KOLAR Document ID: 1777620

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 # 33185
Name: Quail Oil & Gas, LC
Address 1: 2005 North Taylor Avenue
Address 2: PO BOX K
City: GARDEN CITY State: KS Zip: 67846 + 9633
Contact Person: Wray Valentine
Phone: (620) 290-1537
CONTRACTOR: License # 5123
Name: Pickrell Drilling Company, Inc.
Wellsite Geologist: David Barker
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 #:

12/06/2023 Spud Date or Recompletion Date
12/16/2023 Date Reached TD
12/17/2023 Completion Date or Recompletion Date

API No.: 15-151-22575-00-00
Spot Description:
SE - NE - NW - SW Sec. 14 Twp. 29 S. R. 11 ☐ East ☑ West
2228 Feet from ☐ North / ☑ South Line of Section
1301 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: Pratt
Lease Name: PANEK RANCH Well #: 1-14
Field Name:
Producing Formation: None
Elevation: Ground: 1784 Kelly Bushing: 1791
Total Vertical Depth: 4790 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 305 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: 12800 ppm Fluid volume: 160 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: BCE-Mach 111 LLC
Lease Name: Clarke SWD License #: 35906
Quarter SW Sec. 8 Twp. 32 S. R. 12 ☐ East ☑ West
County: Barber Permit #: D28492.0

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:** Kelsey Cox **Date:** 05/22/2024

Operator Name: Quail Oil & Gas, LC Lease Name: PANEK RANCH Well #: 1-14

Sec. 14 Twp. 29 S. R. 11 ☐ East ☑ West County: Pratt

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: Attached

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

Name	Top	Datum
Attached	Attached	Attached

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	12.250	8.625	23	305	Common	250	3%CC, 2% gel

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	Quail Oil & Gas, LC
Well Name	PANEK RANCH 1-14
Doc ID	1777620

All Electric Logs Run

Micro
Neutron
Sonic
Dual Induction

Form	ACO1 - Well Completion
Operator	Quail Oil & Gas, LC
Well Name	PANEK RANCH 1-14
Doc ID	1777620

Tops

Name	Top	Datum
Onega Shale	2660	869
Stotler LM	2843	1052
Heebner Shale	3608	1817
Brown LM	3778	1987
Stark Shale	4096	2305
B/KC	4202	2411
Viola	4569	2778
Arbuckle	4714	2923

Form	ACO1 - Well Completion
Operator	Quail Oil & Gas, LC
Well Name	PANEK RANCH 1-14
Doc ID	1777620

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	12.250	8.625	23	305	Common	250	3%CC, 2% gel

QUALITY WELL SERVICE, INC.

8463

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

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 12-5-23	14	29	11	Pratt	KS		11:45

Lease Panek Ranch | Well No. 1-14 | Location

Contractor Pickrell | 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. 306

Csg. 8⅝ | Depth 306

Tbg. Size | Depth | Charge To Quail Oil + Gas

Tool | Depth | Street

Cement Left in Csg. 30 | Shoe Joint 42.14 | City State | The above was done to satisfaction and supervision of owner agent or contractor.

Meas Line | Displace 17¾ | Cement Amount Ordered 225 sx Common 3% cc 2% Gel ¼ P.S.

EQUIPMENT

Pumptrk 8	No.		
Bulktrk 10	No.		
Bulktrk	No.		
Pickup	No.		

JOB SERVICES & REMARKS

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Ran 7 jts 8⅝ to 306' broke circ. with Rig mixed 250 sx Common 3% cc 2% Gel ¼ PS displaced with 17¾ bbls H2O cement circ to pit. shut in 300psi

David JB Adkins

X Signature

Common	225
Poz. Mix	
Gel.	500#
Calcium	635#
Hulls	
Salt	
Flowseal	112.5
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	246 (1.1 ft³)
Mileage	25
FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Lmv	25
Service Supervisor	
Pumptrk Charge	Surface
Mileage	50
Tax	
Discount	
Total Charge	

Taylor Printing, Inc.

Quality Well Service, Inc.

PO Box 468
Pratt, KS 67124

Invoice

Date	Invoice #
12/21/2023	C-3398

Bill To
Quail Oil & Gas 525 Industrial Dr. P.O. Box K Garden City, KS 67846-9643

P.O. No.	Terms	Lease Name
		Panek Ranch #1-14

Description	Qty	Rate	Amount
Common	120	16.75	2,010.00T
Poz	80	9.50	760.00T
Gel	688	0.22	151.36T
Flo-Seal	50	3.70	185.00T
Plug/Pump Charge	1	1,100.00	1,100.00T
Handling	207	2.10	434.70T
.10 * sacks * miles	5,175	0.10	517.50T
Service Supervisor	1	500.00	500.00T
LMV	25	4.50	112.50T
Heavy Equipment Mileage	50	9.50	475.00T
Customer Discount		-936.91	-936.91
Discount Expires after30 days from the date of the invoice		0.00	0.00
Panek Ranch #1-14 Pratt Co.			

PLEASE REMIT TO ABOVE COMPANY & ADDRESS! Thank you for your business!

Subtotal	$5,309.15
Sales Tax (8.25%)	$438.00
Total	$5,747.15

QUALITY WELL SERVICE, INC.

8462

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 12-17-23	Sec. 14	Twp. 29S	Range 11W	County PRATT	State KS	On Location	Finish

Lease PANEL Ranch Well No. 1-14 Location

Contractor Pickrell Drlg Rig #10

Type Job PTA

Hole Size 7 7/8 T.D. 4790

Csg. Depth

Tbg. Size 4 1/2 DP Depth

Tool Depth

Cement Left in Csg. Shoe Joint

Meas Line Displace

EQUIPMENT

Pumptrk 3 No.

Bulktrk 10 No.

Bulktrk No.

Pickup No.

JOB SERVICES & REMARKS

Rat Hole 30sx 60/40 4% Gel 1/4#/sx PS

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

1st Plug @ 4712'
Pump H2O
Mix & Pump 50sx 60/40 4% Gel 1/4#/sx PS
Pump H2O
Disp MUD
2nd Plug @ 660'
Pump H2O
Mix & Pump 50 sx 60/40 4% Gel 1/4#/sx PS
Disp H2O
3rd Plug @ 330'
Pump H2O
Mix & Pump 50 sx 60/40 4% Gel 1/4#/sx PS
~~4th Plug @ 60'~~ Disp H2O
~~Mix & Pump~~ 4th Plug 60'
20sx 60/40 4% Gel 1/4#/sx PS
THANK YOU PLEASE CALL AGAIN

X Signature

Owner

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.

Charge To QUAIL OIL & GAS

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 200sx 60/40 4% Gel 1/4#/sx PS

Common	120 sx	
Poz. Mix	80 sx	
Gel.	6 8 8 lbs	
Calcium		
Hulls		
Salt		
Flowseal	50 lbs	
Kol-Seal		
Mud CLR 48		
CFL-117 or CD110 CAF 38		
Sand		
Handling	207	
Mileage	25 / 5175	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
SERVICE SUPV	1 EA
LMW	25
Pumptrk Charge	PTA
Mileage	50
Tax	
Discount	
Total Charge	

TODD MATT ARTHUR

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN:

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 69403 **DST#: 1**

Test Start: 2023.12.08 @ 22:58:00

GENERAL INFORMATION:

Formation:
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:58:00
Time Test Ended: 06:34:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Richie Samora
Unit No: 66

Interval: 2857.00 ft (KB) To 2880.00 ft (KB) (TVD)
Total Depth: 2880.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

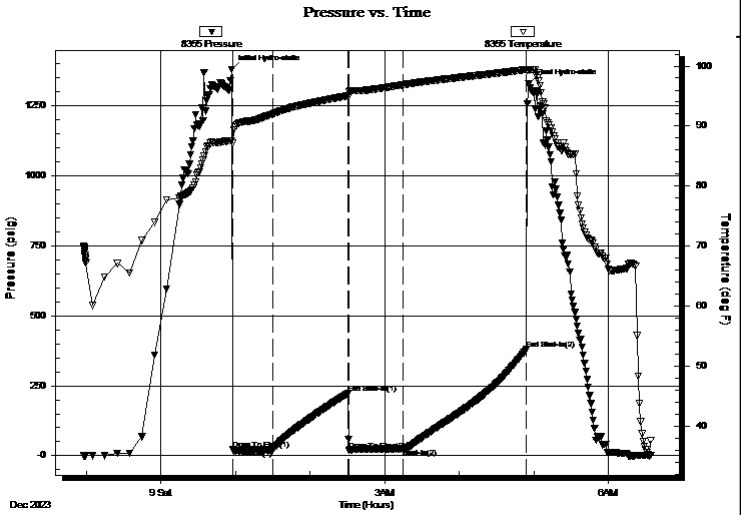
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8355 **Inside**

Press@RunDepth: 25.05 psig @ 2863.00 ft (KB)
Start Date: 2023.12.08 End Date: 2023.12.09
Start Time: 22:58:05 End Time: 06:33:59

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2023.12.09 @ 00:57:00
Time Off Btm: 2023.12.09 @ 04:56:00

TEST COMMENT: 30-IF: Fair blow BOB in 18 minutes built to 17"
60-ISI: No blow back
45-FF: Strong blow BOB in 10 minutes built to 19"
90-FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1380.81	87.60	Initial Hydro-static
1	22.70	87.17	Open To Flow (1)
33	21.76	92.02	Shut-In(1)
94	222.08	95.05	End Shut-In(1)
95	19.07	95.74	Open To Flow (2)
138	25.05	96.88	Shut-In(2)
237	379.56	99.41	End Shut-In(2)
239	1329.50	99.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	GM 5%G 95%M	0.07
0.00	500' GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN:

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 69403 **DST#: 1**

Test Start: 2023.12.08 @ 22:58:00

GENERAL INFORMATION:

Formation:
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:58:00
Time Test Ended: 06:34:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Richie Samora
Unit No: 66

Interval: 2857.00 ft (KB) To 2880.00 ft (KB) (TVD)
Total Depth: 2880.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

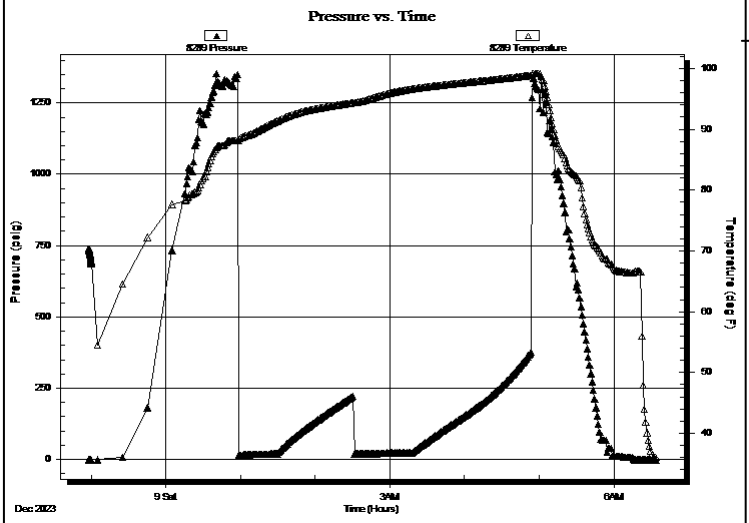
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289 **Outside**

Press@RunDepth: psig @ 2863.00 ft (KB)
Start Date: 2023.12.08 End Date: 2023.12.09
Start Time: 22:58:01 End Time: 06:34:00

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF: Fair blow BOB in 18 minutes built to 17"
60-ISI: No blow back
45-FF: Strong blow BOB in 10 minutes built to 19"
90-FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	GM 5%G 95%M	0.07
0.00	500' GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN:

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 69403 **DST#: 1**

Test Start: 2023.12.08 @ 22:58:00

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:	31.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.80 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	46000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

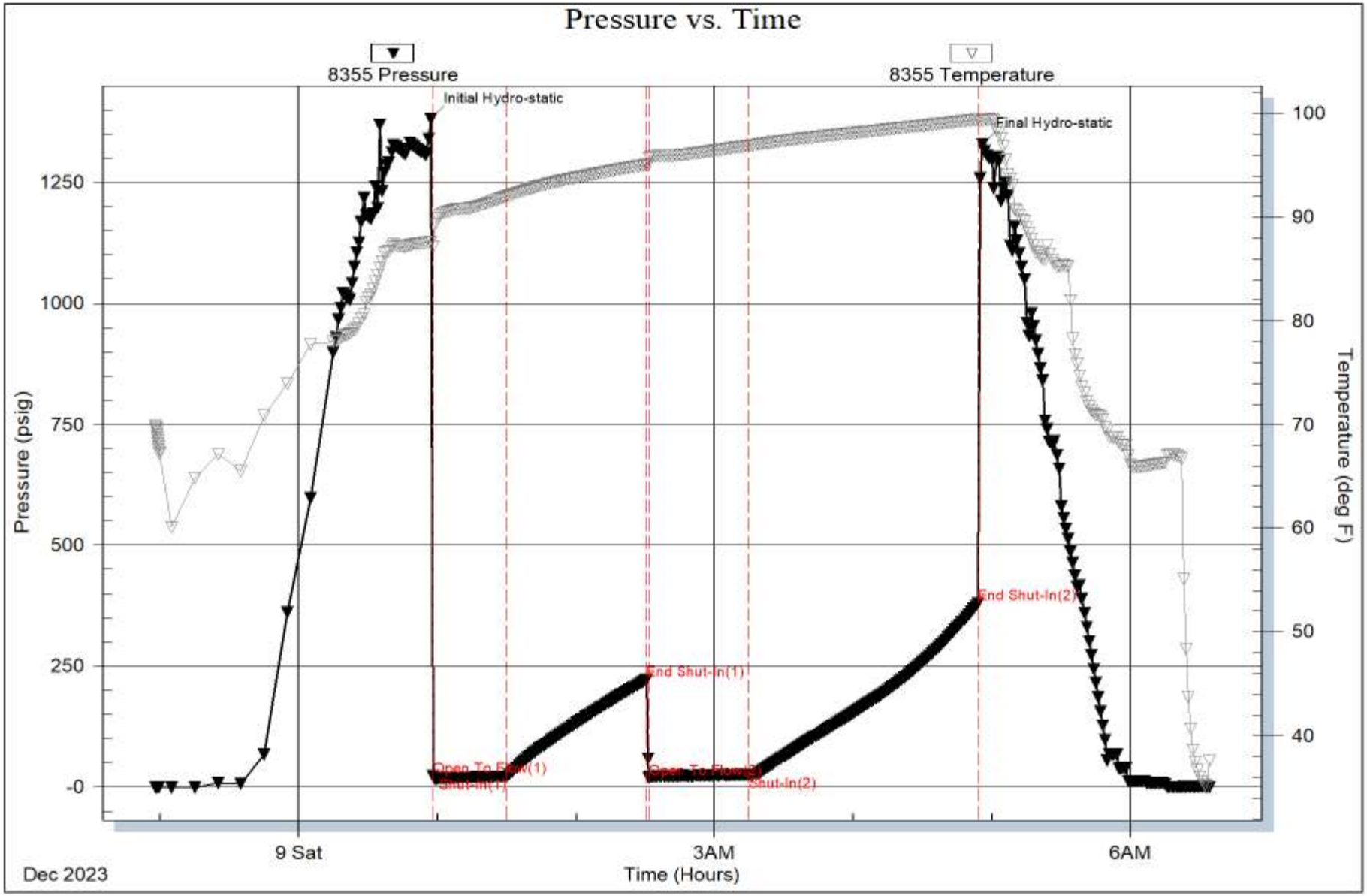
Recovery Table

Length ft	Description	Volume bbl
15.00	GM 5%G 95%M	0.074
0.00	500' GIP	0.000

Total Length: 15.00 ft Total Volume: 0.074 bbl

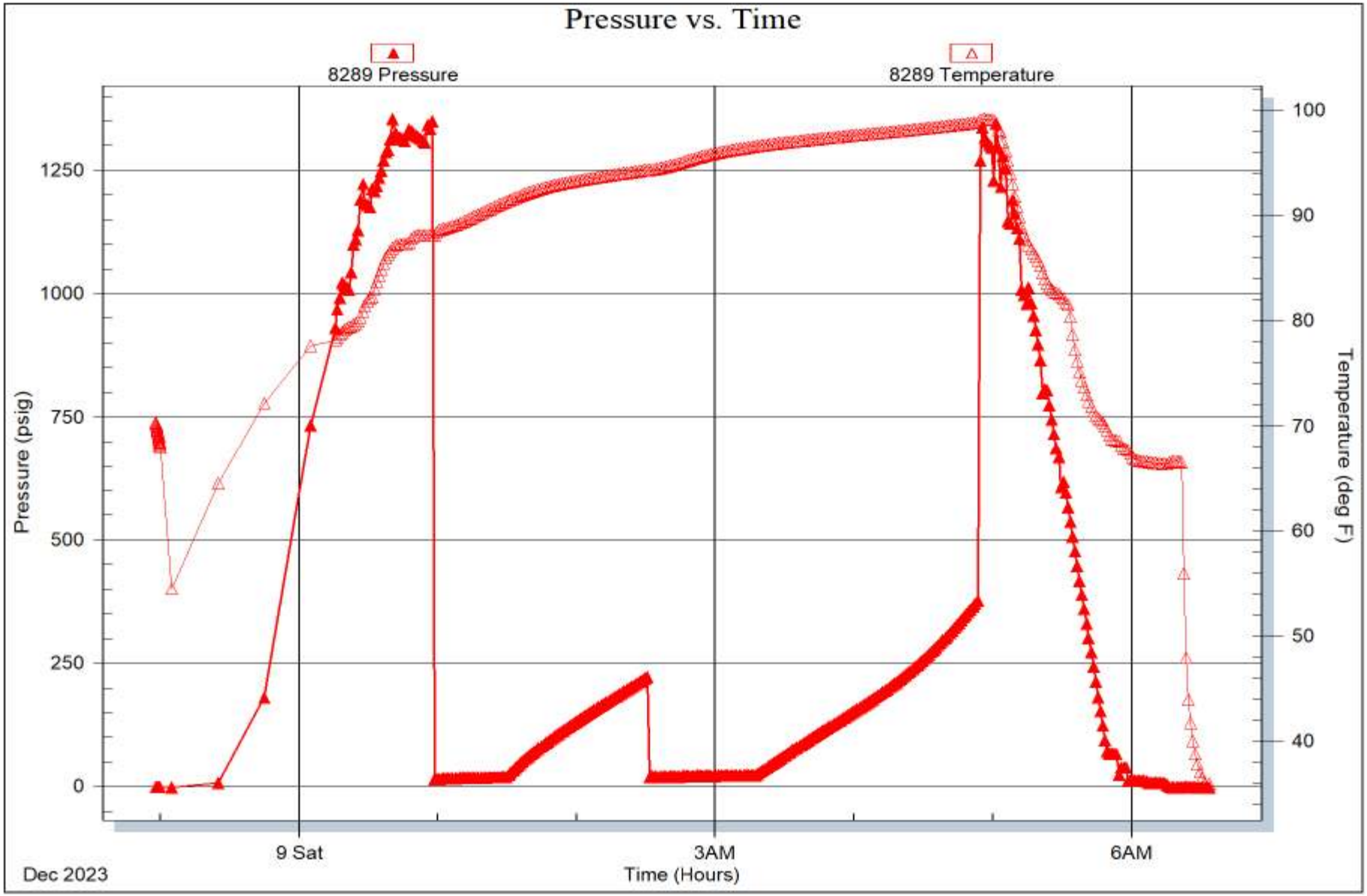
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 500 GIP

Serial #: 8355 **Inside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69403 Printed: 2023.12.09 @ 09:44:25

Serial #: 8289 **Outside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69403 Printed: 2023.12.09 @ 09:44:26

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71070 **DST#: 2**

Test Start: 2023.12.10 @ 15:50:22

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:13:12
Time Test Ended: 23:41:52

Test Type: Conventional Straddle (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 3520.00 ft (KB) To 3585.00 ft (KB) (TVD)
Total Depth: 3688.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

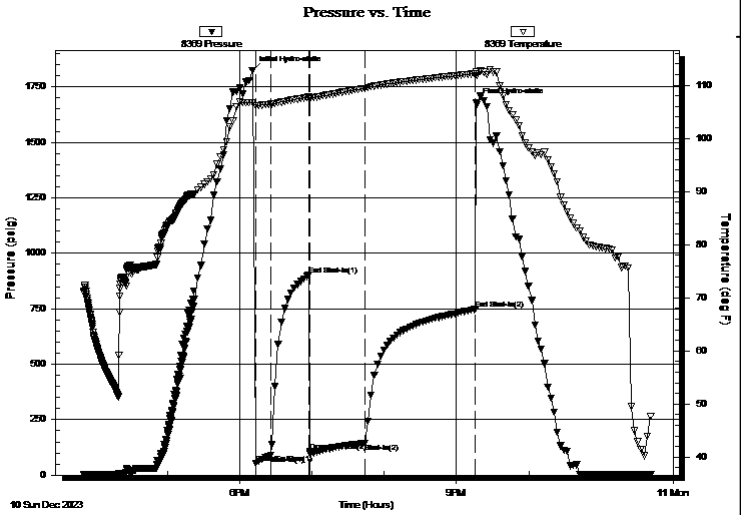
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: 143.23 psig @ 3565.00 ft (KB)
Start Date: 2023.12.10 End Date: 2023.12.10
Start Time: 15:50:23 End Time: 23:41:52

Capacity: 8000.00 psig
Last Calib.: 2023.12.11
Time On Btm: 2023.12.10 @ 18:10:32
Time Off Btm: 2023.12.10 @ 21:16:12

TEST COMMENT: IF:Strong Building Blow built to 93.23" (15)
ISI:.25" Bow Back. (30)
FF:Strong Building Blow built to 57.10" (45)
FSI: 1" Blow Back. (90)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1824.43	106.72	Initial Hydro-static
3	53.73	106.20	Open To Flow (1)
16	89.02	106.42	Shut-In(1)
47	900.46	107.74	End Shut-In(1)
48	105.74	107.50	Open To Flow (2)
94	143.23	109.43	Shut-In(2)
186	747.09	112.20	End Shut-In(2)
186	1676.66	112.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCW 5%G 80%W 15%M	0.30
60.00	VSOMCW 2%O 95%W 3%M	0.30
64.00	OMCW 5%O 85%W 10%M	0.89
32.00	WMCO 55%O 25%W 20%M	0.45
0.00	1827' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71070 **DST#: 2**

Test Start: 2023.12.10 @ 15:50:22

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:13:12
Time Test Ended: 23:41:52

Test Type: Conventional Straddle (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 3520.00 ft (KB) To 3585.00 ft (KB) (TVD)
Total Depth: 3688.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

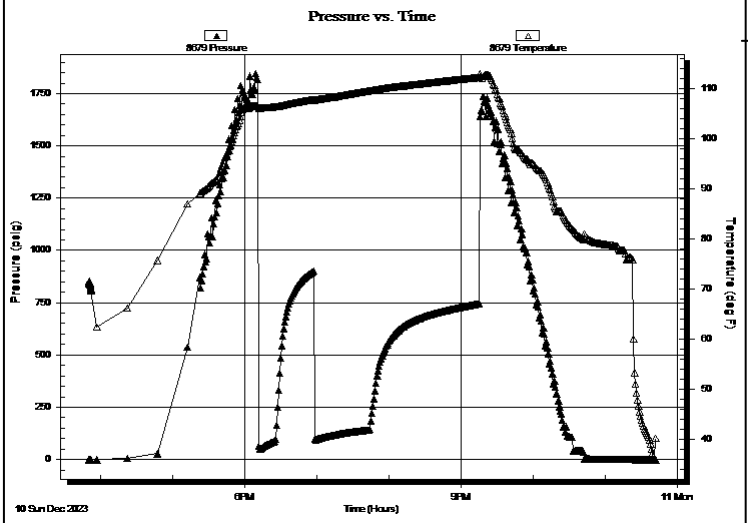
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8679

Press@RunDepth: psig @ ft (KB)
Start Date: 2023.12.10 End Date: 2023.12.10
Start Time: 15:50:04 End Time: 23:41:43

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Strong Building Blow built to 93.23" (15)
ISI:.25" Bow Back. (30)
FF:Strong Building Blow built to 57.10" (45)
FSI: 1" Blow Back. (90)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCW 5%G 80%W 15%M	0.30
60.00	VSOMCW 2%O 95%W 3%M	0.30
64.00	OMCW 5%O 85%W 10%M	0.89
32.00	WMCO 55%O 25%W 20%M	0.45
0.00	1827' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71070 **DST#: 2**

Test Start: 2023.12.10 @ 15:50:22

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:13:12
Time Test Ended: 23:41:52

Test Type: Conventional Straddle (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 3520.00 ft (KB) To 3585.00 ft (KB) (TVD)
Total Depth: 3688.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Good

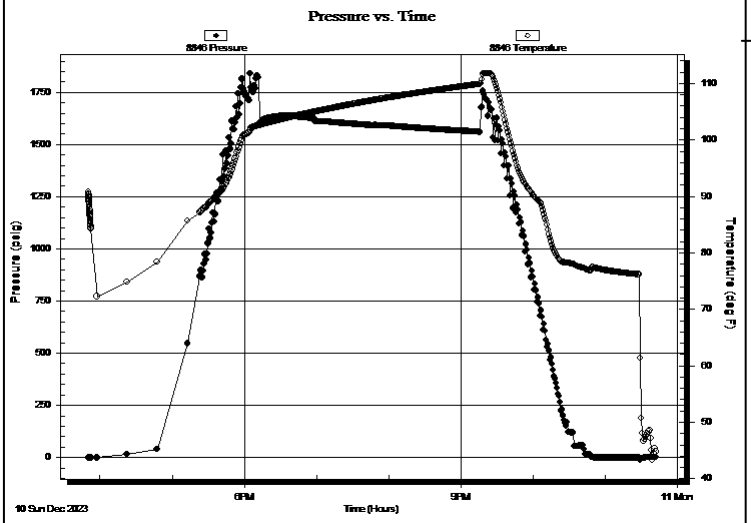
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8846 **Inside**

Press@RunDepth: psig @ 3565.00 ft (KB)
Start Date: 2023.12.10 End Date: 2023.12.10
Start Time: 15:50:41 End Time: 23:41:30

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Strong Building Blow built to 93.23" (15)
ISI:.25" Bow Back. (30)
FF:Strong Building Blow built to 57.10" (45)
FSI: 1" Blow Back. (90)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCW 5%G 80%W 15%M	0.30
60.00	VSOMCW 2%O 95%W 3%M	0.30
64.00	OMCW 5%O 85%W 10%M	0.89
32.00	WMCO 55%O 25%W 20%M	0.45
0.00	1827' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846

ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71070 **DST#: 2**

Test Start: 2023.12.10 @ 15:50:22

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:	160000 ppm
Viscosity:	66.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8900.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GMCW 5%G 80%W 15%M	0.295
60.00	VSOMCW 2%O 95%W 3%M	0.295
64.00	OMCW 5%O 85%W 10%M	0.889
32.00	WMCO 55%O 25%W 20%M	0.449
0.00	1827' GIP	0.000

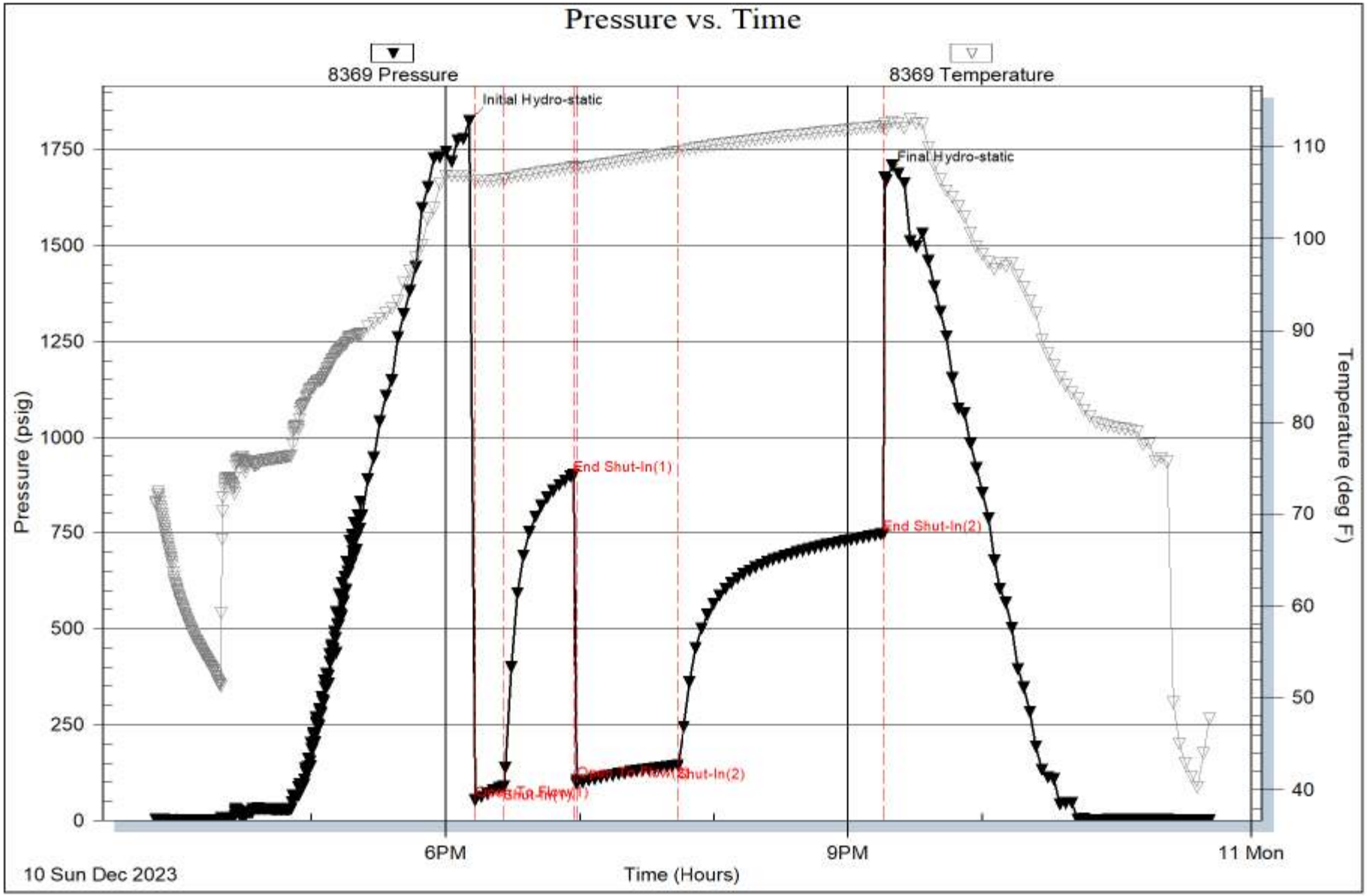
Total Length: 216.00 ft Total Volume: 1.928 bbl

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

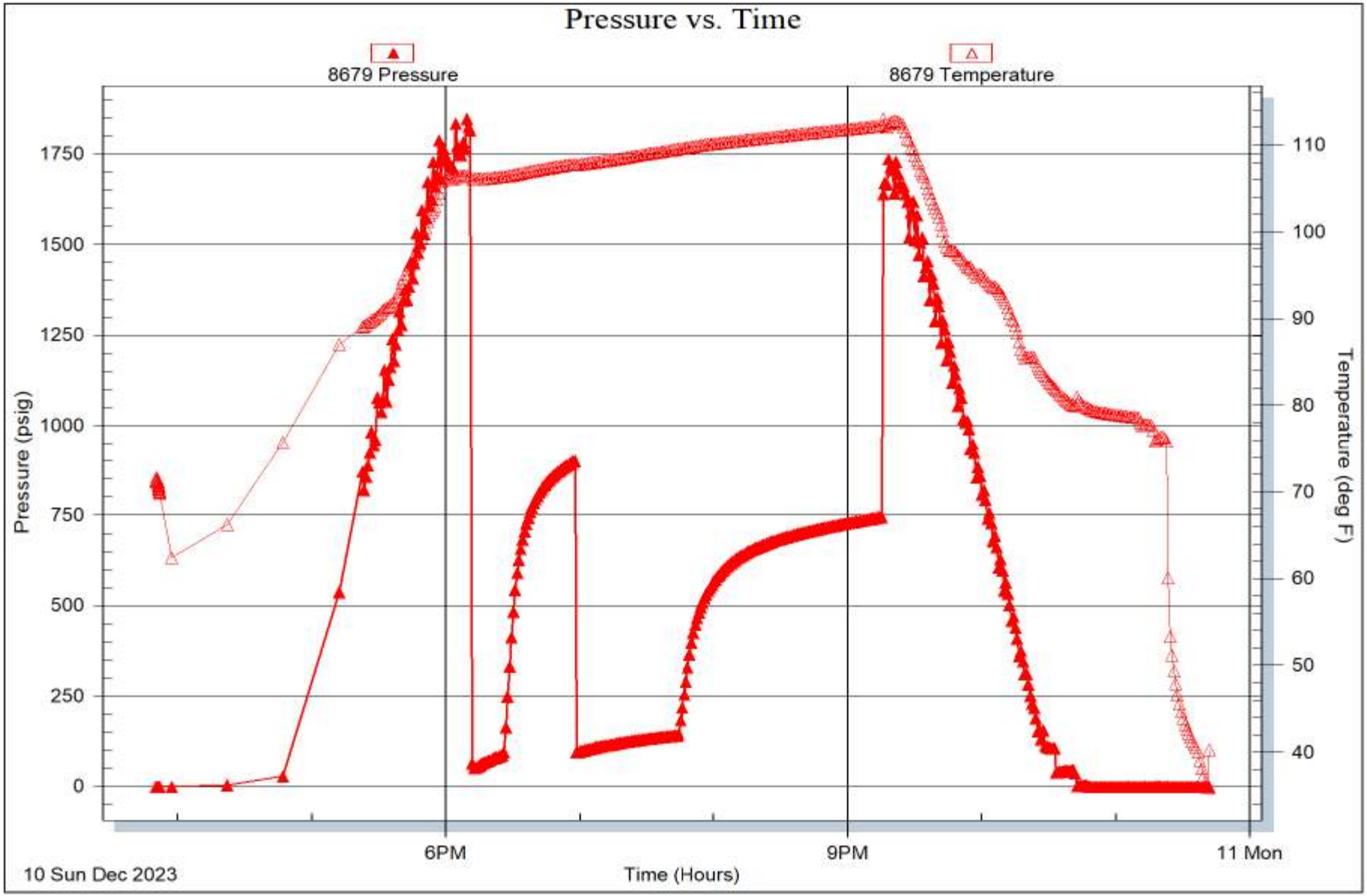
Laboratory Name: Laboratory Location:

Recovery Comments:

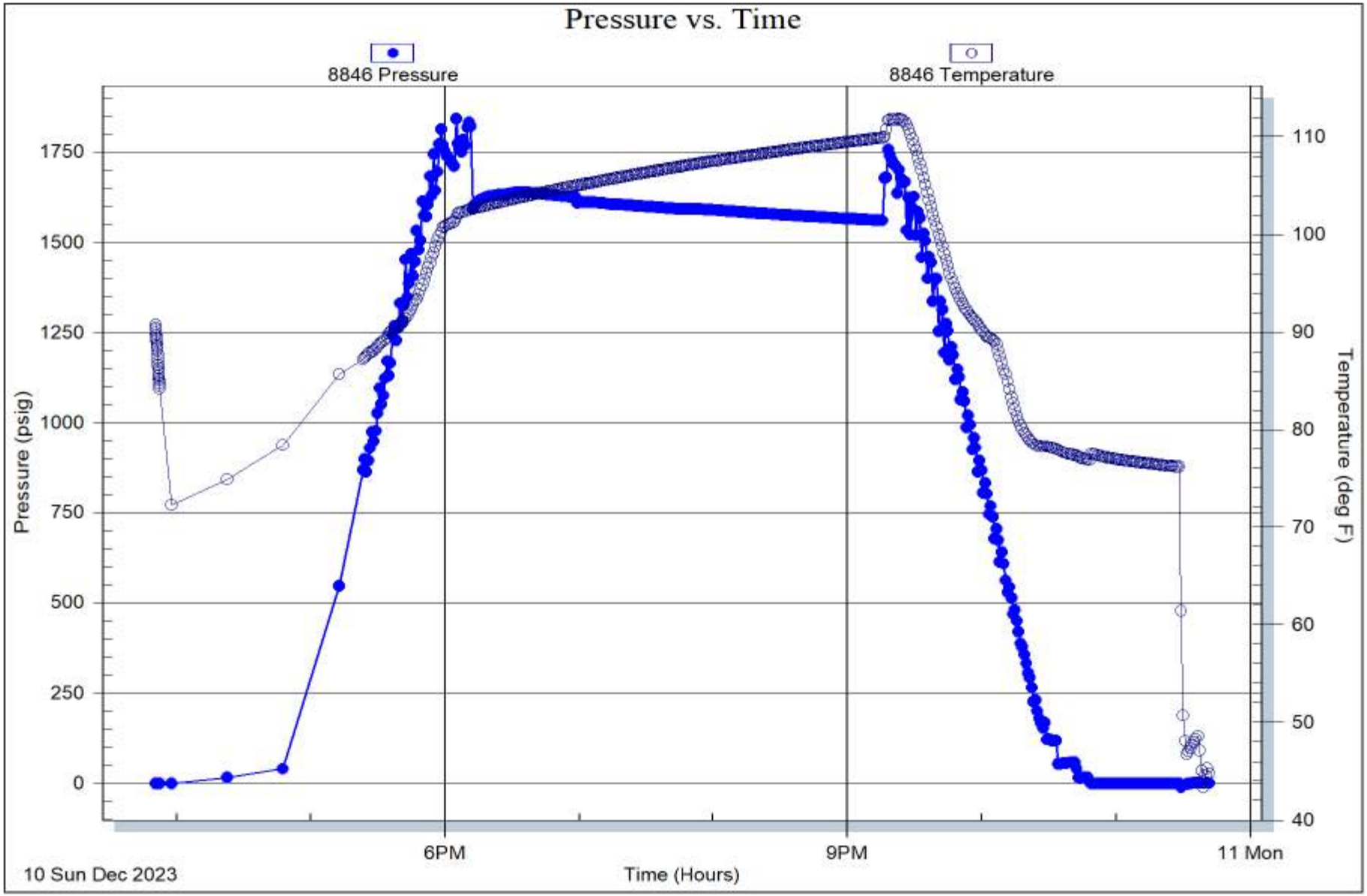
Serial #: 8369 **Outside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 71070 Printed: 2023.12.11 @ 06:43:13

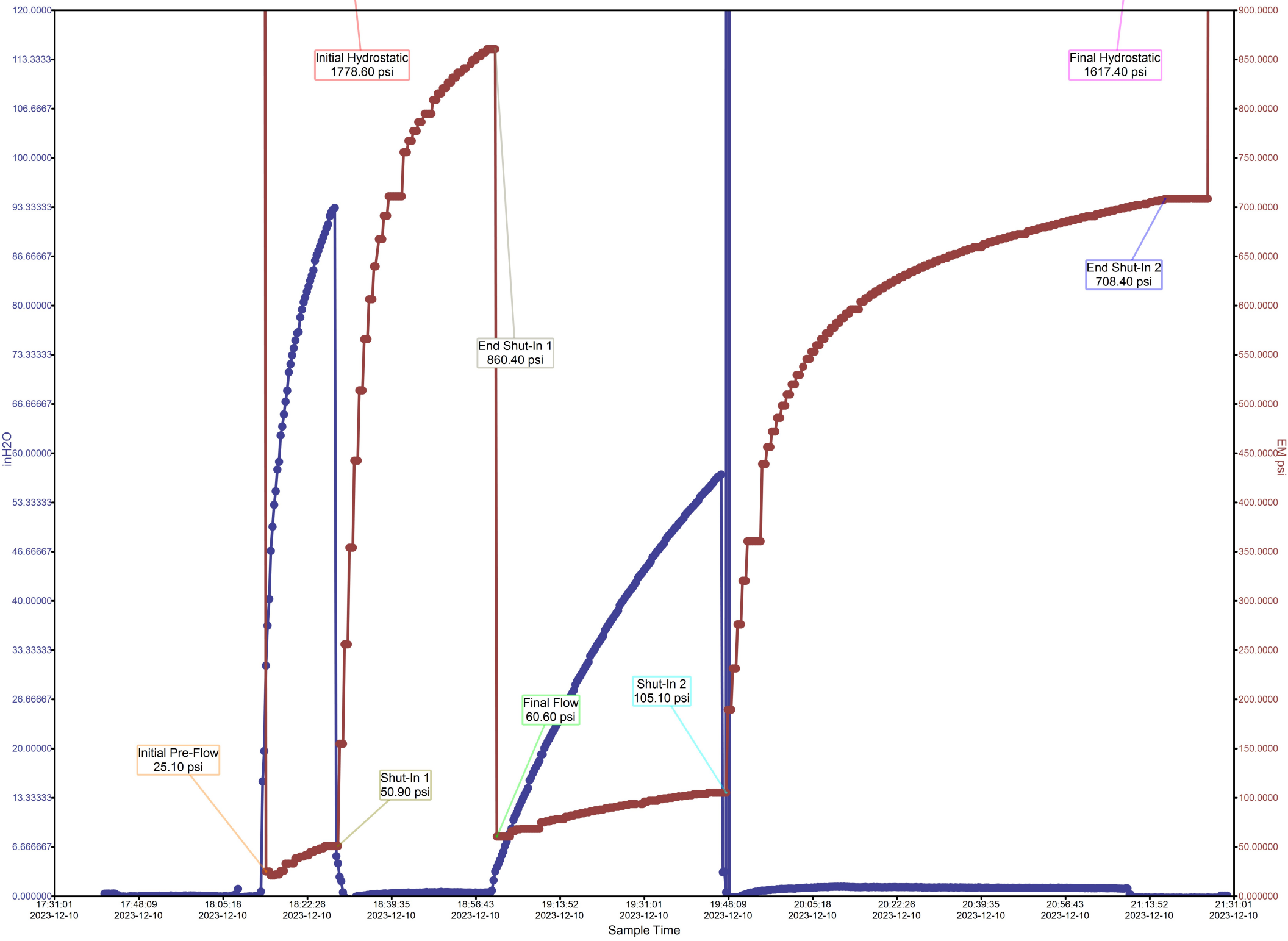

Pressure vs. Time
8679 Pressure
8679 Temperature
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
40
6PM
9PM
11 Mon
10 Sun Dec 2023
Time (Hours)

Serial #: 8846 **Inside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 2

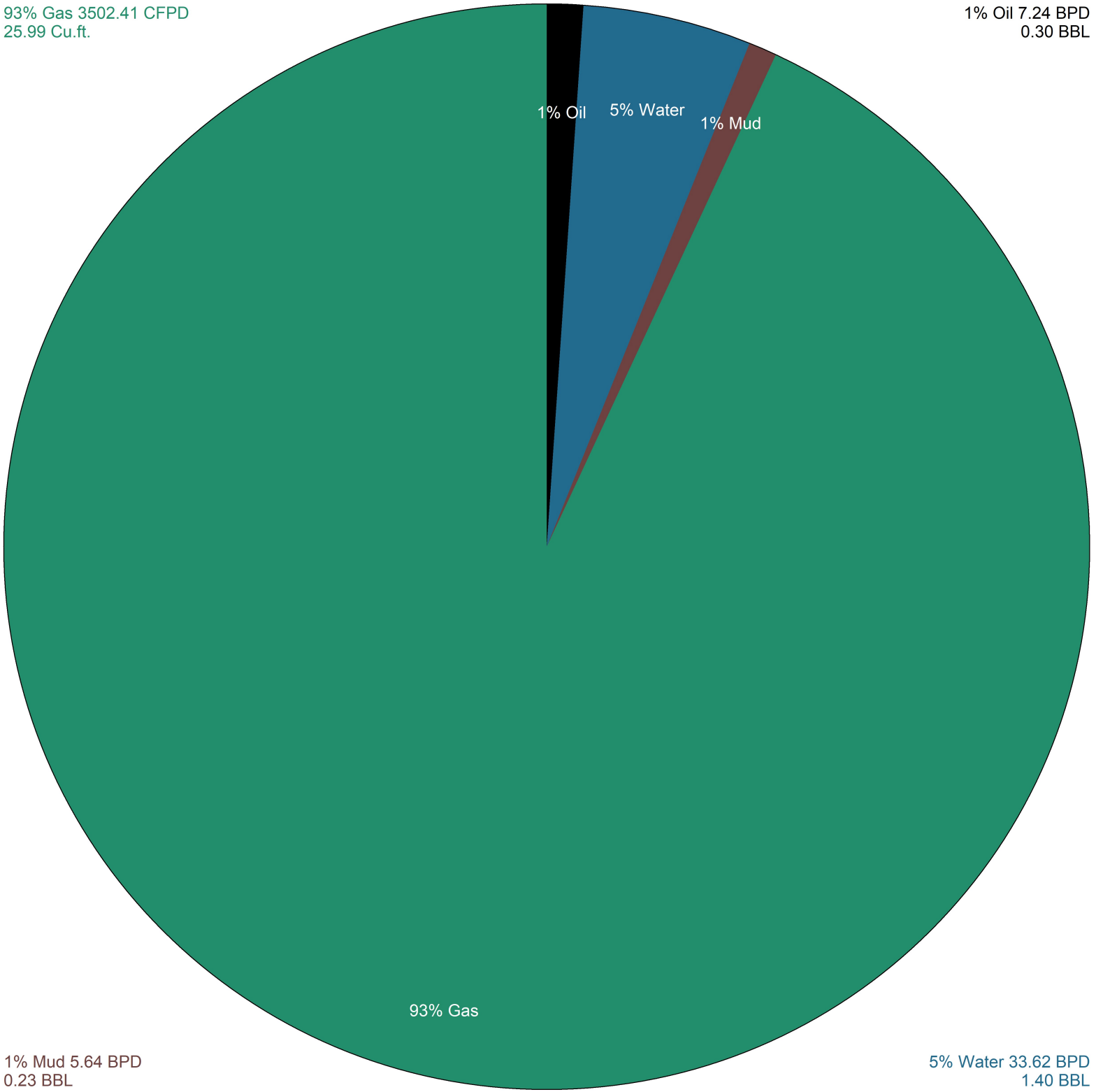


Trilobite Testing, Inc Ref. No: 71070 Printed: 2023.12.11 @ 06:43:14

Quail Oil & Gas - Panek Ranch 1-14 - Dst #2



Calculated Recovery Analysis - Quail Oil & Gas - Panek Ranch 1-14 - Dst #2



DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71071 **DST#: 3**

Test Start: 2023.12.11 @ 23:15:35

GENERAL INFORMATION:

Formation: **Swope**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:33:05
Time Test Ended: 07:31:55

Test Type: Conventional Bottom Hole (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4093.00 ft (KB) To 4120.00 ft (KB) (TVD)
Total Depth: 4120.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

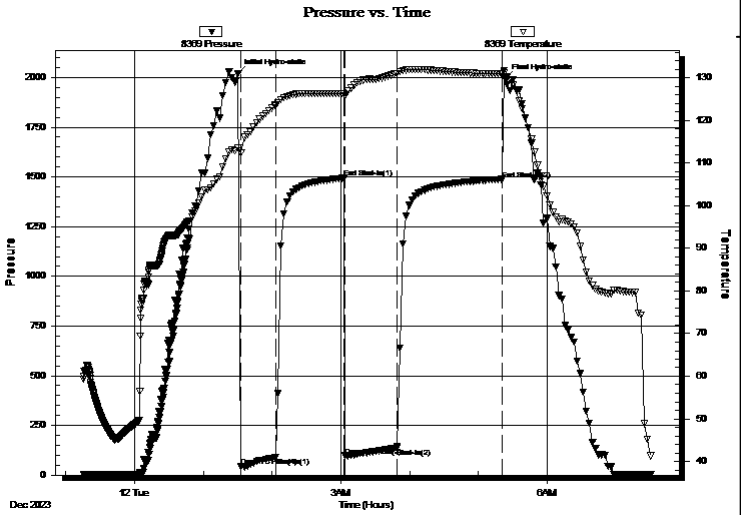
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: 136.46 psig @ 4094.00 ft (KB)
Start Date: 2023.12.11 End Date: 2023.12.12
Start Time: 23:15:36 End Time: 07:31:55

Capacity: 8000.00 psig
Last Calib.: 2023.12.12
Time On Btm: 2023.12.12 @ 01:30:25
Time Off Btm: 2023.12.12 @ 05:23:45

TEST COMMENT: IF:Strong Building Blow built to 24.51" (30)
ISI:No Blow Back. (60)
FF:Fair Building Blow built to 17.87" (45)
FSI:No Blow Back. (90)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2018.26	113.58	Initial Hydro-static
3	45.79	112.50	Open To Flow (1)
33	89.71	123.58	Shut-In(1)
92	1493.48	126.23	End Shut-In(1)
94	96.84	125.71	Open To Flow (2)
139	136.46	131.05	Shut-In(2)
231	1488.16	130.92	End Shut-In(2)
234	1995.48	130.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 97%W 3%M	0.30
60.00	MW 95%W 5%M	0.30
64.00	MW 95%W 5%M	0.89
64.00	OMCW 30%O 40%W 30%M	0.90
0.00	441' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71071 **DST#: 3**

Test Start: 2023.12.11 @ 23:15:35

GENERAL INFORMATION:

Formation: **Swope**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:33:05
Time Test Ended: 07:31:55

Test Type: Conventional Bottom Hole (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4093.00 ft (KB) To 4120.00 ft (KB) (TVD)
Total Depth: 4120.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

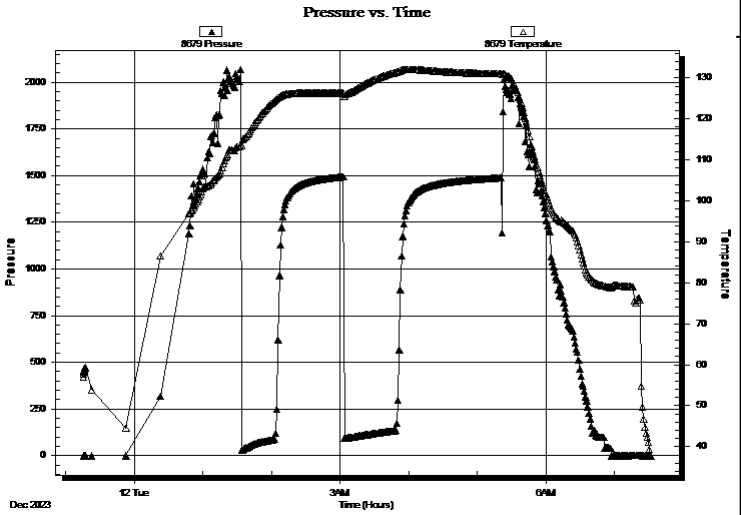
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8679

Press@RunDepth: psig @ ft (KB)
Start Date: 2023.12.11 End Date: 2023.12.12
Start Time: 23:15:44 End Time: 07:32:13

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Strong Building Blow built to 24.51" (30)
ISI:No Blow Back. (60)
FF:Fair Building Blow built to 17.87" (45)
FSI:No Blow Back. (90)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 97%W 3%M	0.30
60.00	MW 95%W 5%M	0.30
64.00	MW 95%W 5%M	0.89
64.00	OMCW 30%O 40%W 30%M	0.90
0.00	441' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846

ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71071 **DST#: 3**

Test Start: 2023.12.11 @ 23:15:35

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:	125000 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8800.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MW 97%W 3%M	0.295
60.00	MW 95%W 5%M	0.295
64.00	MW 95%W 5%M	0.889
64.00	OMCW 30%O 40%W 30%M	0.898
0.00	441' GIP	0.000

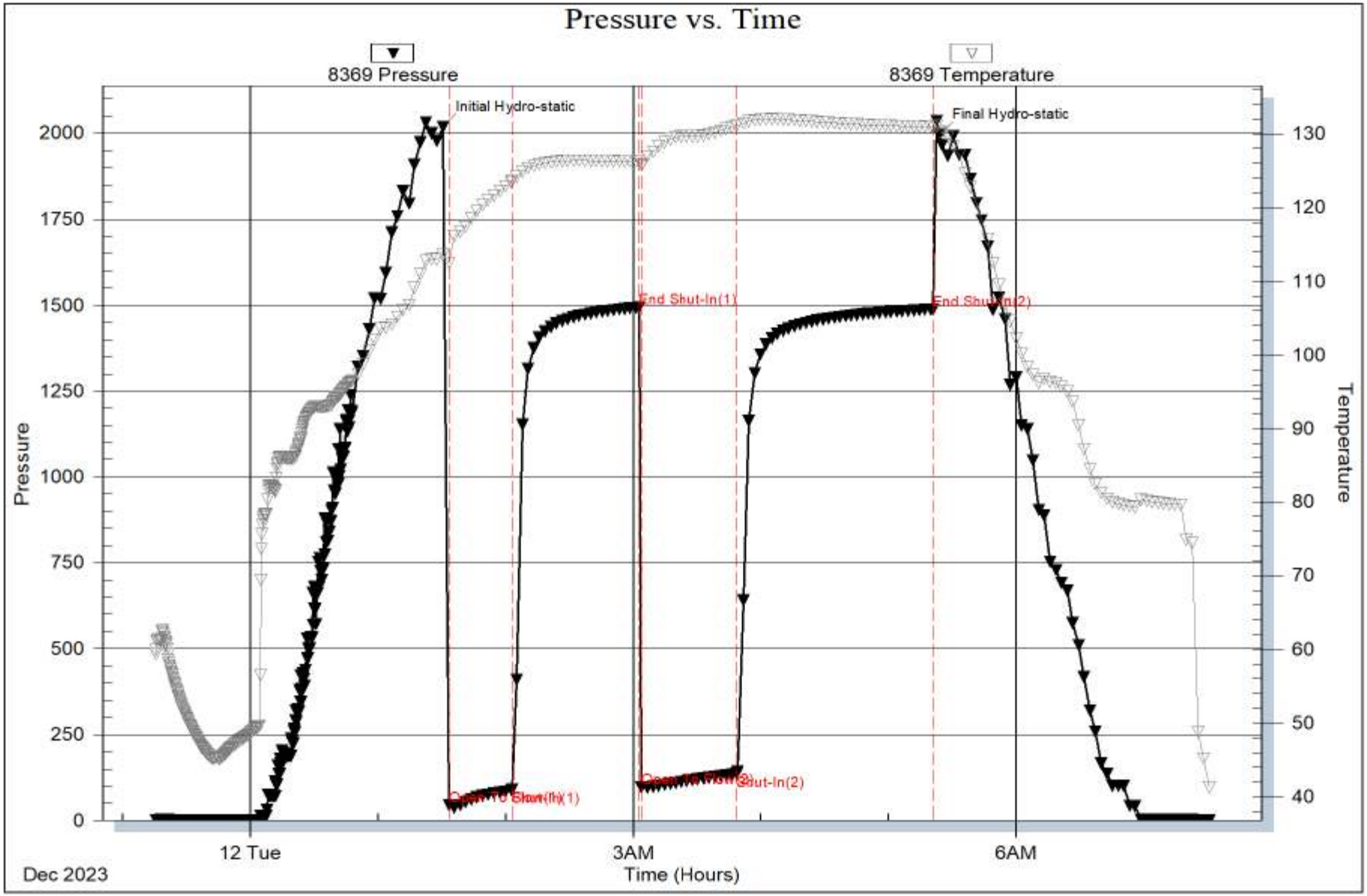
Total Length: 248.00 ft Total Volume: 2.377 bbl

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

Laboratory Name: Laboratory Location:

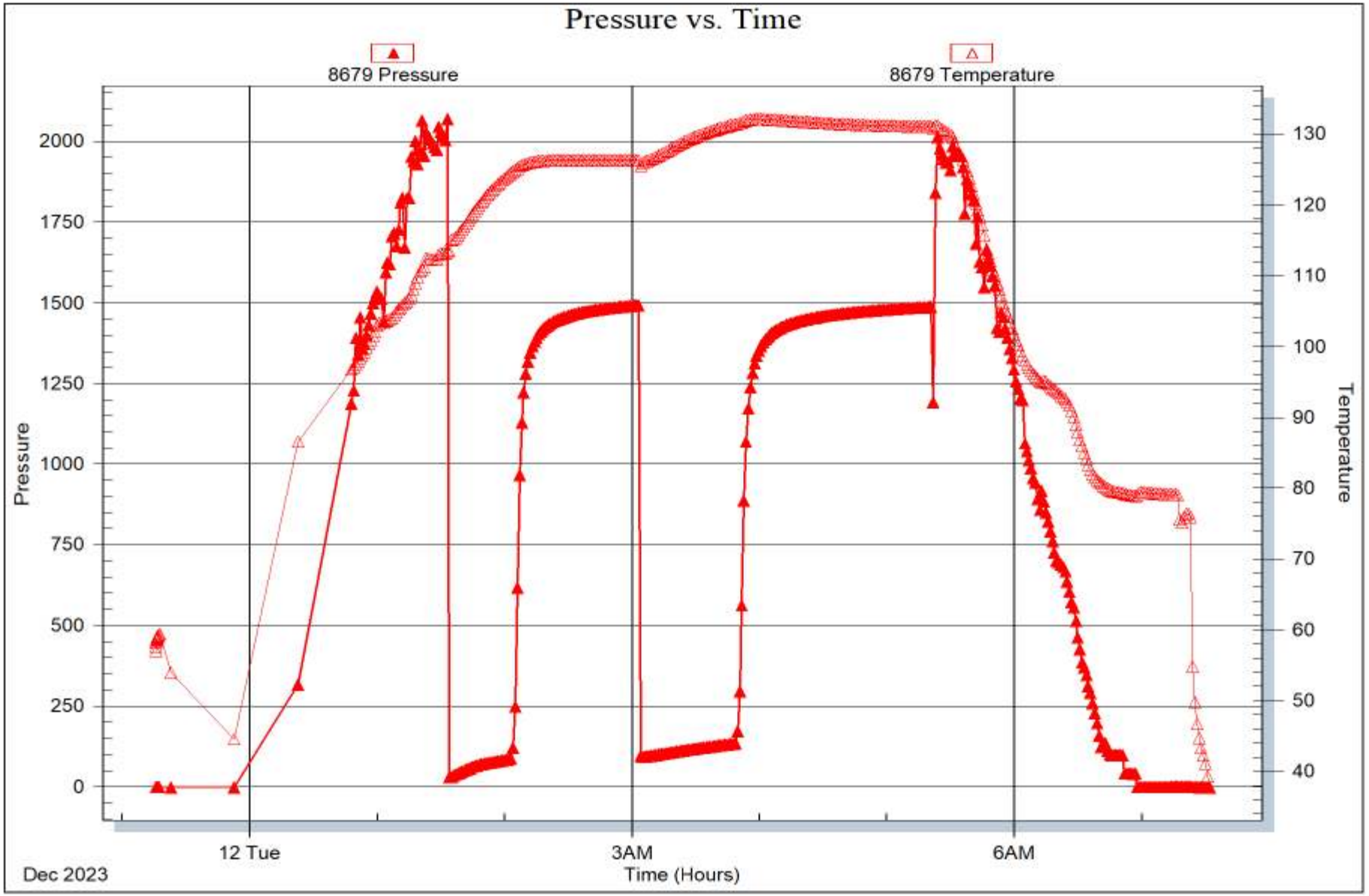
Recovery Comments:

Serial #: 8369 **Outside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 3

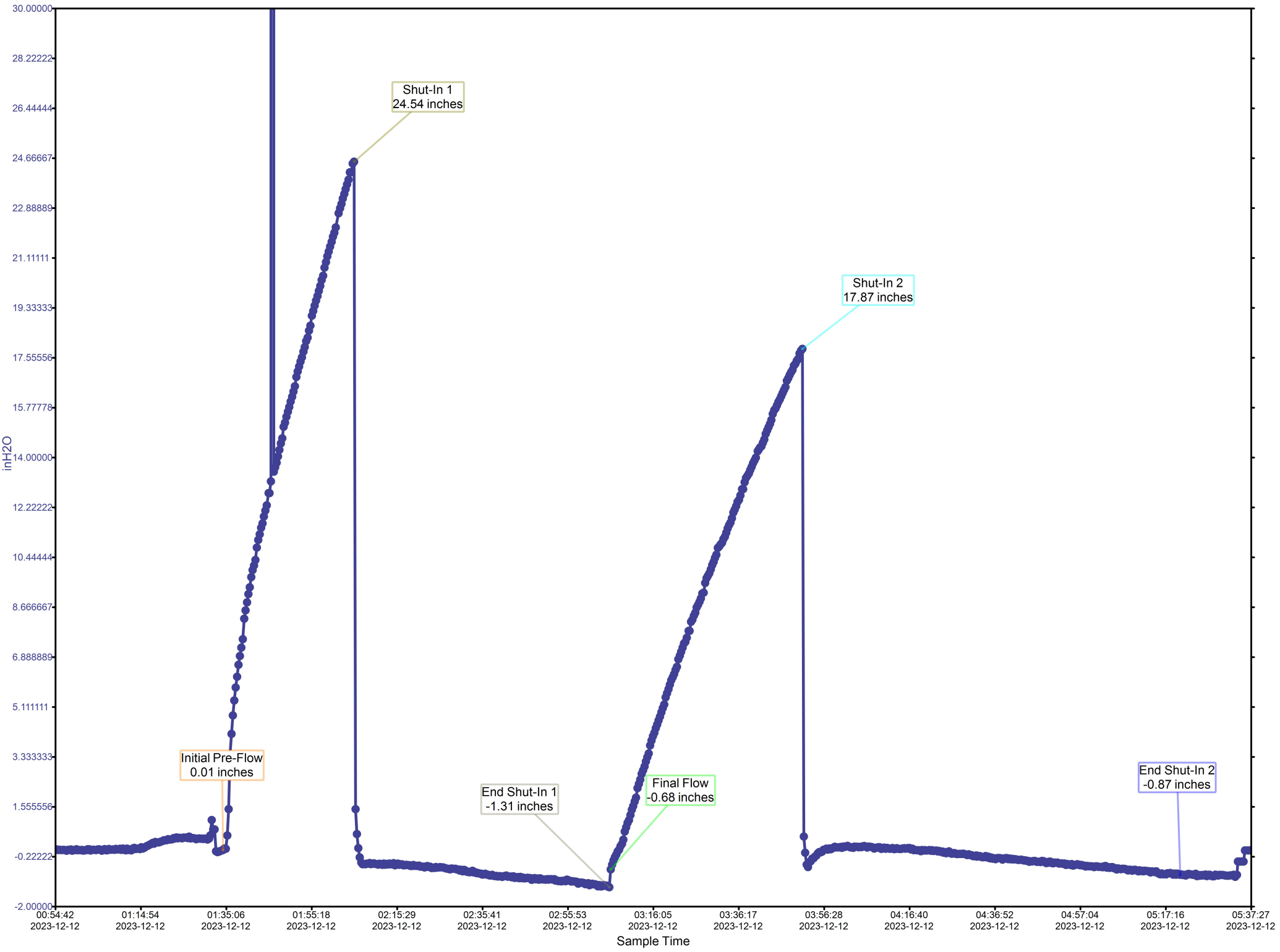


Trilobite Testing, Inc Ref. No: 71071 Printed: 2023.12.12 @ 15:05:43

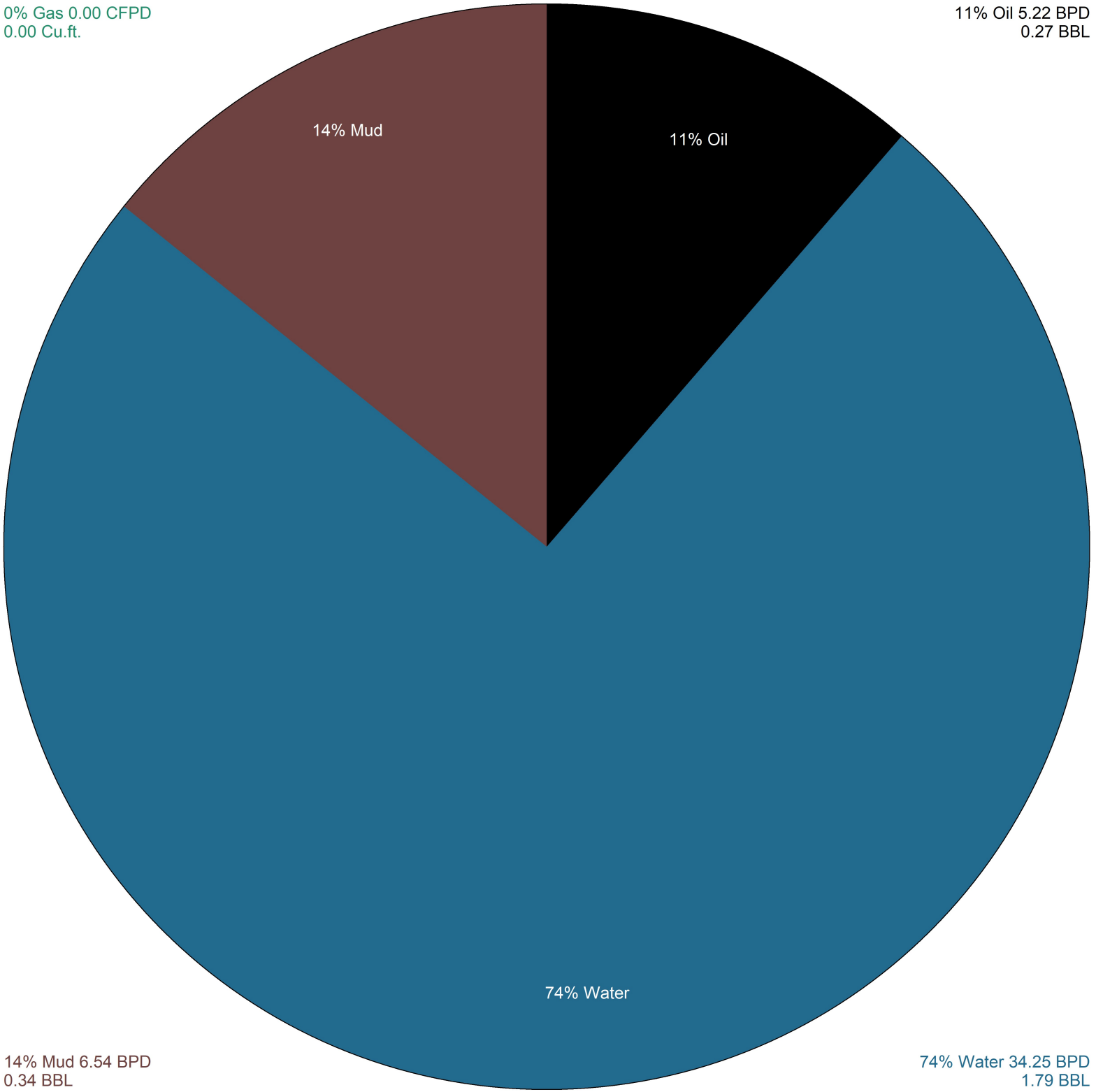
Serial #: 8679 | Quail Oil & Gas | Panek Ranch 1-14 | DST Test Number: 3



Quail Oil & Gas - Panek Ranch 1-14 - Dst #3



Calculated Recovery Analysis - Quail Oil & Gas - Panek Ranch 1-14 - Dst #3



DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71072 **DST#: 4**

Test Start: 2023.12.13 @ 02:10:56

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:48:36
Time Test Ended: 11:31:56

Test Type: Conventional Bottom Hole (Reset)
Tester: Richie Samora
Unit No: 66

Interval: 4288.00 ft (KB) To 4347.00 ft (KB) (TVD)
Total Depth: 4347.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

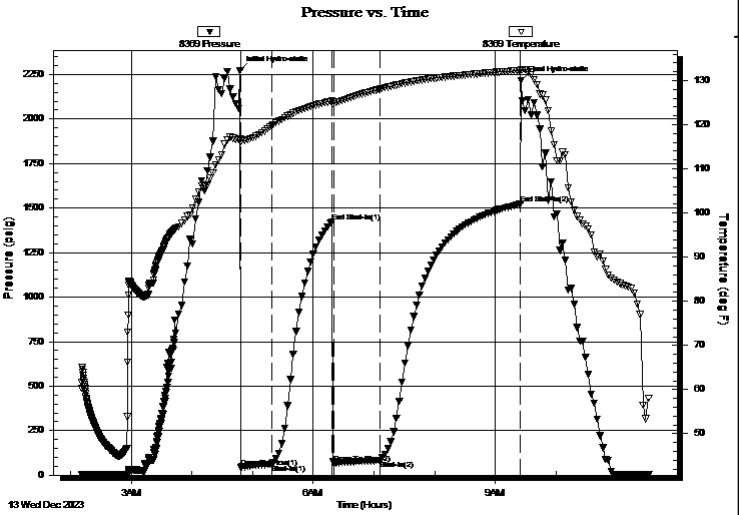
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: 82.26 psig @ 4324.00 ft (KB)
Start Date: 2023.12.13 End Date: 2023.12.13
Start Time: 02:10:57 End Time: 11:31:56

Capacity: 8000.00 psig
Last Calib.: 2023.12.13
Time On Btm: 2023.12.13 @ 04:47:36
Time Off Btm: 2023.12.13 @ 09:25:36

TEST COMMENT: IF:Weak Building Blow built to 2.77" (30)
ISI:No Blow Back. (60)
FF:Weak Building Blow built to 1.04" (45)
FSI:No Blow Back. (120)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2273.81	116.72	Initial Hydro-static
1	42.80	116.27	Open To Flow (1)
32	62.73	119.77	Shut-In(1)
91	1423.66	125.33	End Shut-In(1)
93	65.79	125.06	Open To Flow (2)
138	82.26	128.03	Shut-In(2)
278	1522.45	132.31	End Shut-In(2)
278	2216.21	132.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
85.00	OSWCM 13.5%W 86.5%M	0.42
0.00	120' Gip	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71072 **DST#: 4**

Test Start: 2023.12.13 @ 02:10:56

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:48:36
Time Test Ended: 11:31:56

Test Type: Conventional Bottom Hole (Reset)
Tester: Richie Samora
Unit No: 66

Interval: 4288.00 ft (KB) To 4347.00 ft (KB) (TVD)
Total Depth: 4347.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

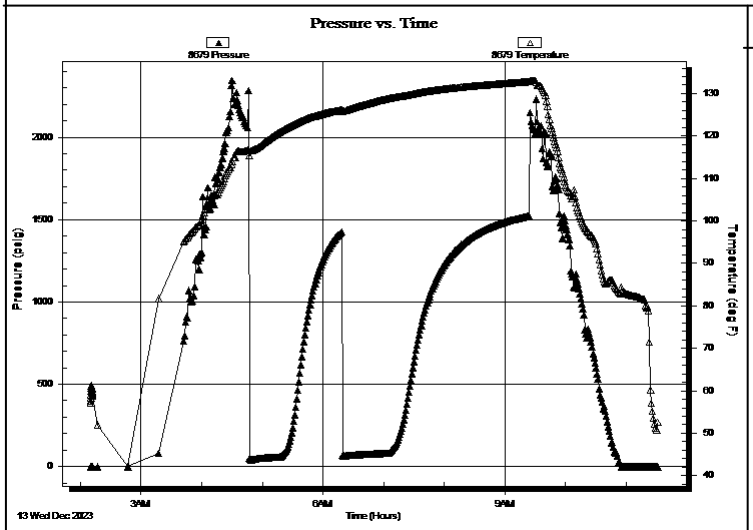
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8679

Press@RunDepth: psig @ ft (KB)
Start Date: 2023.12.13 End Date: 2023.12.13
Start Time: 02:10:04 End Time: 11:31:22

Capacity: 8000.00 psig
Last Calib.: 2023.12.13
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Weak Building Blow built to 2.77" (30)
ISI:No Blow Back. (60)
FF:Weak Building Blow built to 1.04" (45)
FSI:No Blow Back. (120)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
85.00	OSWCM 13.5%W 86.5%M	0.42
0.00	120' Gip	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846

ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71072 **DST#: 4**

Test Start: 2023.12.13 @ 02:10:56

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:	36000 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7900.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
85.00	OSWCM 13.5%W 86.5%M	0.418
0.00	120' Gip	0.000

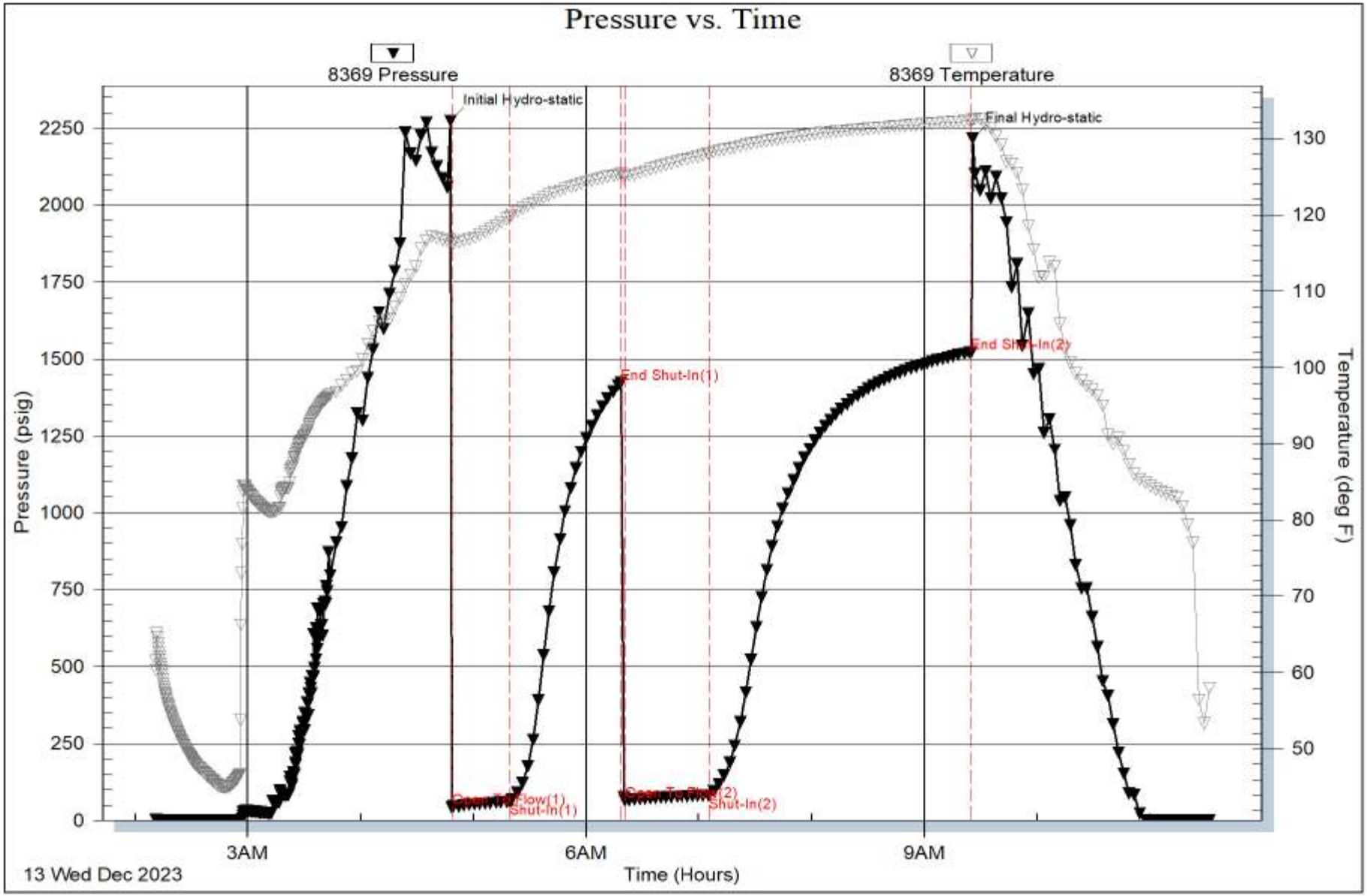
Total Length: 85.00 ft Total Volume: 0.418 bbl

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

Laboratory Name: Laboratory Location:

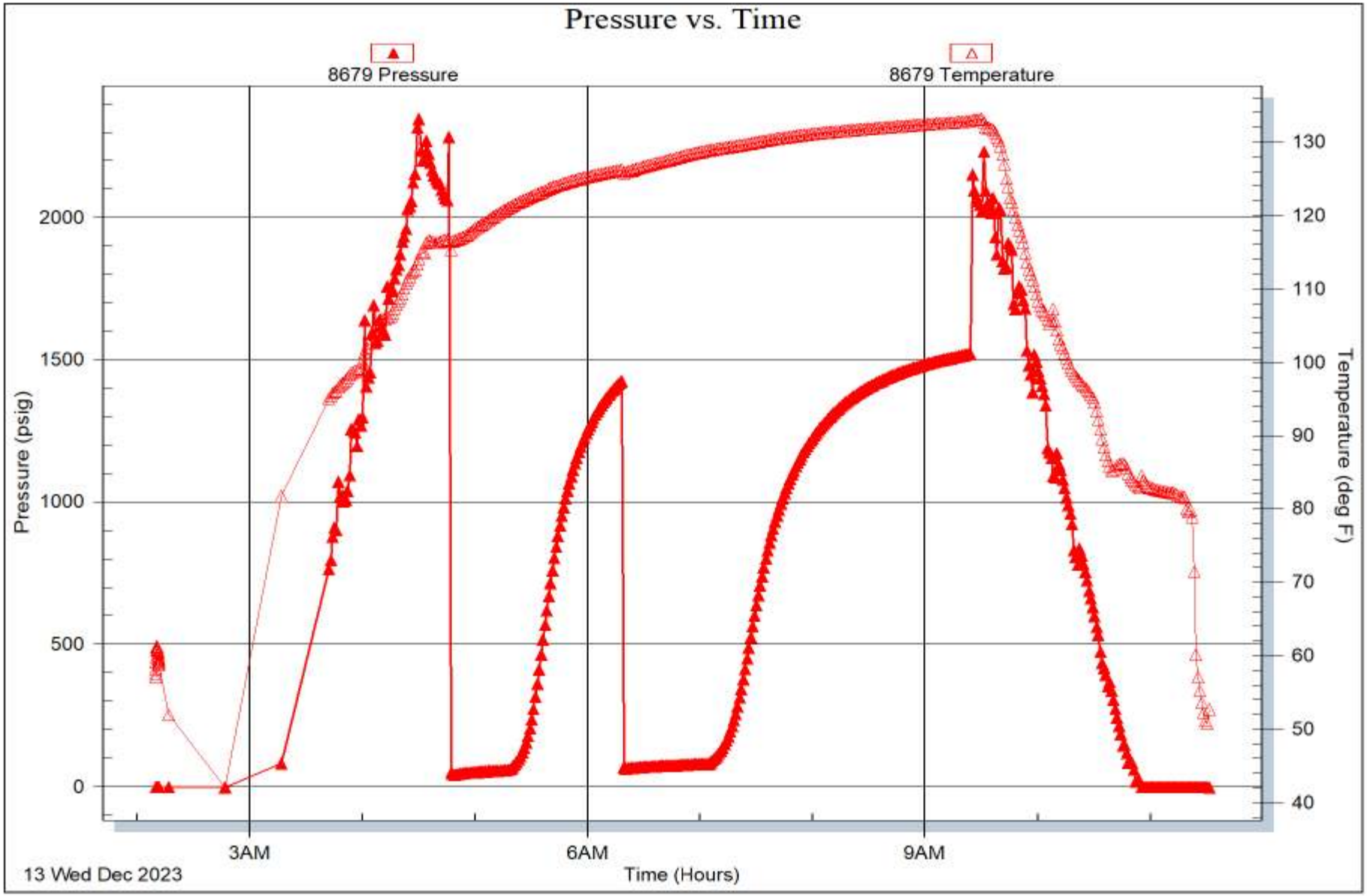
Recovery Comments:

Serial #: 8369 **Outside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 4



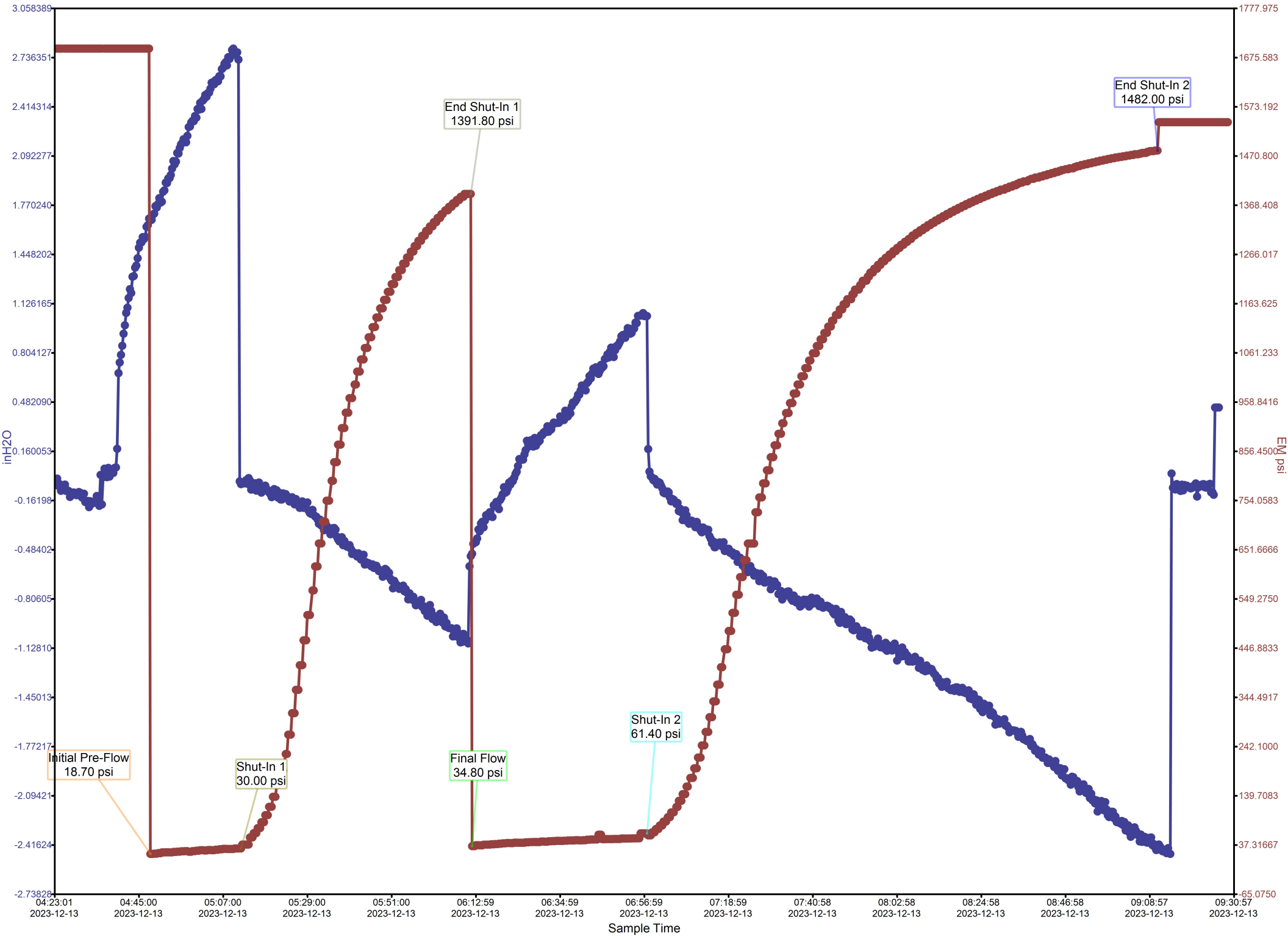
Trilobite Testing, Inc Ref. No: 71072 Printed: 2023.12.13 @ 12:25:12

Serial #: 8679 Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 4

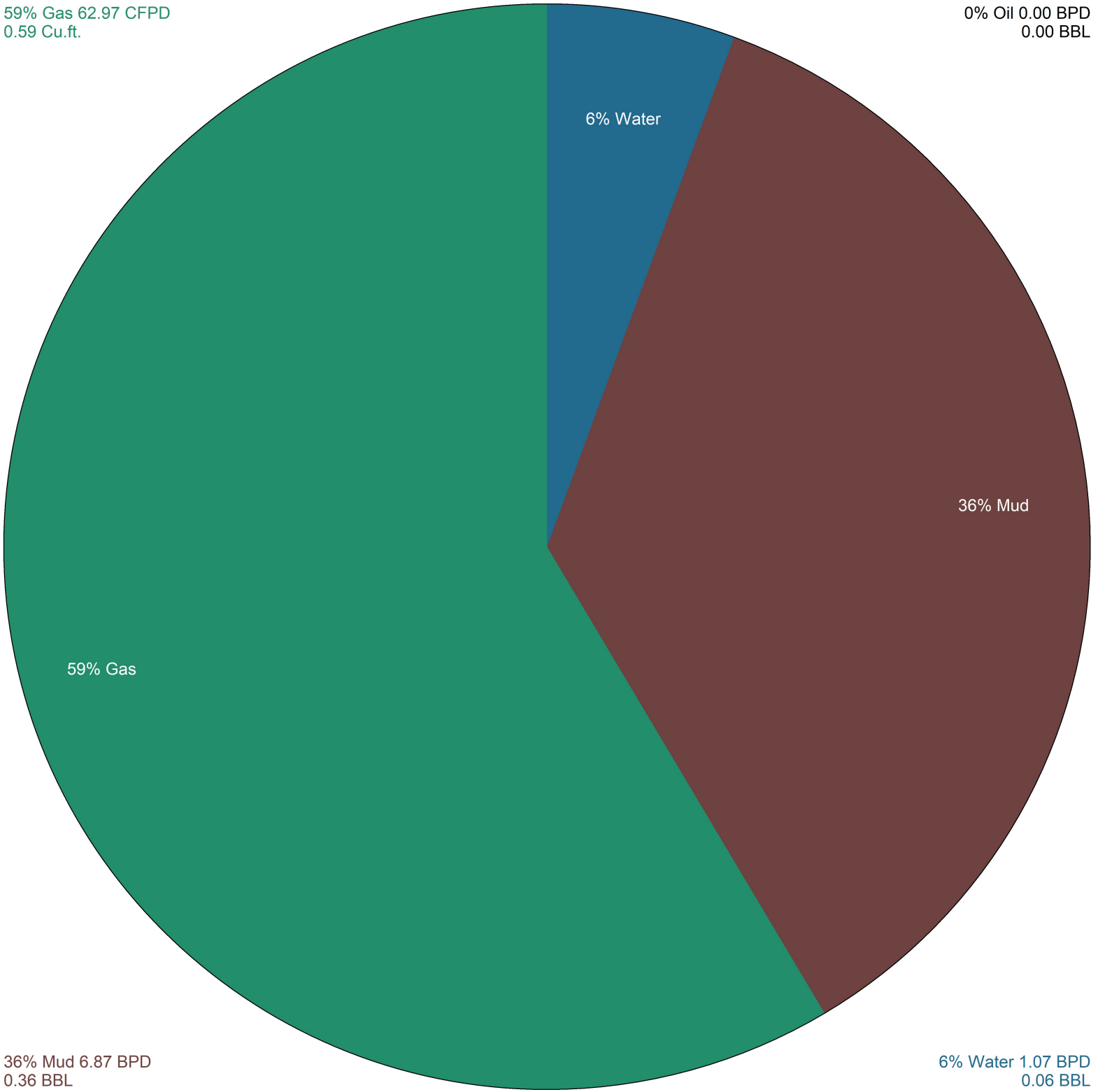


Trilobite Testing, Inc Ref. No: 71072 Printed: 2023.12.13 @ 12:25:12

Quail Oil & Gas - Panek Ranch 1-14 - Dst #4



Calculated Recovery Analysis - Quail Oil & Gas - Panek Ranch 1-14 - Dst #4



DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71073 **DST#: 5**

Test Start: 2023.12.08 @ 22:58:00

GENERAL INFORMATION:

Formation: **Viiola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended:

Test Type: Conventional Bottom Hole (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4550.00 ft (KB) To 4580.00 ft (KB) (TVD)
Total Depth: 4580.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition:

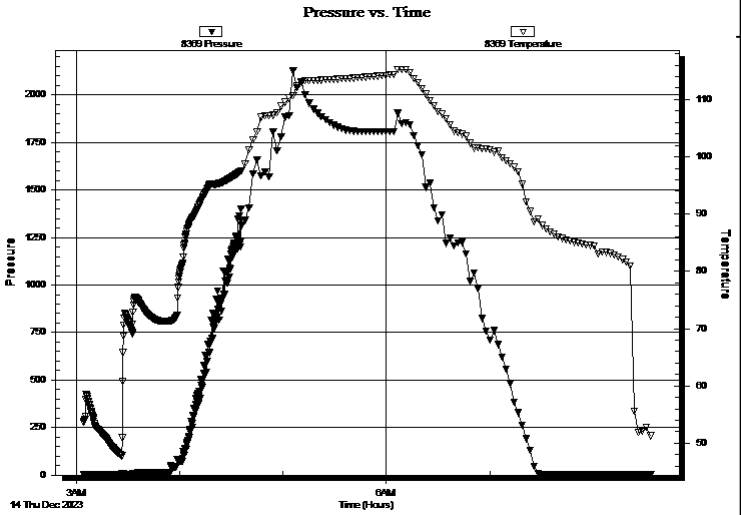
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: psig @ 4551.00 ft (KB)
Start Date: 2023.12.14 End Date: 2023.12.14
Start Time: 03:04:04 End Time: 08:35:23

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:While tripping in driller going in hole to fast and hit bridge hard enough to open the tool about two and a half rows off of bottom. Tripping tool out to drain fluid and reprogram recorders to go back in for dst #6.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
121.00	Mud 100%M	0.60

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71073 **DST#: 5**

Test Start: 2023.12.08 @ 22:58:00

GENERAL INFORMATION:

Formation: **Viiola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended:

Test Type: Conventional Bottom Hole (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4550.00 ft (KB) To 4580.00 ft (KB) (TVD)
Total Depth: 4580.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition:

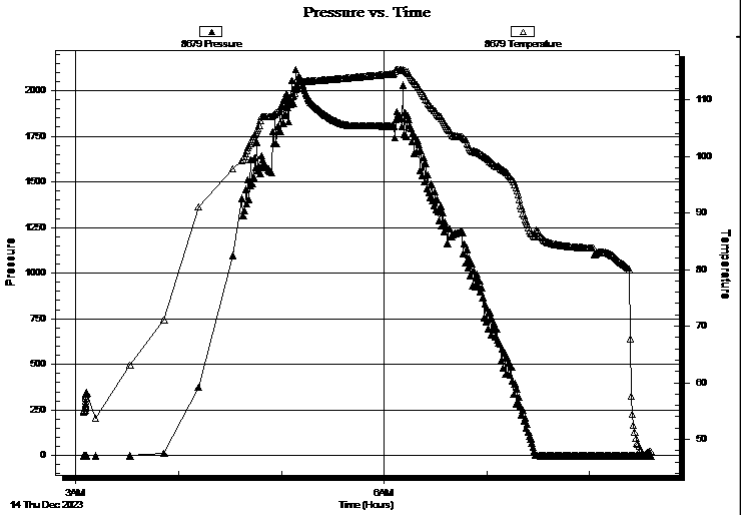
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8679

Press@RunDepth: psig @ ft (KB)
Start Date: 2023.12.14 End Date: 2023.12.14
Start Time: 03:04:28 End Time: 08:36:07

Capacity: 8000.00 psig
Last Calib.: 2023.12.14
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:While tripping in driller going in hole to fast and hit bridge hard enough to open the tool about two and a half rows off of bottom. Tripping tool out to drain fluid and reprogram recorders to go back in for dst #6.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
121.00	Mud 100%M	0.60

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846

ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 71073 **DST#: 5**

Test Start: 2023.12.08 @ 22:58:00

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:	66.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8900.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

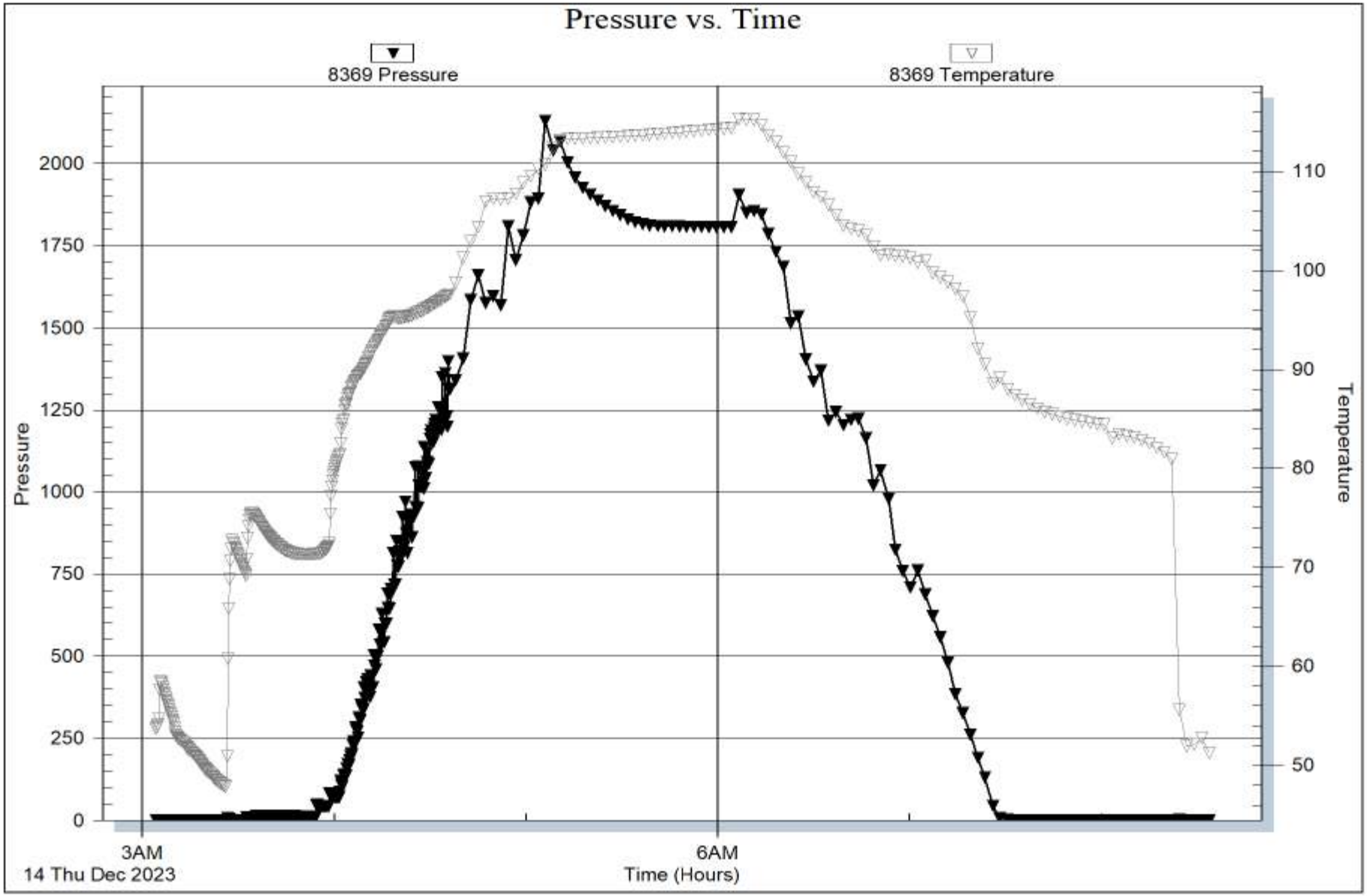
Length ft	Description	Volume bbl
121.00	Mud 100%M	0.595

Total Length: 121.00 ft Total Volume: 0.595 bbl

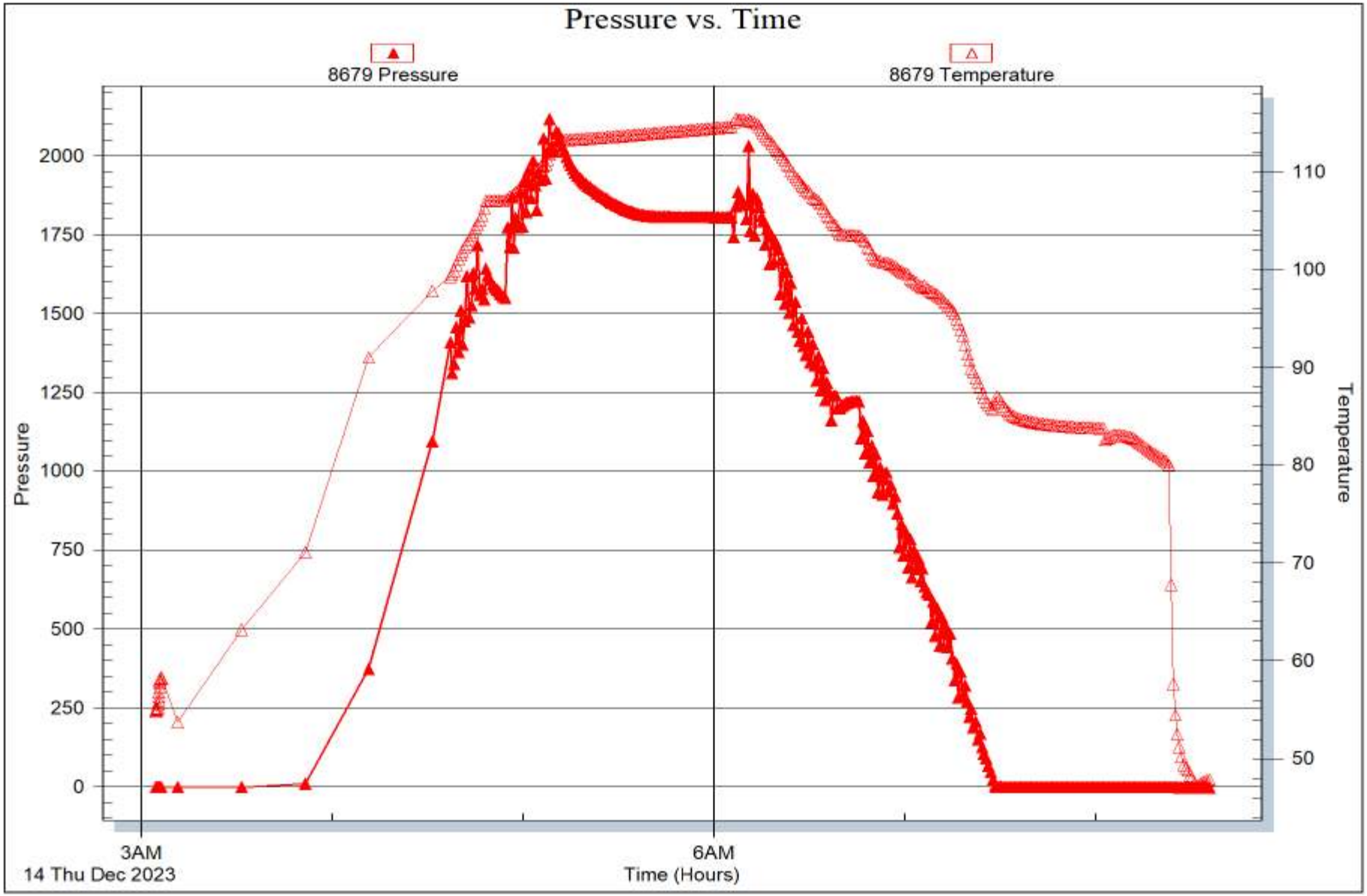
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

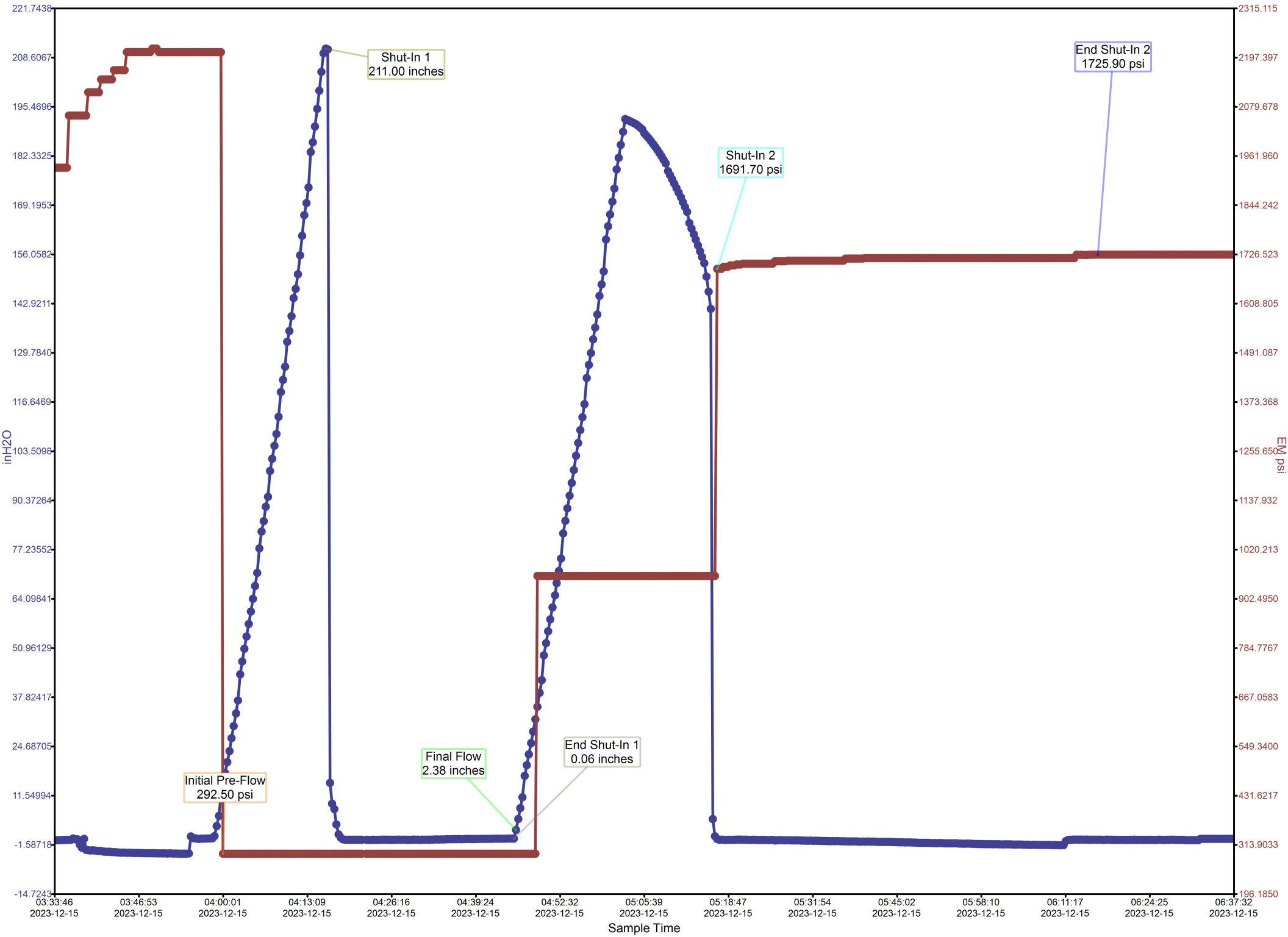
Recovery Comments:


Pressure vs. Time
8369 Pressure
8369 Temperature
2000
1750
1500
1250
1000
750
500
250
0
Pressure
110
100
90
80
70
60
50
Temperature
3AM
14 Thu Dec 2023
6AM
Time (Hours)

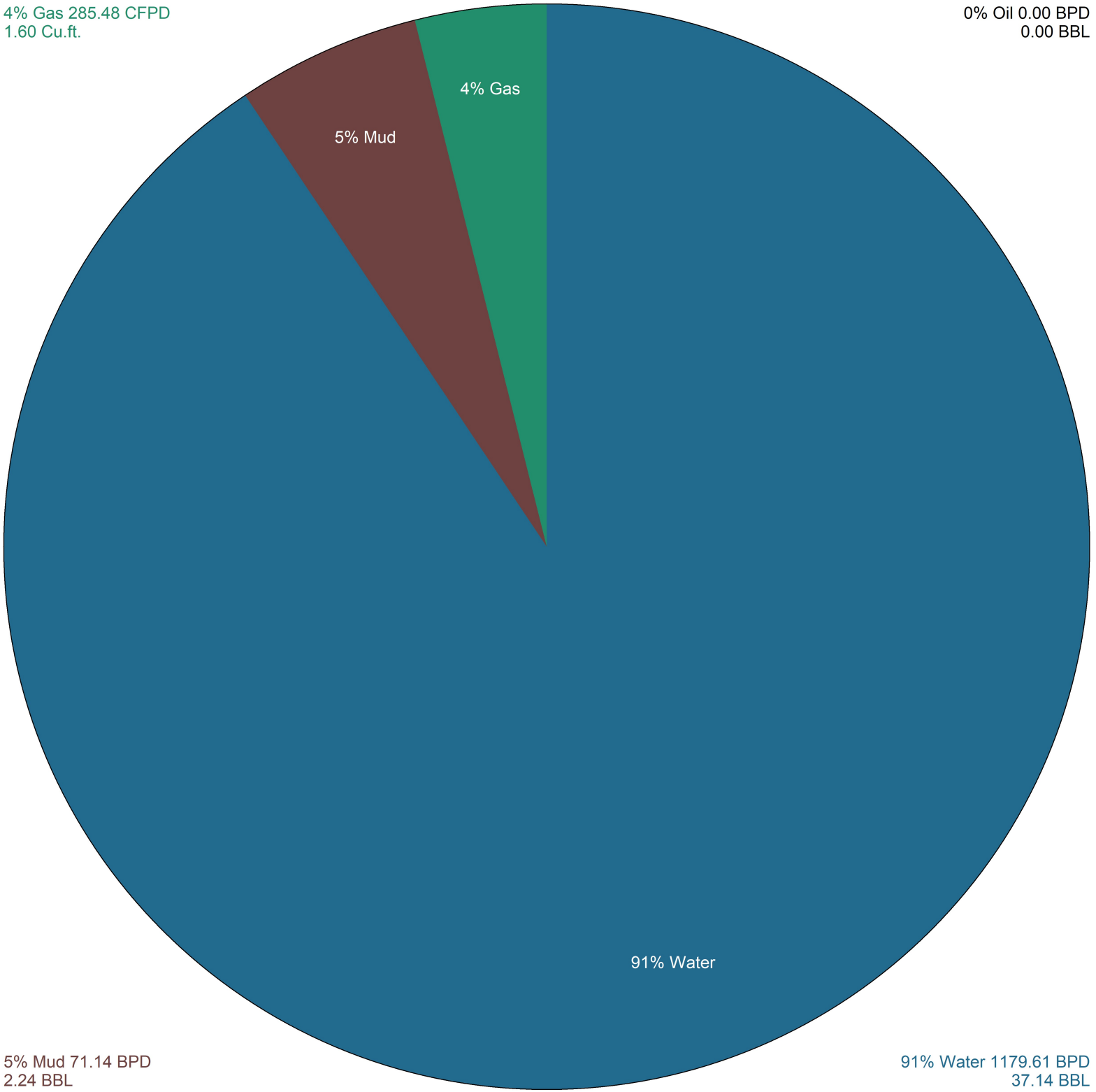
Serial #: 8679 | Quail Oil & Gas | Panek Ranch 1-14 | DST Test Number: 5



Quail Oil & Gas - Panek Ranch 1-14 - Dst #7



Calculated Recovery Analysis - Quail Oil & Gas - Panek Ranch 1-14 - Dst #7



DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K
Garden City KS
ATTN: Dave Barker

14-29S-11W Pratt,KS

Panek Ranch #1-14

Job Ticket: 71075 **DST#: 7**

Test Start: 2023.12.15 @ 01:15:45

GENERAL INFORMATION:

Formation: **Simpson Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:59:25
Time Test Ended: 10:03:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4622.00 ft (KB) To 4657.00 ft (KB) (TVD)
Total Depth: 4657.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

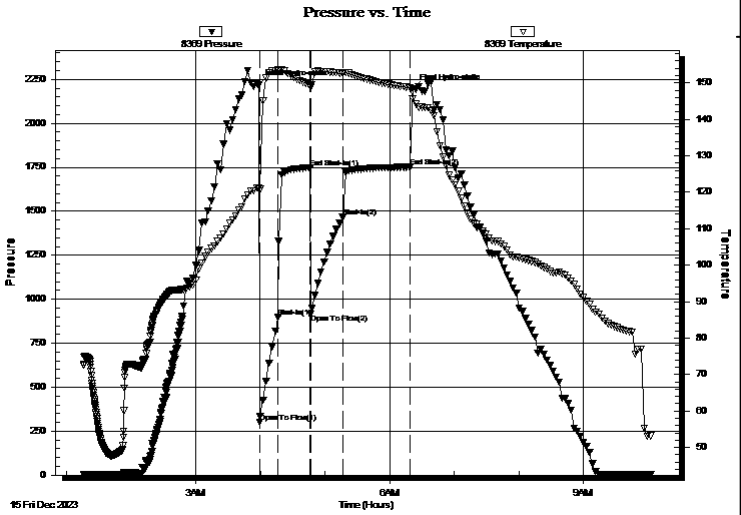
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: 1465.86 psig @ 4624.00 ft (KB)
Start Date: 2023.12.15 End Date: 2023.12.15
Start Time: 01:15:46 End Time: 10:03:15

Capacity: 8000.00 psig
Last Calib.: 2023.12.15
Time On Btm: 2023.12.15 @ 03:58:05
Time Off Btm: 2023.12.15 @ 06:21:15

TEST COMMENT: IF:Strong Building Blow built to 211" (15)
ISI:Surface Bubble blow back. (30)
FF:STrong Building Blow built to 192" but died back to 141" (30)
FSI:No Blow Back. (60)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2217.77	121.28	Initial Hydro-static
2	300.37	120.32	Open To Flow (1)
19	898.35	153.32	Shut-In(1)
48	1747.85	149.33	End Shut-In(1)
49	916.68	148.85	Open To Flow (2)
78	1465.86	152.59	Shut-In(2)
141	1750.85	148.67	End Shut-In(2)
144	2197.10	145.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2331.00	GCW 5%G 95%W	31.60
630.00	MCW 25%M 75%W	8.84

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K
Garden City KS
ATTN: Dave Barker

14-29S-11W Pratt,KS

Panek Ranch #1-14

Job Ticket: 71075 **DST#: 7**

Test Start: 2023.12.15 @ 01:15:45

GENERAL INFORMATION:

Formation: **Simpson Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:59:25
Time Test Ended: 10:03:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4622.00 ft (KB) To 4657.00 ft (KB) (TVD)
Total Depth: 4657.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

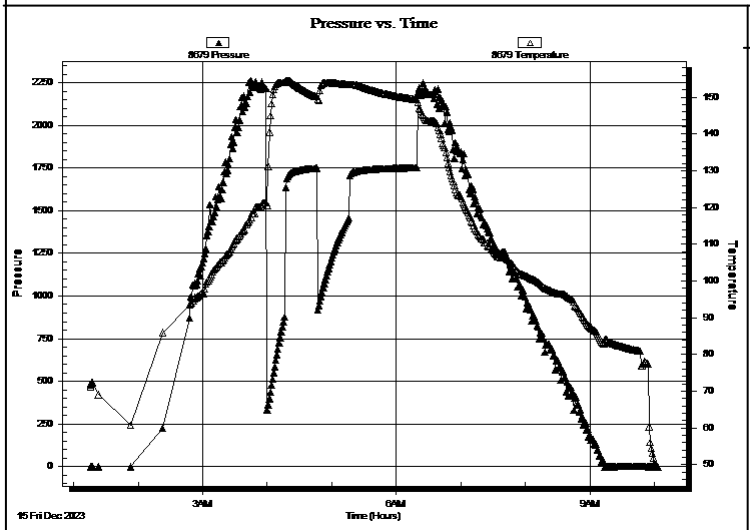
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8679

Press@RunDepth: psig @ ft (KB)
Start Date: 2023.12.15 End Date: 2023.12.15
Start Time: 01:15:54 End Time: 10:03:42

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Strong Building Blow built to 211" (15)
ISI:Surface Bubble blow back. (30)
FF:STrong Building Blow built to 192" but died back to 141" (30)
FSI:No Blow Back. (60)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2331.00	GCW 5%G 95%W	31.60
630.00	MCW 25%M 75%W	8.84

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K
Garden City KS
ATTN: Dave Barker

14-29S-11W Pratt,KS

Panek Ranch #1-14

Job Ticket: 71075 **DST#: 7**

Test Start: 2023.12.15 @ 01:15:45

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:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6500.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

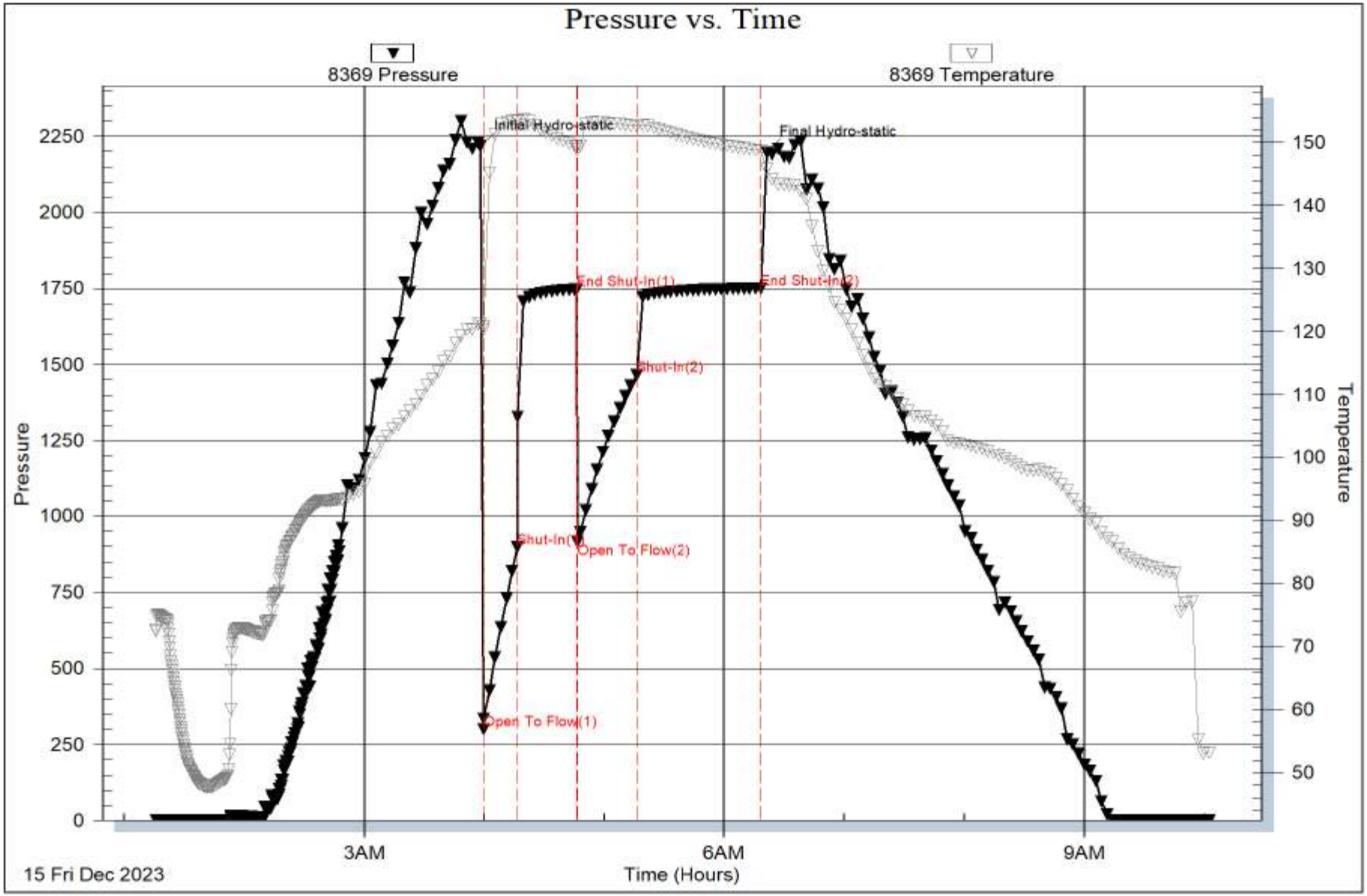
Recovery Table

Length ft	Description	Volume bbl
2331.00	GCW 5%G 95%W	31.596
630.00	MCW 25%M 75%W	8.837

Total Length: 2961.00 ft Total Volume: 40.433 bbl

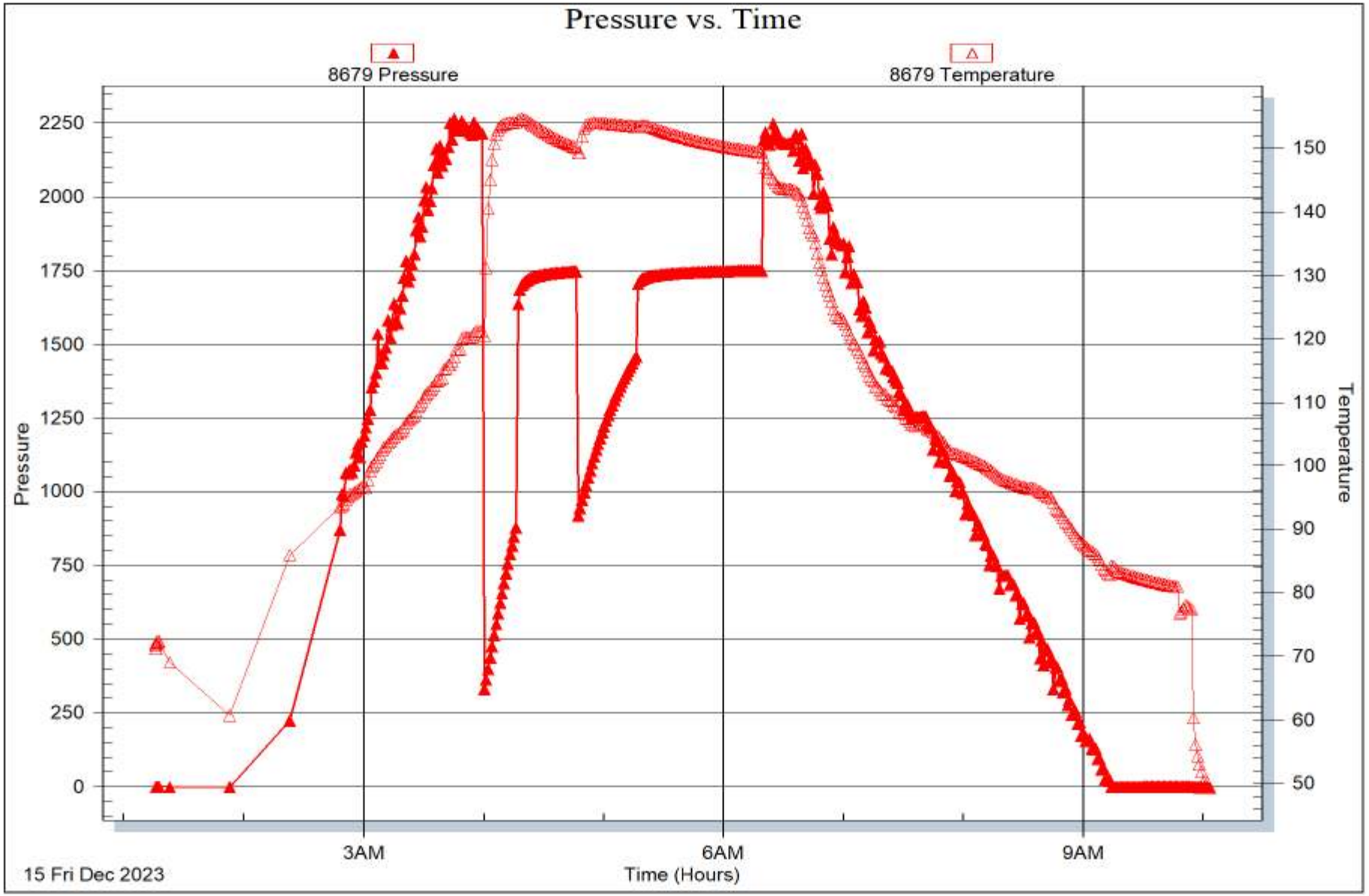
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8369 **Outside** Quail Oil & Gas Panek Ranch #1-14 DST Test Number: 7



Trilobite Testing, Inc Ref. No: 71075 Printed: 2023.12.15 @ 11:00:02

Serial #: 8679 | Quail Oil & Gas | Panek Ranch #1-14 | DST Test Number: 7



Trilobite Testing, Inc | Ref. No: 71075 | Printed: 2023.12.15 @ 11:00:02

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 70751 **DST#: 8**

Test Start: 2023.12.16 @ 11:10:38

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:45:58
Time Test Ended: 20:22:27

Test Type: Conventional Straddle (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4523.00 ft (KB) To 4590.00 ft (KB) (TVD)
Total Depth: 4790.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

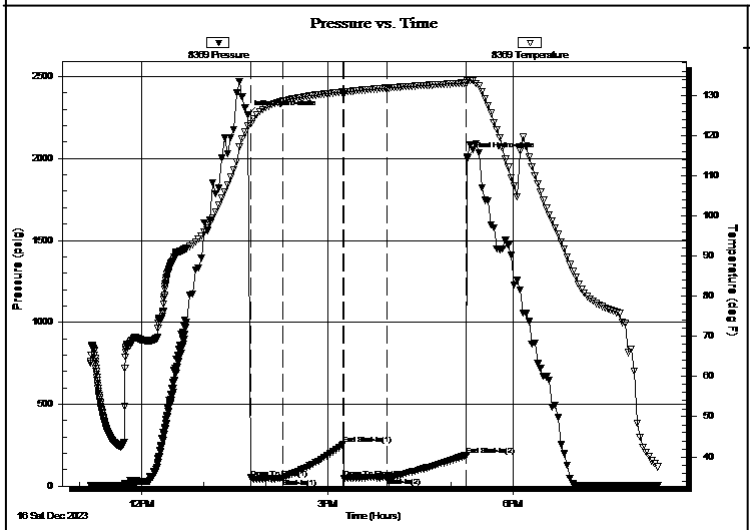
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: 55.99 psig @ 4559.00 ft (KB)
Start Date: 2023.12.16 End Date: 2023.12.16
Start Time: 11:10:39 End Time: 20:22:27

Capacity: 8000.00 psig
Last Calib.: 2023.12.16
Time On Btm: 2023.12.16 @ 13:43:08
Time Off Btm: 2023.12.16 @ 17:15:17

TEST COMMENT: IF:Weak Building Blow built to 3.40" (30)
ISI:No Blow Back. (60)
FF:Weak Building Blow built to 2.57" (60)
FSI:No Blow Back. (60)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2267.18	122.26	Initial Hydro-static
3	50.18	122.85	Open To Flow (1)
34	49.16	128.51	Shut-In(1)
92	254.90	130.80	End Shut-In(1)
93	45.37	130.75	Open To Flow (2)
135	55.99	131.75	Shut-In(2)
212	189.94	133.04	End Shut-In(2)
213	2008.72	133.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.05
0.00	121' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 70751 **DST#: 8**

Test Start: 2023.12.16 @ 11:10:38

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:45:58
Time Test Ended: 20:22:27

Test Type: Conventional Straddle (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4523.00 ft (KB) To 4590.00 ft (KB) (TVD)
Total Depth: 4790.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

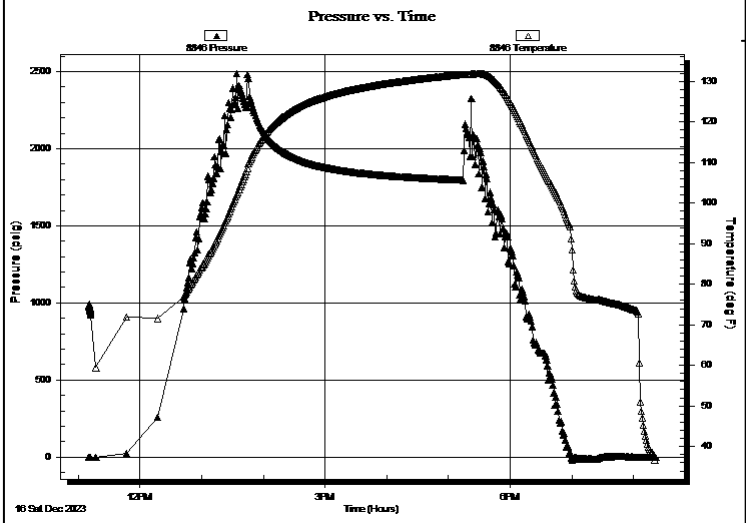
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8846 **Inside**

Press@RunDepth: psig @ 4559.00 ft (KB)
Start Date: 2023.12.16 End Date: 2023.12.16
Start Time: 11:10:14 End Time: 20:21:32

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Weak Building Blow built to 3.40" (30)
ISI:No Blow Back. (60)
FF:Weak Building Blow built to 2.57" (60)
FSI:No Blow Back. (60)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.05
0.00	121' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846
ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 70751 **DST#: 8**

Test Start: 2023.12.16 @ 11:10:38

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:45:58
Time Test Ended: 20:22:27

Test Type: Conventional Straddle (Reset)
Tester: Eric Burgess
Unit No: 80

Interval: 4523.00 ft (KB) To 4590.00 ft (KB) (TVD)
Total Depth: 4790.00 ft (KB) (TVD)
Hole Diameter: 7.79 inches Hole Condition: Fair

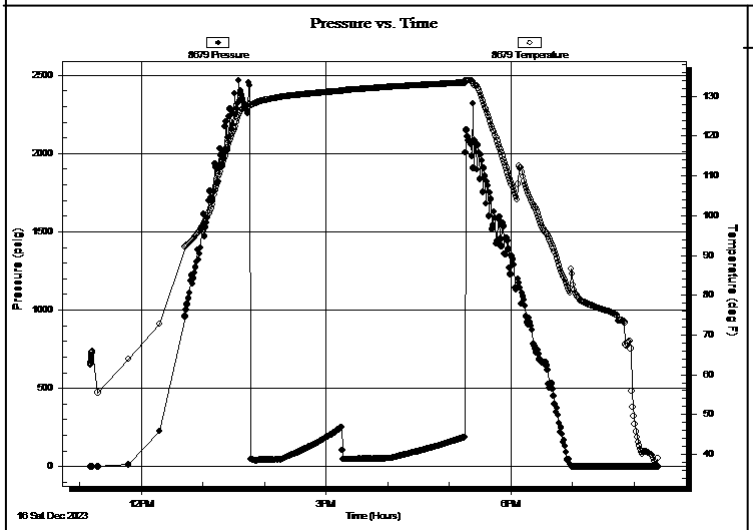
Reference Elevations: 1789.00 ft (KB)
1784.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8679

Press@RunDepth: psig @ ft (KB)
Start Date: 2023.12.16 End Date: 2023.12.16
Start Time: 11:10:35 End Time: 20:22:44

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Weak Building Blow built to 3.40" (30)
ISI:No Blow Back. (60)
FF:Weak Building Blow built to 2.57" (60)
FSI:No Blow Back. (60)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.05
0.00	121' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Quail Oil & Gas

2005 N Taylor Ave.
PO Box K Garden City KS
67846

ATTN: Dave Barker

14-29S-11W/Pratt

Panek Ranch 1-14

Job Ticket: 70751 **DST#: 8**

Test Start: 2023.12.16 @ 11:10:38

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:	120.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	13.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	11000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100%M	0.049
0.00	121' GIP	0.000

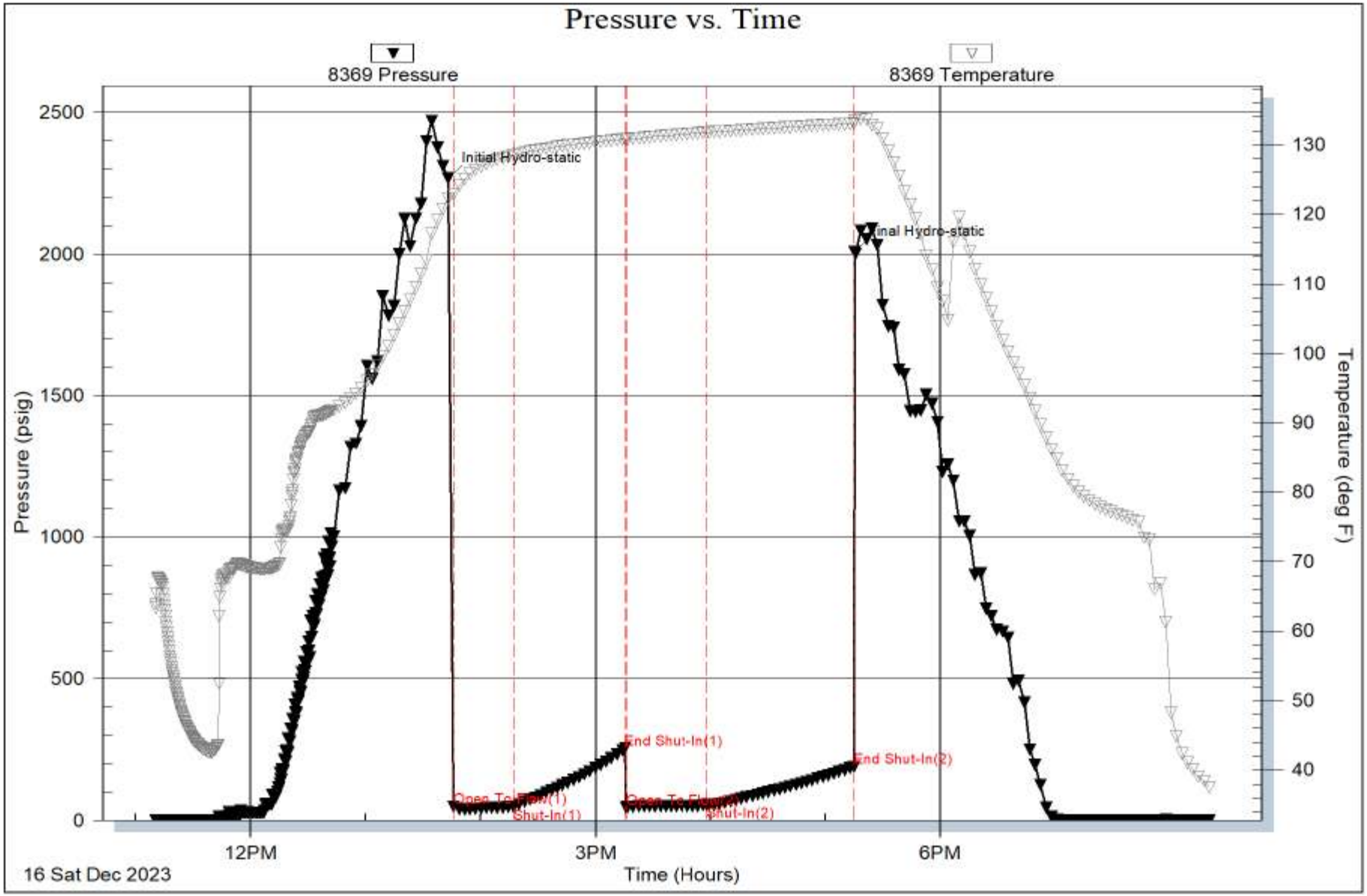
Total Length: 10.00 ft Total Volume: 0.049 bbl

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

Laboratory Name: Laboratory Location:

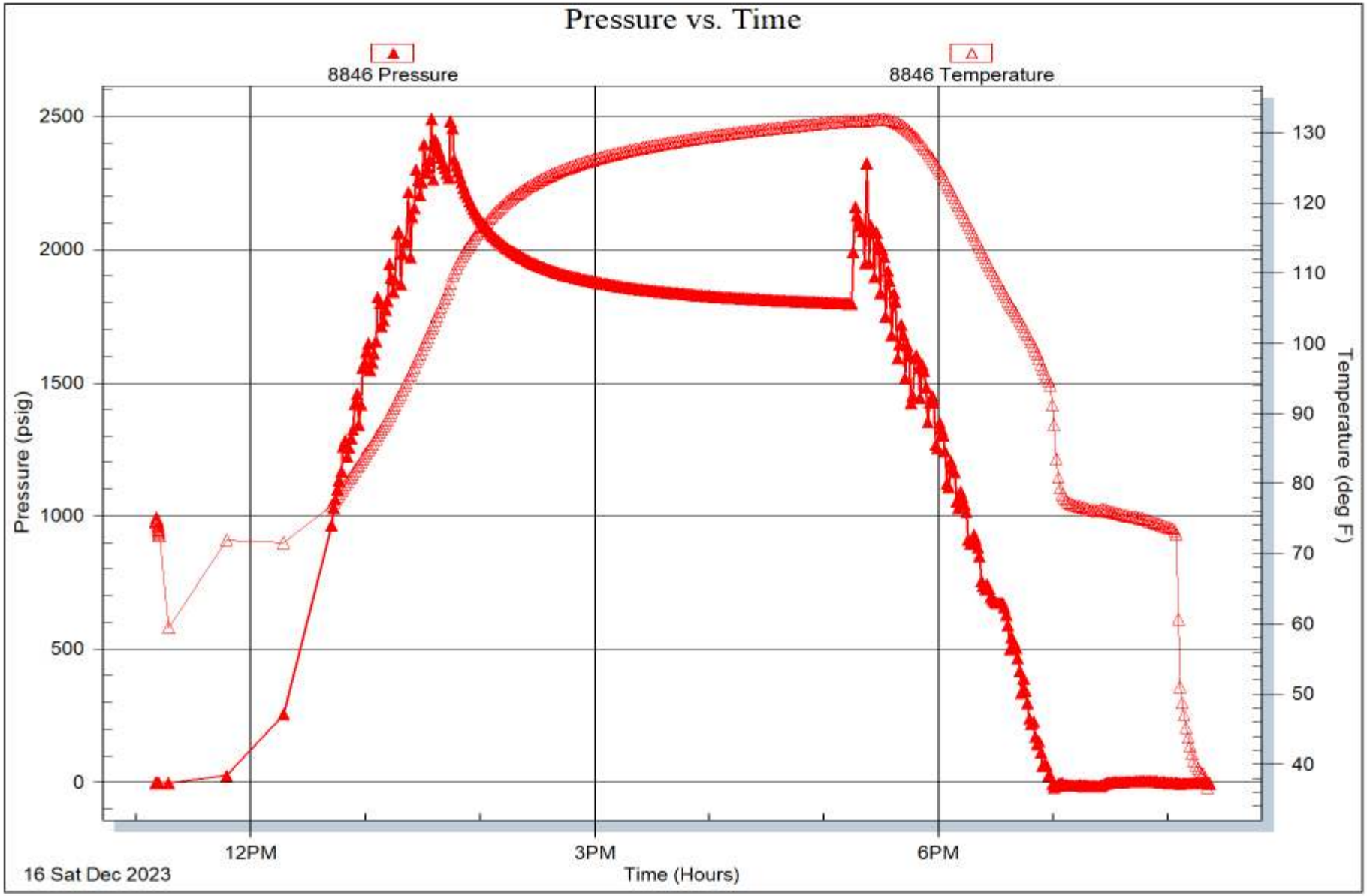
Recovery Comments:

Serial #: 8369 **Outside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 8



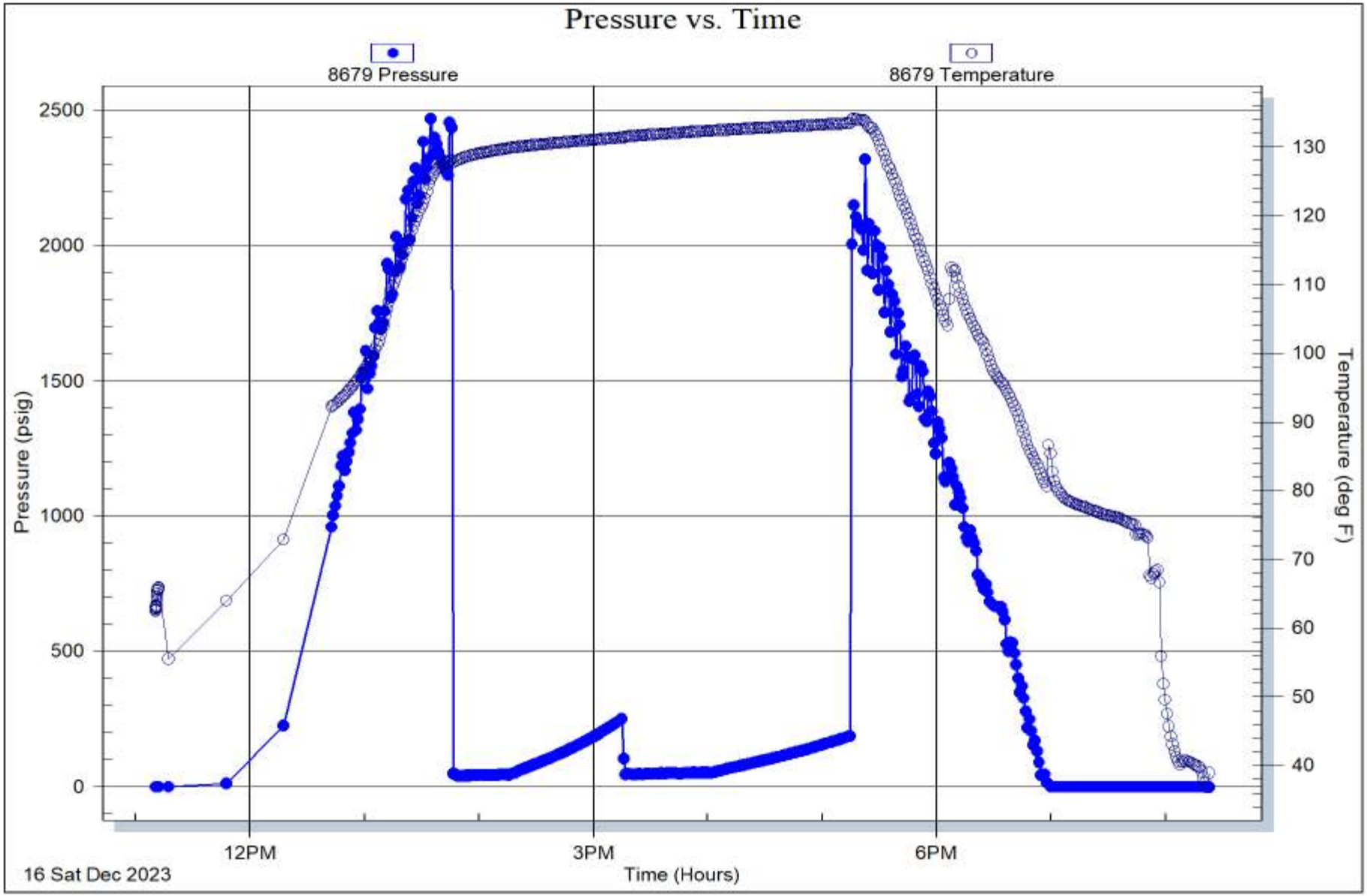
Trilobite Testing, Inc Ref. No: 70751 Printed: 2023.12.16 @ 22:51:12

Serial #: 8846 **Inside** Quail Oil & Gas Panek Ranch 1-14 DST Test Number: 8



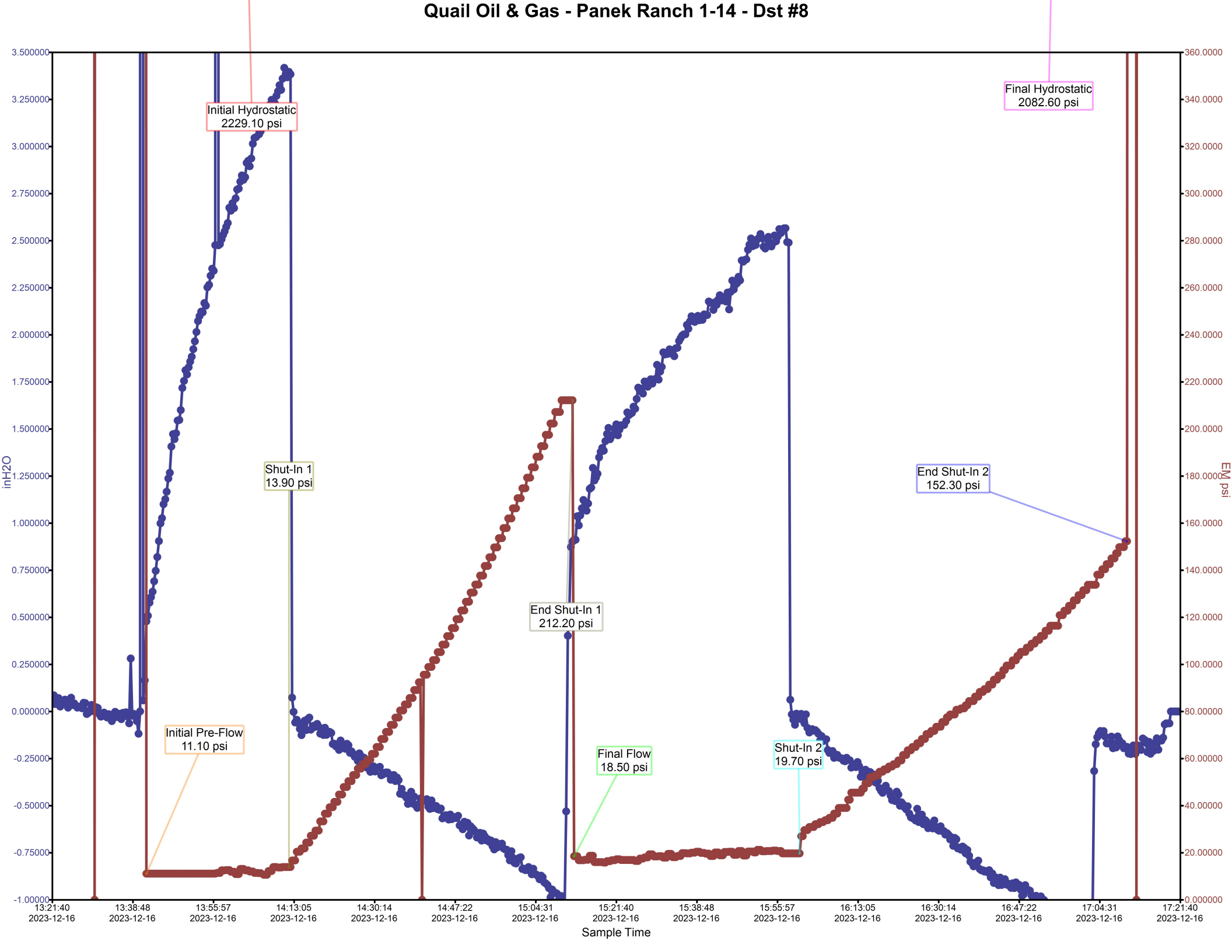
Trilobite Testing, Inc Ref. No: 70751 Printed: 2023.12.16 @ 22:51:13

Serial #: 8679 | Quail Oil & Gas | Panek Ranch 1-14 | DST Test Number: 8



Trilobite Testing, Inc | Ref. No: 70751 | Printed: 2023.12.16 @ 22:51:13

Quail Oil & Gas - Panek Ranch 1-14 - Dst #8



David A. Barker

CONSULTING GEOLOGIST

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

Well Name:	**Panek Ranch 1-14**		
Well Id:	**15-007-22575**		
Location:	**14-T29S-R11W**		
License Number:		**Region:**	**Barber County, Kansas**
Spud Date:	**12-04-2023**	**Drilling Completed:**	**12-16-2023**
Surface Coordinates:	**SE NE NW SW/4 or 1301 FWL and 2228 FSL**		
Bottom Hole Coordinates:	**same as above**		
Ground Elevation (ft):	**1784**	**K.B. Elevation (ft):**	**1791**
Logged Interval (ft):	**surface To: TD**	**Total Depth (ft):**	**4790**
Formation:	**Arbuckle**		
Type of Drilling Fluid:	**chemical**		

OPERATOR

Company: **Ouail Oil & Gas**
Address: **PO Box K**
Garden City, KS 67648

GEOLOGIST

Name: **David A. Barker**
Company:
Address: **212 N. Market, Suite# 320**
Wichita, Kansas 67202
(316) 259-4294, 2 Barker@sbcglobal.net

Contractor

Pickrell Drilling, 929 W Douglas Ave, Wichita, KS 67213, 316-262-8427

Remarks

All oil and gas shows that warrented drill stem testing were tested in this well. A total of 8 drillstem tests were attempted at this location two of which were miss runs. After reviewing the electric logs, drill stem results and sample information it was decided to plug and abandon the 1-14 Panek on December 16, 2023.

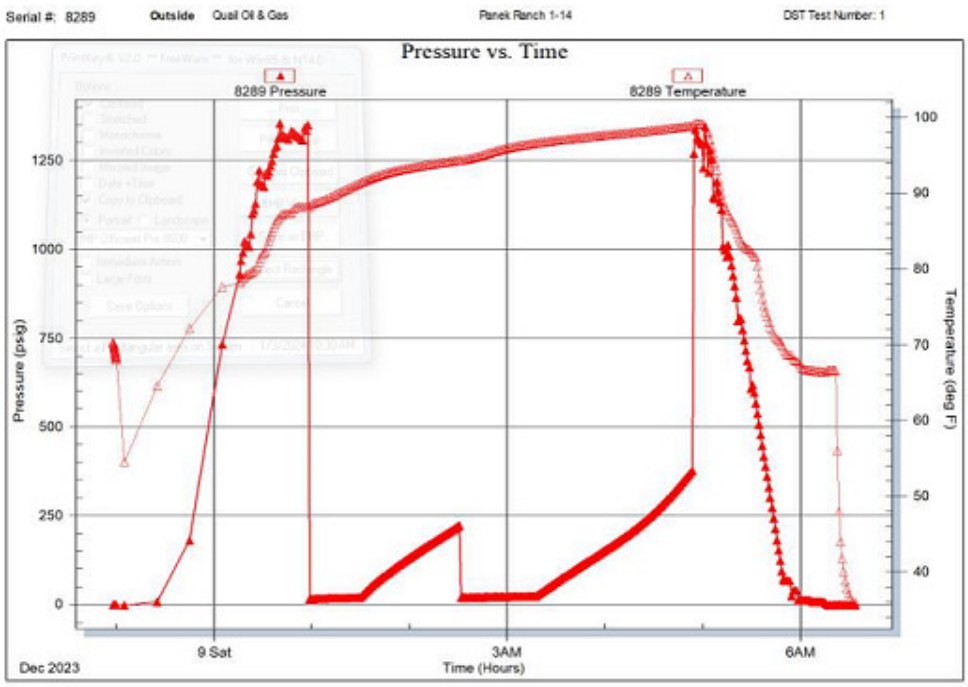
Daily Status

Straight hole tests:
305': 1/2 deg,
809': 1/2 deg,
1346': 1/2 deg,
1789': bullseye,
2326': 1/2 deg,
2832': 3/4 deg,
3691': Bullseye,
4790': 3/4 deg,
Daily Status
12/06/2023: depth 306' Spud 3:00 P.M. 10:00 P.M. run 7 JTS of 8 5/8, plug down at 11:45 P.M.
12/07/2023: Morning depth: 1693
12/08/2023: Morning depth: 2560
12/09/2023: Morning depth: 2880 displacment at 2705 to 2760, DST #1 2857' to 2880'
12/10/2023: Morning depth: 3580' DST #2 3520 to 3585'
12/11/2023: Morning depth: 3880:
12/12/2023: Morning depth: 4120' DST #3. 4093 to 4120'
12/13/2023: Morning depth: 4347: DST #4 4288 to 4347'
12/14/2023: Morning depth: 4580, DST #5 4550 to 4580', tripping in the hole too fast hit a brige and openned the tool and picked up 121' of mud. tripped out of hole reset tool while tripping in with the test tool for DST #6 the operator decided to wait to test the Viola until after the Elog.
12/15/2023: Morning depth: 4657, DST #7 4622 to 4657'
12/16/2023: Morning depth: 4790 TD Elog
12/17/2023: Morning depth: 4790 straddel test DST #8 4523 to 4590' , Decision to plug and abandon, Plugging info: 50 sx at 4712', 50 sx at 660' 50 sx at 330' 20 sx at 60', 20 sx rat hole.

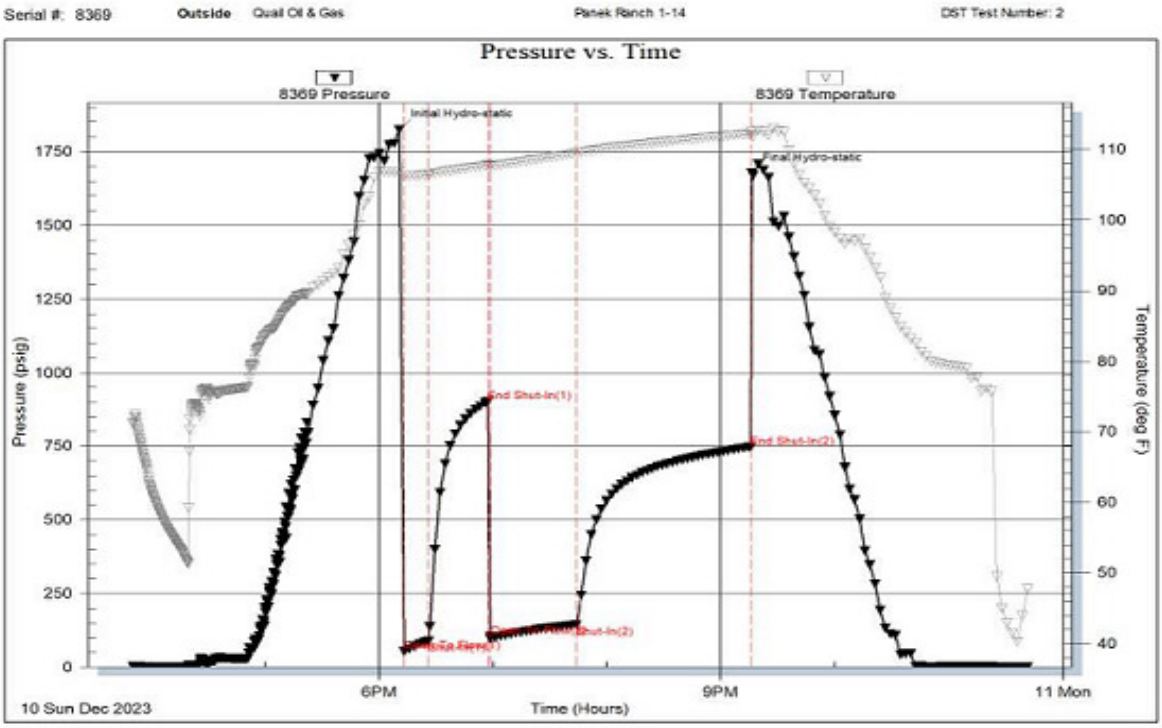
DST #5 4550 to 4580, Viola, The driller was tripping into the hole too fast and hit a bridge hard enough to open the tool. The tool opened about about two and half rows off bottom. Tripped out of the hole to drain the tool and reset the tool

DST # 6 4550 to 4580, Viola, Tripping into the hole with the tool for DST #6 and after 5 stands in the hole, the operator decided to wait to test this zone, with a straddle test after the Elog-see DST #8

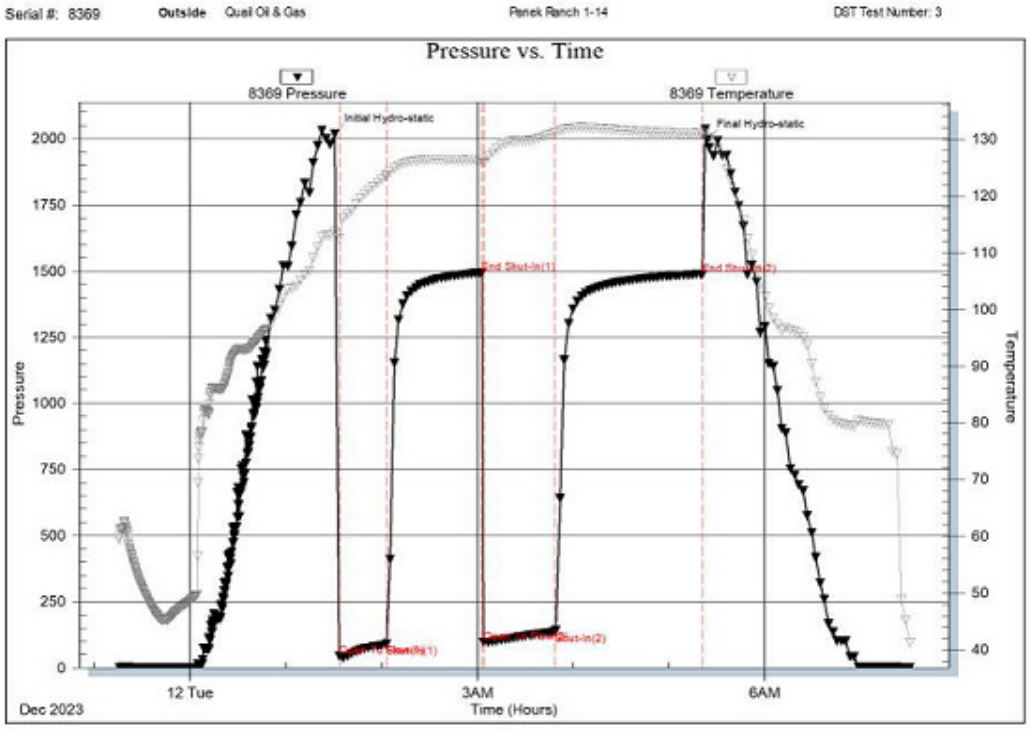
DST #1 2857 to 2880, Tarkio Sand, 30, 60, 45,90, IFP: fair blow BOB in 18 minutes built to 17 inches, ISIP: no blow back, FFP: Strong blow BOB in 10 minutes, built to 19'', FSIP: no blow back, REC: 500' GIP, 15' mud (5% gas 95% mud), HP 1381 to 1330#, IFP 23.7 to 22, FFP 19 to 25#, BHP 222 to 380#, BHT 99.7



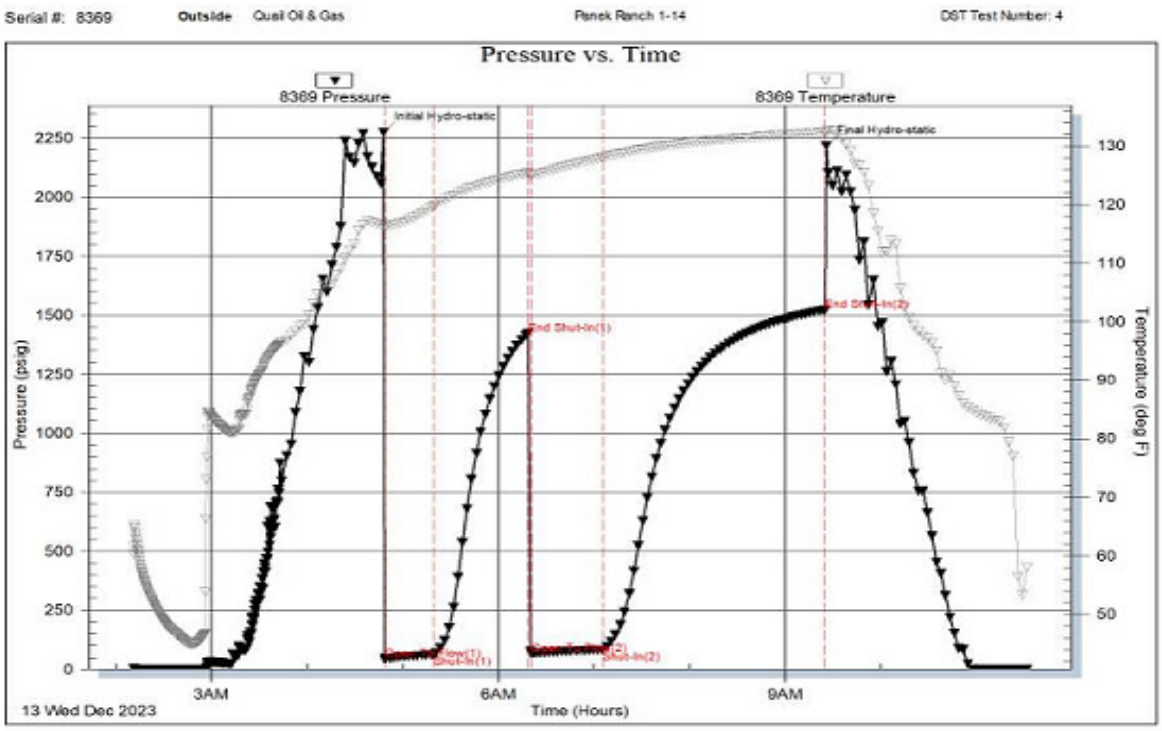
DST #2, 3520 to 3585' Lecompton, 15-30-45-90, : Strong building Blow built to 93.23'', IFIP 25'' blow back, FFP: Strong building blow, built to 57.10'' FFP: 1'' blow back, REC 1827' GIP, 60', 32' WMCO (55% oil, 25% WTR, 20% mud, 64' OMCW (5% oil, 85% WTR, 10% mud), 60' VSOMCW (2% oil, 95% WTR, 3% mud), 60' GMCW (5%, 80% WTR, 15% MUD), IHP 1824 to 1677#, IFP 54-89#, FFP 106 to 143#, BHP 900 to 747#, BHT 112 deg



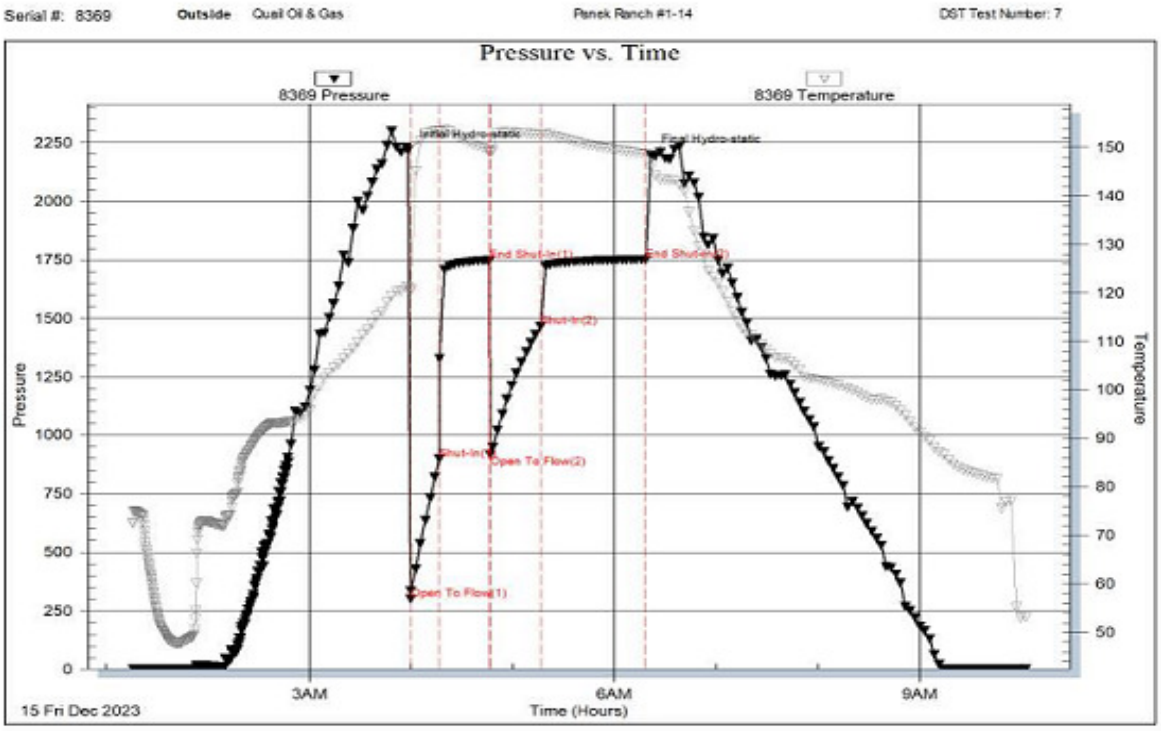
DST #3, 4093 to 4120, Lansing 'Swope'', 30-60-45-90, IFP strong blow building to 24.51'', ISI : no blow back, FFP: Fair blow building to 17.87'' , FSI: No blow back. REC: 441' GIP, 64' of OMCW (30%oikl, 40% wtr & 30% mud), 64'' MW (95%WTR, 5% mud), 60'' MW (95% wtr, 5% mud) 60' MW (97% wtr, 3% mud) BHP 1493-1488#, IFP 46-90#, FFP 97-136#, HP 1493-1488#



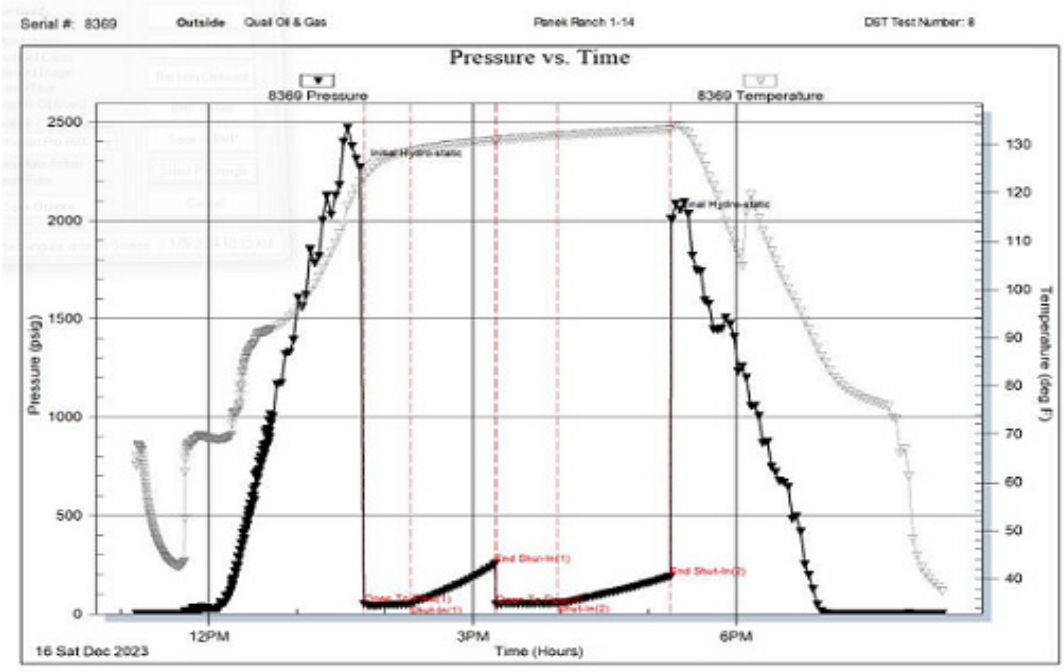
DST #4 4288 to 4347, Mississippian, 30-60-45-120, IFP: weak building blow to 2.77', ISIP: no blow back, FFP: Weak building blow building to 1.04'', FSI: no blow back, REC:120' GIP, 85' OSWCM (13.5 % WTR, 86.5 mud), IHP 2274-2216#, BHP 1424 to 1522#, IFP 43 to 63#, FFP 66 to 92#, BHT 132



DST # 7, 4622 to 4657,15-30-30-60, Simpson Sand, IFP: Strong building blow built to 211", ISIP: Surface buble blow back, FFP Strong building blow built to 192" but died to 141", FSIP: no blow back, REC: 2331" of GCW, (5% gas 95% wtr), 630' MCW, 75% wtr & 25%mud), HP 2218 to 2197#, IFP 360 to 898#, F FP917 to 1466#, BHP 1748 to 1751#, BHT 145



DST (8) 4523 to 4590, Viola straddle test after Elog: IFP Weak blow building to 3.4", ISIP No blow back, FFP: Weak building blow built to 2.57", FSIP: No blow back, REC 10 mud 100% mud, 121 GIP, IHP 2267 to 2008#, BHP 254 to 189#, IFP 50 to 49, FFP 45 to 55.9#, BHT



ACCESSORIES

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

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

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

TEXTURE
- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

INTERVALS
- Core
- Dst
- Dst

EVENTS
- Rft
- Sidewall
- Cfs
- Conn

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

LITHOLOGY
- Anhy
- Chtred
- Cht
- Congl
- Shale
- Shgy
- gray scaless
- Ss
- Carb shale
- Gray shale
- Sandy lmst
- Shale
- Slt stn
- Shaly slst
- Slty shale
- Blank
- Gray lmst
- Cream lmst
- Red shale
- Blue-green siltstn
- Green shale
- D. green shale
- Green shale
- Brown lmst
- Brown shale
- Brown dol
- Brown cream
- Brown cream
- D. green lmst
- pink lime
- Light cream lmst
- Gray cream lmst
- Green dol
- Gray dol

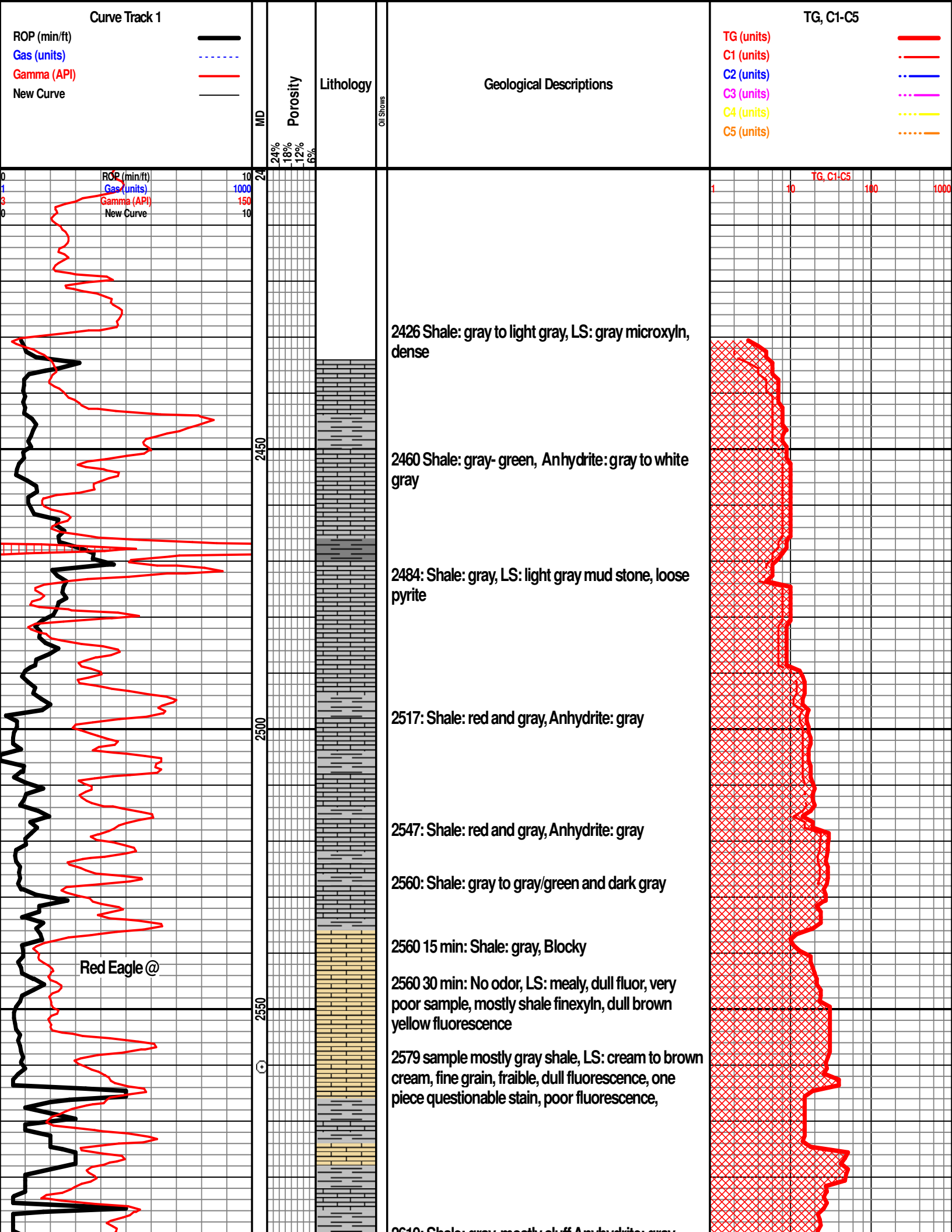
SORTING
- Well
- Moderate
- Poor

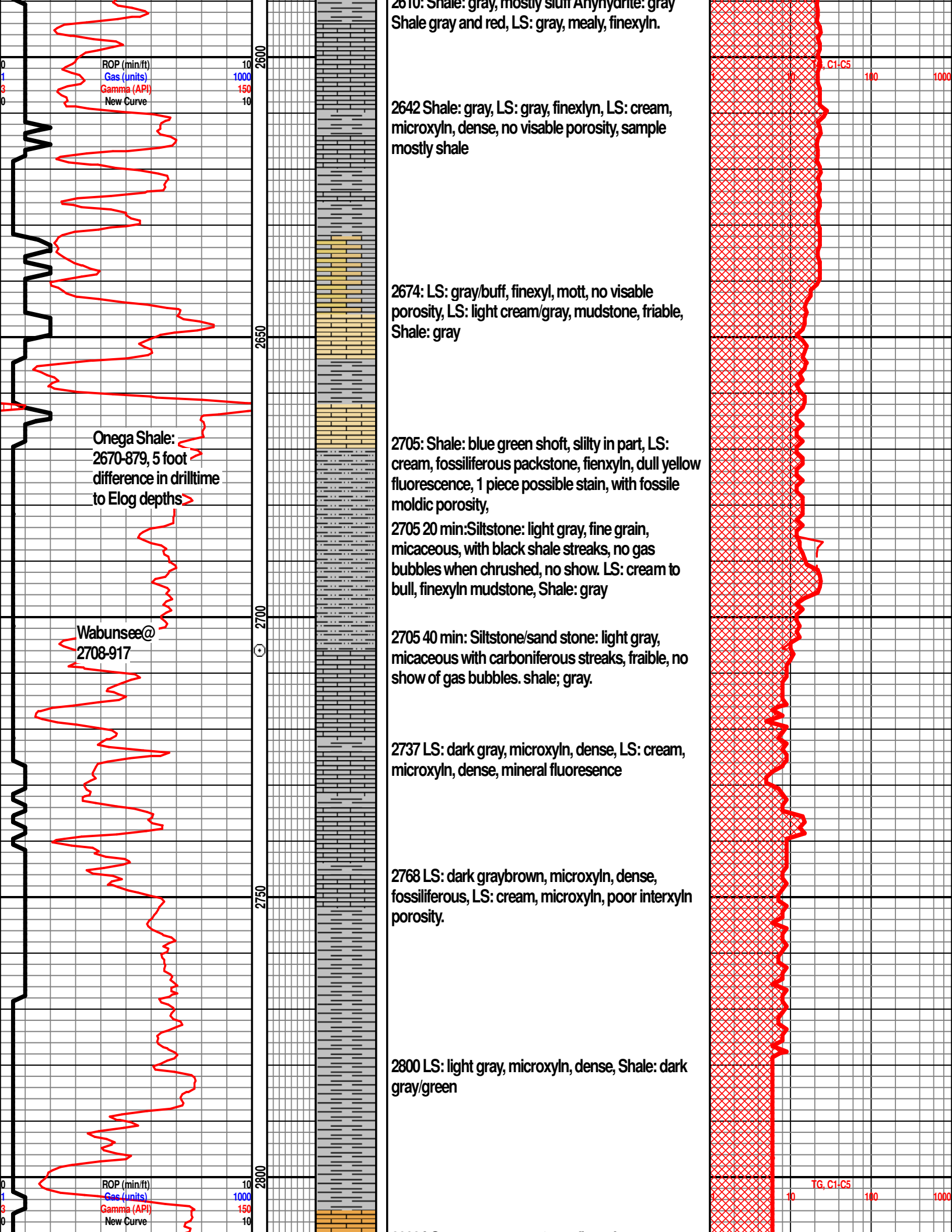
ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

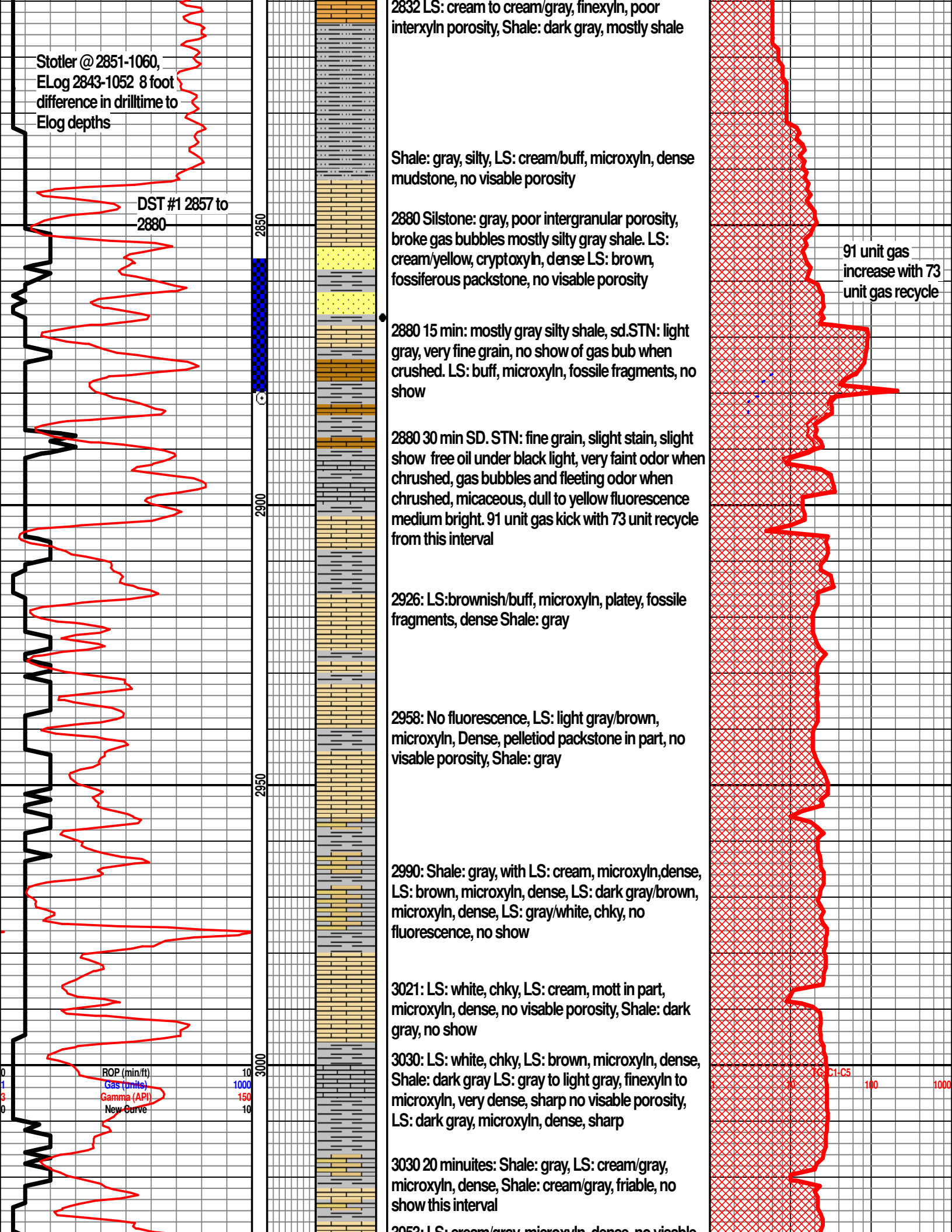
OIL SHOWS
- Even
- Spotted
- Ques
- Dead
- Gas show

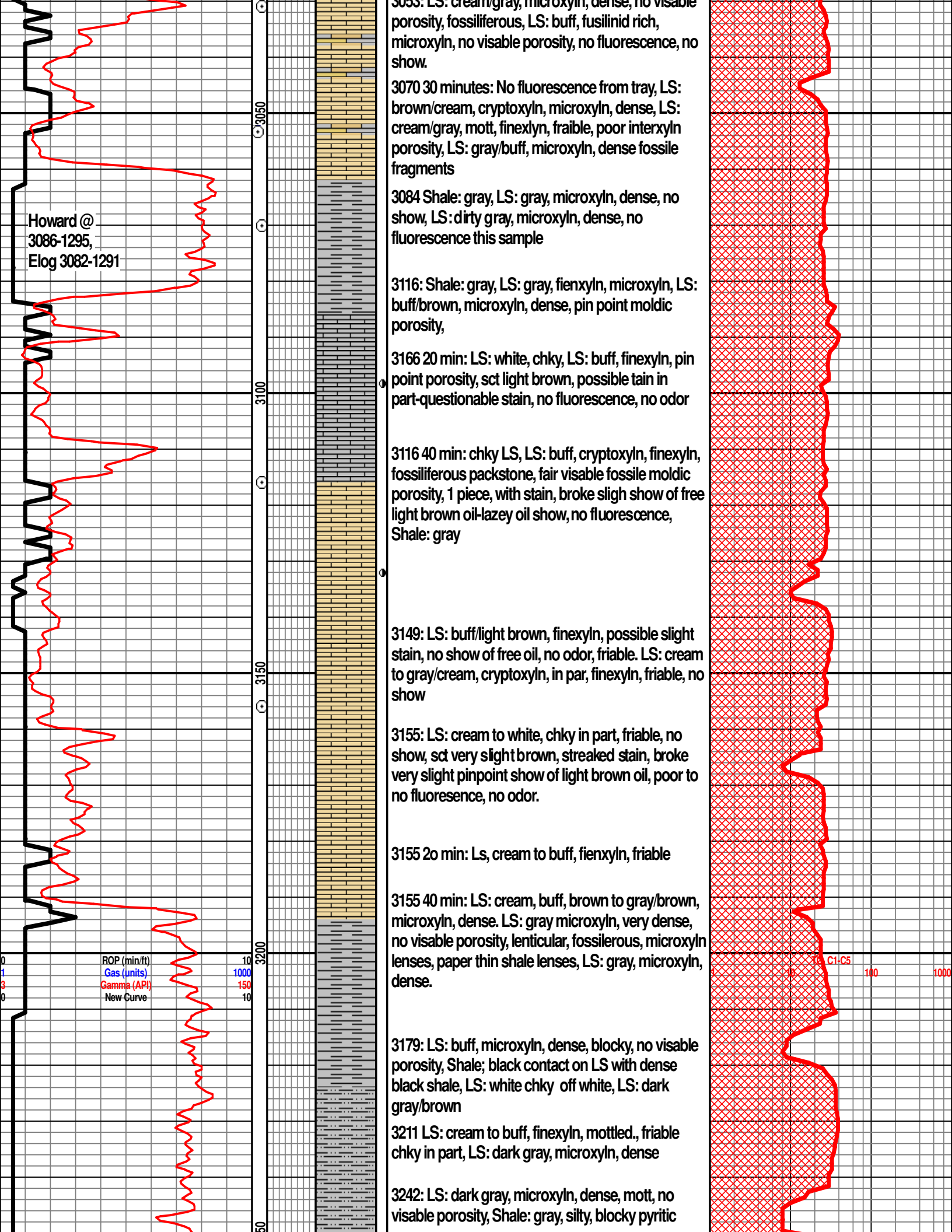
ROCK TYPES

- Anhy
- Chtred
- Cht
- Congl
- Shale
- Shgy
- gray scaless
- Ss
- Carb shale
- Gray shale
- Sandy lmst
- Shale
- Slt stn
- Shaly slst
- Slty shale
- Blank
- Gray lmst
- Cream lmst
- Red shale
- Blue-green siltstn
- Green shale
- D. green shale
- Green shale
- Brown lmst
- Brown shale
- Brown dol
- Brown cream
- Brown cream
- D. green lmst
- pink lime
- Light cream lm
- Gray cream lm
- Green dol
- Gray dol


Curve Track 1
ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
MD
Porosity
24%
18%
12%
6%
Lithology
Oil Shows
Geological Descriptions
TG, C1-C5
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
0
1
3
0
ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
10
1000
150
10
24
2450
2500
2550
TG, C1-C5
1
10
100
1000
2426 Shale: gray to light gray, LS: gray microxyln, dense
2460 Shale: gray- green, Anhydrite: gray to white gray
2484: Shale: gray, LS: light gray mud stone, loose pyrite
2517: Shale: red and gray, Anhydrite: gray
2547: Shale: red and gray, Anhydrite: gray
2560: Shale: gray to gray/green and dark gray
2560 15 min: Shale: gray, Blocky
2560 30 min: No odor, LS: mealy, dull fluor, very poor sample, mostly shale finexyln, dull brown yellow fluorescence
2579 sample mostly gray shale, LS: cream to brown cream, fine grain, fraible, dull fluorescence, one piece questionable stain, poor fluorescence,
Red Eagle @


ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
TG, C1-C5
2600
2650
2700
2750
2800
Onega Shale:
2670-879, 5 foot
difference in drilltime
to Elog depths
Wabunsee@
2708-917
2610: Shale: gray, mostly sluff Anhydrite: gray
Shale gray and red, LS: gray, mealy, finexyln.
2642 Shale: gray, LS: gray, finexlyn, LS: cream,
microxyln, dense, no visable porosity, sample
mostly shale
2674: LS: gray/buff, finexyl, mott, no visable
porosity, LS: light cream/gray, mudstone, friable,
Shale: gray
2705: Shale: blue green shoft, slilty in part, LS:
cream, fossiliferous packstone, fienxyln, dull yellow
fluorescence, 1 piece possible stain, with fossile
moldic porosity,
2705 20 min:Siltstone: light gray, fine grain,
micaceous, with black shale streaks, no gas
bubbles when chrushed, no show. LS: cream to
bull, finexyln mudstone, Shale: gray
2705 40 min: Siltstone/sand stone: light gray,
micaceous with carboniferous streaks, fraible, no
show of gas bubbles. shale; gray.
2737 LS: dark gray, microxyln, dense, LS: cream,
microxyln, dense, mineral fluoresence
2768 LS: dark graybrown, microxyln, dense,
fossiliferous, LS: cream, microxyln, poor interxyln
porosity.
2800 LS: light gray, microxyln, dense, Shale: dark
gray/green


Stotler @ 2851-1060, ELog 2843-1052 8 foot difference in drilltime to Elog depths
DST #1 2857 to 2880
2832 LS: cream to cream/gray, finexyln, poor interxyln porosity, Shale: dark gray, mostly shale
Shale: gray, silty, LS: cream/buff, microxyln, dense mudstone, no visable porosity
2880 Silstone: gray, poor intergranular porosity, broke gas bubbles mostly silty gray shale. LS: cream/yellow, cryptoxyln, dense LS: brown, fossiferous packstone, no visable porosity
91 unit gas increase with 73 unit gas recycle
2880 15 min: mostly gray silty shale, sd.STN: light gray, very fine grain, no show of gas bub when crushed. LS: buff, microxyln, fossile fragments, no show
2880 30 min SD. STN: fine grain, slight stain, slight show free oil under black light, very faint odor when chrushed, gas bubbles and fleeting odor when chrushed, micaceous, dull to yellow fluorescence medium bright. 91 unit gas kick with 73 unit recycle from this interval
2926: LS:brownish/buff, microxyln, platey, fossile fragments, dense Shale: gray
2958: No fluorescence, LS: light gray/brown, microxyln, Dense, pelletiod packstone in part, no visable porosity, Shale: gray
2990: Shale: gray, with LS: cream, microxyln,dense, LS: brown, microxyln, dense, LS: dark gray/brown, microxyln, dense, LS: gray/white, chky, no fluorescence, no show
3021: LS: white, chky, LS: cream, mott in part, microxyln, dense, no visable porosity, Shale: dark gray, no show
3030: LS: white, chky, LS: brown, microxyln, dense, Shale: dark gray LS: gray to light gray, finexyln to microxyln, very dense, sharp no visable porosity, LS: dark gray, microxyln, dense, sharp
3030 20 minuites: Shale: gray, LS: cream/gray, microxyln, dense, Shale: cream/gray, friable, no show this interval
2850
2900
2950
3000
ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
TG, C1-C5
100
1000



3053: LS: cream/gray, microxyln, dense, no visable porosity, fossiliferous, LS: buff, fusilinid rich, microxyln, no visable porosity, no fluorescence, no show.

3070 30 minutes: No fluorescence from tray, LS: brown/cream, cryptoxyln, microxyln, dense, LS: cream/gray, mott, finexlyn, fraible, poor interxyln porosity, LS: gray/buff, microxyln, dense fossile fragments

3084 Shale: gray, LS: gray, microxyln, dense, no show, LS: dirty gray, microxyln, dense, no fluorescence this sample

3116: Shale: gray, LS: gray, fienxyln, microxyln, LS: buff/brown, microxyln, dense, pin point moldic porosity,

3166 20 min: LS: white, chky, LS: buff, finexyln, pin point porosity, sct light brown, possible tain in part-questionable stain, no fluorescence, no odor

3116 40 min: chky LS, LS: buff, cryptoxyln, finexyln, fossiliferous packstone, fair visable fossile moldic porosity, 1 piece, with stain, broke sligh show of free light brown oil-lazey oil show, no fluorescence, Shale: gray

3149: LS: buff/light brown, finexyln, possible slight stain, no show of free oil, no odor, friable. LS: cream to gray/cream, cryptoxyln, in par, finexyln, friable, no show

3155: LS: cream to white, chky in part, friable, no show, sct very slight brown, streaked stain, broke very slight pinpoint show of light brown oil, poor to no fluoresence, no odor.

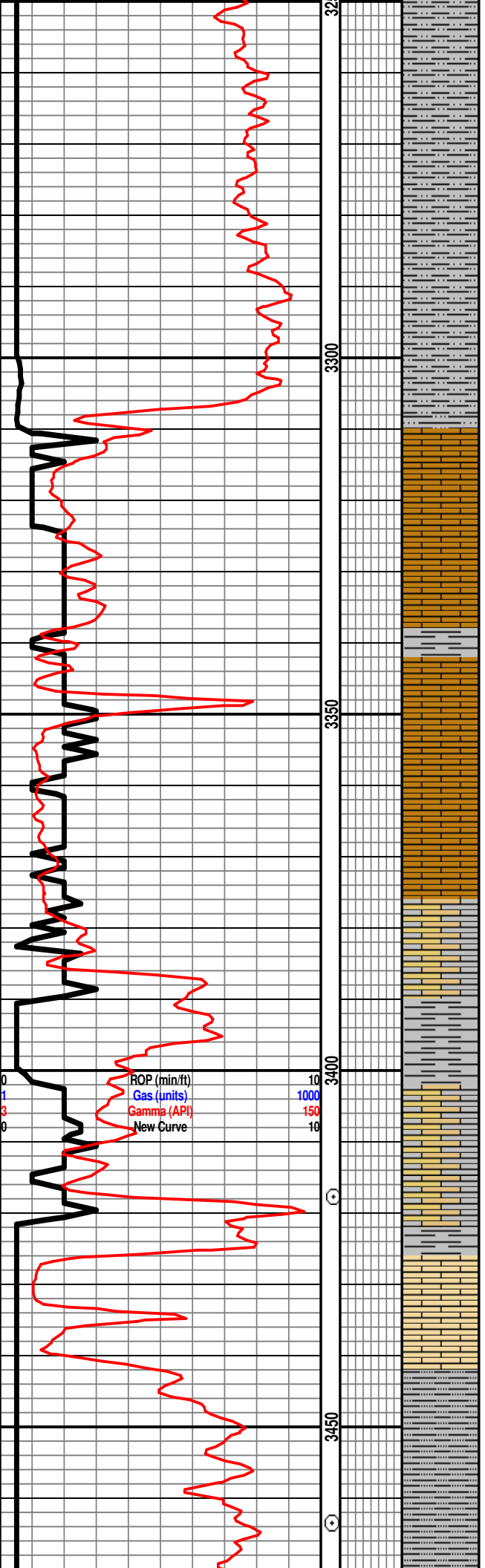
3155 2o min: Ls, cream to buff, fienxyln, friable

3155 40 min: LS: cream, buff, brown to gray/brown, microxyln, dense. LS: gray microxyln, very dense, no visable porosity, lenticular, fossilerous, microxyln lenses, paper thin shale lenses, LS: gray, microxyln, dense.

3179: LS: buff, microxyln, dense, blocky, no visable porosity, Shale; black contact on LS with dense black shale, LS: white chky off white, LS: dark gray/brown

3211 LS: cream to buff, finexyln, mottled., friable chky in part, LS: dark gray, microxyln, dense

3242: LS: dark gray, microxyln, dense, mott, no visable porosity, Shale: gray, silty, blocky pyritic



3274: flood of silty micaceous shale with dense siltstone layers dense poor intergranular porosity, shaley no show of gas bubbles, light gray very dense, no show, no fluorescence

3305: flood of silty micaceous shale with dense siltstone layers dense poor intergranular porosity, shaley no show of gas bubbles, light gray very dense, no show, no fluorescence

3337: LS: dark brown, to light gray, finexyln, poor interxyln porosity, sample 95% shale

3369: LS: gray/brown, microxyln, dense, no visable porosity, sharp no show.

3380: LS: brown, microxyln, fossiferous packstone, LS: gray/cream, microxyln, dense.

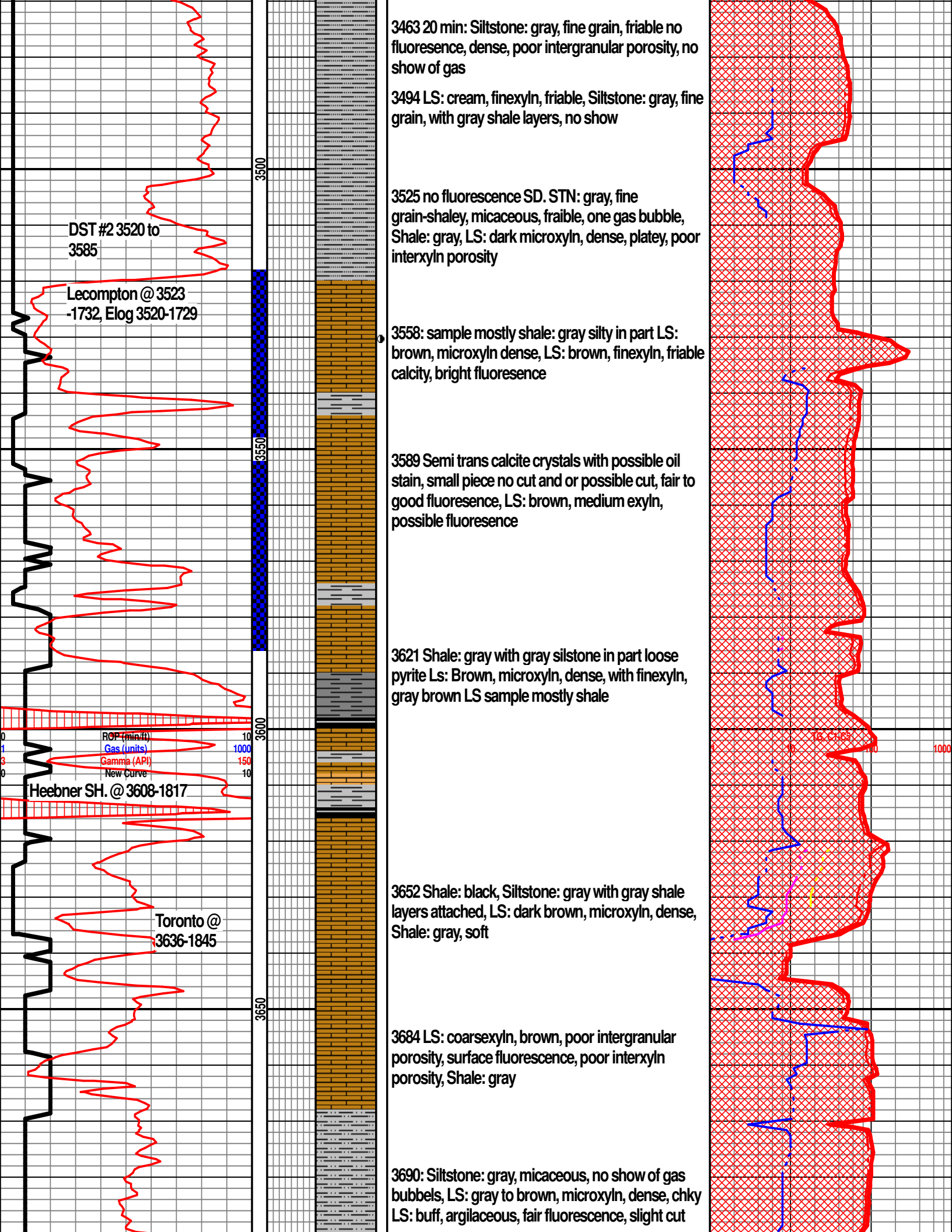
3400 rerun

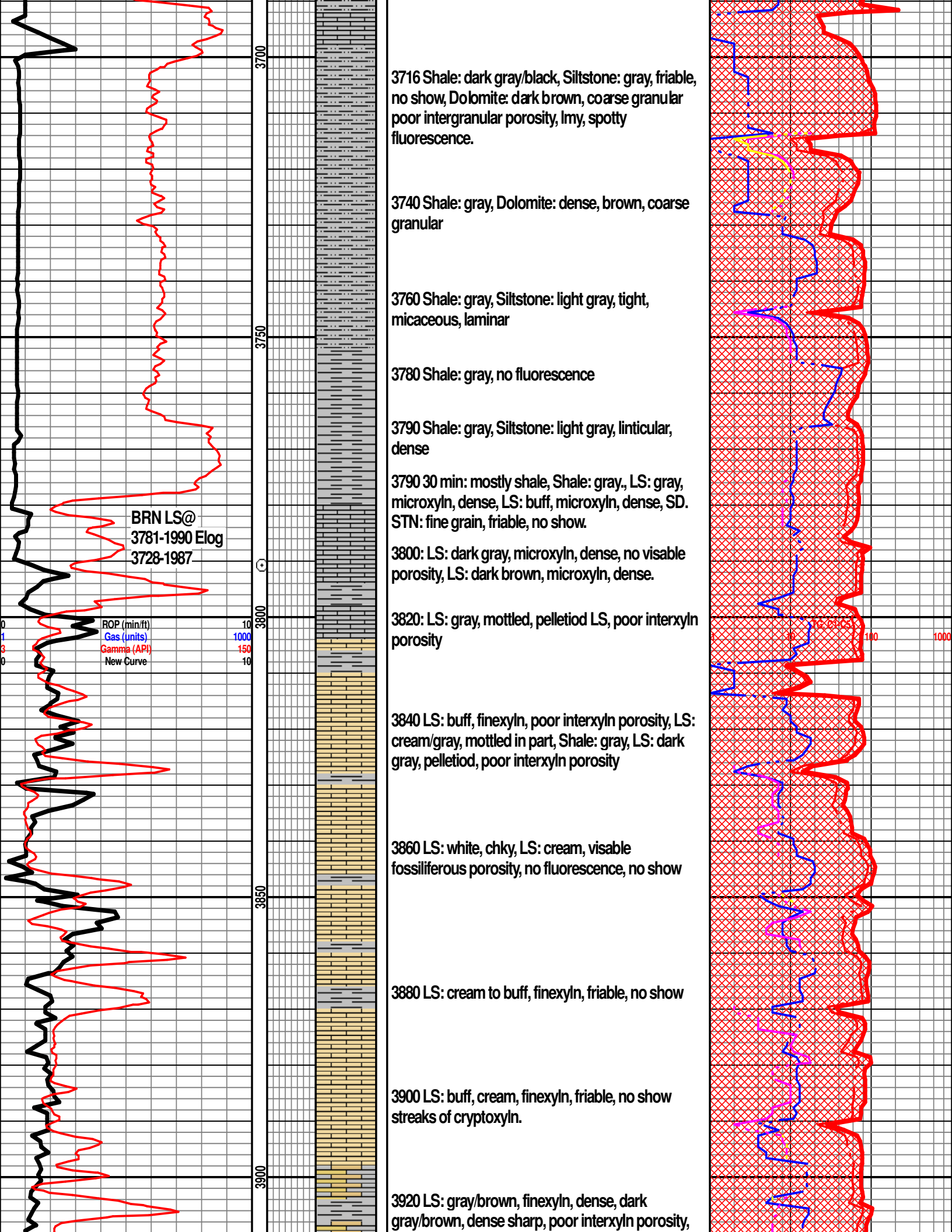
3417: LS: gray/cream, finexyln, sct loose calcite crystals, LS: cream, fair fluorescence, less than 1% of sample, LS: brown, microxyln, sharp, few pieces peltoid packstone with semi trans cement, mineral fluorescence, Shale: gray

3417 20 min: LS: gray/cream, finexyln, sct loose calcite crystals, LS: cream, fair fluorescence, less than 1% of sample, LS: brown, microxyln, sharp, few pieces peltoid packstone with semi trans cement, mineral fluorescence, add edge fluroescence, Shale: gray

3432: LS: cream/buff, finexyln, to microxyln, friable in part, 1 piece with square calcity crystals on edge of limestone with fluorescence and stain.

3463: Shale: gray, LS: cream/brown, microxyln, poor intergranular porosity, scattered cream with random pinpoint porosity, no show.


3500
3550
3600
3650
DST #2 3520 to 3585
Lecompton @ 3523 -1732, Elog 3520-1729
ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
Heebner SH. @ 3608-1817
Toronto @ 3636-1845
3463 20 min: Siltstone: gray, fine grain, friable no fluoresence, dense, poor intergranular porosity, no show of gas
3494 LS: cream, finexyln, friable, Siltstone: gray, fine grain, with gray shale layers, no show
3525 no fluorescence SD. STN: gray, fine grain-shaley, micaceous, fraible, one gas bubble, Shale: gray, LS: dark microxyln, dense, platey, poor interxyln porosity
3558: sample mostly shale: gray silty in part LS: brown, microxyln dense, LS: brown, finexyln, friable calcity, bright fluoresence
3589 Semi trans calcite crystals with possible oil stain, small piece no cut and or possible cut, fair to good fluoresence, LS: brown, medium exyln, possible fluoresence
3621 Shale: gray with gray silstone in part loose pyrite Ls: Brown, microxyln, dense, with finexyln, gray brown LS sample mostly shale
3652 Shale: black, Siltstone: gray with gray shale layers attached, LS: dark brown, microxyln, dense, Shale: gray, soft
3684 LS: coarsexyln, brown, poor intergranular porosity, surface fluorescence, poor interxyln porosity, Shale: gray
3690: Siltstone: gray, micaceous, no show of gas bubbels, LS: gray to brown, microxyln, dense, chky LS: buff, argilaceous, fair fluorescence, slight cut



3716 Shale: dark gray/black, Siltstone: gray, friable, no show, Dolomite: dark brown, coarse granular poor intergranular porosity, lmy, spotty fluorescence.

3740 Shale: gray, Dolomite: dense, brown, coarse granular

3760 Shale: gray, Siltstone: light gray, tight, micaceous, laminar

3780 Shale: gray, no fluorescence

3790 Shale: gray, Siltstone: light gray, linticular, dense

3790 30 min: mostly shale, Shale: gray., LS: gray, microxyln, dense, LS: buff, microxyln, dense, SD. STN: fine grain, friable, no show.

3800: LS: dark gray, microxyln, dense, no visable porosity, LS: dark brown, microxyln, dense.

3820: LS: gray, mottled, pelletiod LS, poor interxyln porosity

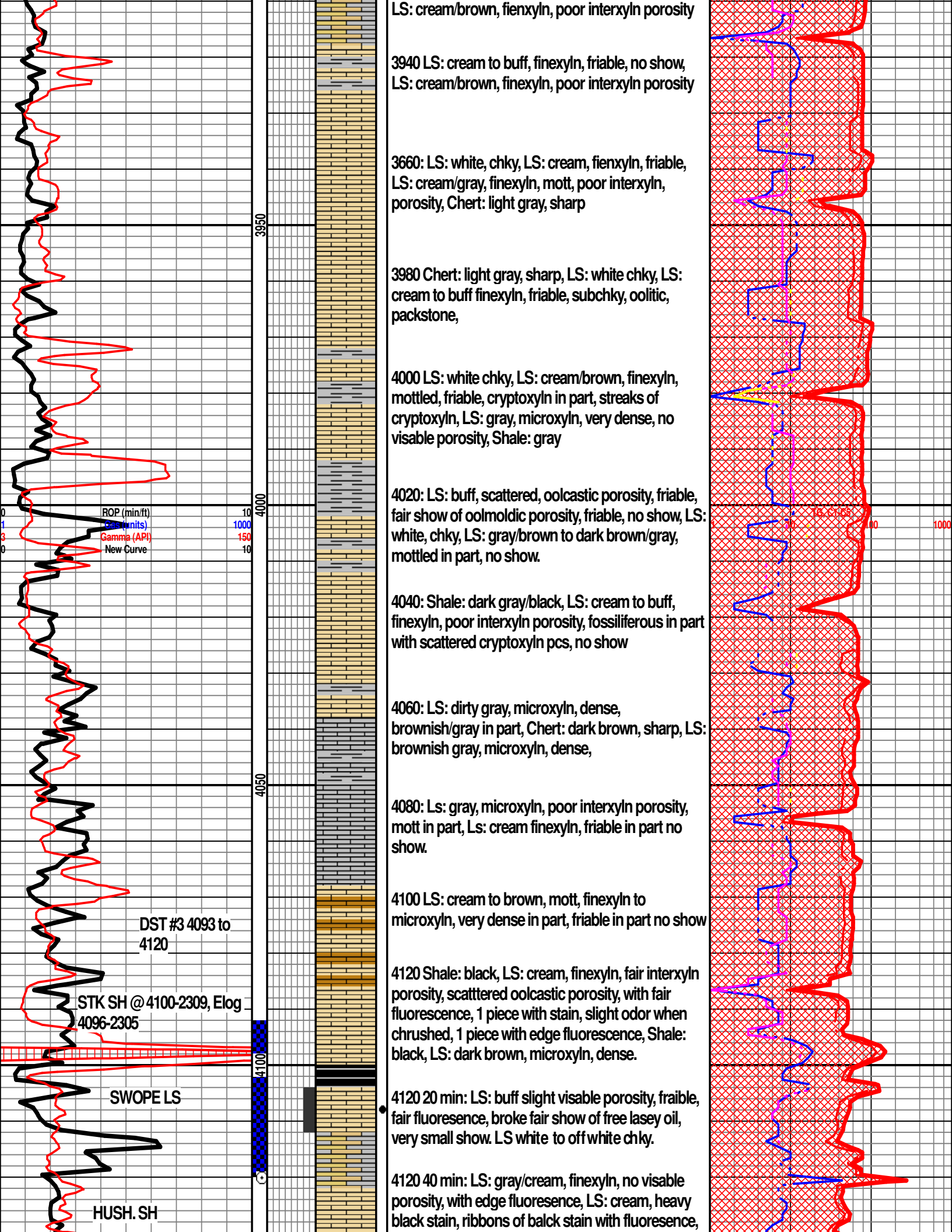
3840 LS: buff, finexyln, poor interxyln porosity, LS: cream/gray, mottled in part, Shale: gray, LS: dark gray, pelletiod, poor interxyln porosity

3860 LS: white, chky, LS: cream, visable fossiliferous porosity, no fluorescence, no show

3880 LS: cream to buff, finexyln, friable, no show

3900 LS: buff, cream, finexyln, friable, no show streaks of cryptoxyln.

3920 LS: gray/brown, finexyln, dense, dark gray/brown, dense sharp, poor interxyln porosity,



LS: cream/brown, fienxyln, poor interxyln porosity

3940 LS: cream to buff, finexyln, friable, no show, LS: cream/brown, finexyln, poor interxyln porosity

3660: LS: white, chky, LS: cream, fienxyln, friable, LS: cream/gray, finexyln, mott, poor interxyln, porosity, Chert: light gray, sharp

3980 Chert: light gray, sharp, LS: white chky, LS: cream to buff finexyln, friable, subchky, oolitic, packstone,

4000 LS: white chky, LS: cream/brown, finexyln, mottled, friable, cryptoxyln in part, streaks of cryptoxyln, LS: gray, microxyln, very dense, no visable porosity, Shale: gray

4020: LS: buff, scattered, oolcastic porosity, friable, fair show of oolmoldic porosity, friable, no show, LS: white, chky, LS: gray/brown to dark brown/gray, mottled in part, no show.

4040: Shale: dark gray/black, LS: cream to buff, finexyln, poor interxyln porosity, fossiliferous in part with scattered cryptoxyln pcs, no show

4060: LS: dirty gray, microxyln, dense, brownish/gray in part, Chert: dark brown, sharp, LS: brownish gray, microxyln, dense,

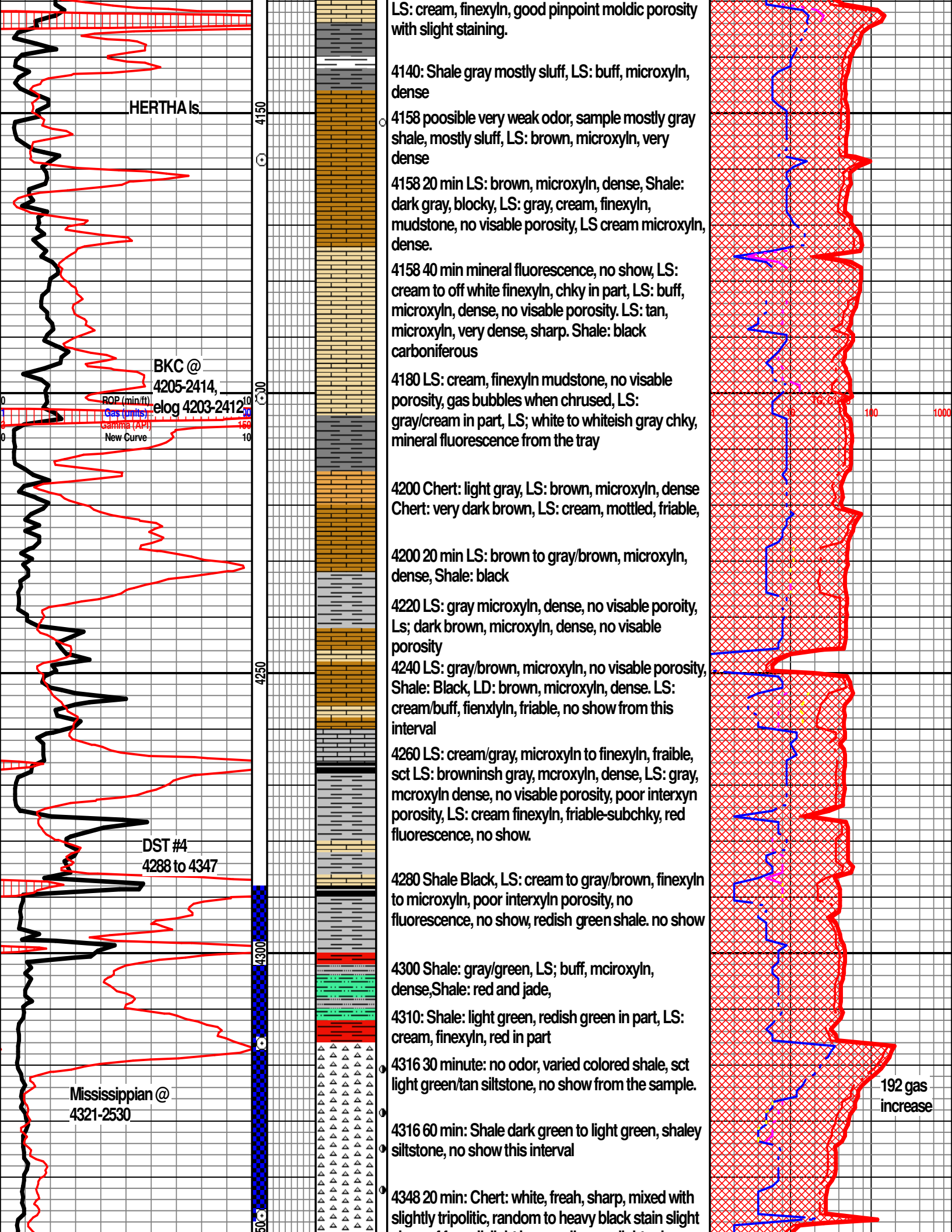
4080: Ls: gray, microxyln, poor interxyln porosity, mott in part, Ls: cream finexyln, friable in part no show.

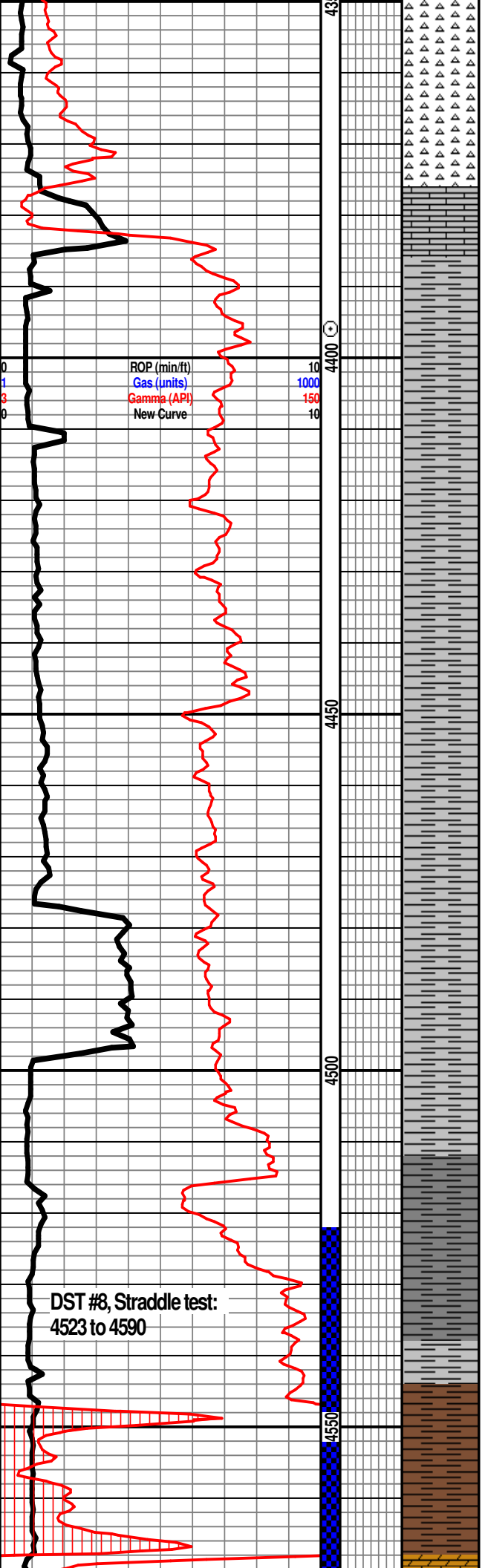
4100 LS: cream to brown, mott, finexyln to microxyln, very dense in part, friable in part no show

4120 Shale: black, LS: cream, finexyln, fair interxyln porosity, scatttered oolcastic porosity, with fair fluorescence, 1 piece with stain, slight odor when chrushed, 1 piece with edge fluorescence, Shale: black, LS: dark brown, microxyln, dense.

4120 20 min: LS: buff slight visable porosity, fraible, fair fluoresence, broke fair show of free lasey oil, very small show. LS white to off white chky.

4120 40 min: LS: gray/cream, finexyln, no visable porosity, with edge fluoresence, LS: cream, heavy black stain, ribbons of balck stain with fluoresence,


HERTHA ls
BKC @
4205-2414,
elog 4203-2412
ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
DST #4
4288 to 4347
Mississippian @
4321-2530
4150
4200
4250
4300
4350
LS: cream, finexyln, good pinpoint moldic porosity with slight staining.
4140: Shale gray mostly sluff, LS: buff, microxyln, dense
4158 poosible very weak odor, sample mostly gray shale, mostly sluff, LS: brown, microxyln, very dense
4158 20 min LS: brown, microxyln, dense, Shale: dark gray, blocky, LS: gray, cream, finexyln, mudstone, no visable porosity, LS cream microxyln, dense.
4158 40 min mineral fluorescence, no show, LS: cream to off white finexyln, chky in part, LS: buff, microxyln, dense, no visable porosity. LS: tan, microxyln, very dense, sharp. Shale: black carboniferous
4180 LS: cream, finexyln mudstone, no visable porosity, gas bubbles when chrused, LS: gray/cream in part, LS; white to whiteish gray chky, mineral fluorescence from the tray
4200 Chert: light gray, LS: brown, microxyln, dense Chert: very dark brown, LS: cream, mottled, friable,
4200 20 min LS: brown to gray/brown, microxyln, dense, Shale: black
4220 LS: gray microxyln, dense, no visable poroity, Ls; dark brown, microxyln, dense, no visable porosity
4240 LS: gray/brown, microxyln, no visable porosity, Shale: Black, LD: brown, microxyln, dense. LS: cream/buff, fienxlyln, friable, no show from this interval
4260 LS: cream/gray, microxyln to finexyln, fraible, sct LS: browninsh gray, mcroxyln, dense, LS: gray, mcroxyln dense, no visable porosity, poor interxyn porosity, LS: cream finexyln, friable-subchky, red fluorescence, no show.
4280 Shale Black, LS: cream to gray/brown, finexyln to microxyln, poor interxyln porosity, no fluorescence, no show, redish green shale. no show
4300 Shale: gray/green, LS; buff, mciroxyln, dense,Shale: red and jade,
4310: Shale: light green, redish green in part, LS: cream, finexyln, red in part
4316 30 minute: no odor, varied colored shale, sct light green/tan siltstone, no show from the sample.
4316 60 min: Shale dark green to light green, shaley siltstone, no show this interval
4348 20 min: Chert: white, freah, sharp, mixed with slightly tripolitic, random to heavy black stain slight
192 gas increase



show of free oil- light brown oil, very slight odor from the sample, dull to medium fluorescence, 192 gas increase.

4348 40 min: very slght odor from the sample, Chert: A.A. mixture of fresh and tripolitic chert, scattered sligh to heavy stain, dull fluorescence,

4848 60 min: Chert: fresh blocky with scattered fair edge stain, with fair edge fluoresence,

4380: Chert: white to procelain white, blocky random fossile moldic porosity with light stain, scattered fair tripolitic with moldic porosity, fair stain in fossile voids, Shale: gray to red

4395 Chert: A.A.blocky, with edge stain, fair cut, sluff from above,

4395 40 min: LS: gray microxyln, dense, no visable porosity, Shale: gray, silty, dolomitic, firm

4460 Shale: gray, dolomitic, Shale: gray

4480Shale gray, sample most gray shale

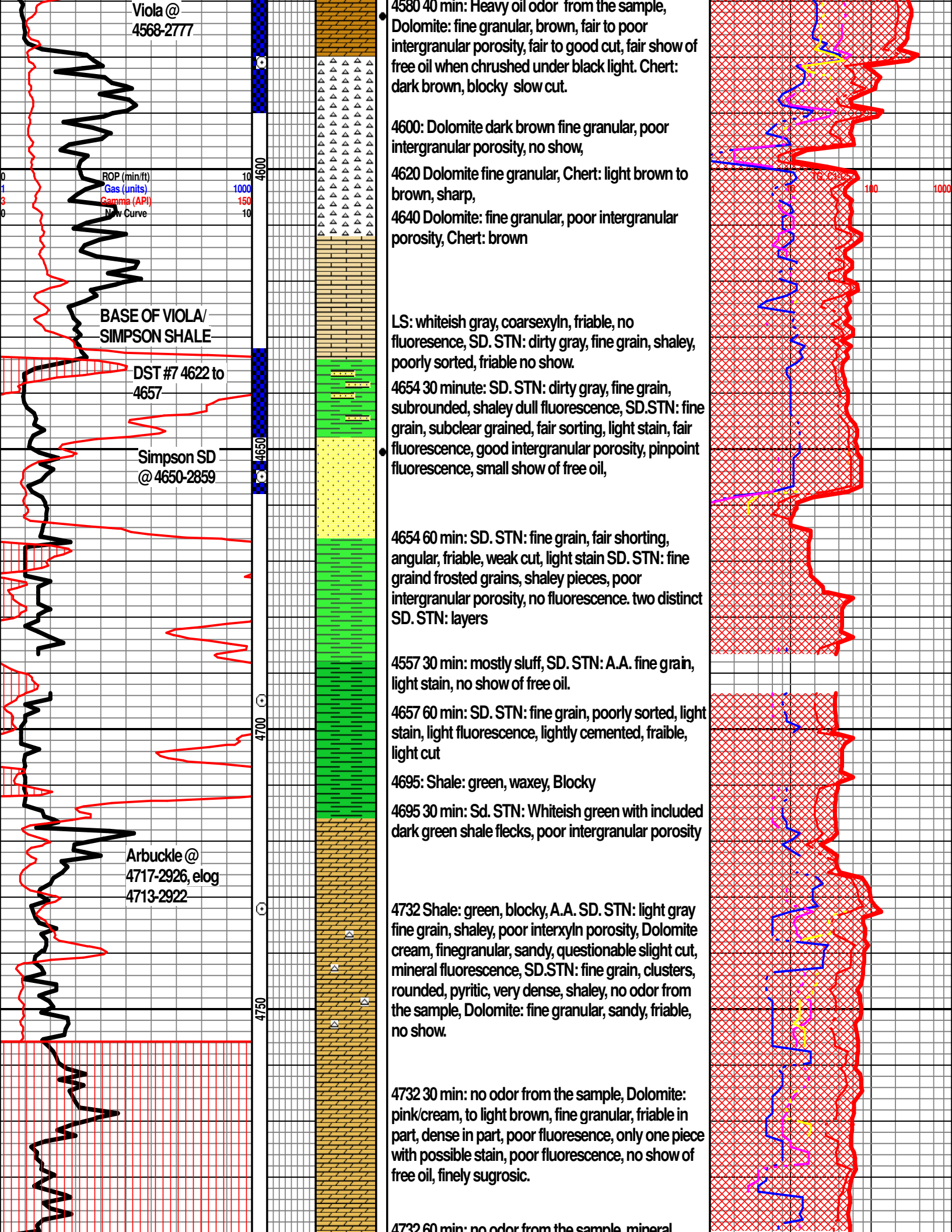
4500 Shale: gray massive

4520 Shale: gray/green,

4560 Shale: gray to dark gray

4580 Shale: dark brown, with non fluorescent spores

4580 20 min: Slight odor from sample, Brown stained SD. STN: fine grin, heavy stain, lmy dolmitic, to brown even stain, friable, dense in partly dolomitic-fine granular, sandy, poor granular porosity, gas bubles from fresh cut surface. slight odor from sample.


Viola @
4568-2777
ROP (min/ft)
Gas (units)
Gamma (API)
New Curve
BASE OF VIOLA/
SIMPSON SHALE
DST #7 4622 to
4657
Simpson SD
@ 4650-2859
Arbuckle @
4717-2926, elog
4713-2922
4600
4650
4700
4750
4580 40 min: Heavy oil odor from the sample, Dolomite: fine granular, brown, fair to poor intergranular porosity, fair to good cut, fair show of free oil when chrushed under black light. Chert: dark brown, blocky slow cut.
4600: Dolomite dark brown fine granular, poor intergranular porosity, no show,
4620 Dolomite fine granular, Chert: light brown to brown, sharp,
4640 Dolomite: fine granular, poor intergranular porosity, Chert: brown
LS: whiteish gray, coarsexyln, friable, no fluoresence, SD. STN: dirty gray, fine grain, shaley, poorly sorted, friable no show.
4654 30 minute: SD. STN: dirty gray, fine grain, subrounded, shaley dull fluorescence, SD.STN: fine grain, subclear grained, fair sorting, light stain, fair fluorescence, good intergranular porosity, pinpoint fluorescence, small show of free oil,
4654 60 min: SD. STN: fine grain, fair shorting, angular, friable, weak cut, light stain SD. STN: fine graind frosted grains, shaley pieces, poor intergranular porosity, no fluorescence. two distinct SD. STN: layers
4557 30 min: mostly sluff, SD. STN: A.A. fine grain, light stain, no show of free oil.
4657 60 min: SD. STN: fine grain, poorly sorted, light stain, light fluorescence, lightly cemented, fraible, light cut
4695: Shale: green, waxey, Blocky
4695 30 min: Sd. STN: Whiteish green with included dark green shale flecks, poor intergranular porosity
4732 Shale: green, blocky, A.A. SD. STN: light gray fine grain, shaley, poor interxyln porosity, Dolomite cream, finegranular, sandy, questionable slight cut, mineral fluorescence, SD.STN: fine grain, clusters, rounded, pyritic, very dense, shaley, no odor from the sample, Dolomite: fine granular, sandy, friable, no show.
4732 30 min: no odor from the sample, Dolomite: pink/cream, to light brown, fine granular, friable in part, dense in part, poor fluoresence, only one piece with possible stain, poor fluorescence, no show of free oil, finely sugrosic.
4732 60 min: no odor from the sample, mineral

RTD 4790

0	ROP (min/ft)	10
1	Gas (units)	1000
3	Gamma (API)	150
0	New Curve	10

4800

4850

00

4752 60 min: No odor from the sample, mineral fluorescence, Dolomite A.A. no change

4750: Dolomite: cream to light brown to brown, finegranular, finely sucrosic in part, no show, no odor and mineral fluorescence

4760: Dolomite: cream to light tan, scattered fair oolcastic porosity, poor interxyln porosity, 1 piece of questionable stain, no fluorescence, finely sucrosic in part, sucrosic and oolcastic in part, Chert: light gray, oolitic.

4770:Dolomite: coarsegranular, oolmoldic, poor intergranular porosity, random gas bubbles, mineral fluorescence.

4780: Dolomite: tan to cream, finegranular, sucrosic in part, with slight visable porosity, fraible, coarse granular, mineral fluorescence,

4790: Dolomite: buff to cream, finegranular, to coarsexyln, sucrosic, fair visable oolitic porosity and intergranular porosity, friable, scattered good sucrosic porosity, no cut, no show, mineral fluorescence,

4790 60 minute: Dolomite: light tan, fine to medium granular, fair visable porosity to no visable porosity, mineral fluorescence, no show this interval

TG, C1-C5

1 10 100 1000