

Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West County: _____

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 <i>(Attach Additional Sheets)</i>	☐ Yes	☐ No	☐ Log	Formation (Top), Depth and Datum	☐ Sample
Samples Sent to Geological Survey	☐ Yes	☐ No	Name	Top	Datum
Cores Taken	☐ Yes	☐ No			
Electric Log Run	☐ Yes	☐ No			
Geologist Report / Mud Logs	☐ Yes	☐ No			
List All E. Logs Run:					

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

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: ☐ Vented ☐ Sold ☐ Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: 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:	
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Form	ACO1 - Well Completion
Operator	Ritchie Exploration, Inc.
Well Name	FRUSHER 9D 4
Doc ID	1682527

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	8.63	24	270	Class A	180	3 cc, 2% gel
Production	7.88	5.5	15.5	4564	Common	175	10% salt, 2% gel



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc

PO Box 783188
Wichita, KS 67278

ATTN: John Goldsmith

9-21S-23W Hodgeman

4 Frusher 9 D

Job Ticket: 69569

DST#: 1

Test Start: 2022.11.07 @ 01:30:00

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:30:32

Time Test Ended: 10:28:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 72

Interval: 4374.00 ft (KB) To 4410.00 ft (KB) (TVD)

Total Depth: 4410.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2321.00 ft (KB)

2310.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6752 Inside

Press@RunDepth: 106.96 psig @ 4380.00 ft (KB)

Start Date: 2022.11.07

End Date:

2022.11.07

Start Time: 01:30:01

End Time:

10:28:02

Capacity: psig

Last Calib.: 2022.11.07

Time On Btm: 2022.11.07 @ 04:29:47

Time Off Btm: 2022.11.07 @ 07:31:32

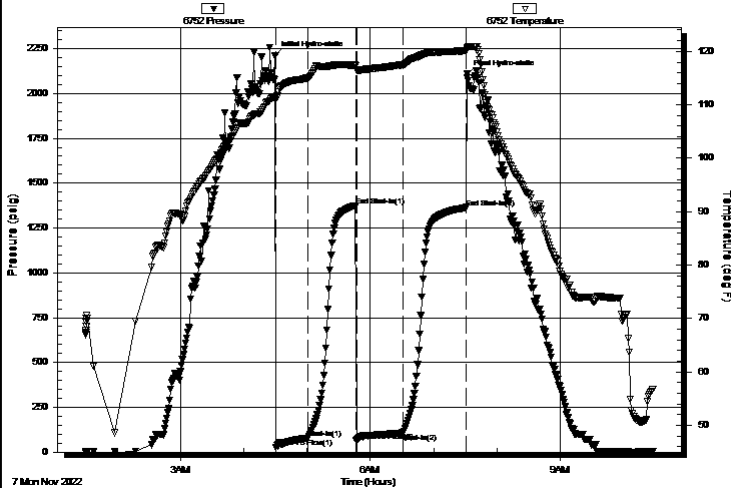
TEST COMMENT: IF: Strong Blow , BOB in 12 minutes, Built to 34.46"

IS: No Blow Back

FF: Strong Blow , BOB Immediate, Built to 91.21"

FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2210.26	111.31	Initial Hydro-static
1	26.81	110.99	Open To Flow (1)
31	77.55	114.99	Shut-In(1)
77	1375.16	117.36	End Shut-In(1)
78	61.04	116.50	Open To Flow (2)
121	106.96	117.52	Shut-In(2)
182	1364.45	120.17	End Shut-In(2)
182	2107.13	120.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	930' GIP	0.00
176.00	GOCM 20%G 30%O 50%M	0.87
62.00	GMCO 30%G 10%M 60%O	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc

9-21S-23W Hodgeman

PO Box 783188
Wichita, KS 67278

4 Frusher 9 D

Job Ticket: 69569

DST#: 1

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Test Start: 2022.11.07 @ 01:30:00

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:30:32

Time Test Ended: 10:28:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 72

Interval: 4374.00 ft (KB) To 4410.00 ft (KB) (TVD)

Total Depth: 4410.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2321.00 ft (KB)

2310.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8365 Outside

Press@RunDepth: psig @ 4380.00 ft (KB)

Start Date: 2022.11.07

End Date:

2022.11.07

Start Time: 01:30:01

End Time:

10:28:02

Capacity: psig

Last Calib.:

2022.11.07

Time On Btm:

Time Off Btm:

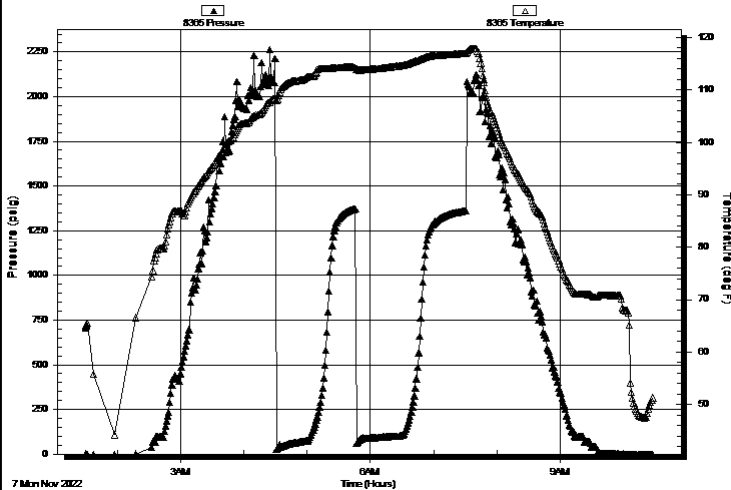
TEST COMMENT: IF: Strong Blow , BOB in 12 minutes, Built to 34.46"

IS: No Blow Back

FF: Strong Blow , BOB Immediate, Built to 91.21"

FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
0.00	930' GIP	0.00
176.00	GOCM 20%G 30%O 50%M	0.87
62.00	GMCO 30%G 10%M 60%O	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

9-21S-23W Hodgeman

PO Box 783188
Wichita, KS 67278

4 Frusher 9 D

Job Ticket: 69569

DST#: 1

ATTN: John Goldsmith

Test Start: 2022.11.07 @ 01:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 3200.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	930' GIP	0.000
176.00	GOCM 20%G 30%O 50%M	0.866
62.00	GMCO 30%G 10%M 60%O	0.870

Total Length: 238.00 ft

Total Volume: 1.736 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6752

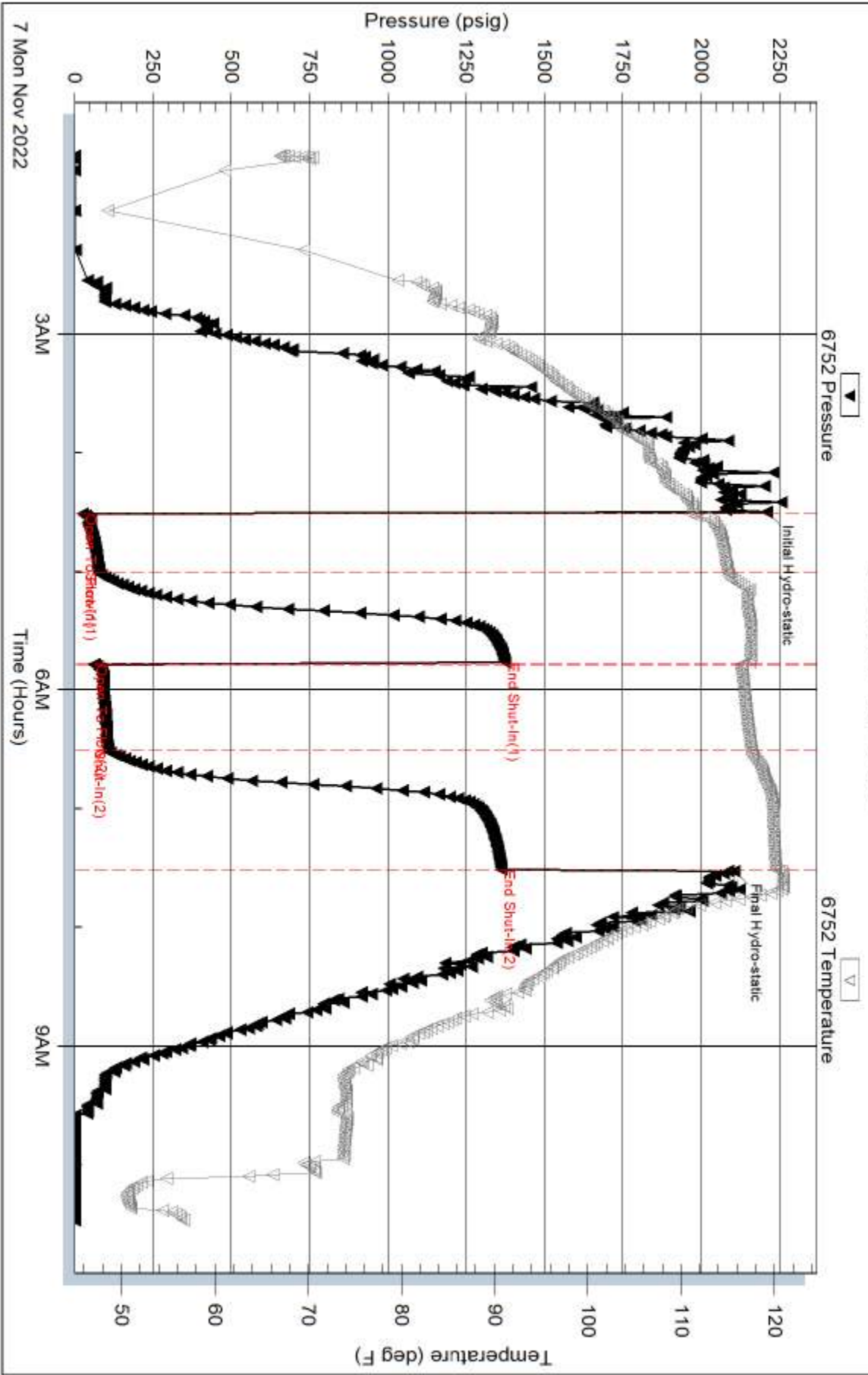
Inside

Ritchie Exploration Inc

4 Fruster 9 D

DST Test Number: 1

Pressure vs. Time

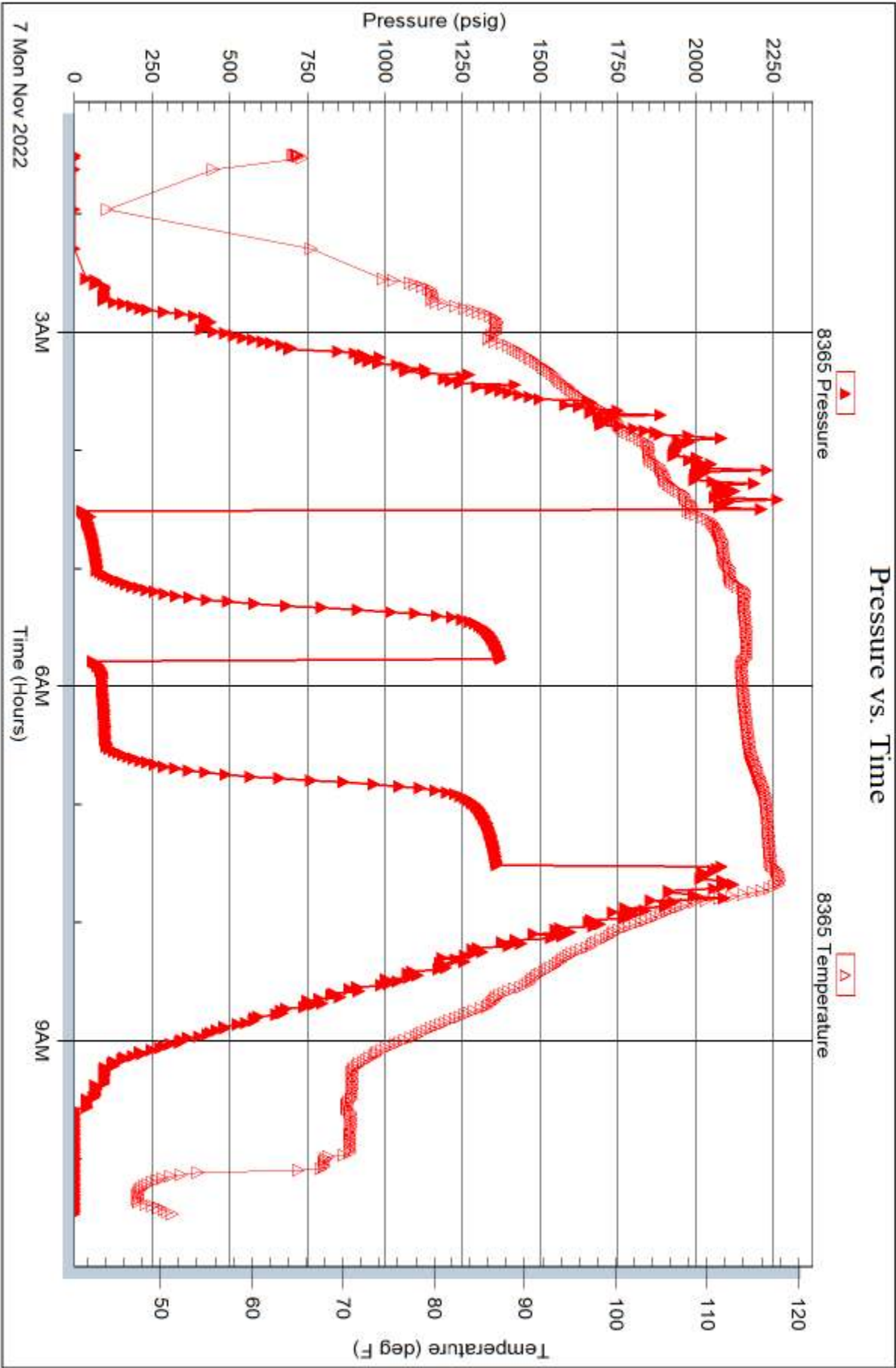


Serial #: 8365

Outside Ritchie Exploration Inc

4 Fruster 9 D

DST Test Number: 1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc

9-21S-23W Hodgeman

PO Box 783188
Wichita, KS 67278

4 Frusher 9 D

Job Ticket: 69570

DST#: 2

ATTN: John Goldsmith

Test Start: 2022.11.07 @ 22:44:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:10:02

Time Test Ended: 08:41:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 72

Interval: 4447.00 ft (KB) To 4487.00 ft (KB) (TVD)

Total Depth: 4487.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2321.00 ft (KB)

2310.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6752 Inside

Press@RunDepth: 449.73 psig @ 4453.00 ft (KB)

Start Date: 2022.11.07

End Date:

2022.11.08

Start Time: 22:44:01

End Time:

08:41:47

Capacity: psig

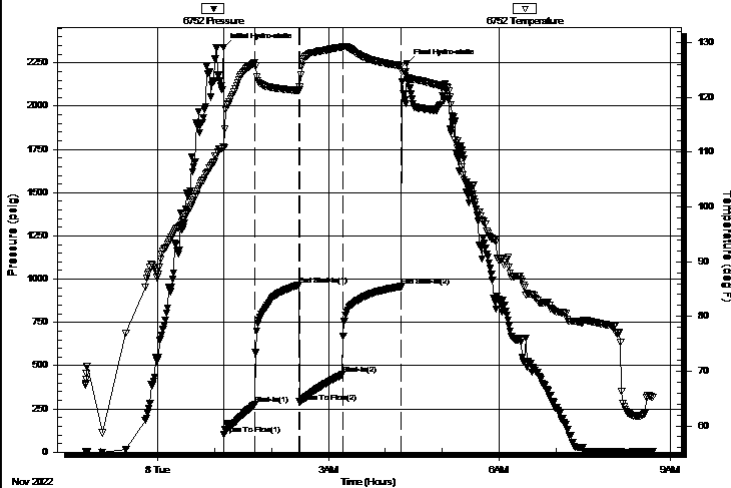
Last Calib.: 2022.11.08

Time On Btm: 2022.11.08 @ 01:09:17

Time Off Btm: 2022.11.08 @ 04:23:02

TEST COMMENT: IF: Strong Blow , BOB in 5 minutes, Built to 64.8"
IS: 3.45" Blow Back
FF: Strong Blow , BOB in 7 minutes, Built to 45.38"
FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2339.97	110.93	Initial Hydro-static
1	101.66	110.78	Open To Flow (1)
34	275.46	126.32	Shut-In(1)
80	965.57	121.31	End Shut-In(1)
81	290.48	121.87	Open To Flow (2)
126	449.73	129.23	Shut-In(2)
188	957.96	125.77	End Shut-In(2)
194	2247.65	123.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	620' GIP	0.00
238.00	GWMCO 20%G 10%W 24%M 46%O	1.74
883.00	Gassy Oil 30%G 70%O	12.39

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc

9-21S-23W Hodgeman

PO Box 783188
Wichita, KS 67278

4 Frusher 9 D

Job Ticket: 69570

DST#: 2

ATTN: John Goldsmith

Test Start: 2022.11.07 @ 22:44:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:10:02

Time Test Ended: 08:41:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 72

Interval: 4447.00 ft (KB) To 4487.00 ft (KB) (TVD)

Total Depth: 4487.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2321.00 ft (KB)

2310.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8365 Outside

Press@RunDepth: psig @ 4453.00 ft (KB)

Start Date: 2022.11.07

End Date:

2022.11.08

Start Time: 22:44:01

End Time:

08:41:47

Capacity: psig

Last Calib.:

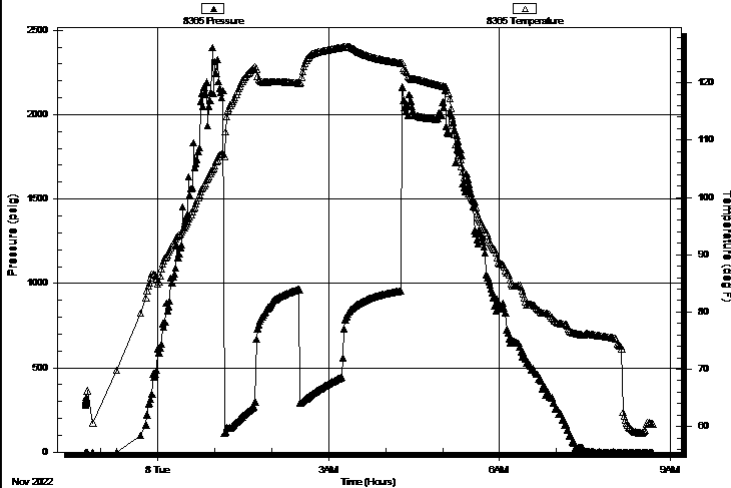
2022.11.08

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 5 minutes, Built to 64.8"
IS: 3.45" Blow Back
FF: Strong Blow , BOB in 7 minutes, Built to 45.38"
FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
0.00	620' GIP	0.00
238.00	GWMCO 20%G 10%W 24%M 46%O	1.74
883.00	Gassy Oil 30%G 70%O	12.39

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

9-21S-23W Hodgeman

PO Box 783188
Wichita, KS 67278

4 Frusher 9 D

Job Ticket: 69570

DST#: 2

ATTN: John Goldsmith

Test Start: 2022.11.07 @ 22:44:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 7.80 in³

Resistivity: ohm.m

Salinity: 3700.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

35.7 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	620' GIP	0.000
238.00	GWMCO 20%G 10%W 24%M 46%O	1.735
883.00	Gassy Oil 30%G 70%O	12.386

Total Length: 1121.00 ft

Total Volume: 14.121 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity was 36.2 @ 65 degrees

Serial #: 6752

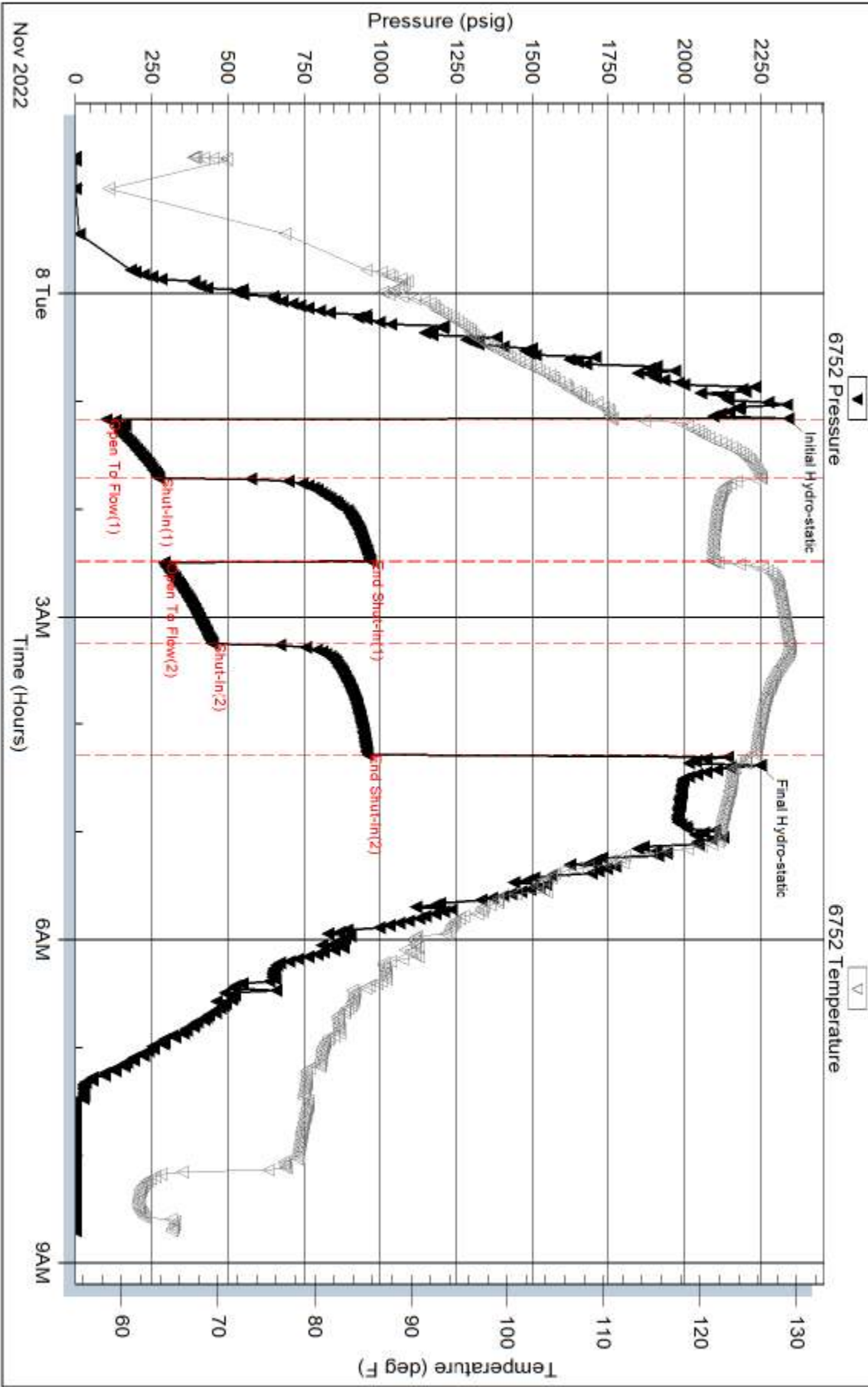
Inside

Ritchie Exploration Inc

4 Fruster 9 D

DST Test Number: 2

Pressure vs. Time

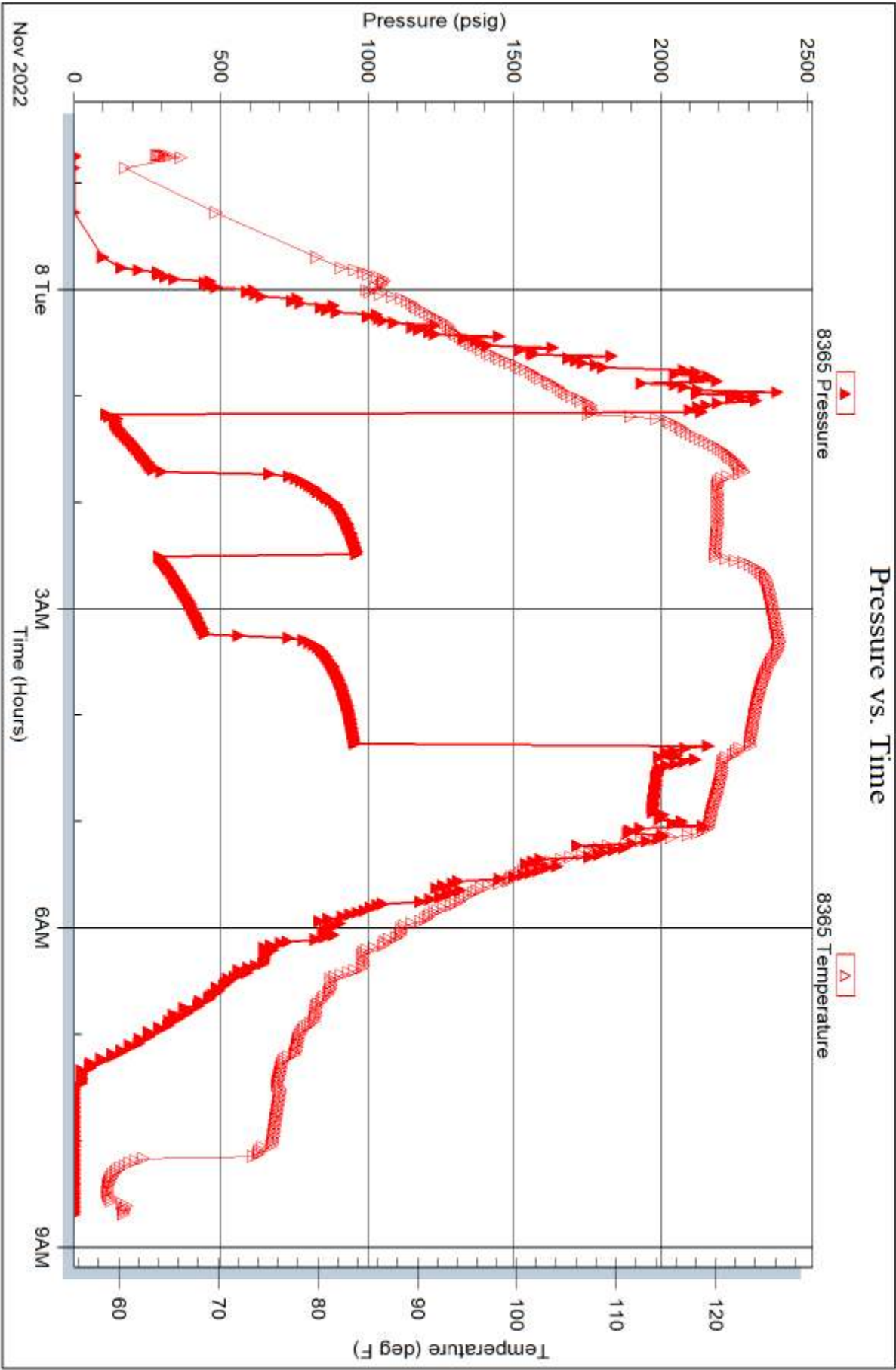


Serial #: 8365

Outside Ritchie Exploration Inc

4 Fruster 9 D

DST Test Number: 2





#4 Frusher 9D

2,267' FSL & 977' FEL

43' S & 13' E of NW NE SE Section 9-21S-23W

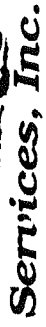
Hodgeman County, Kansas

API# 15-083-22018-0000

Elevation: GL: 2,310', KB: 2,321'

Sample Tops			Ref. Well
Anhydrite	1526	+795	+4
B/Anhydrite	1568	+753	+2
Heebner	3822	-1501	+2
Toronto	3834	-1513	+2
Lansing	3870	-1549	+3
Muncie	4032	-1711	+7
Stark	4126	-1805	+8
Hush.	4164	-1843	+7
BKC	4201	-1880	+5
Marmaton	4224	-1903	+4
Altamont	4241	-1920	+9
Pawnee	4318	-1997	+4
Ft. Scott	4386	-2065	+4
Cherokee	4410	-2089	-4
Mississippian	4471	-2150	-2
RTD	4570	-2249	

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



CITY, STATE, ZIP CODE

TICKET 34885

PAGE 1 OF 1

SERVICE LOCATIONS		WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1.	Ness City, KS	9D #4	Fruiser	Hodgeman	KS		11/9/2022	
2.		TICKET TYPE ☒ SERVICE ☐ SALES	CONTRACTOR Duke	RIG NAME/NO. #5	SHIPPED VIA	DELIVERED TO LOCATION	ORDER NO.	
3.		WELL TYPE Oil	WELL CATEGORY Development	JOB PURPOSE Long String		WELL PERMIT NO.	WELL LOCATION N/E of Jetmore, KS	
4.		INVOICE INSTRUCTIONS						
REFERRAL LOCATION								

[illegible]

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

DATE SIGNED	TIME SIGNED	☐ A.M.
11/9/2022	6:00	☒ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.

P.O. BOX 466

NESS CITY, KS 67560

785-798-2300

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES. The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR

APPROVAL:

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 34885

CUSTOMER Ritchie Exploration			WELL Frusher 9D #4			DATE 11/9/2022		PAGE 2 OF 2			
PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		TIME	DESCRIPTION	QTY		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT			QTY	U/M				
325											
279		1			STANDARD CEMENT			225	SKS	15.00	3375.00
283		1			BENTONITE GEL			4	SKS	40.00	160.00
292		1			SALT			1200	lbs	0.25	300.00
277		1			HALAD-322			100	lbs	9.00	900.00
					GILSONITE			1125	lbs	1.25	1406.25
281		1			Mud Flush			500	gal	2.00	1000.00
221		1			Liquid KCL			2	gal	25.00	50.00
290		1			D-AIR			3	gal	42.00	126.00
581		1			Cement			225	SKS	2.00	450.00
582		1			MIN CHARGE					350.00	350.00
MILEAGE TOTAL WEIGHT 24,000											
LOADED MILES 25											
SERVICE CHARGE											
CUBIC FEET											
TON MILES											
CONTINUATION TOTAL											8,117.25

CUSTOMER

Ritchie Exploration

WELL NO.

9D

#4

LEASE

Frusher

JOB TYPE	
1	2
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5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
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97	98
99	100

Long String

TICKET NO.

34885

[illegible]

CUSTOMER

Richie Exelcation

WELL NO.

P-4

LEASE

Fraser

JOB TYPE
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Port collar 5/3

TICKET NO.

34817

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
Richie Exploration		D-4		Frisher		Port collar 5K		34817	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
	10:00							ON location 238' 5 1/2" PC 1502'	
	10:55			✓		1200		Test hold	
		3	3	✓		400		open PC Injection Rate	
	11:00	3.5	62.5	✓		400		mix 190 SK @ 12.24 ppg	
	11:20		4.5	✓				displace CMT	
	11:25			✓		1200		Close PC & Test	
	11:50	3	25	✓		400		Run 4 Joints	
	12:05							Reverse Clean	
						300		Wash pump truck	
								pressure up csg. shut in	
								Job Complete	
								Thanks!	
								Preston Kirby, John	
								190 SKS 60/40 ppg mix used	
								15 SKS to pit	

Wellsite Services, LLC

John Goldsmith
(316) 640-0236

427 Roosevelt St.
Cheney, KS 67025

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

Well Name: #4 Frusher 9D
API: 15-083-22018
Location: 43'S & 13'E of NW NE SE in Section 9-21S-23W
License Number: REI #4767
Spud Date: 11/01/2022
Surface Coordinates: LAT: 38.239136
LONG: -99.848031
Bottom Hole Vertical hole
Coordinates: 1/2 Degree Deviation
Ground Elevation (ft): 2310'
Logged Interval (ft): 3700' To: RTD
Formation: Mississippian at RTD
Type of Drilling Fluid: Chemical

Region: Hodgeman County
Drilling Completed: 11/09/2022
K.B. Elevation (ft): 2321'
Total Depth (ft): 4570'

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

OPERATOR

Company: Ritchie Exploration Inc.
Address: 8100 E. 22nd St N. Bldg #700
Wichita, KS 67226
(316) 691-9500

GEOLOGIST

Name: John Goldsmith
Company: Wellsite Services, LLC
Address: 427 Roosevelt St.
Cheney, KS 67025
(316) 640-0236

COMMENTS

Contractor: Duke Drilling Rig #5
Pusher: Emigdio Rojas (620) 391-6635
Surface Casing: 6 joints of 8 5/8" set at 270'
Production Casing: 5.5" Production Casing was installed.
Mud by: MudCo
DST's by: Trilobite Testing
Logs by: ELI Wireline Services (DIL, CN-CD, ML, CS)
RTD=4570'
LTD=4569'

FORMATION TOPS

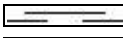
FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
B/Anhydrite	1568'	+753	1567'	+754
Stotler	3293'	-792	3291'	-790
Heebner Shale	3822'	-1501	3819'	-1498
Toronto	3834'	-1513	3832'	-1511
Lansing	3870'	-1549	3868'	-1547
Muncie Creek Shale	4035'	-1714	4036'	-1715
Stark Shale	4126'	-1805	4128'	-1807
Hushpuckney Shale	4164'	-1843	4166'	-1845
Base of KC	4201'	-1880	4200'	-1879
Marmaton	4224'	-1903	4222'	-1901
Altamont	4241'	-1920	4239'	-1918
Pawnee	4318'	-1997	4318'	-1997
Ft Scott	4386'	-2065	4385'	-2064
Cherokee Shale	4410'	-2089	4408'	-2087
Mississippian	4471'	-2150	4468'	-2147
RTD	4570'	-2249		
LTD			4569'	-2248

DSTs

DST #1: 4374'-4410' (Ft Scott)
 30-45-45-60
 IF: Strng blw blt to BOB in 12" (No BB)
 FF: BOB immediate (No BB)
 Rec: 930'GIP, 62'GMCO, 176'GOCM
 IF: 27-77# ISIP: 1375#
 FF: 61-107# FSIP: 1364#

DST #2: 4447'-4487' (Miss)
 30-45-45-60
 IF: Strng blw blt to BOB in 5" (3.5" BB)
 FF: Strng blw blt to BOB in 7" (No BB)
 Rec: 620'GIP, 883'GO, 238'GWMCO
 IF: 102-275# ISIP: 965#
 FF: 290-450# FSIP: 958#

ROCK TYPES

 Anhy	 Lmst	 Carb sh	 Shaly ls
 Cht	 Shale	 Gry sh	
 Congl	 Slstst	 Sandylms	
 Dol	 Ss	 Shale	

ACCESSORIES

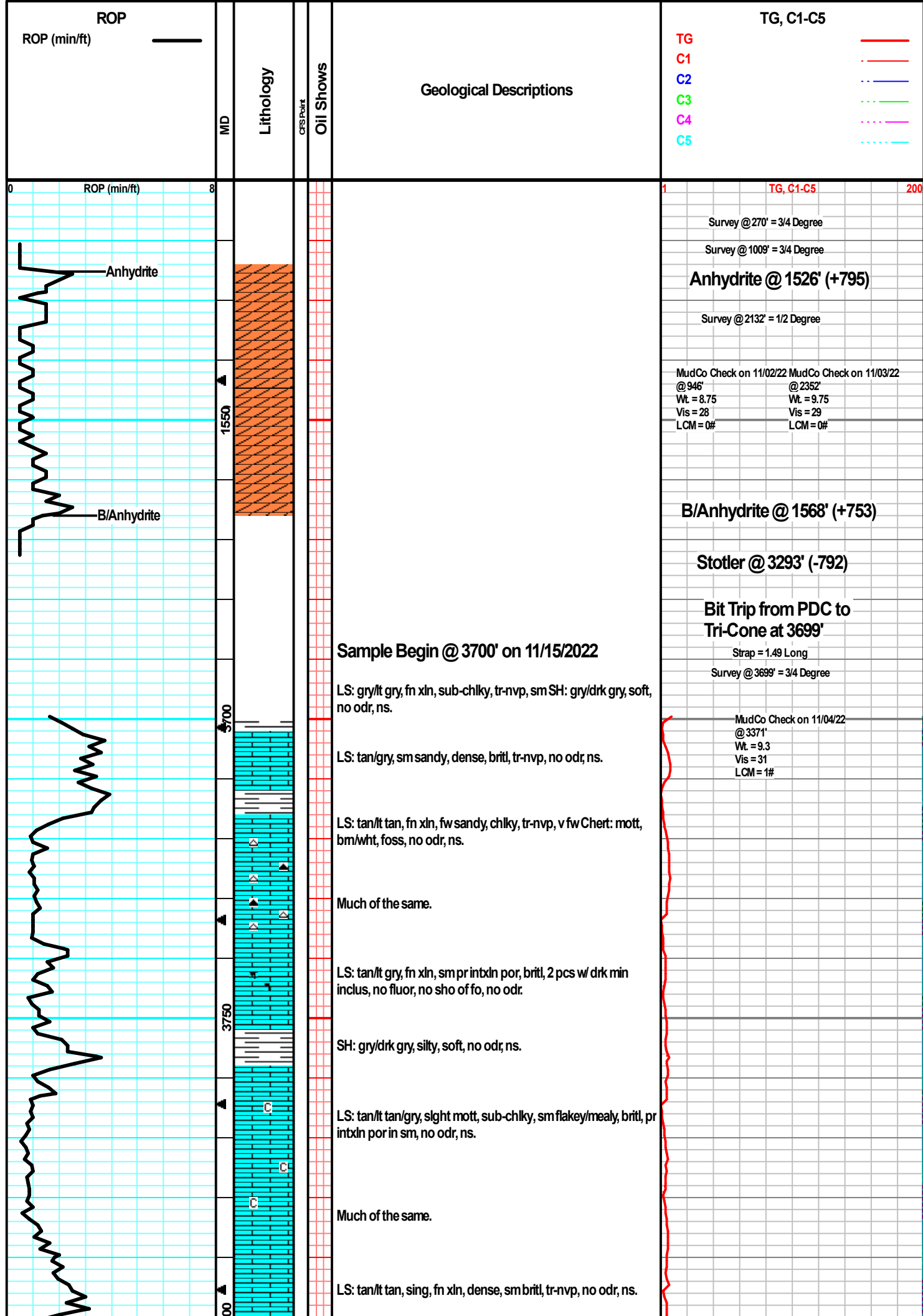
EVENTS
 Circ
 Conn

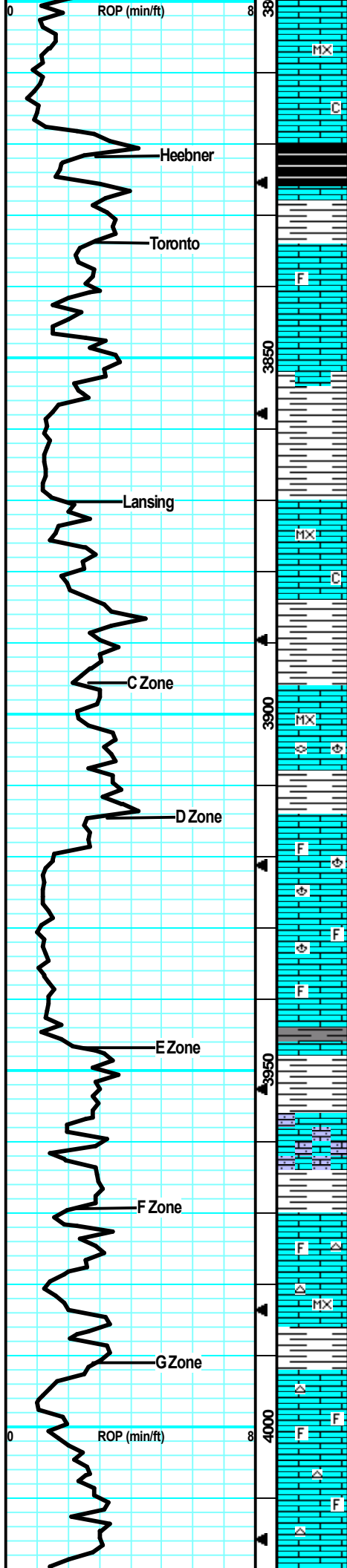
FOSSIL
 Brach
 Bryozoa

 Crin
 Foram
 Fossil
 Gastro
 Oolite
 Fuss
 Oomold

MINERAL
 Calc
 Chtdk
 Chtlt
 Glau
 Pyr
 Sil

TEXTURE
 Chalky
 Crslxln
 Finexln
 Microxln





LS: lt tan, sing, micro-fn xln, chiky in prt, britl, tr-nvp, fw pcs pur chlk, no odr, ns.

SH: blk, silty, soft, carb.

SH: gry/blk, silty, fw carb, fw LS: gry/tan, fn xln, tr-nvp, no odr, ns.

LS: gry/tan, mott in prt, fn xln, sm firm, sub-chiky in prt, tr-nvp, fw foss frags, no odr, ns.

LS: gry/tan, mott, fn-crs xln, firm, tr-nvp, abund SH: gry/bm, soft, fw fissile, no odr, ns.

Same as above.

LS: lt tan, sing, micro-fn xln, dense, britl, chiky in prt, sm 2nd xln, tr-nvp, fw pcs pur chlk, no odr, ns.

SH: gry/bm, silty, soft, sm LS: lt tan, sing, fn xln, dense, britl, chiky in prt, tr-nvp, no odr, ns.

LS: tan/lt tan, sing, micro/fn xln, foss in prt w/ brach/fuss, sm dense/firm, tr-nvp, fw pcs pur chlk, no odr, ns.

SH: gry/drk gry/bm, silty, soft, fw waxy, svrl LS: tan/lt gry, fn xln, sub-chiky, sm firm, tr-nvp, no odr, ns.

LS: tan/lt gry, fn xln, sm profus foss w/ frag/brach, so fr intxln-vuggy por, fw Chert: gry/smokey, foss, sharp, no odr, ns.

Much of the same.

SH: gry/drk gry, silty, sm soft, fw fissile, fw LS: tan/gry, fn xln, dense, sub-chiky, tr-nvp, no odr, ns.

LS: gry/tan, mott, fn xln, many sandy/grainy, fn-crs xln, firm, tr-pr intxln por in fw, fw SH: gry/bm, silty, no odr, ns.

LS: lt tan, fn xln, sm foss in prt, tr-nvp, fw Chert: why/lt gry, sharp, no odr, ns.

LS: cm/lt tan, sing, micro-fn xln, dense, sub-chiky, tr-nvp, v fw Chert, no odr, ns.

LS: tan/lt tan, fn xln, sm v foss, tr-pr intxln por, fw Chert: wht/gry, foss, sharp, no odr, ns.

Much of the same.

LS: tan/lt gry, fn xln, fw flakey/mealy, sub-chiky in prt, pr intxln por in sm fw Chert, no odr, ns.

Heebner @ 3822' (-1501)

Toronto @ 3834' (-1513)

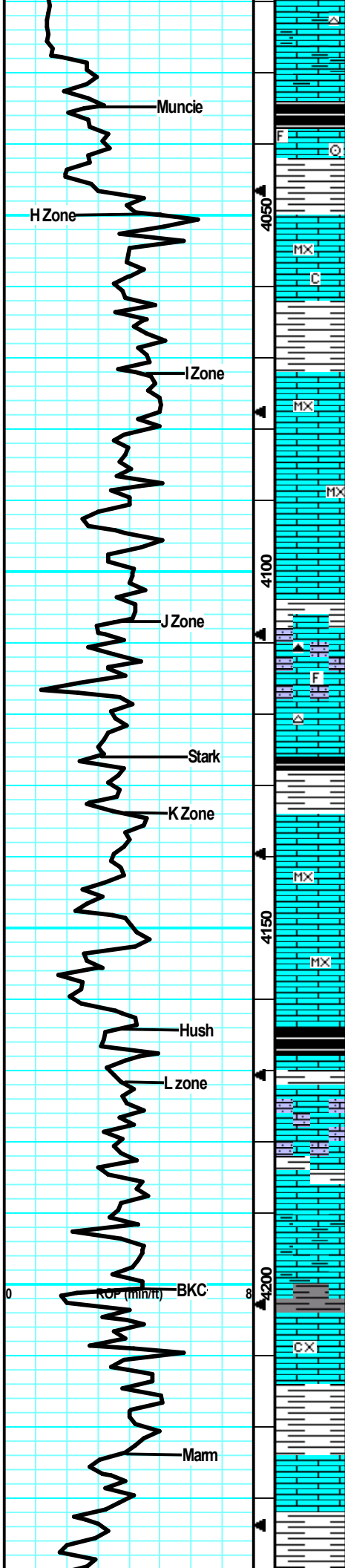
Lansing @ 3870' (-1549)

MudCo Check on 11/05/22
@ 3892'
Wt = 8.8
Vis = 53
LCM = 2#

Daily Gas Check

TG, C1-C5

200



SH: drk gry/blk, silty, sm waxy, fw friable, no odr, ns.

SH: gry/bm, silty fissile, svrl LS: gry/tan, moot, fn xln, profus foss w/ brach/crin, sm flakey/mealy, tr-pr intxn por, fw Chert: tan/wht, foss, sharp, no odr, ns.

LS: cm/lt tan, sing, micro-fn xln, dense, britl, sub-chlky, tr-nvp, svrl pcs pur chlky, no odr, ns.

Much of the same, w/ lrg infx SH: gry-blu/bm, silty, fissile, no odr, ns.

LS: lt tan, sing, micro-fn xln, dense, sub-chlky, mostly dense, many firm, tr-nvp, fw flakey/mealy, hard, tr-nvp, no odr, ns.

Much of the same.

LS: tan/lt gry, fn xln, mostly dense, firm, fw flakey/mealy, tr-nvp, svrl SH: gry/bm, silty, med crush, no dr, ns.

LS: tan/lt gry, fn xln, fw sandy, sub-chlky, mostly brittle, sm foss in prt, v fw dense/firm, tr-nvp, sm Chert: gry/bm, foss, sharp, no odr, ns.

LS: tan/gry, fn xln, mostly dense/firm, sm flakey/mealy, tr-nvp, lrg infx SH: blk, silty, carb, med crush, no odr, ns.

LS: tan/lt gry, fn xln, fw foss, frags, sub-chlky, many firm, tr-nvp, abund SH: gry/blu/gm, silty, soft, no odr, ns.

LS: cm/lt tan, sing, micro-fn xln, sm gritty, sub-chlky, tr-nvp, no odr, ns.

Much of the same.

SH: drk gry/blk, med crush, mostly carb.

LS: gry/tan, slight mott, sm sandy/grainy, many firm, tr-nvp, svrl SH: gry, silty, soft, no odr, ns.

LS: tan/lt gry, slight mott, fn xln, firm, flakey/mealy, sub-chlky in prt, tr-nvp, svrl SH: drk gry, friable, no odr, ns.

LS: gry/tan/lt bm, mott, med-crs xln, flakey/mealy, many firm, fw britl, tr-nvp, svrl gry SH, no odr, ns.

Mostly SH: gry/drk gry, soft, friabl in prt, fw LS: mott & flakey as above.

LS: tan/lt gry, fn xln, dense, mostly hard, tr-nvp, no odr, ns.

Mostly SH: gry/bm, soft, fw LS: tan/gry, fn xln, dense, tr-nvp,

Muncie @ 4035' (-1714)

Stark @ 4126' (-1805)

Shale Kick

Hushpuckney @ 4164' (1843)

Shale Kick

Base of KC @ 4201' (-1880)

Gas line plugged

Marmaton @ 4224' (-1903)

