

Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	CATHERINE 1-4
Doc ID	1711286

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	220	COMMON	150	3%CC 2%GEL
Production	7.875	5.5	14	3709	H-CON	520	0



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

Catherine #1-4

4-12S-19W Ellis, KS

Start Date: 2023.01.12 @ 20:56:00

End Date: 2023.01.13 @ 02:56:45

Job Ticket #: 69900 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.01.17 @ 09:06:32



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 69900

DST#: 1

ATTN: Cameron Brin

Test Start: 2023.01.12 @ 20:56:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:20:45

Time Test Ended: 02:56:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Day

Unit No: 70

Interval: 3597.00 ft (KB) To 3661.00 ft (KB) (TVD)

Reference Elevations: 2129.00 ft (KB)

Total Depth: 3661.00 ft (KB) (TVD)

2124.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6625 Inside

Press@RunDepth: 17.63 psig @ 3598.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.01.12

End Date:

2023.01.13

Last Calib.: 2023.01.13

Start Time: 20:56:05

End Time:

02:56:44

Time On Btm: 2023.01.12 @ 23:19:45

Time Off Btm: 2023.01.13 @ 01:25:15

TEST COMMENT: IF-30- Built to 1 1/4"

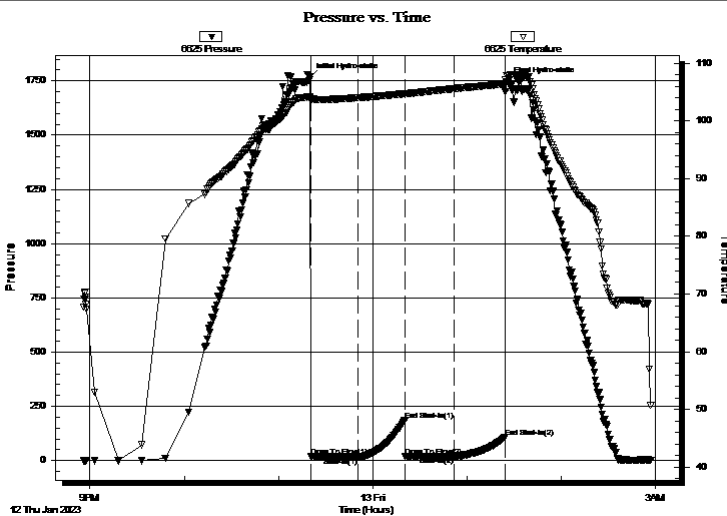
SI1-30- No return

FF-30- Weak surface blow

SI2-30- No return

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1766.55	104.10	Initial Hydro-static
1	19.16	103.67	Open To Flow (1)
31	17.26	104.00	Shut-In(1)
61	185.08	104.68	End Shut-In(1)
61	20.93	104.65	Open To Flow (2)
92	17.63	105.55	Shut-In(2)
125	107.85	106.38	End Shut-In(2)
126	1746.43	107.73	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100% oil spots in tool	0.05

Gas Rates

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

DRILL STEM TEST REPORT

Cobalt Energy LLC

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

4-12S-19W Ellis, KS

Catherine #1-4

Job Ticket: 69900

DST#: 1

Test Start: 2023.01.12 @ 20:56:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:20:45

Time Test Ended: 02:56:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Day

Unit No: 70

Interval: 3597.00 ft (KB) To 3661.00 ft (KB) (TVD)

Reference Elevations: 2129.00 ft (KB)

Total Depth: 3661.00 ft (KB) (TVD)

2124.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8167 Outside

Press@RunDepth: psig @ 3598.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.01.12

End Date:

2023.01.13

Last Calib.:

2023.01.13

Start Time: 20:56:05

End Time:

02:56:44

Time On Btm:

Time Off Btm:

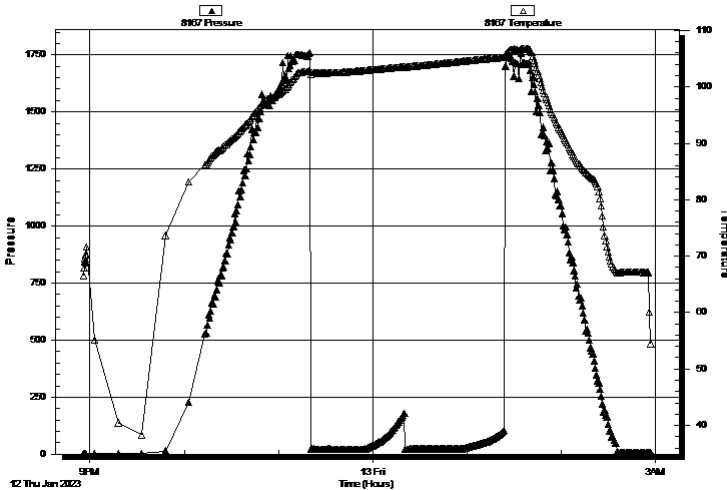
TEST COMMENT: IF-30- Built to 1 1/4"

SI1-30- No return

FF-30- Weak surface blow

SI2-30- No return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
10.00	mud 100% oil spots in tool	0.05

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 69900

DST#: 1

ATTN: Cameron Brin

Test Start: 2023.01.12 @ 20:56:00

Tool Information

Drill Pipe:	Length:	3557.00 ft	Diameter:	3.80 inches	Volume:	49.90 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.75 inches	Volume:	- bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	56000.00 lb
					Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:		16.00 ft					String Weight: Initial	52000.00 lb
Depth to Top Packer:		3597.00 ft					Final	52000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		64.00 ft						
Tool Length:		90.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3572.00	
shut In Tool	5.00			3577.00	
hydraulic tool	5.00			3582.00	
EM Tool	3.00			3585.00	
safety Joint	3.00			3588.00	
Packer	5.00			3593.00	26.00 Bottom Of Top Packer
Packer	4.00			3597.00	
Stubb	1.00			3598.00	
Recorder	0.00	6625	Inside	3598.00	
Recorder	0.00	8167	Outside	3598.00	
perforations	25.00			3623.00	
change Over Sub	1.00			3624.00	
drill Pipe	32.00			3656.00	
change Over Sub	1.00			3657.00	
Bullnose	4.00			3661.00	64.00 Bottom Packers & Anchor

Total Tool Length: 90.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 69900

DST#: 1

ATTN: Cameron Brin

Test Start: 2023.01.12 @ 20:56:00

Mud and Cushion Information

Mud Type:		Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.39 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100% oil spots in tool	0.049

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: 2# LCM

Serial #: 6625

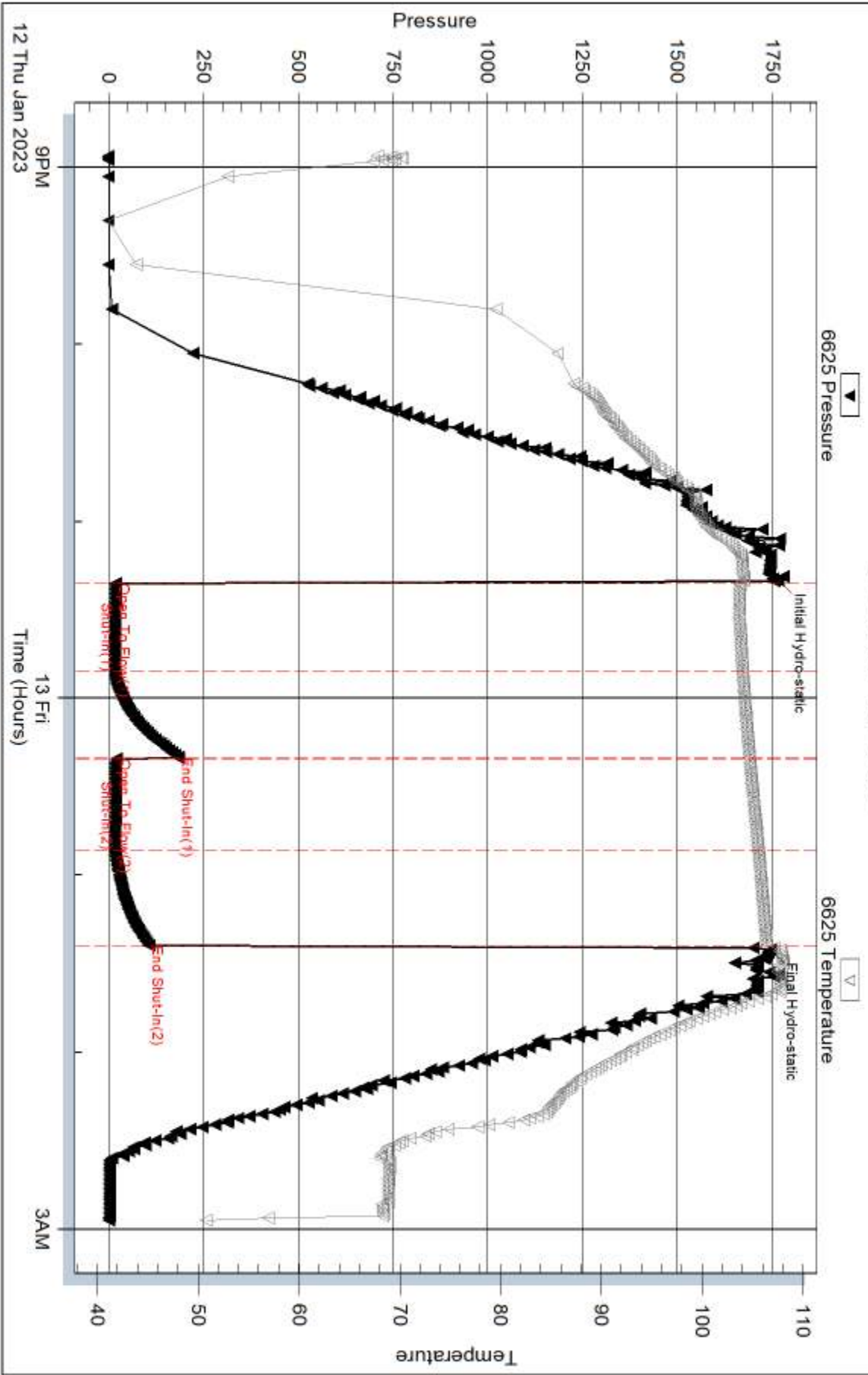
Inside

Cobalt Energy LLC

Catherine #1-4

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 69900

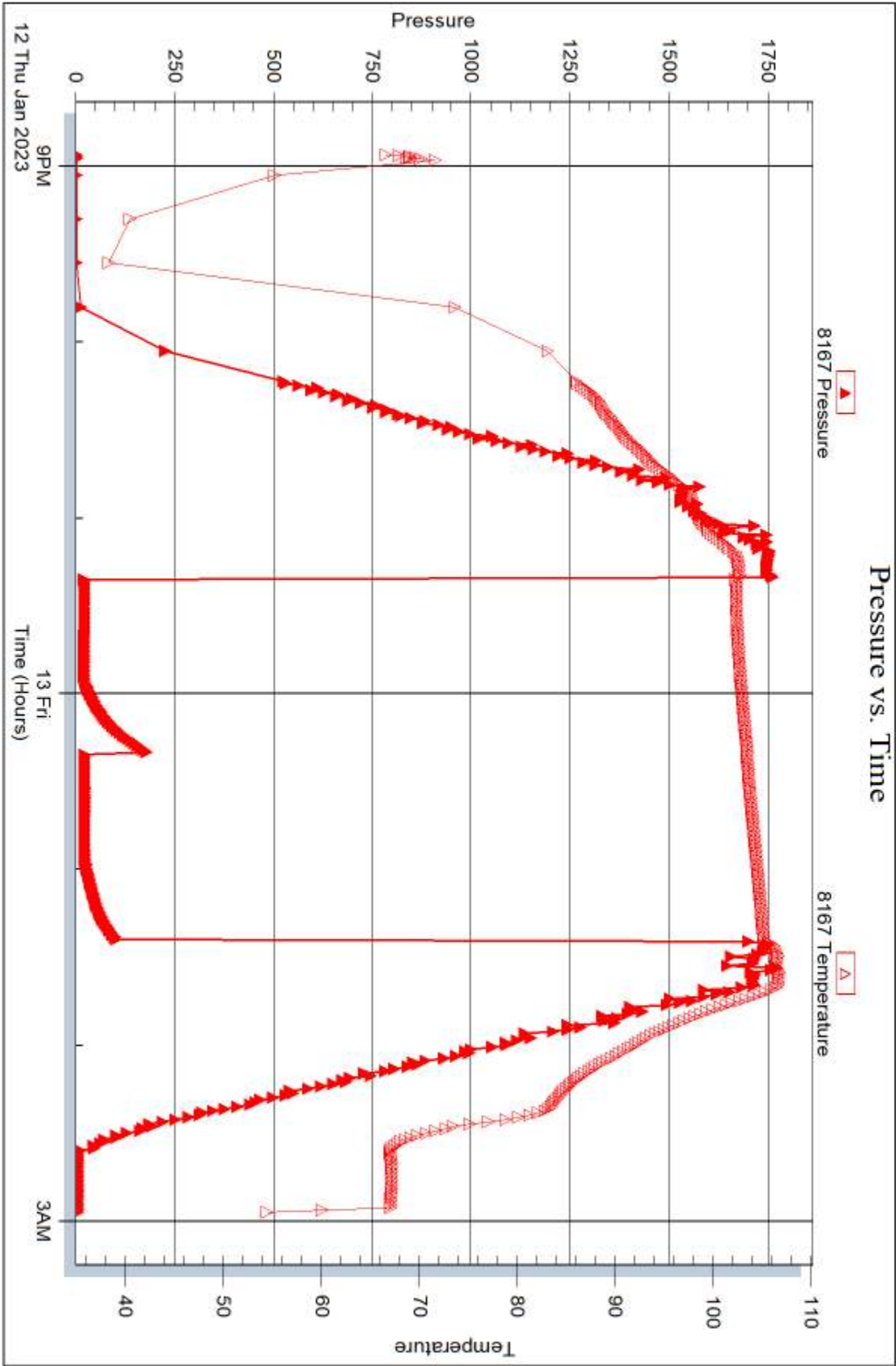
Printed: 2023.01.17 @ 09:06:33

Serial #: 8167

Outside Cobalt Energy LLC

Catherine #1-4

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

Catherine #1-4

4-12S-19W Ellis, KS

Start Date: 2023.01.13 @ 09:42:00

End Date: 2023.01.13 @ 16:16:00

Job Ticket #: 70126 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.01.17 @ 08:59:30



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

4-12S-19W Ellis, KS

Catherine #1-4

Job Ticket: 70126

DST#: 2

Test Start: 2023.01.13 @ 09:42:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:35:00

Time Test Ended: 16:16:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3656.00 ft (KB) To 3666.00 ft (KB) (TVD)

Total Depth: 3666.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2129.00 ft (KB)

2124.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6625 Inside

Press@RunDepth: 17.12 psig @ 3657.00 ft (KB)

Start Date: 2023.01.13

End Date:

2023.01.13

Start Time: 09:42:05

End Time:

16:15:59

Capacity: 8000.00 psig

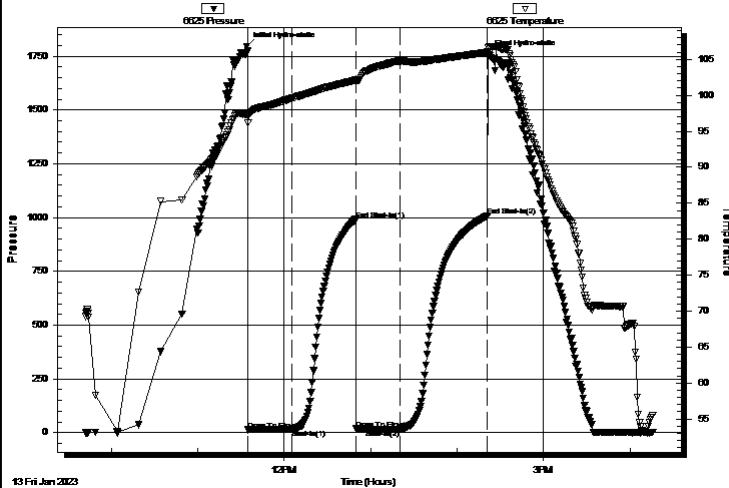
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Time On Btm: 2023.01.13 @ 11:34:00

Time Off Btm: 2023.01.13 @ 14:21:45

TEST COMMENT: IF-30- Built to 1 3/4"
SI1-45- 1/4" return blow
FF-30- Built to 1"
SI2-60- 1/4" return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1795.35	97.35	Initial Hydro-static
1	13.06	96.19	Open To Flow (1)
32	16.60	99.58	Shut-In(1)
76	991.30	102.10	End Shut-In(1)
76	17.60	101.93	Open To Flow (2)
107	17.12	104.79	Shut-In(2)
167	1007.74	106.00	End Shut-In(2)
168	1758.76	106.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5% oil 95% mud	0.02
1.00	oil 100%	0.00

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

Cobalt Energy LLC

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

4-12S-19W Ellis, KS

Catherine #1-4

Job Ticket: 70126

DST#: 2

Test Start: 2023.01.13 @ 09:42:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:35:00

Time Test Ended: 16:16:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3656.00 ft (KB) To 3666.00 ft (KB) (TVD)

Total Depth: 3666.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2129.00 ft (KB)

2124.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8167 Outside

Press@RunDepth: psig @ 3657.00 ft (KB)

Start Date: 2023.01.13

End Date:

2023.01.13

Start Time: 09:42:05

End Time:

16:16:14

Capacity: 8000.00 psig

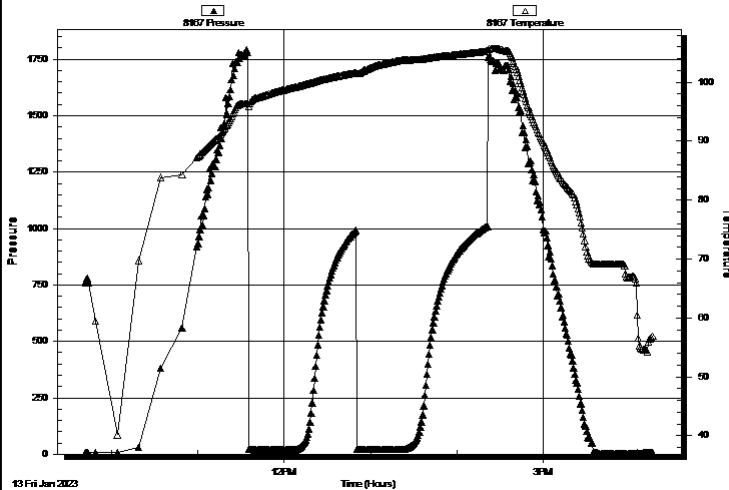
Last Calib.: 2023.01.13

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-30- Built to 1 3/4"
SI1-45- 1/4" return blow
FF-30- Built to 1"
SI2-60- 1/4" return blow

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5% oil 95% mud	0.02
1.00	oil 100%	0.00

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

TOOL DIAGRAM

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 70126

DST#: 2

ATTN: Cameron Brin

Test Start: 2023.01.13 @ 09:42:00

Tool Information

Drill Pipe:	Length:	3620.00 ft	Diameter:	3.80 inches	Volume:	50.78 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.75 inches	Volume:	- bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	64000.00 lb
					Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	52000.00 lb
Depth to Top Packer:		3656.00 ft					Final	52000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		10.00 ft						
Tool Length:		36.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3631.00	
shut In Tool	5.00			3636.00	
hydraulic tool	5.00			3641.00	
EM Tool	3.00			3644.00	
safety Joint	3.00			3647.00	
Packer	5.00			3652.00	26.00 Bottom Of Top Packer
Packer	4.00			3656.00	
Stubb	1.00			3657.00	
Recorder	0.00	6625	Inside	3657.00	
Recorder	0.00	8167	Outside	3657.00	
perforations	5.00			3662.00	
Bullnose	4.00			3666.00	10.00 Bottom Packers & Anchor

Total Tool Length: 36.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 70126

DST#: 2

ATTN: Cameron Brin

Test Start: 2023.01.13 @ 09:42:00

Mud and Cushion Information

Mud Type:		Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.79 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1700.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 5% oil 95% mud	0.025
1.00	oil 100%	0.005

Total Length: 6.00 ft Total Volume: 0.030 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1# LCM

Serial #: 6625

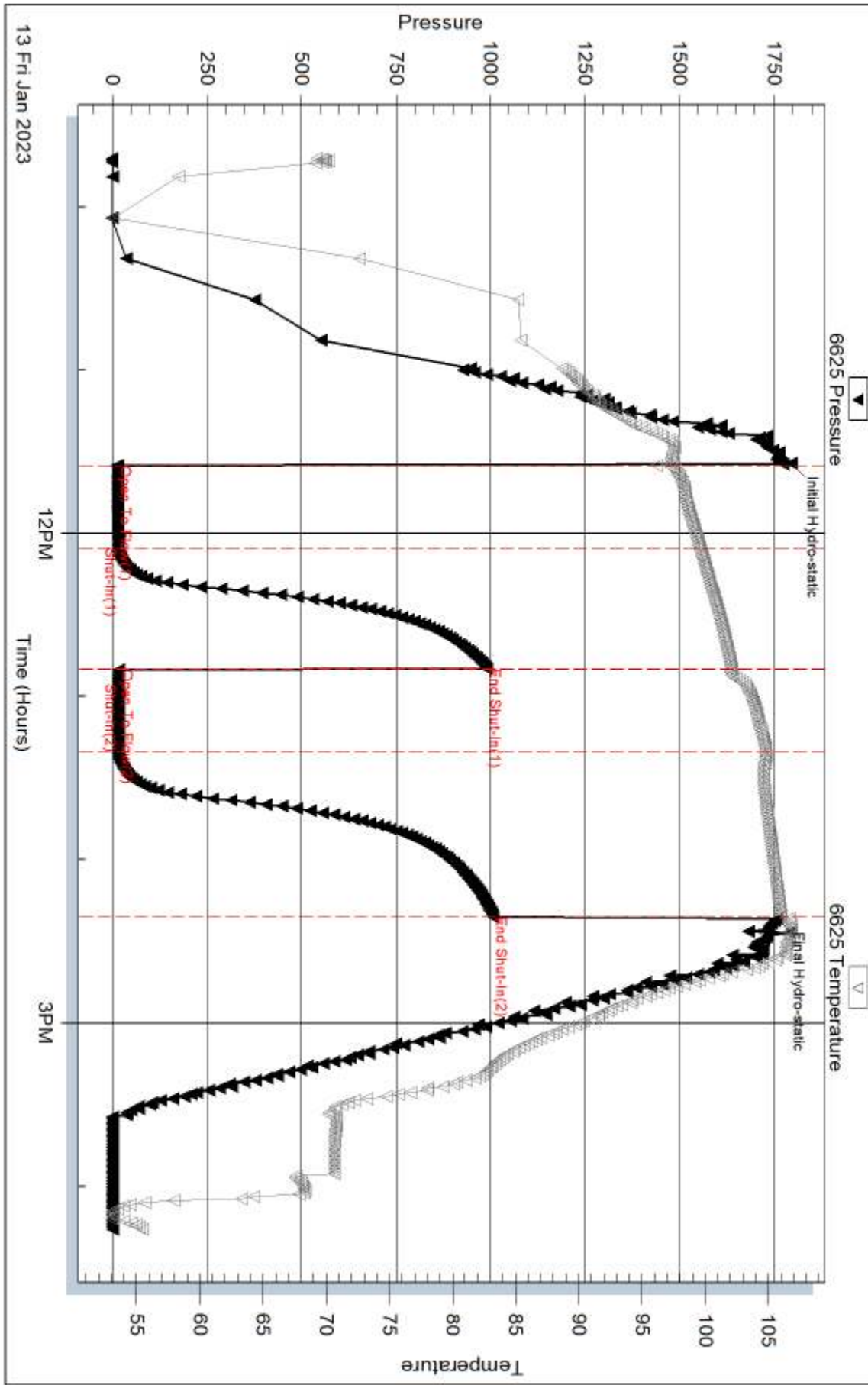
Inside

Cobalt Energy LLC

Catherine #1-4

DST Test Number: 2

Pressure vs. Time

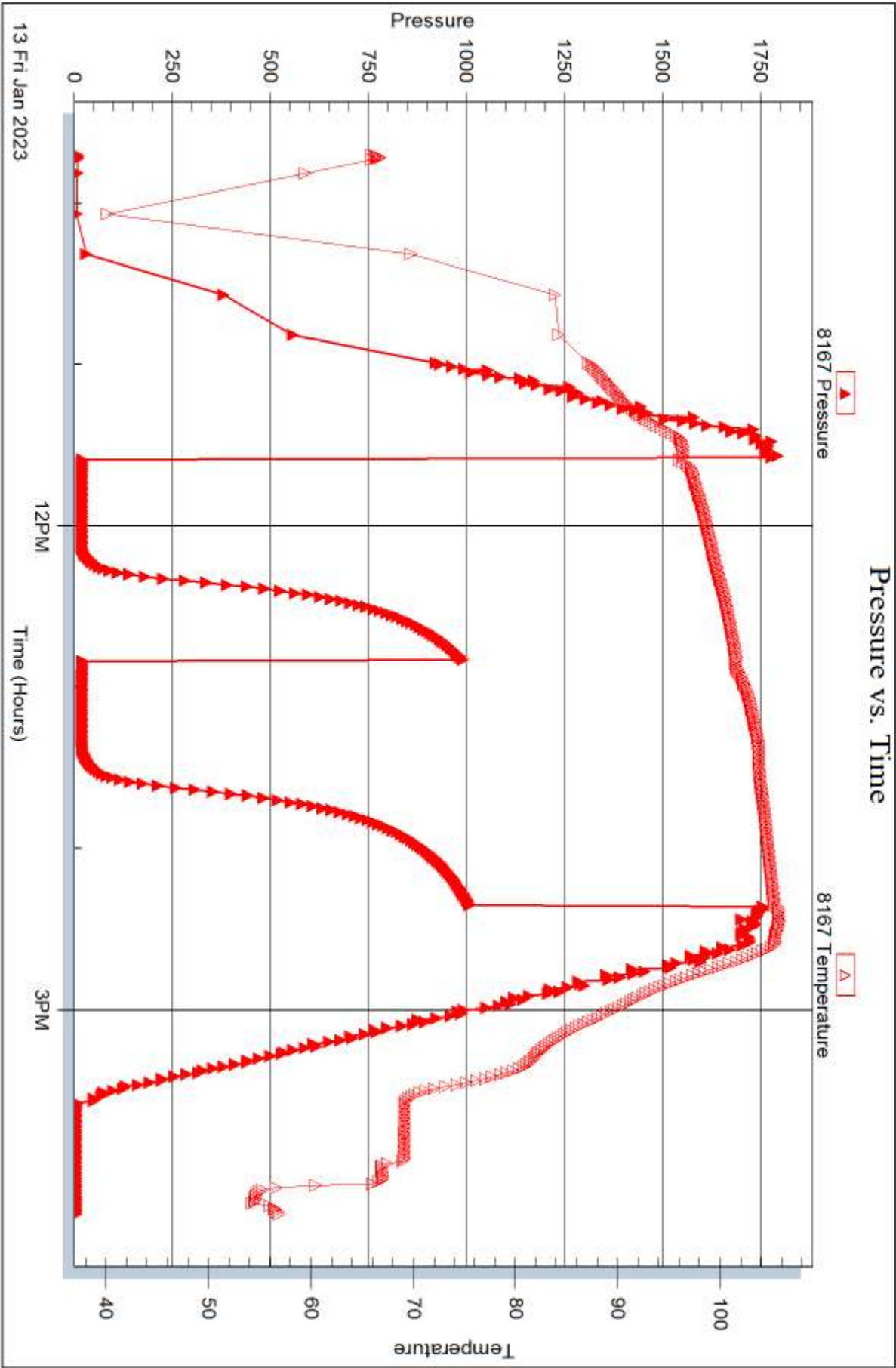


Serial #: 8167

Outside Cobalt Energy LLC

Catherine #1-4

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

Catherine #1-4

4-12S-19W Ellis, KS

Start Date: 2023.01.14 @ 00:48:00

End Date: 2023.01.14 @ 08:40:30

Job Ticket #: 70127 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.01.17 @ 08:58:53



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

4-12S-19W Ellis, KS

Catherine #1-4

Job Ticket: 70127

DST#: 3

Test Start: 2023.01.14 @ 00:48:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:04:15

Time Test Ended: 08:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3662.00 ft (KB) To 3674.00 ft (KB) (TVD)

Reference Elevations: 2129.00 ft (KB)

Total Depth: 3661.00 ft (KB) (TVD)

2124.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8167 Outside

Press@RunDepth: 62.98 psig @ 3663.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.01.14

End Date:

2023.01.14

Last Calib.: 2023.01.14

Start Time: 00:48:05

End Time:

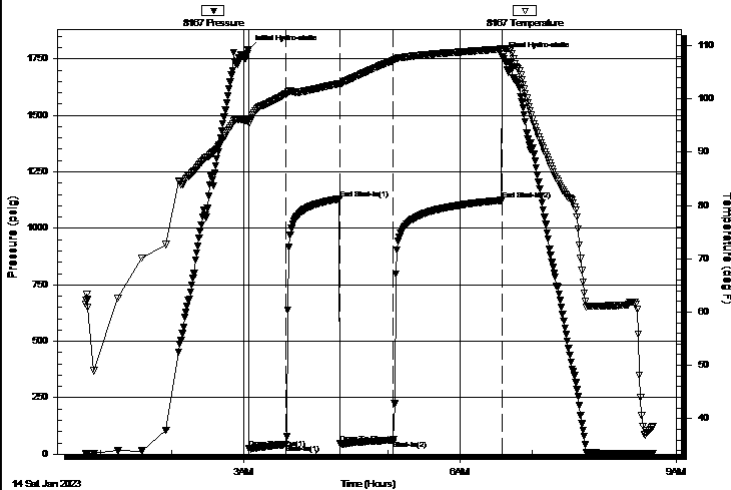
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Time On Btm: 2023.01.14 @ 03:04:00

Time Off Btm: 2023.01.14 @ 06:35:30

TEST COMMENT: IF-30- Built to 6 3/4"
SI1-45- Weak surface blow
FF-45- Built to 7 1/2"
SI2-90- Weak surface blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1792.60	95.96	Initial Hydro-static
1	24.23	95.44	Open To Flow (1)
31	42.95	100.90	Shut-In(1)
76	1130.57	102.87	End Shut-In(1)
77	47.45	102.66	Open To Flow (2)
121	62.98	107.19	Shut-In(2)
211	1124.21	109.33	End Shut-In(2)
212	1760.63	109.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	GOCM 10% gas 20% oil 70% mud	0.43
75.00	GO 20% gas 80% oil (Heavy oil)	1.05

Gas Rates

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



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TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

4-12S-19W Ellis, KS

Catherine #1-4

Job Ticket: 70127

DST#: 3

Test Start: 2023.01.14 @ 00:48:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:04:15

Time Test Ended: 08:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3662.00 ft (KB) To 3674.00 ft (KB) (TVD)

Total Depth: 3661.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2129.00 ft (KB)

2124.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3663.00 ft (KB)

Start Date: 2023.01.14

End Date:

2023.01.14

Start Time: 00:48:05

End Time:

08:40:44

Capacity: 8000.00 psig

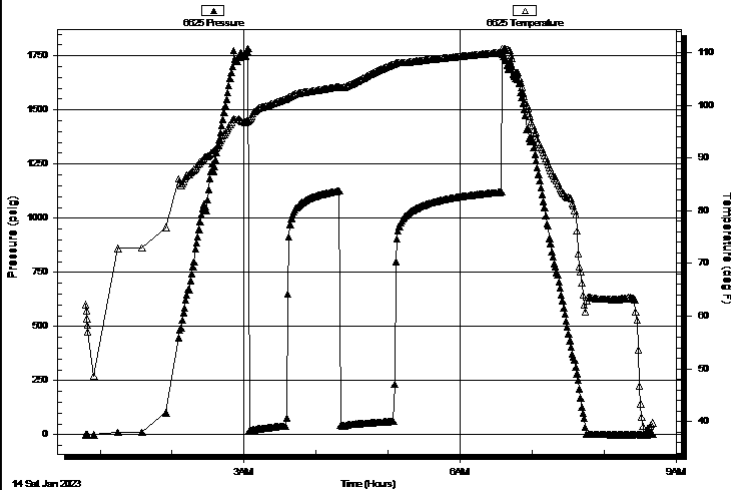
Last Calib.: 2023.01.14

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-30- Built to 6 3/4"
SI1-45- Weak surface blow
FF-45- Built to 7 1/2"
SI2-90- Weak surface blow

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
50.00	GOCM 10% gas 20% oil 70% mud	0.43
75.00	GO 20% gas 80% oil (Heavy oil)	1.05

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

TOOL DIAGRAM

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 70127

DST#: 3

ATTN: Cameron Brin

Test Start: 2023.01.14 @ 00:48:00

Tool Information

Drill Pipe:	Length:	3620.00 ft	Diameter:	3.80 inches	Volume:	50.78 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.75 inches	Volume:	- bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	64000.00 lb
					Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:		14.00 ft					String Weight: Initial	52000.00 lb
Depth to Top Packer:		3662.00 ft					Final	52000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		12.00 ft						
Tool Length:		38.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3637.00	
shut In Tool	5.00			3642.00	
hydraulic tool	5.00			3647.00	
EM Tool	3.00			3650.00	
safety Joint	3.00			3653.00	
Packer	5.00			3658.00	26.00 Bottom Of Top Packer
Packer	4.00			3662.00	
Stubb	1.00			3663.00	
Recorder	0.00	6625	Inside	3663.00	
Recorder	0.00	8167	Outside	3663.00	
perforations	7.00			3670.00	
Bullnose	4.00			3674.00	12.00 Bottom Packers & Anchor

Total Tool Length: 38.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

4-12S-19W Ellis, KS

125 N. Market ST STE 1725
Wichita, KS 67202

Catherine #1-4

Job Ticket: 70127

DST#: 3

ATTN: Cameron Brin

Test Start: 2023.01.14 @ 00:48:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 5.80 in³

Resistivity: ohm.m

Salinity: 1700.00 ppm

Filter Cake: 1.00 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
50.00	GOCM 10% gas 20% oil 70% mud	0.428
75.00	GO 20% gas 80% oil (Heavy oil)	1.052

Total Length: 125.00 ft

Total Volume: 1.480 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

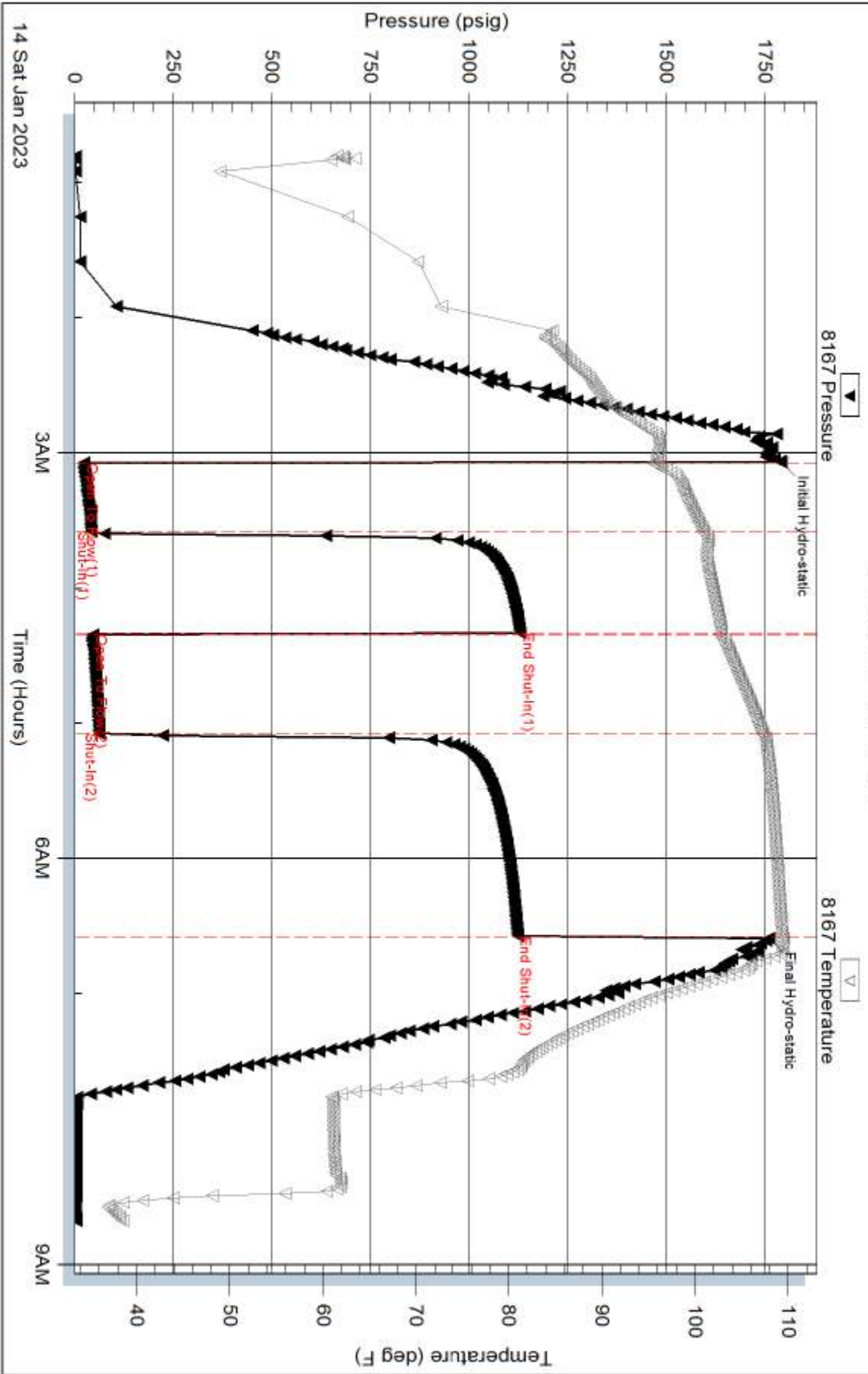
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1# LCM

Pressure vs. Time



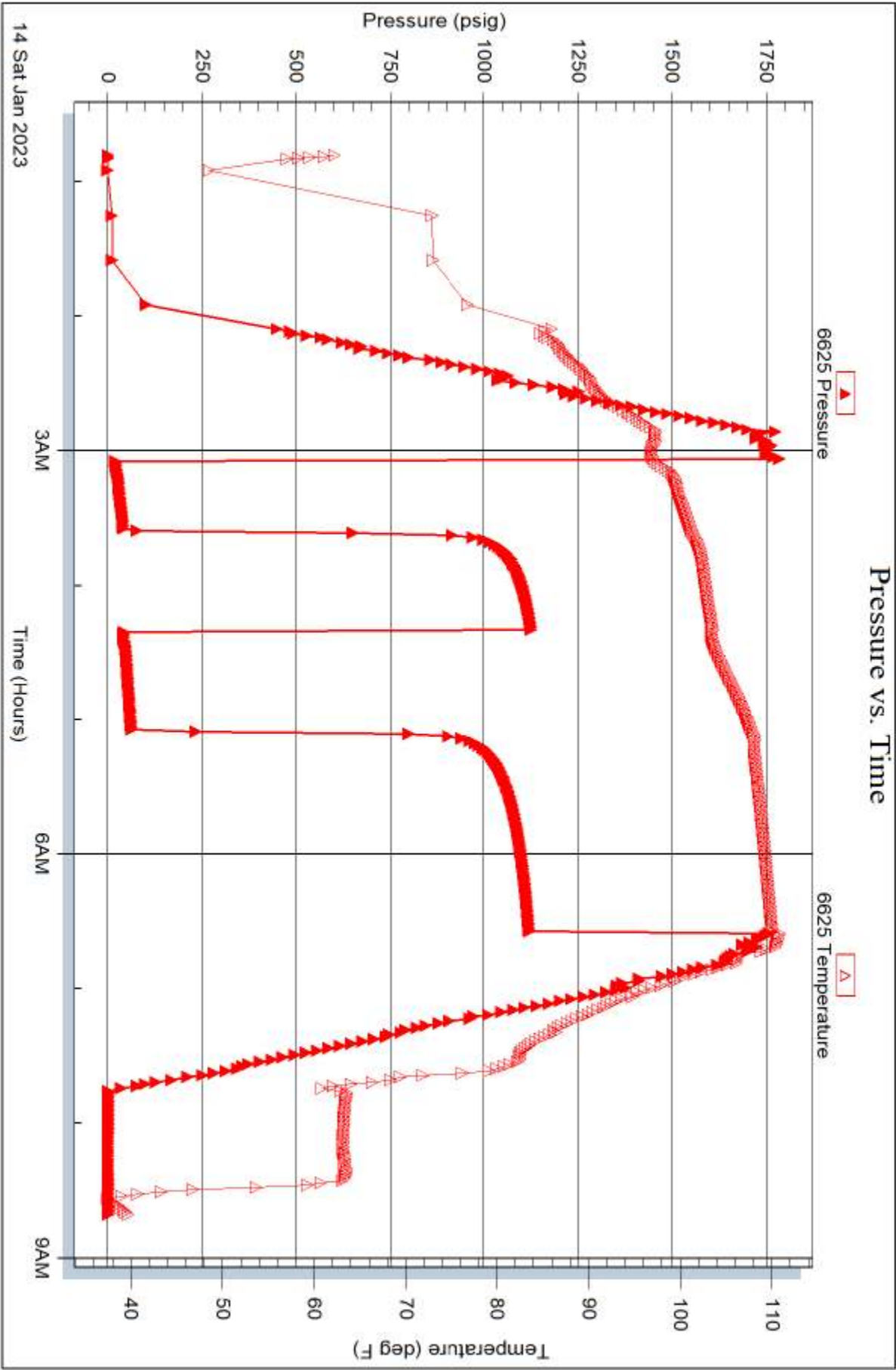
Serial #: 6625

Inside

Cobalt Energy LLC

Catherine #1-4

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 69900

Well Name & No. Catherine #1-4 Test No. 1 Date 1/12/23
 Company Cobalt Energy LLC Elevation 2129 KB 2124 GL
 Address 125 N. Market St STE 1725 Wichita, KS 67202
 Co. Rep / Geo. Cameron Brin Rig Murfin Rig #116
 Location: Sec. 4 Twp 12S Rge. 19W Co. Ellis State KS

Interval Tested 3597-3661 Zone Tested Arbuckle
 Anchor Length 64' Drill Pipe Run 3557 Mud Wt. 9.0
 Top Packer Depth 3592 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 3597 Wt. Pipe Run 0 WL 5.4
 Total Depth 3661 Chlorides 1000 ppm System LCM 2#

Blow Description IF-Built to 1 1/4"

S11- No return

FF- weak surface blow

S12- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud oil spots in tool</u>			<u>100%</u>	<u>mud</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 107 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1767

(B) First Initial Flow 19

(C) First Final Flow 17

(D) Initial Shut-In 185

(E) Second Initial Flow 21

(F) Second Final Flow 18

(G) Final Shut-In 108

(H) Final Hydrostatic 1746

Initial Open 30

Initial Shut-In 30

Final Flow 30

Final Shut-In 30

☒ Test 1800

☐ Jars _____

☒ Safety Joint _____

☒ Circ Sub N/A

☐ Hourly Standby _____

☒ Mileage 37 64.75

☐ Sampler _____

☐ Straddle _____

☐ Shale Packer _____

☐ Extra Packer _____

☐ Extra Recorder _____

☐ Day Standby _____

☐ Accessibility _____

Sub Total 1864.75

T-On Location 19:15

T-Started 20:56

T-Open 23:21

T-Pulled 01:21

T-Out 02:57

Comments _____

☒ EM Tool _____

☐ Ruined Shale Packer _____

☐ Ruined Packer _____

☐ Extra Copies _____

Sub Total 0

Total 1864.75

MP/DST Disc't _____

Approved By _____

Our Representative DWJ

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**TRILOBITE
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **70126**

Well Name & No. Catherine #1-4 Test No. 2 Date 1/13/23
Company Cobalt Energy LLC Elevation 2129 KB 2/24 GL
Address 125 N. Market ST STE 1775 Wichita, KS 67202
Co. Rep / Geo Cameron Brin Rig Murphy Rig #16
Location: Sec. 4 Twp 12S Rge. 19W Co. Ellis State KS

Interval Tested 3656-3666 Zone Tested Arbuckle
Anchor Length 10 Drill Pipe Run 3620 Mud Wt. 9.1
Top Packer Depth 3651 Drill Collars Run 30 Vis 58
Bottom Packer Depth 3656 Wt. Pipe Run 0 WL 58
Total Depth 3666 Chlorides 1700 ppm System LCM 1#

Blow Description IF Built to 13 1/4"
S12- 1/4" Return
EF Built to 1"
S12- 1/4" Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50cm</u>		<u>5</u>		<u>95</u>
<u>1</u>	<u>21</u>		<u>100</u>		

Rec Total 6 BHT 107 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

Initial Hydrostatic 1795 ☒ Test 1800 ☐ Ruined Shale Packer _____

Initial Flow 13 to 17 ☐ Jars _____ ☐ Ruined Packer _____

Initial Shut-In 991 ☒ Circ Sub N/A ☐ Hotel _____

Final Flow 18 to 17 ☐ Hourly Standby _____ ☒ EM Tool Successful _____

Final Shut-In 1008 ☒ Mileage 37 64.75 ☐ Accessibility _____

Final Hydrostatic 1759 ☐ Sampler _____ ☐ Gas Sample _____

T-On Location 09:20 ☐ Straddle _____ ☐ Sub Total 0

Initial Flow 30 T-Started 09:42 ☐ Shale Packer _____ ☐ Total 1864.75

Initial Shut-In 45 T-Open 11:36 ☐ Extra Packer _____ ☐ Tool Loaded _____ @ _____

Final Flow 30 T-Pulled 14:21 ☐ Extra Recorder _____ ☐ MP/DST Disc't _____

Final Shut-In 60 T-Out 16:17 ☐ Day Standby _____

Comments _____

Approved By _____ Our Representative Dust Dy

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



**TRILOBITE
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **70127**

Well Name & No. Catherine #1-4 Test No. 3 Date 1/14/23
 Company Cobalt Energy LLC Elevation 2129 KB 2124 GL
 Address 125 N Market ST STE 1725 Wichita, KS 67202
 Co. Rep / Geo Cameron Brin Rig Murfin Rig # 16
 Location: Sec. 4 Twp 12S Rge. 19W Co. Ellis State KS

Interval Tested 3662-3674 Zone Tested Arbuckle
 Anchor Length 12 Drill Pipe Run 3620 Mud Wt. 9.1
 Top Packer Depth 3657 Drill Collars Run 30 Vis 58
 Bottom Packer Depth 3662 Wt. Pipe Run 0 WL 5.8
 Total Depth 3674 Chlorides 1700 ppm System LCM 1#

Blow Description FF-Built to 63/4"
S14-Weak surface return
FF-Built to 7 1/2"
S12-Weak surface return

Rec <u>75</u>	Feet of <u>60</u>	<u>Heavy oil</u>	<u>20 %gas</u>	<u>80 %oil</u>	<u>%water</u>	<u>%mud</u>
Rec <u>50</u>	Feet of <u>60CM</u>		<u>10 %gas</u>	<u>20 %oil</u>	<u>%water</u>	<u>70 %mud</u>
Rec _____	Feet of _____		<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
Rec _____	Feet of _____		<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
Rec _____	Feet of _____		<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
Rec _____	Feet of _____		<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
Rec _____	Feet of _____		<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 125 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm
 Initial Hydrostatic 1793 ☒ Test 1800 ☐ Ruined Shale Packer _____
 Initial Flow 24 to 43 ☐ Jars _____ ☐ Ruined Packer _____
 Initial Shut-In 1131 ☒ Circ Sub _____ ☐ Hotel _____
 Final Flow 47 to 63 ☐ Hourly Standby _____ ☐ EM Tool Successful -350
 Final Shut-In 1124 ☒ Mileage 37 64.75 ☐ Accessibility _____
 Final Hydrostatic 1760 ☐ Sampler _____ ☐ Gas Sample _____
 T- On Location 00:30 ☐ Straddle _____ ☐ Sub Total -350
 Initial Flow 30 T-Started 00:48 ☐ Shale Packer _____ ☐ Total 1514.75
 Initial Shut-In 45 T-Open 03:05 ☐ Extra Packer _____ ☐ Tool Loaded 114 @ 09:50
 Final Flow 45 T-Pulled 06:35 ☐ Extra Recorder _____ ☐ MP/DST Disc't _____
 Final Shut-In 90 T-Out 08:41 ☐ Day Standby _____
 Comments _____

Approved By _____ Our Representative DWA Dy

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

[illegible]

FRANKS Oilfield Service

◆ 24 Hour Phone (785) 639-7269

◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0832

LOCATION 1-loxle

FOREMAN *Preston*

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY																				
1-7-23		Catherine #1-4	4	12S	19W	Elk																				
CUSTOMER Cobalt Energy LLC			<table border="1"> <thead> <tr> <th>TRUCK #</th><th>DRIVER</th><th>TRUCK #</th><th>DRIVER</th></tr> </thead> <tbody> <tr> <td>102</td><td>Proctor D</td><td></td><td></td></tr> <tr> <td>201</td><td>Merc Y</td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td></tr> <tr> <td></td><td></td><td></td><td></td></tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	102	Proctor D			201	Merc Y										
TRUCK #	DRIVER	TRUCK #					DRIVER																			
102	Proctor D																									
201	Merc Y																									
MAILING ADDRESS																										
CITY		STATE	ZIP CODE																							

JOB TYPE surface HOLE SIZE 12 1/4" HOLE DEPTH 220' CASING SIZE & WEIGHT 8 5/8" 23"

CASING DEPTH 217' DRILL PIPE _____ TUBING _____ OTHER _____

SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LBS per Casing _____

DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Spent morning. Rq up on main + 1/4. Run 8 5/8" circulator hole, mix 150 sacks.
common 3 1/2 cc. 2 1/2 gal.

cement did circulate

Thanks Preston & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PC002	1	PUMP CHARGE	\$1150 ⁰⁰	\$1150 ⁰⁰
MO01	40	MILEAGE	\$4 ⁵⁰	\$390 ⁰⁰
MO03	7.4	Ten mileage Delivery	\$645 ⁰⁰	\$465 ⁰⁰
OB001	150 sacks	common 3% cc 2% gel	\$25 ⁵⁰	\$3825 ⁰⁰

[illegible]

AUTHORIZATION

TITLE

DATE _____

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



Scale 1:240 Imperial

Well Name: CATHERINE #1-4
Surface Location: SE, NW, SW, NE, Sec. 4, T12S, R19W
Bottom Location:
API: 15-051-27065
License Number: 34579
Spud Date: 1/6/2023 Time: 12:00 PM
Region: ELLIS COUNTY
Drilling Completed: 1/14/2023 Time: 12:30 PM
Surface Coordinates: 1864' FNL & 2146' FEL
Bottom Hole Coordinates:
Ground Elevation: 2124.00ft
K.B. Elevation: 2129.00ft
Logged Interval: 3000.00ft To: 3710.00ft
Total Depth: 3710.00ft
Formation: ARBUCKLE
Drilling Fluid Type: CHEMICAL MUD

OPERATOR

Company: COBALT ENERGY, LLC
Address: 125 N MARKET ST. STE #1725

Contact Geologist: COREY BAKER
Contact Phone Nbr: 316-706-5096
Well Name: CATHERINE #1-4
Location: SE, NW, SW, NE, Sec. 4, T12S, R19W
API: 15-051-27065
Pool: Field: SOLOMON SOUTH
State: KS Country:

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: 99.434492881
Latitude: 39.039772950
N/S Co-ord: 1864' FNL
E/W Co-ord: 2146' FEL

LOGGED BY

Company: KEYSTONE CONSULTING, LLC
Address: 2511 E 19TH
HAYS, KS 67601

Phone Nbr: (785) 639-0721
Logged By: Geologist Name: CAMERON BRIN

CONTRACTOR

Contractor: MURFIN DRILLING
Rig #: 16
Rig Type: MUD ROTARY
Spud Date: 1/6/2023 Time: 12:00 PM
TD Date: 1/14/2023 Time: 12:30 PM
Rig Release: Time:

ELEVATIONS

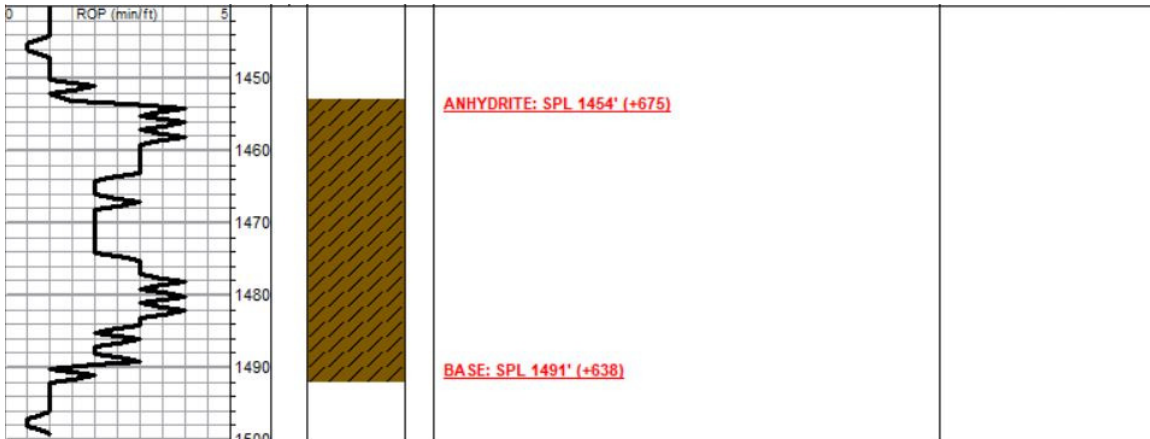
K.B. Elevation: 2129.00ft Ground Elevation: 2124.00ft
K.B. to Ground: 5.00ft

NOTES

TOPS COMPARISON

						D&A 1/15/53				D&A 1/6/88				D&A 8/4/57				D&A 11/26/60													
						MERRILL #1				SEITZ #1				MERRILL #1				MERRILL #1													
						TRANS-ERA PETROLEUM				NORTHERN LIGHTS OIL				ARTNELL CO.				CHIEF DILLING CO													
						SW, SW, NE, Sec 4-12-19				SE, SW, NE, Sec 4-12-19				NE, SE, NW, Sec 4-12-19				NW, SE, NE, Sec 4-12-19													
CATHERINE #1-4																															
KB		2129		GL		2124		KB		2122		KB		2139		KB		2126		KB		2153									
LOG TOPS		SAMPLE TOPS		LOG		SMPL.		GEO REPORT		LOG		SMPL.		COMP CARD		LOG		SMPL.		COMP. CARD		LOG		SMPL.							
DEPTH		DATUM		DEPTH		DATUM		DEPTH		DATUM		CORR.		CORR.		DEPTH		DATUM		CORR.		CORR.		DEPTH		DATUM		CORR.		CORR.	
FORMATION																															
ANHYDRITE TOP				1454	675	1438	684		-	9	1457	682		-	7	1430	696		-	21	1457	696					-	21			
BASE				1491	638	1485	637		+	1	1496	643			-	5															
TOPEKA				3103	-974	3097	-975		+	1	3120	-981		+	7									3122	-969			-	5		
HEEBNER SHALE				3334	-1205	3325	-1203		-	2	3351	-1212		+	7	3337	-1211		+	6	3350	-1197				-	8				
TORONTO				3352	-1223	3344	-1222		-	1	3369	-1230		+	7	3354	-1228		+	5	3359	-1206				-	17				
LKC				3376	-1247	3366	-1244		-	3	3392	-1253		+	6	3376	-1250		+	3	3391	-1238				-	9				
STARK				3557	-1428	3547	-1425		-	3	3576	-1437		+	9																
BKC				3599	-1470	3591	-1469		-	1	3628	-1489		+	19									3619	-1466			-	4		
ARBUCKLE				3657	-1528	3644	-1522		-	6	3684	-1545		+	17	3656	-1530		+	2	3675	-1522				-	6				
TOTAL DEPTH				3710	-1581	3665	-1543		-	38	3689	-1550		-	31	3680	-1554		-	27	3696	-1543				-	38				

ANHYDRITE



DST #1 3597'-3661' (ARBUCKLE)

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT
Cobalt Energy LLC
125 N. Market ST STE 1725
Wichita, KS 67202
ATTN: Cameron Brin

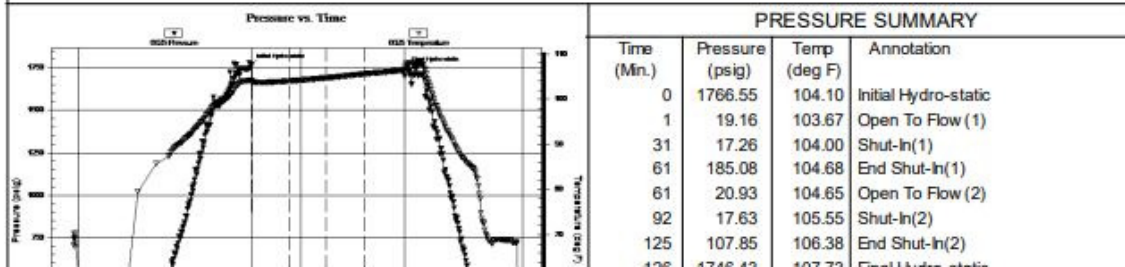
4-12S-19W Ellis, KS
Catherine #1-4
Job Ticket: 69900
Test Start: 2023.01.12 @ 20:56:00

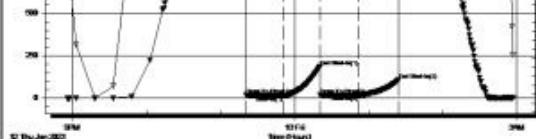
DST#: 1

GENERAL INFORMATION:
Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:20:45
Time Test Ended: 02:56:45
Interval: **3597.00 ft (KB) To 3661.00 ft (KB) (TVD)**
Total Depth: 3661.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:
Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Day
Unit No: 70
Reference Elevations: 2129.00 ft (KB)
2124.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6625 Inside
Press@RunDepth: 17.63 psig @ 3598.00 ft (KB)
Start Date: 2023.01.12 End Date: 2023.01.13
Start Time: 20:56:05 End Time: 02:56:44
Capacity: 8000.00 psig
Last Calib.: 2023.01.13
Time On Btm: 2023.01.12 @ 23:19:45
Time Off Btm: 2023.01.13 @ 01:25:15

TEST COMMENT: F-30- Built to 1 1/4"
SI1-30- No return
FF-30- Weak surface blow
SI2-30- No return





126	1746.43	107.73	Final Hydro-static
-----	---------	--------	--------------------

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	mud 100% oil spots in tool	0.05

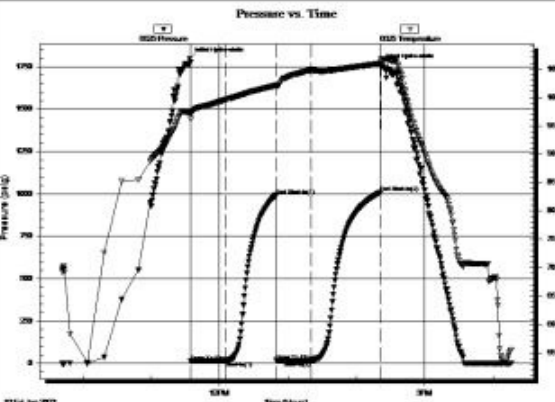
Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 69900

Printed: 2023.01.13 @ 07:22:35

DST #2 3656'-3666' (ARBUCKLE)

 TRILOBITE TESTING, INC	DRILL STEM TEST REPORT																																					
	Cobalt Energy LLC 125 N. Market ST STE 1725 Wichita, KS 67202 ATTN: Cameron Brin	4-12S-19W Ellis, KS Catherine #1-4 Job Ticket: 70126 DST#: 2 Test Start: 2023.01.13 @ 09:42:00																																				
GENERAL INFORMATION: Formation: Arbuckle Deviated: No Whipstock: ft (KB) Time Tool Opened: 11:35:00 Time Test Ended: 16:16:00 Interval: 3656.00 ft (KB) To 3666.00 ft (KB) (TVD) Total Depth: 3666.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 5.00 ft Test Type: Conventional Bottom Hole (Reset) Tester: Dustin Day Unit No: 70																																						
Serial #: 6625 Inside Press@RunDepth: 17.12 psig @ 3657.00 ft (KB) Start Date: 2023.01.13 End Date: 2023.01.13 Start Time: 09:42:05 End Time: 16:15:59 Capacity: 8000.00 psig Last Calib.: 2023.01.13 Time On Btm: 2023.01.13 @ 11:34:00 Time Off Btm: 2023.01.13 @ 14:21:45																																						
TEST COMMENT: IF-30- Built to 1 3/4" SI1-45- 1/4" return blow FF-30- Built to 1" SI2-60- 1/4" return blow																																						
	PRESSURE SUMMARY <table border="1"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1795.35</td> <td>97.35</td> <td>Initial Hydro-static</td> </tr> <tr> <td>1</td> <td>13.06</td> <td>96.19</td> <td>Open To Flow (1)</td> </tr> <tr> <td>32</td> <td>16.60</td> <td>99.58</td> <td>Shut-In(1)</td> </tr> <tr> <td>76</td> <td>991.30</td> <td>102.10</td> <td>End Shut-In(1)</td> </tr> <tr> <td>76</td> <td>17.60</td> <td>101.93</td> <td>Open To Flow (2)</td> </tr> <tr> <td>107</td> <td>17.12</td> <td>104.79</td> <td>Shut-In(2)</td> </tr> <tr> <td>167</td> <td>1007.74</td> <td>106.00</td> <td>End Shut-In(2)</td> </tr> <tr> <td>168</td> <td>1758.76</td> <td>106.68</td> <td>Final Hydro-static</td> </tr> </tbody> </table>		Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1795.35	97.35	Initial Hydro-static	1	13.06	96.19	Open To Flow (1)	32	16.60	99.58	Shut-In(1)	76	991.30	102.10	End Shut-In(1)	76	17.60	101.93	Open To Flow (2)	107	17.12	104.79	Shut-In(2)	167	1007.74	106.00	End Shut-In(2)	168	1758.76	106.68	Final Hydro-static
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	Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)																																			

* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 70126

Printed: 2023.01.13 @ 16:40:41

DST #3 3662'-3674' (ARBUCKLE)



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

125 N. Market ST STE 1725
Wichita, KS 67202

ATTN: Cameron Brin

4-12S-19W Ellis, KS

Catherine #1-4

Job Ticket: 70127

DST#: 3

Test Start: 2023.01.14 @ 00:48:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:04:15

Time Test Ended: 08:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: **3662.00 ft (KB) To 3674.00 ft (KB) (TVD)**

Total Depth: 3661.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2129.00 ft (KB)

2124.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8167

Outside

Press@RunDepth: 62.98 psig @ 3663.00 ft (KB)

Start Date: 2023.01.14

End Date:

2023.01.14

Start Time: 00:48:05

End Time:

08:40:29

Capacity: 8000.00 psig

Last Calib.: 2023.01.14

Time On Btm: 2023.01.14 @ 03:04:00

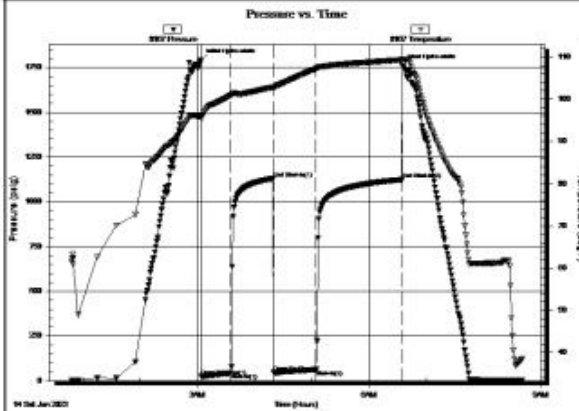
Time Off Btm: 2023.01.14 @ 06:35:30

TEST COMMENT: IF-30- Built to 6 3/4"

SI1-45- Weak surface blow

FF-45- Built to 7 1/2"

SI2-90- Weak surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1792.60	95.96	Initial Hydro-static
1	24.23	95.44	Open To Flow (1)
31	42.95	100.90	Shut-In(1)
76	1130.57	102.87	End Shut-In(1)
77	47.45	102.66	Open To Flow (2)
121	62.98	107.19	Shut-In(2)
211	1124.21	109.33	End Shut-In(2)
212	1760.63	109.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	GOOM 10% gas 20% oil 70% mud	0.43
75.00	GO 20% gas 80% oil (Heavy oil)	1.05

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Triobite Testing, Inc.

Ref. No: 70127

Printed: 2023.01.14 @ 10:01:24

ROCK TYPES



Congl



Dolsec



shale, grn



Carbon Sh



Dolprim



Lmst fw7>



shale, gry



shale, red

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

Curve Track #1

ROP (min/ft)

Depth | Intervals

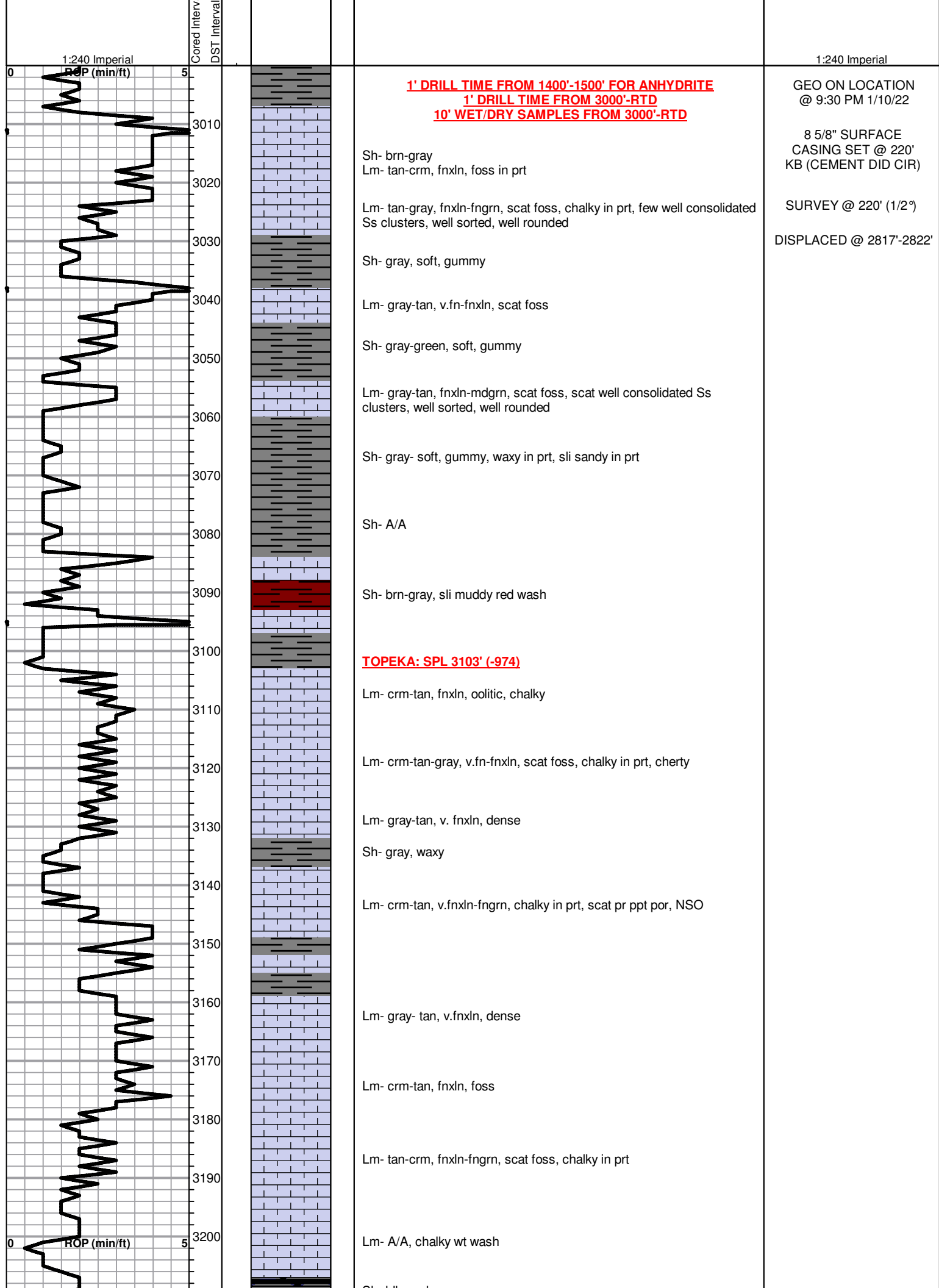
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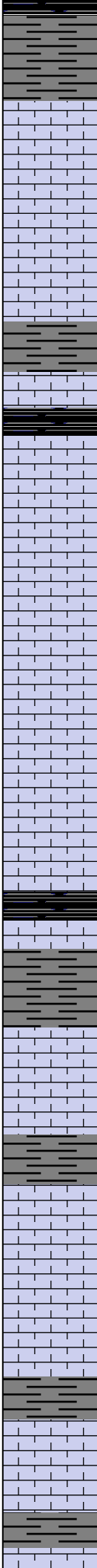
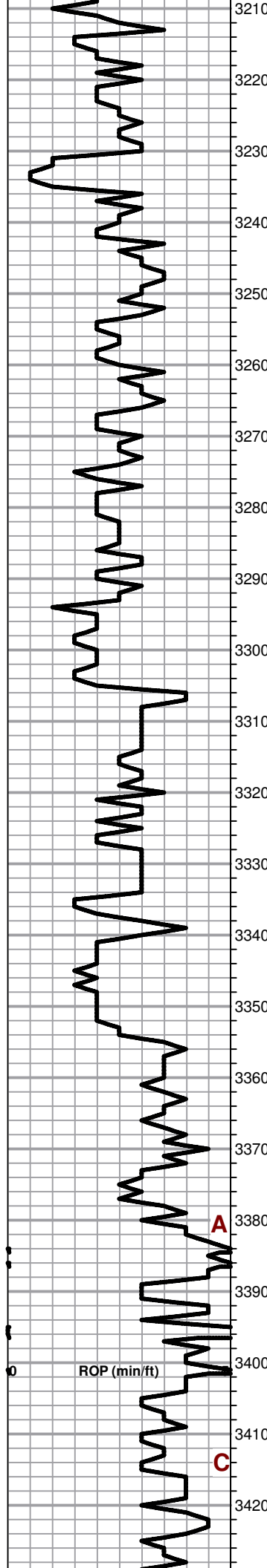
Lithology

Oil Show

Geological Descriptions

Curve Track #3





Sh- blk, carb

Sh- gray-brn, silty in prt

Lm- crm-tan, fnxn-v.fngn, oolitic in prt, chalky, brittle

Lm- crm-wt, v.fn-fngn, oolitic in prt, chalky in prt

Lm- crm-tan, fnxn-fngn, foss, oolitic in prt, chalky

Sh- gray- lt gray

Lm- tan, v. fnxn, cherty

Sh- blk, carb

Lm- crm-tan, v.fn-mdxn, cherty in prt, few scat pcs w/ pr ppt por, NSO

Lm- crm-tan, v.fn-fnxn, foss, chalky in prt

Lm- crm, fnxn-fngn, scat foss
Chert- drn brn, sub angular

○ Lm- crm, fnxn-fngn, v. chalky, few scat pcs w/ pr ppr-inxn por, 2-3 pcs w/ brn sli sat stn in pores, tr FO in cup, mod odor

Lm- crm-tan, fnxn, chalky

Lm- crm-tan, fnxn-mdgrn, chalky in prt

HEEBNER: SPL 3334' (-1205)

Sh- blk, carb

Lm- crm-tan, v.fn-fnxn, cherty, dense

Sh- gray-brn

TORONTO: SPL 3352' (-1223)

Lm- crm, v.fn-fnxn, scat foss, chalky

Lm- crm, fnxn, scat foss, few scat pcs w/ pr xln por, NSO

Sh- gray-blk

LANSING: SPL 3376' (-1247)

Lm- crm-tan, v.fnxn-fngn, cherty, chalky

Lm- A/A
Sh- various color, silty in prt

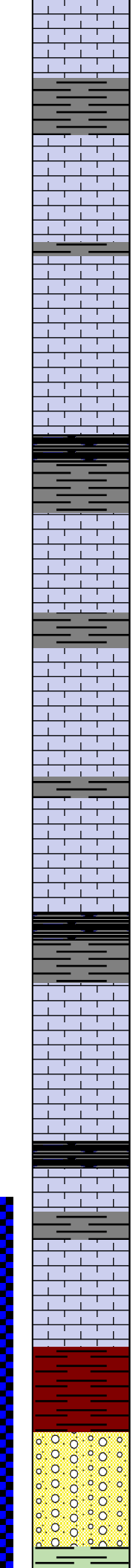
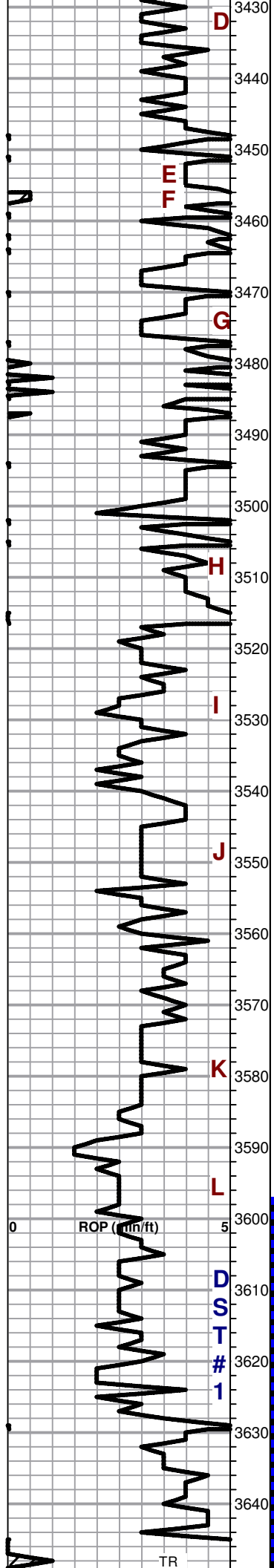
Lm- crm, v.fnxn, cherty, oolitic

Sh- gray-green, earthy
Chert-tan, sub angular

○ Lm- crm, fnxn, oolitic, scat pr ppt-xln-inoolitic por, 10-12 pcs w/ spotty brn-blk stn, sli sheen FO upon crush, faint odor, dull-mod yel flur, mod stream cut

Sh- gray-brn

○ Lm- crm, fnxn, oolitic, scat tight ppt-inoolitic & tr oolitic por, 10-12



pcs w/ drk brn stn, few pcs sli sat, SFO upon crush, few pcs bleeding from pores when heated, mod odor, dull yel flur, pr-fr stream cut

Sh- dark gray

○ Lm- crm, fnxln, oolitic in prt, chalky, scat pr ppt por, few scat pcs w/ spotty brn stn, sli SFO upon crush, v. faint odor

○ Lm- crm, v.fnxln, foss, chalky, scat tight ppt por, few scat pcs w/ spotty brn stn, NSFO, pr-no odor

Sh- gray-fissile

Lm- crm, v.fnxln, cherty, chalky in prt, barren

○ Lm- crm-tan, v. fnxln, cherty, foss, oolitic in prt, v. few pcs w/ pr ppt por, 2pcs w/ brn-blk spotty stn, NSFO, no odor

Sh- blk-dark gray, fissiles

Chert- gray-tan, foss, sub angular

Lm- crm-gray, v.fn-fnxln, chalky in prt

Lm- crm, fnxln, oolitic

Sh- gray

Lm- crm-tan, fnxln, chalky in prt, barren

D Lm- crm, fnxln, chalky, scat v. pr ppt por, scat blk dead stn, NSFO, no odor

○ Lm- crm, fnxln, oolitic in prt, chalky, few scat pcs w/ pr ppt-xln & tr fr oomoldic por, 8-10 pcs w/ brn stn in pores, sli sheen FO upon crush, faint odor

STARK: SPL 3557' (-1428)

Sh- blk, carb

○ Lm- crm, v.fn-fnxln, oolitic in prt, chalky in prt, few scat pcs w/ pr xln-ppt & tr vuggy por, 4-6 pcs w/ brn stn in pores, v. sli sheen FO upon crush, pr-no odor

Lm- crm-wt, v.fnxln, chalky, barren

Sh- blk, carb

Lm- crm, v.fnxln, cherty, chalky in prt, barren

BKC: SPL 3599' (-1470)

Sh- blk-gray, carb in prt

Sh- gray-brn, silty in prt

Lm- crm, v.fn-fnxln, foss, mostly dense, chalky in prt

Sh & Lm- A/A, more abundant in red shales, muddy red wash

Cong-Lm- crm-wt, fnxln-mdgrn, mottled in prt, chalky wt wash

Chert- wt-orange, sub angular- blocky

3651'- Sh- turq, waxy, blocky, few scat Ss clusters, well consolidated, well sorted well rounded, Lm-Dolo- wt, fn-mdxln, v. tight inxln por, scat blk flaky & terr-stn, NSFO no odor

DST #1
3597'-3661' (ARB)
30-30-30-30
10' M w/ O SPTS IN TOOL
SIP: 185-108#

PIPE STRAP 2.92'
SHORT TO BOARD

SURVEY @ 3661' (1 °)

