



DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Trembley

Zerger A #2

21-8s-19s Rooks,KS

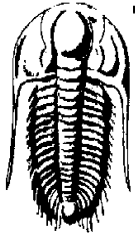
Start Date: 2013.09.16 @ 08:05:00

End Date: 2013.09.16 @ 12:05:00

Job Ticket #: 54811 DST #: 1

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

Printed: 2013.09.17 @ 15:06:56



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

21-8s-19s Rooks, KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54811

DST#: 1

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 08:05:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:40:00

Time Test Ended: 12:05:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

Interval: **3418.00 ft (KB) To 3465.00 ft (KB) (TVD)**

Reference Elevations: 2013.00 ft (KB)

Total Depth: 3465.00 ft (KB) (TVD)

2006.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: **8700** Outside

Press @ Run Depth: psig @ 3427.00 ft (KB)

Start Date: 2013.09.16

End Date: 2013.09.16

Capacity: 8000.00 psig

Last Calib.: 2013.09.16

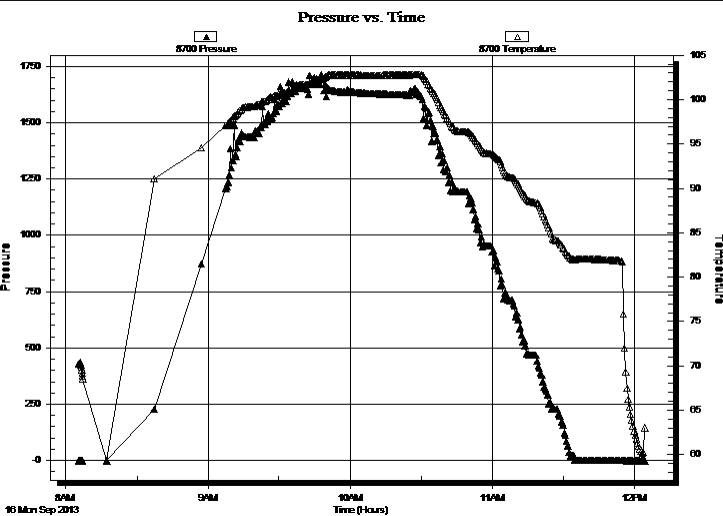
Start Time: 08:05:20

End Time: 12:04:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-opened tool, no packer seat, set twice
Misrun



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud	1.40

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54811

DST#: 1

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 08:05:00

Tool Information

Drill Pipe:	Length: 3397.00 ft	Diameter: 3.80 inches	Volume: 47.65 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 47.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3418.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3391.00	
Shut In Tool	5.00			3396.00	
Hydraulic tool	5.00			3401.00	
Jars	5.00			3406.00	
Safety Joint	2.00			3408.00	
Packer	5.00			3413.00	28.00 Bottom Of Top Packer
Packer	5.00			3418.00	
Stubb	1.00			3419.00	
Perforations	8.00			3427.00	
Recorder	0.00	8369	Inside	3427.00	
Recorder	0.00	8700	Outside	3427.00	
Blank Spacing	33.00			3460.00	
Bullnose	5.00			3465.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54811

DST#: 1

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 08:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

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
100.00	Mud	1.403

Total Length: 100.00 ft Total Volume: 1.403 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

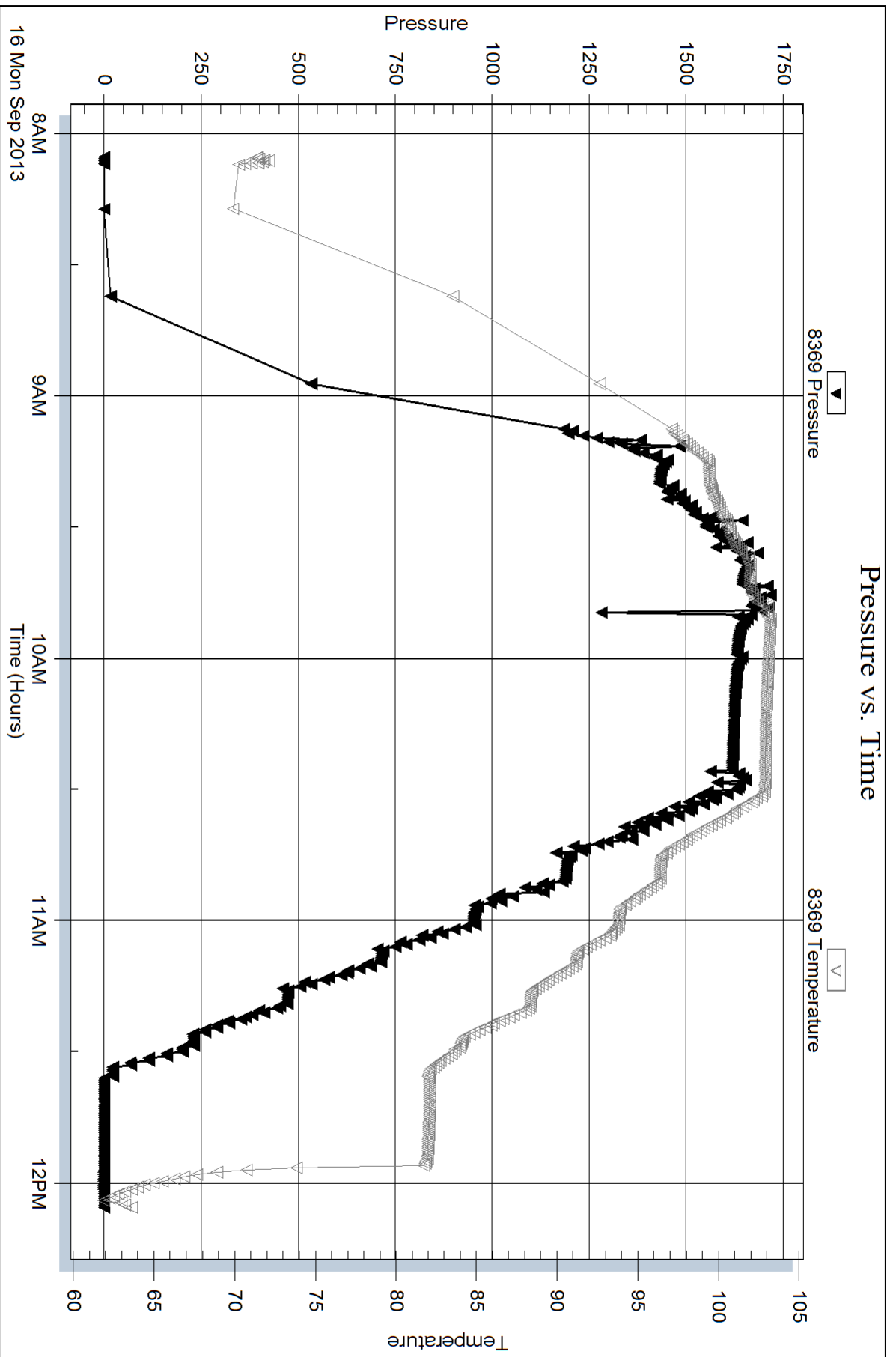
Serial #: 8369

Inside

Tengasco Inc

Zerger A #2

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54811

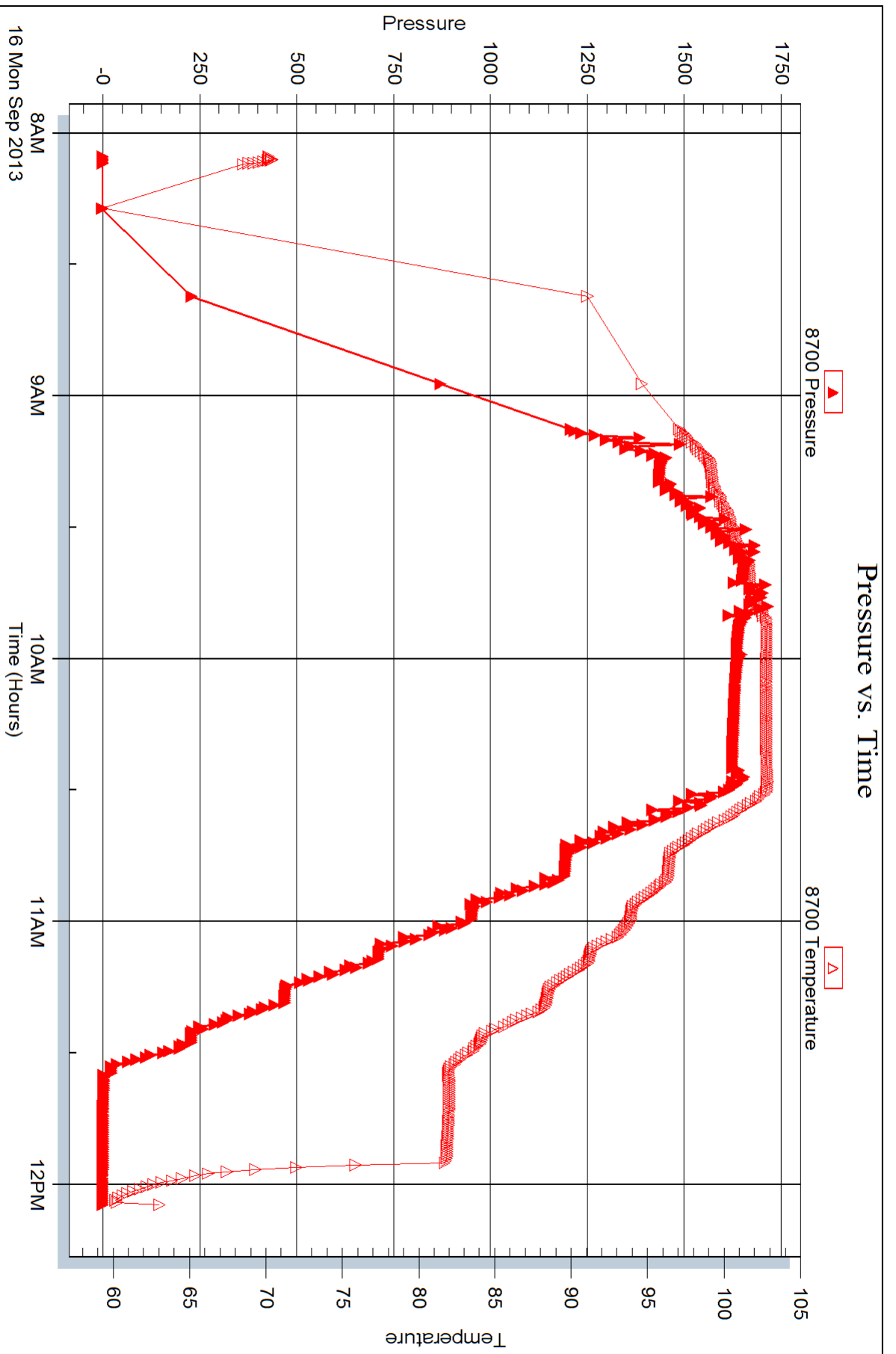
Printed: 2013.09.17 @ 15:06:57

Serial #: 8700

Outside Tengasco Inc

Zerger A #2

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54811

Printed: 2013.09.17 @ 15:06:57



DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Trembley

Zerger A #2

21-8s-19s Rooks,KS

Start Date: 2013.09.16 @ 12:35:20

End Date: 2013.09.16 @ 18:04:59

Job Ticket #: 54812 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.17 @ 15:06:29



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc
 PO Box 458
 Hays KS 67601
 ATTN: Rod Trembley

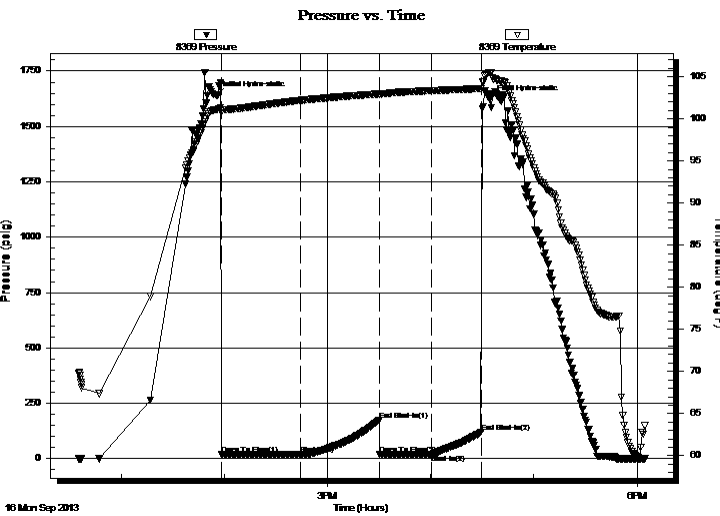
21-8s-19s Rooks, KS
Zerger A #2
 Job Ticket: 54812 **DST#: 2**
 Test Start: 2013.09.16 @ 12:35:20

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:58:30
 Time Test Ended: 18:04:59
 Interval: **3410.00 ft (KB) To 3465.00 ft (KB) (TVD)**
 Total Depth: 3465.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 2013.00 ft (KB)
 2006.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8369 Inside
 Press @ Run Depth: 21.00 psig @ 3411.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.16 End Date: 2013.09.16 Last Calib.: 2013.09.16
 Start Time: 12:35:20 End Time: 18:04:59 Time On Btm: 2013.09.16 @ 13:55:30
 Time Off Btm: 2013.09.16 @ 16:34:30

TEST COMMENT: 45-IFP-w k bl thru-out 1/4" to surface bl
 45-ISIP-no bl
 30-FFP-no bl
 30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1641.03	101.08	Initial Hydro-static
3	18.59	100.75	Open To Flow (1)
49	19.55	102.19	Shut-In(1)
95	172.91	102.96	End Shut-In(1)
95	20.64	102.92	Open To Flow (2)
126	21.00	103.35	Shut-In(2)
154	119.93	103.60	End Shut-In(2)
159	1622.79	105.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5% O95%M	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54812

DST#: 2

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 12:35:20

Tool Information

Drill Pipe:	Length: 3399.00 ft	Diameter: 3.80 inches	Volume: 47.68 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 47.68 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3410.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	55.00 ft				
Tool Length:	83.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3383.00	
Shut In Tool	5.00			3388.00	
Hydraulic tool	5.00			3393.00	
Jars	5.00			3398.00	
Safety Joint	2.00			3400.00	
Packer	5.00			3405.00	28.00 Bottom Of Top Packer
Packer	5.00			3410.00	
Stubb	1.00			3411.00	
Recorder	0.00	8369	Inside	3411.00	
Recorder	0.00	8700	Outside	3411.00	
Blank Spacing	33.00			3444.00	
Perforations	18.00			3462.00	
Bullnose	3.00			3465.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



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FLUID SUMMARY

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21-8s-19s Rooks,KS

PO Box 458
Hays KS 67601

Zerger A #2

Job Ticket: 54812

DST#: 2

ATTN: Rod Trembley

Test Start: 2013.09.16 @ 12:35:20

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

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%O95%M	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

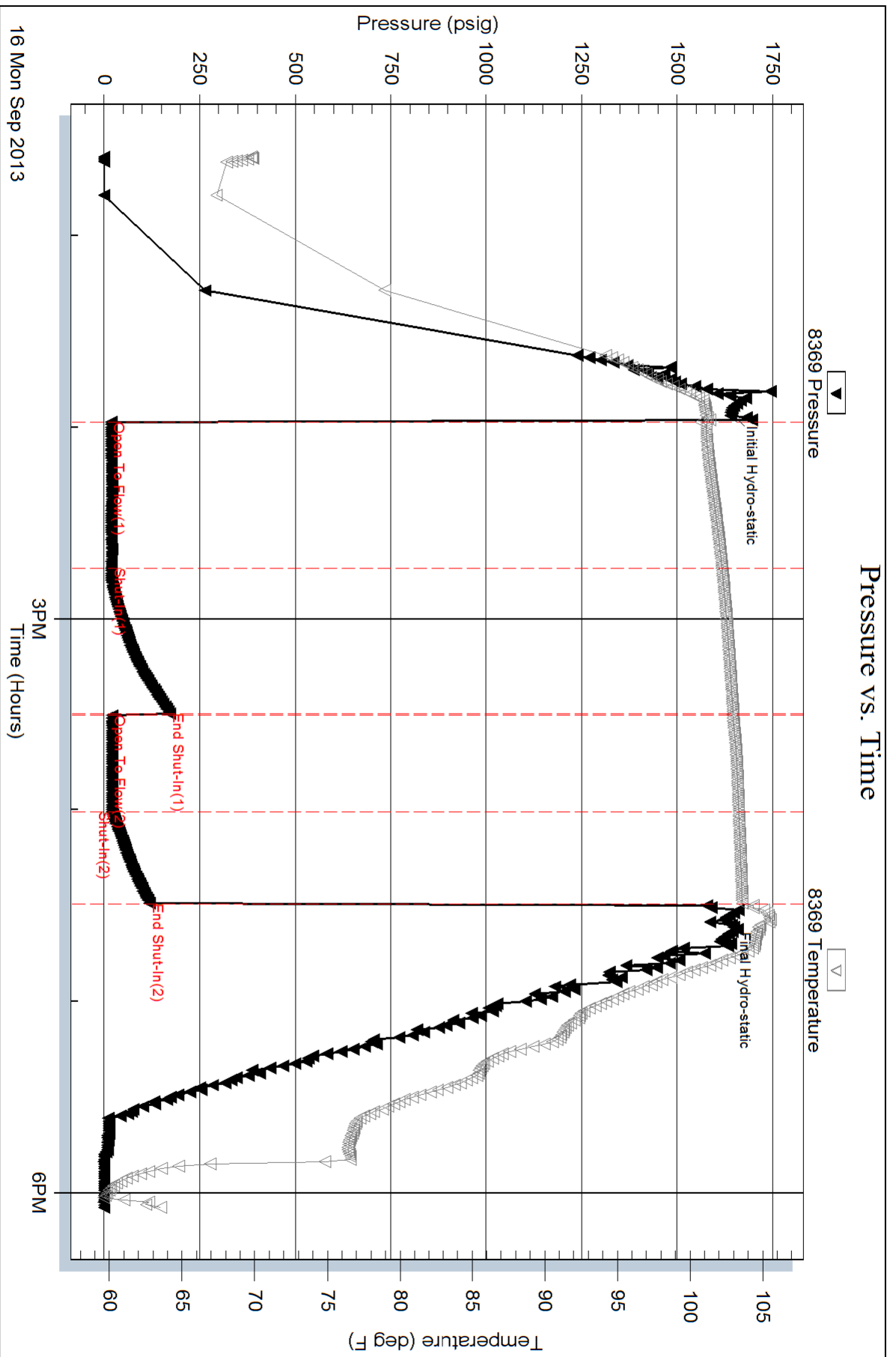
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

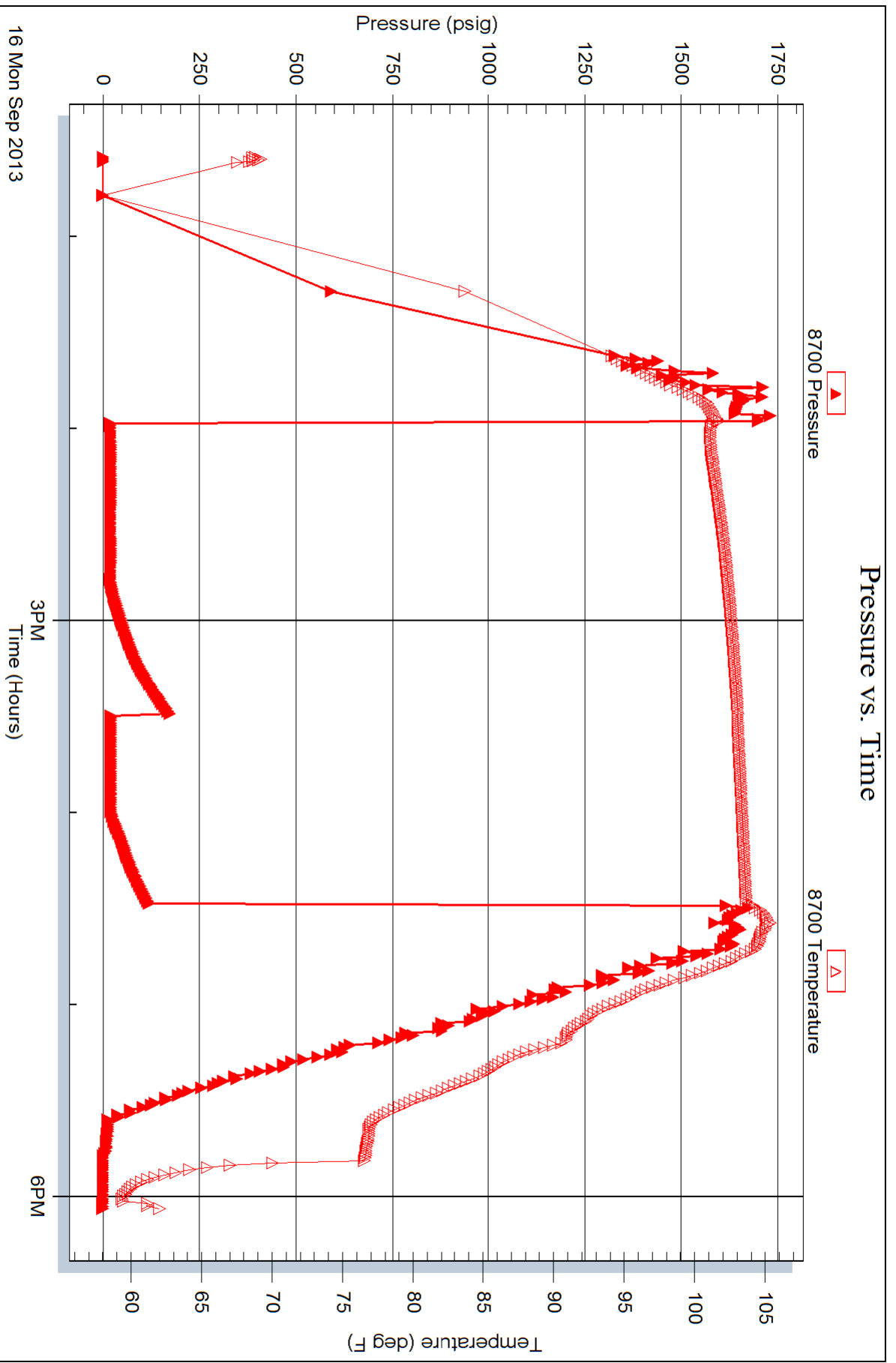


Serial #: 8700

Outside Tengasco Inc

Zerger A #2

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54811

Well Name & No. Zergee A-2 Test No. 1 Date 9-16-13
 Company Tengasco Inc Elevation 2013 KB 2006 GL
 Address 1327 Moose Rd, PO Box 458 Hays, Ks 67601
 Co. Rep / Geo. M. Ke Bair Rig Am Eagle rig 2
 Location: Sec. 21 Twp. 8^s Rge. 19^w Co. Rooks State Ks

Interval Tested 3418-3465 Zone Tested Arbuckle
 Anchor Length 47 Drill Pipe Run 3397 Mud Wt. 9.1
 Top Packer Depth 3413 Drill Collars Run - Vis 48
 Bottom Packer Depth 3418 Wt. Pipe Run - WL 7.6
 Total Depth 3465 Chlorides 1700 ppm System LCM 1 1/2#
 Blow Description IFP - opened TOOL, NO PACKERSPAT, SET TWICE
ESIP -

Rec	Feet of	%gas	%oil	%water	%mud
<u>100</u>	<u>Mud</u>				
	<u>MISRUN</u>				

Rec Total 100 BHT _____ Gravity - API RW - @ - ° F Chlorides _____ ppm

(A) Initial Hydrostatic _____	<input checked="" type="checkbox"/> Test 1150 _____	T-On Location <u>0735</u>
(B) First Initial Flow _____	<input checked="" type="checkbox"/> Jars 250 _____	T-Started <u>0805</u>
(C) First Final Flow _____	<input checked="" type="checkbox"/> Safety Joint 75 _____	T-Open <u>0940</u>
(D) Initial Shut-In _____	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0950</u>
(E) Second Initial Flow _____	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1205</u>
(F) Second Final Flow _____	<input checked="" type="checkbox"/> Mileage <u>86 RT</u> 133.30 _____	Comments _____
(G) Final Shut-In _____	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic _____	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open _____	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In _____	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow _____	<input type="checkbox"/> Day Standby _____	Total <u>1608.30</u>
Final Shut-In _____	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1608.30</u>	

Approved By _____ Our Representative Ray Schwann Thank you

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. 54812

Well Name & No. Zerger A-2 Test No. 2 Date 9-16-13
 Company Tengasco Inc Elevation 2013 KB 2006 GL
 Address 1327 Noose Rd. P.O Box 458 Hays, Ks 67601
 Co. Rep / Geo. MIKE BAIR Rig Am Eagle 1192
 Location: Sec. 21 Twp. 8^s Rge. 19^w Co. Rooks State Ks

Interval Tested 3410-3465 Zone Tested Arbuckle
 Anchor Length 55 Drill Pipe Run 3399 Mud Wt. 9.1
 Top Packer Depth 3405 Drill Collars Run - Vis 64
 Bottom Packer Depth 3410 Wt. Pipe Run - WL 7.6
 Total Depth 3465 Chlorides 1700 ppm System LCM 1 1/2 #

Blow Description IFF - Weak Blow thru-out 1/4" To surface blow
TSIP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50CM</u>		<u>5</u>		<u>95</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 5 BHT 103 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1641</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1205</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1235</u>
(C) First Final Flow <u>19</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1355</u>
(D) Initial Shut-In <u>172</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1625</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1804</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>266.60</u>	Comments <u>Loaded Tool 9-17-13</u>
(G) Final Shut-In <u>119</u>	<input type="checkbox"/> Sampler	<u>miles 86 RT</u>
(H) Final Hydrostatic <u>1622</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1741.60</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't

Initial Open 45
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 30

Sub Total 1741.60

Approved By _____ Our Representative Ray Schwager Thank you

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.