

### Kansas Corporation Commission Oil & Gas Conservation Division

1152851

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R 🗌 East 🗌 West
Address 2:	Feet from North / South Line of Section
City:	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
Oil         WSW         SWD         SIOW           Gas         D&A         ENHR         SIGW           OG         GSW         Temp. Abd.           CM (Coal Bed Methane)         Cathodic         Other (Core, Expl., etc.):	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: sx cmt.
If Workover/Re-entry: Old Well Info as follows:	
Operator: Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth: Deepening Re-perf. Conv. to ENHR Conv. to SWD Conv. to GSW	Chloride content: ppm Fluid volume: bbls  Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:  Dual Completion Permit #:  SWD Permit #:	Operator Name:
☐ ENHR         Permit #:           ☐ GSW         Permit #:	County: Permit #:
Spud Date or Date Reached TD Completion Date or Recompletion Date	

#### **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							
Letter of Confidentiality Received							
Date:							
Confidential Release Date:							
Wireline Log Received							
Geologist Report Received							
UIC Distribution							
ALT I III Approved by: Date:							

Side Two



Operator Name:				_ Lease N	lame:			Well #:		
Sec Twp	S. R	East	West	County:						
INSTRUCTIONS: Sh time tool open and clo recovery, and flow rate line Logs surveyed. A	osed, flowing and shu es if gas to surface te	t-in pressures, st, along with f	whether sh inal chart(s	nut-in press	ure reach	ed static level,	hydrostatic pres	ssures, bottom h	ole temp	erature, fluid
Drill Stem Tests Taker (Attach Additional S		Yes	No		Log	y Formation	n (Top), Depth a	nd Datum		Sample
Samples Sent to Geo	logical Survey	Yes	No		Name			Тор	I	Datum
Cores Taken Electric Log Run Electric Log Submitte (If no, Submit Copy	d Electronically	Yes Yes Yes	☐ No ☐ No ☐ No							
List All E. Logs Run:										
		Report all	CASING I		New	Used mediate, producti	on, etc.			
Purpose of String	Size Hole Drilled	Size Ca Set (In C	sing	Weigi Lbs. /	ht	Setting Depth	Type of Cement	# Sacks Used	, ,,	and Percent dditives
		AI	DDITIONAL	CEMENTIN	G / SQUE	EZE RECORD				
Purpose:  Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of Co	ement	# Sacks	Used		Type and	Percent Additives		
Shots Per Foot	PERFORATI Specify I	ON RECORD - Footage of Each	Bridge Plugs Interval Perfo	s Set/Type orated			cture, Shot, Cemei mount and Kind of N		d 	Depth
TUBING RECORD:	Size:	Set At:		Packer At:		Liner Run:				
Date of First, Resumed	Production, SWD or EN		ducing Meth	od:		as Lift C	Yes No	0		
Estimated Production Per 24 Hours	Oil	Bbls.		Mcf	Water		ols.	Gas-Oil Ratio		Gravity
DISPOSITIO	ON OF GAS:		M	IETHOD OF	COMPLET	ION:		PRODUCTIO	ON INTER	VAL:
Vented Sold	Used on Lease	Open	Hole (Specify)	Perf.	Dually (		nmingled mit ACO-4)			

Form	ACO1 - Well Completion			
Operator	Castle Resources, Inc.			
Well Name	Harting 1-26			
Doc ID	1152851			

# All Electric Logs Run

Borehole Compensated	
Sonic	
Microresistivity	
Dual Induction	
Compensated Density Neutron	

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

1083

\_\_\_\_\_\_ IF PAID IN 30 DAYS

REMIT TO 18048 170RD SERVICE POINT: RUSSELL LCS - HOVIE LCS RUSSELL, KS 67665 SEC. 2 RANGE CALLED OUT ON LOCATION JOB START DATE 8-18-12 1:45am COUNTY STATE LEASE Harting LOCATION WELL #. OLD OR NEW (CIRCLE ONE) CONTRACTOR White KNIGHT OWNER TYPE OF JOB SUCTOCE HOLE SIZE T.D. 165 com 3% (Ca CEMENT CASING SIZE DEPTH AMOUNT ORDERED TUBING SIZE DEPTH 228 DRILL PIPE DEPTH TOOL DEPTH PRES. MAX MINIMUM COMMON \_\_\_\_\_ MEAS. LINE SHOE JOINT POZMIX \_\_\_ CEMENT LEFT IN CSG. 20.64 GEL\_\_ PERFS CHLORIDE \_\_ DISPLACEMENT (a) EQUIPMENT **a** @ PUMP TRUCK CEMENTER @ PI HELPER HOTH @ BULK TRUCK (a) BL DRIVER . (a) BULK TRUCK DRIVER (a) HANDLING\_ MILEAGE\_\_ TOTAL Ran 5 Its of 85/8 casing and landing **SERVICE** DEPTH OF JOB \_\_ mixed 1655x and disp PUMP TRUCK CHARGE\_ EXTRA FOOTAGE\_\_\_\_\_ MILEAGE \_\_\_ Cement Did Circulate MANIFOLD -@ @ CHARGE TO: Costle Resource's @ TOTAL STREET \_ CITY \_\_\_\_\_ STATE \_\_\_\_ ZIP \_\_ PLUG & FLOAT EQUIPMENT Schippers Oil Field Services, L.L.C., You are hereby requested to rent cementing equipment and 上@. furnish cementer and helper(s) to assist owner or contractor to volve @ do work as is listed. The above work was done to satisfaction a, and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side. TOTAL PRINTED NAME Z SALES TAX (If Any) TOTAL CHARGES \_\_\_\_\_ SIGNATURE Z

DISCOUNT



Prepared For: Castle Resources , Inc.

Box 87

Schoenchen KS 67667

ATTN: Jerry Green

Harting #1-26

26-3s-24w Norton,KS

Start Date: 2013.08.23 @ 00:00:00

End Date:

Job Ticket #: 54759

DST #: 1

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



Castle Resources, Inc.

26-3s-24w Norton, KS

Box 87

Schoenchen KS 67667

Harting #1-26

**DST#: 1** 

Job Ticket: 54759

ATTN: Jerry Green

Test Start: 2013.08.23 @ 00:00:00

#### **GENERAL INFORMATION:**

Formation: Deviated:

Reagan Sand

No

Whipstock:

ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Tester:

59

Brett Dickinson

Unit No:

Reference Elevations:

2413.00 ft (KB)

2408.00 ft (CF)

KB to GR/CF:

5.00 ft

Interval: Total Depth:

Hole Diameter:

3695.00 ft (KB) To 3788.00 ft (KB) (TVD)

3788.00 ft (KB) (TVD)

7.88 inches Hole Condition: Good

Serial #: 6753

Time Tool Opened:

Time Test Ended:

Press@RunDepth:

Inside

psig @

3701.00 ft (KB)

2013.08.23

Capacity:

8000.00 psig

Start Date:

2013.08.22

End Date:

Last Calib.: Time On Btm:

1899.12.30

Start Time:

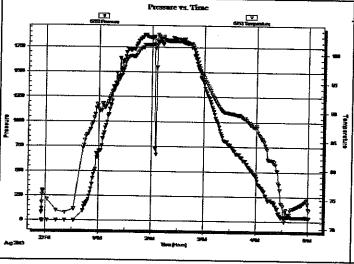
23:55:05

End Time:

05:00:59

Time Off Btm:

TEST COMMENT: Packer Failure



	PRESSURE SUMMARY									
Ì	Time	Pressure	Temp	Annotation						
	(Min.)	(psig)	(deg F)							
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Recovery Length (ft) Description Volume (bbl)

Gas Rates						
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)			
			<del></del>			

Trilobite Testing, Inc.

Ref. No: 54759



Castle Resources, Inc.

26-3s-24w Norton, KS

Box 87

Harting #1-26

Schoenchen KS 67667

Job Ticket: 54759

**DST#:1** 

ATTN: Jerry Green

Test Start: 2013.08.23 @ 00:00:00

#### GENERAL INFORMATION:

Formation:

Reagan Sand

Deviated: Time Tool Opened:

Time Test Ended:

No Whipstock:

ft (KB)

Tester:

Test Type: Conventional Bottom Hole (Initial)

59

Brett Dickinson

Unit No:

Reference Elevations:

2413.00 ft (KB)

2408.00 ft (CF)

KB to GR/CF:

5.00 ft

Interval: Total Depth:

Hole Diameter:

3695.00 ft (KB) To 3788.00 ft (KB) (TVD)

3788.00 ft (KB) (TVD)

7.88 inchesHole Condition: Good

Serial #: 8319 Press@RunDepth: Outside

psig @

3701.00 ft (KB)

Capacity:

8000.00 psig

Start Date:

2013.08.22

End Date:

2013.08.23

Last Calib .:

2013.08.23

Time On Btm:

Start Time:

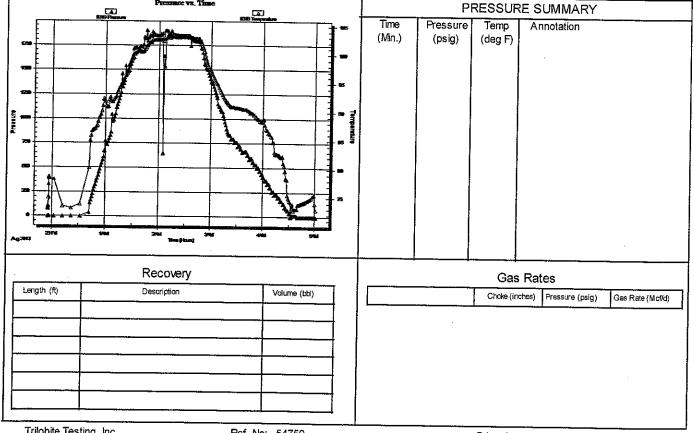
23:55:05

End Time:

05:00:59

Time Off Btm:

TEST COMMENT: Packer Failure



Trilobite Testing, Inc.

Ref. No: 54759



**TOOL DIAGRAM** 

Castle Resources, Inc.

26-3s-24w Norton,KS

Box 87

Harting #1-26

Schoenchen KS 67667

Job Ticket: 54759

DST#: 1

ATTN: Jerry Green

Test Start: 2013.08.23 @ 00:00:00

Tool Information

Drill Pipe:

Length: 3707.00 ft Diameter: ft Diameter:

3.80 inches Volume: 2.70 inches Volume:

52.00 bb! - bbl

- bbl

Tool Weight: Weight set on Packer: 25000.00 lb

2000.00 lb

Drill Collar:

Heavy Wt. Pipe: Length: Length:

ft Diameter:

2.25 inches Volume: Total Volume: - bbl

Weight to Pull Loose:

Drill Pipe Above KB:

33.00 ft 3695.00 ft Tool Chased

lb

Depth to Top Packer: Depth to Bottom Packer:

ft

String Weight: Initial

Final lb

Interval between Packers: 93.00 ft Tool Length: Number of Packers:

114.00 ft

2 Diameter:

6.75 inches

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00	·		3675.00		
Shut in Tool	5.00			3680.00		
Hydraulic tool	5.00			3685.00		
Packer	5.00			3690.00	21.00	Bottom Of Top Packer
Packer	5.00			3695.00		Dottom Of Top Lacker
Packer - Shale	0.00			3695.00		
Stubb	1.00			3696.00		
Perforations	5.00			3701.00		
Recorder	0.00	6753	Inside	3701.00		
Recorder	0.00	8319	Outside	3701.00		
Change Over Sub	1.00			3702.00		
Drill Pipe	63,00			3765.00		
Change Over Sub	1.00 ′			3766.00		
Perforations	19.00			3785.00		
Bullnose	3.00			3788.00	93.00	Bottom Packers & Anchor
Total Tagl Langth	444.00					DOMONIT ACKERS & ANCHOL

Total Tool Length:

114.00



**FLUID SUMMARY** 

Castle Resources , Inc.

26-3s-24w Norton,KS

Box 87

Harting #1-26

Schoenchen KS 67667

Job Ticket: 54759

DST#: 1

ATTN: Jerry Green

Test Start: 2013.08.23 @ 00:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight:

9.00 lb/gal

41.00 sec/qt

Viscosity: Water Loss:

8.79 in<sup>3</sup>

Resistivity: Salinity:

ohm.m

Filter Cake:

500.00 ppm

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

inches

psig

fŧ

bbl

**Recovery Information** 

Recovery Table

Length Description Volume bbl

Total Length:

ft

Total Volume:

ldd

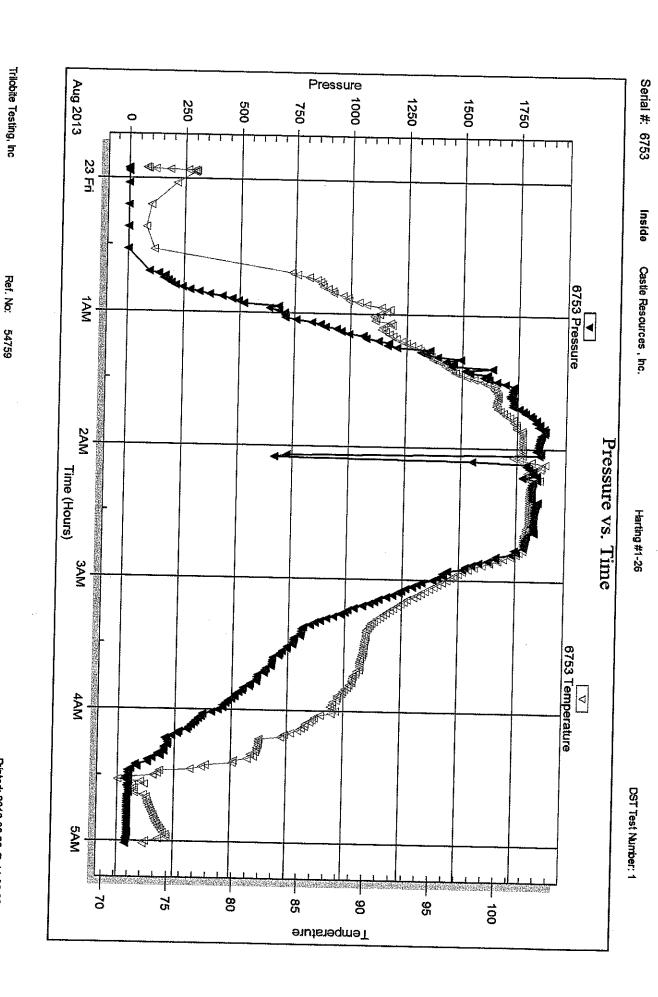
Num Fluid Samples: 0

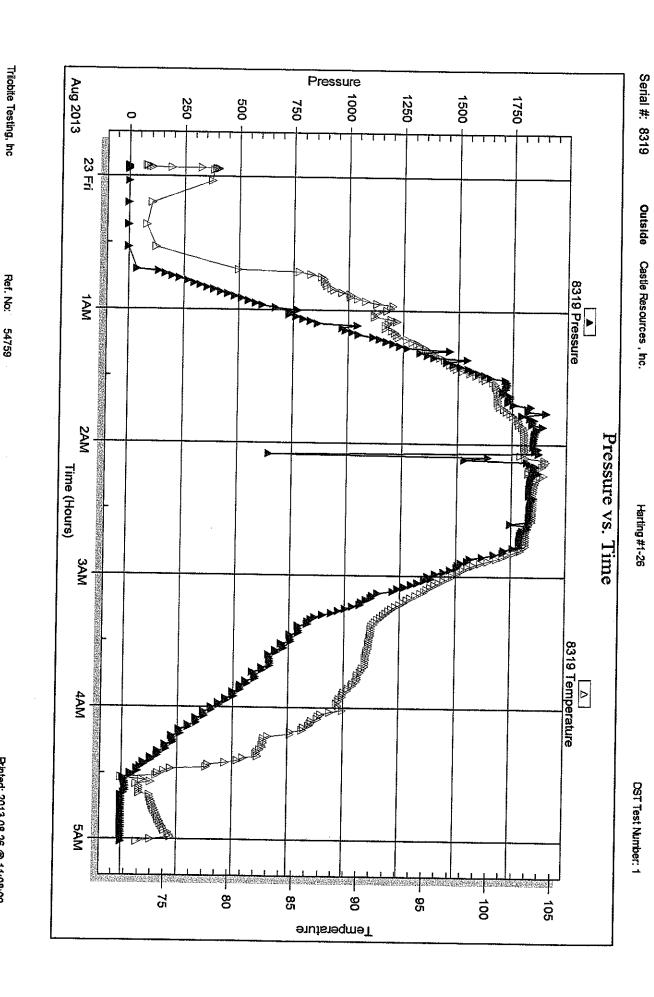
Laboratory Name:

Num Gas Bombs: Laboratory Location:

Serial#:

Recovery Comments:





54759



Prepared For:

Castle Resources , Inc.

Box 87

Schoenchen KS 67667

ATTN: Jerry Green

## Harting #1-26

## 26-3s-24w Norton,KS

Start Date: 2013.08.23 @ 05:38:00

End Date:

2013.08.23 @ 13:07:00

Job Ticket #: 54761

DST#: 2

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



Castle Resources . Inc.

26-3s-24w Norton, KS

Box 87

Schoenchen KS 67667

Harting #1-26 Job Ticket: 54761

DST#: 2

ATTN: Jerry Green

Test Start: 2013.08.23 @ 05:38:00

#### GENERAL INFORMATION:

Formation:

Reagan Sand

Deviated:

No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Time Tool Opened: 07:34:30

Tester:

Brett Dickinson

Time Test Ended: 13:07:00

Interval: Total Depth: 3650.00 ft (KB) To 3788.00 ft (KB) (TVD)

Unit No: 59

Reference Elevations:

2413.00 ft (KB)

KB to GR/CF:

2408.00 ft (CF) 5.00 ft

Hole Diameter:

Serial #: 6753

3788.00 ft (KB) (TVD)

7.88 inches Hole Condition: Fair

Press@RunDepth: Start Date:

Inside

133.73 psig @ 2013.08.23

3656.00 ft (KB)

2013.08.23

Capacity: Last Calib .:

8000.00 psig

Start Time:

05:38:05

End Date: End Time:

13:06:59

Time On Btm:

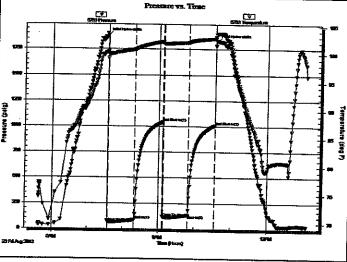
2013.08.23 2013.08.23 @ 07:33:30

Time Off Btm:

2013.08.23 @ 10:36:00

TEST COMMENT: IF-BOB in 43 min

ISI-No blow FF-7 1/2" blow FSI-No blow



Р	RESS	URE	S	UMMARY	

			, (LOOO)	VE SOMMART
	Time	Pressure	Temp	Annotation
	(Mīn.)	(psig)	(deg F)	
	. 0	1883.16	100.40	Initial Hydro-static
i	1	63.74	100.00	Open To Flow (1)
	47	87.74	100.78	Shut-in(1)
,	93	1040.32	102.14	End Shut-In(1)
3	95	115.42	101.83	Open To Flow (2)
į.	136	133.73	102.02	Shut-ln(2)
Telepasature (des Pi	180	1009.24	102.70	End Shut-In(2)
	183	1827.65	103.54	Final Hydro-static
Į				
	İ			
1				
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1	- 1			
1				İ

#### Recovery

Length (ft)	Description	Volume (bbl)
210.00	SMCW 90W 10%M	2.95
<u></u>		
* Recovery from n	rultiple tests	<del>-                                    </del>

#### Gas Rates

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

Trilobite Testing, Inc.

Ref. No: 54761



Castle Resources , Inc.

26-3s-24w Norton, KS

Box 87

Schoenchen KS 67667

Harting #1-26

Job Ticket: 54761

DST#: 2

ATTN: Jerry Green

Test Start: 2013.08.23 @ 05:38:00

#### GENERAL INFORMATION:

Formation:

Interval:

Total Depth:

Reagan Sand

Deviated:

No Whipstock:

ft (KB)

Test Type:

Conventional Bottom Hole (Reset)

Time Tool Opened: 07:34:30 Time Test Ended: 13:07:00

Tester:

Brett Dickinson

3650.00 ft (KB) To 3788.00 ft (KB) (TVD)

Unit No:

2413.00 ft (KB)

Reference Elevations:

2408.00 ft (CF)

KB to GR/CF:

59

5.00 ft

Hole Diameter:

3788.00 ft (KB) (TVD)

7.88 inchesHole Condition: Fair

Serial #: 8319 Press@RunDepth: Outside

psig @

3656.00 ft (KB)

Capacity:

8000.00 psig

Start Date:

2013.08.23

End Date:

2013.08.23

Last Calib .:

2013.08.23

Start Time:

05:38:05

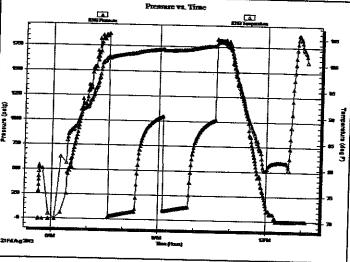
End Time:

13:07:29

Time On Btm: Time Off Btm:

TEST COMMENT: IF-BOB in 43 min

ISI-No blow FF-7 1/2" blow FSI-No blow



į	PRESSURE SUMMARY									
į	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation						
	(************	(psig)	(deg r)							
				!						
ı										
l										
ļ		]								
			1							

## Recovery Length (ft) Description Volume (bbl) 210.00 SMCW 90W 10%M 2.95 Recovery from multiple tests

Gas Rates

Chake (inches) Pressure (psig)

Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 54761



26-3s-24w Norton, KS

Box 87

Diameter:

Harting #1-26

Schoenchen KS 67667

Job Ticket: 54761

DST#: 2

TOOL DIAGRAM

ATTN: Jerry Green

Castle Resources, Inc.

Test Start: 2013.08.23 @ 05:38:00

Tool Information

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 3644.00 ft Diameter: 0.00 ft Diameter: 3.80 inches Volume: 2.70 inches Volume:

51.12 bbl 0.00 bbl

Tool Weight:

2000.00 lb

Drill Collar:

Length:

0.00 ft Diameter:

2.25 inches Volume:

Weight set on Packer: 25000.00 lb 0.00 bbl Weight to Pull Loose: 50000.00 lb

Drill Pipe Above KB: Depth to Top Packer:

15.00 ft 3650.00 ft

Total Volume: 51.12 bbl

Tool Chased String Weight: Initial 40000.00 lb

0.00 ft

Depth to Bottom Packer:

Final 40000.00 lb

Interval between Packers: 138.00 ft Tool Length:

159.00 ft

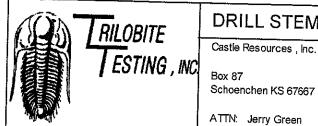
6.75 inches

Number of Packers: Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00	<u> </u>	<del></del>	3630.00	7.000min Eengalo	
Shut in Tool	5.00			3635.00		
Hydraulic tool	5.00			3640.00		
Packer	5.00			3645.00	21.00	Pottom Of Tax Dealers
Packer	5.00			3650.00	21,00	Bottom Of Top Packer
Packer - Shale	0.00			3650.00		
Stubb	1.00	*		3651.00		
Perforations	5.00			3656.00		
Recorder	0.00	6753	Inside	3656.00		
Recorder	0.00	8319	Outside	3656.00		
Change Over Sub	1.00			3657.00		
Drill Pipe	125.00			3782.00		
Change Over Sub	1.00			3783.00		
Perforations	2.00			3785.00		
Bullnose	3.00			3788.00	138.00	Rottom Dankers 9 A - L
Total Tool Length:	159.00				.00.00	Bottom Packers & Anchor

Trilobite Testing, Inc.

Ref. No: 54761



26-3s-24w Norton,KS

Harting #1-26 Job Ticket: 54761

DST#: 2

Test Start: 2013.08.23 @ 05:38:00

**Mud and Cushion Information** 

Mud Type: Gel Chem

Mud Weight:

9.00 lb/gal

Viscosity: Water Loss: 41.00 sec/qt 8.78 in<sup>3</sup>

Resistivity:

ohm.m

Salinity: Fifter Cake: 500.00 ppm

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type: Gas Cushion Pressure: ft

Oil APt

deg API

psig

bbi

Water Salinity:

32000 ppm

**FLUID SUMMARY** 

**Recovery Information** 

Recovery Table

Length Description Volume ft bbl 210.00 SMCW 90W 10%M 2.946

Total Length:

210.00 ft

Total Volume:

2.946 bbl

Num Fluid Samples: 0

Laboratory Name:

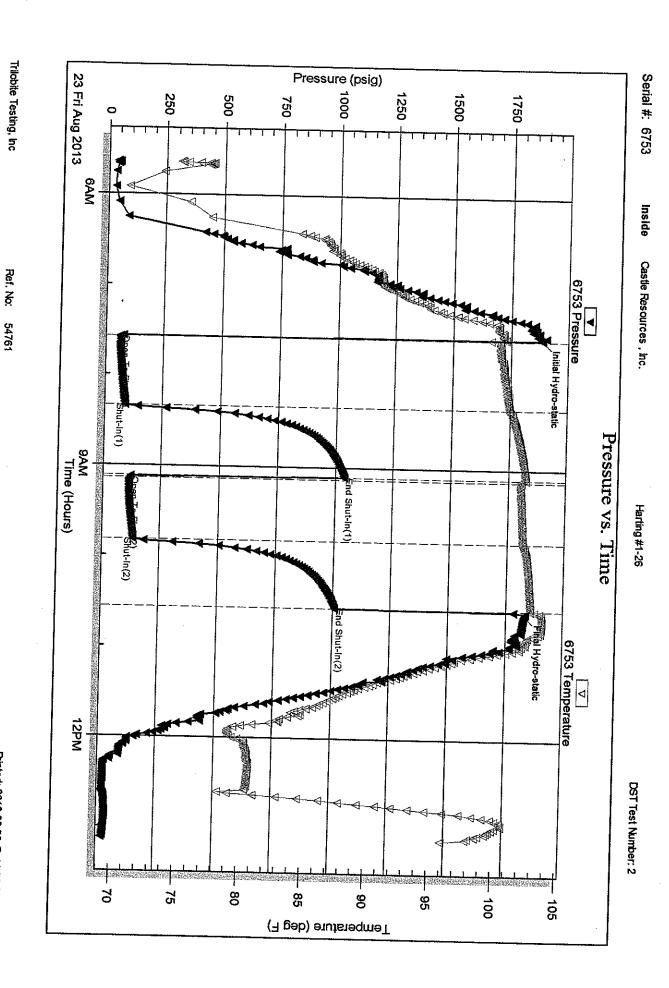
Num Gas Bombs: Laboratory Location:

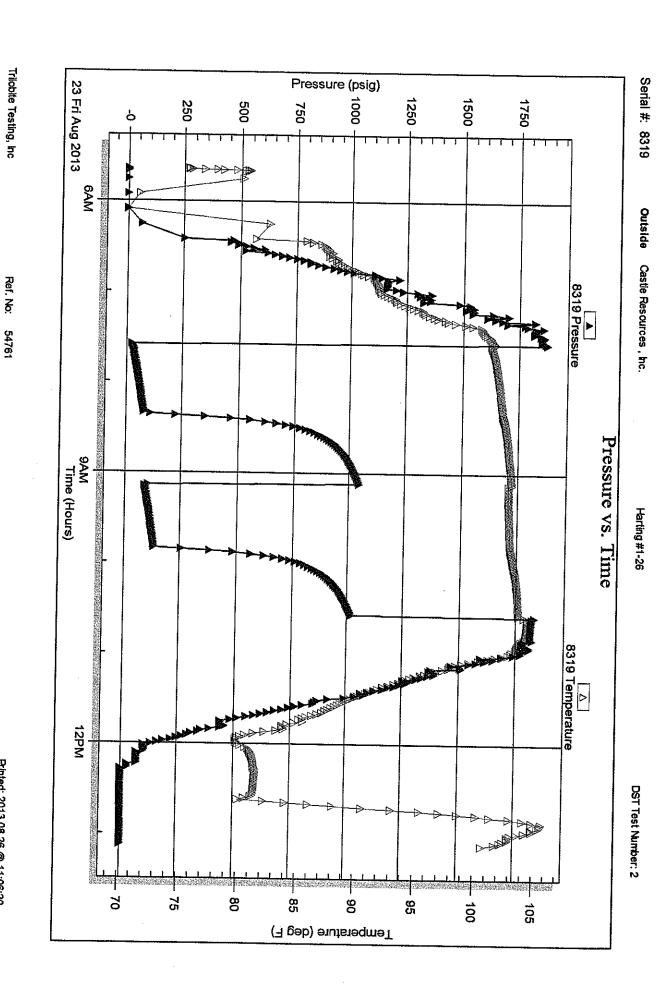
Serial #:

Recovery Comments:

Trilobite Testing, Inc

Ref. No: 54761







## **Test Ticket**

54761 NO.

1515 Commerce Parkway • Hays, Kansas 67601

Well Name & No. Marting # 1-	26	Test No2	24	Date <u>8/23/</u>	13
Company Castle K-esources		Elevation_2		KB_2408	GL
Address Box 87 Schoene		>			
Co. Rep/Geo. Derry Green		Rig <u>し</u> ルカップ	e kinic	49	
	2005 E	_CoNonit	N-wa	State (	<u> </u>
Interval Tested 3650 - 3788	Zone Tested /	Peagen So	1		
Anchor Length 138	Drill Pipe Run		re sudi i i u u u u	Mud Wt	
Top Packer Depth 3645	Drill Collars Run			lis 4 1	
Bottom Packer Depth 3650	Wt. Pipe Run	` `		vi 8,8	<del></del>
Total Depth3788		7 <i>O</i> ppm		CM 27	
Blow Description IF - BOB 4			Cystem L	.0141	
- ISI-Noblen	e e e e e e				<del></del>
FF - 7/2 in 61				**************************************	
FSZ-Noblaw					<del></del>
Rec 210 Feet of SMCW		%gas	%oil "	90 %water /	( ) % mud
RecFeet of		%gas	%oil	%water	%mud
Rec Feet of		%gas	%oil	%waler	%mud
Rec Feet of		%gas	%oii	%water	%mud
Rec Feet of		%gas	%oil	%water	Section 11
Rec Total 210 BHT	Gravity/	Albania e e e e e e e e e e e e e e e e e e e		The state of the s	
(A) Initial Hydrostatic <u>U883</u>	Test1150		T-On Loca	The state of the s	O ppm
(B) First Initial Flow 64	Jars		T-Started	5138	3. 1 - 2 - 3. 2
(C) First Final Flow 88	□ Safety Joint		T-Open	7 3 3	
(D) Initial Shut-in 1,040	☐ Circ Sub		T-Pulled_	10:33	
(E) Second Initial Flow/ / 5	☐ Hourly Standby		T-Out	13:10	
(F) Second Final Flow		to the second of the second	Comment	\$ <u></u>	
(G) Final Shut-In 1009	☐ Sampler				
(H) Final Hydrostatic	🗆 Straddle			<del></del>	
	Shale Packer_25			d Shale Packer	3 4 4 4 4 4 4 5 THE R.
Initial Open 45	Extra Packer			J Packer	and the first of the control of the
Initial Shut-In 45	Extra Recorder	•		Copies	
Final Flow 45	Day Standby				
Final Shut-In 45				1400	
•	Sub Total 1400		ML/N21	Disc't	
Approved By		lenresentativo Ac	2		

Tridobite Tosting 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.