



## DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc.**

1327 Moose Rd  
Hays, KS 67601

ATTN: Randy Kilian

### **McNinch #1**

### **14-15s-25w Trego,KS**

Start Date: 2014.05.07 @ 11:48:00

End Date: 2014.05.07 @ 21:02:30

Job Ticket #: 57621                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.05.08 @ 13:20:43



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Tengasco Inc.

**14-15s-25w Trego,KS**

1327 Noose Rd  
Hays, KS 67601

**McNinch #1**

Job Ticket: 57621

**DST#: 1**

ATTN: Randy Kilian

Test Start: 2014.05.07 @ 11:48:00

## GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:41:00

Time Test Ended: 21:02:30

Test Type: Conventional Straddle (Initial)

Tester: Bob Hamel

Unit No: 67

**Interval: 4349.00 ft (KB) To 4455.00 ft (KB) (TVD)**

Reference Elevations: 2394.00 ft (KB)

Total Depth: 4569.00 ft (KB) (TVD)

2387.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8679 Outside**

Press@RunDepth: 835.30 psig @ 4446.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.07 End Date: 2014.05.07

Last Calib.: 2014.05.07

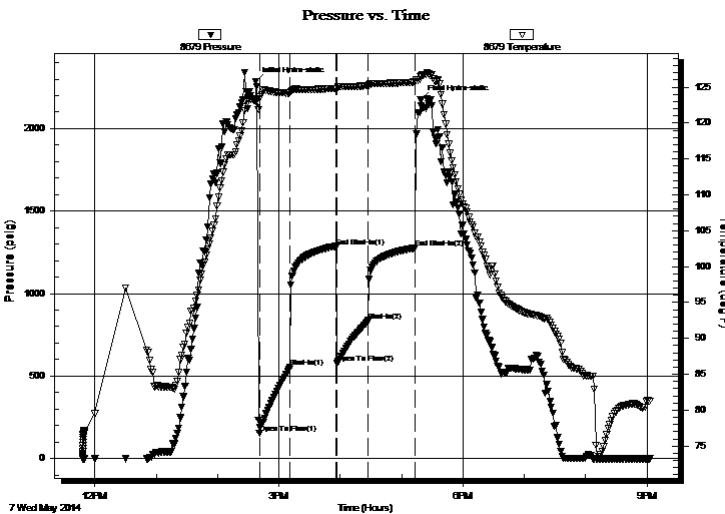
Start Time: 11:48:01 End Time: 21:02:30

Time On Btm: 2014.05.07 @ 14:37:30

Time Off Btm: 2014.05.07 @ 17:18:30

**TEST COMMENT:** I.F. - 30 - BOB in 2 min  
I.S.I. - 45 - Weak surface blow back died in 40 min  
F.F. - 30 - BOB in 2 min  
F.S.I. - 45 - No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2285.76	123.37	Initial Hydro-static
4	153.11	123.38	Open To Flow (1)
33	552.42	124.19	Shut-In(1)
79	1285.57	124.83	End Shut-In(1)
79	578.17	124.81	Open To Flow (2)
110	835.30	125.19	Shut-In(2)
156	1276.22	125.70	End Shut-In(2)
161	2172.89	126.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
315.00	W,C,M, 20%W 80%M	4.13
1386.00	S,M,C,W, 5%M 95%W	19.44

## Gas Rates

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



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**McNinch #1**

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Total Depth: 4569.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Initial)

Tester: Bob Hamel

Unit No: 67

Reference Elevations: 2394.00 ft (KB)

2387.00 ft (CF)

KB to GR/CF: 7.00 ft

**Serial #: 6625** Inside

Press@RunDepth: psig @ 4446.00 ft (KB)

Start Date: 2014.05.07 End Date: 2014.05.07

Start Time: 11:48:01 End Time: 21:04:30

Capacity: 8000.00 psig

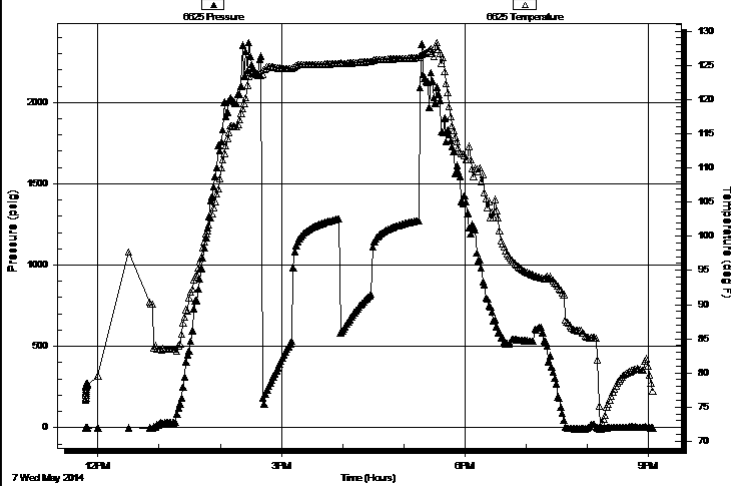
Last Calib.: 2014.05.07

Time On Btm:

Time Off Btm:

**TEST COMMENT:** I.F. - 30 - BOB in 2 min  
I.S.I. - 45 - Weak surface blow back died in 40 min  
F.F. - 30 - BOB in 2 min  
F.S.I. - 45 - No blow back

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
315.00	W,C,M, 20%W 80%M	4.13
1386.00	S,M,C,W, 5%M 95%W	19.44

### Gas Rates

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



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TESTING, INC**

## DRILL STEM TEST REPORT

Tengasco Inc.

**14-15s-25w Trego, KS**

1327 Noose Rd  
Hays, KS 67601

**McNinch #1**

Job Ticket: 57621

**DST#: 1**

ATTN: Randy Kilian

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Test Type: Conventional Straddle (Initial)

Tester: Bob Hamel

Unit No: 67

**Interval: 4349.00 ft (KB) To 4455.00 ft (KB) (TVD)**

Reference Elevations: 2394.00 ft (KB)

Total Depth: 4569.00 ft (KB) (TVD)

2387.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 8319 Below (Straddle)**

Press@RunDepth: psig @ 4462.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.07

End Date: 2014.05.07

Last Calib.: 1899.12.30

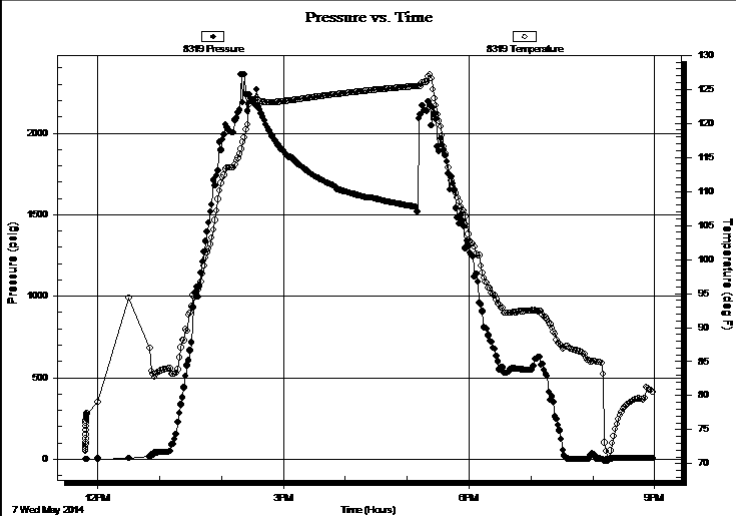
Start Time: 11:48:01

End Time: 20:59:00

Time On Btm:

Time Off Btm:

**TEST COMMENT:** I.F. - 30 - BOB in 2 min  
I.S.I. - 45 - Weak surface blow back died in 40 min  
F.F. - 30 - BOB in 2 min  
F.S.I. - 45 - No blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
315.00	W,C,M, 20%W 80%M	4.13
1386.00	S,M,C,W, 5%M 95%W	19.44

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Tengasco Inc.

**14-15s-25w Trego,KS**

1327 Noose Rd  
Hays, KS 67601

**McNinch #1**

Job Ticket: 57621

**DST#: 1**

ATTN: Randy Kilian

Test Start: 2014.05.07 @ 11:48:00

## Tool Information

Drill Pipe:	Length: 4302.00 ft	Diameter: 3.80 inches	Volume: 60.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4349.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	4455.00 ft			
Interval between Packers:	106.00 ft			
Tool Length:	240.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

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

Change Over Sub	1.00			4322.00	
Shut In Tool	5.00			4327.00	
Hydraulic tool	5.00			4332.00	
Jars	5.00			4337.00	
Safety Joint	3.00			4340.00	
Packer	4.00			4344.00	28.00 Bottom Of Top Packer
Packer	5.00			4349.00	
Stubb	1.00			4350.00	
Perforations	2.00			4352.00	
Change Over Sub	1.00			4353.00	
Drill Pipe	92.00			4445.00	
Change Over Sub	1.00			4446.00	
Recorder	0.00	6625	Inside	4446.00	
Recorder	0.00	8679	Outside	4446.00	
Perforations	5.00			4451.00	
Blank Off Sub	1.00			4452.00	
Stubb	3.00			4455.00	106.00 Tool Interval
Packer	1.00			4456.00	
Stubb	1.00			4457.00	
Perforations	5.00			4462.00	
Recorder	0.00	8319	Below	4462.00	
Change Over Sub	1.00			4463.00	
Drill Pipe	93.00			4556.00	
Change Over Sub	1.00			4557.00	
Bullnose	4.00			4561.00	106.00 Bottom Packers & Anchor

**Total Tool Length: 240.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Tengasco Inc.

**14-15s-25w Trego,KS**

1327 Noose Rd  
Hays, KS 67601

**McNinch #1**

Job Ticket: 57621

**DST#: 1**

ATTN: Randy Kilian

Test Start: 2014.05.07 @ 11:48:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

36000 ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
315.00	W,C,M, 20%W 80%M	4.127
1386.00	S,M,C,W, 5%M 95%W	19.442

Total Length: 1701.00 ft      Total Volume: 23.569 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

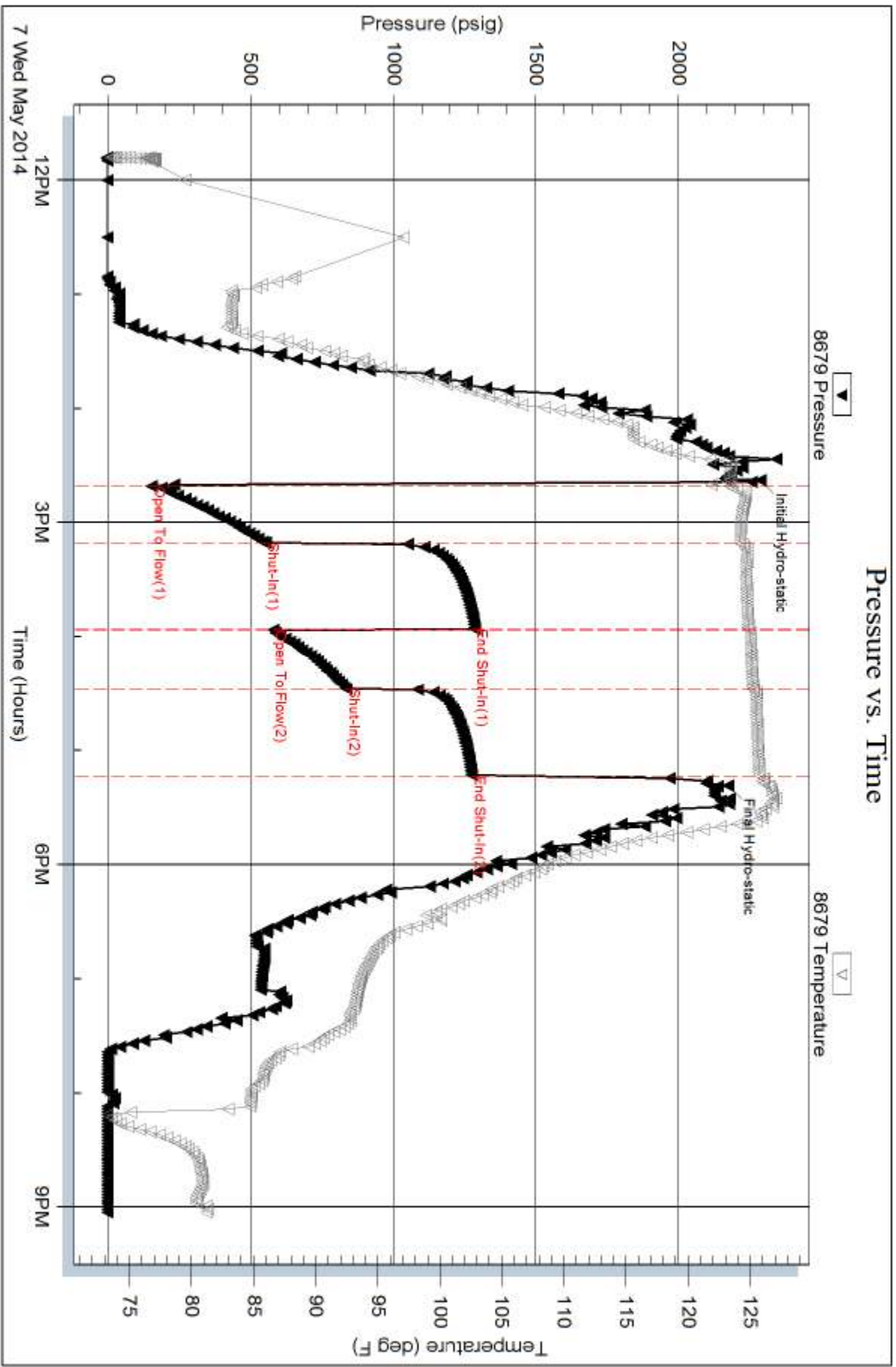
Recovery Comments: R.W. = .16 OHMS @ 87.4 DEG

Serial #: 8679

Outside Tengasco Inc.

McNinch #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 57621

Printed: 2014.05.08 @ 13:20:44

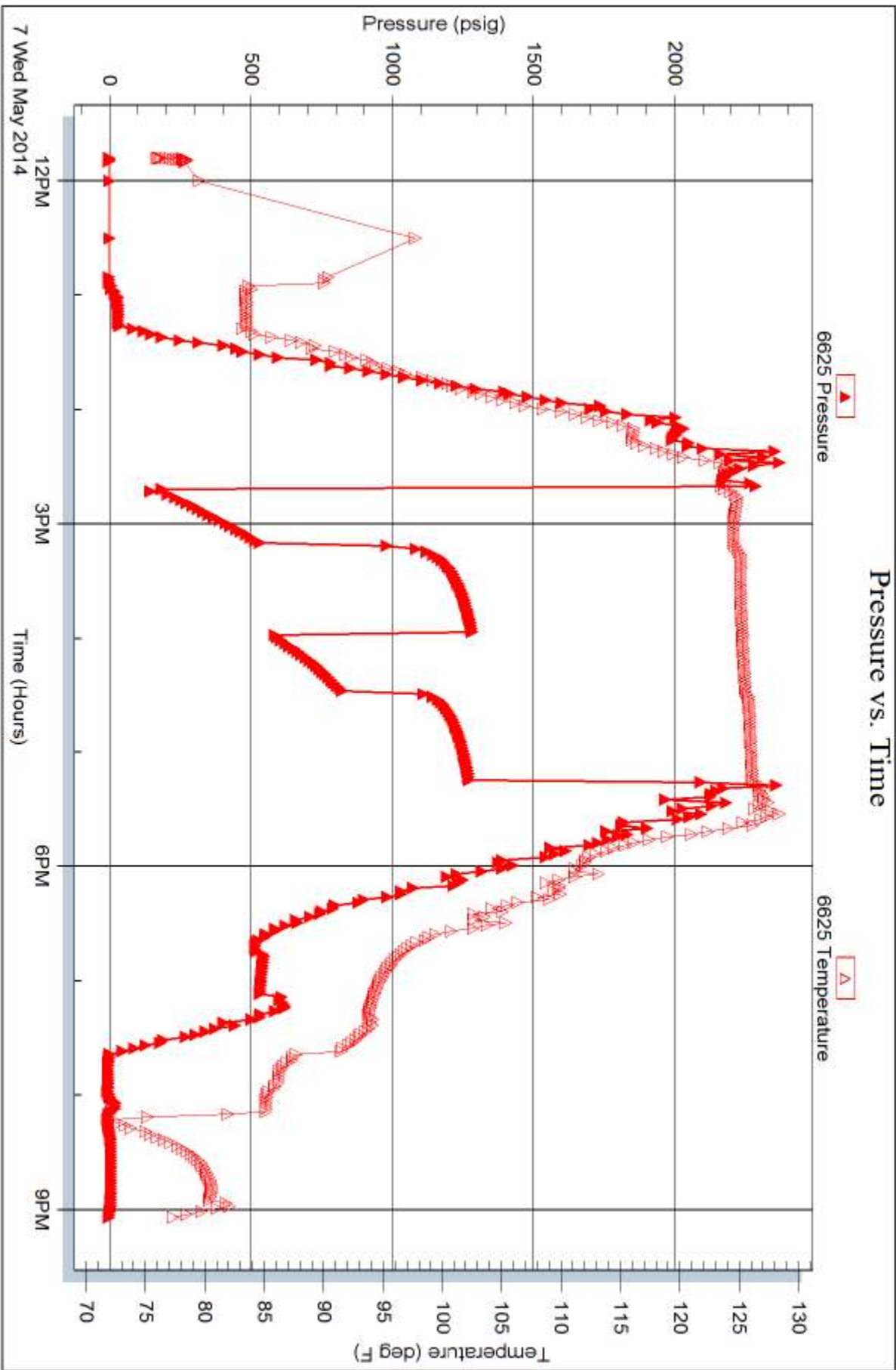
Serial #: 6625

Inside

Tengasco Inc.

McNinch #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 57621

Printed: 2014.05.08 @ 13:20:45

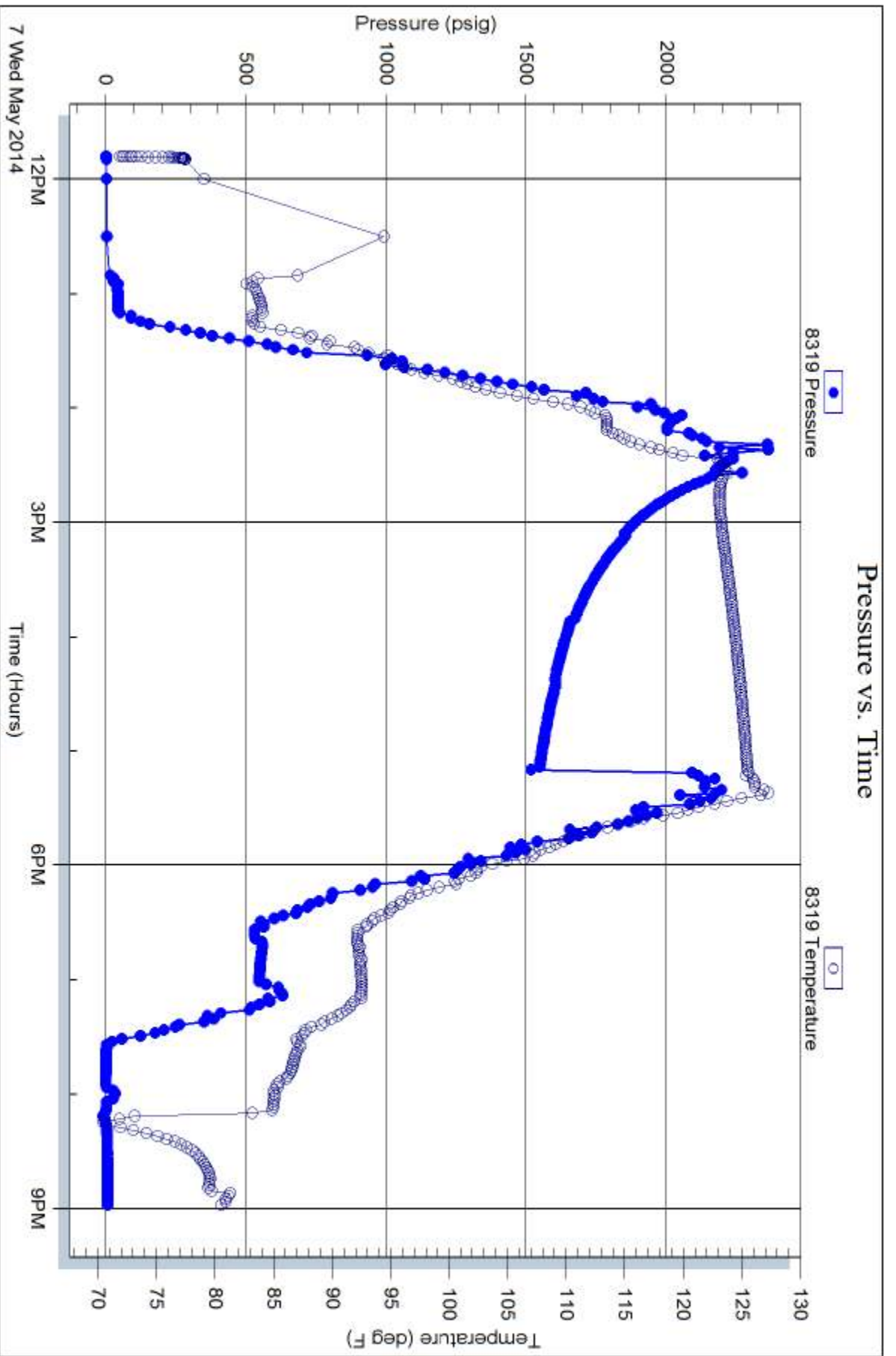


Serial #: 8319

Below (Strat)psco inc.

McNinch #1

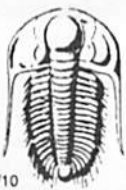
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 57621

Printed: 2014.05.08 @ 13:20:45



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 57621

Well Name & No. McNinch Test No. 1 Date 5-7-14  
 Company Tengasco INC. Elevation 2394 KB 2387 GL  
 Address 1327 Moose Rd. Hays KS. 67601  
 Co. Rep / Geo. Randy Hillian / Dan Jacobs Rig American eagle Rig #3  
 Location: Sec. 14 Twp. 15 - S. Rge. 25 - W. Co. Trego State KS.

Interval Tested 4349-4455 Zone Tested Cherokee  
 Anchor Length 106' Drill Pipe Run 4302 Mud Wt. 9.5  
 Top Packer Depth 4349-4344 Drill Collars Run 32 Vis 70  
 Bottom Packer Depth 4455 (Straddle) Wt. Pipe Run --- WL 7.6  
 Total Depth 4509 Chlorides 3500 ppm System LCM 4

Blow Description I.F. - 30 - 1/2" INT. Blow Built to B.O.B. in 2 min.  
I.S.I - 45 - W.S. B.B. started (a) 10 min. [redacted] Dead at 40 min.  
E.F. - 30 - 1/2" INT. Blow (B.O.B. in 2 min.)  
E.S.I - 45 - No B.B.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>315</u>	Feet of <u>w.c.m.</u>			<u>20</u>	<u>80</u>
Rec <u>1386</u>	Feet of <u>[redacted] S.M.C.W</u>			<u>95</u>	<u>5</u>
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 1701 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW .16 @ 87.4° F Chlorides 36,000 ppm  
 (A) Initial Hydrostatic 2,286  Test 1250 T-On Location 11:20:00  
 (B) First Initial Flow 153  Jars 250 T-Started 11:48:00  
 (C) First Final Flow 552  Safety Joint 75 T-Open 14:39:00  
 (D) Initial Shut-In 1,286  Circ Sub 50 T-Pulled 17:09:00  
 (E) Second Initial Flow 578  Hourly Standby T-Out 21:05:00  
 (F) Second Final Flow 835  Mileage 130 / RT. 201.50 Comments Dropped Bar  
 (G) Final Shut-In 1,276  Sampler \_\_\_\_\_ Straddle...  
 (H) Final Hydrostatic 2,173  Straddle 600 "Thank-you"

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Copies \_\_\_\_\_  
 Final Shut-In 46  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 2426.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 2426.50

Approved By \_\_\_\_\_

Our Representative [Signature]