



## DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration, LLC**

204 W Mill St  
Plainville, KS 67663

ATTN: Chris Bean

**LN #23-2**

**23-15s-23w Trego,KS**

Start Date: 2014.12.15 @ 08:12:46

End Date: 2014.12.15 @ 16:59:16

Job Ticket #: 58422                      DST #: 1

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

Printed: 2014.12.19 @ 11:03:05



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC

**23-15s-23w Trego,KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58422

**DST#: 1**

ATTN: Chris Bean

Test Start: 2014.12.15 @ 08:12:46

## GENERAL INFORMATION:

Formation: **KC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:06:46  
 Time Test Ended: 16:59:16  
 Interval: **3774.00 ft (KB) To 3800.00 ft (KB) (TVD)**  
 Total Depth: 3800.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brannan Lonsdale  
 Unit No: 62  
 Reference Elevations: 2335.00 ft (KB)  
 2331.00 ft (CF)  
 KB to GR/CF: 4.00 ft

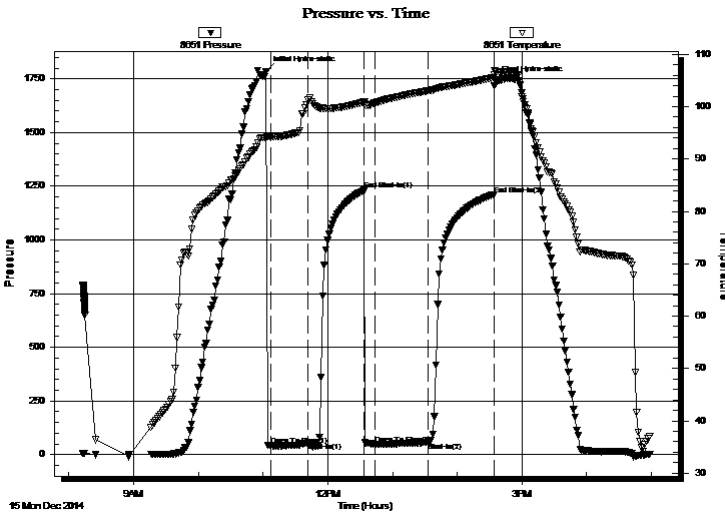
## Serial #: 8651

Inside

Press@RunDepth: 56.60 psig @ 3775.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.12.15 End Date: 2014.12.15 Last Calib.: 2014.12.15  
 Start Time: 08:12:47 End Time: 16:59:16 Time On Btm: 2014.12.15 @ 11:03:16  
 Time Off Btm: 2014.12.15 @ 14:34:46

TEST COMMENT: 45- IF- Slow ly built to 2"  
 45- IS- No blow  
 60- FF- Slow ly built to 1"  
 60- FS- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1787.15	94.37	Initial Hydro-static
4	42.25	94.27	Open To Flow (1)
39	55.43	101.37	Shut-In(1)
91	1231.66	100.92	End Shut-In(1)
101	49.39	100.71	Open To Flow (2)
150	56.60	103.04	Shut-In(2)
211	1211.76	105.54	End Shut-In(2)
212	1743.94	106.92	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	MW, 30%M 70%W	0.14

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

StrataKan Exploration, LLC

**23-15s-23w Trego, KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58422

**DST#: 1**

ATTN: Chris Bean

Test Start: 2014.12.15 @ 08:12:46

## Tool Information

Drill Pipe:	Length: 3771.00 ft	Diameter: 3.75 inches	Volume: 51.51 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 37000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3774.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 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			3748.00	
Shut In Tool	5.00			3753.00	
Hydraulic tool	5.00			3758.00	
Jars	5.00			3763.00	
Safety Joint	2.00			3765.00	
Packer	5.00			3770.00	27.00 Bottom Of Top Packer
Packer	4.00			3774.00	
Stubb	1.00			3775.00	
Recorder	0.00	8651	Inside	3775.00	
Recorder	0.00	8655	Outside	3775.00	
Perforations	22.00			3797.00	
Bullnose	3.00			3800.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

StrataKan Exploration, LLC

**23-15s-23w Trego, KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58422

**DST#: 1**

ATTN: Chris Bean

Test Start: 2014.12.15 @ 08:12:46

## 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:

46000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	MW, 30%M 70%W	0.137

Total Length: 10.00 ft      Total Volume: 0.137 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

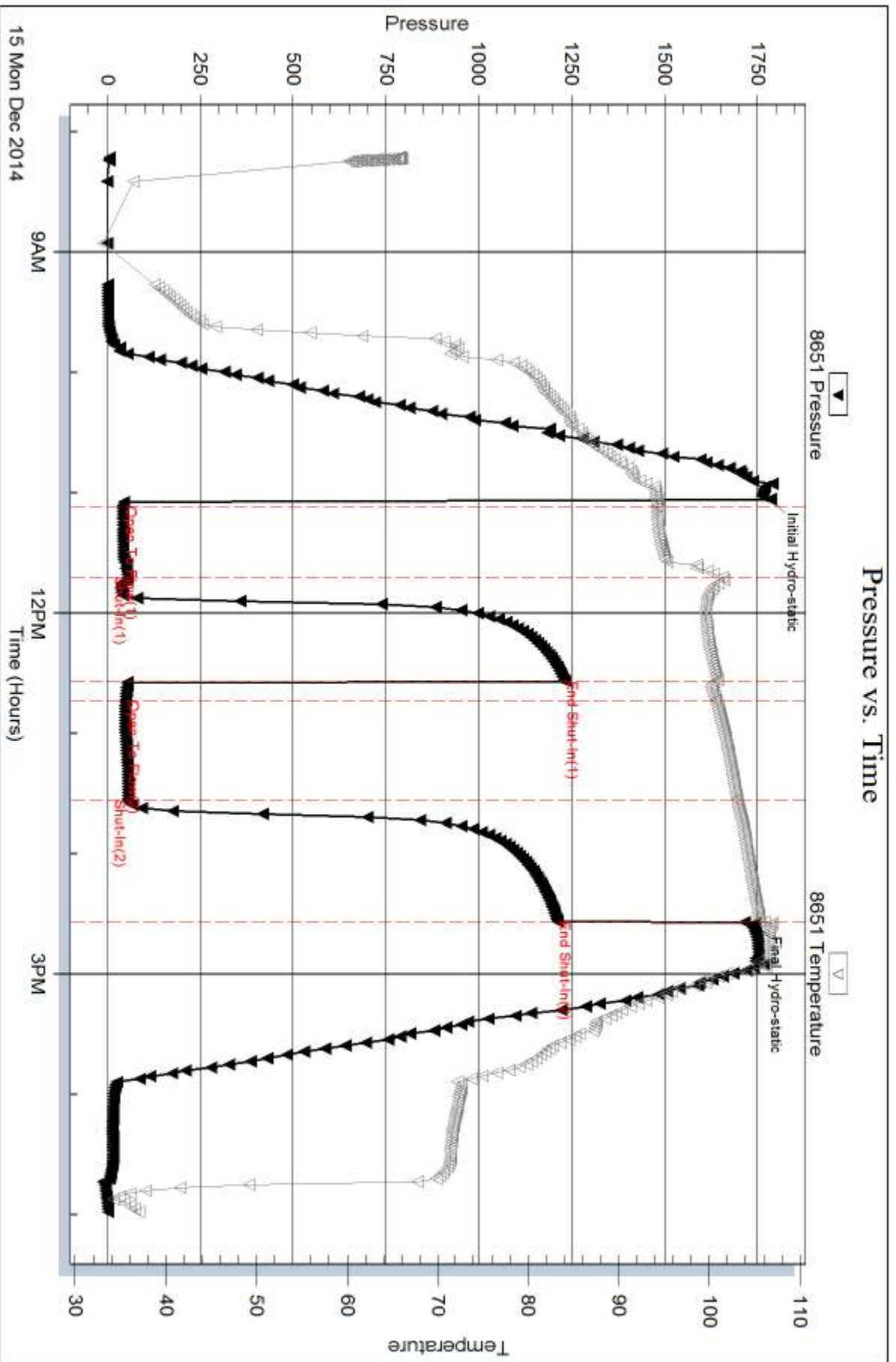
Serial #: 8651

Inside

StrataKan Exploration, LLC

LN#23-2

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **StrataKan Exploration, LLC**

204 W Mill St  
Plainville, KS 67663

ATTN: Chris Bean

**LN #23-2**

**23-15s-23w Trego,KS**

Start Date: 2014.12.17 @ 04:32:30

End Date: 2014.12.17 @ 13:07:30

Job Ticket #: 58423                      DST #: 2

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

Printed: 2014.12.19 @ 11:02:39



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC

**23-15s-23w Trego, KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58423

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.12.17 @ 04:32:30

## GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:11:30

Time Test Ended: 13:07:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 62

**Interval: 4219.00 ft (KB) To 4302.00 ft (KB) (TVD)**

Reference Elevations: 2335.00 ft (KB)

Total Depth: 4302.00 ft (KB) (TVD)

2331.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

**Serial #: 8655 Outside**

Press@RunDepth: 95.45 psig @ 4220.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.12.17

End Date:

2014.12.17

Last Calib.:

2014.12.17

Start Time: 04:32:31

End Time:

13:07:30

Time On Btm:

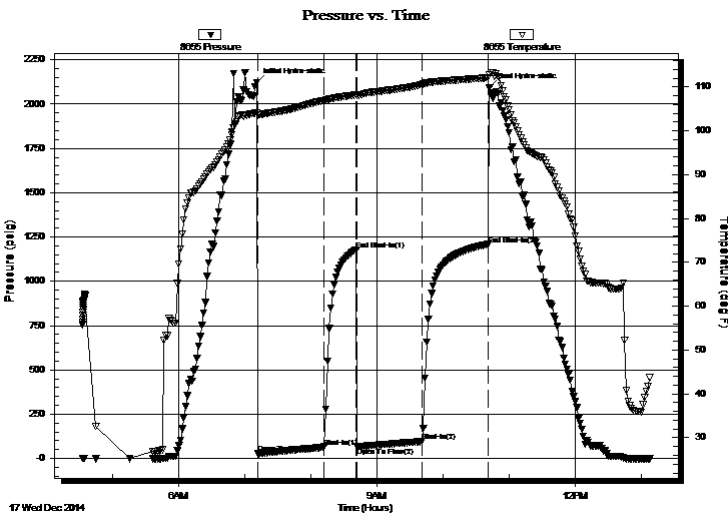
2014.12.17 @ 07:10:30

Time Off Btm:

2014.12.17 @ 10:42:00

**TEST COMMENT:** 60- IF- Slow ly built to 7"  
30- IS- No blow  
60- FF- Slow ly built to 3"  
60- FS- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2121.41	104.04	Initial Hydro-static
1	26.58	103.59	Open To Flow (1)
61	63.04	106.90	Shut-In(1)
91	1177.16	108.20	End Shut-In(1)
92	65.49	108.06	Open To Flow (2)
151	95.45	110.57	Shut-In(2)
210	1208.00	112.12	End Shut-In(2)
212	2093.01	112.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	SWSOCM, 1%W 9%O 90%M	1.91
10.00	CO	0.14

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

StrataKan Exploration, LLC

**23-15s-23w Trego, KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58423

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.12.17 @ 04:32:30

## GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:11:30

Time Test Ended: 13:07:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 62

**Interval: 4219.00 ft (KB) To 4302.00 ft (KB) (TVD)**

Reference Elevations: 2335.00 ft (KB)

Total Depth: 4302.00 ft (KB) (TVD)

2331.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

**Serial #: 8651 Inside**

Press@RunDepth: psig @ 4220.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.12.17

End Date:

2014.12.17

Last Calib.:

2014.12.17

Start Time: 04:32:24

End Time:

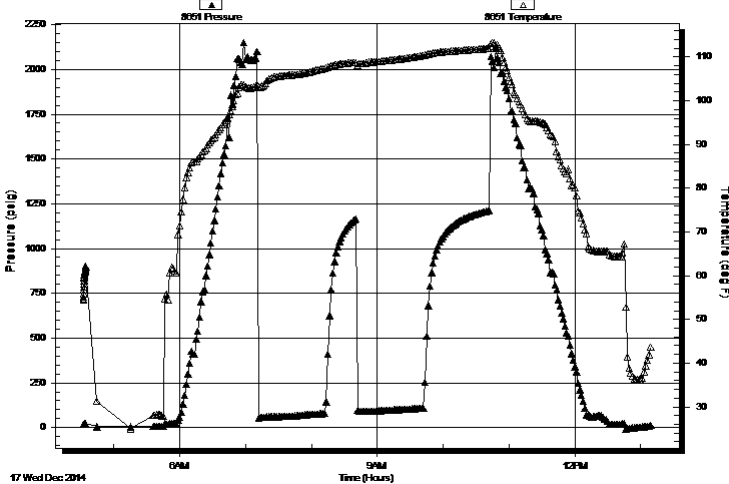
13:08:53

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 60- IF- Slow ly built to 7"  
30- IS- No blow  
60- FF- Slow ly built to 3"  
60- FS- No blow

Pressure vs. Time



## PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
140.00	SWSOCM, 1%W 9%O 90%M	1.91
10.00	CO	0.14

## 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**

StrataKan Exploration, LLC

**23-15s-23w Trego, KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58423

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.12.17 @ 04:32:30

## Tool Information

Drill Pipe:	Length: 4209.00 ft	Diameter: 3.75 inches	Volume: 57.50 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	4219.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	110.00 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			4193.00	
Shut In Tool	5.00			4198.00	
Hydraulic tool	5.00			4203.00	
Jars	5.00			4208.00	
Safety Joint	2.00			4210.00	
Packer	5.00			4215.00	27.00 Bottom Of Top Packer
Packer	4.00			4219.00	
Stubb	1.00			4220.00	
Recorder	0.00	8651	Inside	4220.00	
Recorder	0.00	8655	Outside	4220.00	
Perforations	17.00			4237.00	
Change Over Sub	1.00			4238.00	
Drill Pipe	60.00			4298.00	
Change Over Sub	1.00			4299.00	
Bullnose	3.00			4302.00	83.00 Bottom Packers & Anchor

**Total Tool Length: 110.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

StrataKan Exploration, LLC

**23-15s-23w Trego,KS**

204 W Mill St  
Plainville, KS 67663

**LN #23-2**

Job Ticket: 58423

**DST#: 2**

ATTN: Chris Bean

Test Start: 2014.12.17 @ 04:32:30

### 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: 47.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 10000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
140.00	SWSOCM, 1%W 9%O 90%M	1.912
10.00	CO	0.137

Total Length: 150.00 ft      Total Volume: 2.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

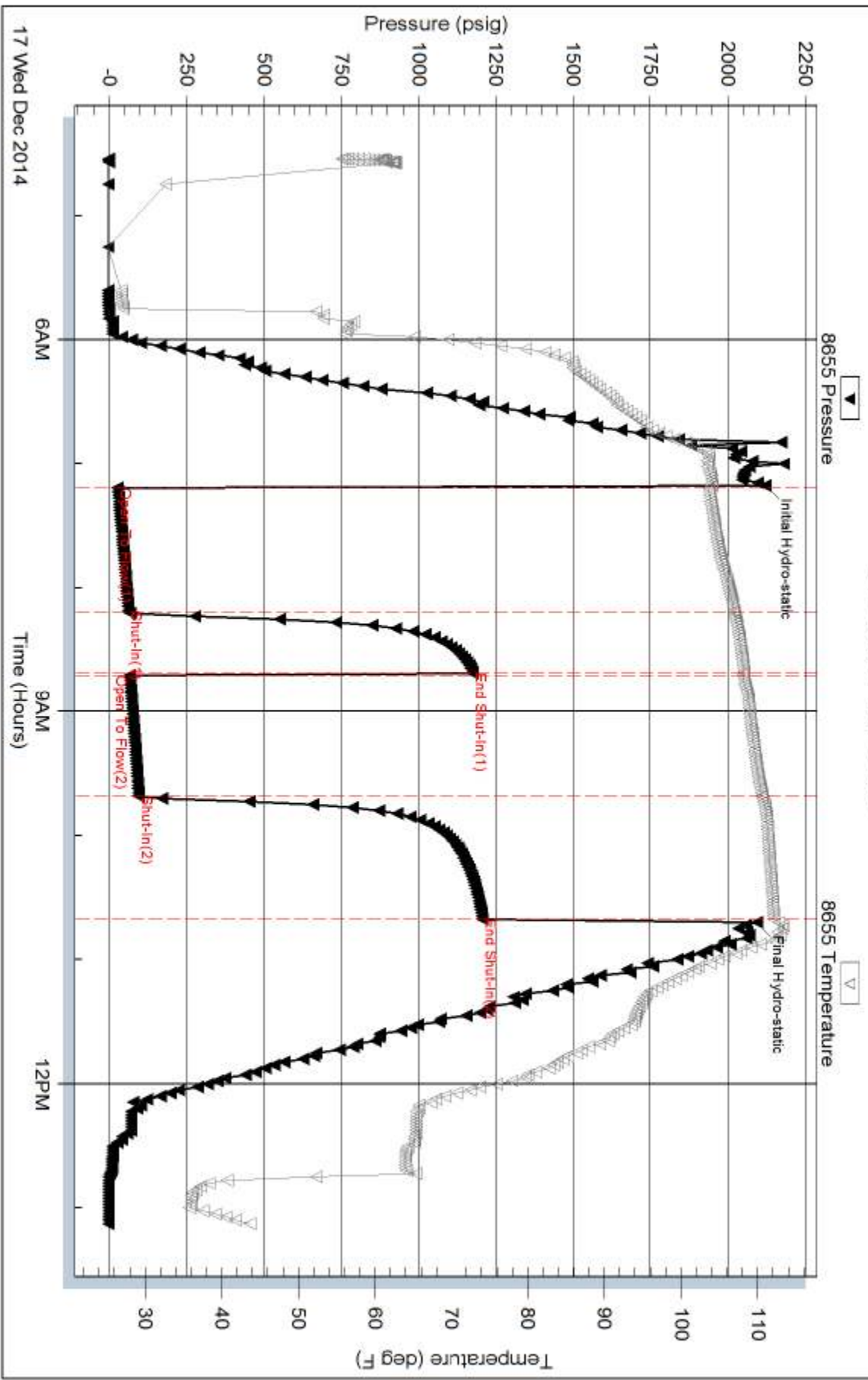
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



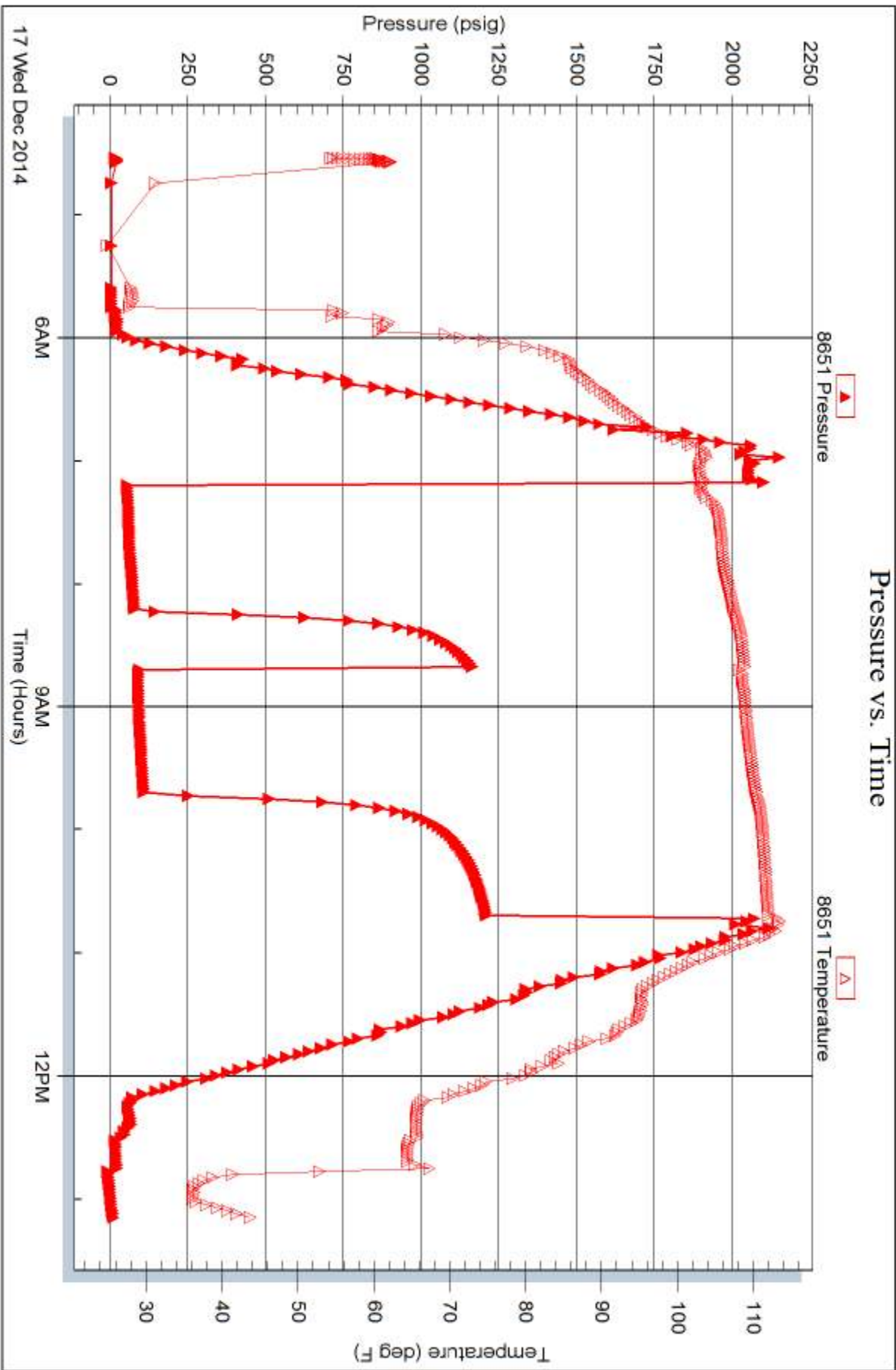
Serial #: 8651

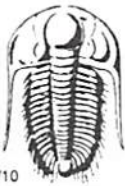
Inside

StrataKan Exploration, LLC

LN#23-2

DST Test Number: 2





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58422

Well Name & No. LN #23-2 Test No. 1 Date 12/15/14  
 Company StrataKan Exploration, LLC Elevation 2335 KB 2331 GL  
 Address 204 W Mill St. Plainville, KS 67663  
 Co. Rep / Geo. Chris Bean Rig White Knight  
 Location: Sec. 23 Twp. 15 S Rge. 23 W Co. Trego State KS

Interval Tested 3774-3800 Zone Tested KC-"D"  
 Anchor Length 26' Drill Pipe Run 3771 Mud Wt. 8.7  
 Top Packer Depth 3769 Drill Collars Run — Vis 58  
 Bottom Packer Depth 3774 Wt. Pipe Run — WL 8.0  
 Total Depth 3800 Chlorides 5,000 ppm System LCM D#  
 Blow Description IF - Slowly built to 2"  
ISF - No blow  
FF - Slowly built to 1"  
FSF - No blow

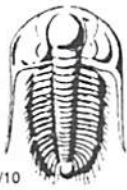
Rec	Feet of	%gas	%oil	%water	%mud
<u>10'</u>	<u>MW</u>			<u>70</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10' BHT 106° Gravity — API RW 30 @ 35° F Chlorides 46,000 ppm

(A) Initial Hydrostatic <u>1787</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0758</u>
(B) First Initial Flow <u>42</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0813</u>
(C) First Final Flow <u>55</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1104</u>
(D) Initial Shut-In <u>1232</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1434</u>
(E) Second Initial Flow <u>49</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1700</u>
(F) Second Final Flow <u>57</u>	<input checked="" type="checkbox"/> Mileage <u>128 RT</u> 198.40	Comments
(G) Final Shut-In <u>1212</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1744</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>45</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1923.40</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1923.40</u>	

Approved By \_\_\_\_\_ Our Representative Brannan Lonsdale

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. **58423**

Well Name & No. LN #23-2 Test No. 2 Date 12/17/14  
 Company Stratikan Exploration, LLC Elevation 2335 KB 2331 GL  
 Address 204 W Moll St. Plainville, KS 67663  
 Co. Rep / Geo. Chris Bean Rig White Knight  
 Location: Sec. 23 Twp. 15 S Rge. 23 W Co. Trego State KS

Interval Tested 4219 - 4302 Zone Tested Cherokee Sand  
 Anchor Length 83' Drill Pipe Run 4209 Mud Wt. 9.3  
 Top Packer Depth 4214 Drill Collars Run --- Vis 47  
 Bottom Packer Depth 4219 Wt. Pipe Run --- WL 9.2  
 Total Depth 4302 Chlorides 10000 ppm System LCM 2#  
 Blow Description IF - Slowly built to 7"  
ISF - No Blow  
FF - Slowly built to 3"  
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>SW50CM</u>		<u>9</u>	<u>1</u>	<u>90</u>
<u>10</u>	<u>CO</u>				

Rec Total 150' BHT 112° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2121</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0715</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0432</u>
(C) First Final Flow <u>63</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0711</u>
(D) Initial Shut-In <u>1177</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1041</u>
(E) Second Initial Flow <u>65</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1309</u>
(F) Second Final Flow <u>95</u>	<input checked="" type="checkbox"/> Mileage <u>128 RT x2</u>	Comments <u>Loaded tools</u>
(G) Final Shut-In <u>1208</u>	<input type="checkbox"/> Sampler <u>396.80</u>	<u>12/18 @ 0830</u>
(H) Final Hydrostatic <u>2093</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer _____
Initial Open <u><del>60</del></u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u><del>30</del></u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>375</u>
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1d 11.25h</u>	Total <u>2596.80</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>2221.80</u>	

Approved By \_\_\_\_\_ Our Representative Brannan Lonsdale

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.