

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**

PO Box 87
Schoenchen KS. 67667

ATTN: Chris Bean / JerryGr

Harms #1

10-20s-19w Pawnee,KS

Start Date: 2014.02.23 @ 09:23:00

End Date: 2014.02.23 @ 16:07:30

Job Ticket #: 56152 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Castle Resources

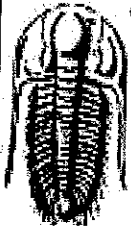
10-20s-19w Pawnee,KS

Harms #1

DST # 1

Cherokee

2014.02.23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Castle Resources

10-20s-19w Pawnee, KS

PO Box 87
Schoenchen KS. 67667

Harms #1

Job Ticket: 56152

DST#: 1

ATTN: Chris Bean / JerryGr

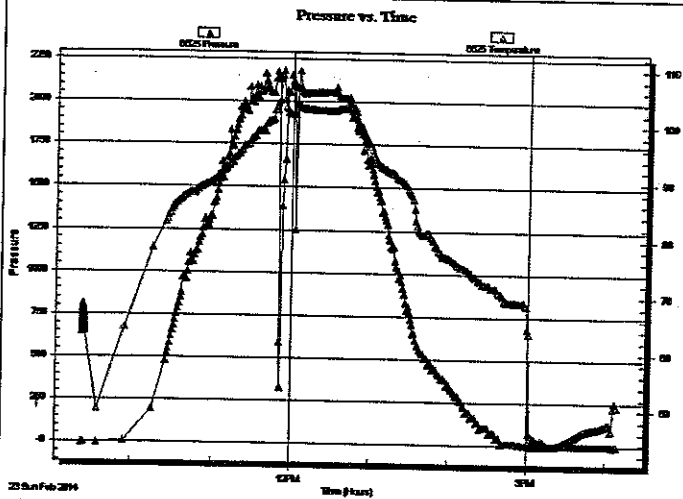
Test Start: 2014.02.23 @ 09:23:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:51:00
 Time Test Ended: 16:07:30
 Interval: **4147.00 ft (KB) To 4160.00 ft (KB) (TVD)**
 Total Depth: 4160.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Bob Hamel
 Unit No: 67
 Reference Elevations: 2245.00 ft (KB)
 2240.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: **6625** Outside
 Press@RunDepth: psig @ 4148.00 ft (KB)
 Start Date: 2014.02.23 End Date: 2014.02.23 Capacity: 8000.00 psig
 Start Time: 09:23:01 End Time: 16:08:30 Last Calib.: 1899.12.30
 Time On Btm:
 Time Off Btm:

TEST COMMENT: "PACKER FAILURE"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
800.00	MUD 100%	11.22

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources

10-20s-19w Pawnee,KS

PO Box 87
Schoenchen KS. 67667

Harms #1

Job Ticket: 56152

DST#: 1

ATTN: Chris Bean / JerryGr

Test Start: 2014.02.23 @ 09:23:00

Tool Information

Drill Pipe:	Length: 4154.00 ft	Diameter: 3.80 inches	Volume: 58.27 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			Total Volume: 58.27 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4147.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval bety een Packers:	13.00 ft			
Tool Length:	33.00 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			4128.00	
Shut in Tool	5.00			4133.00	
Hydraulic tool	5.00			4138.00	
Packer	4.00			4142.00	20.00 Bottom Of Top Packer
Packer	5.00			4147.00	
Stubb	1.00			4148.00	
Recorder	0.00	6625	Outside	4148.00	
Recorder	0.00	8679	Inside	4148.00	
Perforations	8.00			4156.00	
Bullnose	4.00			4160.00	13.00 Bottom Packers & Anchor
Total Tool Length:	33.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

10-20s-19w Pawnee, KS

PO Box 87
Schoenchen KS. 67667

Harms #1

Job Ticket: 56152

DST#: 1

ATTN: Chris Bean / JerryGr

Test Start: 2014.02.23 @ 09:23:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 10.19 in³

Resistivity: 0.00 ohm.m

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
800.00	MUD 100%	11.222

Total Length: 800.00 ft Total Volume: 11.222 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: " PACKER FAILURE "

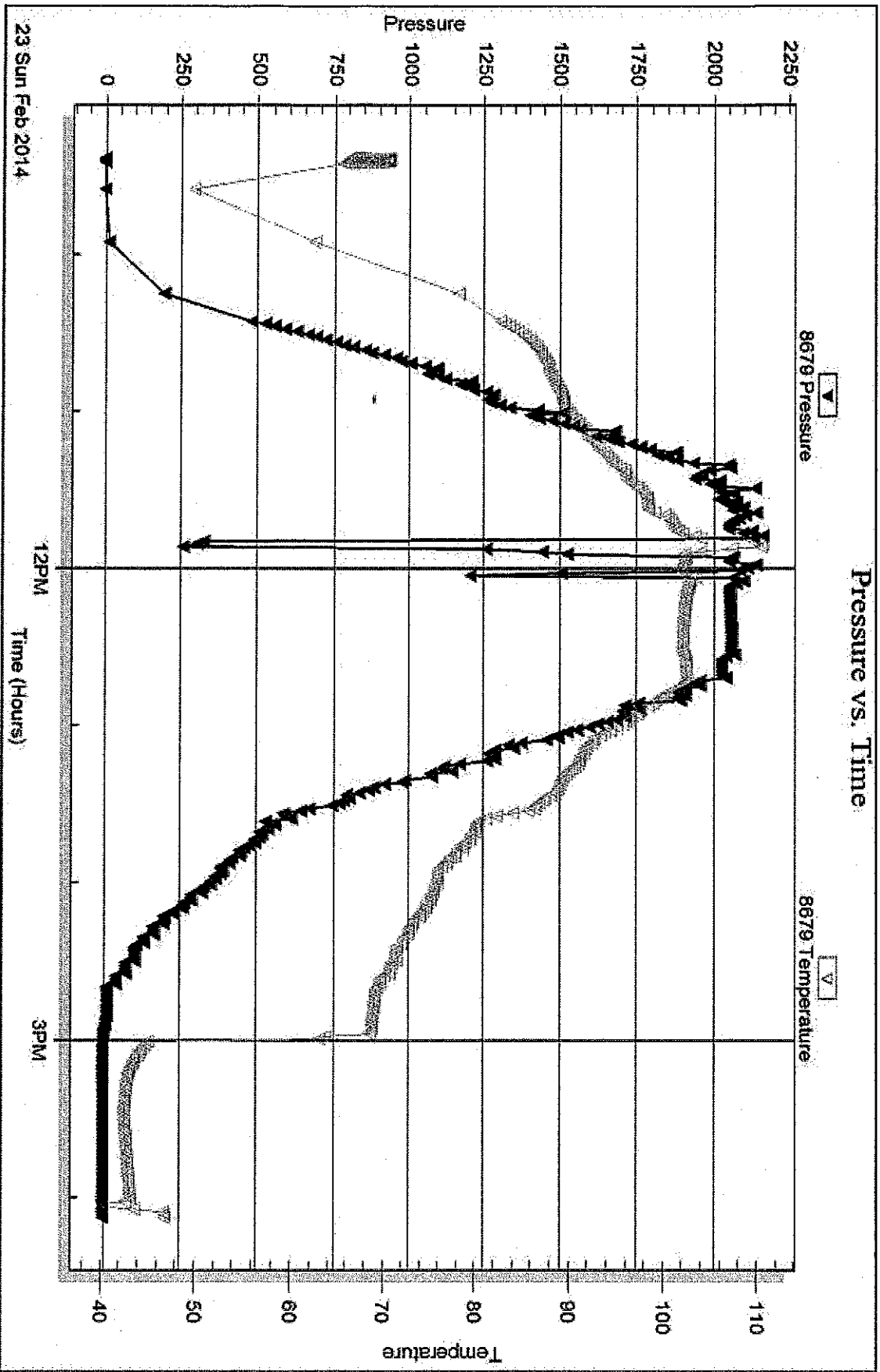
Serial #: 8679

Inside

Castle Resources

Harms #1

DST Test Number: 1



TiHoobie Testing, Inc

Ref. No: 56152

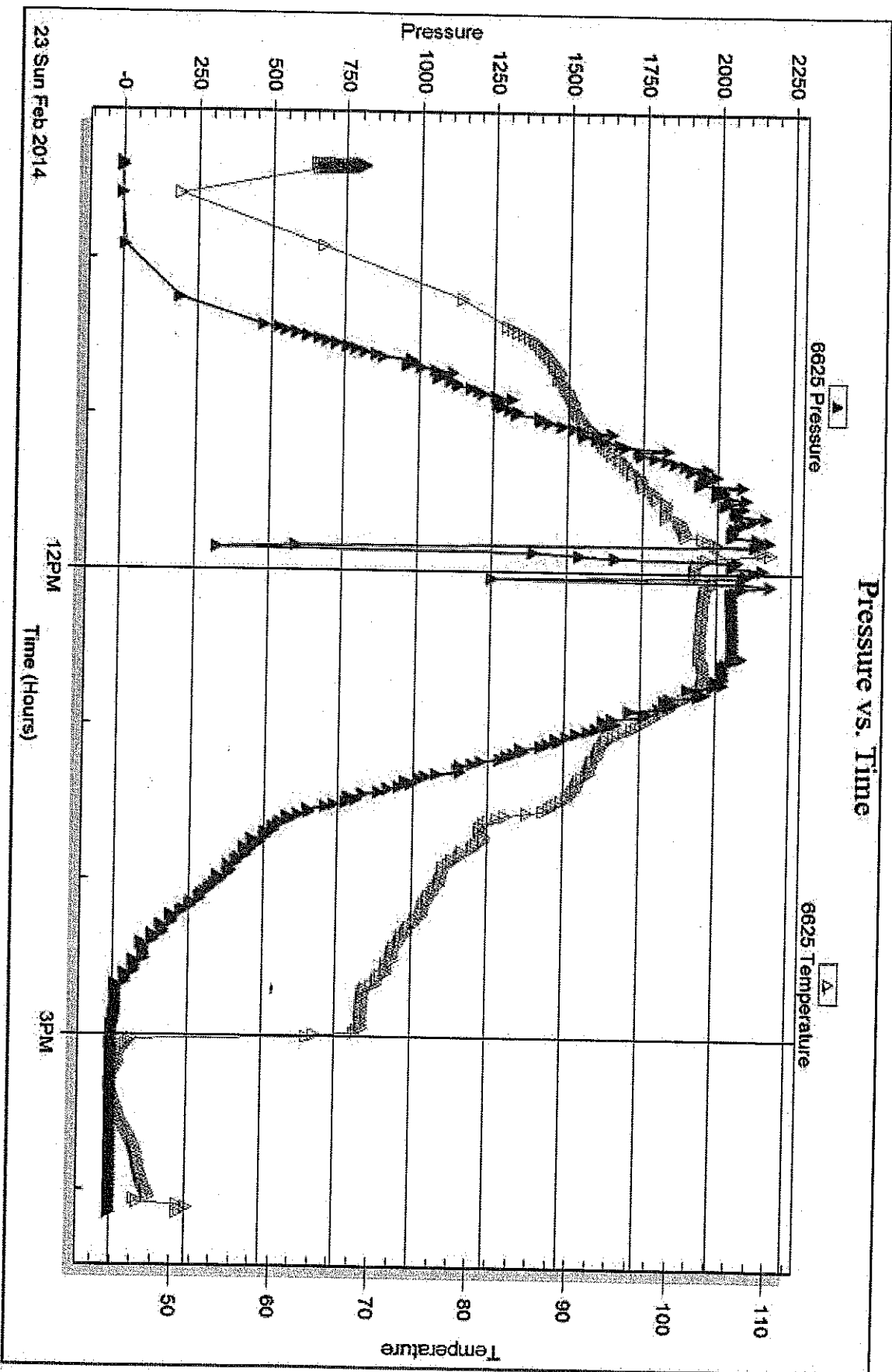
Printed: 2014.02.26 @ 14:48:32

Serial #: 6625

Outside Castle Resources

Harris #1

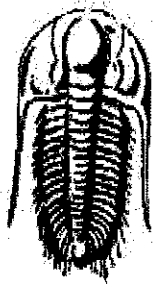
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 58152

Printed: 2014.02.26 @ 14:48:32



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Castle Resources**
PO Box 87
Schoenchen KS. 67667

ATTN: Chris Bean / JerryGr

Harms #1

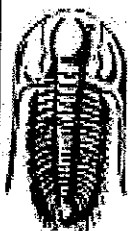
10-20s-19w Pawnee,KS

Start Date: 2014.02.23 @ 13:33:00
End Date: 2014.02.23 @ 20:53:15
Job Ticket #: 56152 DST #: 2

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

Printed: 2014.02.26 @ 14:47:37

Castle Resources 10-20s-19w Pawnee,KS Harms #1 DST # 2 Cherokee 2014.02.23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Castle Resources

10-20s-19w Pawnee, KS

PO Box 87
Schoenchen KS. 67667

Harms #1

Job Ticket: 56152 DST#: 2

ATTN: Chris Bean / JerryGr

Test Start: 2014.02.23 @ 13:33:00

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:17:45
Time Test Ended: 20:53:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Bob Harmel
Unit No: 67

Interval: **4126.00 ft (KB) To 4160.00 ft (KB) (TVD)**
Total Depth: 4160.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2245.00 ft (KB)
2240.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: **8166** Outside

Press@RunDepth: psig @ 4127.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.23 End Date: 2014.02.23

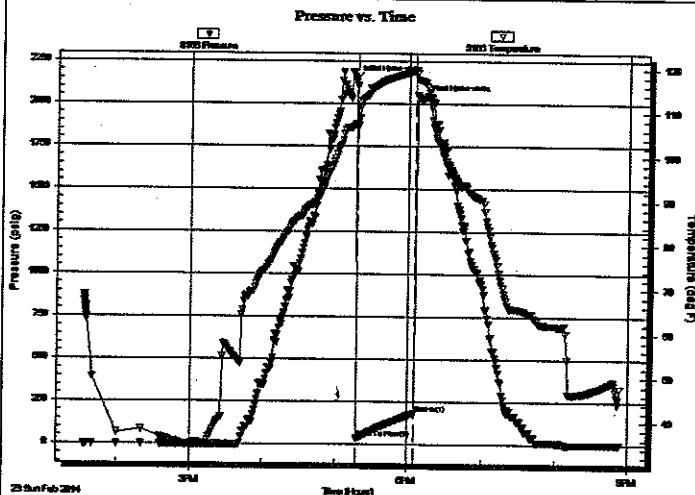
Last Calb.: 2014.02.23

Start Time: 13:33:02 End Time: 20:53:15

Time On Btm: 2014.02.23 @ 17:15:45

Time Off Btm: 2014.02.23 @ 18:11:45

TEST COMMENT: I.F. - 45 - BOB in 7 min - pulled test



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2144.71	107.36	Initial Hydro-static
2	34.43	106.80	Open To Flow (1)
50	183.46	119.30	Shut-In(1)
56	2028.16	117.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	S,O,S,W,M OIL SPECS, MUD 10% WTR.	0.84
120.00	S,O,C,M,W, OIL 10% MUD 20% WTR.	1.68
60.00	O,C,W,M, OIL 10% WTR. 20% MUD 70%	0.84
240.00	O,C,M,W, OIL 20% MUD 20% WTR. 60%	3.37
1.00	CLEAN OIL 100%	0.01

* 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

10-20s-19w Pawnee,KS

PO Box 87
Schoenchen KS. 67667

Harms #1

Job Ticket: 56152 **DST#: 2**

ATTN: Chris Bean / JerryGr

Test Start: 2014.02.23 @ 13:33:00

Tool Information

Drill Pipe:	Length: 4122.00 ft	Diameter: 3.80 inches	Volume: 57.82 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			Total Volume: 57.82 bbl	Tool Chased 4.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	4126.00 ft			Final 46500.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	54.00 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			4107.00	
Shut In Tool	5.00			4112.00	
Hydraulic tool	5.00			4117.00	
Packer	4.00			4121.00	20.00 Bottom Of Top Packer
Packer	5.00			4126.00	
Stubb	1.00			4127.00	
Recorder	0.00	8166	Outside	4127.00	
Perforations	29.00			4156.00	
Bullnose	4.00			4160.00	34.00 Bottom Packers & Anchor
Total Tool Length:	54.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Castle Resources

10-20s-19w Pawnee, KS

PO Box 87
Schoenchen KS. 67667

Harms #1

Job Ticket: 56152 DST#: 2

ATTN: Chris Bean / JerryGr

Test Start: 2014.02.23 @ 13:33:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 10.18 in³

Resistivity: 0.00 ohm.m

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: 14000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	S,O,S,W,M OIL SPECS, MUD 10% WTR. 90%	0.842
120.00	S,O,C,M,W, OIL 10% MUD 20% WTR.70%	1.683
60.00	O,C,W,M, OIL 10% WTR.20% MUD 70%	0.842
240.00	O,C,M,W, OIL 20% MUD 20% WTR. 60%	3.367
1.00	CLEAN OIL 100%	0.014

Total Length: 481.00 ft Total Volume: 6.748 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

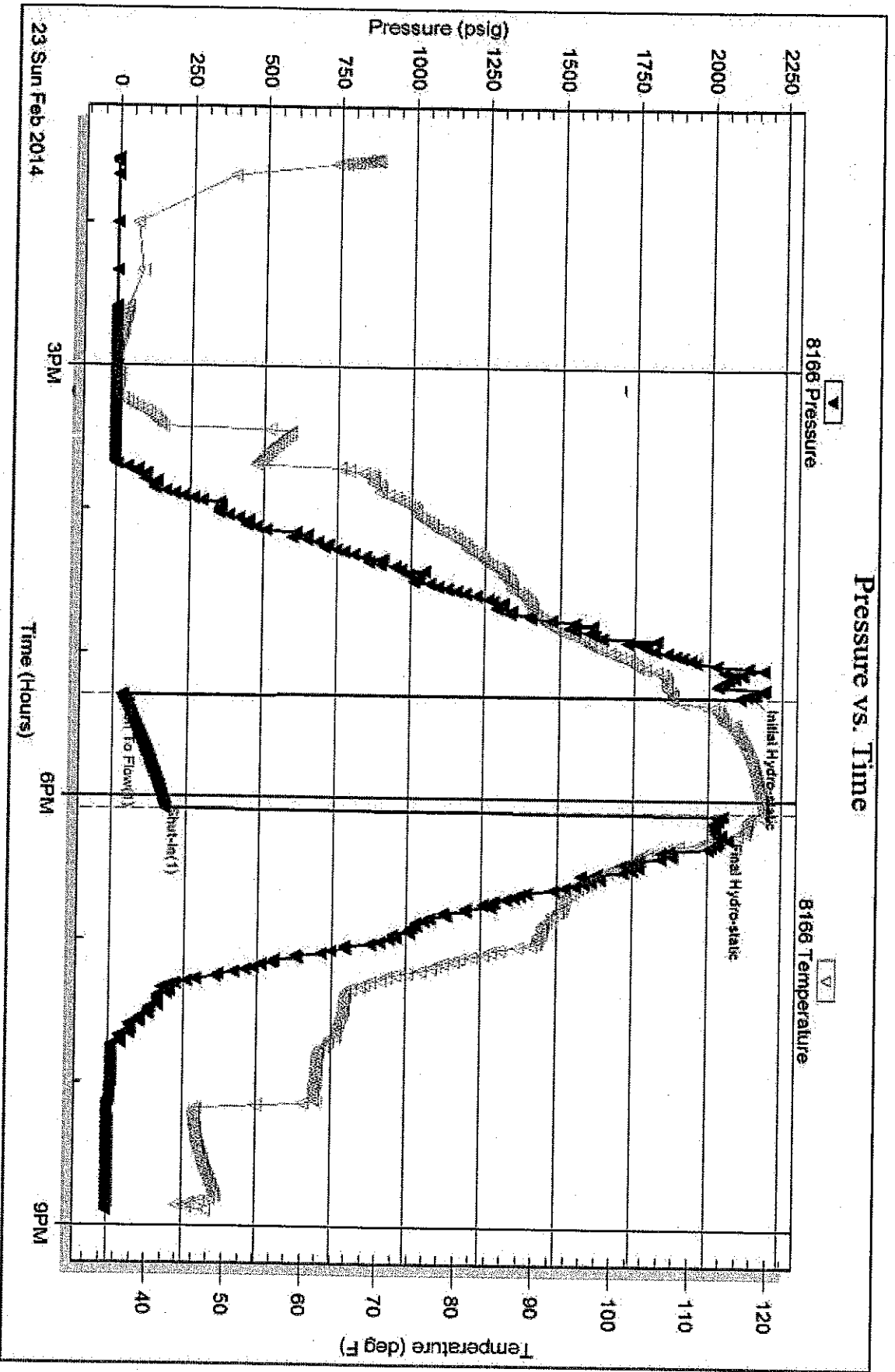
Recovery Comments: R.W. = .885 OHMS @ 38 DEG.

Serial #: 8166

Outside Castle Resources

Harms #1

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 56152

Printed: 2014.02.26 @ 14:47:40



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56152

Well Name & No. Harms #1 Test No. 1 Date 2/23/14
 Company Castle Resources Elevation 2245 KB 2240 GL
 Address P.O. Box 87 Schoenchen KS 67667
 Co. Rep / Geo. Chris Bean / Jerry Green Rig White Knight
 Location: Sec. 10 Twp. 20-3 Rge. 19-W Co. Pawnee State KS

Interval Tested 4147 - 4160 Zone Tested Cher
 Anchor Length 13 Drill Pipe Run 4154 Mud Wt. 9.5
 Top Packer Depth 4142 Drill Collars Run --- Vis 46
 Bottom Packer Depth 4147 Wt. Pipe Run --- WL 10.2
 Total Depth 4160 Chlorides 7000 ppm System LCM 1
 Blow Description I.F. - "Packer failure"

I.S.I -
F.C -
F.S.I -

Rec	Feet of	%gas	%oil	%water	%mud
	<u>"Packer failure"</u>				
	<u>"Packer failure"</u>				
<u>800</u>					<u>100</u> %mud

Rec Total 8150 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 1050 T-On Location 08:00:00
 (B) First Initial Flow _____ Jars 250 T-Started 09:23:00
 (C) First Final Flow _____ Safety Joint 75 T-Open 11:51:00
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled 17:20:00
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 16:08:00
 (F) Second Final Flow _____ Mileage 102 / R.T. 158.10 Comments (Packer failure)
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1783.10
 Sub Total 1783.10 MP/DST Disc't _____

Thank you!

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. 56153

Well Name & No. Horns #1 Test No. 2 Date 2-23-14
 Company Castle Resources Elevation 2245 KB 2240 GL
 Address P.O. Box 87 Schoenchen KS. 67667
 Co. Rep / Geo. Chris Bean / Jerry Green Rig White Knight
 Location: Sec. 10 Twp. 20 S. Rge. 19 W. Co. Pawnee State KS.

Interval Tested 4126 - 4160 Zone Tested Cherokee
 Anchor Length 34' Drill Pipe Run 4122 Mud Wt. 9.5
 Top Packer Depth 4121 Drill Collars Run Vis 46
 Bottom Packer Depth 4126 Wt. Pipe Run WL 10.2
 Total Depth 4160 Chlorides 7000 ppm System LCM 1
 Blow Description I.F. - 45 - 1/2 INT. Blow Built to (B.O.B. in 7 min.)

"Pulled test after I.F. as Requested By Jerry Green"

Rec	Feet of	%gas	%oil	%water	%mud
1	Clean oil	100			
240	O.C.M.W	20	60	20	
60	S.O.C.W M	10	20	70	
120	S.O.C.M.W	10	70	20	
60	S.O.S. M.W. (Scum/oil)	scum	90	10	
Rec Total	481 BHT 119	Gravity	API RW, 885 @ 38° F	Chlorides 14,000	ppm

(A) Initial Hydrostatic 2,145 Test 1250 T-On Location 08:00:00
 (B) First Initial Flow 34 Jars 250 T-Started 13:33:00
 (C) First Final Flow 183 Safety Joint 75 T-Open 17:23:00
 (D) Initial Shut-In Circ Sub T-Pulled 18:08:00
 (E) Second Initial Flow Hourly Standby T-Out 20:57:00
 (F) Second Final Flow Mileage Re.Run. 158.10 Comments Plan Straddle Rec
 (G) Final Shut-In Sampler to save time after first mission
 (H) Final Hydrostatic 2,028 Straddle ended 13:17(24) "Hand-YOU"
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 45 Shale Packer 250
 Initial Shut-In Extra Packer
 Final Flow Extra Recorder
 Final Shut-In Day Standby
 Accessibility
 Sub Total 1983.10 Sub Total 0
 Total 1983.10 MP/DST Disc't

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.

SCHIPPER'S OIL FIELD SERVICES, L.L.C.

1208

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT: Russell, KS

DATE <u>2-18-14</u>	SEC. <u>10</u>	TWP. <u>20</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>8:45am</u>	JOB FINISH <u>9:15am</u>
LEASE <u>Harms</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>Rauver</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR White Knight+
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 535
 CASING SIZE 8 5/8 DEPTH
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX 300 MINIMUM 100
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 20ft
 PERFS
 DISPLACEMENT

OWNER
 CEMENT
 AMOUNT ORDERED 3005x com 3%cc 2%gel

COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 ASC _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 HANDLING _____ @ _____
 MILEAGE _____ @ _____

EQUIPMENT
 PUMP TRUCK CEMENTER Heath
 # P1 HELPER Cady
 BULK TRUCK
 # B4 DRIVER Eric - Mark
 BULK TRUCK
 # DRIVER

REMARKS:
On 13 hrs of 8 5/8 casing and landing +
Est circulation with mud pump
Mixed 3005 and disp 3 1/2 bbl H2O - shut
in @ 300PS

Cement did circulate to surface

CHARGE TO: Castle Resources
 STREET _____
 CITY _____ STATE _____ ZIP _____

Schippers Oil Field Services, L.L.C.,
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME _____
 SIGNATURE Terry Austin

TOTAL _____

SERVICE

DEPTH OF JOB _____
 PUMP TRUCK CHARGE _____
 EXTRA FOOTAGE _____ @ _____
 MILEAGE _____ @ _____
 MANIFOLD _____ @ _____
 _____ @ _____
 _____ @ _____

TOTAL _____

PLUG & FLOAT EQUIPMENT

_____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____

TOTAL _____

SALES TAX (If Any) _____
 TOTAL CHARGES _____
 DISCOUNT _____ IF PAID IN 30 DAYS

SWIFT Services, Inc.

DATE 2-24-14 PAGE NO. 7

Resources

WELL NO. #1

LEASE Harms

JOB TYPE Longstring

TICKET NO. 25336

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							on loc w/FE
								RTD 4275'
								5 1/2" x 15.5# x 4256' x 15
								Cent 1, 3, 5, 7, 9, 11, 69
								Base 10, 70
								P.C. 70 @ 1387'
	2045							Start FE
	2230							Break circ
	2315	2.5	7					Plug RH 30 sks EA-2
	2320	5	0				200	Start 500 gal Mud Flush
		5	12/0				200	Start 20 bbl KCL Flush
		5	20/0				200	Start 120 sks EA-2
	2330		32					End Cement
								wash P&L
								Drop L.D. Plug
	2335	6	0				200	Start Displacement
		5	74				250	Catch Cement
	2355		101				200 400	Land Plug
								Release Pressure
								Float Head

Thank you

Nick, David E. & Reb