



DRILL STEM TEST REPORT

Prepared For: **Castelli Explortion Inc.**

6908 N.W. 112th
Oklahoma City OK 73162

ATTN: Rick Popp

Gallup Ranch #1-13

13-30s-16w Kiowa,KS

Start Date: 2014.08.04 @ 19:01:52

End Date: 2014.08.05 @ 02:00:07

Job Ticket #: 54240 DST #: 1

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

Printed: 2014.08.08 @ 11:28:31



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Castelli Explortion Inc.
6908 N.W. 112th
Oklahoma City OK 73162
ATTN: Rick Popp

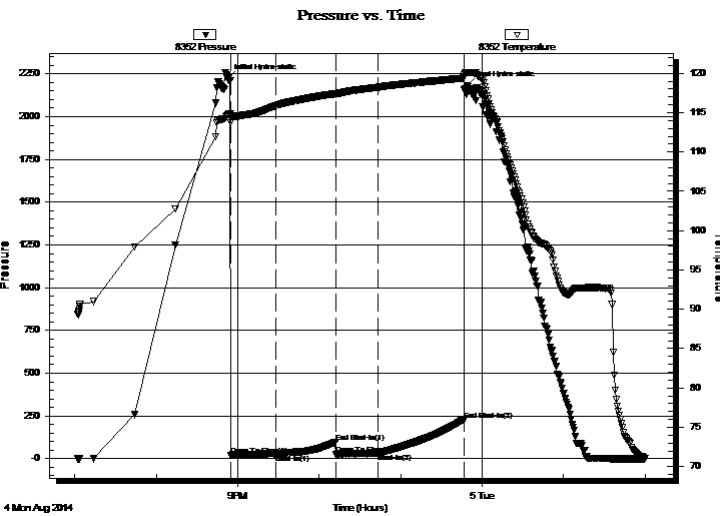
13-30s-16w Kiowa,KS
Gallup Ranch #1-13
Job Ticket: 54240 **DST#: 1**
Test Start: 2014.08.04 @ 19:01:52

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:54:37
Time Test Ended: 02:00:07
Interval: **4513.00 ft (KB) To 4560.00 ft (KB) (TVD)**
Total Depth: 4560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Gary Pevoteaux
Unit No: 56
Reference Elevations: 1787.00 ft (KB)
1774.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8352 Outside
Press@RunDepth: 30.95 psig @ 4514.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.08.04 End Date: 2014.08.05 Last Calib.: 2014.08.05
Start Time: 19:01:57 End Time: 02:00:06 Time On Btm: 2014.08.04 @ 20:52:52
Time Off Btm: 2014.08.04 @ 23:48:52

TEST COMMENT: IF:Weak blow . 1/2 - 1".
IS:No blow .
FF:Weak blow . 1/2 - 3".
FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2222.53	114.74	Initial Hydro-static
2	20.46	113.69	Open To Flow (1)
35	25.06	115.87	Shut-In(1)
79	96.25	117.40	End Shut-In(1)
80	25.21	117.37	Open To Flow (2)
110	30.95	118.23	Shut-In(2)
174	225.90	119.38	End Shut-In(2)
176	2180.89	120.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	SOCM 2%o 98%m	0.20
0.00	140 ft.of GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castelli Explortion Inc.
6908 N.W. 112th
Oklahoma City OK 73162
ATTN: Rick Popp

13-30s-16w Kiowa,KS
Gallup Ranch #1-13
Job Ticket: 54240 **DST#: 1**
Test Start: 2014.08.04 @ 19:01:52

Tool Information

Drill Pipe:	Length: 4317.00 ft	Diameter: 3.80 inches	Volume: 60.56 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 108000.0 lb
			<u>Total Volume: 61.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 71500.00 lb
Depth to Top Packer:	4513.00 ft			Final 72000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4486.00	
Shut In Tool	5.00			4491.00	
Hydraulic tool	5.00			4496.00	
Jars	5.00			4501.00	
Safety Joint	3.00			4504.00	
Packer	4.00			4508.00	28.00 Bottom Of Top Packer
Packer	5.00			4513.00	
Stubb	1.00			4514.00	
Recorder	0.00	8352	Outside	4514.00	
Recorder	0.00	8370	Inside	4514.00	
Perforations	41.00			4555.00	
Bullnose	5.00			4560.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Castelli Explortion Inc.
6908 N.W. 112th
Oklahoma City OK 73162
ATTN: Rick Popp

13-30s-16w Kiowa,KS
Gallup Ranch #1-13
Job Ticket: 54240 **DST#: 1**
Test Start: 2014.08.04 @ 19:01:52

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:	5000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.16 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	SOCM 2%o 98%m	0.197
0.00	140 ft.of GIP	0.000

Total Length: 40.00 ft Total Volume: 0.197 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

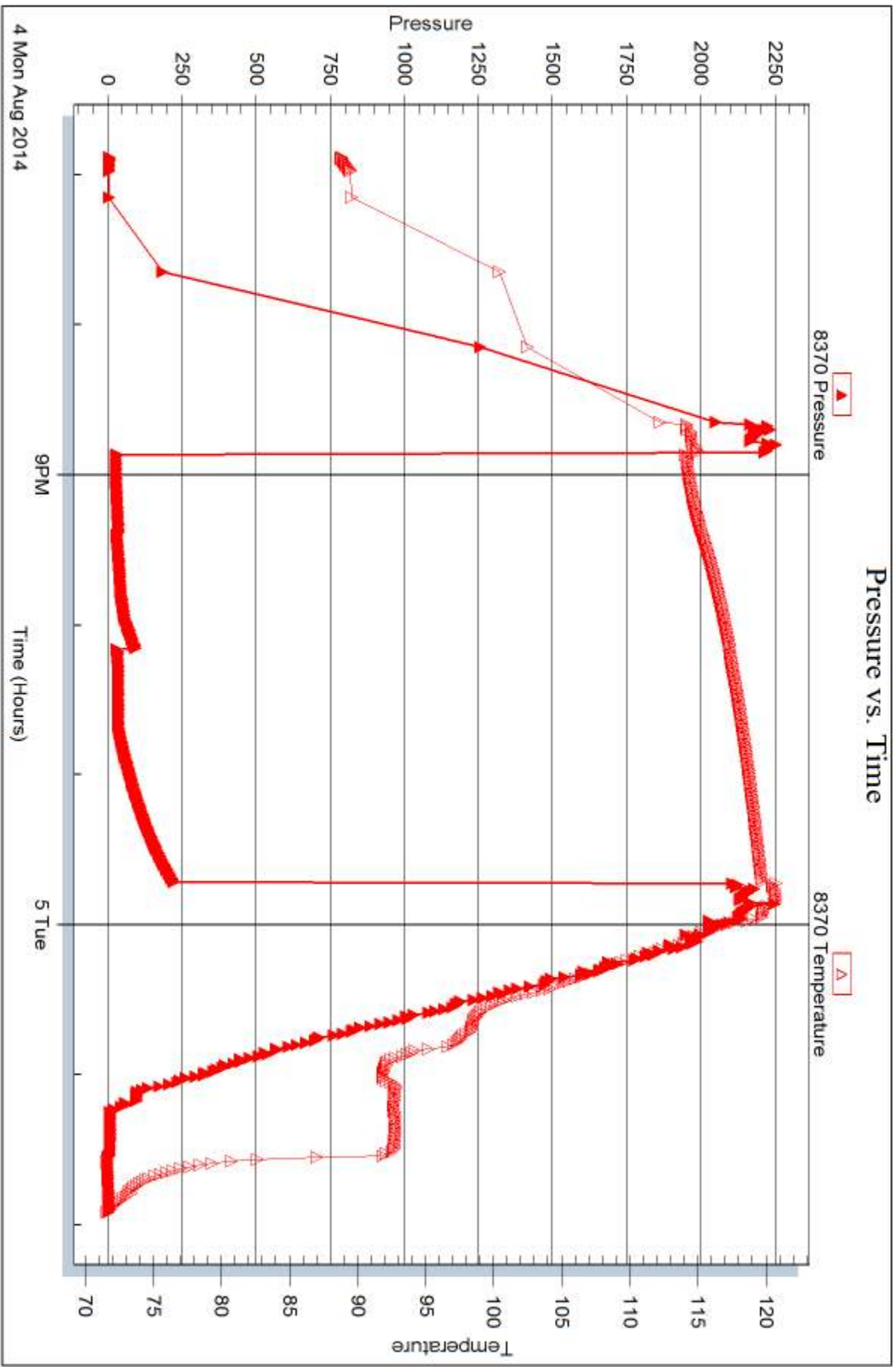
Serial #: 8370

Inside

Castelli Exploration Inc.

Gallup Ranch #1-13

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 54240

Printed: 2014.08.08 @ 11:28:32



DRILL STEM TEST REPORT

Prepared For: **Castelli Explortion Inc.**

6908 N.W. 112th
Oklahoma City OK 73162

ATTN: Rick Popp

Gallup Ranch #1-13

13-30s-16w Kiowa,KS

Start Date: 2014.08.06 @ 23:36:14

End Date: 2014.08.07 @ 08:29:29

Job Ticket #: 54241 DST #: 2

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

Printed: 2014.08.08 @ 11:27:56



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Castelli Explortion Inc.
 6908 N.W. 112th
 Oklahoma City OK 73162
 ATTN: Rick Popp

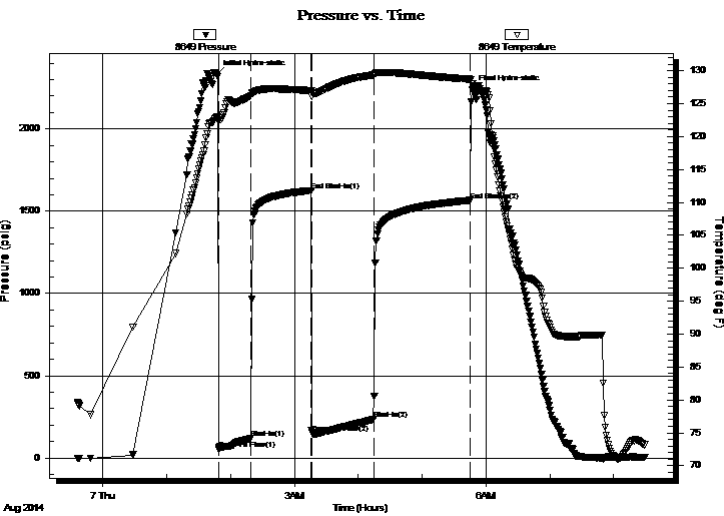
13-30s-16w Kiowa,KS
Gallup Ranch #1-13
 Job Ticket: 54241 **DST#: 2**
 Test Start: 2014.08.06 @ 23:36:14

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:48:44
 Time Test Ended: 08:29:29
 Interval: **4670.00 ft (KB) To 4700.00 ft (KB) (TVD)**
 Total Depth: 4903.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Gary Pevoteaux
 Unit No: 56
 Reference Elevations: 1787.00 ft (KB)
 1774.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 8649 Outside
 Press@RunDepth: 234.10 psig @ 4671.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.06 End Date: 2014.08.07 Last Calib.: 2014.08.07
 Start Time: 23:36:15 End Time: 08:29:29 Time On Btm: 2014.08.07 @ 01:46:59
 Time Off Btm: 2014.08.07 @ 05:47:14

TEST COMMENT: IF:Weak to fair blow . Increase to 6 1/2".
 IS:No blow .
 FF:Weak to fair blow . Increase to 10".
 FS:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2329.07	122.94	Initial Hydro-static
2	49.87	122.24	Open To Flow (1)
33	118.19	126.22	Shut-In(1)
89	1625.37	126.97	End Shut-In(1)
90	152.75	126.72	Open To Flow (2)
148	234.10	129.35	Shut-In(2)
238	1565.65	128.70	End Shut-In(2)
241	2241.98	127.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
365.00	SW	3.48
70.00	MW 17% m 83% w	0.98

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Castelli Explortion Inc.
6908 N.W. 112th
Oklahoma City OK 73162
ATTN: Rick Popp

13-30s-16w Kiowa,KS
Gallup Ranch #1-13
Job Ticket: 54241 **DST#: 2**
Test Start: 2014.08.06 @ 23:36:14

Tool Information

Drill Pipe:	Length: 4475.00 ft	Diameter: 3.80 inches	Volume: 62.77 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 99000.00 lb
			<u>Total Volume: 63.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4670.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	4700.00 ft			
Interval between Packers:	30.00 ft			
Tool Length:	261.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4643.00	
Shut In Tool	5.00			4648.00	
Hydraulic tool	5.00			4653.00	
Jars	5.00			4658.00	
Safety Joint	3.00			4661.00	
Packer	4.00			4665.00	28.00 Bottom Of Top Packer
Packer	5.00			4670.00	
Stubb	1.00			4671.00	
Recorder	0.00	8649	Outside	4671.00	
Recorder	0.00	8370	Inside	4671.00	
Perforations	25.00			4696.00	
Blank Off Sub	1.00			4697.00	
T.C.	3.00			4700.00	30.00 Tool Interval
Packer	0.00			4700.00	
Stubb	1.00			4701.00	
Recorder	0.00	8352	Below	4701.00	
Perforations	7.00			4708.00	
Blank Spacing	190.00			4898.00	
Bullnose	5.00			4903.00	203.00 Bottom Packers & Anchor

Total Tool Length: 261.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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6908 N.W. 112th
Oklahoma City OK 73162
ATTN: Rick Popp

13-30s-16w Kiowa,KS
Gallup Ranch #1-13
Job Ticket: 54241 **DST#: 2**
Test Start: 2014.08.06 @ 23:36:14

Mud and Cushion Information

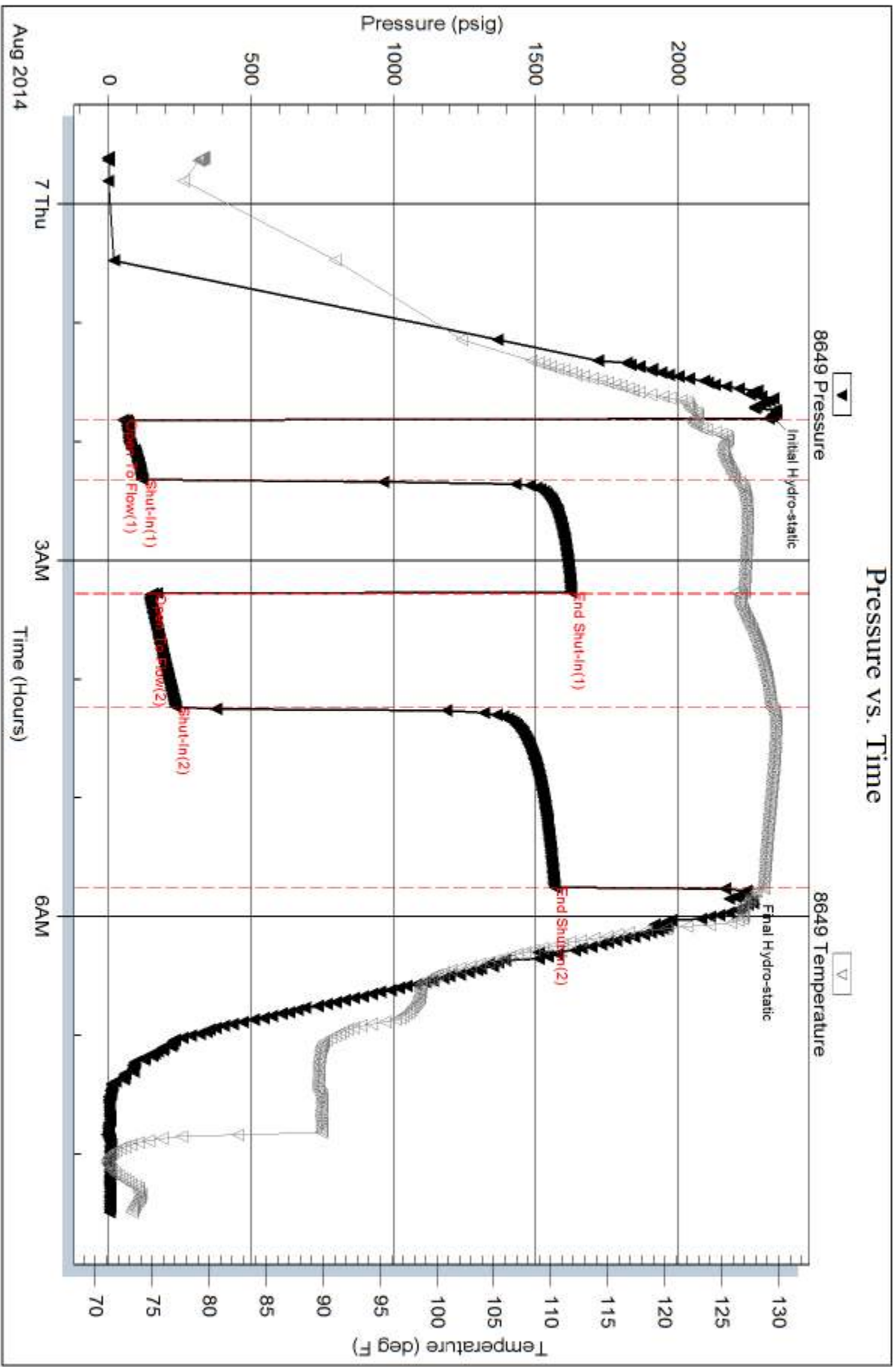
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	84000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.17 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
365.00	SW	3.480
70.00	MW 17% _m 83% _w	0.982

Total Length: 435.00 ft Total Volume: 4.462 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments: Rw .08ohms@81deg



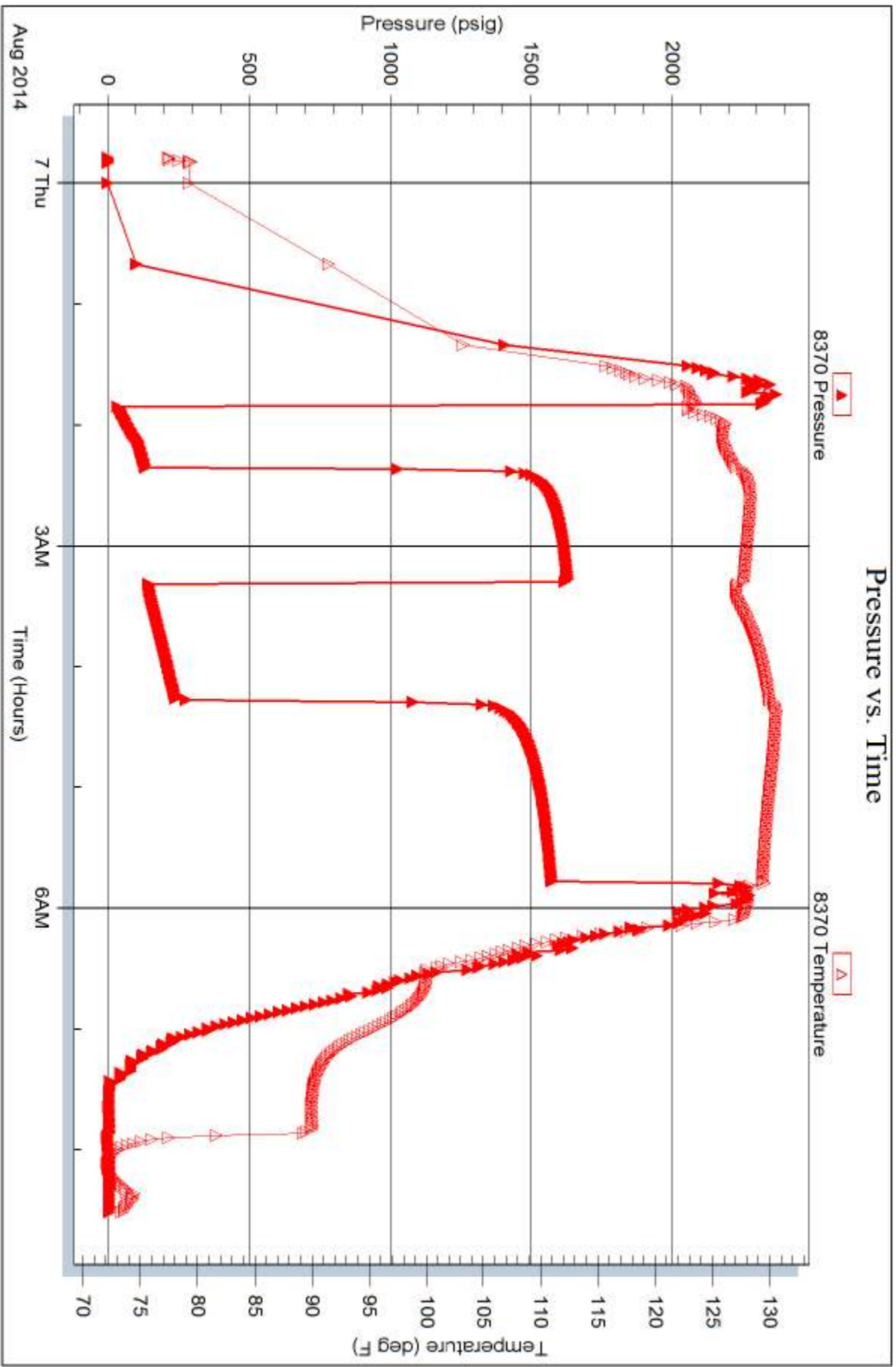
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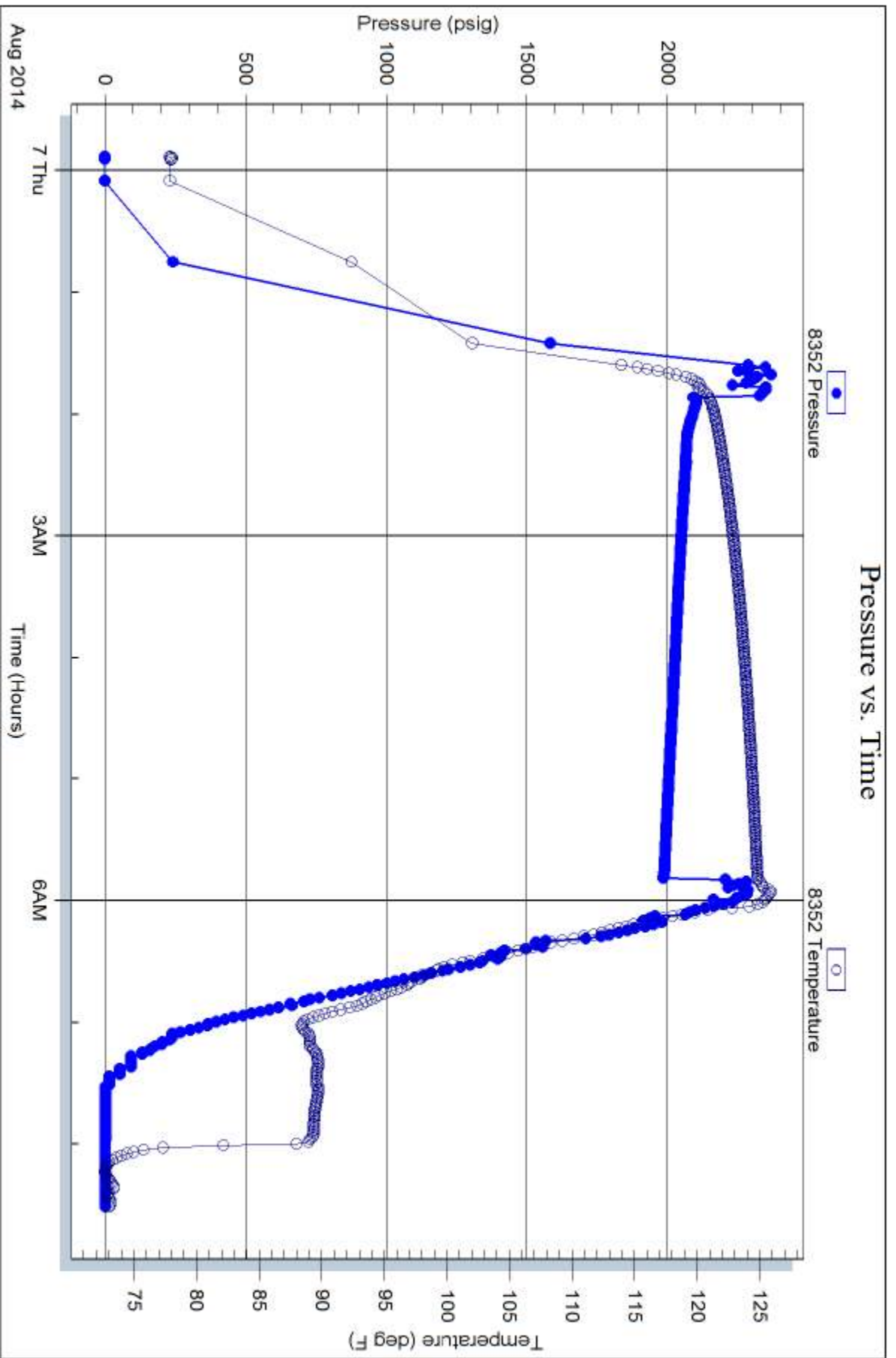
Inside

Castelli Exploration Inc.

Gallup Ranch #1-13

DST Test Number: 2







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54240

Well Name & No. GALLUP RANCH #1-13 Test No. 1 Date 8-4-14
 Company CASTELL EXPL. INC. Elevation 1787 KB 1774 GL
 Address 6908 N.W. 112TH, OKLAHOMA CITY, OK. 73162
 Co. Rep / Geo. CASTELL / POPP Rig DUKE DRUG #7
 Location: Sec. 13 Twp. 30^S Rge. 16^W Co. KANON State KS

Interval Tested 4513 - 4560' Zone Tested NIOLA
 Anchor Length 47' Drill Pipe Run 4317' Mud Wt. 9.2
 Top Packer Depth 4508' Drill Collars Run 180' Vis 50
 Bottom Packer Depth 4513' Wt. Pipe Run 0 WL 9.2cc
 Total Depth 4560' Chlorides 5000 ppm System LCM 3#
 Blow Description FF: Weak below. 1/2 - 1" - ISI: No below.

FF: Weak below. 1/2 - 3". ISI: No below.

Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>Gas in pipe</u>				
<u>40</u>	<u>SOCM</u>		<u>2</u>		<u>98</u>

Rec Total 40 Fluid BHT 119° Gravity N/A API RW ~ @ ~° F Chlorides 5000 ppm

(A) Initial Hydrostatic <u>2223</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1821</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1901</u>
(C) First Final Flow <u>25</u>	<input type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1854</u>
(D) Initial Shut-In <u>96</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2345</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0700 *</u>
(F) Second Final Flow <u>31</u>	<input checked="" type="checkbox"/> Mileage <u>74</u> <u>114.70</u>	Comments
(G) Final Shut-In <u>226</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2181</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
Initial Open <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Initial Shut-In <u>45</u>	<input checked="" type="checkbox"/> Day Standby <u>1.7 *</u>	Total <u>1689.70</u>
Final Flow <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
Final Shut-In <u>60</u>	Sub Total <u>1689.70</u>	

Approved By _____ Our Representative Coy Potters

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.



RILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54241

& No. GALLUP RANCH #1-13 Test No. 2 Date 8-6-14
CASTELL'S EXPL. INC. Elevation 1787 KB 1774 GL
6908 N.W. 112TH, OKLAHOMA CITY, OK. 73162
 Geo. CASTELL / PAPP Rig DUKE DRILL #7
 Sec. 13 Twp. 30S Rge. 16W Co. KTOWA State KS.

Zone Tested VIOLA
 Depth 4670 - 4700' Drill Pipe Run 4475' Mud Wt. 9.2
30' Drill Collars Run 180' Vis 57
4665 & 4670' Wt. Pipe Run 0 WL 9.2 cc
4700' Chlorides 5,000 ppm System LCM 2 #
 LTD 4903'
 Note: IF: Work to fair blow. Increase to 6 1/2".
No blow.
Work to fair blow. Increase to 10". FSI: No blow.

Feet of	%gas	%oil	%water	%mud
<u>70</u>		<u>83</u>	<u>17</u>	
<u>365</u>				

435' BHT 129° Gravity N/A API RW .08 @ 81° F Chlorides 84,000 ppm
 Hydrostatic 2329 Test 1250 T-On Location 2311
 Initial Flow 50 Jars 250 T-Started 2336
 Final Flow 118 Safety Joint 75 T-Open 0148
 Shut-In 1625 Circ Sub _____ T-Pulled 0548
 Initial Flow 153 Hourly Standby _____ T-Out 0829
 Final Flow 234 Mileage (74) X2 229.40 Comments _____
 Shut-In 1566 Sampler _____ Loaded tools????
 Hydrostatic 2242 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 716.67
 Day Standby 1d 21.25h Total 3121.07
 Accessibility _____ MP/DST Disc't _____
 Sub Total 2404.40

Our Representative Cory Pevotary
 I hereby certify that the above information is true and correct to the best of my knowledge and belief.
 RILOBITE 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 tools 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.