KOLAR Document ID: 1586542

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 # 35657
Name: Rockhound Petroleum, LLC
Address 1: PO BOX 43
Address 2:
City: ST. JOHN State: KS Zip: 67576 + 0043
Contact Person: keaton jones
Phone: (620) 546-4010
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: keaton jones
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 #:

08/02/2021 Spud Date or Recompletion Date
08/09/2021 Date Reached TD
08/10/2021 Completion Date or Recompletion Date

API No.: 15-185-24085-00-00
Spot Description:
SW- SW- NE -NW Sec. 8 Twp. 23 S. R. 13 ☐ East ☑ West
1070 Feet from ☑ North / ☐ South Line of Section
1415 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: Stafford
Lease Name: DUNN Well #: 1
Field Name:
Producing Formation: None
Elevation: Ground: 1898 Kelly Bushing: 1906
Total Vertical Depth: 3970 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 485 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: 7000 ppm Fluid volume: 800 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:
Operator Name: bobs hauling
Lease Name: rogers License #: 33779
Quarter NW Sec. 34 Twp. 23 S. R. 13 ☐ East ☑ West
County: stafford Permit #: D23350

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: 08/21/2021
☐ **Confidential Release Date:** 08/21/2023
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 08/23/2021

Operator Name: Rockhound Petroleum, LLC Lease Name: DUNN Well #: 1

Sec. 8 Twp. 23 S. R. 13 ☐ East ☑ West County: Stafford

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	12.25	8.625	23	485	common	350	H-Con/Class-A

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	Rockhound Petroleum, LLC
Well Name	DUNN 1
Doc ID	1586542

All Electric Logs Run

DIL
ML
SON
CDL/CNL

Form	ACO1 - Well Completion
Operator	Rockhound Petroleum, LLC
Well Name	DUNN 1
Doc ID	1586542

Tops

Name	Top	Datum
Base Heebner	3332	-1426
Toronto	3348	-1442
Douglas	3362	-1456
BL	3463	-1557
Lansing	3482	-1576
BKC	3722	-1816
Viola	3816	-1910
Simpson SH	3851	-1945
ARB	3910	-2004

Form	ACO1 - Well Completion
Operator	Rockhound Petroleum, LLC
Well Name	DUNN 1
Doc ID	1586542

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	485	common	350	H-Con/Class-A

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67162 **DST#: 1**

Test Start: 2021.08.06 @ 08:11:31

GENERAL INFORMATION:

Formation: **Lansing B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:20:16
Time Test Ended: 14:15:16

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

Interval: 3498.00 ft (KB) To 3514.00 ft (KB) (TVD)
Total Depth: 3514.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

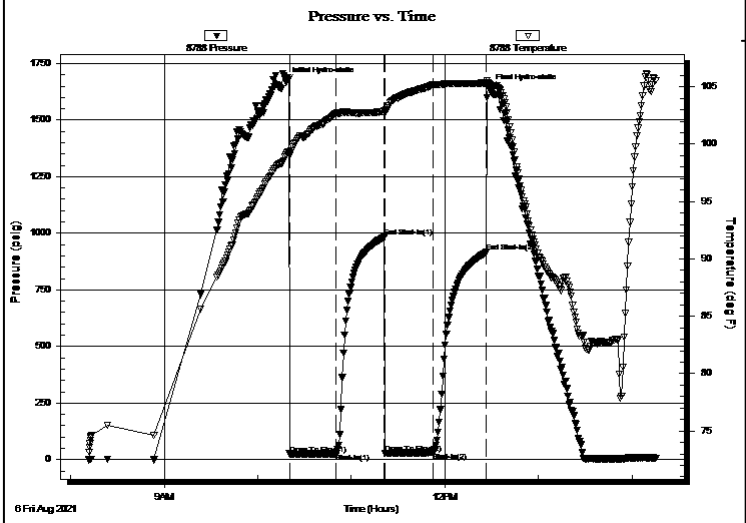
Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8788 **Inside**

Press@RunDepth: 30.72 psig @ 3499.00 ft (KB)
Start Date: 2021.08.06 End Date: 2021.08.06
Start Time: 08:11:36 End Time: 14:15:15

Capacity: 8000.00 psig
Last Calib.: 2021.08.06
Time On Btm: 2021.08.06 @ 10:18:16
Time Off Btm: 2021.08.06 @ 12:28:16

TEST COMMENT: IF: Weak Blow . Built to 1.49". (30)
ISI: No Blow . (30)
FF: Weak Blow . Built to .57". (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1668.30	99.05	Initial Hydro-static
2	24.83	98.96	Open To Flow (1)
33	26.10	102.68	Shut-In(1)
63	982.88	102.86	End Shut-In(1)
64	28.15	102.72	Open To Flow (2)
94	30.72	105.19	Shut-In(2)
129	916.07	105.33	End Shut-In(2)
130	1640.32	105.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	GVSOWCM 1%g 5%o 19%w 75%m	0.35
0.00	37' GIP 100%g	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67162 **DST#: 1**

Test Start: 2021.08.06 @ 08:11:31

GENERAL INFORMATION:

Formation: **Lansing B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:20:16
Time Test Ended: 14:15:16

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

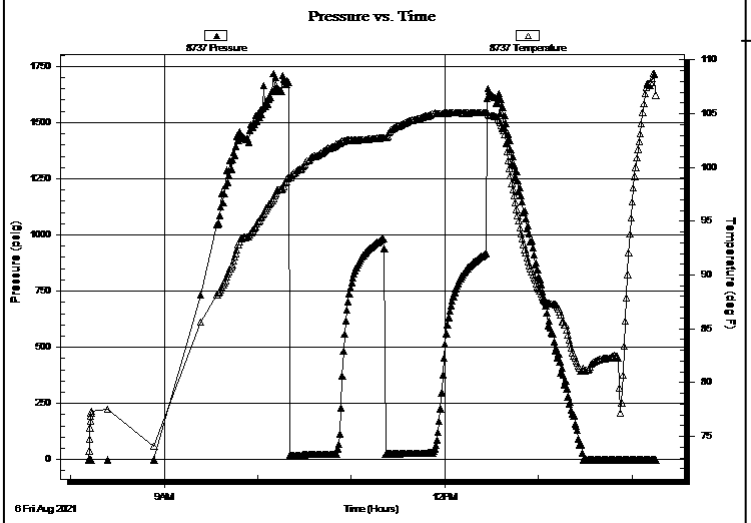
Interval: 3498.00 ft (KB) To 3514.00 ft (KB) (TVD)
Total Depth: 3514.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8737 **Outside**
Press@RunDepth: psig @ 3499.00 ft (KB)
Start Date: 2021.08.06 End Date: 2021.08.06
Start Time: 08:11:28 End Time: 14:15:07

Capacity: 8000.00 psig
Last Calib.: 2021.08.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Blow . Built to 1.49". (30)
ISI: No Blow . (30)
FF: Weak Blow . Built to .57". (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
25.00	GVSOWCM 1%g 5%o 19%w 75%m	0.35
0.00	37' GIP 100%g	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67162 **DST#: 1**

Test Start: 2021.08.06 @ 08:11:31

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:	4000 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.38 in³	Gas Cushion Type:			
Resistivity:	4000.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	GVSOWCM 1%g 5%o 19%w 75%m	0.351
0.00	37' GIP 100%g	0.000

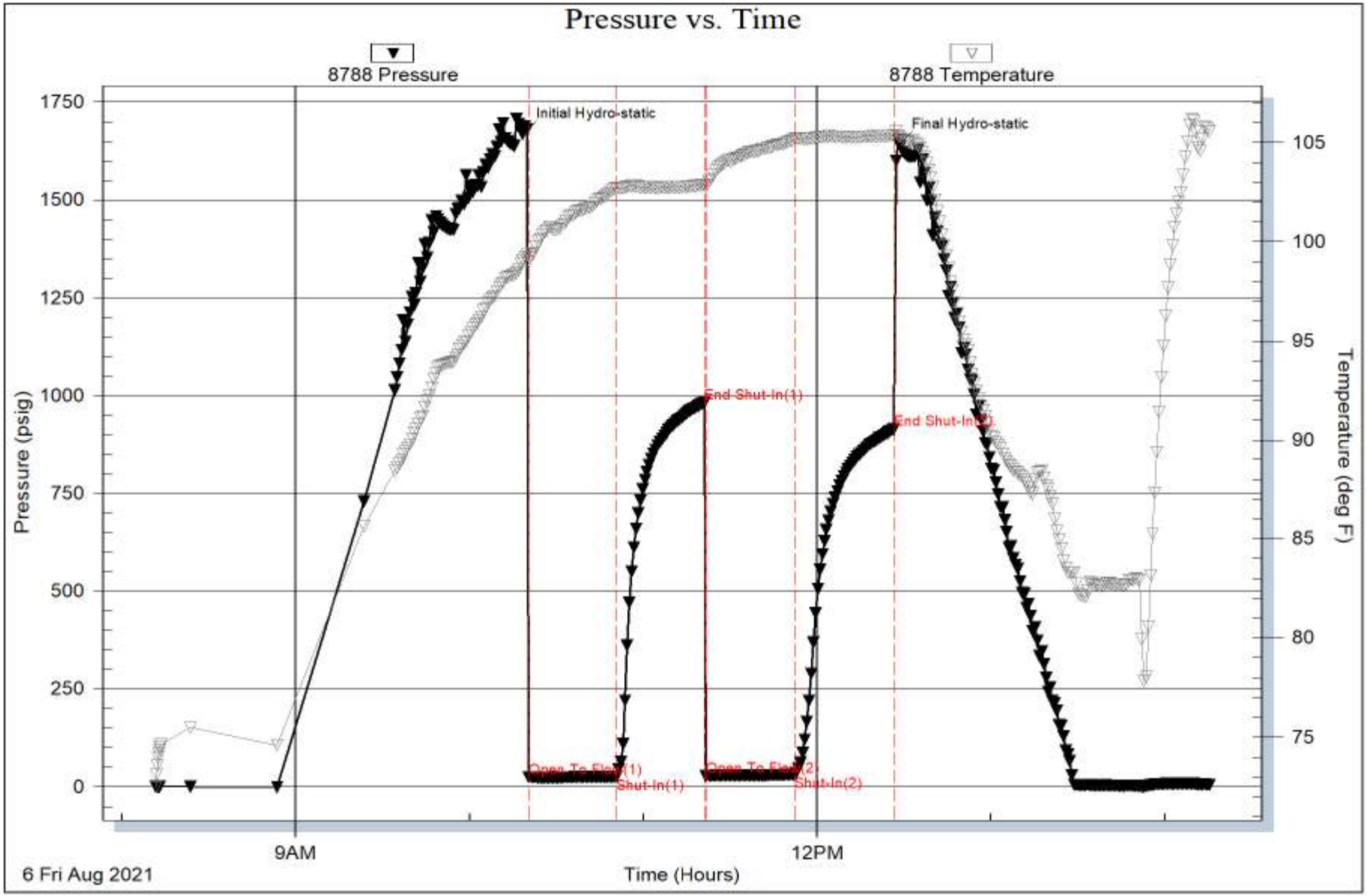
Total Length: 25.00 ft Total Volume: 0.351 bbl

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

Laboratory Name: Laboratory Location:

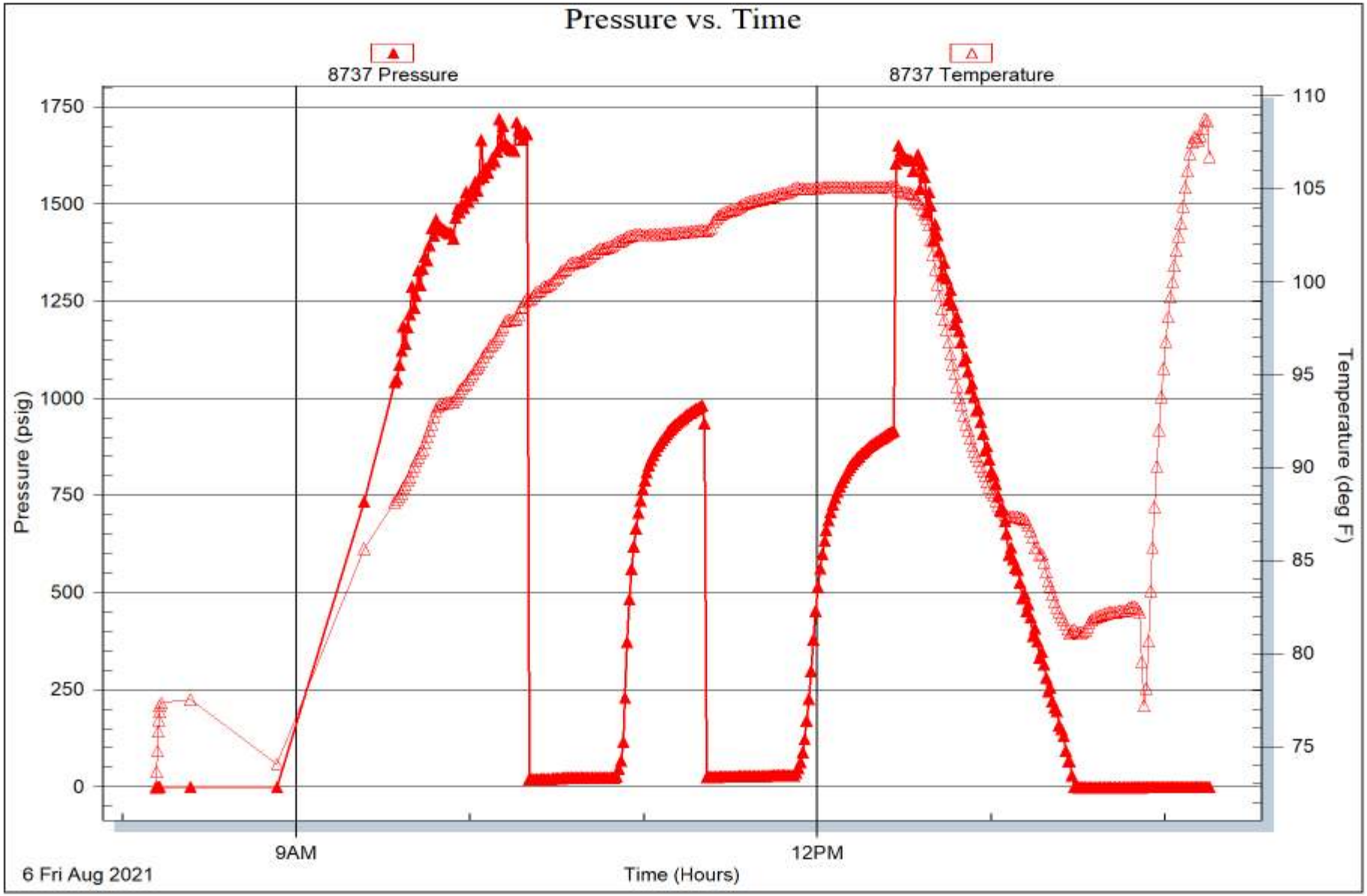
Recovery Comments: 37 Feet of GAS in Pipe

Serial #: 8788 **Inside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 67162 Printed: 2021.08.06 @ 15:58:30

Serial #: 8737 **Outside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 67162 Printed: 2021.08.06 @ 15:58:30

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67163 **DST#: 2**

Test Start: 2021.08.07 @ 03:12:34

GENERAL INFORMATION:

Formation: **Lansing KC "I&J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:45:04
Time Test Ended: 09:50:19

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

Interval: 3620.00 ft (KB) To 3660.00 ft (KB) (TVD)
Total Depth: 3660.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

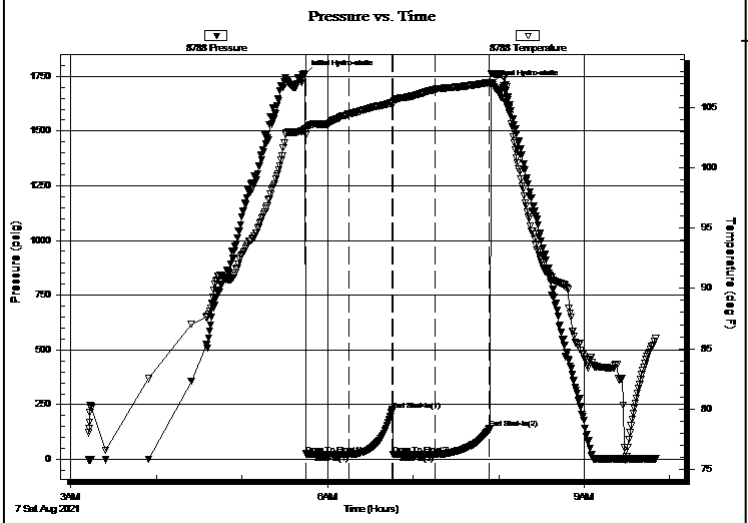
Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8788 **Inside**

Press@RunDepth: 22.81 psig @ 3621.00 ft (KB)
Start Date: 2021.08.07 End Date: 2021.08.07
Start Time: 03:12:39 End Time: 09:50:18

Capacity: 8000.00 psig
Last Calib.: 2021.08.07
Time On Btm: 2021.08.07 @ 05:44:04
Time Off Btm: 2021.08.07 @ 07:54:34

TEST COMMENT: IF: Weak Blow . Built to .39". (30)
ISI:No Blow . (30)
FF: Surface Blow . Died (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1759.45	103.21	Initial Hydro-static
1	25.41	103.05	Open To Flow (1)
32	22.70	104.47	Shut-In(1)
62	226.69	105.37	End Shut-In(1)
62	23.43	105.27	Open To Flow (2)
91	22.81	106.46	Shut-In(2)
130	141.09	107.06	End Shut-In(2)
131	1713.67	107.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
7.00	OSM 100%m	0.10

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67163 **DST#: 2**

Test Start: 2021.08.07 @ 03:12:34

GENERAL INFORMATION:

Formation: **Lansing KC "I&J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:45:04
Time Test Ended: 09:50:19

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

Interval: 3620.00 ft (KB) To 3660.00 ft (KB) (TVD)
Total Depth: 3660.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8737 **Outside**
Press@RunDepth: psig @ 3621.00 ft (KB)
Start Date: 2021.08.07 End Date: 2021.08.07
Start Time: 03:12:55 End Time: 09:50:34

Capacity: 8000.00 psig
Last Calib.: 2021.08.07
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Blow . Built to .39". (30)
ISI:No Blow . (30)
FF: Surface Blow . Died (30)
FSI: No Blow . (30)

PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
7.00	OSM 100%m	0.10

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67163 **DST#: 2**

Test Start: 2021.08.07 @ 03:12:34

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:	4000 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.37 in³	Gas Cushion Type:			
Resistivity:	4000.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	OSM 100%m	0.098

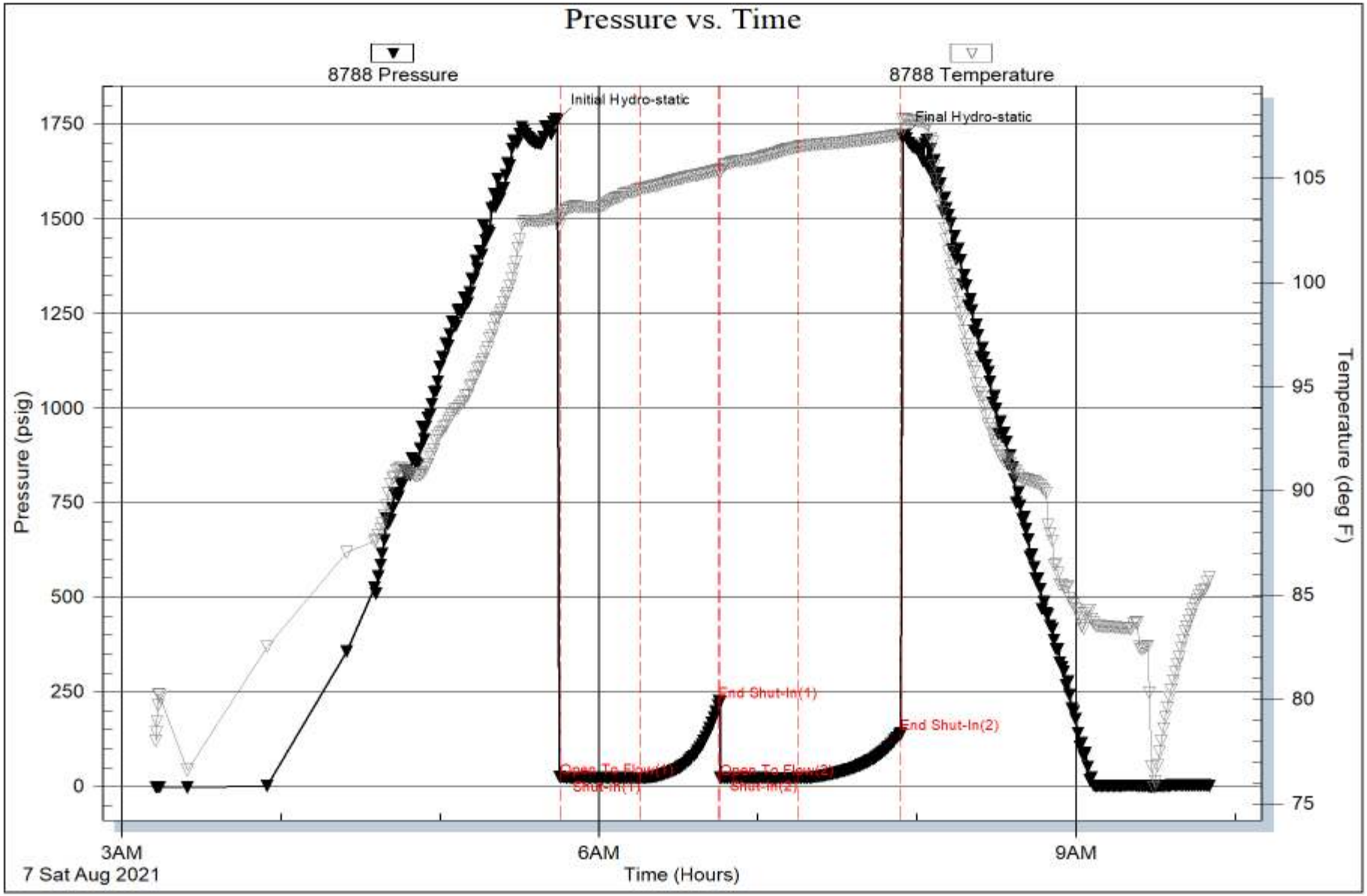
Total Length: 7.00 ft Total Volume: 0.098 bbl

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

Laboratory Name: Laboratory Location:

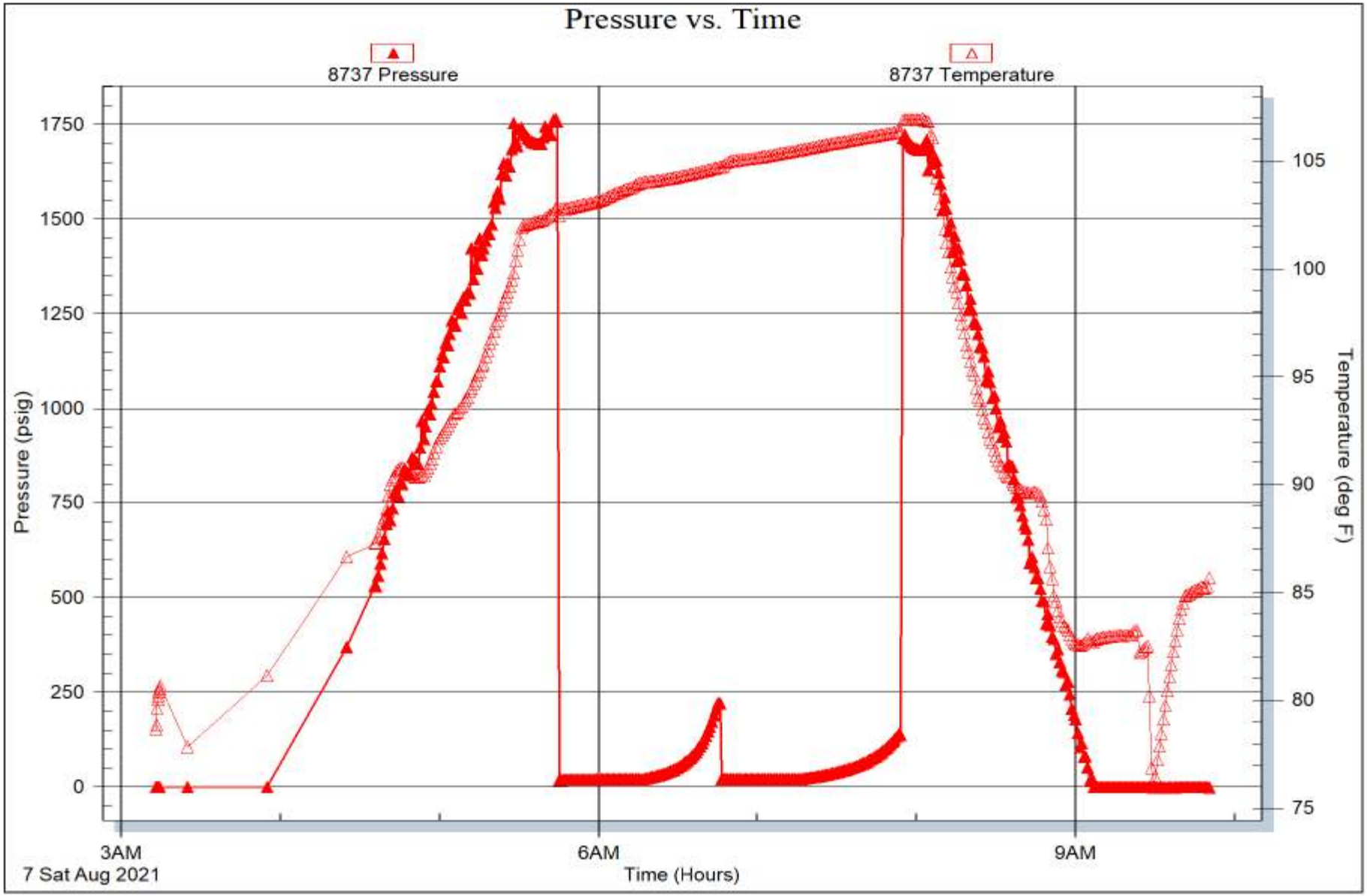
Recovery Comments:

Serial #: 8788 **Inside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 67163 Printed: 2021.08.07 @ 16:33:18

Serial #: 8737 **Outside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 67163 Printed: 2021.08.07 @ 16:33:18

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67164 **DST#: 3**

Test Start: 2021.08.07 @ 19:09:04

GENERAL INFORMATION:

Formation: **Lansing KC K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:57:34
Time Test Ended: 02:20:19

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

Interval: 3660.00 ft (KB) To 3700.00 ft (KB) (TVD)
Total Depth: 3700.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

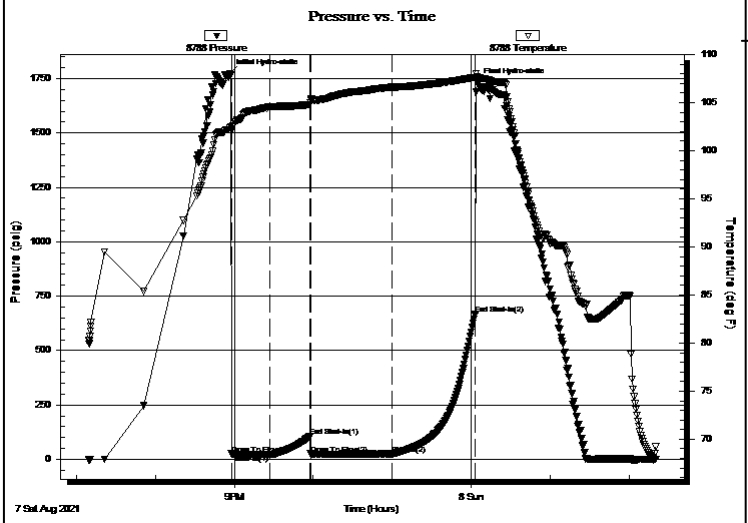
Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8788 **Inside**

Press@RunDepth: 25.06 psig @ 3661.00 ft (KB)
Start Date: 2021.08.07 End Date: 2021.08.08
Start Time: 19:09:09 End Time: 02:20:18

Capacity: 8000.00 psig
Last Calib.: 2021.08.08
Time On Btm: 2021.08.07 @ 20:56:19
Time Off Btm: 2021.08.08 @ 00:04:34

TEST COMMENT: IF: Weak Blow . Built to 3". (30)
ISI: No Blow . (30)
FF: Fair Blow . Built to 7 1/4". (60)
FSI: Weak Blow . built to .70". (60)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1773.32	102.41	Initial Hydro-static
2	24.46	102.14	Open To Flow (1)
31	21.66	104.55	Shut-In(1)
61	104.91	104.80	End Shut-In(1)
62	20.68	105.28	Open To Flow (2)
124	25.06	106.61	Shut-In(2)
187	668.92	107.64	End Shut-In(2)
189	1729.11	107.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
28.00	GHOCM 5%g 20%o 75%m	0.39
0.00	160' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67164 **DST#: 3**

Test Start: 2021.08.07 @ 19:09:04

GENERAL INFORMATION:

Formation: **Lansing KC K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:57:34
Time Test Ended: 02:20:19

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

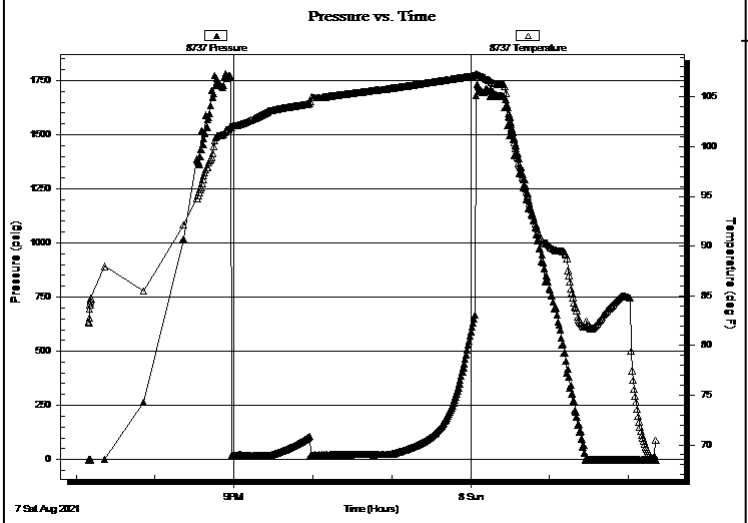
Interval: 3660.00 ft (KB) To 3700.00 ft (KB) (TVD)
Total Depth: 3700.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8737 **Outside**
Press@RunDepth: psig @ 3661.00 ft (KB)
Start Date: 2021.08.07 End Date: 2021.08.08
Start Time: 19:09:28 End Time: 02:20:37

Capacity: 8000.00 psig
Last Calib.: 2021.08.08
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Blow . Built to 3". (30)
ISI: No Blow . (30)
FF: Fair Blow . Built to 7 1/4". (60)
FSI: Weak Blow . built to .70". (60)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
28.00	GHOCM 5%g 20%o 75%m	0.39
0.00	160' GIP 100%g	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67164 **DST#: 3**

Test Start: 2021.08.07 @ 19:09:04

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:	7500 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.19 in³	Gas Cushion Type:			
Resistivity:	7500.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
28.00	GHOCM 5%g 20%o 75%m	0.393
0.00	160' GIP 100%g	0.000

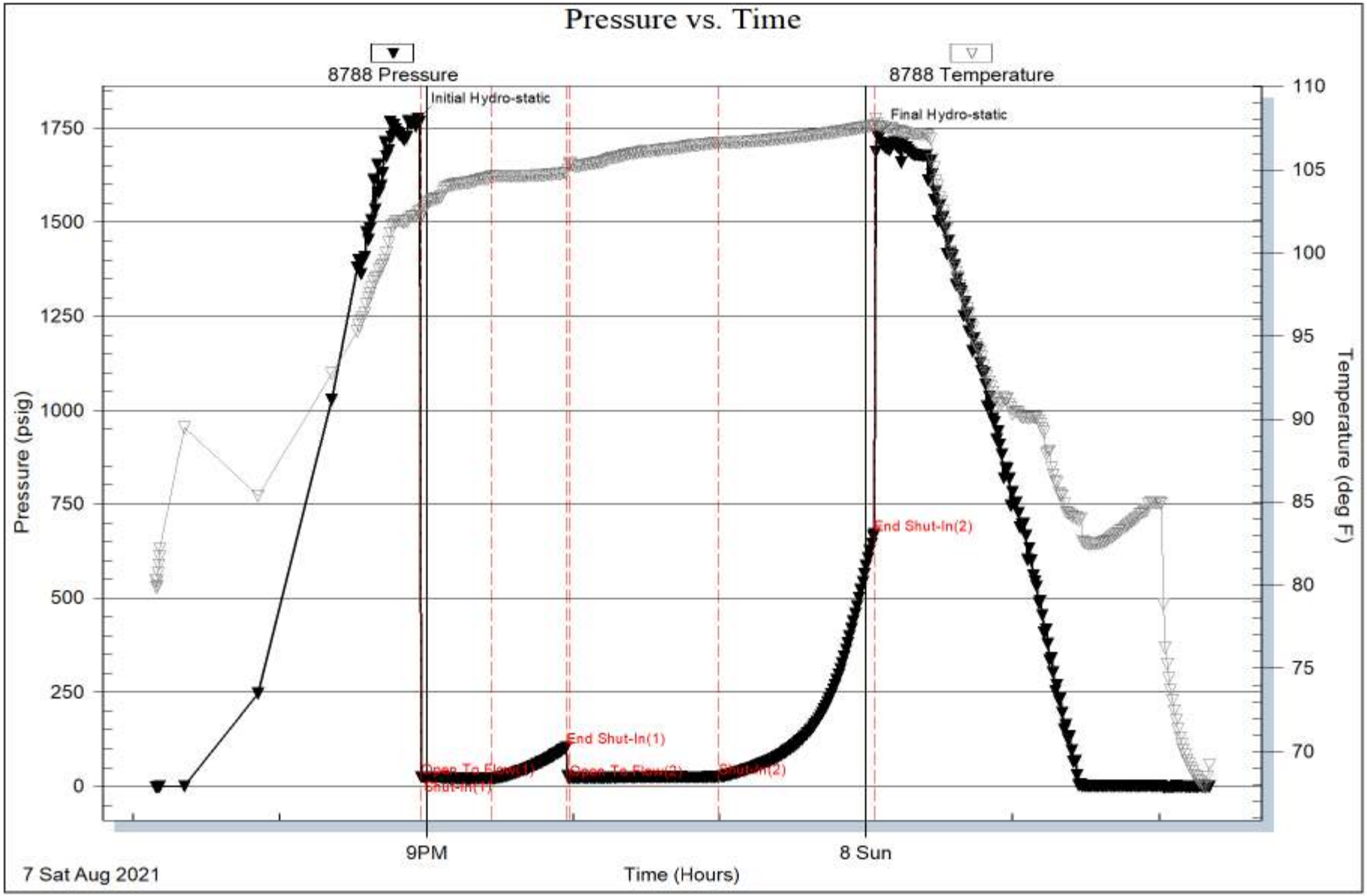
Total Length: 28.00 ft Total Volume: 0.393 bbl

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

Laboratory Name: Laboratory Location:

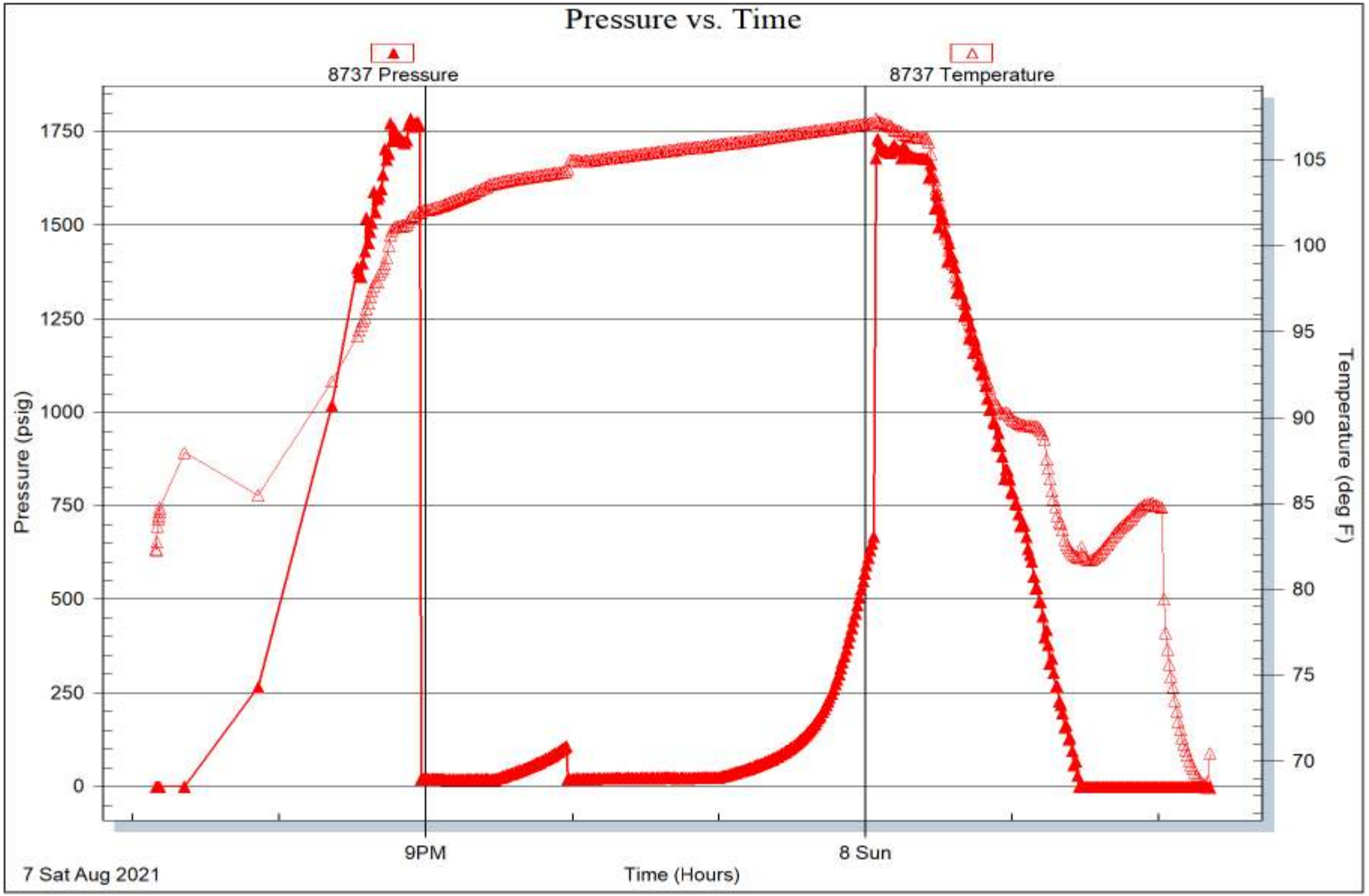
Recovery Comments: 160 Feet of GAS in Pipe.

Serial #: 8788 **Inside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 67164 Printed: 2021.08.08 @ 07:32:40

Serial #: 8737 **Outside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 67164 Printed: 2021.08.08 @ 07:32:41

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67165 **DST#: 4**

Test Start: 2021.08.09 @ 04:23:38

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:02:53
Time Test Ended: 11:22:38

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

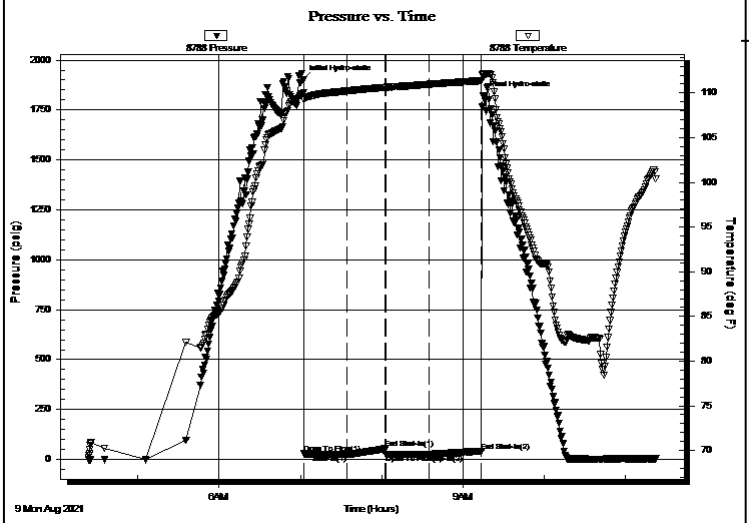
Interval: 3791.00 ft (KB) To 3850.00 ft (KB) (TVD)
Total Depth: 3968.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8788 **Inside**
Press@RunDepth: 25.11 psig @ 3796.00 ft (KB)
Start Date: 2021.08.09 End Date: 2021.08.09
Start Time: 04:23:43 End Time: 11:22:37

Capacity: 8000.00 psig
Last Calib.: 2021.08.09
Time On Btm: 2021.08.09 @ 07:01:53
Time Off Btm: 2021.08.09 @ 09:14:38

TEST COMMENT: IF: Weak Blow . Built to .55". (30)
ISI: No Blow . (30)
FF: Surface Blow . Built to .33". (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1901.84	109.93	Initial Hydro-static
1	28.14	109.29	Open To Flow (1)
33	24.17	110.22	Shut-In(1)
61	53.58	110.62	End Shut-In(1)
61	24.85	110.61	Open To Flow (2)
93	25.11	110.97	Shut-In(2)
132	41.79	111.37	End Shut-In(2)
133	1822.51	112.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	VSOHCM 2%o 98%m	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67165 **DST#: 4**

Test Start: 2021.08.09 @ 04:23:38

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:02:53
Time Test Ended: 11:22:38

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

Interval: 3791.00 ft (KB) To 3850.00 ft (KB) (TVD)
Total Depth: 3968.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

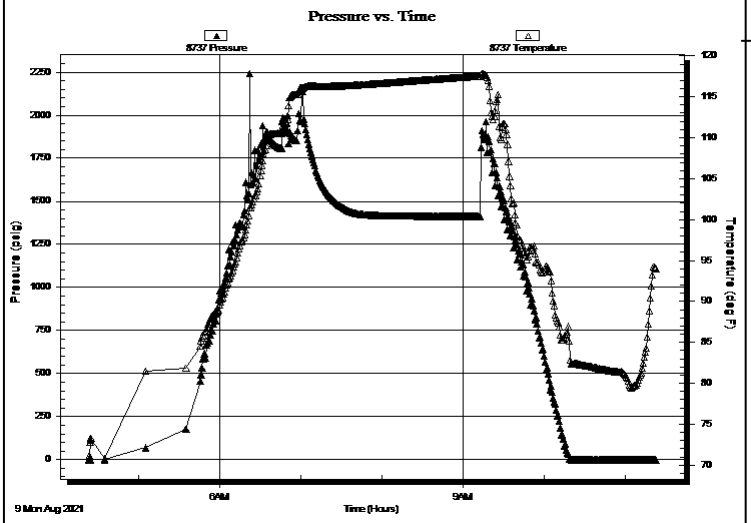
Reference Elevations: 1906.00 ft (KB)
1898.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8737

Press@RunDepth: psig @ ft (KB)
Start Date: 2021.08.09 End Date: 2021.08.09
Start Time: 04:23:25 End Time: 11:22:49

Capacity: 8000.00 psig
Last Calib.: 2021.08.09
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak Blow . Built to .55". (30)
ISI: No Blow . (30)
FF: Surface Blow . Built to .33". (30)
FSI: No Blow . (30)



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	VSOHCM 2%o 98%m	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Rockhound Petroleum, LLC

255 NE 30th
St. John, Ks. 67576

ATTN: Keaton Jones.

8-23s-13w Stafford Co. Ks.

Dunn #1

Job Ticket: 67165 **DST#: 4**

Test Start: 2021.08.09 @ 04:23:38

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:	17000 ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	11.49 in³	Gas Cushion Type:			
Resistivity:	17000.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	VSOHCM 2%o 98%m	0.070

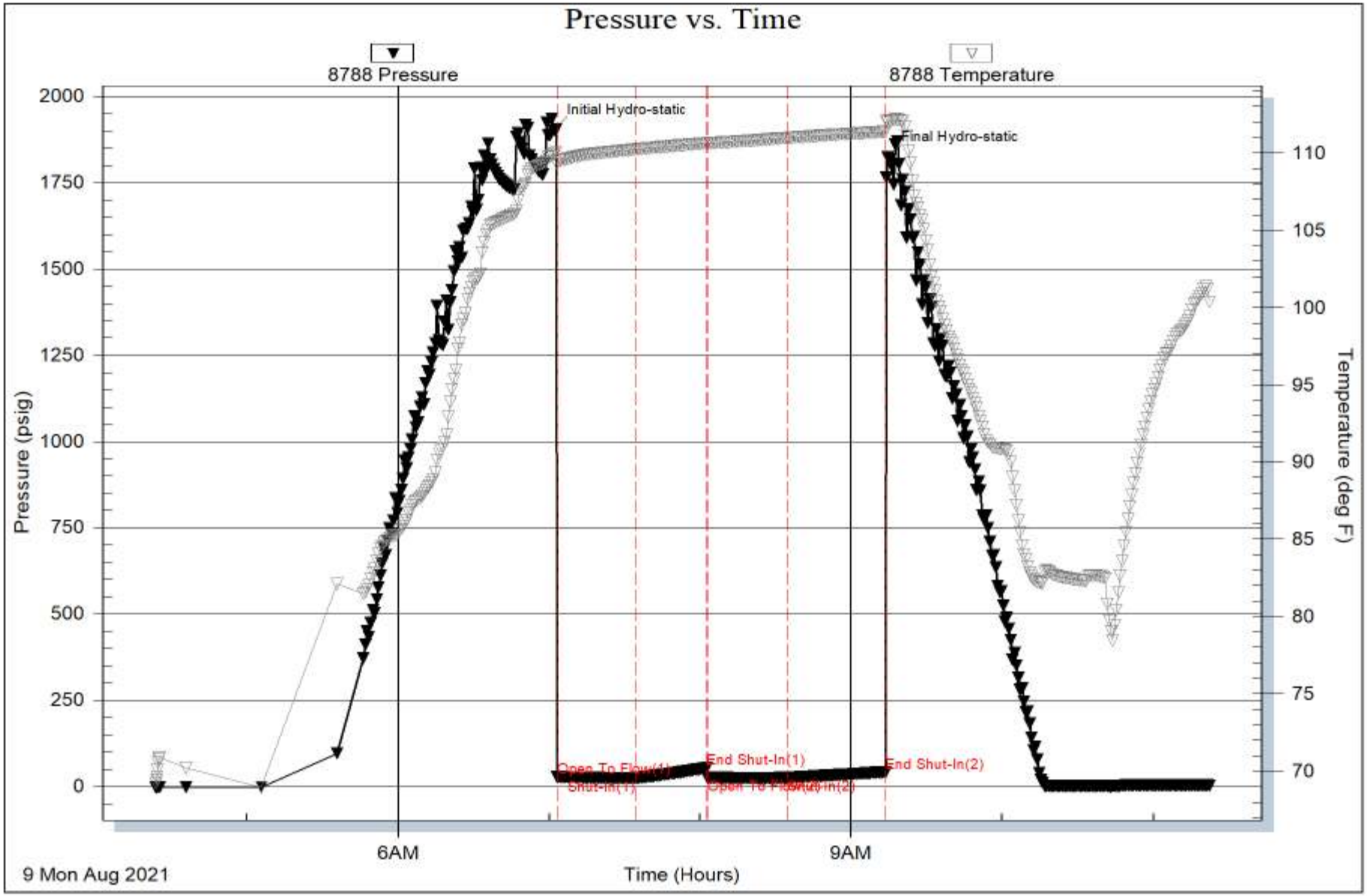
Total Length: 5.00 ft Total Volume: 0.070 bbl

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

Laboratory Name: Laboratory Location:

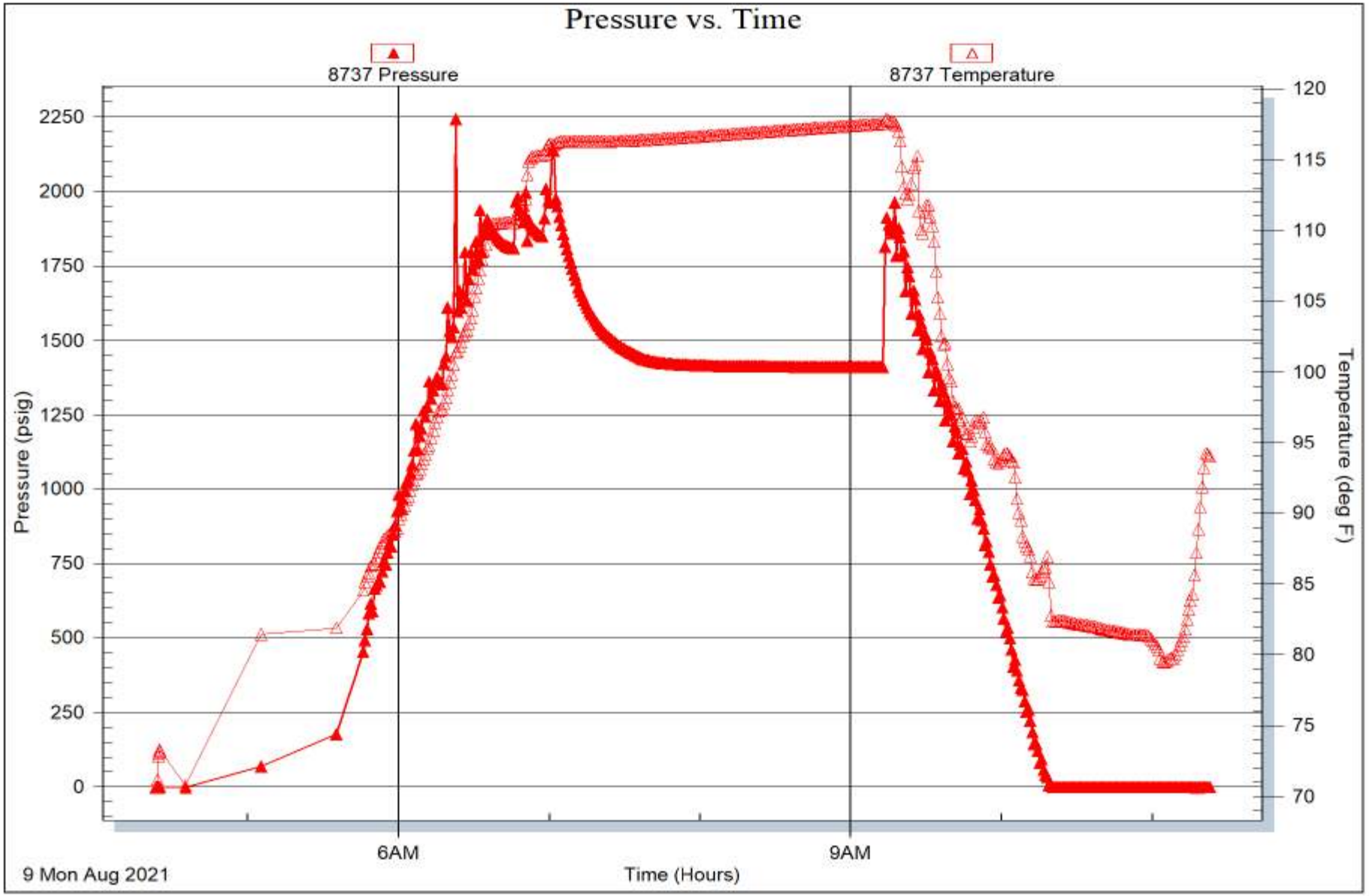
Recovery Comments:

Serial #: 8788 **Inside** Rockhound Petroleum, LLC Dunn #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 67165 Printed: 2021.08.09 @ 13:57:16

Serial #: 8737 Rockhound Petroleum, LLC Dunn #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 67165 Printed: 2021.08.09 @ 13:57:16

CEMENT TREATMENT REPORT

Customer:	ROCKHOUND PETROLEUM LLC	Well:	DUNN 1	Ticket:	WP1669
City, State:	ST JOHN KS	County:	STAFFORD KS	Date:	8/2/2021
Field Rep:	KEATON JONES	S-T-R:	8-23D-13W	Service:	8 5/8 SURFACE

Downhole Information	
Hole Size:	12 1/4 in
Hole Depth:	ft
Casing Size:	8 5/8 in
Casing Depth:	485.43 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	29.0 bbls

Calculated Slurry - Lead	
Blend:	H-CON
Weight:	12.0 ppg
Water / Sx:	14.5 gal / sx
Yield:	2.47 ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	70.0 bbls
Total Sacks:	175 sx

Calculated Slurry - Tail	
Blend:	CLASS A
Weight:	15.6 ppg
Water / Sx:	5.2 gal / sx
Yield:	1.20 ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	37.0 bbls
Total Sacks:	175 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
3:30 PM			-	-	ON LOCATION, SAFTEY MEETING
4:45 PM				-	RUN 8 5/8 CASING 23#
5:03 PM				-	CASING ON BOTTOM
5:15 PM				-	HOOK TO CASING, BREAK CIRCULATION WITH RIG
5:37 PM	5.0	170.0	3.0	3.0	PUMP 3 BBL WATER
5:38 PM	4.0	150.0	77.0	80.0	MIX 175 SKS H-CON
5:57 PM	4.0	70.0	37.0	117.0	MIX 175 SKS CLASS A
6:20 PM				117.0	DROP PLUG
6:23 PM	3.0	90.0		117.0	START DISPLACEMENT
6:40 PM		125.0	29.0	146.0	PLUG DOWN, SHUT IN WELL
					CEMENT TO CELLAR
				-	
				-	
				-	
				-	
				-	
				-	
				-	
				-	
				-	
				-	
				-	
				-	JOB COMPLETE, THANK YOU!
				-	MIKE MATTAL
				-	RILEY & COLE
				-	
				-	

	CREW	UNIT
Cementer:	MATTAL	912
Pump Operator:	OSBORN	179/522
Bulk #1:	COBB	181/
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
4.0 bpm	121 psi	146 bbls

ftv: 7-2020/11/30
mplv: 193-2021/07/23

Hurricane Services, Inc.
250 N. Water St., Suite #200
Wichita, KS 67202

Customer	ROCKHOUND PETROLEUM LLC	Lease & Well #	DUNN 1			Date	8/2/2021
Service District	PRATT	County & State	STAFFORD KS	Legals S/T/R	8-23D-13W	Job #	
Job Type	8 5/8 SURFACE	☑ PROD ☐ INJ ☐ SWD		New Well?	☑ YES ☐ No	Ticket #	WP1669

Equipment #	Driver
912	MATTAL
179/522	OSBORN
181/	COBB

Job Safety Analysis - A Discussion of Hazards & Safety Procedures

☑ Hard hat	☑ Gloves	☐ Lockout/Tagout	☐ Warning Signs & Flagging
☑ H2S Monitor	☑ Eye Protection	☐ Required Permits	☐ Fall Protection
☑ Safety Footwear	☐ Respiratory Protection	☐ Slip/Trip/Fall Hazards	☐ Specific Job Sequence/Expectations
☑ FRC/Protective Clothing	☐ Additional Chemical/Acid PPE	☐ Overhead Hazards	☐ Muster Point/Medical Locations
☐ Hearing Protection	☐ Fire Extinguisher	☐ Additional concerns or issues noted below	

Comments

Product/ Service Code	Description	Unit of Measure	Quantity			Net Amount
CP025	H-Con	sack	175.00			$3,234.00
CP010	Class A Cement	sack	175.00			$2,618.00
CP100	Calcium Chloride	lb	330.00			$217.80
CP120	Cello-flake	lb	45.00			$69.30
FE290	8 5/8" Wooden Plug	ea	1.00			$132.00
M015	Light Equipment Mileage	mi	30.00			$52.80
M010	Heavy Equipment Mileage	mi	30.00			$105.60
M020	Ton Mileage	tm	495.00			$653.40
C010	Cement Pump Service	ea	1.00			$660.00
C050	Cement Plug Container	job	1.00			$220.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?				Net:	$7,962.90
	Total Taxable	$ -	Tax Rate:		
Based on this job, how likely is it you would recommend HSI to a colleague? ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely	State tax laws deem certain products and services used on new wells to be sales tax exempt Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt			Sale Tax:	$ -
				Total:	$ 7,962.90
	HSI Representative: *Mike Mattal*				

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 ½% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. DISCLAIMER NOTICE: Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results fom the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well informaiton in determining taxable services.

X_____ CUSTOMER AUTHORIZATION SIGNATURE

ftv: 7-2020/11/30
mplv: 193-2021/07/23

Hurricane Services, Inc.
250 N. Water St., Suite #200
Wichita, KS 67202

Customer	Rockhound Petroleum	Lease & Well #	Dunn #1			Date	8/9/2021
Service District	Oakley Ks	County & State	Stafford Ks	Legals S/T/R	8-23s-13w	Job #	
Job Type	PTA	☑ PROD ☐ INJ ☐ SWD		New Well?	☑ YES ☐ No	Ticket #	WP 1701

Equipment #	Driver
73	Josh Moiser
208	Jesse Jones
205	Kale Oches

Job Safety Analysis - A Discussion of Hazards & Safety Procedures

☑ Hard hat	☑ Gloves	☑ Lockout/Tagout	☑ Warning Signs & Flagging
☑ H2S Monitor	☑ Eye Protection	☑ Required Permits	☑ Fall Protection
☑ Safety Footwear	☐ Respiratory Protection	☑ Slip/Trip/Fall Hazards	☐ Specific Job Sequence/Expectations
☑ FRC/Protective Clothing	☐ Additional Chemical/Acid PPE	☑ Overhead Hazards	☑ Muster Point/Medical Locations
☑ Hearing Protection	☑ Fire Extinguisher	☐ Additional concerns or issues noted below	

Comments

Product/ Service Code	Description	Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Net Amount
M015	Light Equipment Mileage	mi	30.00				$52.80
M010	Heavy Equipment Mileage	mi	30.00				$105.60
M020	Ton Mileage	tm	285.00				$376.20
C015	Cement Pump Service	ea	1.00				$1,320.00
CP055	H-Plug	sack	220.00				$2,516.80

Customer Section: On the following scale how would you rate Hurricane Services Inc.?

Based on this job, how likely is it you would recommend HSI to a colleague?

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely

	Gross:			Net:	$4,371.40
	Total Taxable	$ -	Tax Rate:		
State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.				Sale Tax:	$ -
				Total:	$ 4,371.40

HSI Representative: *Josh Moiser*

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 ½% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results fom the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well informaiton in determining taxable services.

X_____ **CUSTOMER AUTHORIZATION SIGNATURE**

CEMENT TREATMENT REPORT

Customer:	Rockhound Petroleum	**Well:**	Dunn #1	**Ticket:**	WP 1701
City, State:	Oakley Ks	**County:**	Stafford Ks	**Date:**	8/9/2021
Field Rep:	Josh Moiser	**S-T-R:**	8-23s-13w	**Service:**	PTA

Downhole Information	
Hole Size:	7.875 in
Hole Depth:	3970 ft
Casing Size:	in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	14.7 bbls

Calculated Slurry - Lead	
Blend:	H-Plug
Weight:	13.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.43 ft^3 / sx
Annular Bbls / Ft.:	0.0406 bbs / ft.
Depth:	3910 ft
Annular Volume:	158.7 bbls
Excess:	
Total Slurry:	56.0 bbls
Total Sacks:	220 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft^3 / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
2:00p.m.			-	-	Arrive
2:05p.m.				-	Safety meeting
2:10p.m.				-	Rig up
4:06p.m.	3.0	150.0	5.0	5.0	H20 ahead
4:08p.m.	3.0	200.0	12.7	17.7	Mixed 50 sks of H-Plug at 3910'
4:12p.m.	3.0	250.0	5.0	22.7	Displaced H20 with truck
4:18p.m.				22.7	Displaced mud with rig for 3 minutes
4:22p.m.				22.7	Pull pipe to 810'
6:23p.m.	4.0	250.0	12.7	35.4	Mixed 50 sks of H-Plug at 810'
6:27p.m.	4.0	200.0	7.0	42.4	Displaced H20
6:35p.m.				42.4	Pull pipe to 510'
6:50p.m.	4.2	200.0	8.3	50.7	Mixed 50 sks of H-Plug at 510'
6:53p.m.	4.0	200.0	2.7	53.4	Displaced H20
6:56p.m.				53.4	Pull pipe to surface
8:23p.m.	1.5	50.0	3.2	56.6	Mixed 20 sks of H-Plug at 60'
8:26p.m.	1.5	50.0	3.2	59.8	Mixed 20 sks of H-Plug in mouse hole
8:30p.m.	1.5	50.0	5.0	64.8	Mixed 30 sks of H-Plug in Rat hole
8:31p.m.					Plug down
8:45p.m.					Rig Down
8:58p.m.					Leave location

	CREW	UNIT
Cementer:	Josh Moiser	73
Pump Operator:	Jesse Jones	208
Bulk #1:	Kale Oches	205
Bulk #2:		

SUMMARY		
Average Rate	Average Pressure	Total Fluid
3.0 bpm	160 psi	65 bbls

MUD LOG

WellSight Systems

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

Well Name:	**Dunn #1**
API:	**15-185-24085**
Location:	**1070 FNL - 1415 FWL - Sec. 8 - Twp. 23S - 13W**
License Number:	**35657**
Region:	**Kansas**
Spud Date:	**08/02/2021**
Drilling Completed:	**08/10/21**
Surface Coordinates:	
Bottom Hole Coordinates:	
Ground Elevation (ft):	**1898**
K.B. Elevation (ft):	**1906**
Logged Interval (ft):	**3000** To: **T.D**
Total Depth (ft):	**3970**
Formation:	**Arbuckle Dolomite @ Total Depth**
Type of Drilling Fluid:	**Chemical Drispac (Andys)**

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

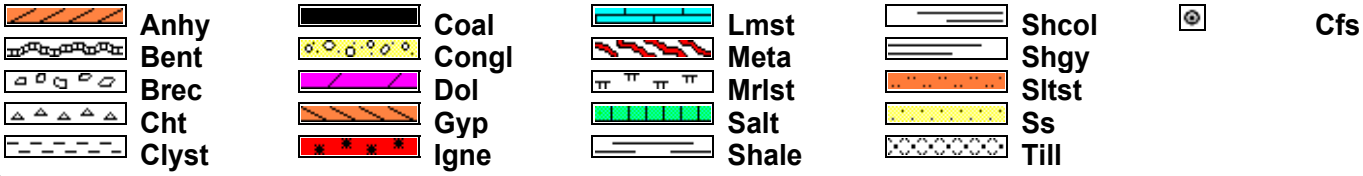
OPERATOR

Company: Rockhound Petroleum, LLC
Address: 255 NE 30th
St. John KS 67576

GEOLOGIST

Name: Keaton Jones
Company: Rockhound Petroleum, LLC
Address: 255 NE 30th
St. John KS 67576
(620)-546-4010

ROCK TYPES



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

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

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

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

OTHER SYMBOLS

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

SORTING
- Well
- Moderate
- Poor

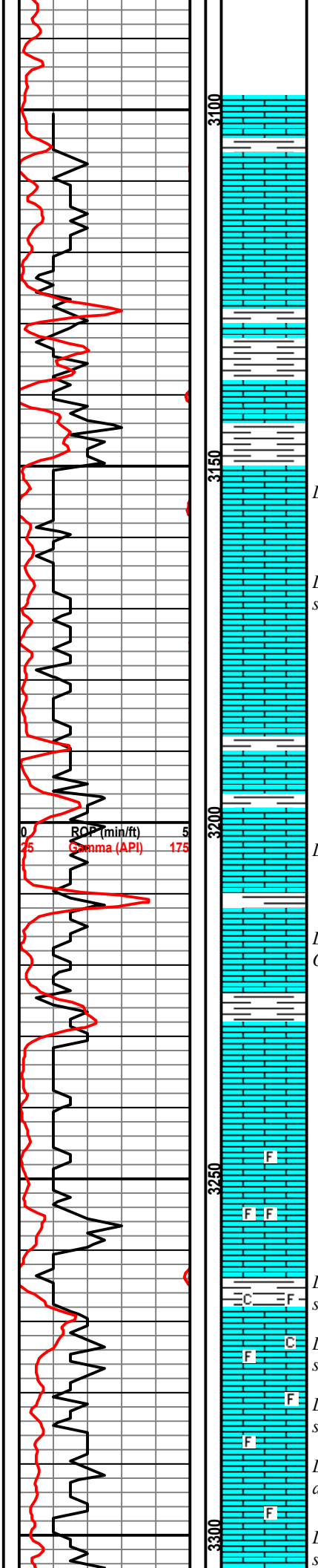
ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

OIL SHOW
- Cfs

EVENT
- Even
- Spotted
- Ques
- Rft
- Sidewall

INTERVAL
- Core
- Dst 2
- Dst

Circulating Stops	Curve Track 1 ROP (min/ft) Gamma (API)	Oil Shows	MD	Lithology	Geological Descriptions	Drill Stem Tests	Drilling Fluid, Surveys, Etc.
	0 ROP (min/ft) 5 25 Gamma (API) 175		30 3050				*Straight hole Survey @ 485' = 0.75*



Straight hole Survey @ 1921 = 0.75

Mud Displaced @3,000'

Conn @ 3108

Conn @ 3141

Ls - Cream - FXln, foss in sme chalky. no shows no odr

Ls br, F/MedXln, foss chalky in sme, mineral staining, no shows, no odr

Conn @ 3172

Conn @ 3204

Ls - tan, MedXln, dse, foss, reXln, no shows no odr

Ls - grey, MedXln, foss, Mineral staining, No Shows No Odor

Conn @ 3236

Conn @ 3267

Ls -Grey , MedXln, Vuggy - highly weathered and foss No shows no odor

Clean Pump Screen, Replace Valve, Pump Pre-Mix

Ls - grey to white - MedXln highly weathered - vry chalky in sme - shaly - sme mineral staining - no shows no odr

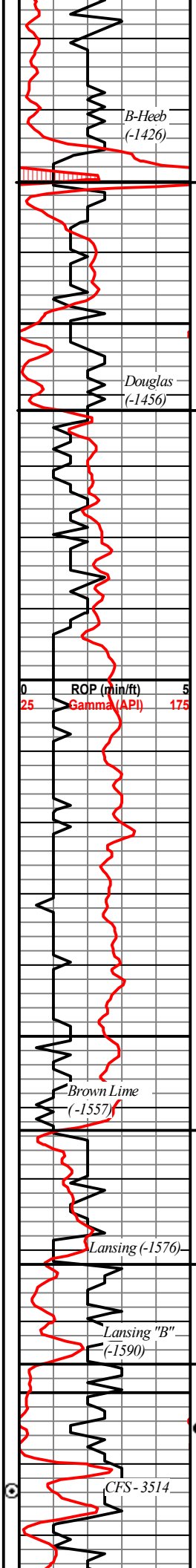
- Mud Check - 3275
Vis- 5.1
WT - 8.8
Hulls - 2LCM

LS - Br, Tan - MedXln, Highly weathered oolic/ooli foss - no shows no odr

Ls - Br to Gold - MedXln - Highly weathered, More dse than above, foss, ooli in mst, staining in sme - no shows no odr

Conn @ 3298

Ls - br - MedXln, weathereed, foss, oolic is sme, shale stringers. no shows no odr



3350

3400

3450

3500

Ls - br, As Above No Shows No Odr

Ls - Br, Fxln, dse, sme foss, no shows no odr

Sh - Bl Fiss w/ Gas - No Odr No OIl Shows

Conn @ 3329
Clean Pump Screen

Ls -cream - F-MedXln, DSE, sme mineral stain no shows no odor

Conn @ 3361

SH - Grey - waxy in sme

Sh - grey to green sandy in prt

- Mud Check -
3390
Vis: 51
WT: 8.8
Hulls 2 LCM

Conn @ 3392

As Above

Conn @ 3424

As Above

- Mud Check -
Vis: 51
WT: 8.7

Conn @ 3456

Ls - Br FXln, Vry Dse, Foss in sme, No Shows No Odr

- Mud Check -
Vis: 51
WT: 8.8

Ls - Br,Cream, F/MedXln Dse, ReXLN Spirite, Abundant Pirite, No SHows No Odr

Conn @ 3487

Ls - cream, F/MedXLN, pin point porosity, vuggy, weathered, sme oolic, Rexln sparite, show of free oil, show of gas when broken, fair odr.

Sh - Grey

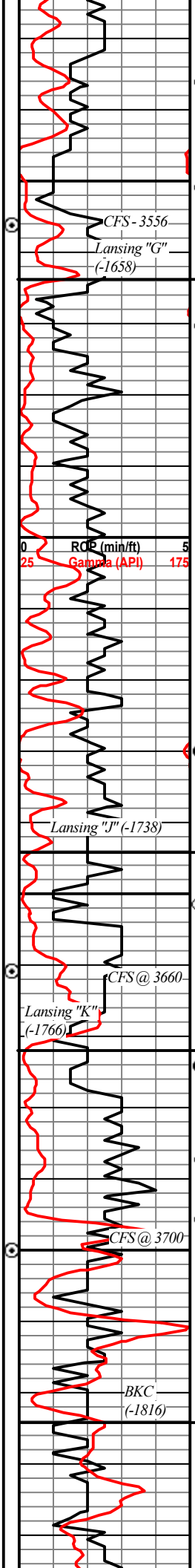
- DST - Lansing "B"
Interval - 3498-3514
25' Total Recovery
37' GIP
25' GVSOWCM -1%G - 19%WTR - 5%O - 75%Mud

IH:1668 -FH:1640
IF: 25-26
FF: 28-31

Short trip - pulled all pipe found hole 6 stands above collars

Straight Hole Survey @ 3514 = 0.75

Conn @ 3517



SIP 983-916
FH:1640

Ls - grey, highly vuggy, 1-2 pieces w/ oil show in vugs, no free oil, No gas shows, Hit and miss odor.

Ls - Br, MedXln, foss, vuggy, good porosity, faint odor if any, 1/2 pieces with oil show. no Gas shows

After reviewing - E-Logs calculated wet

Ls - grey - Lrge Xln - shaly, foss, dse, No shows No Odor

- Mud Check -
VIS: 51
WT: 8.9
LCM: 1#

- Mud Check -
VIS: 50
WT: 8.8
LCM: 1#

Ls - Grey - MedXln, Dse, PinPoint Por, Show of oil when broken, slight show of Gas, Faint if any Odor

After reviewing - E-Logs calculated wet

Conn @ 3580

LS - br, MedXln, Highly oolitic, 1-2 Pieces oolicastic, Dse No Shows No odor

Conn @ 3612

Ls - Cream, MedXln, vuggy, vry heavy oil and gas show,

Ls - Grey - MedXln, Highly Foss, Dse, Sme oolitic, No Shows No Odr

Conn @ 3643

Ls - Br, MedXln, PinPoint Porosity, Vuggy in Sme, Show of free oil and gas when broken Slight odor

-DST 2- Lansing I/F
Interval: 3620-3660
Total Recovery: 7' DM 100%

IH: 1759
IF:25-23
FF:23-23
SIP:227-141
FH: 1714

- Mud Check -
3660
WT: 9.1
VIS: 45
Filtrate: 9.2
CHL: 7500

Ls - cream, MedXln, Vuggy porosity, oolicastic Mstly without interconnecting porosity, Vry Heavy oil show, Well Saturated, decent show of gas, Fair oder when shaken.

Ls Cream/Buff, DSE, Med/FXln, Oil Staining Free oil when broken, Ooli. Faint Odor

- DST 3- Lansing K
Interval 3660-3700
Total Recovery:
160' GIP
28" VHOCM: 5% G, 20% O, 75% Mud

IH: 1773
IF: 24-22
FF: 21-25
SIP: 105-669 Building
FH: 1729

Conn @ 3674

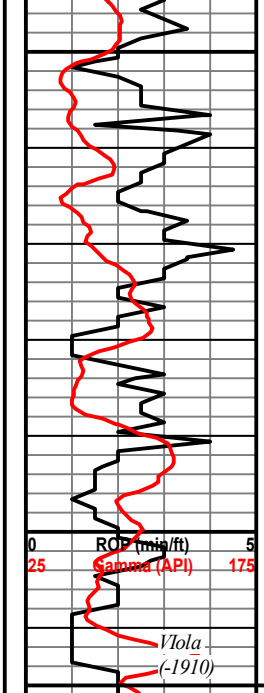
- Mud Check -
3683
Vis: 50
WT: 8.9
LCM: 1

Conn @ 3705

BKC - Shale

Ls -brown, dolomtic, MedXln, Vry Dse Sandy in part, no shows

Conn @ 3737



3750

Sandy LS - Purple shaly MedXln, vry dse. poorly sorted sand andgular no shows no odor

chert, Ls, Sandy and shaly conglomerate with various colors

Conn @ 3768

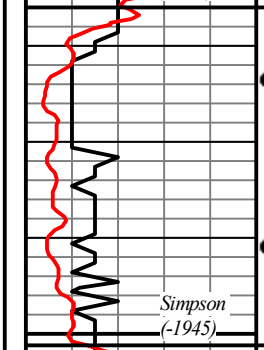
- Mud Check -
VIS: 51
WT: 9.1

3800

Ch, Brown, oolitic, no apparent porosity, no shows no odor

Conn @ 3799

- Mud Check -
VIS: 51
WT: 9.1



3850

CH, white, tripolitic in most, vry dse, free oil in tray, live oil and gas, some odr

Ch - brown and white, chalky in some and soft, tripolitic in parts, well saturated with oil, some gas, fair odor.

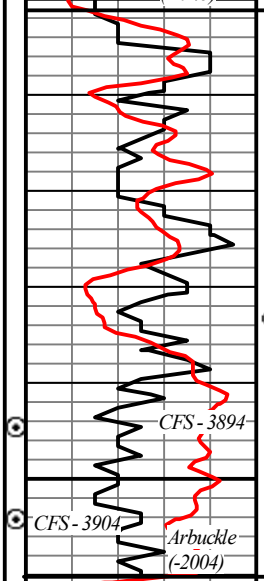
CH - black, highly tripollitic porosity, excellent saturation of oil and gas. fair odor

free oil in trays throughout entire viola section

- DST -
Interval: 3791-2850
Total Recovery: 5' Mud

IH: 1901
IF:28-24
FF:25-25
SIP: 54-42
FH: 1823

Conn @ 3831



3900

Shale terq/blue

Conn @ 3862

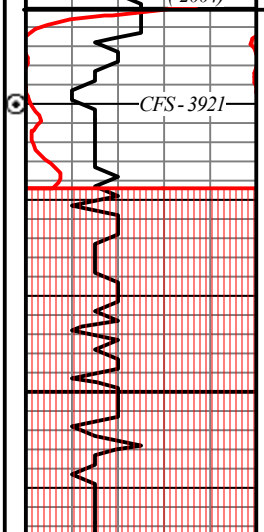
SS - green shaly, DSE, sub angular poorly sorted, calcitic matrix, residual oil staining, few samples with oil shows

SS, clear, clean, sub rounded well sorted, calcitic matrix, No oil shows, very few gas bubbles when broken, Faint odor if any

- Mud Check -
3889
WT: 9
VIS: 47
FILT: 11.6
CHL: 17,000
LCM: 1.5
Conn @ 3893

SS, Black, poorly sorted, sub angular, calcitic matrix, live oil on brake in few, residual oil staining in most. faint odor if any

Recommend evaluating Simpson Section on logs



3950

Mostly Dol - Trashy arbuckle top, very cherty oolitic, highly weathered, No clean dolomite. No Shows No Odor

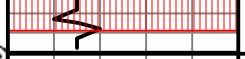
Dol - pink, Med/Fine Xln, vuggy, sucrosic in sme, no shows no odor

Conn @ 3925

Dol - Brown to tan, sucrosic and vuggy porosity, Med/FineXln and reXln, sparite, no shows No odor

Conn @ 3956

Arbuckle was consist throughout with no shows or odors in



Arbuckle was consist throughout with no shows or odors in any samples.

R.T.D 3970

L.T.D 3968

RTD: 3970

LTD: 3968

0 ROP (min/ft) 5

25 Gamma (API) 175

4000

4050

After reviewing the E-logs and testing the viola, I recommend plugging

Survey @ 3/4 degrees