



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1205325
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: _____

1205325

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. 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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Jaspar Co.
Well Name	Roy 1
Doc ID	1205325

All Electric Logs Run

COMPENSATED DENSITY/NEUTRON LOG
DUAL INDUCTION
MICRO LOG
SONIC LOG

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Home Office P.O. Box 32 Russell, KS 67665

No. 011

Phone 785-483-2025

Cell 785-324-1041

Date	4-4-14	Sec.	8	Twp.	7	Range	20	County	Reels	State	KS	On Location		Finish	5:50 p.m.
								Location							
								Damar 24 SW Einto							

Lease	Rey	Well No.	1	Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Contractor	WW#6			Charge To	Jasper Oil
Type Job	Surface			Street	
Hole Size	12 1/4	T.D.	217	City	
Csg.	8 5/8	Depth	216	State	
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered 150 Gm 3 1/4 2 1/4 GEL	
Cement Left in Csg.	15'	Shoe Joint			
Meas Line		Displace	138L		

EQUIPMENT

Pumptrk	18	No.	Cementer		Common	150
			Helper	Craig	Poz. Mix	
Bulktrk		No.	Driver		Gel.	3
			Driver		Calcium	5
Bulktrk	1	No.	Driver	Clayton	Hulls	
			Driver		Salt	

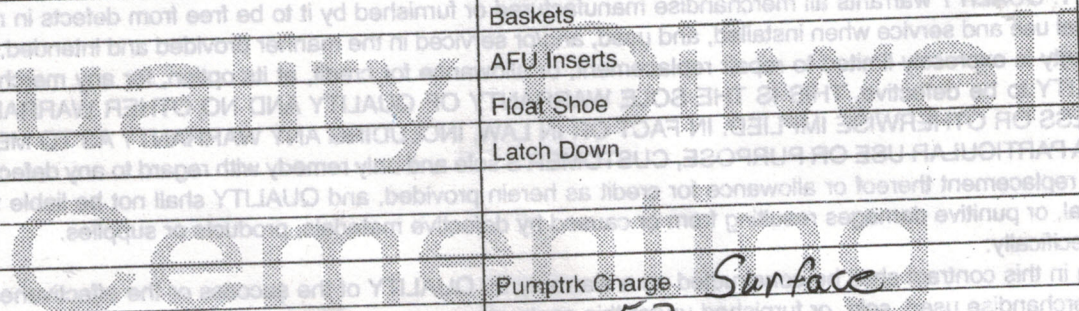
JOB SERVICES & REMARKS

Remarks:		Flowseal	
Rat Hole		Kol-Seal	
Mouse Hole		Mud CLR 48	
Centralizers		CFL-117 or CD110 CAF 38	
Baskets		Sand	
D/V or Port Collar		Handling	158
	8 5/8 on bottom. Est. Circulation.	Mileage	
	Mix 150 Gm Displace.		

Cement Circulated

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	53



X Signature M. A. Borge

Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 7197

Date	4-12-14	Sec.	8	Twp.	7	Range	20	County	Rooks	State	Ks	On Location		Finish	7:30 AM										
Location													Damar + 24 Hwy - 5 N ELS												
Lease	Roy					Well No.	1		Owner																
Contractor	W W #6					To Quality Oilwell Cementing, Inc.																			
Type Job	Longstring					You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.																			
Hole Size	7 7/8"		T.D.	3720'		Charge To		Jasper oil																	
Csg.	5 1/2" 15.50 New		Depth	3713'		Street																			
Tbg. Size			Depth			City		State																	
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.																			
Cement Left in Csg.	20.70'		Shoe Joint	20.70'		Cement Amount Ordered		150 Corn 10% Salt 5% Gilsomite																	
Meas Line			Displace	88 BLS		450 QMDC 1/2" Flo		- 500 gal mud		Clear 48															
EQUIPMENT													Rick												
Pumptrk	16	No.	Cementor	Billy		Common		150																	
			Helper			Poz. Mix		450 QMDC																	
Bulktrk	9	No.	Driver	Heath		Gel.																			
			Driver			Calcium																			
Bulktrk	19	No.	Driver	Lonnie		Hulls																			
			Driver			Salt		13																	
JOB SERVICES & REMARKS													Remarks:			Cement did									
Rat Hole													Circulate.			Flowseal			112#						
Mouse Hole																Kol-Seal			750#						
Centralizers													1, 3, 5, 7, 9, 11, 13, 15, 87			Mud CLR 48			500 gal						
Baskets													2, 4, 6, 8, 10, 12, 14, 47			CFL-117 or CD110 CAF			68						
D/V or Port Collar													pipe on bottom breaker			Sand									
pump													500 gal mud Clear 48, plug Rothale			Handling			621						
wl													30 5x QMDC 1/2" Flo, Hook to 5 1/2"			Mileage									
Casing													+ mix 420 5x QMDC 1/2" Flo			FLOAT EQUIPMENT									
150 5x													Com 10% Salt 5% Gilsomite.			Guide Shoe									
Shut down													wash pump + lines			Centralizer			9 turbs's						
Released plug													+ Displaced with			Baskets			8						
88 BLS													of water.			AFU Inserts									
Released													+ held			Float Shoe			1						
Lift													pressure 1400 #			Latch Down			1						
Land plug													to 1800 #			Pumptrk Charge			prod string						
Mud Bogie																Mileage			53						
Signature													Shane Velige			Tax									
																Discount									
																Total Charge									



Scale 1:240 Imperial

Well Name: ROY #1
Surface Location: N2 SW NW NW Sec. 8 - 7S - 20W
Bottom Location:
API: 15-163-24197
License Number: 34903
Spud Date: 4/4/2014 Time: 1:15 PM
Region: ROOKS COUNTY
Drilling Completed: 4/11/2014 Time: 11:11 AM
Surface Coordinates: 700' FNL & 330' FWL
Bottom Hole Coordinates:
Ground Elevation: 2162.00ft
K.B. Elevation: 2167.00ft
Logged Interval: 3050.00ft To: 3720.00ft
Total Depth: 3720.00ft
Formation: LANSING - KANSAS CITY, ARBUCKLE
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: JASPAR COMPANY, INC.
Address: 1681 LIMESTONE ROAD SOUTH
P.O. BOX 1120
HAYS, KS 67601
Contact Geologist: SHANE VEHIGE
Contact Phone Nbr: (785) 623-6982
Well Name: ROY #1
Location: N2 SW NW NW Sec. 8 - 7S - 20W API: 15-163-24197
Pool: Field: ROY
State: KANSAS Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.5827640 Latitude: 39.4646464
N/S Co-ord: 700' FNL
E/W Co-ord: 330' FWL

LOGGED BY

Company: BIG CREEK CONSULTING, INC.
Address: 1909 MAPLE
ELLIS, KS 67637
Phone Nbr: (785) 259-3737
Logged By: Geologist Name: JEFF LAWLER

CONTRACTOR

Contractor: WW DRILLING, LLC
Rig #: 6
Rig Type: MUD ROTARY
Spud Date: 4/4/2014 Time: 1:15 PM
TD Date: 4/11/2014 Time: 11:11 AM
Rig Release: 4/12/2014 Time: 9:15 PM

ELEVATIONS

K.B. Elevation: 2167.00ft Ground Elevation: 2162.00ft

NOTES


DUE TO ECONOMICAL RECOVERY ON DST #5 & #8 DECISION WAS MADE TO RUN 5 1/2" PRODUCTION CASING AND FUTURE EVALUATE ZONES WITH PERFORATION. THERE ARE ALSO ARBUCKLE INTERVALS THAT SHOULD BE TESTED BEFORE CONVERTING TO A SALT WATER DISPOSAL OR INJECTION WELL.

RESPECTFULLY SUBMITTED,
JEFF LAWLER

WELL COMPARISON SHEET

FORMATION	ROY #1								SW NE NW 8-7-20				NESW NE 7-7-20				SW SE SE 6-7-20			
	2167		2162		2211		2187		2156		2199		2199		2199		2199			
	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS	LOGTOPS	SAMPLETOPS		
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM		
ANHYDRITE TOP	1749	418	1749	418	1789	422	-4	-4	1756	431	-13	-13	1740	416	+2	+2	1797	402	+16	+16
BASE	1780	387	1780	387	1821	390	-3	-3	1770	386	+1	+1	1810	389	-2	-2	1810	389	-2	-2
TOPEKA	3144	-977	3143	-976	3183	-972	-5	-4	3172	-985	+8	+9	3137	-981	+4	+5	3186	-987	+10	+11
HEEBNER SHALE	3352	-1185	3352	-1185	3392	-1181	-4	-4	3377	-1190	+5	+5	3349	-1193	+8	+8	3389	-1190	+5	+5
TORONTO	3375	-1208	3379	-1212	3414	-1203	-5	-9	3401	-1214	+6	+2	3372	-1216	+8	+4	3410	-1211	+3	-1
LKC	3390	-1223	3393	-1226	3429	-1218	-5	-8	3416	-1229	+6	+3	3388	-1232	+9	+6	3424	-1225	+2	-1
BKC	3588	-1421	3588	-1421	3622	-1411	-10	-10	3614	-1427	+6	+6	3582	-1426	+5	+5	3622	-1423	+2	+2
CHERTY CONGLOMERATE									3668	-1481										
ARBUCKLE	3628	-1461	3626	-1459	3663	-1452	-9	-7					3618	-1462	+1	+3				
RTD			3720	-1553	3710	-1499			3718	-1531			3653	-1497			3700	-1501		
LTD	3719	-1552			3705	-1494	-58										3699	-1500	-52	

DST #1 TORONTO 3351' - 3391'



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jasper Co. **8 7s 20w Rooks**

P. O. Box 1120 **Roy # 1**
Hays KS 67601

Job Ticket: 57585 **DST# 1**

ATTN: Jeff Lawler **Test Start: 2014.04.07 @ 13:13:00**

GENERAL INFORMATION:

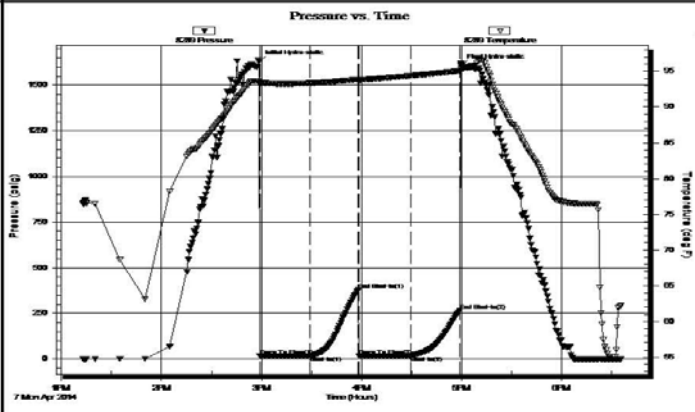
Formation: **Toronto**
 Deviated: No Whipstock: 2164.00 ft (KB)
 Time Tool Opened: 14:58:45
 Time Test Ended: 18:36:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76

Interval: 3351.00 ft (KB) To 3391.00 ft (KB) (TVD)
 Total Depth: 3391.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 19.46 psig @ 3352.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2014.04.07 End Date: 2014.04.07
 Last Calib.: 2014.04.07
 Start Time: 13:13:02 End Time: 18:35:45
 Time On Btm: 2014.04.07 @ 14:58:30
 Time Off Btm: 2014.04.07 @ 16:59:15

TEST COMMENT: 30-IFP- Weak Surface Blow Died in 17 min.
 30-ISIP- No Blow
 30-FFP- No Blow
 30-FSIP- No Blow



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.51	93.66	Initial Hydro-static
1	16.46	93.16	Open To Flow (1)
31	17.59	93.36	Shut-In(1)
60	378.75	93.88	End Shut-In(1)
60	18.07	93.73	Open To Flow (2)
91	19.46	94.38	Shut-In(2)
121	263.30	95.08	End Shut-In(2)
121	1608.61	95.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 100%	0.01

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 57585

Printed: 2014.04.07 @ 23:04:23

DST #2 LKC A - B 3387' - 3423'



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jasper Co.
P. O. Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks
Roy # 1
Job Ticket: 57586 **DST#: 2**
Test Start: 2014.04.08 @ 01:05:00

GENERAL INFORMATION:

Formation: **LKC "A & B"**
Deviated: No Whipstock: 2164.00 ft (KB)
Time Tool Opened: 02:53:45
Time Test Ended: 06:40:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76

Interval: **3387.00 ft (KB) To 3423.00 ft (KB) (TVD)**
Total Depth: 3423.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

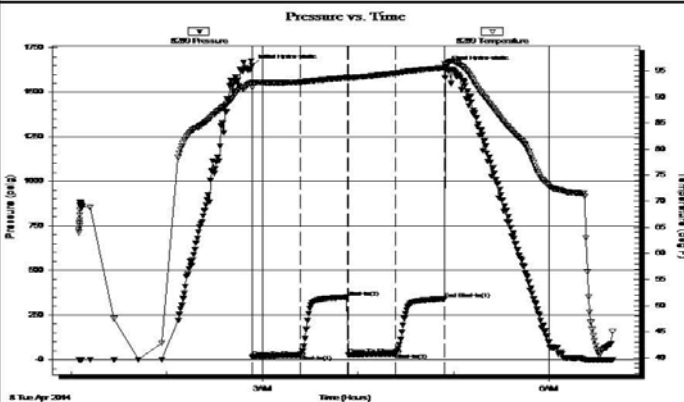
Reference Elevations: 2164.00 ft (KB)
2159.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 25.61 psig @ 3388.00 ft (KB)
Start Date: 2014.04.08 End Date: 2014.04.08
Start Time: 01:05:02 End Time: 06:40:00

Capacity: 8000.00 psig
Last Calib.: 2014.04.08
Time On Btm: 2014.04.08 @ 02:53:30
Time Off Btm: 2014.04.08 @ 04:54:45

TEST COMMENT: 30-IFP- Surface Blow Building to 1 in.
30-ISIP- No Blow
30-FFP- Weak Surface Blow in 4 min.
30-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.26	92.72	Initial Hydro-static
1	15.32	91.79	Open To Flow (1)
31	25.61	92.82	Shut-In(1)
60	350.88	93.71	Shut-In(2)
61	27.41	93.57	Open To Flow (2)
91	34.57	94.52	Shut-In(3)
121	341.05	95.61	End Shut-In(1)
122	1640.93	95.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	WCM 30%w 70%m	0.07

Gas Rates

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


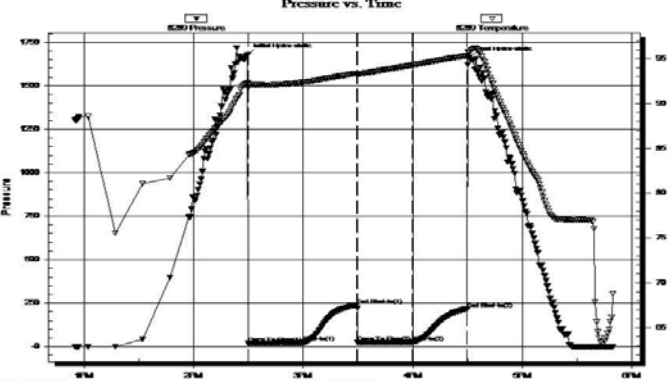
* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 57586

Printed: 2014.04.08 @ 06:49:52

DST #3 LKC C - D 3418' - 3460'

 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT																																									
	Jasper Co. P. O. Box 1120 Hays KS 67601 ATTN: Jeff Lawler	8 7s 20w Rooks Roy # 1 Job Ticket: 57587 DST#: 3 Test Start: 2014.04.08 @ 12:55:00																																								
GENERAL INFORMATION: Formation: LKC "C & D" Deviated: No Whipstock: 2164.00 ft (KB) Time Tool Opened: 14:29:45 Time Test Ended: 17:50:00 Test Type: Conventional Bottom Hole (Reset) Tester: Jim Svaty Unit No: 76 Interval: 3418.00 ft (KB) To 3460.00 ft (KB) (TVD) Total Depth: 3460.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair Reference Elevations: 2164.00 ft (KB) 2159.00 ft (CF) KB to GR/CF: 5.00 ft																																										
Serial #: 8289 Outside Press@RunDepth: 24.61 psig @ 3419.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.04.08 End Date: 2014.04.08 Last Calib.: 2014.04.08 Start Time: 12:55:02 End Time: 17:50:15 Time On Btm: 2014.04.08 @ 14:29:30 Time Off Btm: 2014.04.08 @ 16:30:30																																										
TEST COMMENT: 30-IFP- 1/4 in. Blow 30-ISIP- No Blow 30-FFP- No Blow 30-FSP- No Blow																																										
	PRESSURE SUMMARY																																									
	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation																																						
	0	1677.74	92.29	Initial Hydro-static																																						
	1	19.14	91.74	Open To Flow (1)																																						
	31	21.95	92.36	Shut-In(1)																																						
	60	238.11	93.37	End Shut-In(1)																																						
	61	22.80	93.24	Open To Flow (2)																																						
	91	24.61	94.26	Shut-In(2)																																						
	121	216.22	95.33	End Shut-In(2)																																						
	121	1661.81	95.67	Final Hydro-static																																						
Recovery	Gas Rates																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Length (ft)</th> <th>Description</th> <th>Volume (bbl)</th> </tr> </thead> <tbody> <tr> <td>5.00</td> <td>OSM 100%</td> <td>0.02</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Length (ft)	Description	Volume (bbl)	5.00	OSM 100%	0.02																<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Choke (inches)</th> <th>Pressure (psig)</th> <th>Gas Rate (Mcf/d)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)															
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5.00	OSM 100%	0.02																																								
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)																																								
* Recovery from multiple tests Trilobite Testing, Inc Ref. No: 57587 Printed: 2014.04.08 @ 20:57:44																																										

DST #4 LCK E - F 3452' - 3482'

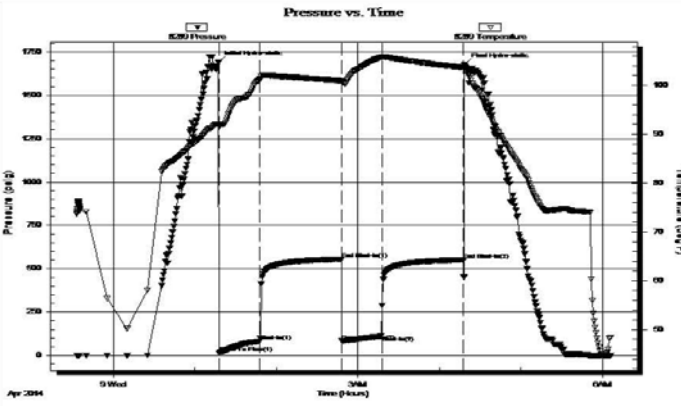
 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT		
	Jasper Co. P. O. Box 1120 Hays KS 67601 ATTN: Jeff Lawler	8 7s 20w Rooks Roy # 1 Job Ticket: 57588 DST#: 4 Test Start: 2014.04.08 @ 23:33:00	

GENERAL INFORMATION:

Formation: **LKC " E & F "**
 Deviated: No Whipstock: 2164.00 ft (KB)
 Time Tool Opened: 01:17:45
 Time Test Ended: 06:06:00
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 76
 Interval: **3452.00 ft (KB) To 3482.00 ft (KB) (TVD)**
 Total Depth: 3482.00 ft (KB) (TVD)
 Reference Elevations: 2164.00 ft (KB)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside
 Press@RunDepth: 111.80 psig @ 3453.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.08 End Date: 2014.04.09 Last Calib.: 2014.04.09
 Start Time: 23:33:02 End Time: 06:06:15 Time On Btm: 2014.04.09 @ 01:17:15
 Time Off Btm: 2014.04.09 @ 04:18:30

TEST COMMENT: 30-IFP- Surface Blow Building to 9 1/2in.
 60-ISIP- No Blow
 30-FFP- Surface Blow Building to 7 1/4in.
 60-FSP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1691.15	92.12	Initial Hydro-static
1	14.89	91.61	Open To Flow (1)
31	81.02	101.23	Shut-In(1)
91	555.18	100.99	End Shut-In(1)
91	83.54	100.70	Open To Flow (2)
121	111.80	105.74	Shut-In(2)
181	551.63	103.67	End Shut-In(2)
182	1679.21	103.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bb)
202.00	MCV 10% m 90% w	1.72
1.00	Oil Cap 100%	0.01

Gas Rates

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

* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 57588

Printed: 2014.04.09 @ 07:54:42

ROCK TYPES

- Dolprim
- Lmst fw7> shale, gry
- Carbon Sh shale, red
- Arg/Shale Ss
- Dolsec

ACCESSORIES

MINERAL

- P Pyrite
- * Sandy
- / Euhed rhombs of dol or c

FOSSIL

- ◇ Oolite

STRINGER

- Shale
- green shale
- red shale

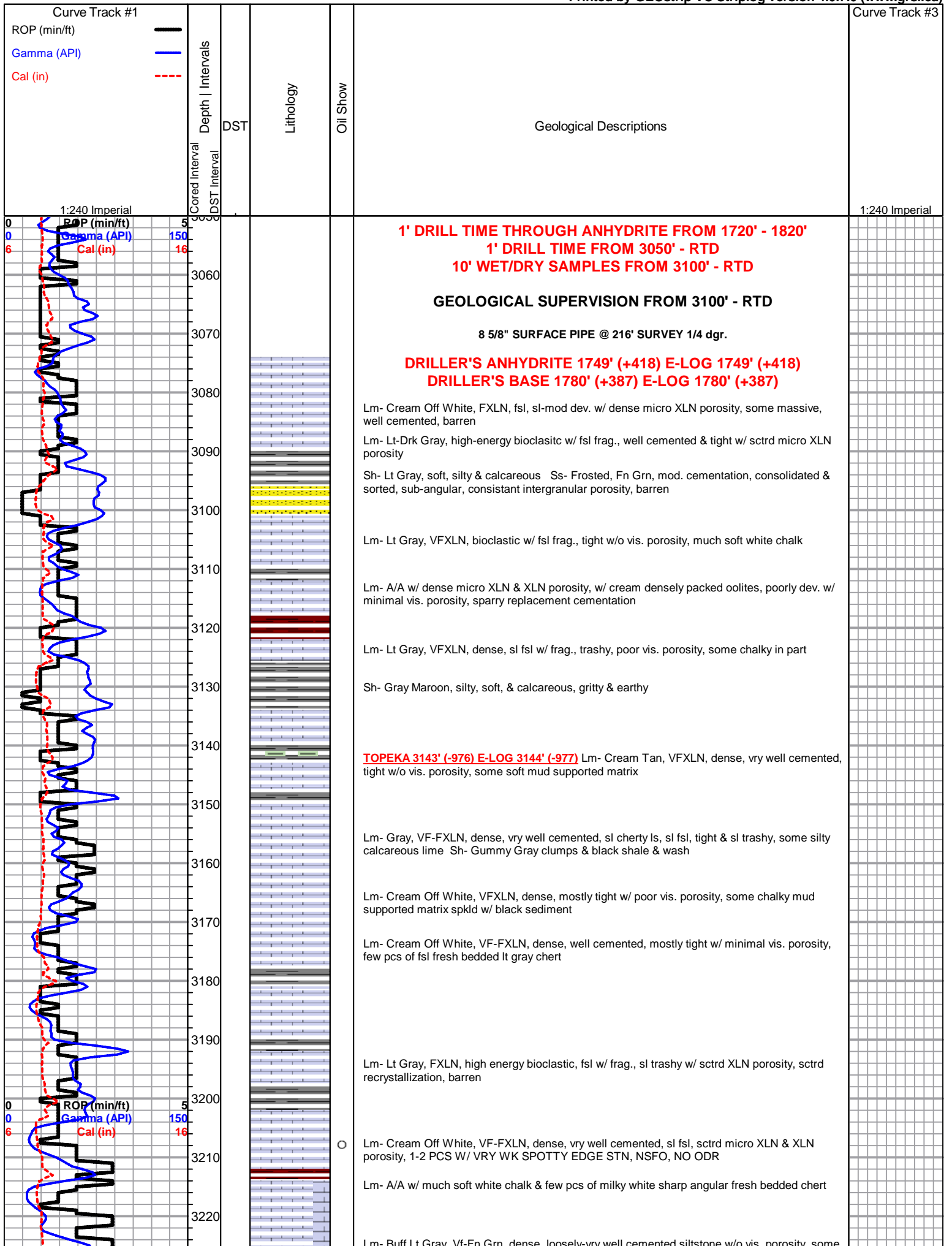
OTHER SYMBOLS

MISC

- Daily Report
- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File

DST

- DST Int
- DST alt
- DST



1' DRILL TIME THROUGH ANHYDRITE FROM 1720' - 1820'
1' DRILL TIME FROM 3050' - RTD
10' WET/DRY SAMPLES FROM 3100' - RTD

GEOLOGICAL SUPERVISION FROM 3100' - RTD

8 5/8" SURFACE PIPE @ 216' SURVEY 1/4 dgr.

DRILLER'S ANHYDRITE 1749' (+418) E-LOG 1749' (+418)
DRILLER'S BASE 1780' (+387) E-LOG 1780' (+387)

Lm- Cream Off White, FXLN, fsl, sl-mod dev. w/ dense micro XLN porosity, some massive, well cemented, barren

Lm- Lt-Drk Gray, high-energy bioclastic w/ fsl frag., well cemented & tight w/ sctrd micro XLN porosity

Sh- Lt Gray, soft, silty & calcareous Ss- Frosted, Fn Grn, mod. cementation, consolidated & sorted, sub-angular, consistant intergranular porosity, barren

Lm- Lt Gray, VFXLN, bioclastic w/ fsl frag., tight w/o vis. porosity, much soft white chalk

Lm- A/A w/ dense micro XLN & XLN porosity, w/ cream densely packed oolites, poorly dev. w/ minimal vis. porosity, sparry replacement cementation

Lm- Lt Gray, VFXLN, dense, sl fsl w/ frag., trashy, poor vis. porosity, some chalky in part

Sh- Gray Maroon, silty, soft, & calcareous, gritty & earthy

TOPEKA 3143' (-976) E-LOG 3144' (-977) Lm- Cream Tan, VFXLN, dense, vry well cemented, tight w/o vis. porosity, some soft mud supported matrix

Lm- Gray, VF-FXLN, dense, vry well cemented, sl cherty ls, sl fsl, tight & sl trashy, some silty calcareous lime Sh- Gummy Gray clumps & black shale & wash

Lm- Cream Off White, VFXLN, dense, mostly tight w/ poor vis. porosity, some chalky mud supported matrix spkld w/ black sediment

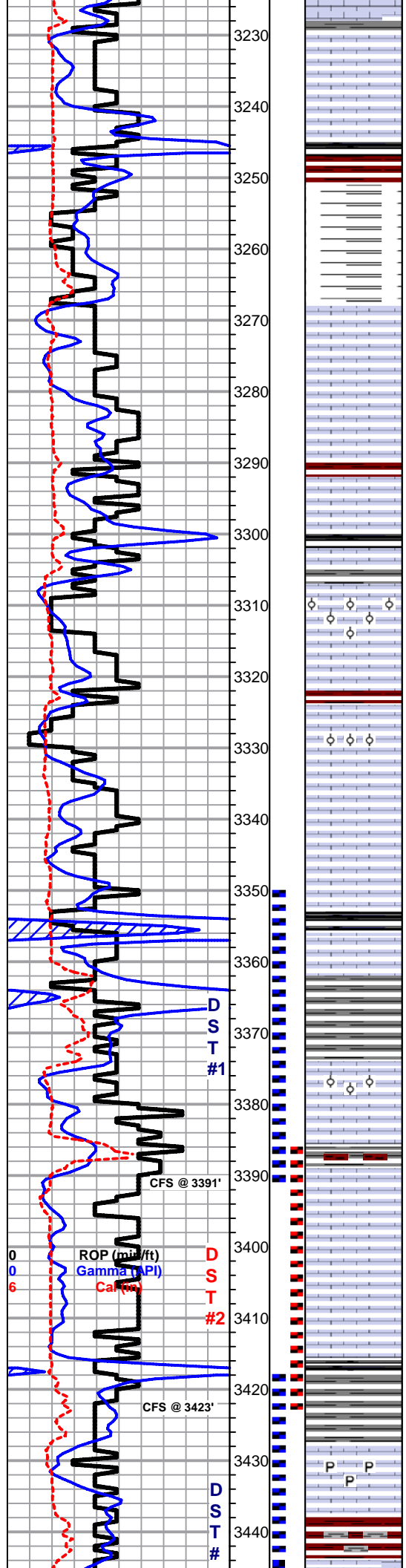
Lm- Cream Off White, VF-FXLN, dense, well cemented, mostly tight w/ minimal vis. porosity, few pcs of fsl fresh bedded lt gray chert

Lm- Lt Gray, FXLN, high energy bioclastic, fsl w/ frag., sl trashy w/ sctrd XLN porosity, sctrd recrystallization, barren

Lm- Cream Off White, VF-FXLN, dense, vry well cemented, sl fsl, sctrd micro XLN & XLN porosity, 1-2 PCS W/ VRY WK SPOTTY EDGE STN, NSFO, NO ODR

Lm- A/A w/ much soft white chalk & few pcs of milky white sharp angular fresh bedded chert

Lm- Buff Lt Gray, Vf-Fn Grn, dense, loosely-vry well cemented siltstone w/o vis. porosity, some



sl unconsolidated

Lm- Cream Off White, FXLN, sl dolomitic ls w/ consistant XLN porosity throughout, most well cemented, some sl chalky in part, clean & barren

Sh- Black Brick Red Lm Green, fissile, carbonaceous, gritty & earthy, gummy sandy lime

Sh- Maroon, gummy argillaceous clumps

Lm- Cream Off White, VF-FXLN, dense, fsl & sl oolitic, poorly dev., mostly well cemented & tight w/ sctrd recrystallization, sctrd micro XLN & XLN porosity, some soft mud supported matrix & soft white chalk

Lm- A/A w/ few pcs of VFXLN of sl dolomitic ls w/ consistant micro XLN porosity, barren

Sh- Maroon, gritty & earthy

Lm- Cream Off White, FXLN, oolitic, some w/ sctrd recrystallization, XLN porosity, barren

Sh- Black Gray Maroon, fissile & carbonaceous, silty & soft, gritty & earthy, some gummy clumps

Lm- Cream Off White, FXLN Fn Grn, dense mix, sl fsl xln, well cemented, sctrd XLN porosity & some mud supported matrix, chalky in part, poor vis. porosity

Lm- Cream, pearl shaped oolitic grainstone w/ ppt interoolite porosity & FXLN, oolitic w/ sctrd recrystallization, SCTRD BLK STN, TR FO UPON CRUSH, WK ODR, some soft white chalk carrying STN A/A, NO FO

Lm- Lt Gray, FXLN, dense, well cemented, massive, vry well cemented, high energy w/ fsl frag. poor vis. porosity, sctrd recrystallization

Lm- Lt Gray Buff, FXLN, massive, well cemented, oolitic w/ minimal effective porosity, much recrystallization, FEW PCS W/ SPOTTY STN, TR FO, NO ODR, much soft white chalk & few pcs of gray fresh bedded chert

Lm- Tan Cream Buff, VF-FXLN, dense, well cemented, mostly tight w/ minimal-poor vis. porosity, some sl chalky in part

Lm- Buff Tan, FXLN, poorly dev., chalky in part, most w/ poor XLN porosity, barren

HEEBNER 3352' (-1185) E-LOG 3352' (-1185) Sh- Black Gray Maroon, fissile, carbonaceous, gritty & earthy, gummy wash, silty & calcareous

Sh- A/A w/ increasing amount of wash

TORONTO 3379' (-1212) E-LOG 3375' (-1208) Lm- Cream Off White, F-MED XLN, oolitic w/ few fusulinids, some w/ sctrd recrystallization, sctrd fn ppt inter oolite & fsl porosity, SCTRD LT STN, SL OILY SHEEN (POSSIBLY WET), TR FO, FNT ODR, few pcs of vfxln w/o vis. porosity

20"- Lm- A/A w/ SL INCR. IN ODR, STN A/A, buff VF-FXLN, dense, vry well cemented, sl trashy & fsl, no vis. porosity

40"- Lm- oolitic & fusulinid ls A/A w/ pyrite inclusions, SL INCR. IN SFO, GD SULPHURIC ODR, FR-GD OIL SHEEN ON WET CUP, some sl fsl chert & sl dolomitic chert

60"- Lm- Cream Off White, FXLN, densely packed oolites, mod. well dev. inter oolite ppt porosity, LT BRWN STN, TR FO, GD SULPHURIC ODR, OILY SHEEN & SCUM ON WET CUP, some w/ sparry replacement cementation Sh- Lt Gray Maroon, silty & soft, gritty & earthy

LKC 3393' (-1226) E-LOG 3390' (-1223) Lm- White Off White, F-CRS XLN, med-large oolites & fusulinids, well dev. w/ GD inter fsl ppt porosity, loose-well cemented, some w/ recrystallization among porosity, LT SCTRD STN, SL SFO, MOD. ODR, GD SHEEN ON WET CUP, some sl chalky in part

Lm- Cream Off White, VF-FXLN, dense, few sl fsl, mostly vry clean, poorly dev. & tight, lithographic w/o vis. porosity to sctrd micro XLN & XLN porosity, barren, some sctrd recrystallization, drk gray cryptoXLN w/o vis. porosity

Sh- Black Lt Gray Maroon, fissile, carbonaceous, silty, gummy argillaceous clumps

Lm- Cream Tan, FXLN, oolitic, sl-mod. dev. w/ sctrd XLN & ppt inter oolite porosity, few w/ micro pyrite inclusions, few pcs w/ lithofied mud matrix, sctrd ppt porosity, ALL W/ LT SCTRD STN, TR FO, OILY SHEEN, WK-FR ODR

Sh- Gray Maroon Lm Green, silty & calcareous, dense, silty & soft

SHORT TRIP
SURVEY 1/2 dgr.
STRAP -1.71

DST #1
TORONTO
3351' - 3391'
(ALL PERF ON
BOTTOM)
30-30-30-30

2' OSPM
IFP: 16-17#
FFP: 18-19#
SIP: 378-263#
HYD: 1630-1608#
BHT: 95 dgr.

DST #2
LKC A - B
3387' - 3423'

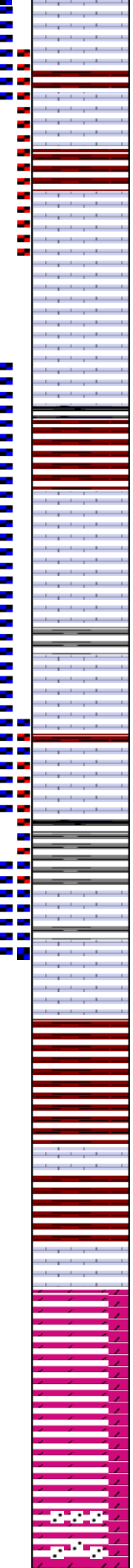
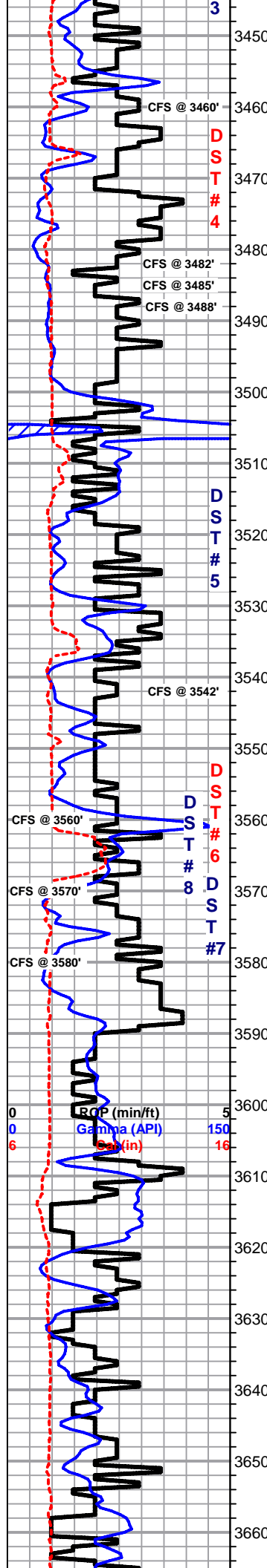
30-30-30-30
15' WCM
(30%W, 70%M)

IFP: 15-25#
FFP: 27-34#
SIP: 350-341#
HYD: 1649-1640#
BHT: 95 dgr.

DST #3
LKC C - D
3418' - 3460'

30-30-30-30

5' OSPM
IFP: 19-21#
FFP: 22-24#
SIP: 238-216#



Lm/Chert- Mix of F-MED XLN mod. well dev. oolitic ls w/ mostly consistent fn ppt interoolite porosity, LT SCTRD STN, NSFO, OILY SHEEN, FNT ODR, several pcs of weathered golden brown chert & milky white fresh bedded chert, & some dense, well cemented mud supported matrix, chalky in part
20"- Lm- incr. algal & mud supported matrix **40"**- Lm- VFXLN, dense w/ consistant micro XLN porosity, barren

Lm- Tan, VFXLN, dense, vry well cemented, massive, lithofied mud matrix, poorly dev. w/ few sctrd ppt porosity, WK SPOTTY STN, SL SFO, NO ODR,

Lm- Cream Off White, VFXLN, dense, most well cemented, few sl chalky in part, mostly tight w/ poor vis. porosity, some fsl cherty Ls w/o vis. porosity, soft white chalk
40"- A/A w/ increasing amount of soft chalk

3485'- Lm/Chert- Tan Cream, VFXLN, massive, vry well cemented, tight dolomitic ls & milky white fresh bedded chert, all w/ minimal vis. porosity, barren

3488'- Lm- White Off White, VF-FXLN, dense poorly dev. mix., few sl oolitic, well cemented w/ sctrd XLN porosity, barren **40"**- Lm- White Off White, VFXLN Vfr Grn, dense, tight, some sl chalky in part, no-poor vis. porosity, vry clean & barren

Lm- White Off White, VFXLN, sl fsl cherty ls/chert, some w/ sctrd recrystallization, poor vis. porosity, vry clean & barren

Sh- Black Maroon Gray Lm Green, fissile, carbonaceous, gritty & earthy, gummy lime

Lm- Cream Off White, FXLN, mostly dense, poorly dev. w/ dense vry fn ppt porosity, LT SCTRD STN, TR FO, few FXLN, oolitic, poorly dev. sctrd XLN porosity, WK SPOTTY STN, NSFO, ALL W/ WK ODR

Sh- Gray Maroon, silty & calcareous, gritty & earthy

Lm- Cream Tan, Crypto-FXLN, mix of tight sl cherty ls w/ sctrd ppt to vuggy porosity, recrystallization w/in por., SCTRD LT STN, SFO, & FXLN, mod. well dev. w/ consistant fn ppt porosity, mostly throughout, DRK STN, SFO, ALL W/ FR-GD SWEET ODR, GD OIL SCUM ON TOP OF WET CUP

Lm- Tan Cream, VF-FXLN, oolitic, ranging from few pcs w/ ppt to sub-vuggy interoolite porosity to sctrd XLN & micro XLN porosity, & some chalky w/ poor vis. porosity, LT SCTRD STN, TR FO, FNT ODR

Sh- Black Gray Maroon Lm Green, fissile, soft, carbonaceous, many gummy clumps, gritty & earthy

Lm- Tan Cream, VF-FXLN, sl oolitic, poorly dev. w/ dense-sctrd XLN porosity, WK SPOTTY STN, NSFO, NO ODR

3580' 20"- Lm- White Cream, F-MED XLN Vfr Grn, ranging from well dev. oolitic & fusulinid grainstone w/ GD consistant ppt porosity throughout w/ SCTRD DRK STN, TR FO, WK ODR, mod. dev. oolitic & fusulinids w/ sctrd ppt porosity, to tight mud supported matrix w/o vis. porosity
40"- Lm- A/A w/ increasing quality/quantity of show/stain, free oil, & odr, few pcs sub-sat w/ coarse recrystallization
60"- Lm- A/A w/ increasing amount of pearl shaped oolitic grainstone w/ GD consistant interoolite porosity throughout w/ STN & SFO A/A, SL INCR. IN ODR, less soft white chalk

3584'- Lm- White to Buff, VF-FXLN, sl fsl & oolitic, poorly dev. w/ sctrd XLN porosity, vry clean, 1-2 pcs w/ WK SPOTTY EDGE STN, NSFO, NO ODR, much soft white chalk
BKC 3588' (-1421) E-LOG 3588' (-1421) Sh- Maroon Gray Lm Green, sandy, gummy sandy lime, silty & pebbly, silty & calcareous

Lm- White, mix of sl unconsolidated & sediment spkld FXLN, poor vis. porosity, some w/ dense mud supported matrix, & several pcs of friable arenaceous ls w/ sctrd intergranular porosity, DRK SCTRD STN, NSFO, FNT ODR, SOME W/O FLOR., SOME W/ WK DULL YLW, NO STRM WET CUT

Sh- Maroon Gray, gritty & earthy, dense

Lm- Cream Off White, FXLN, fsl & sl oolitic w/ sctrd XLN porosity, 2-3 pcs W/ DRK SCTRD STN, TR FO, NO ODR UPON CRUSH

ARBUCKLE 3626' (-1459) E-LOG 3628' (-1461) Dol- Buff Cream, VF-FXLN, massive, mostly tight w/ micro XLN & sctrd fn ppt to mod. well dev. w/ ppt porosity throughout & anhedral rhombs, lesser dev. lacking stn, mod dev. w/ DRK SUB-SAT TO SAT STN, SL-FR SFO, WK-FR ODR, GD OIL SHEEN & SOME FLOATING FREE OIL ON TOP OF WET CUP

Dol- Cream, VFXLN, dense, vry well cemented, tight w/ poor micro XLN porosity

Dol- Buff Cream, Med-Crs XLN, massive, well dev. w/ consistant ppt porosity throughout, anhedral rhombs, DRK SAT STN, GD SFO, WK-FR ODR, HVY OIL SHEEN & MUCH FLOATING FREE OIL ON WET CUP

Dol- Tan, VF-FXLN, vry well cemented, mostly tight & poorly dev. w/ micro XLN porosity, some w/ sctrd XLN to fn ppt porosity, mostly barren, few pcs w/ WK SPOTTY STN, SOME W/ BLK DO STN, NSFO, NO ODR

Dol- Off White Cream Tan, mix of MED XLN, mod. well dev. w/ consistant fn ppt porosity, SCTRD STN, TR FO, OILY SHEEN, FNT ODR, mostly tight VF-FXLN, dense micro XLN to sctrd XLN porosity, barren, few pcs unconsolidated w/ fn-med sub-rounded to angular qtz.

HYD: 1677-1661#
 BHT: 65 dgr.

DST #4
 LKC E - F
 3452' - 3482'

30-60-30-60

202' MCW
 (10% M, 90% W)
 1' OIL CAP

IFP: 14-81#
 FFP: 83-111#
 SIP: 555-551#
 HYD: 1691-1679#
 BHT: 103 dgr.

DST #5
 LKC H-J
 3497' - 3560'

30-45-45-90

670' GIP
351' TOTAL FLUID
184' OCM
 (40% O, 60% M)
67' CLEAN OIL
 Gr: 38 API

IFP: 42-102#
 FFP: 108-124#
 SIP: 274-346#
 HYD: 1726-1666#
 BHT: 103 dgr.

SURVEY 3/4 dgr.

DST #6
 LKC K
 3547' - 3570'

30-30-30-30

5' SOCM
 (5% O, 95% M)

IFP: 11-12#
 FFP: 11-12#
 SIP: 19-17#
 HYD: 1780-1742#
 BHT: 97 dgr.

DST #7
 LKC L
 3567' - 3580'
 (MISRUN)

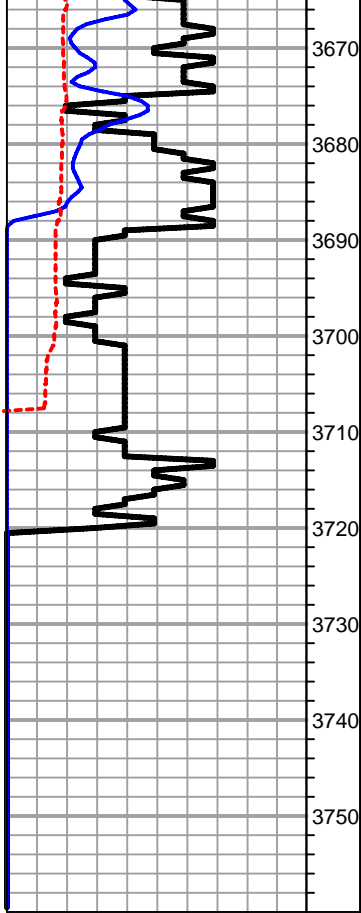
220' MUD

DST #8
 LKC L
 3547' - 3580'

30-60-45-60

50' GIP
10' CLEAN OIL
63' MCO
 (40% M, 60% O)

IFP: 16-31#
 FFP: 32-50#
 SIP: 663-650#



inclusions w/ solid dolomitic cementation, barren, & few pcs of FXLN sl oolitic dolomitic ls w/ dense XLN porosity, barren

Lm- White Off White, VFXLN, dense, tight w/ minimal vis. porosity, soft white chalk, unconsolidated w/ qtz inclusions A/A w/ glauconite

○ Dol- Tan, VF-FXLN, most sl unconsolidated w/ sub-rounded med qtz inclusions, dense XLN porosity, most well cemented, brittle, mostly barren, few pcs w/ BLK STN, FEW W/ SCTRD LT STN, NSFO, NODR

D
○ Dol- Clear to Frosted, med grn sandy dolomite, loosely cemented, spkld w/ glauconite, most well dev. w/ consistant intergranular porosity, mostly baren, FEW PCS W/ SCTRD BLK STN, NO SFO, FEW W/ LT SCTRD STN, NSFO, NO ODR


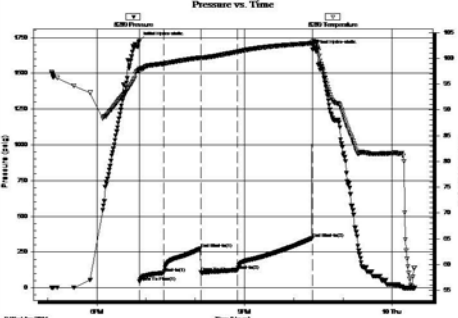
Dol- A/A w/ VFXLN, dense, vry well cemented, tight w/ sctrd to dense micro XLN porosity, barren


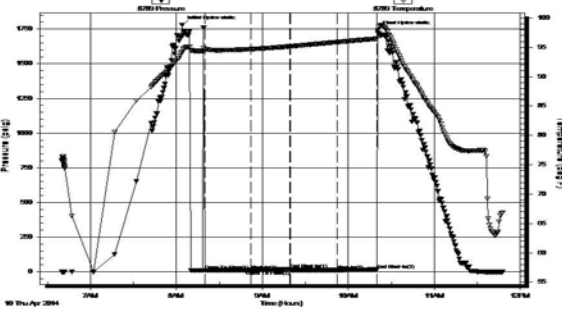
○ Dol- Cream/Salmon, F-CRSE XLN, massive, vry well cemented, most well dev. w/ GD consistant inter XLN porosity, euhedral to anhedral rhombs, SCTRD BKL DO STN, NO SFO, NODR, & salmon VFXLN, tight w/ minimal vis. porosity, barren

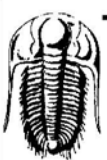
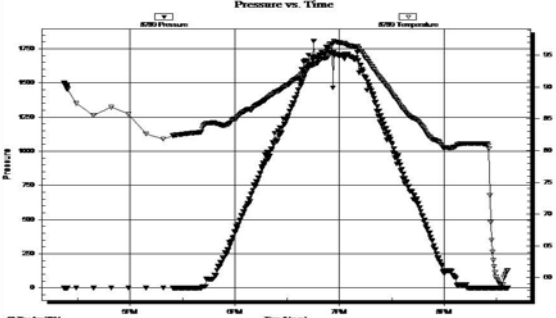
RTD 3720' (-1553) LTD 3719' (-1552) @ 11:11 4-11-2014


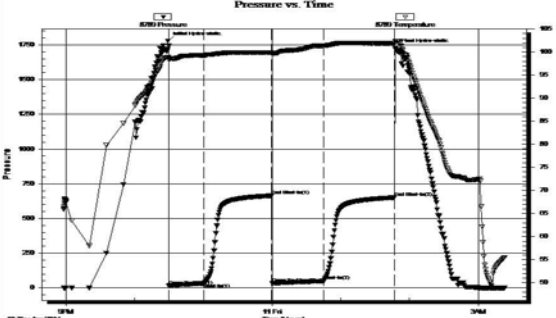
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-  DST#6LKC_K.jpg
-  DST#7LKC_L.jpg
-  DST#8LKC_L.jpg

15 STND SHORT TRIP
CTCH 1 1/2 HR.
SURVEY 1 dgr.

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT Jasper Co. 8 7s 20w Rooks P. O. Box 1120 Roy # 1 Hays KS 67601 Job Ticket: 57589 DST# 5 ATTN: Jeff Lawler Test Start: 2014.04.09 @ 17:05:00																																				
GENERAL INFORMATION: Formation: LKC " H - J " Deviated: No Whipstock: 2164.00 ft (KB) Test Type: Conventional Bottom Hole (Reset) Time Tool Opened: 18:52:15 Tester: Jim Svaty Time Test Ended: 00:28:00 Unit No: 76 Interval: 3497.00 ft (KB) To 3560.00 ft (KB) (TVD) Reference Elevations: 2164.00 ft (KB) Total Depth: 3560.00 ft (KB) (TVD) 2159.00 ft (CF) Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft																																					
Serial #: 8289 Outside Press@RunDepth: 124.03 psig @ 3532.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.04.09 End Date: 2014.04.10 Last Calib.: 2014.04.10 Start Time: 17:05:02 End Time: 00:28:00 Time On Btm: 2014.04.09 @ 18:52:00 Time Off Btm: 2014.04.09 @ 22:23:15																																					
TEST COMMENT: 30-IFP- BOB in 9 min. 45-ISIP- Surface Blow in 2 min. Died Back in 35 min. 45-FFP- BOB in 29 min. 90-FSIP- Surface Blow in 1 1/2 min. Died Back in 36 min.																																					
	PRESSURE SUMMARY <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1726.78</td><td>97.97</td><td>Initial Hydro-static</td></tr> <tr><td>1</td><td>42.94</td><td>97.42</td><td>Open To Flow (1)</td></tr> <tr><td>30</td><td>102.61</td><td>98.96</td><td>Shut-In(1)</td></tr> <tr><td>75</td><td>274.66</td><td>100.11</td><td>End Shut-In(1)</td></tr> <tr><td>75</td><td>108.32</td><td>100.05</td><td>Open To Flow (2)</td></tr> <tr><td>120</td><td>124.03</td><td>101.25</td><td>Shut-In(2)</td></tr> <tr><td>211</td><td>346.32</td><td>102.91</td><td>End Shut-In(2)</td></tr> <tr><td>212</td><td>1666.08</td><td>103.16</td><td>Final Hydro-static</td></tr> </tbody> </table>	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1726.78	97.97	Initial Hydro-static	1	42.94	97.42	Open To Flow (1)	30	102.61	98.96	Shut-In(1)	75	274.66	100.11	End Shut-In(1)	75	108.32	100.05	Open To Flow (2)	120	124.03	101.25	Shut-In(2)	211	346.32	102.91	End Shut-In(2)	212	1666.08	103.16	Final Hydro-static
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation																																		
0	1726.78	97.97	Initial Hydro-static																																		
1	42.94	97.42	Open To Flow (1)																																		
30	102.61	98.96	Shut-In(1)																																		
75	274.66	100.11	End Shut-In(1)																																		
75	108.32	100.05	Open To Flow (2)																																		
120	124.03	101.25	Shut-In(2)																																		
211	346.32	102.91	End Shut-In(2)																																		
212	1666.08	103.16	Final Hydro-static																																		
Recovery <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Length (ft)</th> <th>Description</th> <th>Volume (bbl)</th> </tr> </thead> <tbody> <tr><td>184.00</td><td>OCM 40% 60% m</td><td>1.47</td></tr> <tr><td>67.00</td><td>CO 100%</td><td>0.94</td></tr> <tr><td>0.00</td><td>670 GIP</td><td>0.00</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Length (ft)	Description	Volume (bbl)	184.00	OCM 40% 60% m	1.47	67.00	CO 100%	0.94	0.00	670 GIP	0.00							Gas Rates <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Choke (inches)</th> <th>Pressure (psig)</th> <th>Gas Rate (Mcf/d)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)															
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 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT																																						
Jasper Co. P. O. Box 1120 Hays KS 67601 ATTN: Jeff Lawler	8 7s 20w Rooks Roy # 1 Job Ticket: 57533 DST#: 6 Test Start: 2014.04.10 @ 06:40:00																																						
GENERAL INFORMATION: Formation: LKC K Deviated: No Whipstock: 2164.00 ft (KB) Time Tool Opened: 08:19:45 Time Test Ended: 11:51:00 Interval: 3547.00 ft (KB) To 3570.00 ft (KB) (TVD) Total Depth: 3570.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair																																							
Test Type: Conventional Bottom Hole (Reset) Tester: Tim Phillips Unit No: 76 Reference Elevations: 2164.00 ft (KB) 2159.00 ft (CF) KB to GR/CF: 5.00 ft																																							
Serial #: 8789 Inside Press@RunDepth: 12.48 psig @ 3548.00 ft (KB) Start Date: 2014.04.10 End Date: 2014.04.10 Start Time: 06:40:02 End Time: 11:48:00 Capacity: 8000.00 psig Last Calib.: 2014.04.10 Time On Btm: 2014.04.10 @ 08:04:00 Time Off Btm: 2014.04.10 @ 10:20:30																																							
TEST COMMENT: IFF- Dead no blow ISI-Dead no blow back FF-Dead no blow FSI-Dead no blow back																																							
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 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT																																						
	Jasper Co. P. O. Box 1120 Hays KS 67601 ATTN: Jeff Lawler	8 7s 20w Rooks Roy # 1 Job Ticket: 57534 DST#: 7 Test Start: 2014.04.10 @ 16:22:00																																					
GENERAL INFORMATION:																																							
Formation: LKC L Deviated: No Whipstock ft (KB) Time Tool Opened: Time Test Ended: 20:42:00		Test Type: Conventional Bottom Hole (Reset) Tester: Tim Phillips Unit No: 76 Reference Elevations: 2164.00 ft (KB) 2159.00 ft (CF) KB to GR/CF: 5.00 ft																																					
Interval: 3567.00 ft (KB) To 3580.00 ft (KB) (TVD) Total Depth: 3580.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good																																							
Serial #: 8789 Inside Press@RunDepth: psig @ 3574.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.04.10 End Date: 2014.04.10 Last Calib.: 2014.04.10 Start Time: 16:22:02 End Time: 20:36:45 Time On Btm: Time Off Btm:																																							
TEST COMMENT: Packer failure																																							
Pressure vs. Time 		PRESSURE SUMMARY																																					
		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Time (Min.)</th> <th style="width: 20%;">Pressure (psig)</th> <th style="width: 15%;">Temp (deg F)</th> <th style="width: 50%;">Annotation</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation																																
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<small>* Recovery from multiple tests</small>																																							

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT			
Jasper Co. P. O. Box 1120 Hays KS 67601 ATTN: Jeff Lawler	8 7s 20w Rooks Roy # 1 Job Ticket: 57535 DST#: 8 Test Start: 2014.04.10 @ 20:58:00			
GENERAL INFORMATION: Formation: LKC KL Deviated: No Whipstock ft (KB) Time Tool Opened: 22:29:45 Time Test Ended: 03:24:00 Test Type: Conventional Bottom Hole (Reset) Tester: Tim Phillips Unit No: 76 Reference Elevations: 2164.00 ft (KB) 2159.00 ft (CF) KB to GR/CF: 5.00 ft Interval: 3547.00 ft (KB) To 3580.00 ft (KB) (TVD) Total Depth: 3580.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good				
Serial #: 8789 Inside Press@RunDepth: 50.13 psig @ 3548.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.04.10 End Date: 2014.04.11 Last Calib.: 2014.04.11 Start Time: 20:58:02 End Time: 03:23:15 Time On Btm: 2014.04.10 @ 22:29:00 Time Off Btm: 2014.04.11 @ 01:48:00				
TEST COMMENT: IFF- Blow built to 3.75 in ISI- Dead no blow back FF- Blow built to 4 in FSI- Dead no blow back				
	PRESSURE SUMMARY			
	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
	0	1779.26	98.95	Initial Hydro-static
	1	16.38	98.30	Open To Flow (1)
	31	31.16	99.19	Shut-In(1)
	91	663.85	99.93	End Shut-In(1)
	91	32.99	99.71	Open To Flow (2)
	136	50.13	101.34	Shut-In(2)
	198	650.45	101.92	End Shut-In(2)
	199	1728.46	102.41	Final Hydro-static
Recovery		Gas Rates		
Length (ft)	Description	Volume (bbl)	Choke (inches) Pressure (psig) Gas Rate (Mcft/d)	
10.00	CO 100% Oil	0.05		
63.00	MCO 40%M, 60%O	0.31		
0.00	GIP 50 ft	0.00		
* Recovery from multiple tests				



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.07 @ 13:13:00

End Date: 2014.04.07 @ 18:36:00

Job Ticket #: 57585 DST #: 1

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

Printed: 2014.04.11 @ 13:41:01

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 1 Toronto 2014.04.07



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57585 **DST#: 1**
 Test Start: 2014.04.07 @ 13:13:00

GENERAL INFORMATION:

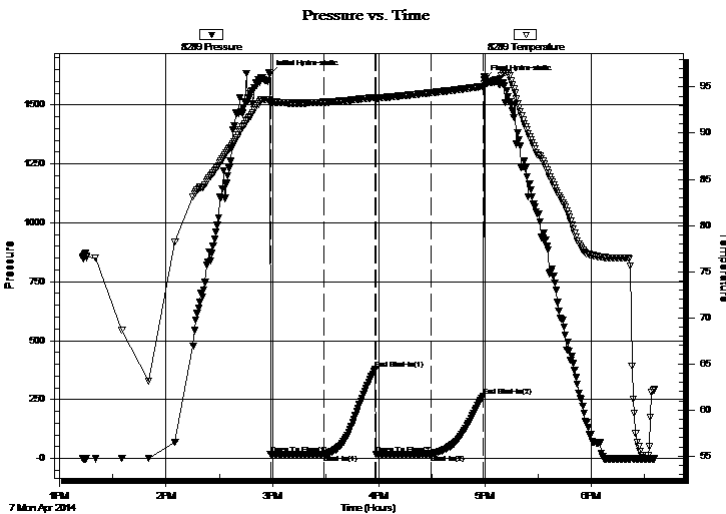
Formation: **Toronto**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:58:45
 Time Test Ended: 18:36:00
 Interval: **3351.00 ft (KB) To 3391.00 ft (KB) (TVD)**
 Total Depth: 3391.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 19.46 psig @ 3352.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.07 End Date: 2014.04.07 Last Calib.: 2014.04.07
 Start Time: 13:13:02 End Time: 18:35:45 Time On Btm: 2014.04.07 @ 14:58:30
 Time Off Btm: 2014.04.07 @ 16:59:15

TEST COMMENT: 30-IFP- Weak Surface Blow Died in 17 min.
 30-ISIP- No Blow
 30-FFP- No Blow
 30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.51	93.66	Initial Hydro-static
1	16.46	93.16	Open To Flow (1)
31	17.59	93.36	Shut-In(1)
60	378.75	93.88	End Shut-In(1)
60	18.07	93.73	Open To Flow (2)
91	19.46	94.38	Shut-In(2)
121	263.30	95.08	End Shut-In(2)
121	1608.61	95.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 100%	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601

8 7s 20w Rooks,KS

Roy #1

Job Ticket: 57585

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.04.07 @ 13:13:00

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:58:45

Time Test Ended: 18:36:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 3351.00 ft (KB) To 3391.00 ft (KB) (TVD)

Total Depth: 3391.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2164.00 ft (KB)

2159.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8789

Inside

Press@RunDepth: psig @ 3352.00 ft (KB)

Start Date: 2014.04.07

End Date:

2014.04.07

Start Time: 13:13:02

End Time:

18:35:30

Capacity: 8000.00 psig

Last Calib.:

2014.04.07

Time On Btm:

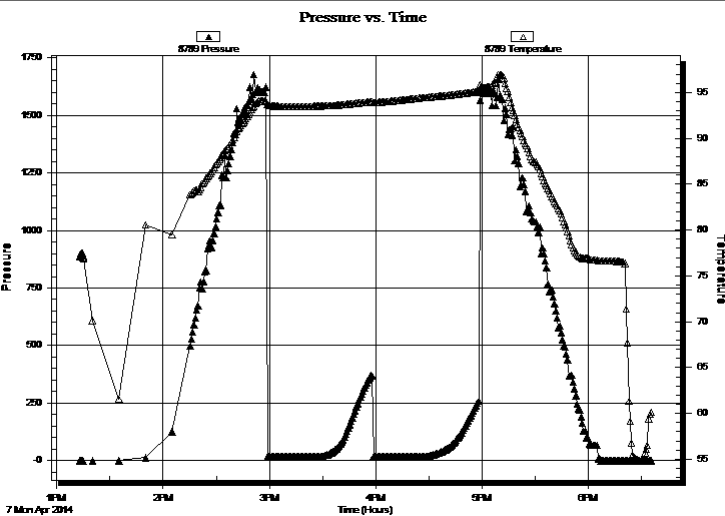
Time Off Btm:

TEST COMMENT: 30-IFP- Weak Surface Blow Died in 17 min.

30-ISIP- No Blow

30-FFP- No Blow

30-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OSM 100%	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57585 **DST#: 1**
Test Start: 2014.04.07 @ 13:13:00

Tool Information

Drill Pipe:	Length: 3240.00 ft	Diameter: 3.80 inches	Volume: 45.45 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	38000.00 lb
			<u>Total Volume: 46.05 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3351.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	61.00 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			3331.00	
Shut In Tool	5.00			3336.00	
Hydraulic tool	5.00			3341.00	
Packer	5.00			3346.00	21.00 Bottom Of Top Packer
Packer	5.00			3351.00	
Stubb	1.00			3352.00	
Recorder	0.00	8789	Inside	3352.00	
Recorder	0.00	8289	Outside	3352.00	
Perforations	36.00			3388.00	
Bullnose	3.00			3391.00	40.00 Bottom Packers & Anchor
Total Tool Length:	61.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57585 **DST#: 1**
Test Start: 2014.04.07 @ 13:13:00

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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.89 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1600.00 ppm			
Filter Cake: 2.00 inches			

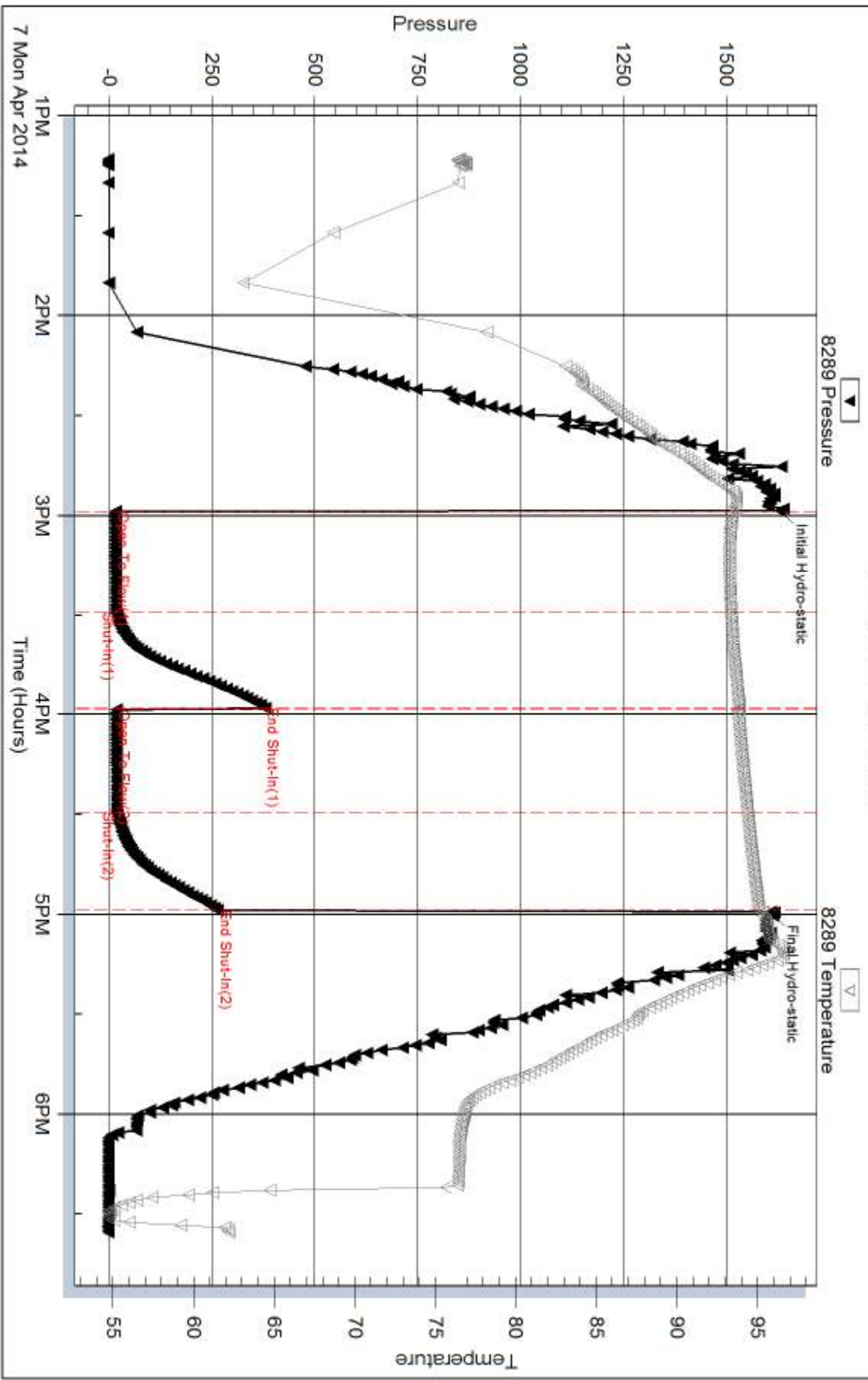
Recovery Information

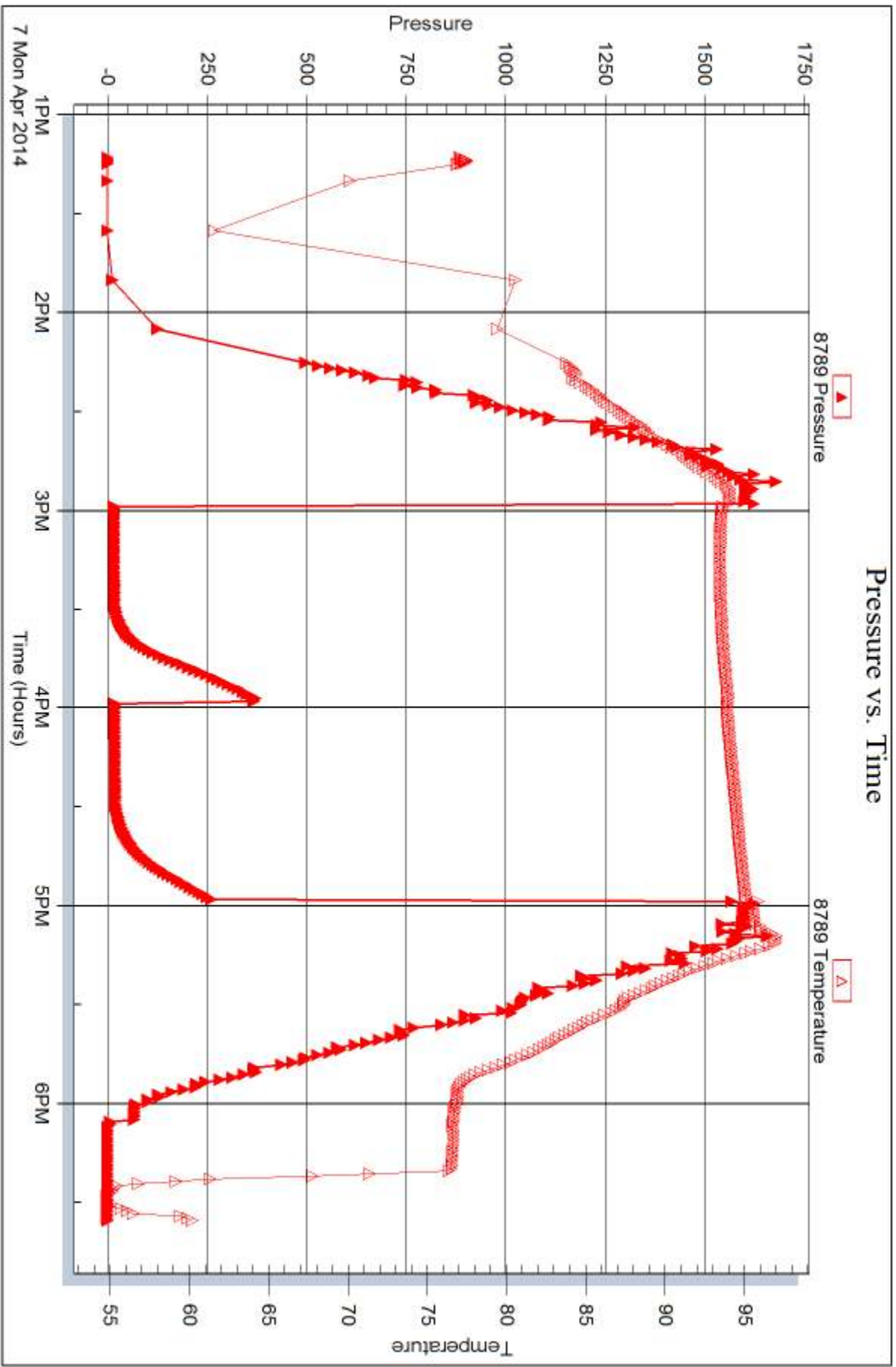
Recovery Table

Length ft	Description	Volume bbl
2.00	OSM 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.08 @ 01:05:00

End Date: 2014.04.08 @ 06:40:00

Job Ticket #: 57586 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:40:38

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 2 LKC " A & B " 2014.04.08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57586 **DST#: 2**
Test Start: 2014.04.08 @ 01:05:00

GENERAL INFORMATION:

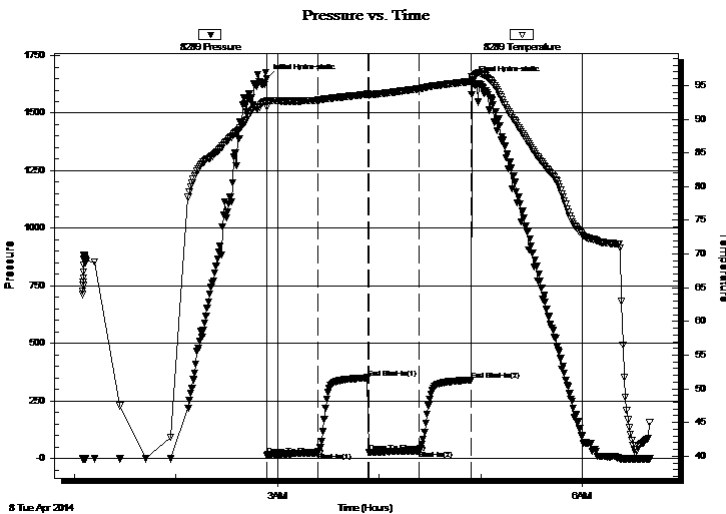
Formation: **LKC " A & B "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:53:45
Time Test Ended: 06:40:00
Interval: **3387.00 ft (KB) To 3423.00 ft (KB) (TVD)**
Total Depth: 3423.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76
Reference Elevations: 2164.00 ft (KB)
2159.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 34.57 psig @ 3388.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.08 End Date: 2014.04.08 Last Calib.: 2014.04.08
Start Time: 01:05:02 End Time: 06:40:00 Time On Btm: 2014.04.08 @ 02:53:30
Time Off Btm: 2014.04.08 @ 04:54:45

TEST COMMENT: 30-IFP- Surface Blow Building to 1"
30-ISIP- No Blow
30-FFP- Weak Surface Blow in 4 min.
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.26	92.72	Initial Hydro-static
1	15.32	91.79	Open To Flow (1)
31	25.61	92.82	Shut-In(1)
60	350.88	93.71	End Shut-In(1)
61	27.41	93.57	Open To Flow (2)
91	34.57	94.52	Shut-In(2)
121	341.05	95.61	End Shut-In(2)
122	1640.93	95.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	WCM 30%w 70%m	0.07

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57586 **DST#: 2**
 Test Start: 2014.04.08 @ 01:05:00

GENERAL INFORMATION:

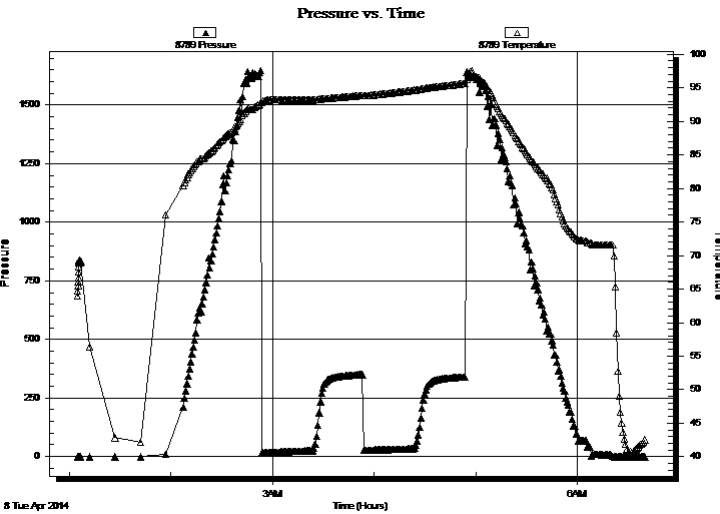
Formation: **LKC "A & B"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:53:45
 Time Test Ended: 06:40:00
Interval: 3387.00 ft (KB) To 3423.00 ft (KB) (TVD)
 Total Depth: 3423.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8789

Inside

Press@RunDepth: psig @ 3388.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.08 End Date: 2014.04.08 Last Calib.: 2014.04.08
 Start Time: 01:05:02 End Time: 06:39:45 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP- Surface Blow Building to 1"
 30-ISIP- No Blow
 30-FFP- Weak Surface Blow in 4 min.
 30-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	WCM 30%w 70%m	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57586 **DST#: 2**
Test Start: 2014.04.08 @ 01:05:00

Tool Information

Drill Pipe:	Length: 3272.00 ft	Diameter: 3.80 inches	Volume: 45.90 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 46.50 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3387.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	57.00 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			3367.00	
Shut In Tool	5.00			3372.00	
Hydraulic tool	5.00			3377.00	
Packer	5.00			3382.00	21.00 Bottom Of Top Packer
Packer	5.00			3387.00	
Stubb	1.00			3388.00	
Recorder	0.00	8789	Inside	3388.00	
Recorder	0.00	8289	Outside	3388.00	
Perforations	32.00			3420.00	
Bullnose	3.00			3423.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57586 **DST#: 2**
Test Start: 2014.04.08 @ 01:05:00

Mud and Cushion Information

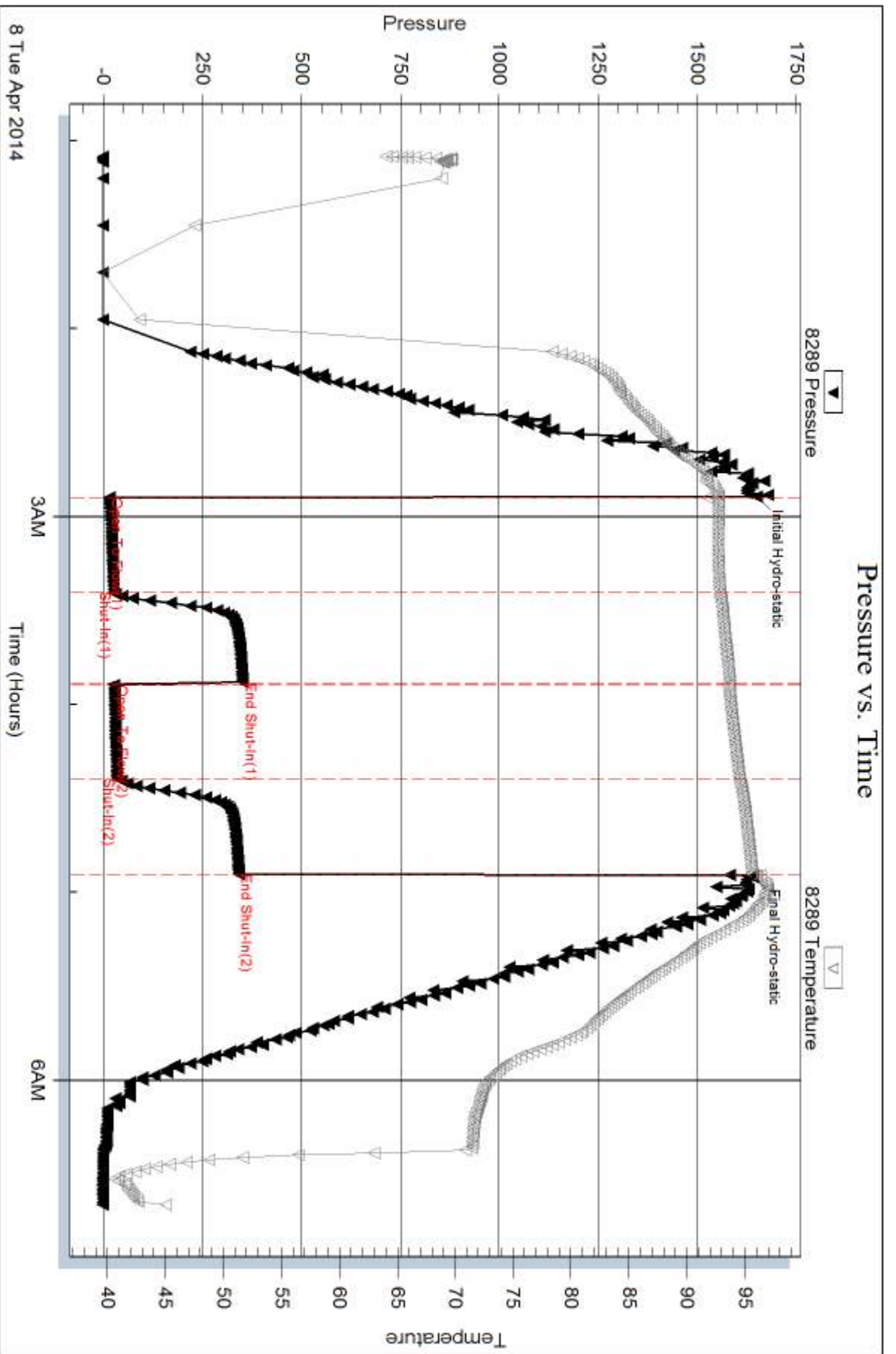
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.90 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1600.00 ppm			
Filter Cake: 2.00 inches			

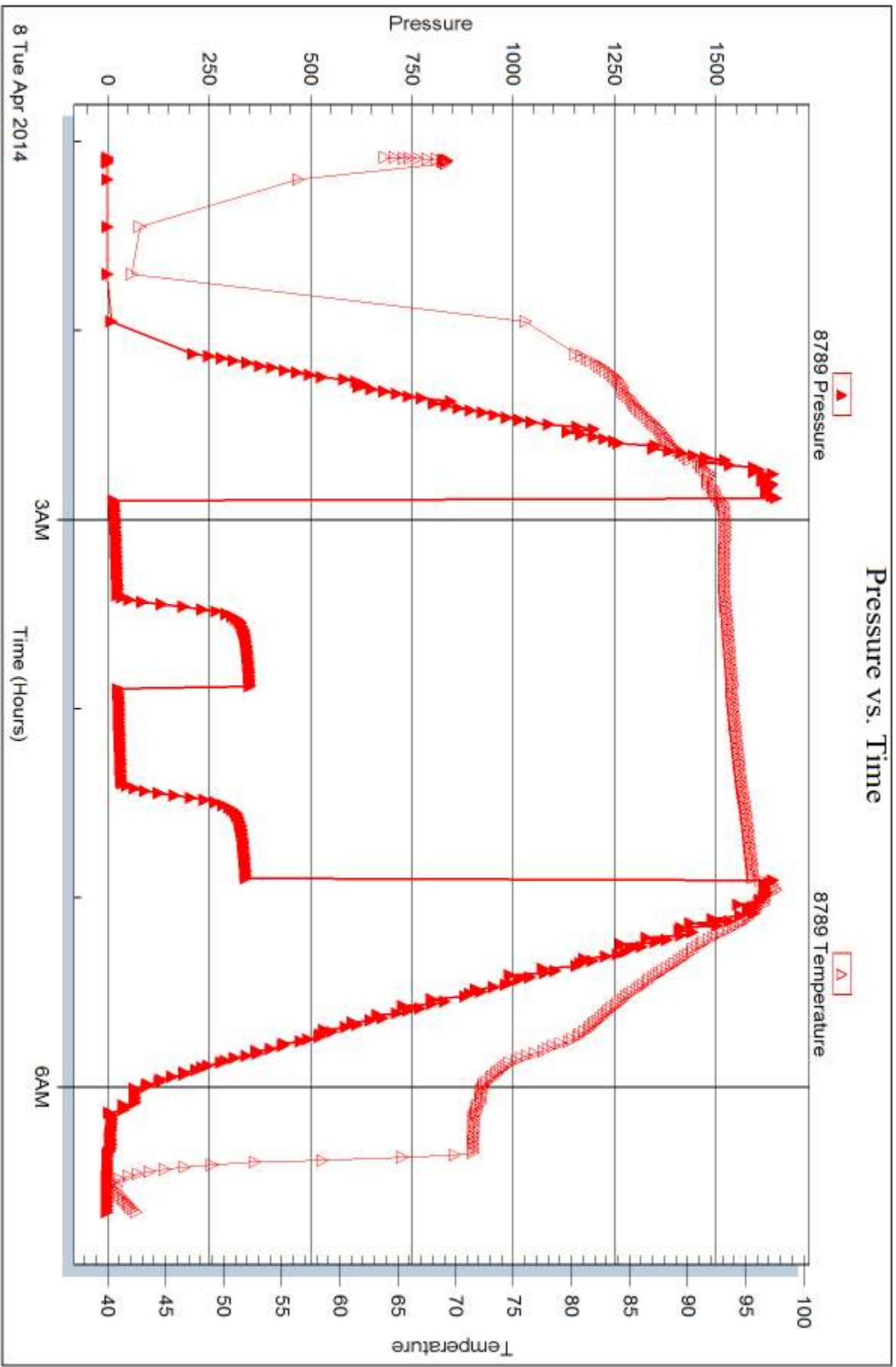
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	WCM 30%w 70%m	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.08 @ 12:55:00

End Date: 2014.04.08 @ 17:50:00

Job Ticket #: 57587 DST #: 3

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

Printed: 2014.04.11 @ 13:40:10

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 3 LKC " C & D " 2014.04.08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57587 **DST#: 3**
Test Start: 2014.04.08 @ 12:55:00

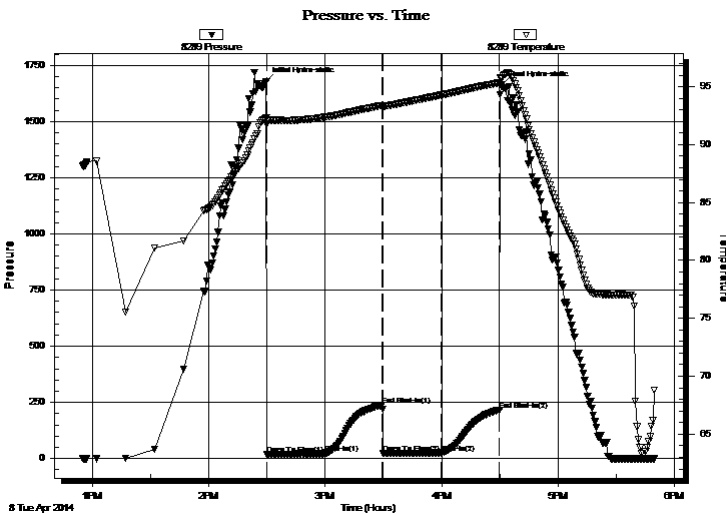
GENERAL INFORMATION:

Formation: **LKC " C & D "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:29:45
Time Test Ended: 17:50:00
Interval: **3418.00 ft (KB) To 3460.00 ft (KB) (TVD)**
Total Depth: 3460.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2164.00 ft (KB)
2159.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76

Serial #: 8289 Outside
Press@RunDepth: 24.61 psig @ 3419.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.08 End Date: 2014.04.08 Last Calib.: 2014.04.08
Start Time: 12:55:02 End Time: 17:50:15 Time On Btm: 2014.04.08 @ 14:29:30
Time Off Btm: 2014.04.08 @ 16:30:30

TEST COMMENT: 30-IFP- 1/4" Blow
30-ISIP- No Blow
30-FFP- No Blow
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1677.74	92.29	Initial Hydro-static
1	19.14	91.74	Open To Flow (1)
31	21.95	92.36	Shut-In(1)
60	238.11	93.37	End Shut-In(1)
61	22.80	93.24	Open To Flow (2)
91	24.61	94.26	Shut-In(2)
121	216.22	95.33	End Shut-In(2)
121	1661.81	95.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100%	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

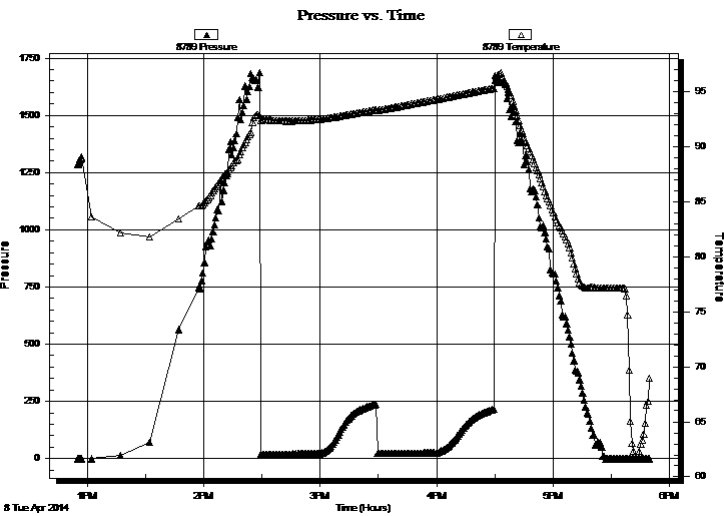
8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57587 **DST#: 3**
 Test Start: 2014.04.08 @ 12:55:00

GENERAL INFORMATION:

Formation: **LKC " C & D "**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 14:29:45 Tester: Jim Svaty
 Time Test Ended: 17:50:00 Unit No: 76
 Interval: **3418.00 ft (KB) To 3460.00 ft (KB) (TVD)** Reference Elevations: 2164.00 ft (KB)
 Total Depth: 3460.00 ft (KB) (TVD) 2159.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8789 Inside
 Press@RunDepth: psig @ 3419.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.08 End Date: 2014.04.08 Last Calib.: 2014.04.08
 Start Time: 12:55:02 End Time: 17:50:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP- 1/4" Blow
 30-ISIP- No Blow
 30-FFP- No Blow
 30-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100%	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57587 **DST#: 3**
Test Start: 2014.04.08 @ 12:55:00

Tool Information

Drill Pipe:	Length: 3302.00 ft	Diameter: 3.80 inches	Volume: 46.32 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	37000.00 lb
			<u>Total Volume: 46.92 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3418.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	63.00 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			3398.00	
Shut In Tool	5.00			3403.00	
Hydraulic tool	5.00			3408.00	
Packer	5.00			3413.00	21.00 Bottom Of Top Packer
Packer	5.00			3418.00	
Stubb	1.00			3419.00	
Recorder	0.00	8789	Inside	3419.00	
Recorder	0.00	8289	Outside	3419.00	
Perforations	38.00			3457.00	
Bullnose	3.00			3460.00	42.00 Bottom Packers & Anchor
Total Tool Length:	63.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57587 **DST#: 3**
Test Start: 2014.04.08 @ 12:55:00

Mud and Cushion Information

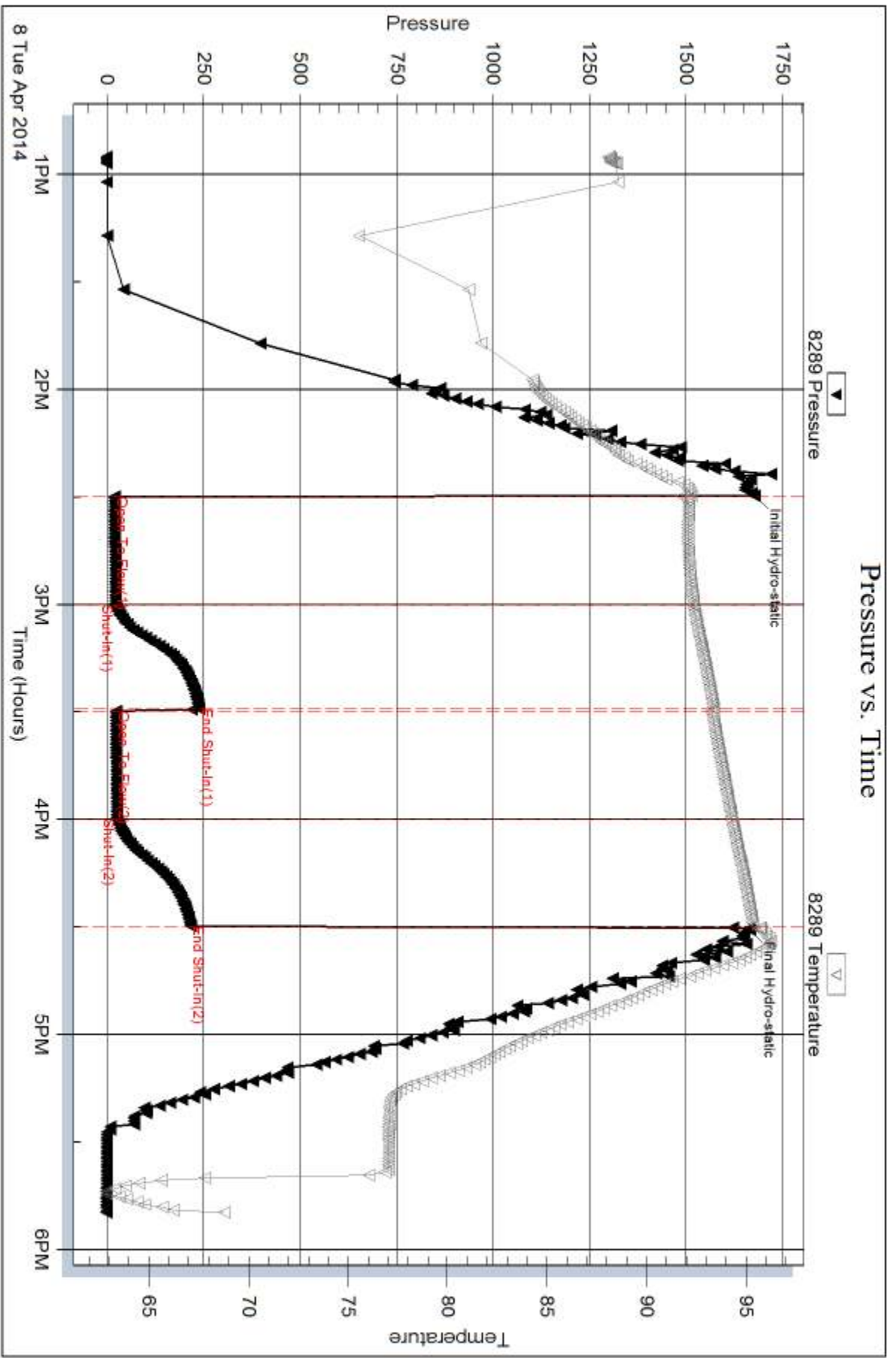
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.70 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100%	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



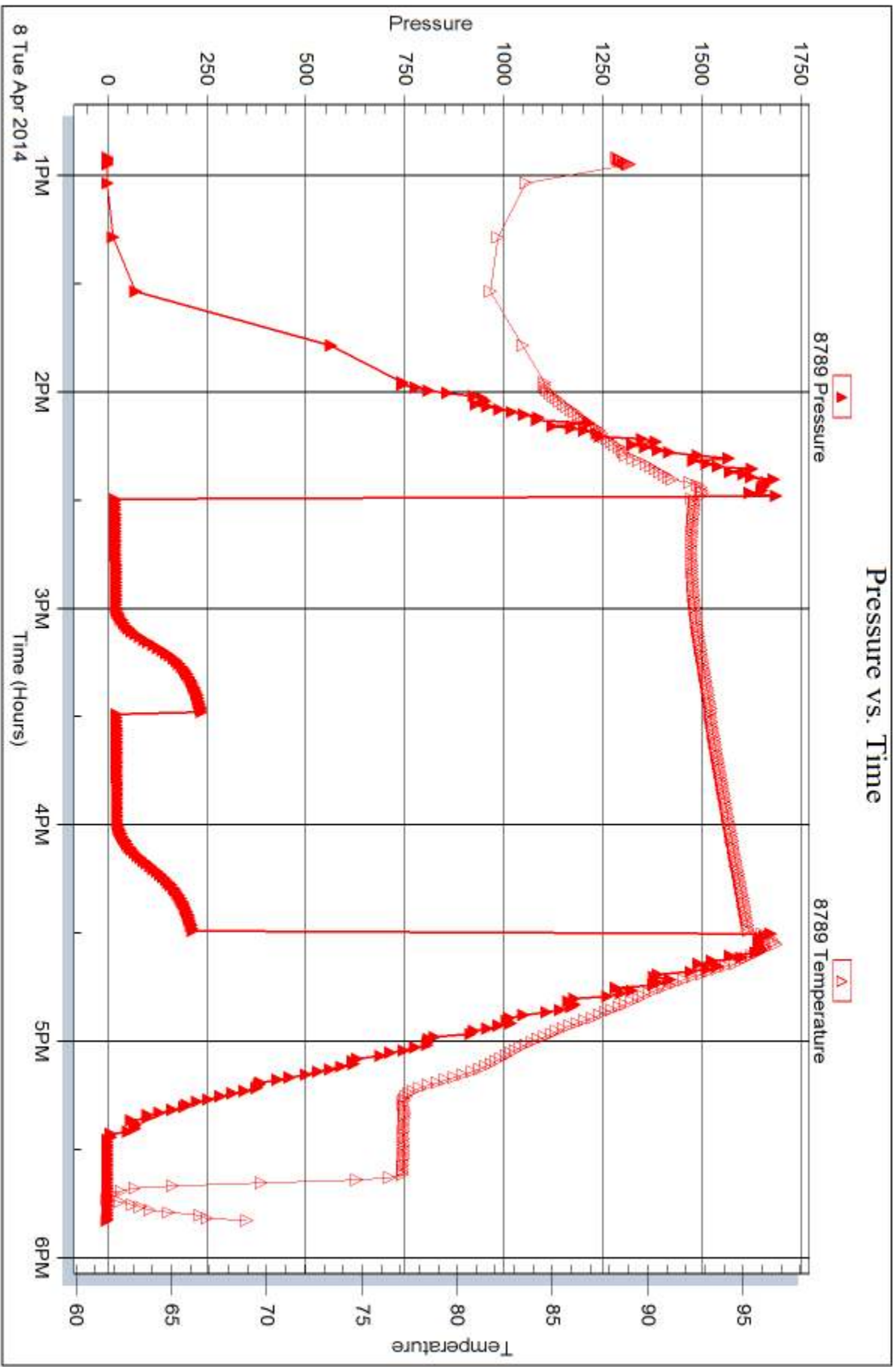
Serial #: 8789

Inside

Jaspar Co.

Roy #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 57587

Printed: 2014.04.11 @ 13:40:12



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.08 @ 23:33:00

End Date: 2014.04.09 @ 06:06:00

Job Ticket #: 57588 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:39:45



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57588 **DST#: 4**
Test Start: 2014.04.08 @ 23:33:00

GENERAL INFORMATION:

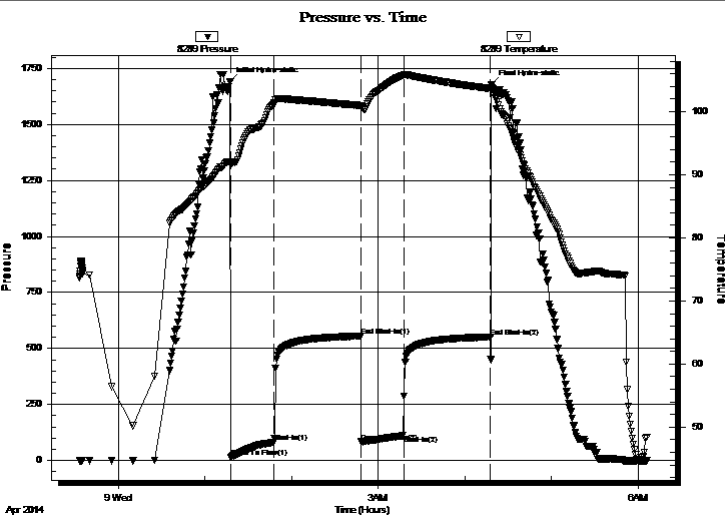
Formation: **LKC " E & F "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:17:45
Time Test Ended: 06:06:00
Interval: **3452.00 ft (KB) To 3482.00 ft (KB) (TVD)**
Total Depth: 3482.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2164.00 ft (KB)
2159.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289

Outside

Press@RunDepth: 111.80 psig @ 3453.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.08 End Date: 2014.04.09 Last Calib.: 2014.04.09
Start Time: 23:33:02 End Time: 06:06:15 Time On Btm: 2014.04.09 @ 01:17:15
Time Off Btm: 2014.04.09 @ 04:18:30

TEST COMMENT: 30-IFP- Surface Blow Building to 9 1/2"
60-ISIP- No Blow
30-FFP- Surface Blow Building to 7 1/4"
60-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1691.15	92.12	Initial Hydro-static
1	14.89	91.61	Open To Flow (1)
31	81.02	101.23	Shut-In(1)
91	555.18	100.99	End Shut-In(1)
91	83.54	100.70	Open To Flow (2)
121	111.80	105.74	Shut-In(2)
181	551.63	103.67	End Shut-In(2)
182	1679.21	103.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
202.00	MCW 10% m 90% w	1.72
1.00	Oil Cap 100%	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57588 **DST#: 4**
Test Start: 2014.04.08 @ 23:33:00

Tool Information

Drill Pipe:	Length: 3333.00 ft	Diameter: 3.80 inches	Volume: 46.75 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	38000.00 lb
			<u>Total Volume: 47.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3452.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	51.00 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			3432.00	
Shut In Tool	5.00			3437.00	
Hydraulic tool	5.00			3442.00	
Packer	5.00			3447.00	21.00 Bottom Of Top Packer
Packer	5.00			3452.00	
Stubb	1.00			3453.00	
Recorder	0.00	8789	Inside	3453.00	
Recorder	0.00	8289	Outside	3453.00	
Perforations	26.00			3479.00	
Bullnose	3.00			3482.00	30.00 Bottom Packers & Anchor
Total Tool Length:	51.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57588 **DST#: 4**
Test Start: 2014.04.08 @ 23:33:00

Mud and Cushion Information

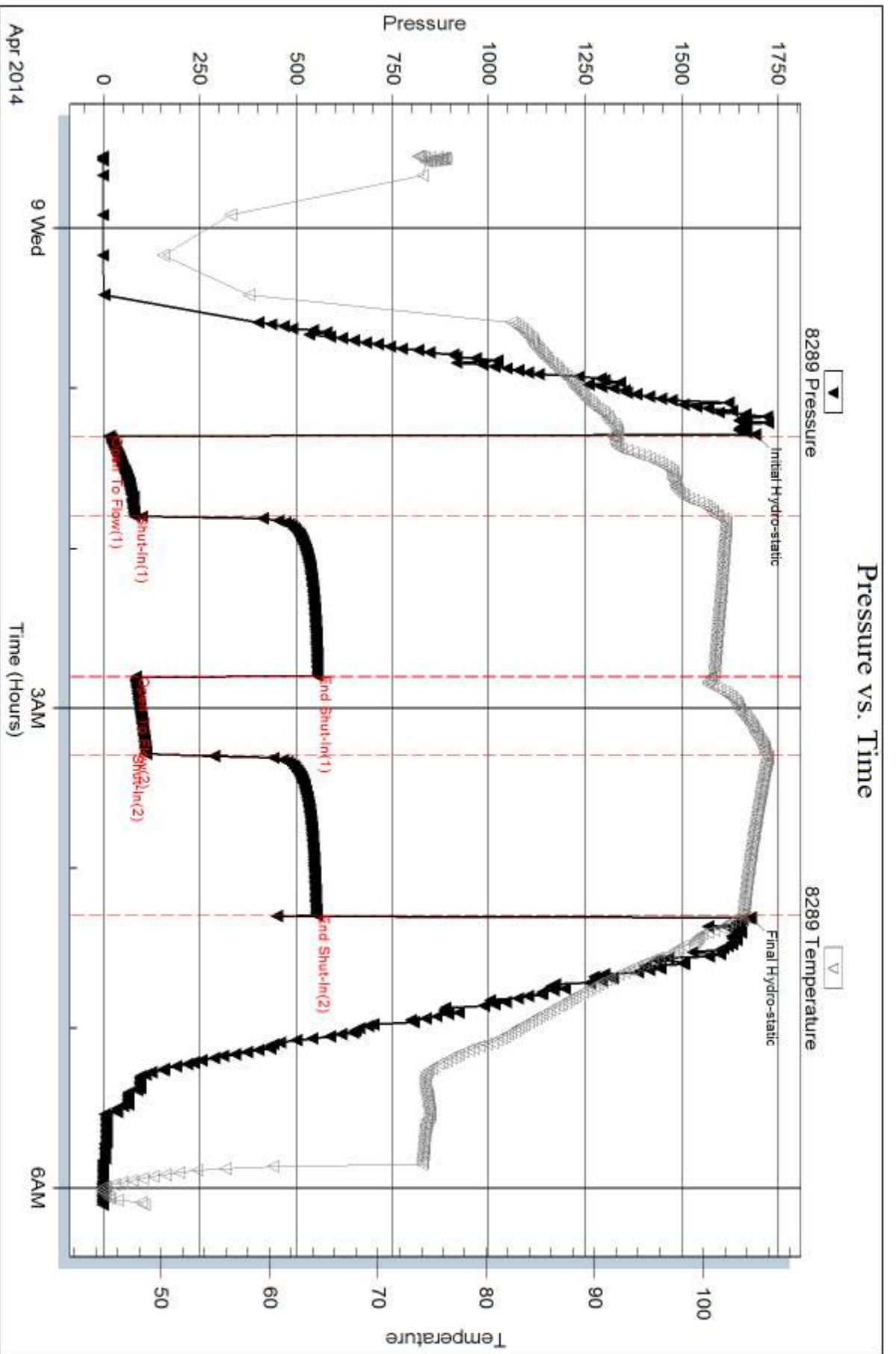
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	42000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.72 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

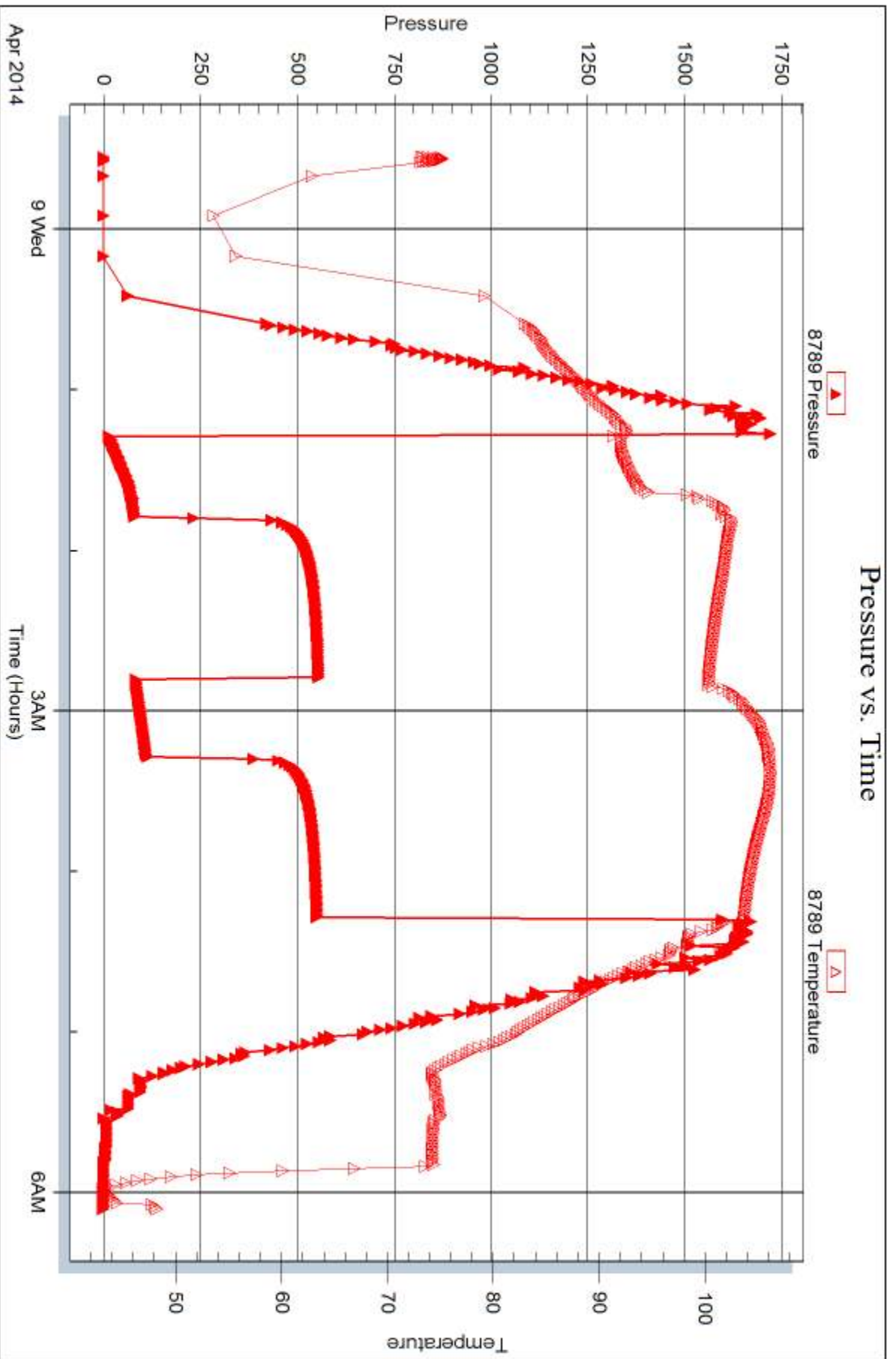
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
202.00	MCW 10% m 90% w	1.722
1.00	Oil Cap 100%	0.014

Total Length: 203.00 ft Total Volume: 1.736 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .325 @ 42







DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.09 @ 17:05:00

End Date: 2014.04.10 @ 00:28:00

Job Ticket #: 57589 DST #: 5

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

Printed: 2014.04.11 @ 13:39:18

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 5 LKC " H - J " 2014.04.09



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57589 **DST#: 5**
 Test Start: 2014.04.09 @ 17:05:00

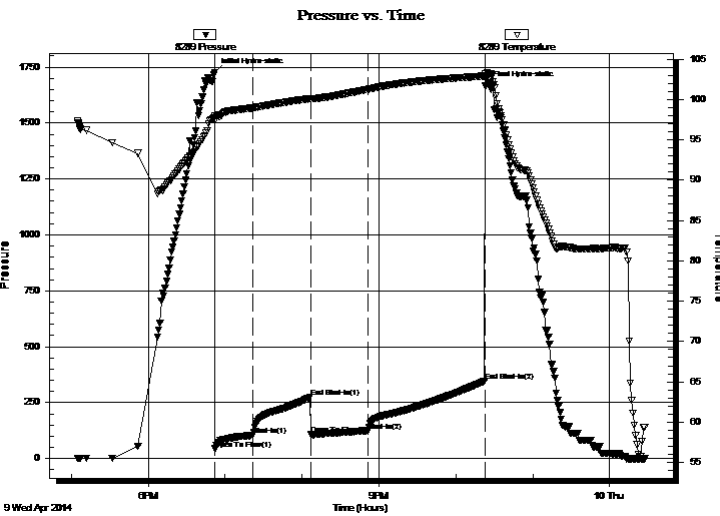
GENERAL INFORMATION:

Formation: **LKC "H - J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:52:15
 Time Test Ended: 00:28:00
 Interval: **3497.00 ft (KB) To 3560.00 ft (KB) (TVD)**
 Total Depth: 3560.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press@RunDepth: 124.03 psig @ 3532.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.09 End Date: 2014.04.10 Last Calib.: 2014.04.10
 Start Time: 17:05:02 End Time: 00:28:00 Time On Btm: 2014.04.09 @ 18:52:00
 Time Off Btm: 2014.04.09 @ 22:23:15

TEST COMMENT: 30-IFP- BOB in 9 min.
 45-ISIP- Surface Blow in 2 min. Died Back in 35 min.
 45-FFP- BOB in 29 min.
 90-FSIP- Surface Blow in 1 1/2 min. Died Back in 36 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1726.78	97.97	Initial Hydro-static
1	42.94	97.42	Open To Flow (1)
30	102.61	98.96	Shut-In(1)
75	274.66	100.11	End Shut-In(1)
75	108.32	100.05	Open To Flow (2)
120	124.03	101.25	Shut-In(2)
211	346.32	102.91	End Shut-In(2)
212	1666.08	103.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
184.00	OCM 40%o 60%m	1.47
67.00	CO 100%	0.94
0.00	670 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601

8 7s 20w Rooks,KS

Roy #1

Job Ticket: 57589

DST#: 5

ATTN: Jeff Lawler

Test Start: 2014.04.09 @ 17:05:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:52:15

Time Test Ended: 00:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3497.00 ft (KB) To 3560.00 ft (KB) (TVD)

Total Depth: 3560.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2164.00 ft (KB)

2159.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8789 Inside

Press@RunDepth: psig @ 3532.00 ft (KB)

Start Date: 2014.04.09

End Date:

2014.04.10

Start Time: 17:05:02

End Time:

00:27:45

Capacity: 8000.00 psig

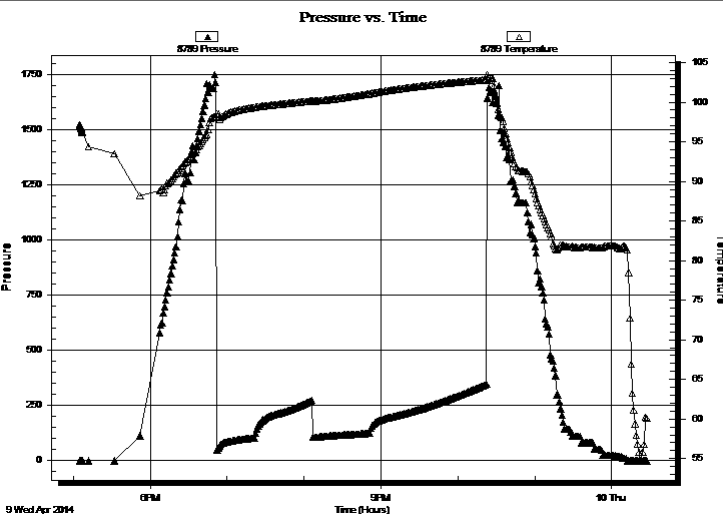
Last Calib.:

2014.04.10

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 9 min.
45-ISIP- Surface Blow in 2 min. Died Back in 35 min.
45-FFP- BOB in 29 min.
90-FSIP- Surface Blow in 1 1/2 min. Died Back in 36 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
184.00	OCM 40% o 60% m	1.47
67.00	CO 100%	0.94
0.00	670 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57589 **DST#: 5**
Test Start: 2014.04.09 @ 17:05:00

Tool Information

Drill Pipe:	Length: 3367.00 ft	Diameter: 3.80 inches	Volume: 47.23 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 47.83 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3497.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 ft				
Tool Length:	84.00 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			3477.00	
Shut In Tool	5.00			3482.00	
Hydraulic tool	5.00			3487.00	
Packer	5.00			3492.00	21.00 Bottom Of Top Packer
Packer	5.00			3497.00	
Stubb	1.00			3498.00	
Perforations	1.00			3499.00	
Change Over Sub	1.00			3500.00	
Blank Spacing	31.00			3531.00	
Change Over Sub	1.00			3532.00	
Recorder	0.00	8789	Inside	3532.00	
Recorder	0.00	8289	Outside	3532.00	
Perforations	25.00			3557.00	
Bullnose	3.00			3560.00	63.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57589 **DST#: 5**
Test Start: 2014.04.09 @ 17:05:00

Mud and Cushion Information

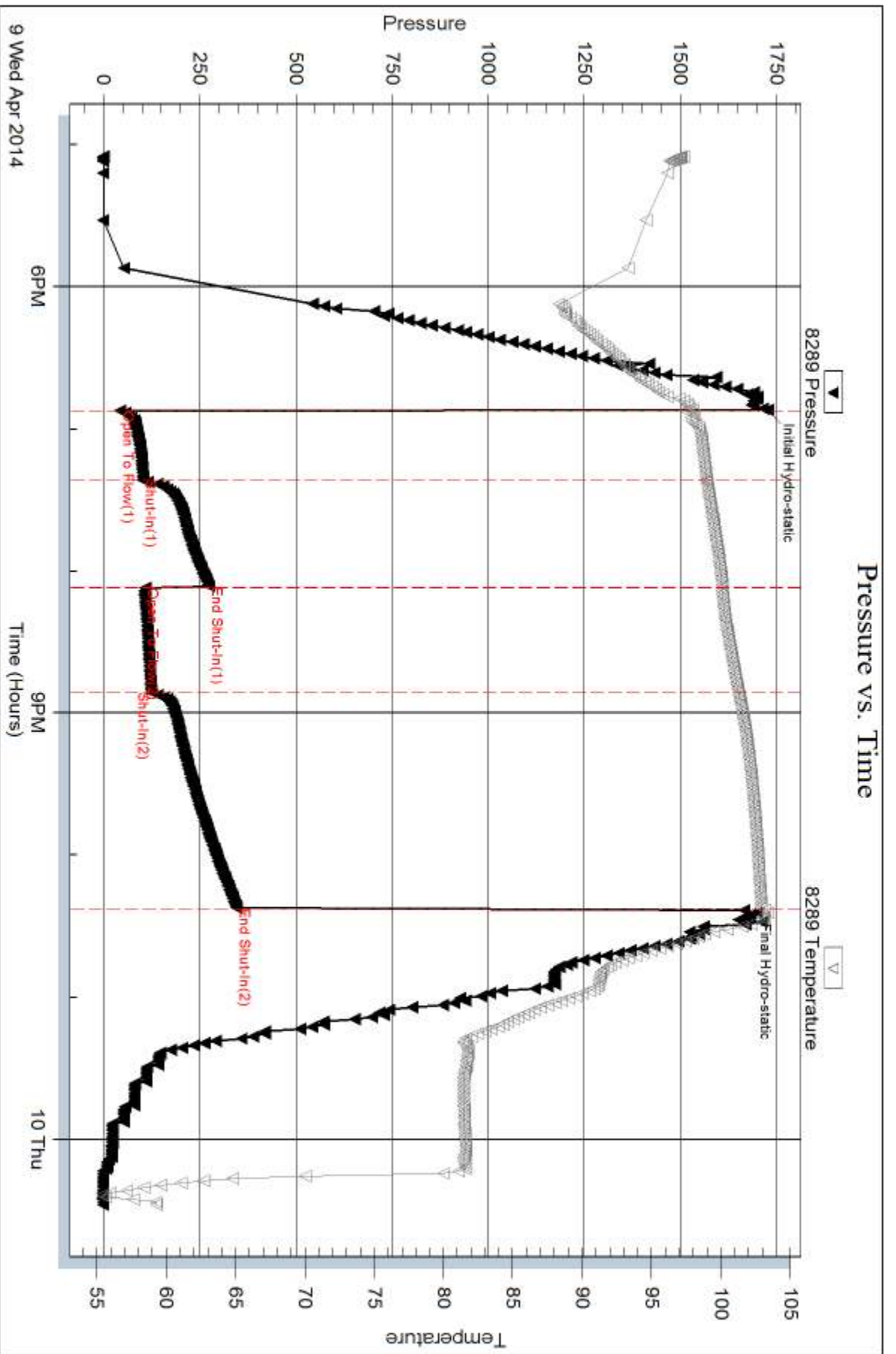
Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.94 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
184.00	OCM 40%o 60%m	1.470
67.00	CO 100%	0.940
0.00	670 GIP	0.000

Total Length: 251.00 ft Total Volume: 2.410 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



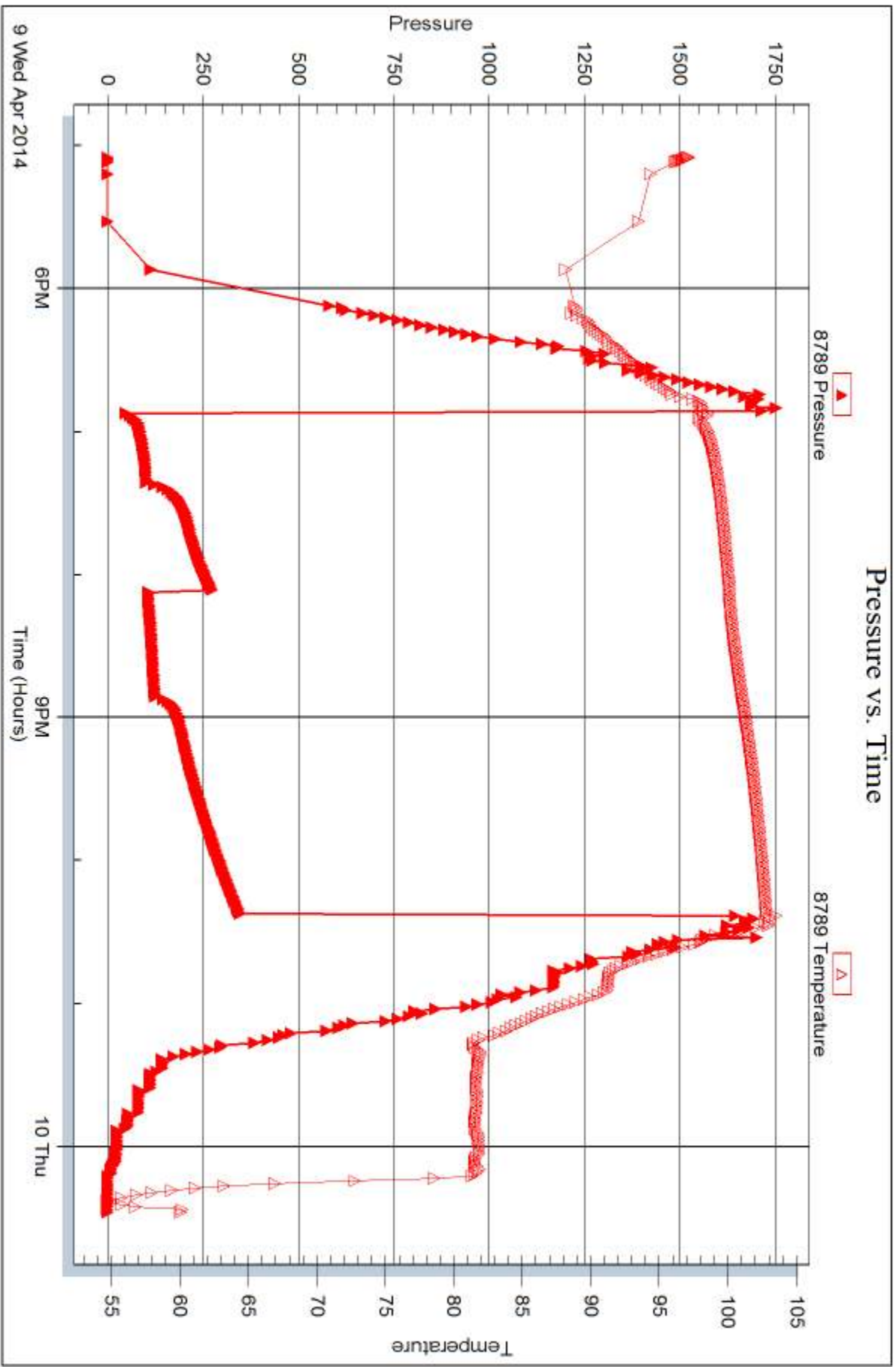
Serial #: 8789

Inside

Jaspar Co.

Roy #1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 57589

Printed: 2014.04.11 @ 13:39:21



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.10 @ 06:40:00

End Date: 2014.04.10 @ 11:51:00

Job Ticket #: 57533 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:38:54

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 6 LKC K 2014.04.10



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57533 **DST#: 6**
 Test Start: 2014.04.10 @ 06:40:00

GENERAL INFORMATION:

Formation: **LKC K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:19:45
 Time Test Ended: 11:51:00
 Interval: **3547.00 ft (KB) To 3570.00 ft (KB) (TVD)**
 Total Depth: 3570.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tim Phillips
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

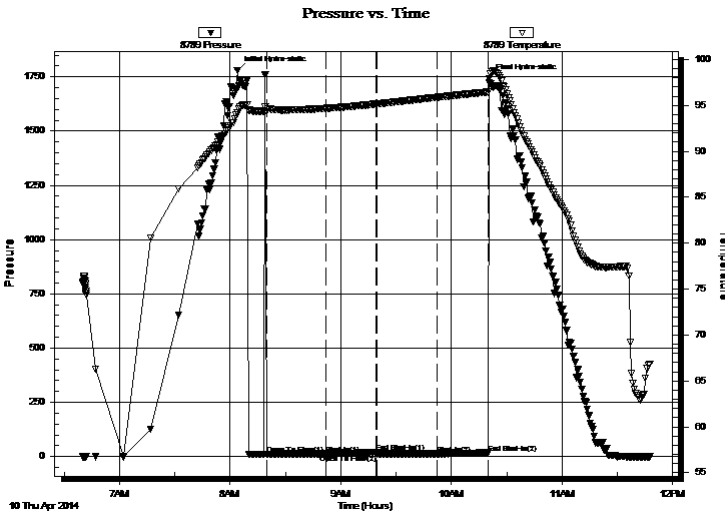
Serial #: 8789

Inside

Press@RunDepth: 12.48 psig @ 3548.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.10 End Date: 2014.04.10 Last Calib.: 2014.04.10
 Start Time: 06:40:02 End Time: 11:48:00 Time On Btm: 2014.04.10 @ 08:04:00
 Time Off Btm: 2014.04.10 @ 10:20:30

TEST COMMENT: IFP- Dead no blow
 ISI-Dead no blow back
 FF-Dead no blow
 FSI-Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1780.09	94.16	Initial Hydro-static
16	11.66	94.32	Open To Flow (1)
48	12.19	94.69	Shut-In(1)
76	19.24	95.15	End Shut-In(1)
76	11.90	95.15	Open To Flow (2)
108	12.48	95.89	Shut-In(2)
136	17.28	96.47	End Shut-In(2)
137	1742.73	97.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5%O, 95% M	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

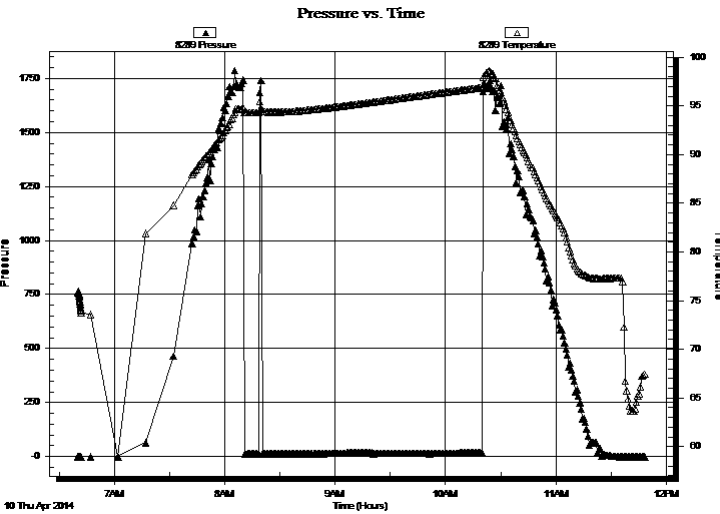
8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57533 **DST#: 6**
 Test Start: 2014.04.10 @ 06:40:00

GENERAL INFORMATION:

Formation: LKC K			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 08:19:45		Tester: Tim Phillips	
Time Test Ended: 11:51:00		Unit No: 76	
Interval: 3547.00 ft (KB) To 3570.00 ft (KB) (TVD)		Reference Elevations: 2164.00 ft (KB)	
Total Depth: 3570.00 ft (KB) (TVD)		2159.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft	

Serial #: 8289	Outside				
Press@RunDepth:	psig @ 3548.00 ft (KB)	Capacity:	8000.00 psig		
Start Date:	2014.04.10	End Date:	2014.04.10	Last Calib.:	2014.04.10
Start Time:	06:40:02	End Time:	11:48:15	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IFP- Dead no blow
 ISI-Dead no blow back
 FF-Dead no blow
 FSI-Dead no blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	SOCM 5%O, 95% M	0.02

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57533 **DST#: 6**
Test Start: 2014.04.10 @ 06:40:00

Tool Information

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 48.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3547.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	44.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3527.00	
Shut In Tool	5.00			3532.00	
Hydraulic tool	5.00			3537.00	
Packer	5.00			3542.00	21.00 Bottom Of Top Packer
Packer	5.00			3547.00	
Stubb	1.00			3548.00	
Recorder	0.00	8789	Inside	3548.00	
Recorder	0.00	8289	Outside	3548.00	
Perforations	19.00			3567.00	
Bullnose	3.00			3570.00	23.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57533 **DST#: 6**
Test Start: 2014.04.10 @ 06:40:00

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.95 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

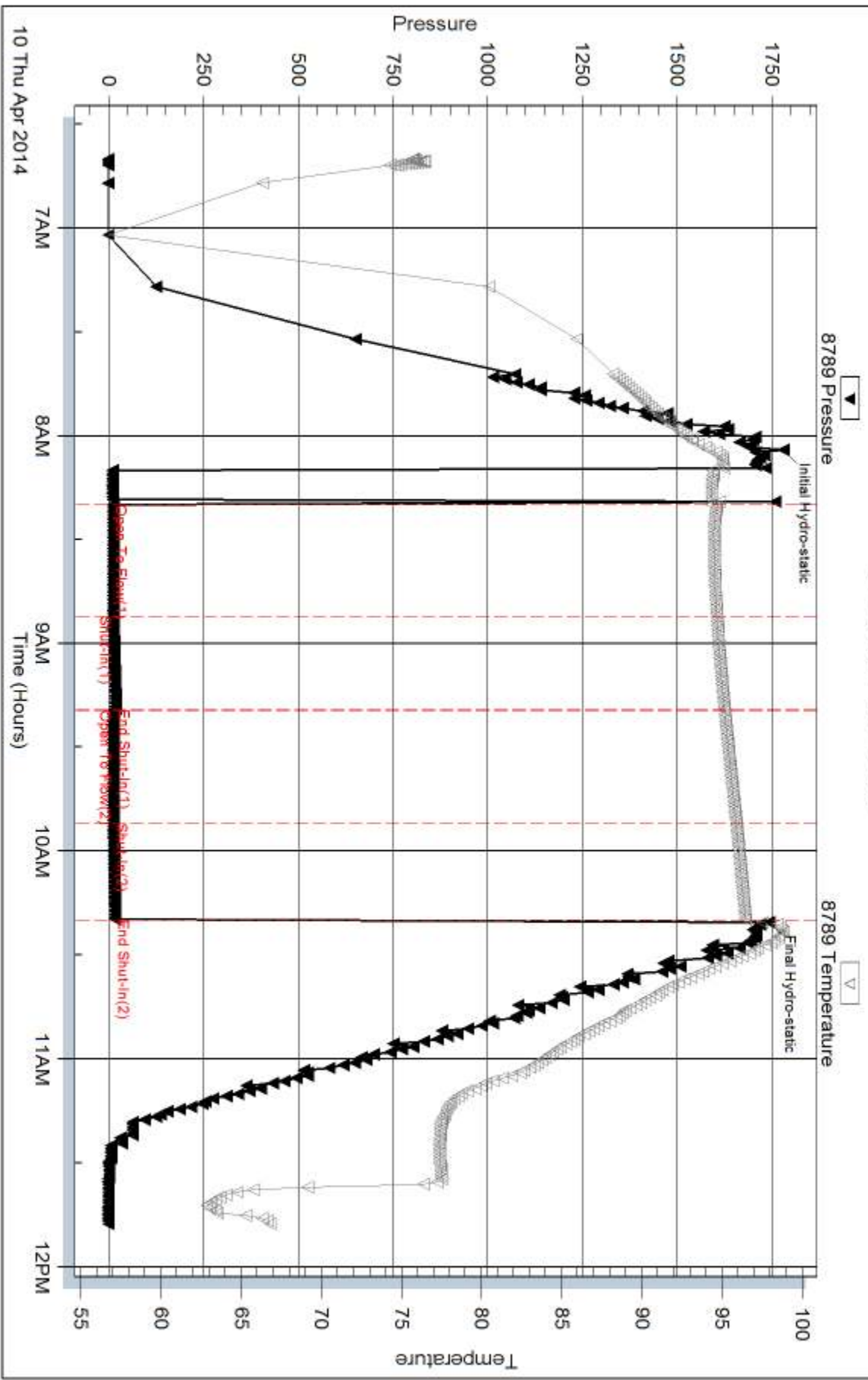
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 5%O, 95% M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

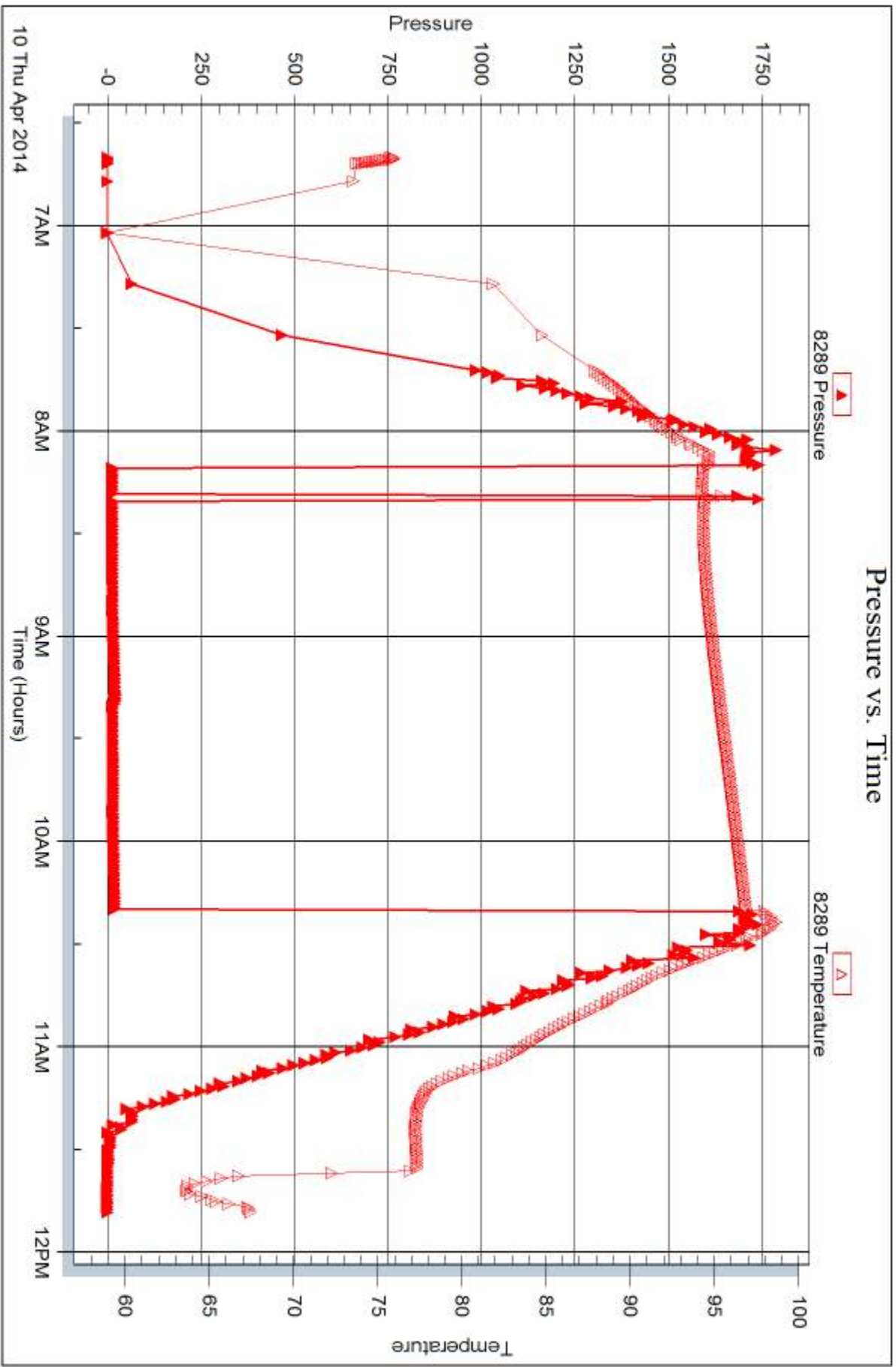


Serial #: 8289

Outside Jasper Co.

Roy #1

DST Test Number: 6





DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.10 @ 16:22:00

End Date: 2014.04.10 @ 20:42:00

Job Ticket #: 57534 DST #: 7

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

Printed: 2014.04.11 @ 13:38:30

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 7 LKC L 2014.04.10



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

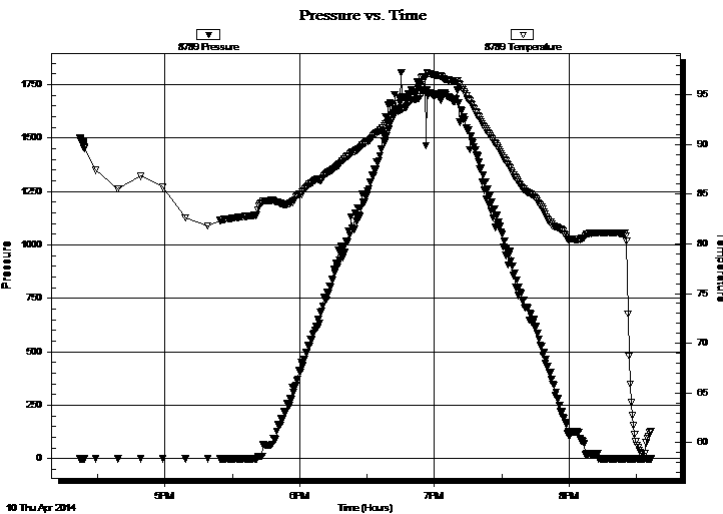
8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57534 **DST#: 7**
 Test Start: 2014.04.10 @ 16:22:00

GENERAL INFORMATION:

Formation: **LKC L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 20:42:00
 Interval: **3567.00 ft (KB) To 3580.00 ft (KB) (TVD)**
 Total Depth: 3580.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tim Phillips
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8789 **Inside**
 Press@RunDepth: psig @ 3574.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.10 End Date: 2014.04.10 Last Calib.: 2014.04.10
 Start Time: 16:22:02 End Time: 20:36:45 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)
220.00	100% Mud	1.97

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

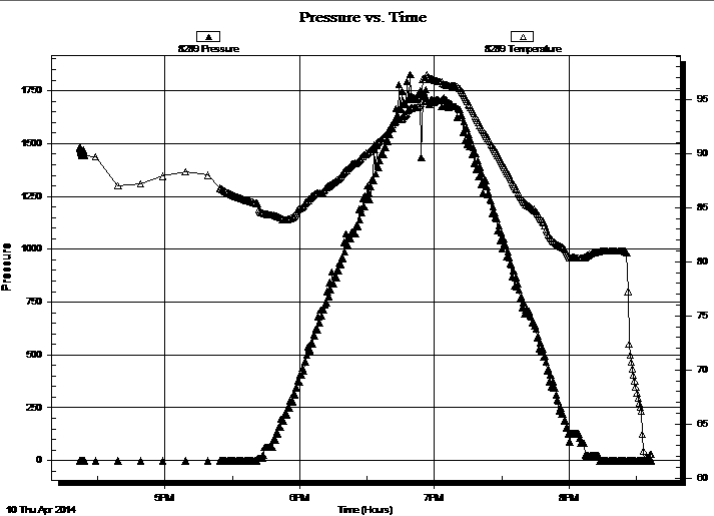
8 7s 20w Rooks, KS
Roy #1
Job Ticket: 57534 **DST#: 7**
Test Start: 2014.04.10 @ 16:22:00

GENERAL INFORMATION:

Formation: **LKC L**
Deviated: No Whipstock: ft (KB)
Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened:
Tester: Tim Phillips
Time Test Ended: 20:42:00
Unit No: 76
Interval: **3567.00 ft (KB) To 3580.00 ft (KB) (TVD)**
Reference Elevations: 2164.00 ft (KB)
Total Depth: 3580.00 ft (KB) (TVD) 2159.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8289 Outside
Press@RunDepth: psig @ 3574.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.10 End Date: 2014.04.10 Last Calib.: 2014.04.10
Start Time: 16:22:02 End Time: 20:37:00 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)
220.00	100% Mud	1.97

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57534 **DST#: 7**
Test Start: 2014.04.10 @ 16:22:00

Tool Information

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 48.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3573.00 ft			Final	36000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	34.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3553.00	
Shut In Tool	5.00			3558.00	
Hydraulic tool	5.00			3563.00	
Packer	5.00			3568.00	21.00 Bottom Of Top Packer
Packer	5.00			3573.00	
Stubb	1.00			3574.00	
Recorder	0.00	8789	Inside	3574.00	
Recorder	0.00	8289	Outside	3574.00	
Perforations	9.00			3583.00	
Bullnose	3.00			3586.00	13.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57534 **DST#: 7**
Test Start: 2014.04.10 @ 16:22:00

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
220.00	100% Mud	1.975

Total Length: 220.00 ft Total Volume: 1.975 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

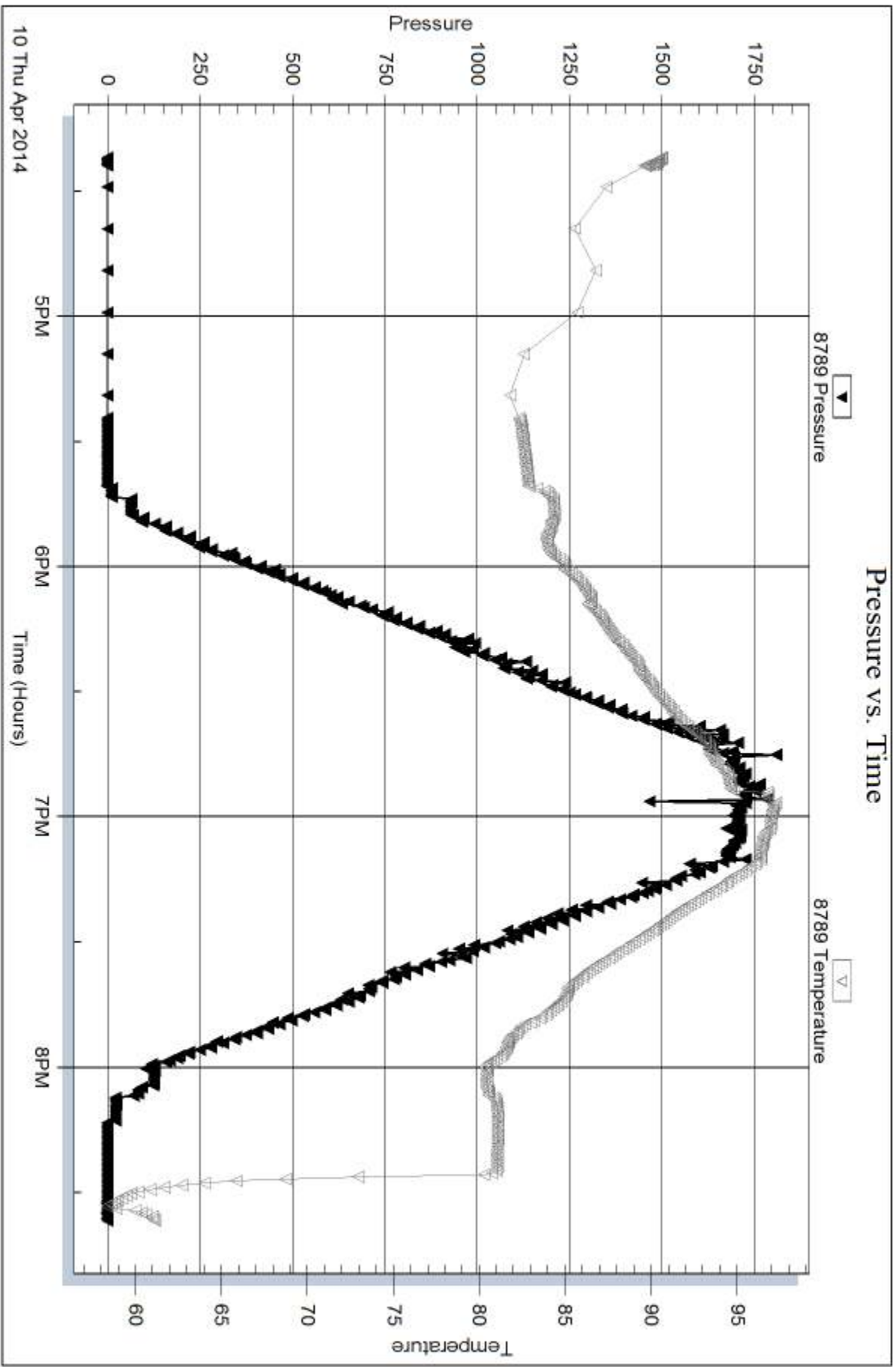
Serial #: 8789

Inside

Jaspar Co.

Roy #1

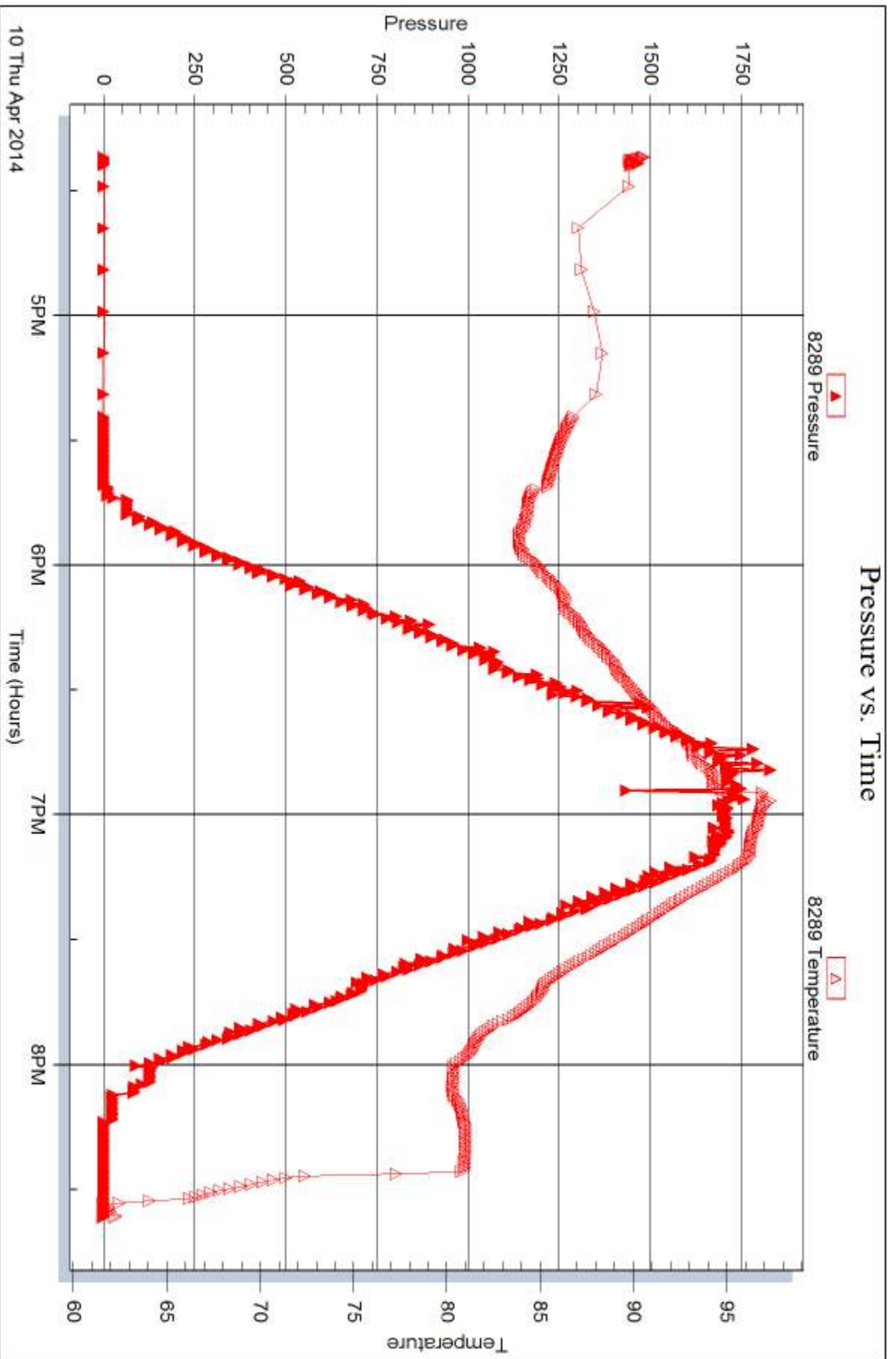
DST Test Number: 7



Tribble Testing, Inc

Ref. No: 57534

Printed: 2014.04.11 @ 13:38:32





DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

Roy #1

8 7s 20w Rooks,KS

Start Date: 2014.04.10 @ 20:58:00

End Date: 2014.04.11 @ 03:24:00

Job Ticket #: 57535 DST #: 8

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.11 @ 13:38:01

Jaspar Co. 8 7s 20w Rooks,KS Roy #1 DST # 8 LKC K,L 2014.04.10



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57535 **DST#: 8**
 Test Start: 2014.04.10 @ 20:58:00

GENERAL INFORMATION:

Formation: **LKC K,L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:29:45
 Time Test Ended: 03:24:00
 Interval: **3547.00 ft (KB) To 3580.00 ft (KB) (TVD)**
 Total Depth: 3580.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tim Phillips
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

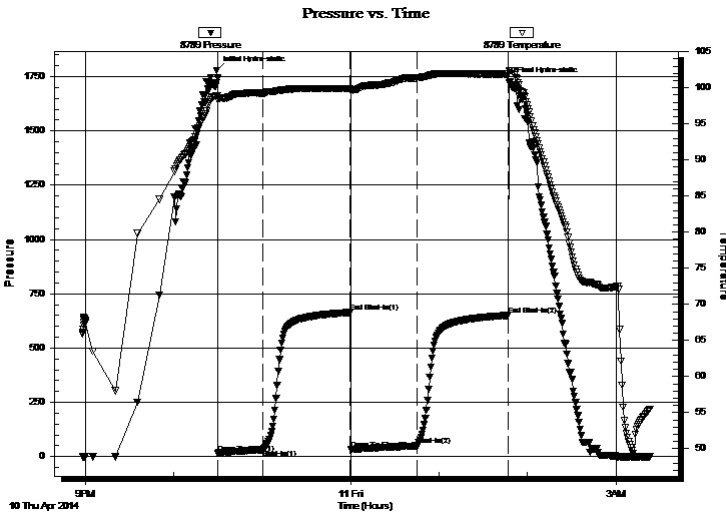
Serial #: 8789

Inside

Press@RunDepth: 50.13 psig @ 3548.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.10 End Date: 2014.04.11 Last Calib.: 2014.04.11
 Start Time: 20:58:02 End Time: 03:23:15 Time On Btm: 2014.04.10 @ 22:29:00
 Time Off Btm: 2014.04.11 @ 01:48:00

TEST COMMENT: IFP- Blow built to 3 3/4"
 IS- Dead no blow back
 FF- Blow built to 4"
 FS- Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.26	98.95	Initial Hydro-static
1	16.38	98.30	Open To Flow (1)
31	31.16	99.19	Shut-In(1)
91	663.85	99.93	End Shut-In(1)
91	32.99	99.71	Open To Flow (2)
136	50.13	101.34	Shut-In(2)
198	650.45	101.92	End Shut-In(2)
199	1728.46	102.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	CO 100% Oil	0.05
63.00	MCO 40%M, 60%O	0.31
0.00	GIP 50 ft	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

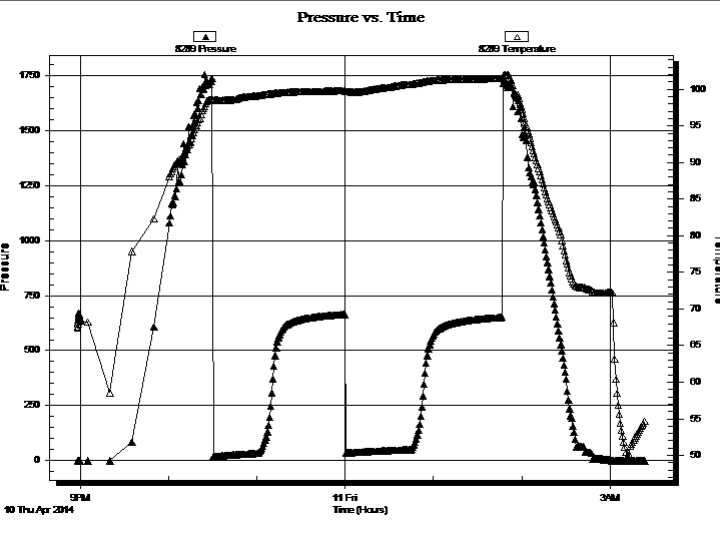
8 7s 20w Rooks,KS
Roy #1
 Job Ticket: 57535 **DST#: 8**
 Test Start: 2014.04.10 @ 20:58:00

GENERAL INFORMATION:

Formation: **LKC K,L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:29:45
 Time Test Ended: 03:24:00
 Interval: **3547.00 ft (KB) To 3580.00 ft (KB) (TVD)**
 Total Depth: 3580.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tim Phillips
 Unit No: 76
 Reference Elevations: 2164.00 ft (KB)
 2159.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside
 Press@RunDepth: psig @ 3548.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.10 End Date: 2014.04.11 Last Calib.: 2014.04.11
 Start Time: 20:58:02 End Time: 03:23:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF- Blow built to 3 3/4"
 IS- Dead no blow back
 FF- Blow built to 4"
 FS- Dead no blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	CO 100% Oil	0.05
63.00	MCO 40%M, 60%O	0.31
0.00	GIP 50 ft	0.00

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57535 **DST#: 8**
Test Start: 2014.04.10 @ 20:58:00

Tool Information

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: 48.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	36000.00 lb
Depth to Top Packer:	3547.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	54.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3527.00	
Shut In Tool	5.00			3532.00	
Hydraulic tool	5.00			3537.00	
Packer	5.00			3542.00	21.00 Bottom Of Top Packer
Packer	5.00			3547.00	
Stubb	1.00			3548.00	
Recorder	0.00	8789	Inside	3548.00	
Recorder	0.00	8289	Outside	3548.00	
Perforations	29.00			3577.00	
Bullnose	3.00			3580.00	33.00 Bottom Packers & Anchor
Total Tool Length:	54.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

8 7s 20w Rooks,KS
Roy #1
Job Ticket: 57535 **DST#: 8**
Test Start: 2014.04.10 @ 20:58:00

Mud and Cushion Information

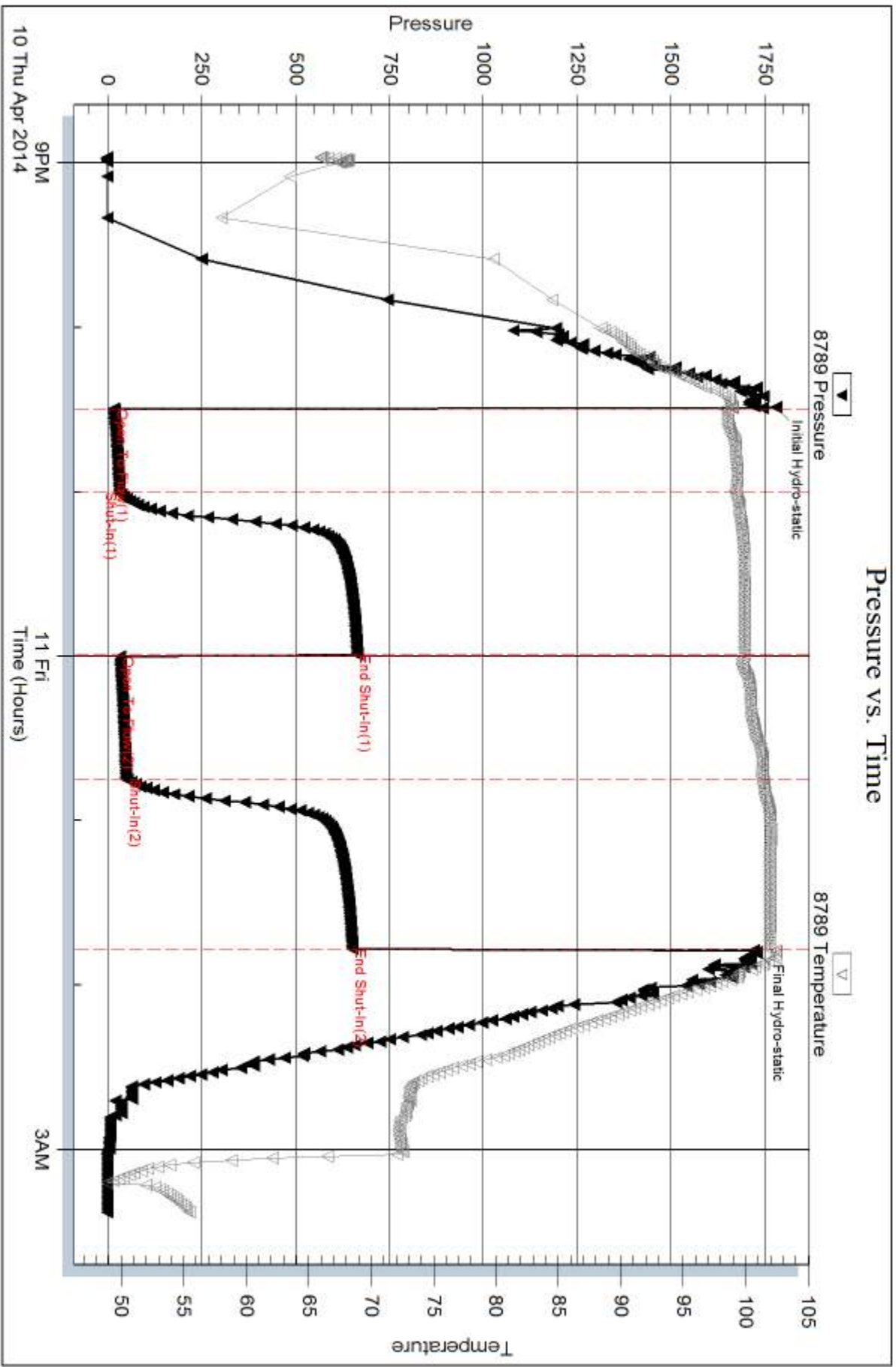
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	CO 100% Oil	0.049
63.00	MCO 40%M, 60%O	0.310
0.00	GIP 50 ft	0.000

Total Length: 73.00 ft Total Volume: 0.359 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

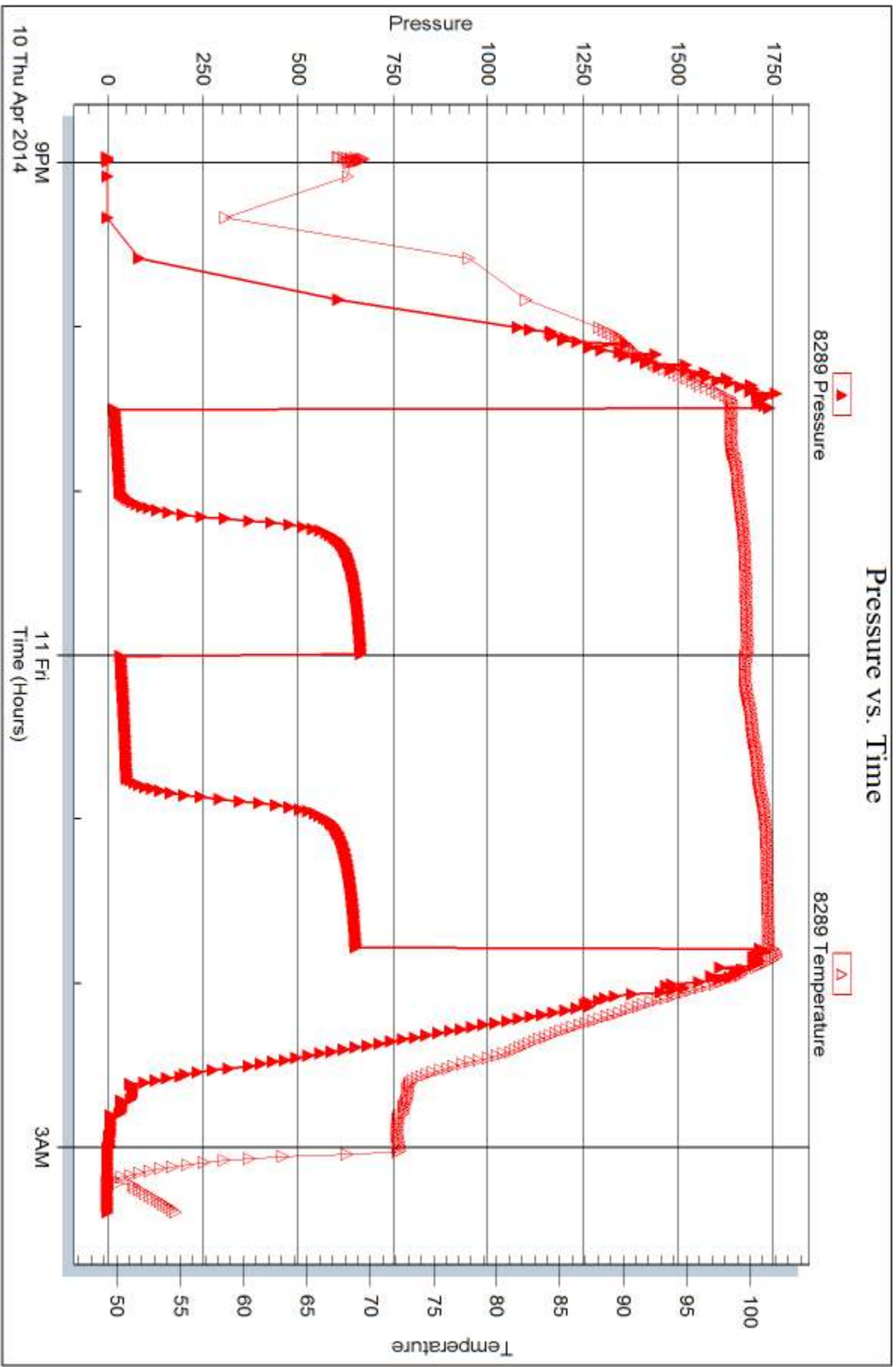


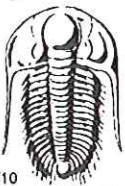
Serial #: 8289

Outside Jasper Co.

Roy #1

DST Test Number: 8





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57585

4/10

Well Name & No. Roy #1 Test No. 1 Date 4-7-14
 Company Jasper Co. Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW6
 Location: Sec. 8 Twp. 7^s Rge. 20^w Co. Rooks State KS

Interval Tested 3351-3391 Zone Tested Toronto
 Anchor Length 40 Drill Pipe Run 3240 Mud Wt. 9.0
 Top Packer Depth 3346 Drill Collars Run 122 Vis 54
 Bottom Packer Depth 3351 Wt. Pipe Run 0 WL 8.0
 Total Depth 3391 Chlorides 1600 ppm System LCM 2

Blow Description I-FP-Weak Surface Blow Died in 17 min.
ISIP- No Blow
FFP- No Blow
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>0.5m</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

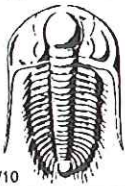
Rec Total 2 BHT 95 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1630 Test 1150 T-On Location 12:18
 (B) First Initial Flow 16 Jars _____ T-Started 13:13
 (C) First Final Flow 17 Safety Joint _____ T-Open 14:59
 (D) Initial Shut-In 378 Circ Sub _____ T-Pulled 16:59
 (E) Second Initial Flow 18 Hourly Standby _____ T-Out 18:36
 (F) Second Final Flow 19 Mileage 116 RT 179.80 Comments _____
 (G) Final Shut-In 263 Sampler _____
 (H) Final Hydrostatic 1608 Straddle _____ Ruined Shale Packer _____

Initial Open 30 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 30 Extra Packer _____ Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 30 Day Standby _____ Total 1329.80
 Sub Total 1329.80 Accessibility _____ 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57586

4/10

Well Name & No. Roy #1 Test No. 2 Date 4-8-14
 Company Jasper Co. Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW6
 Location: Sec. 8 Twp. 7S Rge. 20W Co. Rooks State KS

Interval Tested 3387-3423 Zone Tested LKC "A+B"
 Anchor Length 36 Drill Pipe Run 3272 Mud Wt. 9.0
 Top Packer Depth 3382 Drill Collars Run 122 Vis 54
 Bottom Packer Depth 3387 Wt. Pipe Run 0 WL 8.0
 Total Depth 3423 Chlorides 1600 ppm System LCM 2

Blow Description IFP - Surface Blow Building to 1 in.
ISIP - No Blow
FFP - Weak Surface Blow in 4 min.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>WCM</u>			<u>30</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

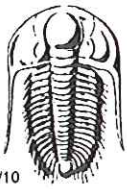
Rec Total 15 BHT 95 Gravity _____ API RW 515 @ 44 °F Chlorides 21000 ppm

(A) Initial Hydrostatic 1649 Test 1150 T-On Location 00:45
 (B) First Initial Flow 15 Jars _____ T-Started 01:05
 (C) First Final Flow 25 Safety Joint _____ T-Open 02:54
 (D) Initial Shut-In 350 Circ Sub _____ T-Pulled 04:54
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 06:40
 (F) Second Final Flow 34 Mileage 116 RT 179.80 Comments _____
 (G) Final Shut-In 341 Sampler _____
 (H) Final Hydrostatic 1640 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1329.80
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1329.80

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57587

4/10

Well Name & No. Ray #1 Test No. 3 Date 4-8-14
 Company Jasper Co. Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays KS 67601
 Co. Rep / Geo. JEFF LAWLER Rig WW6
 Location: Sec. 8 Twp. 7^s Rge. 20^w Co. Rooks State KS

Interval Tested 3418-3460 Zone Tested LKC "C & D"
 Anchor Length 42 Drill Pipe Run 3302 Mud Wt. 9.2
 Top Packer Depth 3413 Drill Collars Run 122 Vis 48
 Bottom Packer Depth 3418 Wt. Pipe Run 0 WL 8.8
 Total Depth 3460 Chlorides 2000 ppm System LCM 1

Blow Description IFF - 1/4 in Blow
ISIP - No Blow
FFP - No Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>0.5m</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 95 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

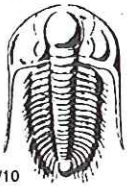
(A) Initial Hydrostatic 1677 Test 1150 T-On Location 12:22
 (B) First Initial Flow 19 Jars _____ T-Started 12:55
 (C) First Final Flow 21 Safety Joint _____ T-Open 14:30
 (D) Initial Shut-In 238 Circ Sub _____ T-Pulled 16:30
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 17:50
 (F) Second Final Flow 24 Mileage 179.80 Comments _____
 (G) Final Shut-In 216 Sampler _____
 (H) Final Hydrostatic 1661 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1329.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1329.80

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57588

4/10

Well Name & No. Rou #1 Test No. 4 Date 4-8-14
 Company Jasper Co. Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays KS. 67601
 Co. Rep / Geo. JEFF LAWLER Rig WW 6
 Location: Sec. 8 Twp. 7^s Rge. 20W Co. ROOKS State KS

Interval Tested 3452-3482 Zone Tested LKC "E+F"
 Anchor Length 30 Drill Pipe Run 3333 Mud Wt. 9.2
 Top Packer Depth 3447 Drill Collars Run 122 Vis 48
 Bottom Packer Depth 3452 Wt. Pipe Run 0 WL 8.8
 Total Depth 3482 Chlorides 2000 ppm System LCM 1

Blow Description IFP - Surface Blow Building to 9 1/2 in.
ISIP - No Blow
FFP - Surface Blow Building to 7 1/4 in.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>202</u>	<u>mcw</u>		<u>90</u>		<u>10</u>
<u>1</u>	<u>Oil Cap</u>		<u>100</u>		

Rec Total 203 BHT 104 Gravity _____ API RW 325 @ 42 °F Chlorides 42000 ppm
 (A) Initial Hydrostatic 1691 Test 1150 T-On Location 23:11
 (B) First Initial Flow 14 Jars _____ T-Started 23:33
 (C) First Final Flow 81 Safety Joint _____ T-Open 01:18
 (D) Initial Shut-In 555 Circ Sub _____ T-Pulled 04:18
 (E) Second Initial Flow 83 Hourly Standby _____ T-Out 06:06
 (F) Second Final Flow 111 Mileage 1329.80 Comments _____
 (G) Final Shut-In 551 Sampler _____
 (H) Final Hydrostatic 1679 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60
 Sub Total 0
 Total 1329.80
 MP/DST Disc't _____
 Sub Total 1329.80

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57589

Well Name & No. Roy #1 Test No. 5 Date 4-9-14
 Company Jasper Co. Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 HAYS KS 67601
 Co. Rep / Geo. JEFF LAWTER Rig WW6
 Location: Sec. 8 Twp. 7^s Rge. 20^w Co. ROOKS State KS

Interval Tested 3497-3560 Zone Tested LRC "H-J"
 Anchor Length 63 Drill Pipe Run 3367 Mud Wt. 9.1
 Top Packer Depth 3492 Drill Collars Run 122 Vis 53
 Bottom Packer Depth 3497 Wt. Pipe Run 0 WL 8.0
 Total Depth 3560 Chlorides 2000 ppm System LCM 1

Blow Description IFP- BOB in 9min.
ISIP- Surface Blow in 2min. Died Back in 35min.
FFP- BOB in 29min.
FSIP- Surface Blow in 1 1/2min. Died Back in 36min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>184</u>	<u>OCm</u>	<u>40</u>		<u>60</u>	
<u>67</u>	<u>CO</u>	<u>100</u>			
	<u>670 ISIP</u>				

Rec Total 251 BHT 103 Gravity 38 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1726</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>16:30</u>
(B) First Initial Flow <u>42</u>	<input type="checkbox"/> Jars _____	T-Started <u>17:05</u>
(C) First Final Flow <u>102</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>18:52</u>
(D) Initial Shut-In <u>274</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>22:22</u>
(E) Second Initial Flow <u>108</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>00:28</u>
(F) Second Final Flow <u>124</u>	<input checked="" type="checkbox"/> Mileage <u>179.80</u>	Comments _____
(G) Final Shut-In <u>346</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1666</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 90

Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

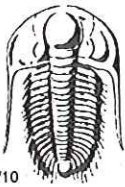
Sub Total 1329.80

MP/DST Disc't _____

Total 1329.80

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57533

4/10

Well Name & No. Roy #1 Test No. 6 Date 04/09/2014
 Company Jasper CO Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #6
 Location: Sec. 8 Twp. 7S Rge. 20W Co. Rooks State KS

Interval Tested 3547-3570 Zone Tested LKC K
 Anchor Length 23 Drill Pipe Run 3430 Mud Wt. 9.1
 Top Packer Depth 3543 Drill Collars Run 122 Vis 53
 Bottom Packer Depth 3547 Wt. Pipe Run 0 WL 8
 Total Depth 3570 Chlorides 2000 ppm System LCM 1#
 Blow Description IFP- DEAD NO blow back
ISI- DEAD NO blow back
FF- DEAD NO blow
FSI- DEAD NO blow back

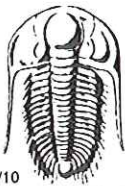
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50CM</u>		<u>5</u>	<u>95</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 97 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1780 Test 1150 T-On Location 0640
 (B) First Initial Flow 11 Jars — T-Started 0640
 (C) First Final Flow 12 Safety Joint — T-Open 0822
 (D) Initial Shut-In 19 Circ Sub — T-Pulled 1022
 (E) Second Initial Flow 11 Hourly Standby — T-Out 1151
 (F) Second Final Flow 12 Mileage 130 R/T 179.80 Comments —
 (G) Final Shut-In 17 Sampler —
 (H) Final Hydrostatic 1742 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1329.80
 Accessibility — MP/DST Disc't —
 Sub Total 1329.80

Approved By _____ Our Representative Jim Phillips

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57534

4/10

Well Name & No. Roy #1 Test No. 7 Date 04/10/2014
 Company Jasper CO Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #6
 Location: Sec. 8 Twp. 7S Rge. 20 W Co. Rooks State KS

Interval Tested 3567 - 3580 Zone Tested LKC L
 Anchor Length 13' Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 3563 Drill Collars Run 122 Vis 53
 Bottom Packer Depth 3567 Wt. Pipe Run 0 WL 8
 Total Depth 3580 Chlorides 2000 ppm System LCM 1#
 Blow Description _____

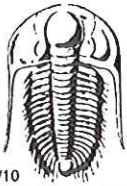
Rec	Feet of	%gas	%oil	%water	%mud
<u>220</u>	<u>Mud</u>			<u>100</u>	
____	____				
____	____				
____	____				
____	____				

Rec Total 220 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 950 T-On Location 1547
 (B) First Initial Flow _____ Jars _____ T-Started 1622
 (C) First Final Flow _____ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 2042
 (F) Second Final Flow _____ Mileage 130 R/T 179.80 Comments PACKER FAILURE
 (G) Final Shut-In _____ Sampler _____ Ruined Shale Packer _____
 (H) Final Hydrostatic _____ Straddle _____ Ruined Packer _____
 _____ Shale Packer _____ Extra Copies _____
 Initial Open _____ Extra Packer _____
 Initial Shut-In _____ Extra Recorder _____ Sub Total 0
 Final Flow _____ Day Standby _____ Total 1129.80
 Final Shut-In _____ Accessibility _____ MP/DST Disc't _____
 Sub Total 1129.80

Approved By _____ Our Representative Tom Phillips

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **57535**

4/10

Well Name & No. Roy #1 Test No. 8 Date 04/10/2014
 Company JASPER Co Elevation 2164 KB 2159 GL
 Address P.O. Box 1120 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW#6
 Location: Sec. 8 Twp. 7 S Rge. 20 W Co. Rooks State KS

Interval Tested LKC Zone Tested LKC K, L
 Anchor Length 33' Drill Pipe Run 3430 Mud Wt. 9.2
 Top Packer Depth 3543 Drill Collars Run 122 Vis 53
 Bottom Packer Depth 3547 Wt. Pipe Run 0 WL 8
 Total Depth 3580 Chlorides 2000 ppm System LCM 1#
 Blow Description IFP- Blow built to 3.75 in
ISI- DEAD NO blow back
FF- Blow built to 4 in
FSI- DEAD NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>CO</u>	<u>100</u>			
<u>63</u>	<u>MCO</u>	<u>60</u>		<u>40</u>	
<u>0</u>	<u>50ft GIP</u>				

Rec Total 73 BHT 102 Gravity 34 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1779 Test 1150 T-On Location 1547
 (B) First Initial Flow 16 Jars _____ T-Started 2058
 (C) First Final Flow 31 Safety Joint _____ T-Open 2230
 (D) Initial Shut-In 663 Circ Sub _____ T-Pulled 0145
 (E) Second Initial Flow 32 Hourly Standby 3.5 T-Out 0324
 (F) Second Final Flow 50 Mileage 130 R/T 179.80 Comments _____
 (G) Final Shut-In 650 Sampler _____
 (H) Final Hydrostatic 1728 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1329.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1329.80

Approved By _____

Our Representative Tom Phillips

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