VIOLA
4479' (-2893')
ENTIRE REPORT SLID DOWN 2' TO MATCH LOGS
CFS @ 4490'
ROP (min/ft)
Gamma Ray
0
3
5
150
4350
4400
4450
WT 9.4
VIS 56
LCM 5#
WT 9.4
VIS 57
LCM 4#
DST #3 Viola
4457' - 4490'
30" - 30" - 30" - 30"
IF: Weak surface blow, built to .62"
ISI: No Blow back
FF: Noblow
FSI: No Blow back
Rec'd: 2' Oil spec'd mud
SIP: 38-31#
FP: 42-27#, 35-26#
HP: 2264-2195#
1
500
ENTIRE REPORT SLID DOWN 2' TO MATCH LOGS

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Lynn Packard**

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

Packard #3-27

27-31S-13W Barber,KS

Start Date: 2022.12.09 @ 11:18:00
End Date: 2022.12.09 @ 19:14:02
Job Ticket #: 69277 DST #: 1

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

Printed: 2022.12.16 @ 09:38:03

DRILL STEM TEST REPORT

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 69277 **DST#: 1**

Test Start: 2022.12.09 @ 11:18:00

GENERAL INFORMATION:

Formation: **Upper Douglas Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:41:32
Time Test Ended: 19:14:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 72

Interval: 3564.00 ft (KB) To 3616.00 ft (KB) (TVD)
Total Depth: 3616.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

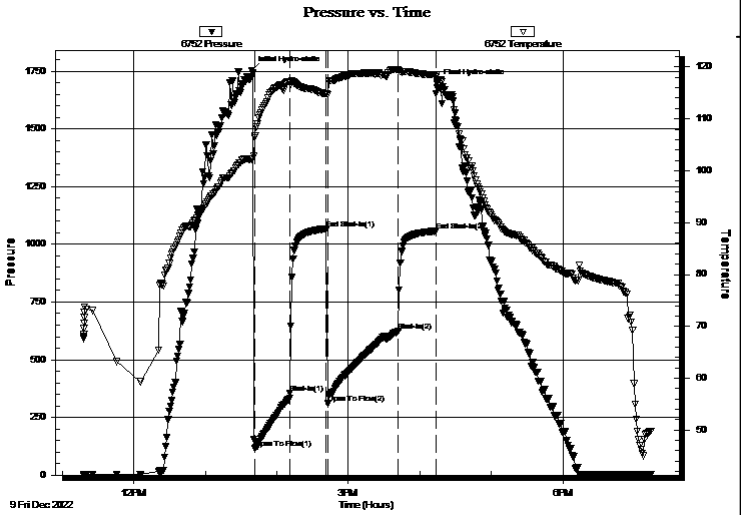
Reference Elevations: 1586.00 ft (KB)
1578.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6752 **Inside**

Press@RunDepth: 624.40 psig @ 3608.00 ft (KB)
Start Date: 2022.12.09 End Date: 2022.12.09
Start Time: 11:18:01 End Time: 19:14:02

Capacity: psig
Last Calib.: 2022.12.09
Time On Btm: 2022.12.09 @ 13:39:17
Time Off Btm: 2022.12.09 @ 16:14:17

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, GTS in 19 minutes, Gauged & Sampled
ISI: 4" Blow Back
FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
FSI: 105" Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1753.24	102.23	Initial Hydro-static
3	116.60	106.35	Open To Flow (1)
32	354.53	117.23	Shut-In(1)
63	1066.88	114.90	End Shut-In(1)
64	309.66	114.64	Open To Flow (2)
123	624.40	119.52	Shut-In(2)
154	1057.40	118.45	End Shut-In(2)
155	1696.51	117.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2558' GIP	0.00
868.00	Gsy Water 10%G 90%M	11.09
124.00	GMCW 10%G 42%M 48%W	1.74
62.00	GWCM 20%G 10%W 70%M	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	11.23	37.76
Last Gas Rate	0.25	9.90	35.80
Max. Gas Rate	0.25	13.74	41.45

DRILL STEM TEST REPORT

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 69277 **DST#: 1**

Test Start: 2022.12.09 @ 11:18:00

GENERAL INFORMATION:

Formation: **Upper Douglas Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:41:32
Time Test Ended: 19:14:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 72

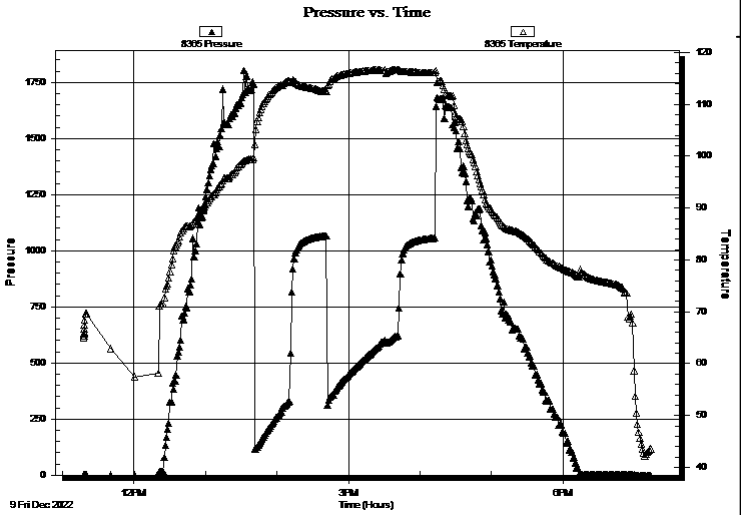
Interval: 3564.00 ft (KB) To 3616.00 ft (KB) (TVD)
Total Depth: 3616.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1586.00 ft (KB)
1578.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8365 **Outside**
Press@RunDepth: psig @ 3608.00 ft (KB)
Start Date: 2022.12.09 End Date: 2022.12.09
Start Time: 11:18:01 End Time: 19:14:02

Capacity: psig
Last Calib.: 2022.12.09
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, GTS in 19 minutes, Gauged & Sampled
ISI: 4" Blow Back
FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
FSI: 105" Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2558' GIP	0.00
868.00	Gsy Water 10%G 90%M	11.09
124.00	GMCW 10%G 42%M 48%W	1.74
62.00	GWCM 20%G 10%W 70%M	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	11.23	37.76
Last Gas Rate	0.25	9.90	35.80
Max. Gas Rate	0.25	13.74	41.45

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 69277 **DST#: 1**

Test Start: 2022.12.09 @ 11:18:00

Tool Information

Drill Pipe:	Length:	3439.00 ft	Diameter:	3.80 inches	Volume:	48.24 bbl	Tool Weight:		2100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	119.00 ft	Diameter:	2.25 inches	Volume:	0.59 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	48.83 bbl	Tool Chased		ft
Drill Pipe Above KB:		23.00 ft					String Weight:	Initial	68000.00 lb
Depth to Top Packer:		3564.00 ft						Final	72000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		52.00 ft							
Tool Length:		81.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3540.00		
Hydraulic tool	5.00			3545.00		
Jars	5.00			3550.00		
EM Tool	3.00			3553.00		
Safety Joint	2.00			3555.00		
Packer	5.00			3560.00	29.00	Bottom Of Top Packer
Packer	4.00			3564.00		
Stubb	1.00			3565.00		
Perforations	4.00			3569.00		
Change Over Sub	1.00			3570.00		
Drill Pipe	32.00			3602.00		
Change Over Sub	1.00			3603.00		
Handling Sub	5.00			3608.00		
Recorder	0.00	6752	Inside	3608.00		
Recorder	0.00	8365	Outside	3608.00		
perforations	5.00			3613.00		
Bullnose	3.00			3616.00	52.00	Bottom Packers & Anchor
Total Tool Length:	**81.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 69277 **DST#: 1**

Test Start: 2022.12.09 @ 11:18:00

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:	76000 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2558' GIP	0.000
868.00	Gsy Water 10%G 90%M	11.092
124.00	GMCW 10%G 42%M 48%W	1.739
62.00	GWCM 20%G 10%W 70%M	0.870

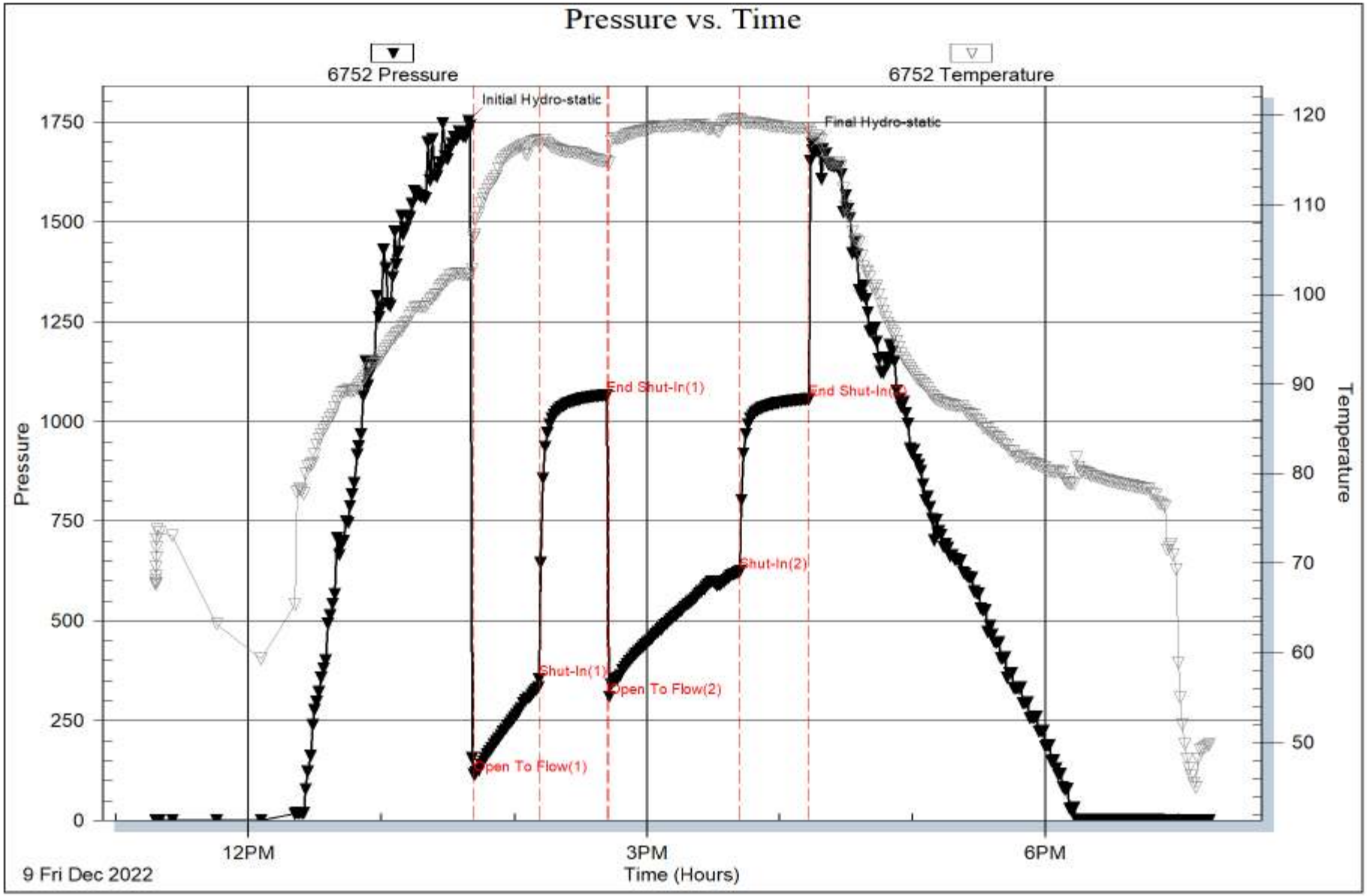
Total Length: 1054.00 ft Total Volume: 13.701 bbl

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

Laboratory Name: Laboratory Location:

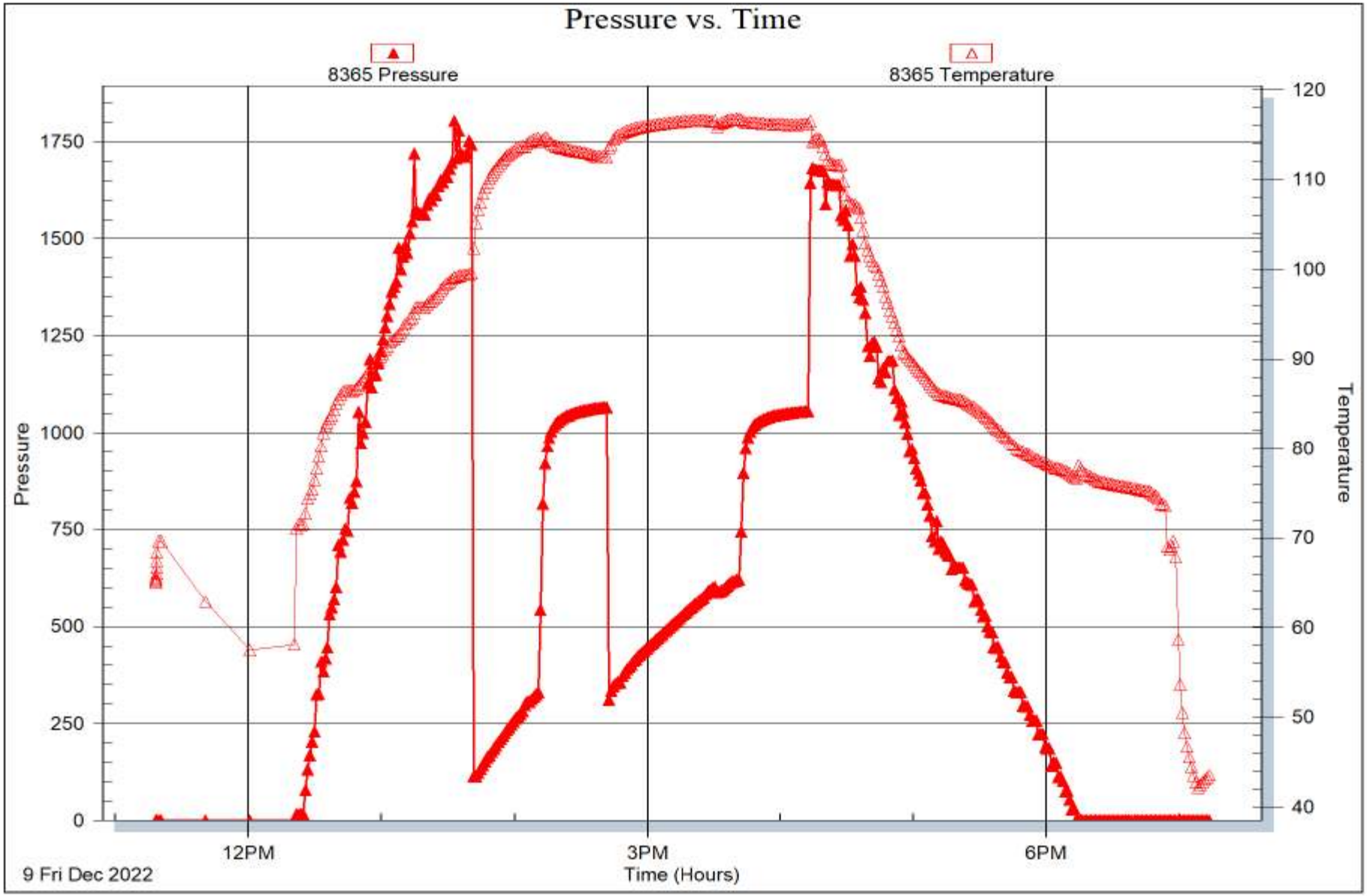
Recovery Comments: RW was .095 @ 72 degrees

Serial #: 6752 **Inside** Lynn Packard Packard #3-27 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69277 Printed: 2022.12.16 @ 09:38:03

Serial #: 8365 **Outside** Lynn Packard Packard #3-27 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69277 Printed: 2022.12.16 @ 09:38:04

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Lynn Packard**

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

Packard #3-27

27-31S-13W Barber,KS

Start Date: 2022.12.10 @ 13:00:02

End Date: 2022.12.10 @ 21:44:32

Job Ticket #: DST #: 2

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

Printed: 2022.12.16 @ 09:37:31

DRILL STEM TEST REPORT

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: **DST#: 2**

Test Start: 2022.12.10 @ 13:00:02

GENERAL INFORMATION:

Formation: **LKC H (Drum)**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:03:32
Time Test Ended: 21:44:32

Test Type: Conventional Bottom Hole (Reset)
Tester: Matt Smith
Unit No: 68

Interval: 3937.00 ft (KB) To 3964.00 ft (KB) (TVD)
Total Depth: 3964.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

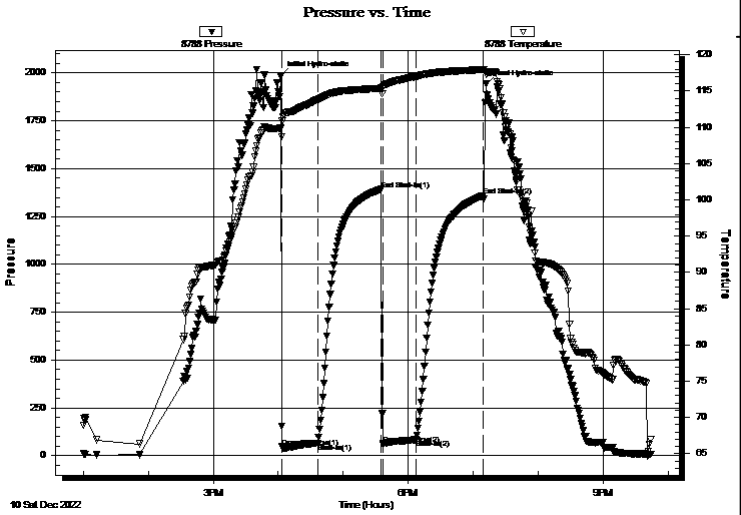
Reference Elevations: 1586.00 ft (KB)
1578.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8788 **Inside**

Press@RunDepth: 84.73 psig @ 3943.00 ft (KB)
Start Date: 2022.12.10 End Date: 2022.12.10
Start Time: 13:00:07 End Time: 21:44:32

Capacity: 8000.00 psig
Last Calib.: 2022.12.10
Time On Btm: 2022.12.10 @ 16:02:02
Time Off Btm: 2022.12.10 @ 19:12:02

TEST COMMENT: IF: Strong Blow . B.O.B. in 4 mins. Built to 51.75". (30)
ISI: No Blow . (60)
FF: Strong Blow . B.O.B. in 3 1/2 mins. Built to 42.49". (30)
FSI: No Blow . (60)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1983.64	109.87	Initial Hydro-static
2	46.38	110.84	Open To Flow (1)
34	66.79	113.77	Shut-In(1)
93	1391.53	115.39	End Shut-In(1)
95	61.00	115.44	Open To Flow (2)
126	84.73	116.99	Shut-In(2)
188	1358.07	117.97	End Shut-In(2)
190	1941.05	117.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GVSOWCM 5%g 5%o 40%w 50%m	0.30
60.00	GOWCM 10%g 45%o 10%w 35%m	0.30
33.00	GHSOCM 2%g 7%o 91%m	0.46
0.00	1164' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: **DST#: 2**

Test Start: 2022.12.10 @ 13:00:02

GENERAL INFORMATION:

Formation: **LKC H (Drum)**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:03:32
Time Test Ended: 21:44:32

Test Type: Conventional Bottom Hole (Reset)
Tester: Matt Smith
Unit No: 68

Interval: 3937.00 ft (KB) To 3964.00 ft (KB) (TVD)
Total Depth: 3964.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

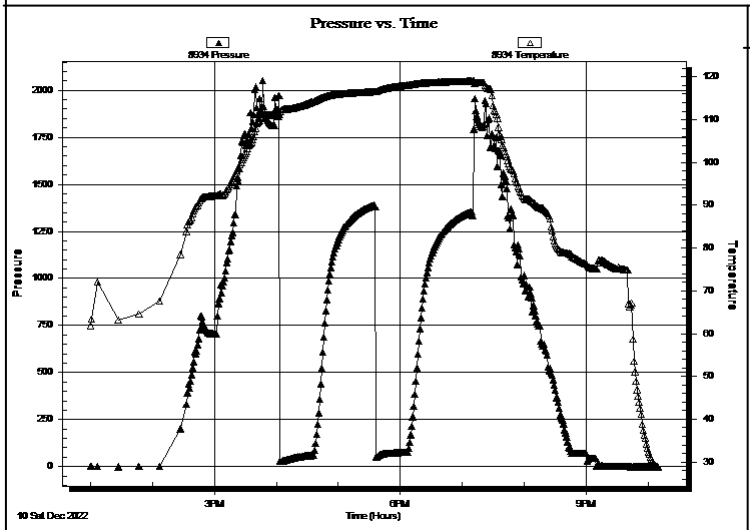
Reference Elevations: 1586.00 ft (KB)
1578.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8934 **Outside**

Press@RunDepth: psig @ 3943.00 ft (KB)
Start Date: 2022.12.10 End Date: 2022.12.10
Start Time: 13:00:23 End Time: 22:09:08

Capacity: 8000.00 psig
Last Calib.: 2022.12.10
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow . B.O.B. in 4 mins. Built to 51.75". (30)
ISI: No Blow . (60)
FF: Strong Blow . B.O.B. in 3 1/2 mins. Built to 42.49". (30)
FSI: No Blow . (60)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GVSOWCM 5%g 5%o 40%w 50%m	0.30
60.00	GOWCM 10%g 45%o 10%w 35%m	0.30
33.00	GHSOCM 2%g 7%o 91%m	0.46
0.00	1164' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: **DST#: 2**

Test Start: 2022.12.10 @ 13:00:02

Tool Information

Drill Pipe:	Length:	3818.00 ft	Diameter:	3.80 inches	Volume:	53.56 bbl	Tool Weight:		2100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		24000.00 lb
Drill Collar:	Length:	119.00 ft	Diameter:	2.25 inches	Volume:	0.59 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	54.15 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		30.00 ft					String Weight:	Initial	69000.00 lb
Depth to Top Packer:		3937.00 ft						Final	70000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		27.00 ft							
Tool Length:		57.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3912.00		
Hydraulic tool	5.00			3917.00		
Jars	5.00			3922.00		
EM Tool	3.00			3925.00		
Safety Joint	3.00			3928.00		
Packer	5.00			3933.00	30.00	Bottom Of Top Packer
Packer	4.00			3937.00		
Stubb	1.00			3938.00		
Handling Sub	5.00			3943.00		
Recorder	0.00	8788	Inside	3943.00		
Recorder	0.00	8934	Outside	3943.00		
perforations	18.00			3961.00		
Bullnose	3.00			3964.00	27.00	Bottom Packers & Anchor
Total Tool Length:	**57.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: **DST#: 2**

Test Start: 2022.12.10 @ 13:00:02

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:	105000 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	9500.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GVSOWCM 5%g 5%o 40%w 50%m	0.295
60.00	GOWCM 10%g 45%o 10%w 35%m	0.304
33.00	GHSOCM 2%g 7%o 91%m	0.463
0.00	1164' GIP 100%g	0.000

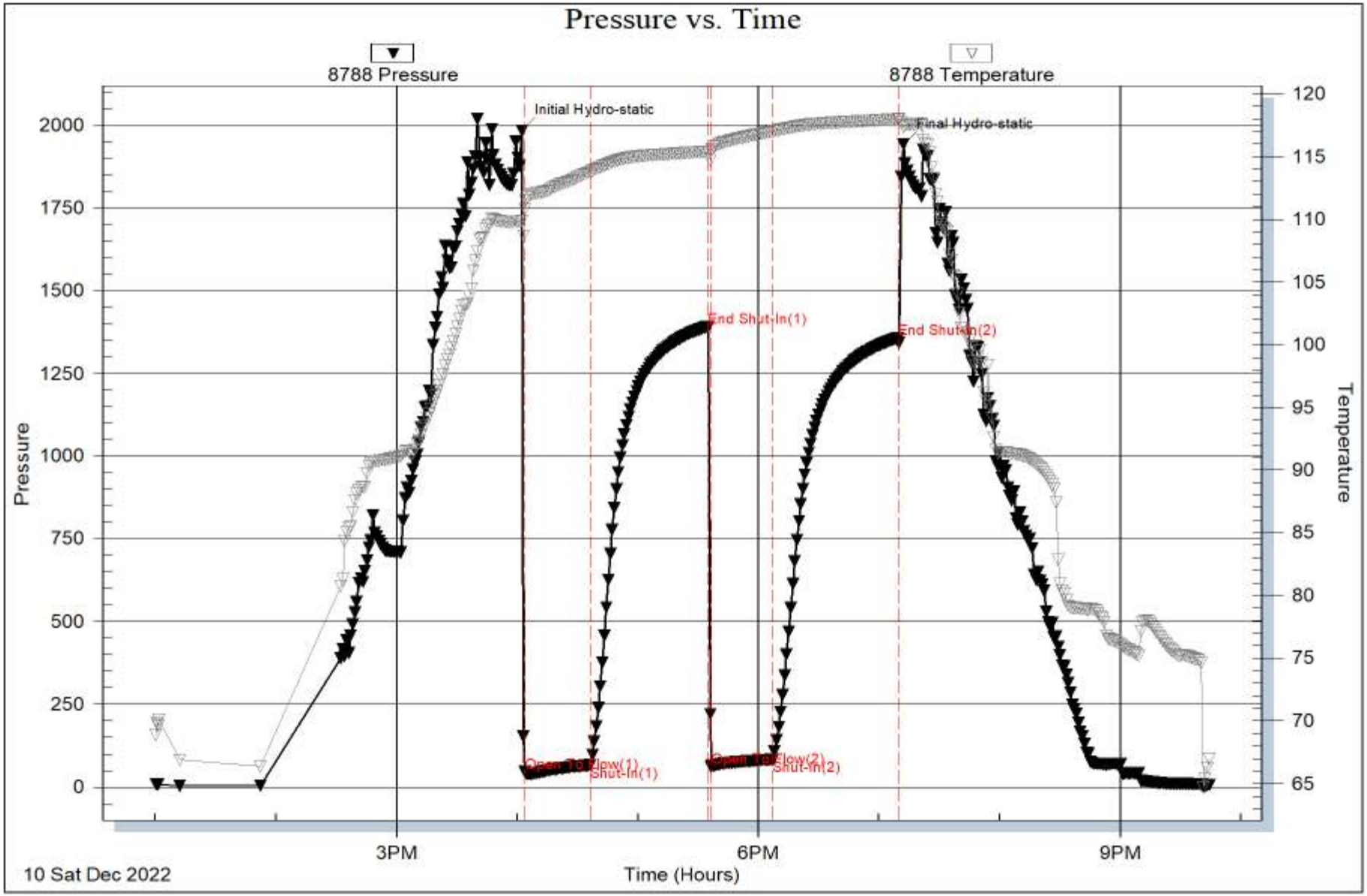
Total Length: 153.00 ft Total Volume: 1.062 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: None

Laboratory Name: Laboratory Location:

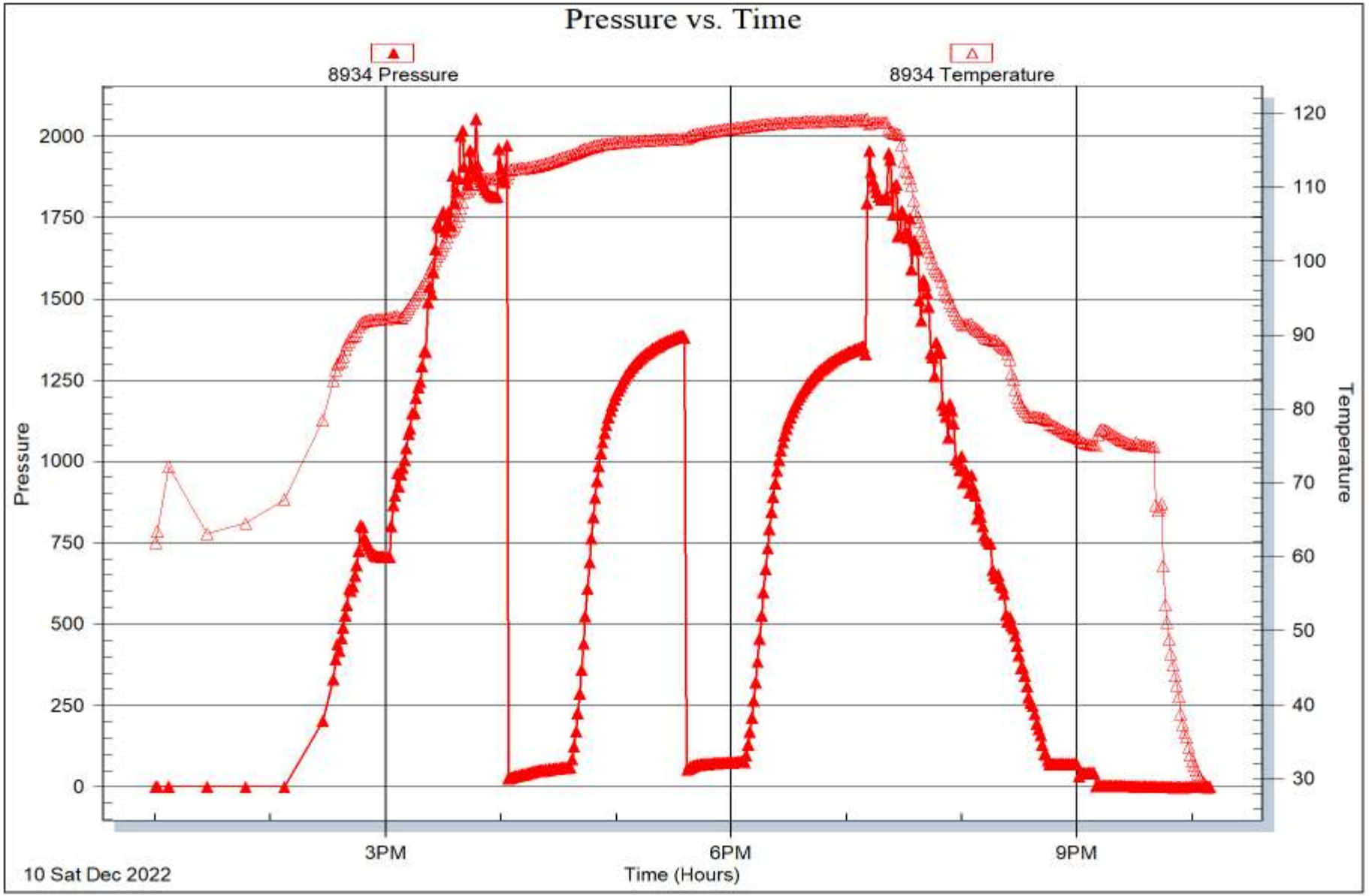
Recovery Comments: RW is .16 @ 34 Degrees = 105,000 Chlorides.
1,164 Feet of Gas in Pipe.

Serial #: 8788 **Inside** Lynn Packard Packard #3-27 DST Test Number: 2



Trilobite Testing, Inc Ref. No: Printed: 2022.12.16 @ 09:37:31

Serial #: 8934 **Outside** Lynn Packard Packard #3-27 DST Test Number: 2



Trilobite Testing, Inc Ref. No: Printed: 2022.12.16 @ 09:37:32

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Lynn Packard**

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

Packard #3-27

27-31S-13W Barber,KS

Start Date: 2022.12.12 @ 02:39:16
End Date: 2022.12.12 @ 09:39:31
Job Ticket #: 68483 DST #: 3

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

Printed: 2022.12.16 @ 09:36:57

DRILL STEM TEST REPORT

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 68483 **DST#: 3**

Test Start: 2022.12.12 @ 02:39:16

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:13:31
Time Test Ended: 09:39:31

Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 72

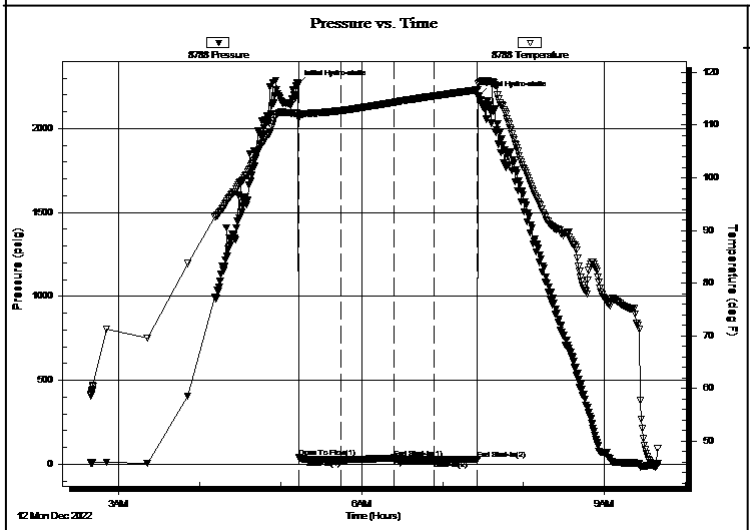
Interval: 4457.00 ft (KB) To 4490.00 ft (KB) (TVD)
Total Depth: 4490.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1586.00 ft (KB)
1578.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8788 **Inside**
Press@RunDepth: 26.04 psig @ 4463.00 ft (KB)
Start Date: 2022.12.12 End Date: 2022.12.12
Start Time: 02:39:21 End Time: 09:39:30

Capacity: 8000.00 psig
Last Calib.: 2022.12.12
Time On Btm: 2022.12.12 @ 05:13:01
Time Off Btm: 2022.12.12 @ 07:27:16

TEST COMMENT: IF: Weak Surface to .62" . (30)
ISI: No Blow . (30)
FF: No Blow . (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2264.39	111.60	Initial Hydro-static
1	41.66	111.29	Open To Flow (1)
32	27.30	112.74	Shut-In(1)
71	37.81	114.31	End Shut-In(1)
72	34.77	114.32	Open To Flow (2)
101	26.04	115.53	Shut-In(2)
133	31.33	116.69	End Shut-In(2)
135	2194.72	118.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	O spec M 100%m	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 68483 **DST#: 3**

Test Start: 2022.12.12 @ 02:39:16

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:13:31
Time Test Ended: 09:39:31

Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 72

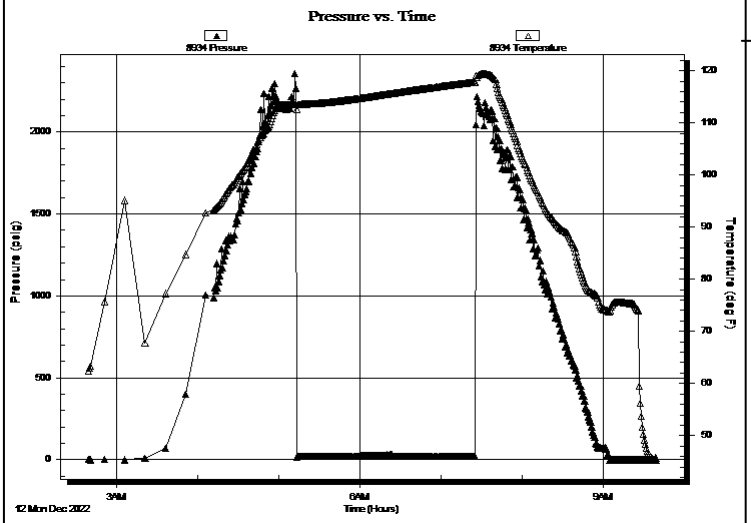
Interval: 4457.00 ft (KB) To 4490.00 ft (KB) (TVD)
Total Depth: 4490.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1586.00 ft (KB)
1578.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8934 **Outside**
Press@RunDepth: psig @ 4463.00 ft (KB)
Start Date: 2022.12.12 End Date: 2022.12.12
Start Time: 02:39:18 End Time: 09:39:03

Capacity: 8000.00 psig
Last Calib.: 2022.12.12
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Surface to .62" . (30)
ISI: No Blow . (30)
FF: No Blow . (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	O spec M 100%m	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 68483 **DST#: 3**

Test Start: 2022.12.12 @ 02:39:16

Tool Information

Drill Pipe:	Length:	4324.00 ft	Diameter:	3.80 inches	Volume:	60.65 bbl	Tool Weight:		2100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		24000.00 lb
Drill Collar:	Length:	119.00 ft	Diameter:	2.25 inches	Volume:	0.59 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	61.24 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		16.00 ft					String Weight:	Initial	76000.00 lb
Depth to Top Packer:		4457.00 ft						Final	76000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		33.00 ft							
Tool Length:		63.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			4432.00		
Hydraulic tool	5.00			4437.00		
Jars	5.00			4442.00		
EM Tool	3.00			4445.00		
Safety Joint	3.00			4448.00		
Packer	5.00			4453.00	30.00	Bottom Of Top Packer
Packer	4.00			4457.00		
Stubb	1.00			4458.00		
Handeling Sub	5.00			4463.00		
Recorder	0.00	8788	Inside	4463.00		
Recorder	0.00	8934	Outside	4463.00		
perforations	24.00			4487.00		
Bullnose	3.00			4490.00	33.00	Bottom Packers & Anchor
Total Tool Length:	**63.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Lynn Packard

8113 NW River Rd
Medicine Lodge, KS 67104

ATTN: Aaron Young

27-31S-13W Barber,KS

Packard #3-27

Job Ticket: 68483 **DST#: 3**

Test Start: 2022.12.12 @ 02:39:16

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:	8000 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8000.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	O spec M 100%m	0.010

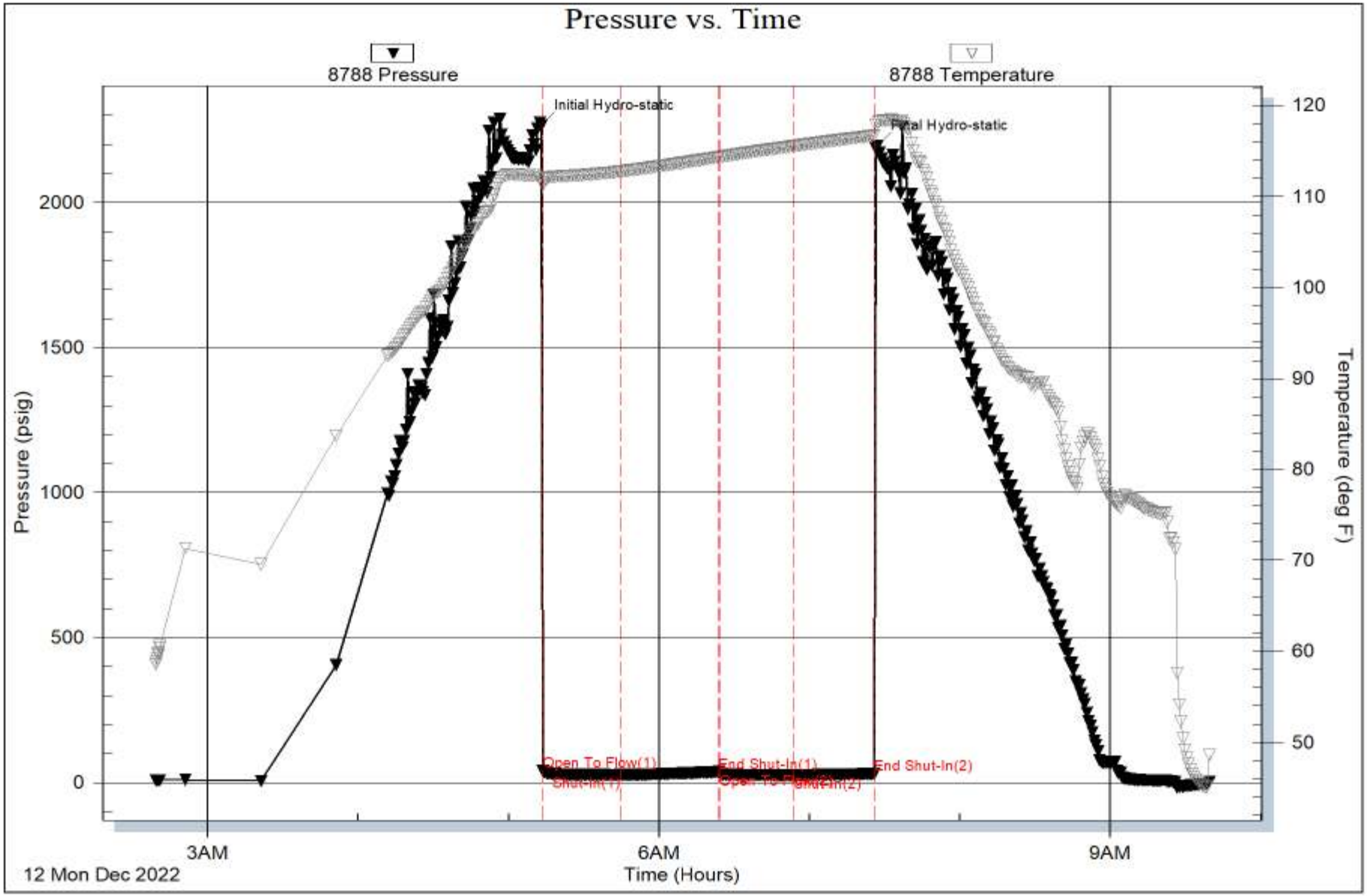
Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: None

Laboratory Name: Laboratory Location:

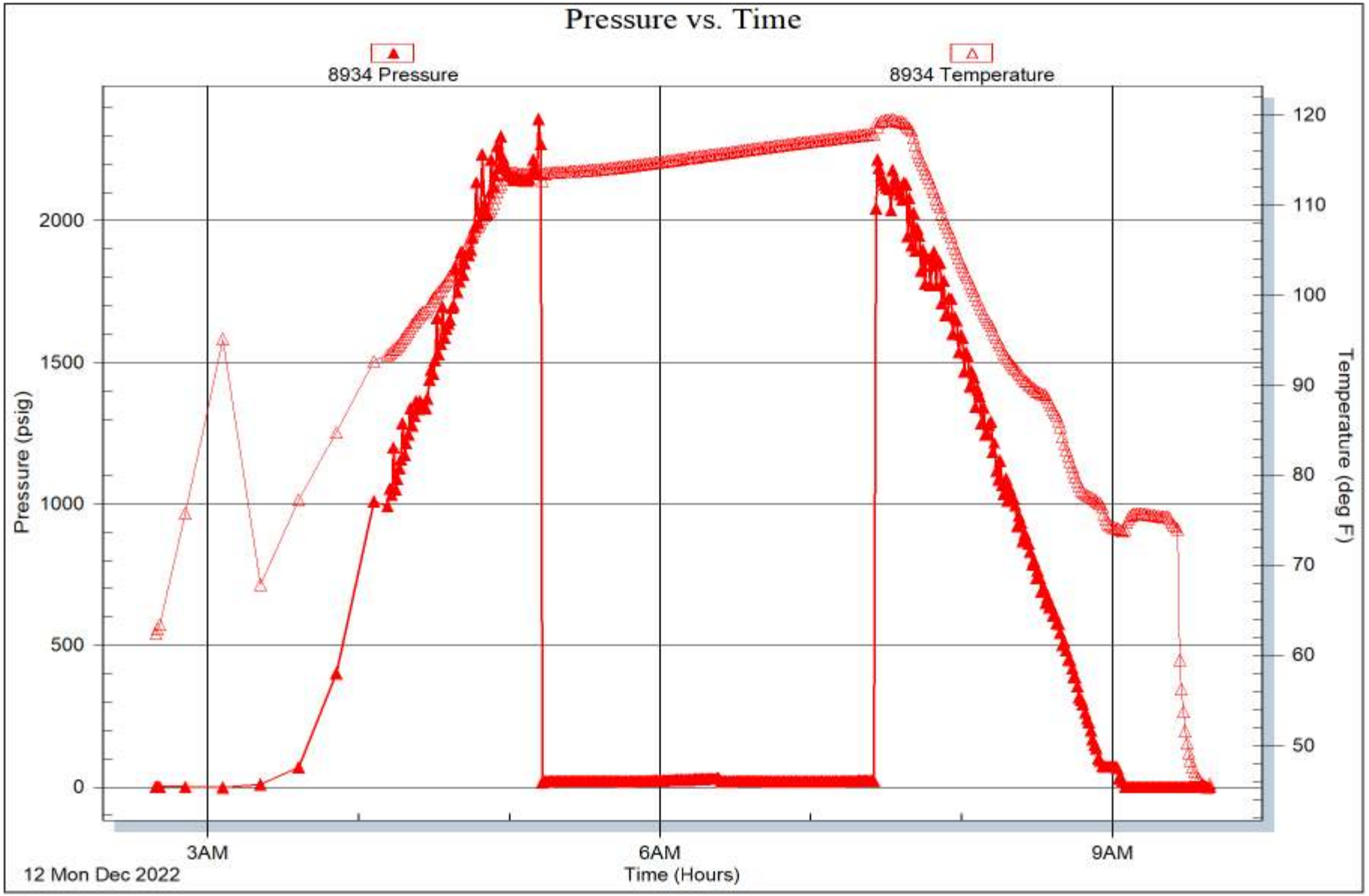
Recovery Comments:

Serial #: 8788 **Inside** Lynn Packard Packard #3-27 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 68483 Printed: 2022.12.16 @ 09:36:58

Serial #: 8934 **Outside** Lynn Packard Packard #3-27 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 68483 Printed: 2022.12.16 @ 09:36:58

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 69277

Well Name & No. Packard 3-27 Test No. 1 Date 12/09/22

Company Lynn Packard Elevation 1586 KB 1578 GL

Address 8113 NW River Rd Medicine Lodge, KS 67104

Co. Rep / Geo. Aaron Young Rig Fossil 5

Location: Sec. 27 Twp 31S Rge. 13W Co. Barber State KS

Interval Tested 3564 - 3616 Zone Tested upper Douglas sand

Anchor Length 52 Drill Pipe Run 3439 Mud Wt. 9.1

Top Packer Depth 3559 Drill Collars Run 119 Vis 56

Bottom Packer Depth 3564 Wt. Pipe Run 0 WL 8.2

Total Depth 3616 Chlorides 4000 ppm System LCM 2½

Blow Description IF: Strong Blow, BOB in 30seconds, GTS in 19 minutes, Gauged & sampled

ISI: 4" Blow Back

FF: Strong Blow, BOB & GTS Immediate, Gauged Gas

FSI: 105" Blow Back

Rec 2558	Feet of GIP	%gas	%oil	%water	%mud
Rec 62	Feet of GWCM	20 %gas	%oil	10 %water	70 %mud
Rec 124	Feet of GMCW	10 %gas	%oil	48 %water	42 %mud
Rec 868	Feet of GSY Water	10 %gas	%oil	90 %water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1054 BHT 119 Gravity N/C API RW .095 @ 72 °F Chlorides 76000 ppm

(A) Initial Hydrostatic	1753	☑ Test	1800	T-On Location	10:00
(B) First Initial Flow	117	☑ Jars	300	T-Started	11:18
(C) First Final Flow	355	☐ Safety Joint		T-Open	13:41
(D) Initial Shut-In	1069	☐ Circ Sub		T-Pulled	16:13
(E) Second Initial Flow	310	☐ Hourly Standby		T-Out	19:14
(F) Second Final Flow	624	☑ Mileage (90)	157.50	Comments	
(G) Final Shut-In	1057	☐ Sampler			
(H) Final Hydrostatic	1697	☐ Straddle			
		☐ Shale Packer		☑ EM Tool	
Initial Open	30	☐ Extra Packer		☐ Ruined Shale Packer	
Initial Shut-In	30	☐ Extra Recorder		☐ Ruined Packer	
Final Flow	60	☐ Day Standby		☐ Extra Copies	
Final Shut-In	30	☐ Accessibility		Sub Total	0
		Sub Total	2257.50	Total	2257.50
				MP/DST Disc't	

Approved By _____ Our Representative _____

TRILOBITE TESTING INC.
1515 Commerce Parkway • Hays, Kansas 67601
8/12

Gas Volume Report

Lynn Packard — Operator
Packard 3-27 — Well Name and No.
1 — DST No.

GTS - 19 minutes

Min.	~~Ins. of Water~~ PSIG	Orifice Size	MCFD	Min.	~~Ins. of Water~~ PSIG	Orifice Size	MCFD
20	11.23	1/4	37.758	10	9.27	1/4	34.870
30	11.51	1/4	38.170	20	11.18	1/4	37.684
				30	12.57	1/4	39.732
				40	13.74	1/4	41.455
				50	13.50	1/4	41.102
				60	9.9	1/4	35.798

Remarks:

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68482

Well Name & No. Packard #3-27 Test No. 2 Date 12/10/22

Company Lynn Packard Elevation 1586 KB 1578 GL

Address 8113 NW River RD Medicine Lodge, KS. 67104

Co. Rep / Geo. Aaron Young Rig Fossil #5

Location: Sec. 27 Twp 31 S Rge. 13W Co. Barber State KS.

Interval Tested 3937 - 3964 Zone Tested Lansing "H" (Drum)

Anchor Length 27' Drill Pipe Run 3818 Mud Wt. 9.2

Top Packer Depth 3932 Drill Collars Run 119 Vis 55

Bottom Packer Depth 3937 Wt. Pipe Run — WL 10.0

Total Depth 3964 Chlorides 9500 ppm System LCM 3½#

Blow Description IF: Strong Blow. B.O.B. in 4 mins. Built to 51.75".

ISI: No Blow.

FF: Strong Blow. B.O.B. in 3½ mins. Built to 42.49"

FSI: No Blow.

Rec 1164	Feet of GIP	100 %gas	%oil	%water	%mud
Rec 33	Feet of GHSOCM	2 %gas	7 %oil	%water	91 %mud
Rec 60	Feet of GOWCM	10 %gas	45 %oil	10 %water	35 %mud
Rec 60	Feet of GVSOWCM	5 %gas	5 %oil	40 %water	50 %mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 153' Fluid BHT 110° Gravity N/A API RW .16 @ 34 °F Chlorides 105,000 ppm

(A) Initial Hydrostatic	1984	☑ Test	1800	T-On Location	1150
(B) First Initial Flow	46	☑ Jars	300	T-Started	1300
(C) First Final Flow	67	☑ Safety Joint		T-Open	1603
(D) Initial Shut-In	1392	☐ Circ Sub		T-Pulled	1918
(E) Second Initial Flow	61	☐ Hourly Standby		T-Out	2144
(F) Second Final Flow	85	☑ Mileage (62) PRATT Shop		Comments	
(G) Final Shut-In	1358	☐ Sampler	90rt 157.50		
(H) Final Hydrostatic	1941	☐ Straddle		☑ EM Tool	-350
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	30	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	60	☐ Extra Recorder		☐ Extra Copies	
Final Flow	30	☐ Day Standby		Sub Total	-350
Final Shut-In	60	☐ Accessibility		Total	1907.50
		Sub Total	2257.50	MP/DST Disc't	

Approved By _____ Our Representative Matthew Smith

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 68483

Well Name & No. Packard 3-27 Test No. 3 Date 12/12/22

Company Lynn Packard Elevation 1586 KB 1578 GL

Address 8113 NW River Rd Medicine Lodge, Ks. 67104

Co. Rep / Geo. Aaron Young Rig Fossil #5

Location: Sec. 27 Twp 31S Rge. 13W Co. Barber State Ks.

Interval Tested 4457 - 4490 Zone Tested Viola

Anchor Length 33' Drill Pipe Run 4324 Mud Wt. 9.3

Top Packer Depth 4452 Drill Collars Run 119 Vis 54

Bottom Packer Depth 4457 Wt. Pipe Run 0 WL 9.2

Total Depth 4490 Chlorides 8000 ppm System LCM 3#

Blow Description IF: Weak Surface to .62".

ISI: No Blow.

FF: No Blow.

FSI: No Blow.

Rec 2	Feet of Oil & M	%gas	%oil	%water	100	%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 2' Fluid BHT 112° Gravity N/A API RW N/A @ N/A °F Chlorides 8000 ppm

(A) Initial Hydrostatic 2264	☑ Test 1950	T-On Location 0210
(B) First Initial Flow 42	☑ Jars 300	T-Started 0239
(C) First Final Flow 27	☑ Safety Joint	T-Open 0513
(D) Initial Shut-In 38	☐ Circ Sub	T-Pulled 0721
(E) Second Initial Flow 35	☐ Hourly Standby	T-Out 0939
(F) Second Final Flow 26	☑ Mileage 54 Howe 90rt 157.50	Comments * EMT Worked Fine *
(G) Final Shut-In 31	☐ Sampler	
(H) Final Hydrostatic 2195	☐ Straddle	☑ EM Tool
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 30	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 30	☐ Extra Recorder	☐ Extra Copies
Final Flow 30	☐ Day Standby 1d 4.5h 150	Sub Total 150
Final Shut-In 30	☐ Accessibility	Total 2557.50
	Sub Total 2407.50	MP/DST Disc't

Approved By Our Representative Matthew A Smith