



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1194762  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1194762

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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FIELD ORDER N<sup>o</sup> C 40427

BOX 438 • HAYSVILLE, KANSAS 67060  
316-524-1225

DATE 7-4-14 2014

IS AUTHORIZED BY: Come Business (NAME OF CUSTOMER)

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

To Treat Well \_\_\_\_\_  
As Follows: Lease Month Well No. 1 Customer Order No. \_\_\_\_\_

Sec. Twp. \_\_\_\_\_  
Range \_\_\_\_\_ County Edwards State KS

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid Service is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED

Well Owner or Operator

By

Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
2	30	Miscellaneous Pump Tools	400 <sup>00</sup>	1200 <sup>00</sup>
2	30	Miscellaneous Pumping	20 <sup>00</sup>	600 <sup>00</sup>
2	1	Pump Casing - Pull Rods		1100 <sup>00</sup>
2	140	60/110 2" 69-11	92 <sup>00</sup>	12880 <sup>00</sup>
2	4	2 1/2" acid pipe	220 <sup>00</sup>	8800 <sup>00</sup>
2	50	50# COFFER	20 <sup>00</sup>	1000 <sup>00</sup>
2	195	Bulk Charge	125	24375
2		Bulk Truck Miles 8.28 x 30 = 248.4	20	4968
		Process License Fee on _____ Gallons		
<b>TOTAL BILLING</b>				<b>38022</b>

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below.

Copeland Representative [Signature]

Station [Signature]

[Signature]  
Well Owner, Operator or Agent

Remarks \_\_\_\_\_

**NET 30 DAYS**

**TREATMENT REPORT**

Acid Stage No. \_\_\_\_\_

Date: 4/2014 District: \_\_\_\_\_ F.O. No. 40427  
 Company: CASTLE RESOURCES  
 Well Name & No. MAHL #1  
 Location: \_\_\_\_\_ Field: \_\_\_\_\_  
 County: ELLSWORTH State: KS  
 Casing: Size \_\_\_\_\_ Type & Wt. \_\_\_\_\_ Set at \_\_\_\_\_ ft.  
 Formation: \_\_\_\_\_ Perf. \_\_\_\_\_ to \_\_\_\_\_  
 Formation: \_\_\_\_\_ Perf. \_\_\_\_\_ to \_\_\_\_\_  
 Formation: \_\_\_\_\_ Perf. \_\_\_\_\_ to \_\_\_\_\_  
 Liner: Size \_\_\_\_\_ Type & Wt. \_\_\_\_\_ Top at \_\_\_\_\_ ft. Bottom at \_\_\_\_\_ ft.  
 Cemented: \_\_\_\_\_ Perforated from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
 Tubing: Size & Wt. \_\_\_\_\_ Swung at \_\_\_\_\_ ft.  
 Perforated from \_\_\_\_\_ ft. to \_\_\_\_\_ ft.  
 Open Hole Size \_\_\_\_\_ T.D. \_\_\_\_\_ ft. P.B. to \_\_\_\_\_ ft.

Type Treatment: \_\_\_\_\_ Amt. \_\_\_\_\_ Type Fluid \_\_\_\_\_ Sand Size \_\_\_\_\_ Pounds of Sand \_\_\_\_\_  
 Bkdown \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 Flush \_\_\_\_\_ Bbl./Gal. \_\_\_\_\_  
 Treated from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. No. ft. 0  
 from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. No. ft. 0  
 from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. No. ft. 0  
 Actual Volume of Oil / Water to Load Hole: \_\_\_\_\_ Bbl./Gal.  
 Pump Trucks: No. Used: Std. 318 Sp. \_\_\_\_\_ Twin \_\_\_\_\_  
 Auxiliary Equipment \_\_\_\_\_ 317-308  
 Personnel BRANDON SCOTT AND JORDAN  
 Auxiliary Tools \_\_\_\_\_  
 Plugging or Sealing Materials: Type \_\_\_\_\_ Gals. \_\_\_\_\_ lb.

Company Representative: WHITE KNIGHT DRILLING Treater: BRANDON

TIME m./p.m.	PRESSURES		Total Fluid Pumped	REMARKS
	Tubing	Casing		
:30				ON LOCATION
				PUMP 35 SKS 60/40 4% 1/4# PER SK FLO SEAL AT 3350' AND DISPLACE WITH KELLY
				PUMP 35 SKS 60/40 4% 1/4# PER SK FLO SEAL AT 1250'
				PUMP 35 SKS 60/40 4% 1/4# PER SK FLO SEAL AT 950'
				PUMP 35 SKS 60/40 4% 1/4# PER SK FLO SEAL AT 350'
				PUMP 25 SKS 60/40 4% 1/4# PER SK FLO SEAL AT 60'
				PLUG RAT HOLE W/ 25 SKS 60/40
				THANKS BRANDON



FIELD ORDER N° C 49427

BOX 438 • HAYSVILLE, KANSAS 67060  
316-524-1225

DATE 7-4-14 20

IS AUTHORIZED BY: Craig Anderson (NAME OF CUSTOMER)

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

To Treat Well As Follows: Lease Main Well No. 1 Customer Order No. \_\_\_\_\_

Sec. Twp. Range \_\_\_\_\_ County Ellis State KS

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid Service is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED \_\_\_\_\_ By \_\_\_\_\_ Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
2	30	Miscellaneous Pump Parts	400 <sup>00</sup>	120 <sup>00</sup>
2	30	Miscellaneous Pump Parts	200 <sup>00</sup>	60 <sup>00</sup>
2	1	Pump Casing - Pump Assembly		1100 <sup>00</sup>
2	190	60/40 2 1/2" Drill	925 <sup>00</sup>	17575 <sup>00</sup>
2	4	2 1/2" Acid Gall	2200 <sup>00</sup>	8800 <sup>00</sup>
2	100	50/50 Flare	100 <sup>00</sup>	10000 <sup>00</sup>
2	195	Bulk Charge	125 <sup>00</sup>	24375 <sup>00</sup>
2		Bulk Truck Miles	125 <sup>00</sup>	24375 <sup>00</sup>
		Process License Fee on _____ Gallons		
		<b>TOTAL BILLING</b>		<b>38022<sup>00</sup></b>

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below.

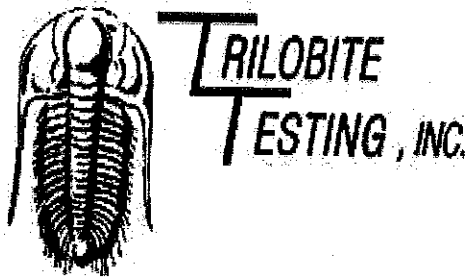
Copeland Representative [Signature]

Station 58

[Signature]  
Well Owner, Operator or Agent

Remarks \_\_\_\_\_

**NET 30 DAYS**



## DRILL STEM TEST REPORT

Prepared For: **Castle Resources Inc**

PO Box 86  
Schoenchen KS 67667

ATTN: Jerry Green

**Mehl #1**

**18-17s-9w-Ellsworth KS**

Start Date: 2014.03.04 @ 01:23:14

End Date: 2014.03.04 @ 09:10:23

Job Ticket #: 56119                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Castle Resources Inc

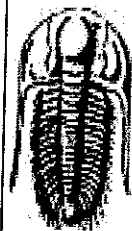
18-17s-9w-Ellsworth KS

Mehl #1

DST # 1

Arbuckle

2014.03.04



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Castle Resources Inc

18-17s-9w-Ellsworth KS

PO Box 86  
Schoenchen KS 67667

Mehl #1

Job Ticket: 56119 DST#: 1

ATTN: Jerry Green

Test Start: 2014.03.04 @ 01:23:14

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:41:34  
 Time Test Ended: 09:10:23

Test Type: Conventional Straddle (Initial)  
 Tester: Tate Lang  
 Unit No: 44

Interval: **3253.00 ft (KB) To 3264.00 ft (KB) (TVD)**  
 Total Depth: 3344.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

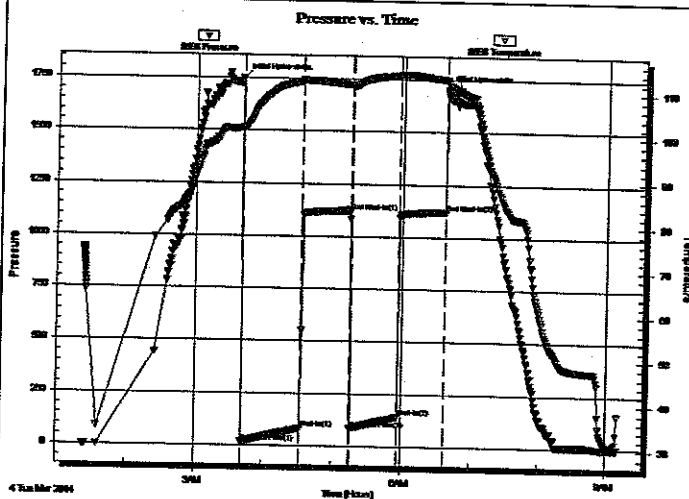
Reference Elevations: 1801.00 ft (KB)  
 1796.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8898** Outside

Press@RunDepth: 142.67 psig @ 3254.00 ft (KB)  
 Start Date: 2014.03.04 End Date: 2014.03.04  
 Start Time: 01:23:15 End Time: 09:10:24

Capacity: 8000.00 psig  
 Last Calib.: 2014.03.04  
 Time On Btrm: 2014.03.04 @ 03:41:14  
 Time Off Btrm: 2014.03.04 @ 06:38:14

TEST COMMENT: B.O.B. In 35 mins  
 Dead no blow back  
 Weak surface blow built to 2 1/2 in (Head came unscrewed a little)  
 Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1748.83	101.89	Initial Hydro-static
1	15.66	101.30	Open To Flow (1)
52	81.60	112.40	Shut-In(1)
94	1121.64	111.66	End Shut-In(1)
94	83.95	111.23	Open To Flow (2)
136	142.67	113.92	Shut-In(2)
177	1120.19	112.99	End Shut-In(2)
177	1702.38	112.66	Final Hydro-static

## Recovery

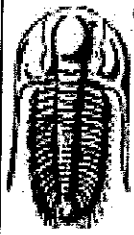
Length (ft)	Description	Volume (bbl)
1.00	100%O	0.01
30.00	30%W 70%M	0.42
240.00	2%M 98%W	3.37
0.00	30 GIP	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Castle Resources Inc

18-17s-9w-Ellsworth KS

PO Box 86  
Schoenchen KS 67667

Mehl #1

Job Ticket: 56119

DST#: 1

ATTN: Jerry Green

Test Start: 2014.03.04 @ 01:23:14

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:41:34

Time Test Ended: 09:10:23

Test Type: Conventional Straddle (Initial)

Tester: Tate Lang

Unit No: 44

Interval: **3253.00 ft (KB) To 3264.00 ft (KB) (TVD)**

Total Depth: 3344.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1801.00 ft (KB)

1796.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8354** Below (Straddle)

Press@RunDepth: psig @ 3280.00 ft (KB)

Start Date: 2014.03.04

End Date:

2014.03.04

Capacity: 8000.00 psig

Last Calib.:

2014.03.04

Start Time: 01:23:36

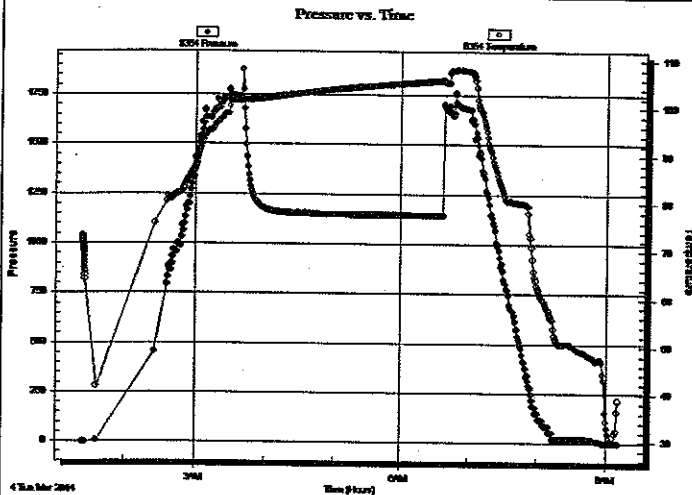
End Time:

09:10:45

Time On Btm:

Time Off Btm:

TEST COMMENT: B.O.B. in 35 mins  
Dead no blow back  
Weak surface blow built to 2 1/2 in (Head came unscrewed a little)  
Dead no blow back



## PRESSURE SUMMARY

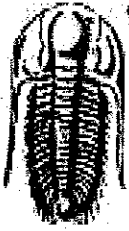
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	100%O	0.01
30.00	30%W 70%M	0.42
240.00	2%M 98%W	3.37
0.00	30 GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources Inc

**18-17s-9w-Ellsworth KS**

PO Box 86  
Schoenchen KS 67667

**Mehl #1**

Job Ticket: 56119

**DST#: 1**

ATTN: Jerry Green

Test Start: 2014.03.04 @ 01:23:14

### Tool Information

Drill Pipe:	Length: 3260.00 ft	Diameter: 3.80 inches	Volume: 45.73 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: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 45.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3253.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	3264.00 ft			
Interval between Packers:	11.00 ft			
Tool Length:	115.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3238.00	
Hydraulic tool	5.00			3243.00	
Packer	5.00			3248.00	20.00 Bottom Of Top Packer
Packer	5.00			3253.00	
Stubb	1.00			3254.00	
Recorder	0.00	8897	Inside	3254.00	
Recorder	0.00	8898	Outside	3254.00	
Perforations	5.00			3259.00	
Blank Off Sub	1.00			3260.00	
Blank spacing	4.00			3264.00	11.00 Tool Interval
Packer	4.00			3268.00	
Stubb	1.00			3269.00	
Perforations	11.00			3280.00	
Recorder	0.00	8354	Below	3280.00	
Change Over Sub	1.00			3281.00	
Blank Spacing	63.00			3344.00	
Change Over Sub	1.00			3345.00	
Bullnose	3.00			3348.00	84.00 Bottom Packers & Anchor

**Total Tool Length: 115.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources Inc

**18-17s-9w-Ellsworth KS**

PO Box 86  
Schoenchen KS 67667

**Mehl #1**

Job Ticket: 56119

**DST#: 1**

ATTN: Jerry Green

Test Start: 2014.03.04 @ 01:23:14

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 42.00 sec/qt

Water Loss: 13.59 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 12000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	100%O	0.014
30.00	30%W 70%M	0.421
240.00	2%M 98%W	3.367
0.00	30 GIP	0.000

Total Length: 271.00 ft      Total Volume: 3.802 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

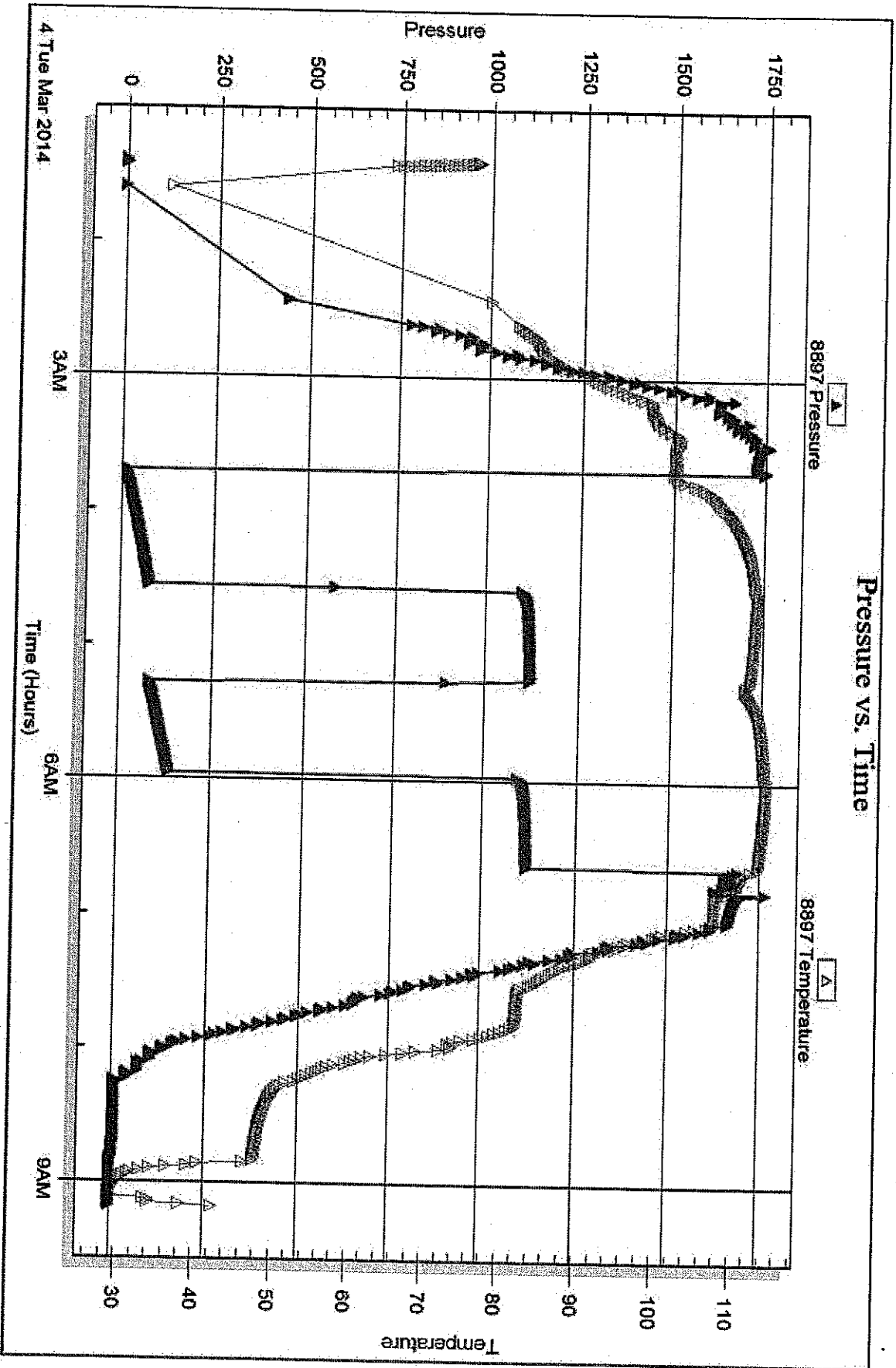
Serial #: 8897

Inside

Castle Resources, Inc

Meht #1

DST Test Number: 1

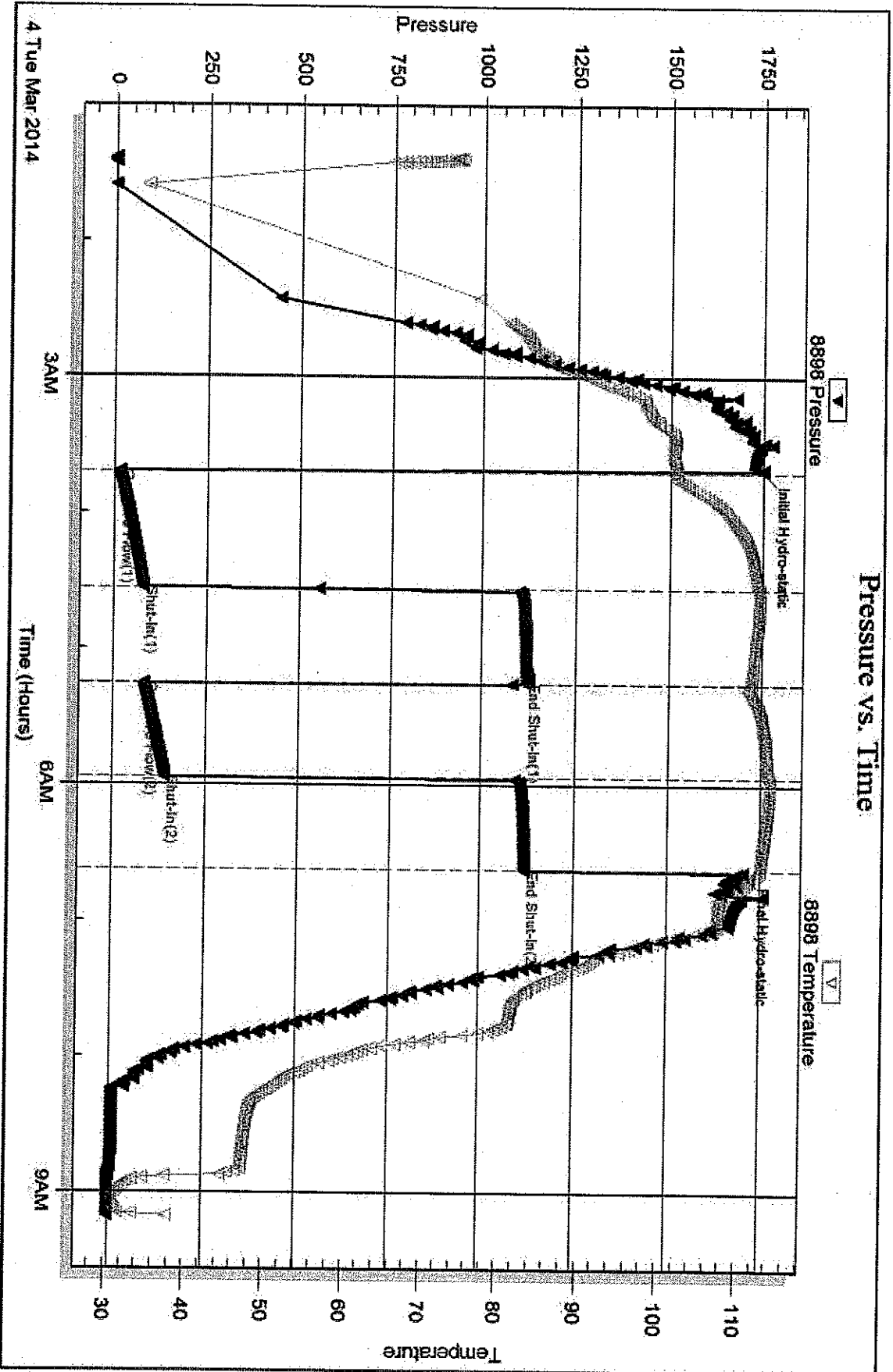


Serial #: 8898

Outside Castle Resources Inc

Meht #1

DST Test Number: 1

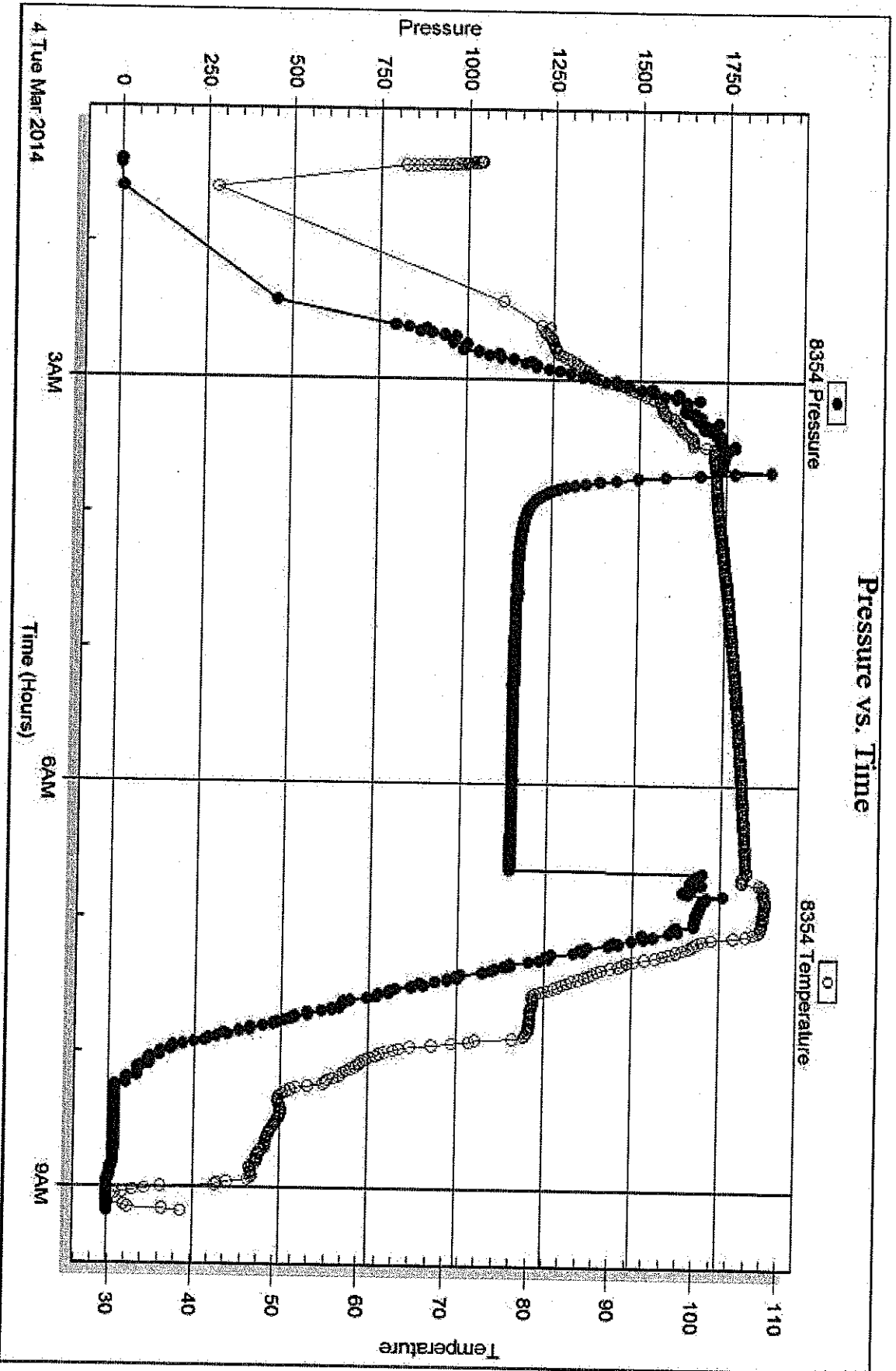


Serial #: 8354

Below (Stratified) Resources Inc

Mesh #1

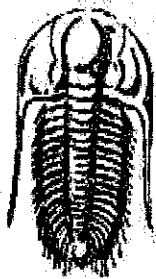
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 56119

Printed: 2014.03.06 @ 13:28:39



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castle Resources Inc**

PO Box 86  
Schoenchen KS 67667

ATTN: Jerry Green

**Mehl #1**

**18-17s-9w-Ellsworth KS**

Start Date: 2014.03.04 @ 10:24:07

End Date: 2014.03.04 @ 17:31:07

Job Ticket #: 56120                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.03.06 @ 13:27:25

Castle Resources Inc

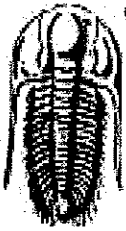
18-17s-9w-Ellsworth KS

Mehl #1

DST # 2

Arbuckle

2014.03.04



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources Inc  
PO Box 86  
Schoenchen KS 67667  
ATTN: Jerry Green

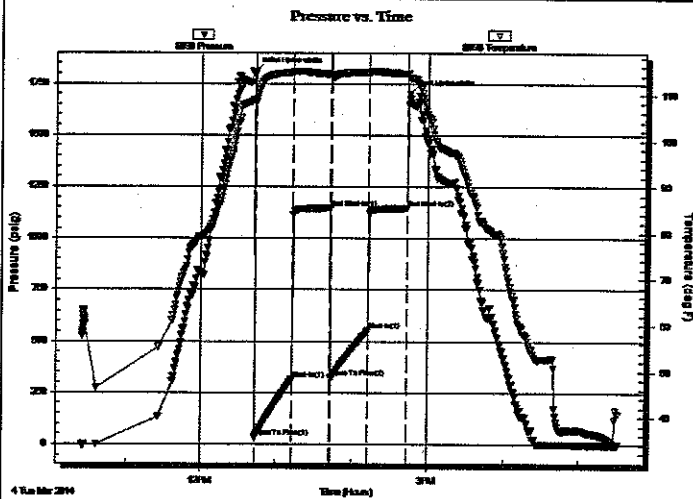
**18-17s-9w-Ellsworth KS**  
**Mehl #1**  
Job Ticket: 56120      **DST#: 2**  
Test Start: 2014.03.04 @ 10:24:07

## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 12:43:17  
Time Test Ended: 17:31:07  
Interval: **3294.00 ft (KB) To 3315.00 ft (KB) (TVD)**  
Total Depth: 3344.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Straddle (Reset)  
Tester: Tate Lang  
Unit No: 44  
Reference Elevations: 1801.00 ft (KB)  
1796.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8898      Outside**  
Press@RunDepth: 554.41 psig @ 3295.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.03.04      End Date: 2014.03.04      Last Calib.: 2014.03.04  
Start Time: 10:24:08      End Time: 17:31:07      Time On Btrn: 2014.03.04 @ 12:42:57  
Time Off Btrn: 2014.03.04 @ 14:44:57

**TEST COMMENT:** B.O.B. In 4 mins  
Dead no blow back  
B.O.B. In 5 mins  
Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1809.88	108.82	Initial Hydro-static
1	31.68	108.39	Open To Flow (1)
30	313.96	114.77	Shut-In(1)
60	1145.50	114.39	End Shut-In(1)
60	322.52	113.87	Open To Flow (2)
90	554.41	114.77	Shut-In(2)
121	1145.22	114.53	End Shut-In(2)
123	1698.81	113.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	50%M 50%W	2.10
1200.00	2%M 98%W	16.83

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Castle Resources Inc  
 PO Box 86  
 Schoenchen KS 67667  
 ATTN: Jerry Green

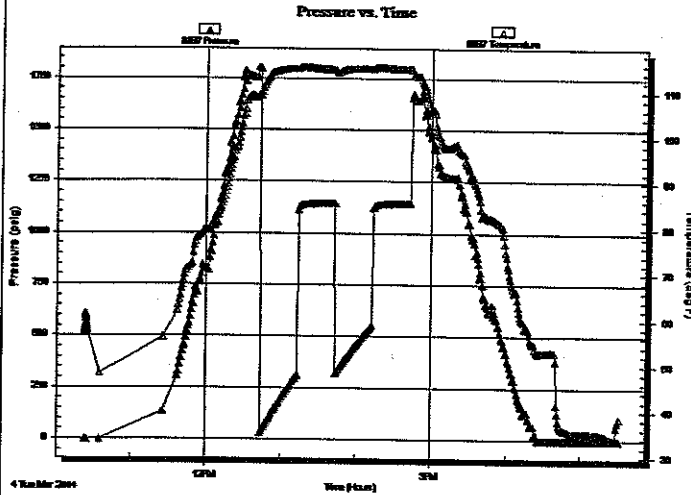
**18-17s-9w-Elsworth KS**  
**Mehl #1**  
 Job Ticket: 56120      DST#: 2  
 Test Start: 2014.03.04 @ 10:24:07

**GENERAL INFORMATION:**

Formation: <b>Arbuckle</b>	Test Type: <b>Conventional Straddle (Reset)</b>
Deviated: <b>No Whipstock: ft (KB)</b>	Tester: <b>Tate Lang</b>
Time Tool Opened: <b>12:43:17</b>	Unit No: <b>44</b>
Time Test Ended: <b>17:31:07</b>	Reference Elevations: <b>1801.00 ft (KB)</b>
Interval: <b>3294.00 ft (KB) To 3315.00 ft (KB) (TVD)</b>	<b>1796.00 ft (CF)</b>
Total Depth: <b>3344.00 ft (KB) (TVD)</b>	KB to GR/CF: <b>5.00 ft</b>
Hole Diameter: <b>7.88 inches</b> Hole Condition: <b>Good</b>	

<b>Serial #: 8897</b> <b>Inside</b>	Capacity: <b>8000.00 psig</b>
Press@RunDepth: <b>psig @ 3295.00 ft (KB)</b>	Last Calib.: <b>2014.03.04</b>
Start Date: <b>2014.03.04</b> End Date: <b>2014.03.04</b>	Time On Btm:      Time Off Btm:
Start Time: <b>10:24:08</b> End Time: <b>17:31:07</b>	

**TEST COMMENT:** B.O.B. in 4 mins  
 Dead no blow back  
 B.O.B. in 5 mins  
 Dead no blow back

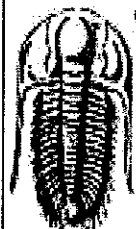


PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Length (ft)	Description	Volume (bbl)
150.00	50%M 50%W	2.10
1200.00	2%M 98%W	16.83

\* Recovery from multiple tests

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



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Castle Resources Inc

18-17s-9w-Ellsworth KS

PO Box 86  
Schoenchen KS 67667

Mehl #1

Job Ticket: 56120

DST#: 2

ATTN: Jerry Green

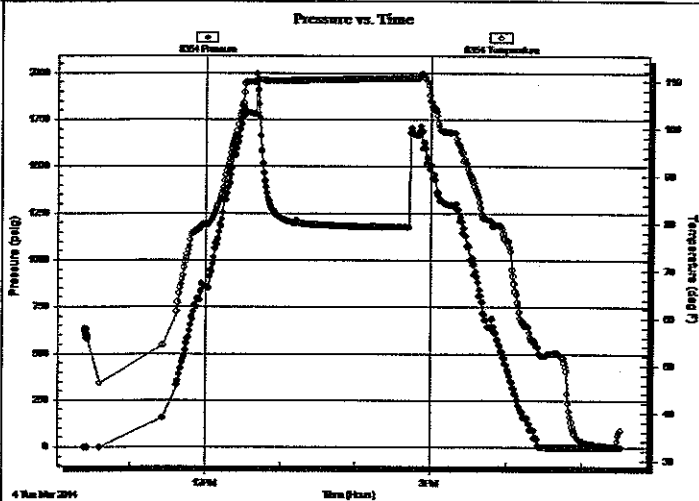
Test Start: 2014.03.04 @ 10:24:07

### GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Straddle (Reset)  
 Time Tool Opened: 12:43:17 Tester: Tate Lang  
 Time Test Ended: 17:31:07 Unit No: 44  
 Interval: 3294.00 ft (KB) To 3315.00 ft (KB) (TVD) Reference Elevations: 1801.00 ft (KB)  
 Total Depth: 3344.00 ft (KB) (TVD) 1796.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8354 Below (Straddle)  
 Press@RunDepth: psig @ 3345.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.03.04 End Date: 2014.03.04 Last Calib.: 2014.03.04  
 Start Time: 10:24:05 End Time: 17:31:04 Time On Btm:  
 Time Off Btm:

TEST COMMENT: B.O.B. In 4 mins  
 Dead no blow back  
 B.O.B. In 5 mins  
 Dead no blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
150.00	50%M 50%W	2.10
1200.00	2%M 98%W	16.83

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources Inc

**18-17s-9w-Ellsworth KS**

PO Box 86  
Schoenchen KS 67667

**Mehl #1**

Job Ticket: 56120

**DST#: 2**

ATTN: Jerry Green

Test Start: 2014.03.04 @ 10:24:07

## Tool Information

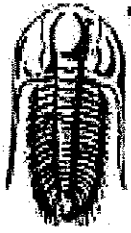
Drill Pipe:	Length: 3295.00 ft	Diameter: 3.80 inches	Volume: 46.22 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 46.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3294.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	3315.00 ft			
Interval between Packers:	21.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3279.00	
Hydraulic tool	5.00			3284.00	
Packer	5.00			3289.00	20.00 Bottom Of Top Packer
Packer	5.00			3294.00	
Stubb	1.00			3295.00	
Recorder	0.00	8897	Inside	3295.00	
Recorder	0.00	8898	Outside	3295.00	
Perforations	15.00			3310.00	
Blank Off Sub	1.00			3311.00	
Blank spacing	4.00			3315.00	21.00 Tool Interval
Packer	4.00			3319.00	
Stubb	1.00			3320.00	
Perforations	25.00			3345.00	
Recorder	0.00	8354	Below	3345.00	
Bullnose	3.00			3348.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 74.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources Inc

18-17s-9w-Ellsworth KS

PO Box 86  
Schoenchen KS 67667

**Mehl #1**

Job Ticket: 56120

**DST#: 2**

ATTN: Jerry Green

Test Start: 2014.03.04 @ 10:24:07

### 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: 42.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 13.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	50%M 50%W	2.104
1200.00	2%M 98%W	16.833

Total Length: 1350.00 ft

Total Volume: 18.937 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

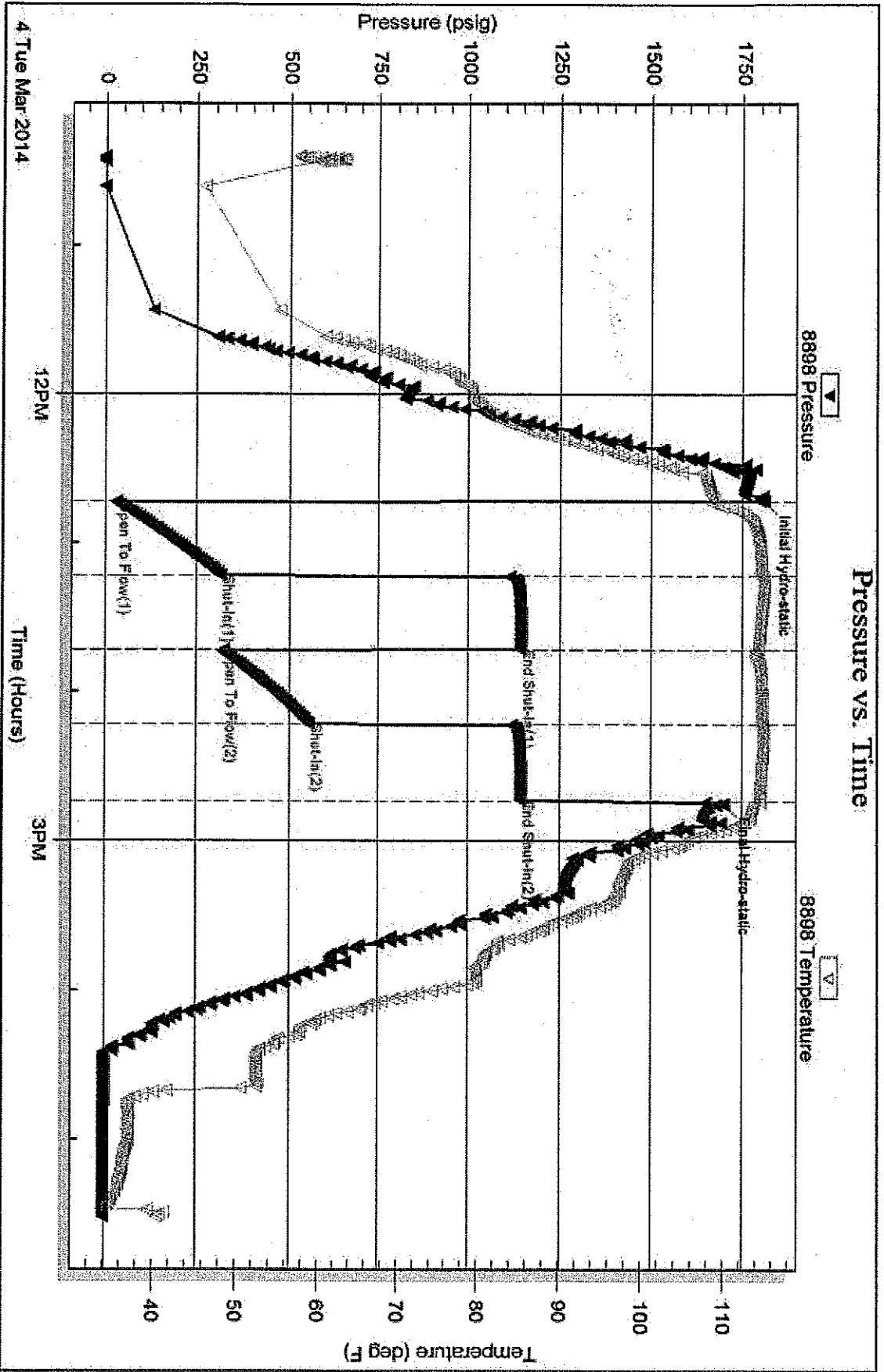
Serial #: 8898

Outside: Castle Resources Inc

Well #1

DST Test Number 2

### Pressure vs. Time



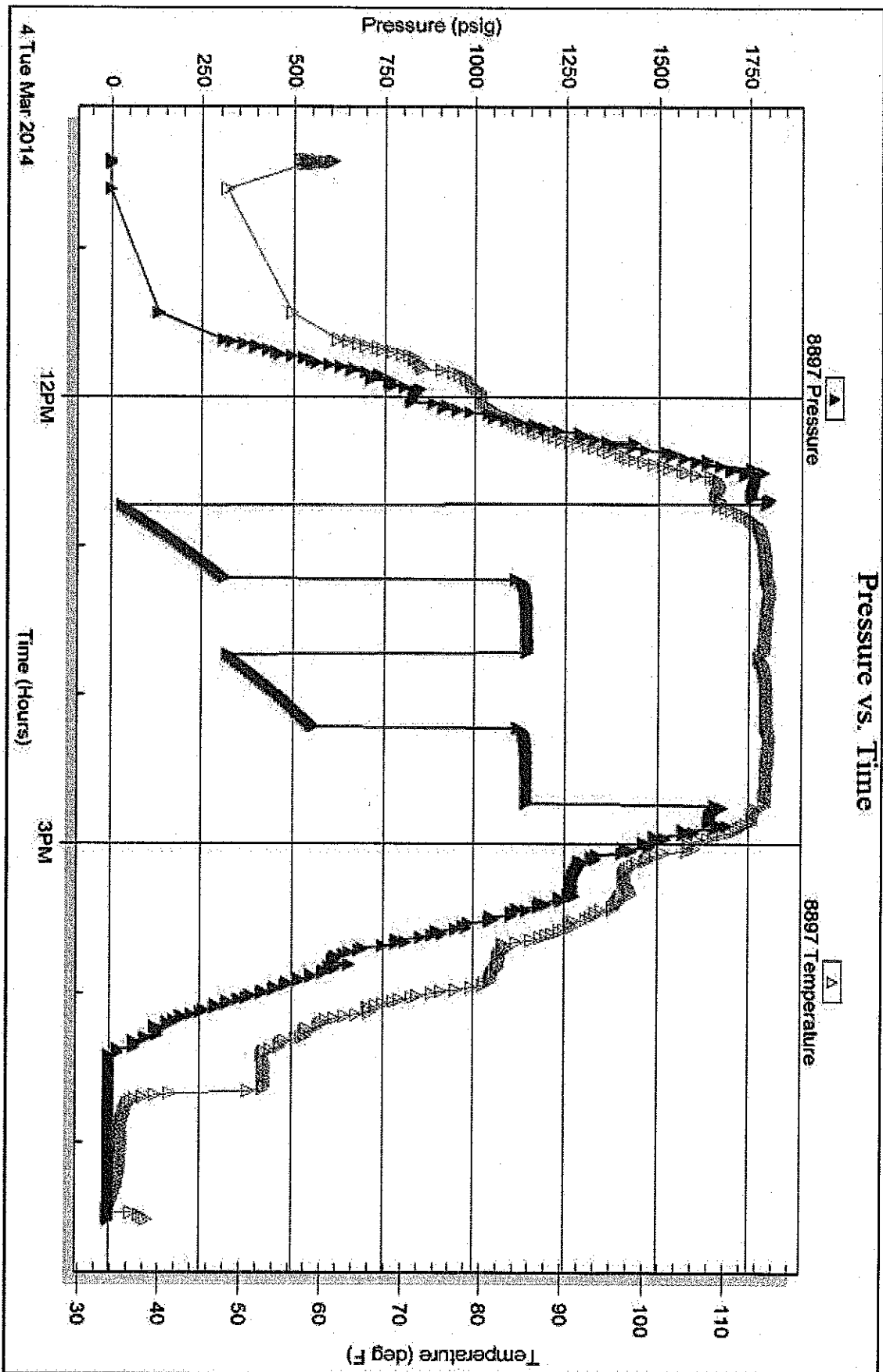
Serial #: 8897

Inside

Castle Resources Inc

Meht #1

DST Test Number: 2



TriMobile Testing, Inc

Ref. No: 56120

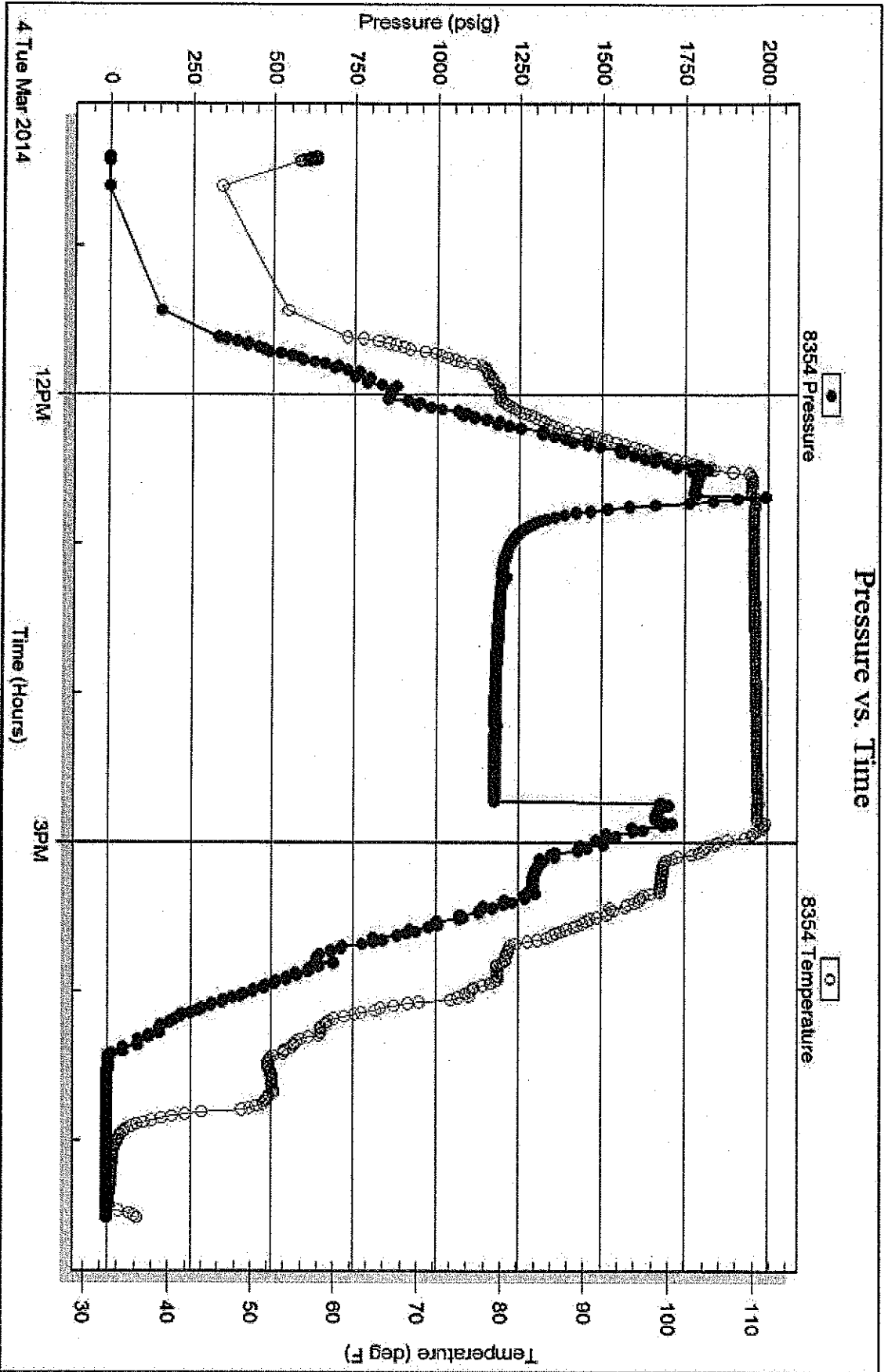
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Serial #: 8354

Below (Straddle) Resources Inc

Well #1

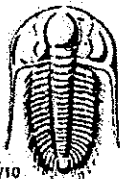
DST Test Number: 2



Tribble Testing, Inc

Ref. No: 56120

Printed: 2014.03.06 @ 13:27:28



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56119

Well Name & No. Mehl #1 Test No. 1 Date 3-4-14  
 Company Castle Resources Elevation 1801 KB 1796 GL  
 Address PO Box 87 Schoenchen KS 67667  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 18 Twp. 17S Rge. 9W Co. Ellsworth State KS

Interval Tested 3253 3264 Zone Tested Arbuckle  
 Anchor Length 11' 80' Tail Drill Pipe Run 3260 Mud Wt. 9.2  
 Top Packer Depth 3249 Drill Collars Run 0 Vis 42  
 Bottom Packer Depth 3253 Wt. Pipe Run 0 WL 13.6  
 Total Depth 3344 Chlorides 12000 ppm System LCM 1 1/2 #

Blow Description B.O.B. IN 35 mins  
Dead no blow back  
Detail surface blow built to 2 1/2 in (Head screwed a little)  
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>30 GTP</u>				
<u>1</u>	<u>Clear Oil</u>				
<u>30</u>	<u>WCM</u>			<u>30</u>	<u>70</u>
<u>240</u>	<u>WCMW</u>			<u>98</u>	<u>2</u>

Rec Total 271 BHT 113 Gravity \_\_\_\_\_ API RW 40 @ 75.2°F Chlorides 1300 ppm

(A) Initial Hydrostatic 1749  
 (B) First Initial Flow 16  
 (C) First Final Flow 82  
 (D) Initial Shut-In 1122  
 (E) Second Initial Flow 84  
 (F) Second Final Flow 143  
 (G) Final Shut-In 1120  
 (H) Final Hydrostatic 1702

Test 1150  
 Jars  
 Safety Joint  
 Circ Sub  
 Hourly Standby  
 Mileage 158 RTT 244.90  
 Sampler  
 Straddle 600  
 Shale Packer 250  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

T-On Location 00:30  
 T-Started 01:23  
 T-Open 03:42  
 T-Pulled 06:42  
 T-Out \_\_\_\_\_

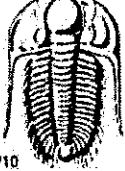
Comments \_\_\_\_\_  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 0  
 Total 2244.90  
 MP/DST Disc't \_\_\_\_\_

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

Sub Total 2244.90  
 Approved By \_\_\_\_\_ 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

NO. 56120

Well Name & No. Mehl #1 Test No. 2 Date 3-~~8~~<sup>4</sup>-14  
 Company Castle Resources Elevation 1801 KB 1796 GL  
 Address PO Box 87 Schoenchen MS 67667  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 18 Twp. 17S Rge. 9W Co. Ellsworth State KS

Interval Tested 3294 3315 Zone Tested Arbuckle  
 Anchor Length 21' 29 Tail Drill Pipe Run \_\_\_\_\_ Mud Wt. 9.2  
 Top Packer Depth 3290 Drill Collars Run 0 Vis 42  
 Bottom Packer Depth 3294 Wt. Pipe Run 0 WL 13.6  
 Total Depth 3315 Chlorides 12000 ppm System LCM 1 1/2 #

Blow Description B.O.B. TW 4 mins  
Dead No slow back  
B.O.B. TW 5 mins  
Dead No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>Feet of mclw</u>			<u>50</u>	<u>50</u>
<u>1200</u>	<u>Feet of vsmclw</u>			<u>98</u>	<u>2</u>
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 1350 BHT 114 Gravity \_\_\_\_\_ API RW 50 @ 601° F Chlorides 1200 ppm

(A) Initial Hydrostatic 1810  Test 1150 T-On Location \_\_\_\_\_  
 (B) First Initial Flow 32  Jars \_\_\_\_\_ T-Started 10:24  
 (C) First Final Flow 314  Safety Joint \_\_\_\_\_ T-Open 121:43  
 (D) Initial Shut-In 1146  Circ Sub \_\_\_\_\_ T-Pulled 141:43  
 (E) Second Initial Flow 323  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow 554  Mileage \_\_\_\_\_ Comments \_\_\_\_\_  
 (G) Final Shut-In 1145  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1699  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 36  Day Standby \_\_\_\_\_ Total 2000  
 Final Shut-In 36  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 2000

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