



DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum**

9342 East Central
Wichita, KS 67206

ATTN: Larry Nicholson

ALC 1748 #1-33

33-17s-48w Kiowa,CO

Start Date: 2020.03.14 @ 07:27:35

End Date: 2020.03.14 @ 16:51:05

Job Ticket #: 66627 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.03.18 @ 16:50:37



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66627

DST#: 1

ATTN: Larry Nicholson

Test Start: 2020.03.14 @ 07:27:35

GENERAL INFORMATION:

Formation: **Marmaton C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:08:35

Time Test Ended: 16:51:05

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: 4236.00 ft (KB) To 4295.00 ft (KB) (TVD)

Total Depth: 4295.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 4270.00 ft (KB)

4259.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8674 Outside

Press@RunDepth: 204.57 psig @ 4237.00 ft (KB)

Start Date: 2020.03.14

End Date:

2020.03.14

Start Time: 07:27:40

End Time:

16:51:05

Capacity: 8000.00 psig

Last Calib.: 2020.03.14

Time On Btm: 2020.03.14 @ 10:06:35

Time Off Btm: 2020.03.14 @ 14:15:35

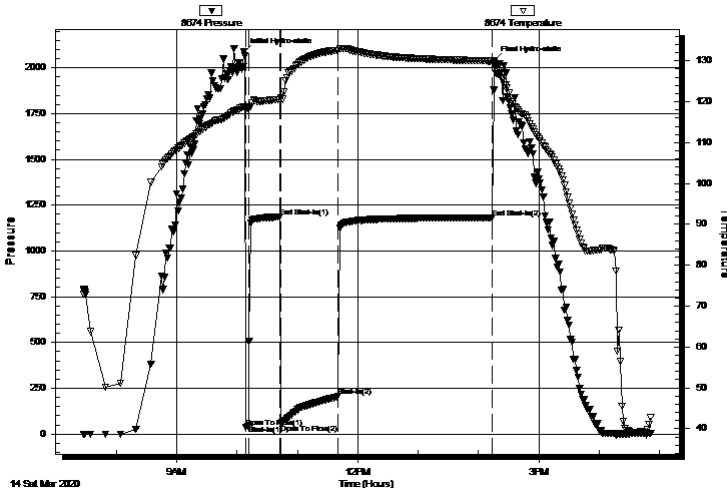
TEST COMMENT: IF: 1/4" blow built to 1 1/2"

IS: No return.

FF: 1/4" blow built to 4"

FS: No return. 3-30-60-150

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2085.33	118.86	Initial Hydro-static
2	35.61	118.11	Open To Flow (1)
5	45.54	118.48	Shut-In(1)
36	1184.49	120.59	End Shut-In(1)
37	54.90	121.06	Open To Flow (2)
94	204.57	132.56	Shut-In(2)
247	1181.16	129.97	End Shut-In(2)
249	2037.25	129.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
189.00	mcw H2S 2ppm 90%w 10%m	0.93
126.00	mcw 80%w 20%m	1.01
133.00	mcw 60%w 40%m	1.87

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66627

DST#: 1

ATTN: Larry Nicholson

Test Start: 2020.03.14 @ 07:27:35

GENERAL INFORMATION:

Formation: **Marmaton C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:08:35

Time Test Ended: 16:51:05

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: 4236.00 ft (KB) To 4295.00 ft (KB) (TVD)

Total Depth: 4295.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 4270.00 ft (KB)

4259.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8790 Inside

Press@RunDepth: psig @ 4237.00 ft (KB)

Start Date: 2020.03.14

End Date:

2020.03.14

Start Time: 07:27:31

End Time:

16:50:56

Capacity: 8000.00 psig

Last Calib.: 2020.03.14

Time On Btm:

Time Off Btm:

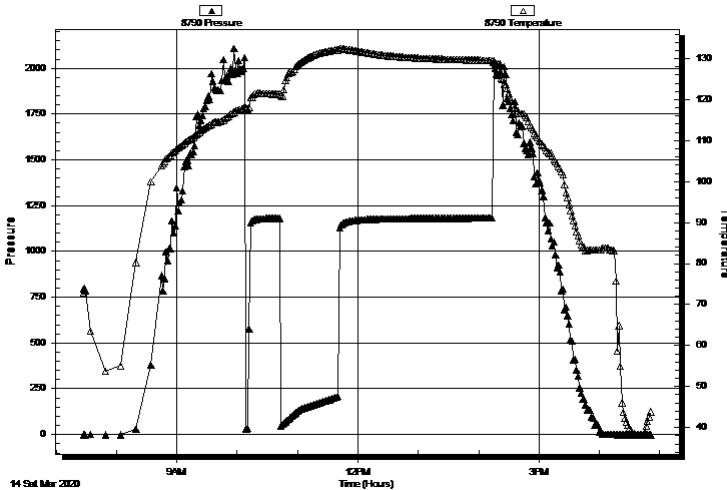
TEST COMMENT: IF: 1/4" blow built to 1 1/2"

IS: No return.

FF: 1/4" blow built to 4"

FS: No return. 3-30-60-150

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
189.00	mcw H2S 2ppm 90%w 10%m	0.93
126.00	mcw 80%w 20%m	1.01
133.00	mcw 60%w 40%m	1.87

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66627

DST#: 1

ATTN: Larry Nicholson

Test Start: 2020.03.14 @ 07:27:35

Tool Information

Drill Pipe:	Length:	3957.00 ft	Diameter:	3.80 inches	Volume:	55.51 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	272.00 ft	Diameter:	2.25 inches	Volume:	1.34 bbl	Weight to Pull Loose:	95000.00 lb
					Total Volume:	56.85 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		23.00 ft					String Weight: Initial	79000.00 lb
Depth to Top Packer:		4236.00 ft					Final	82000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		59.00 ft						
Tool Length:		89.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------	------------	----------	------------	----------------

Stubb	1.00		4207.00	
Shut In Tool	5.00		4212.00	
Hydraulic tool	5.00		4217.00	
Jars	5.00		4222.00	
EM tool	3.00		4225.00	
Safety Joint	2.00		4227.00	
Packer	5.00		4232.00	30.00 Bottom Of Top Packer
Packer	4.00		4236.00	
Stubb	1.00		4237.00	
Recorder	0.00	8790 Inside	4237.00	
Recorder	0.00	8674 Outside	4237.00	
Perforations	20.00		4257.00	
Change Over Sub	1.00		4258.00	
Drill Pipe	32.00		4290.00	
Change Over Sub	1.00		4291.00	
Perforations	1.00		4292.00	
Bullnose	3.00		4295.00	59.00 Bottom Packers & Anchor
Total Tool Length:	89.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66627

DST#: 1

ATTN: Larry Nicholson

Test Start: 2020.03.14 @ 07:27:35

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 6.39 in³

Resistivity: 0.00 ohm.m

Salinity: 500.00 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:

0 deg API

22000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
189.00	mcw H2S 2ppm 90%w 10%m	0.929
126.00	mcw 80%w 20%m	1.011
133.00	mcw 60%w 40%m	1.866

Total Length: 448.00 ft

Total Volume: 3.806 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .66@33=22000

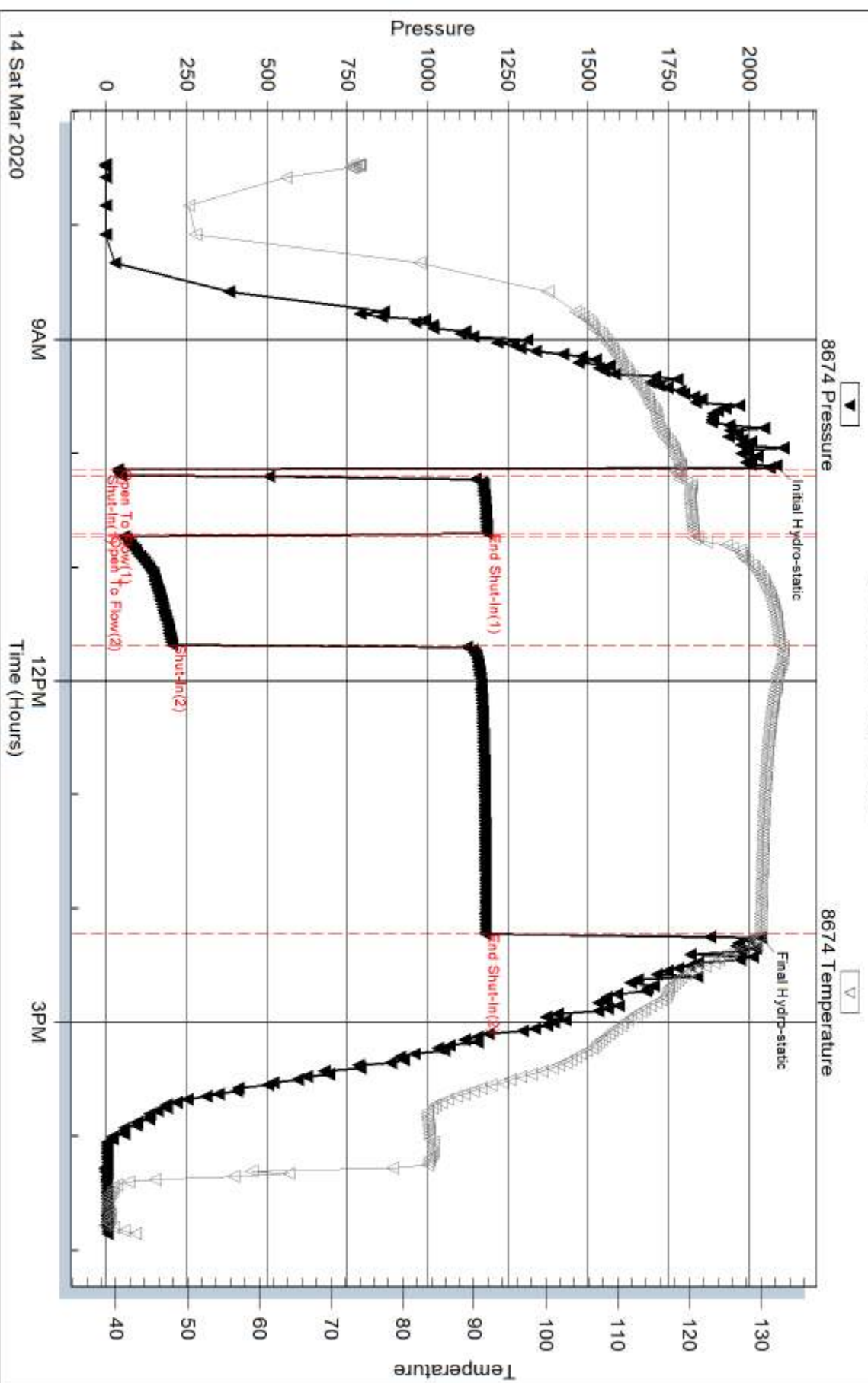
Serial #: 8674

Outside McCoy Petroleum

ALC 1748 #1-33

DST Test Number: 1

Pressure vs. Time



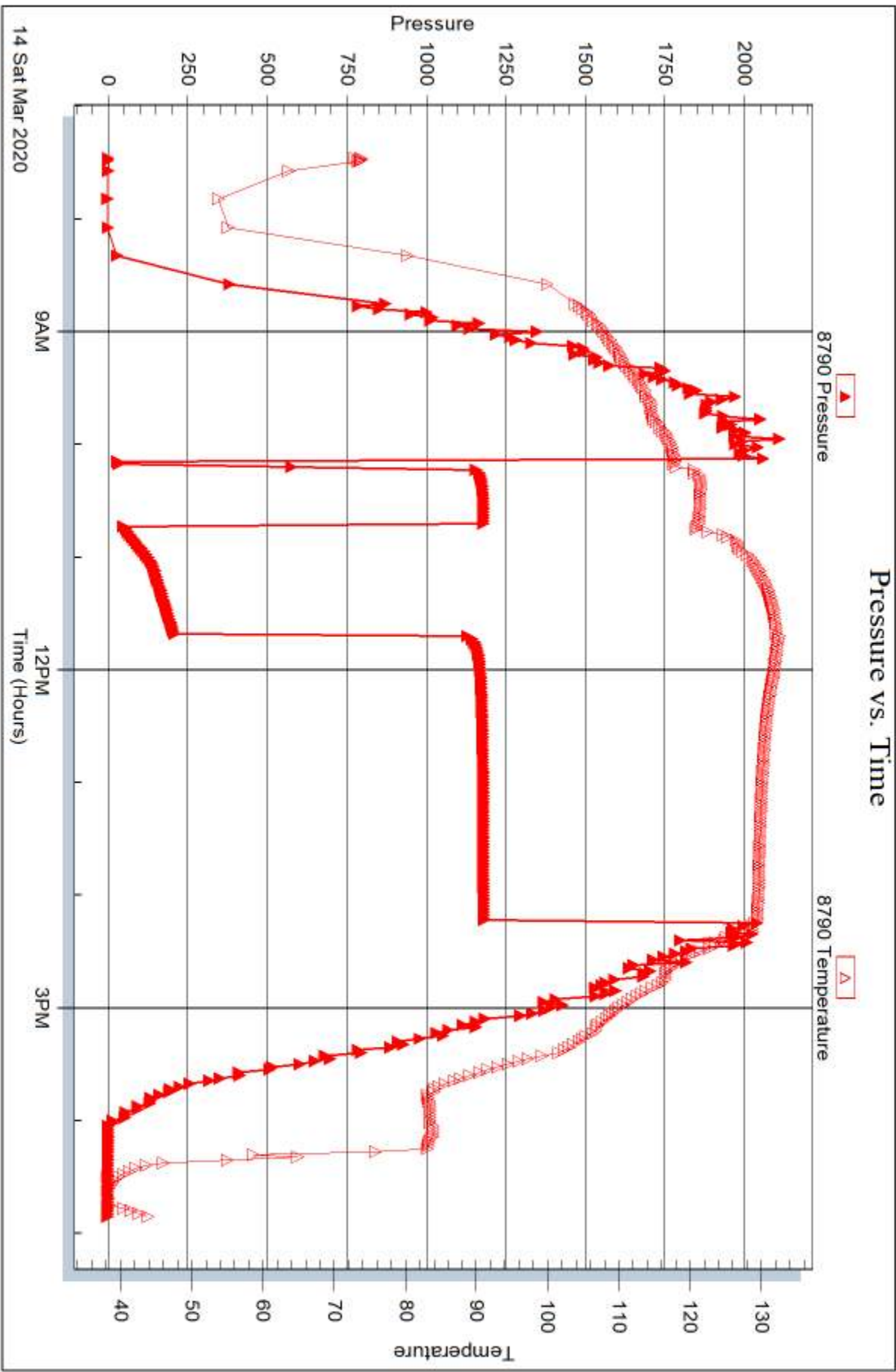
Serial #: 8790

Inside

McCoy Petroleum

ALC 1748 #1-33

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum**

9342 East Central
Wichita, KS 67206

ATTN: Larry Nicholson

ALC 1748 #1-33

33-17s-48w Kiowa,CO

Start Date: 2020.03.17 @ 03:46:29

End Date: 2020.03.17 @ 12:54:29

Job Ticket #: 66628 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2020.03.20 @ 09:24:41



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66628

DST#: 2

ATTN: Larry Nicholson

Test Start: 2020.03.17 @ 03:46:29

GENERAL INFORMATION:

Formation: **Mississippi - St Lou**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:01:29

Time Test Ended: 12:54:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 5140.00 ft (KB) To 5175.00 ft (KB) (TVD)

Total Depth: 5175.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 4270.00 ft (KB)

4259.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8674 Outside

Press@RunDepth: 97.88 psig @ 5141.00 ft (KB)

Start Date: 2020.03.17

End Date:

2020.03.17

Start Time: 03:46:34

End Time:

12:54:29

Capacity: 8000.00 psig

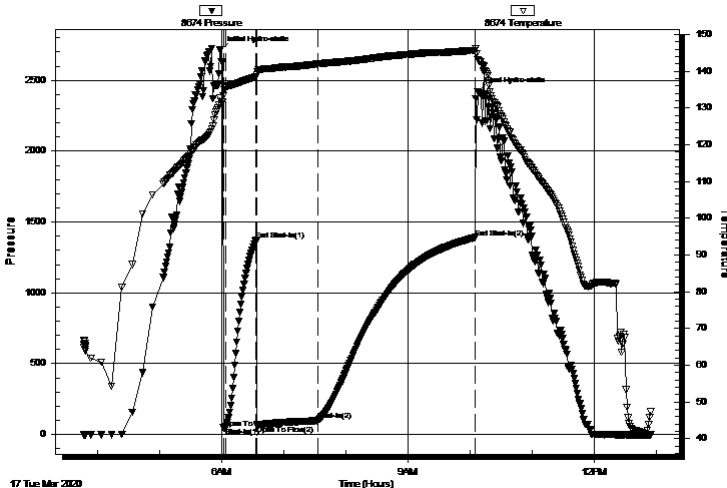
Last Calib.: 2020.03.17

Time On Btm: 2020.03.17 @ 05:58:29

Time Off Btm: 2020.03.17 @ 10:07:29

TEST COMMENT: IF: 2" blow built to 8"
IS: Surface blow built to 1/4"
FF: 1/4" blow BOB in 42 min. 12 1/2"
FS: No return. 3-30-60-150

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2713.37	132.79	Initial Hydro-static
3	46.05	133.40	Open To Flow (1)
6	51.55	135.73	Shut-In(1)
35	1374.49	138.49	End Shut-In(1)
36	66.88	139.17	Open To Flow (2)
95	97.88	141.98	Shut-In(2)
247	1390.51	145.70	End Shut-In(2)
249	2418.90	143.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gcm oil spots 5%g 95%m	0.61
62.00	mud 100%m	0.30
0.00	252' weak GIP	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66628

DST#: 2

ATTN: Larry Nicholson

Test Start: 2020.03.17 @ 03:46:29

GENERAL INFORMATION:

Formation: **Mississippi - St Lou**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:01:29

Time Test Ended: 12:54:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 5140.00 ft (KB) To 5175.00 ft (KB) (TVD)

Total Depth: 5175.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 4270.00 ft (KB)

4259.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8790 Inside

Press@RunDepth: psig @ 5141.00 ft (KB)

Start Date: 2020.03.17

End Date:

2020.03.17

Capacity: 8000.00 psig

Last Calib.:

2020.03.17

Start Time: 03:46:06

End Time:

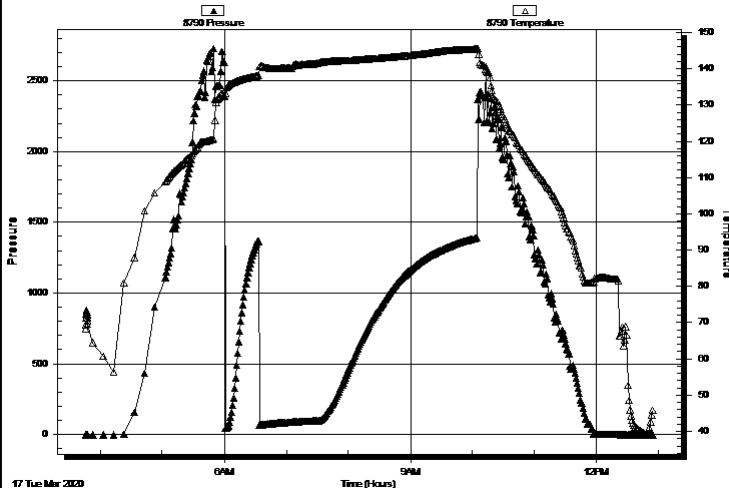
12:54:01

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 2" blow built to 8"
IS: Surface blow built to 1/4"
FF: 1/4" blow BOB in 42 min. 12 1/2"
FS: No return. 3-30-60-150

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gcm oil spots 5%g 95%m	0.61
62.00	mud 100%m	0.30
0.00	252' weak GIP	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66628

DST#: 2

ATTN: Larry Nicholson

Test Start: 2020.03.17 @ 03:46:29

Tool Information

Drill Pipe:	Length: 4843.00 ft	Diameter: 3.80 inches	Volume: 67.93 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 272.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose: 100000.0 lb
		Total Volume:	69.27 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 90000.00 lb
Depth to Top Packer:	5140.00 ft			Final 92000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	65.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			5111.00	
Shut In Tool	5.00			5116.00	
Hydraulic tool	5.00			5121.00	
Jars	5.00			5126.00	
EM tool	3.00			5129.00	
Safety Joint	2.00			5131.00	
Packer	5.00			5136.00	30.00 Bottom Of Top Packer
Packer	4.00			5140.00	
Stubb	1.00			5141.00	
Recorder	0.00	8790	Inside	5141.00	
Recorder	0.00	8674	Outside	5141.00	
Perforations	31.00			5172.00	
Bullnose	3.00			5175.00	35.00 Bottom Packers & Anchor

Total Tool Length: 65.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum

33-17s-48w Kiowa, CO

9342 East Central
Wichita, KS 67206

ALC 1748 #1-33

Job Ticket: 66628

DST#: 2

ATTN: Larry Nicholson

Test Start: 2020.03.17 @ 03:46:29

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 6.39 in³

Resistivity: 0.00 ohm.m

Salinity: 500.00 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:

0 deg API

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	gcm oil spots 5%g 95%m	0.610
62.00	mud 100%m	0.305
0.00	252' weak GIP	0.000

Total Length: 186.00 ft

Total Volume: 0.915 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

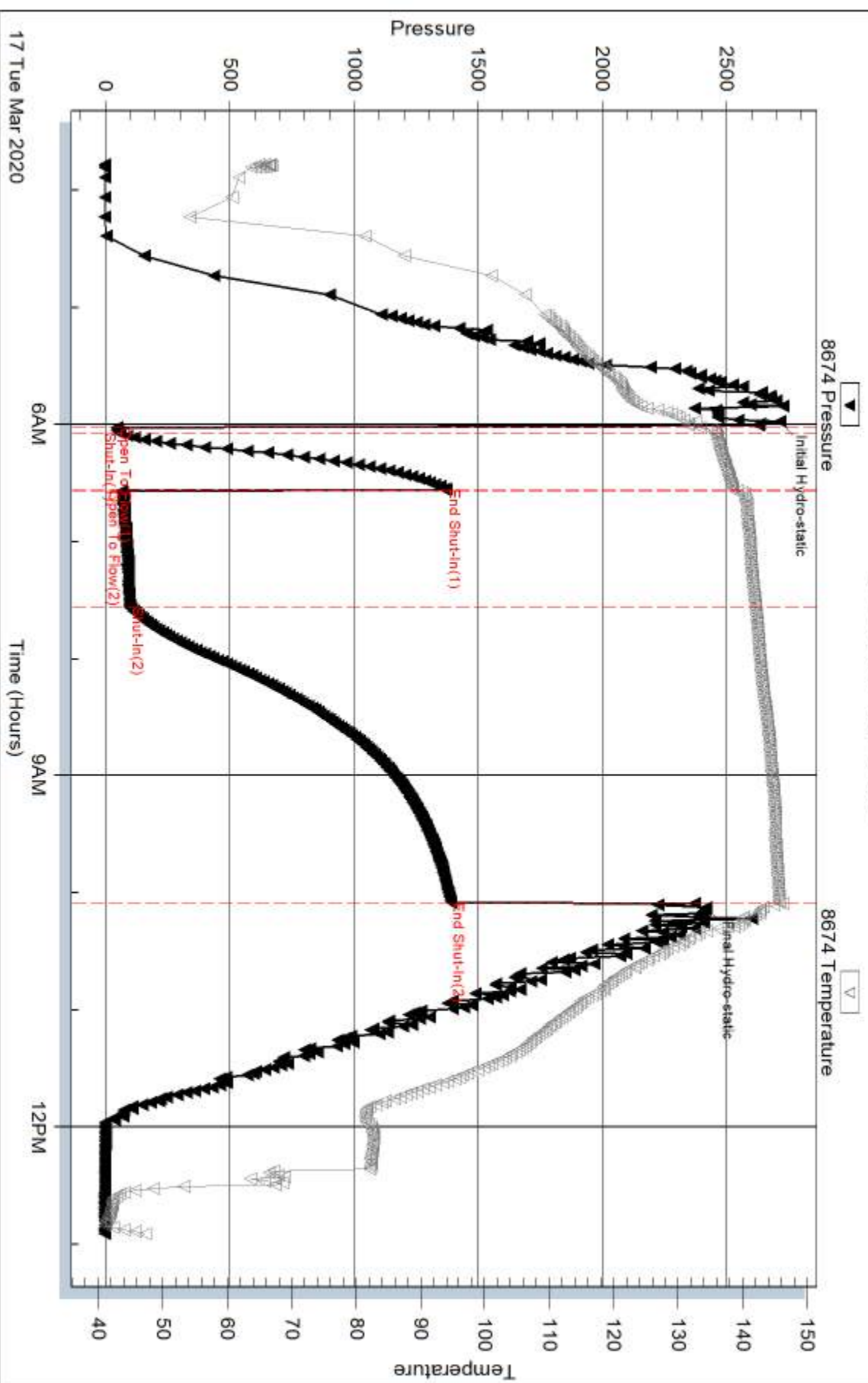
Serial #: 8674

Outside McCoy Petroleum

ALC 1748 #1-33

DST Test Number: 2

Pressure vs. Time



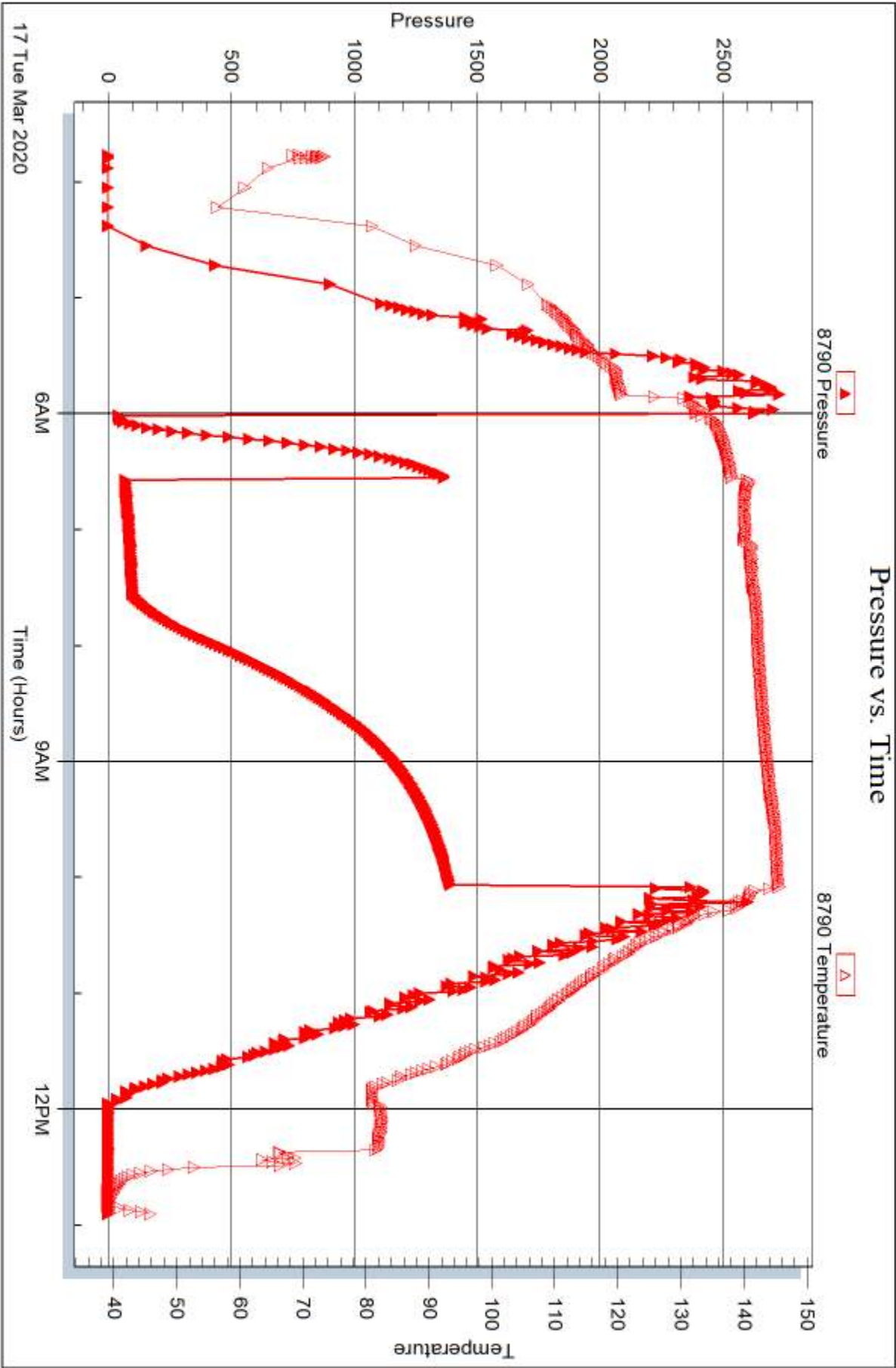
Serial #: 8790

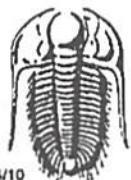
Inside

McCoy Petroleum

ALC 1748 #1-33

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket **66627**

NO.

Well Name & No. ALC 1748 #1-33 Test No. 1 Date 3.14-20
 Company McCoy Petroleum Elevation 4270 KB 4259 GL
 Address 9342 East Central Wichita, KS 67206
 Co. Rep / Geo. Larry Nicholson Rig Murfin 21
 Location: Sec. 33 Twp 17S Rge. 48W Co. Kiowa State CO

Interval Tested 4236 4295 Zone Tested Morrison L
 Anchor Length 59 Drill Pipe Run 3957 Mud Wt. 9.2
 Top Packer Depth 4231 Drill Collars Run 272 Vis 58
 Bottom Packer Depth 4236 Wt. Pipe Run 500 WL 6.4
 Total Depth 4295 Chlorides 500 ppm System LCM 7

Blow Description IF: 1/4 blow built to 1 1/2.
IS: No return.
FF: 1/4 blow built to 4.
FS: No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>133</u>	<u>MCW</u>		<u>60</u>	<u>40</u>	
<u>126</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
<u>189</u>	<u>MCW H2S 2ppm</u>		<u>90</u>	<u>10</u>	

Rec Total 446 BHT 130 Gravity — API RW .66 @ 33 °F Chlorides 22,000 ppm

(A) Initial Hydrostatic <u>2085</u>	<input checked="" type="checkbox"/> Test 1550	T-On Location <u>6:10</u>
(B) First Initial Flow <u>35</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>7:27</u>
(C) First Final Flow <u>45</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>10:08</u>
(D) Initial Shut-In <u>1184</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>14:10</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:50</u>
(F) Second Final Flow <u>264</u>	<input checked="" type="checkbox"/> Mileage <u>124</u> 124	Comments <u>out of town</u>
(G) Final Shut-In <u>1181</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2637</u>	<input type="checkbox"/> Straddle	

Initial Open <u>3</u>	<input checked="" type="checkbox"/> EM Tool 350 NS
Initial Shut-In <u>30</u>	<input type="checkbox"/> Ruined Shale Packer
Final Flow <u>60</u>	<input type="checkbox"/> Ruined Packer
Final Shut-In <u>150</u>	<input type="checkbox"/> Extra Copies
	Sub Total <u>0</u>
	Total <u>1999</u>
	MP/DST Disc't

Approved By [Signature] Our Representative [Signature]
 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 66628

NO.

Well Name & No. ALC 1748 #1-33 Test No. 2 Date 3-17-20
 Company McCoy Petroleum Elevation 4270 KB 4259 GL
 Address _____
 Co. Rep / Geo. Larry Nicholson Rig Murfin 21
 Location: Sec. 33 Twp 17S Rge. 48W Co. Kiowa State CO

Interval Tested 5140 5175 Zone Tested Spargen Mississippi - St Louis
 Anchor Length 35 Drill Pipe Run 4843 Mud Wt. 9.3
 Top Packer Depth 5135 Drill Collars Run 272 Vis 60
 Bottom Packer Depth 5140 Wt. Pipe Run _____ WL 7.2
 Total Depth 5175 Chlorides 500 ppm System LCM 10

Blow Description EF: 42' blow built to 8.
IS: Surface blow built to 14.
FF: 1/4 blow BOB in 42 min. 12 1/2
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>mud</u>			<u>100</u>	
<u>124</u>	<u>9cm oil spots</u>	<u>5</u>		<u>95</u>	
	<u>252 wet 9IP</u>				

Rec Total 186 BHT 145 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2713</u>	<input checked="" type="checkbox"/> Test 1650	T-On Location <u>3:00</u>
(B) First Initial Flow <u>46</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>3:46</u>
(C) First Final Flow <u>51</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>6:00</u>
(D) Initial Shut-In <u>1374</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>10:03</u>
(E) Second Initial Flow <u>66</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>13:00</u>
(F) Second Final Flow <u>97</u>	<input checked="" type="checkbox"/> Mileage <u>124</u> - 248	Comments <u>out of town</u>
(G) Final Shut-In <u>1390</u>	<input type="checkbox"/> Sampler	<u>loaded tools 3/18 15:00</u>
(H) Final Hydrostatic <u>2418</u>	<input type="checkbox"/> Straddle	

Initial Open <u>3</u>	<input type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> EM Tool 350 NS
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Shale Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Ruined Packer
Final Shut-In <u>150</u>	<input checked="" type="checkbox"/> Day Standby 1.5d 19h	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Accessibility	Sub Total 633.33
	Sub Total 2223	Total 2856.33
		MP/DST Disc't

Approved By [Signature] Our Representative [Signature]
 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.