



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1223509
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
-----------------------------------	-----------------	---

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: _____

1223509

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	TDI
Well Name	Jerome 1
Doc ID	1223509

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3514'-3516'	250 gals., 15%, 750 gals., 20%	
4	3492'-3496'	250 gals., 15%	
4	3474'-3476'	250 gals., 15%	
4	3460'-3462'	250 gals., 15%, 1000 gals., 15%	
4	3384'-3388'	250 gals., 15%	
4	3341'-3348'	250 gals., 15%, 1000 gals., 15%	
4	3423'-3427'		
4	3405'-3413'	250 gals., 15%	
4	3394'-3396'		

OPERATOR

Company: TDI, INC.
 Address: 1310 BISON ROAD
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: JEROME # 1
 Location: SW NE NW SE, SEC. 7-15S-18W
 API: 15-051-26,722-00-00
 Pool: WILDCAT
 State: KANSAS
 Field: RUDER
 Country: USA



Scale 1:240 Imperial

Well Name: JEROME # 1
 Surface Location: SW NE NW SE, SEC. 7-15S-18W
 Bottom Location:
 API: 15-051-26,722-00-00
 License Number: 4787
 Spud Date: 8/7/2014 Time: 4:00 PM
 Region: ELLIS COUNTY
 Drilling Completed: 8/13/2014 Time: 4:54 PM
 Surface Coordinates: 2095' FSL & 1695' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2028.00ft
 K.B. Elevation: 2038.00ft
 Logged Interval: 2900.00ft To: 3725.00ft
 Total Depth: 3725.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.3618492
 Latitude: 38.760695
 N/S Co-ord: 2095' FSL
 E/W Co-ord: 1695' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 WEST 35TH STREET
 HAYS, KANSAS 67601

Phone Nbr: 785-625-3380
 Logged By: GEOLOGIST Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 8/7/2014 Time: 4:00 PM
 TD Date: 8/13/2014 Time: 4:54 PM

ELEVATIONS

K.B. Elevation: 2038.00ft
 K.B. to Ground: 10.00ft

Ground Elevation: 2028.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE RESULTS OF THREE DSTS AND GOOD STRUCTURE THOUGHOUT THE LANSING-KANSAS CITY.

OPEN HOLE LOGGING BY PIONEER ENERGY SERVICES: DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG, MICRORESISTIVITY LOG

DRILL STEM TESTING BY TRILOBITE TESTING INC: THREE (3) CONVENTIONAL TESTS


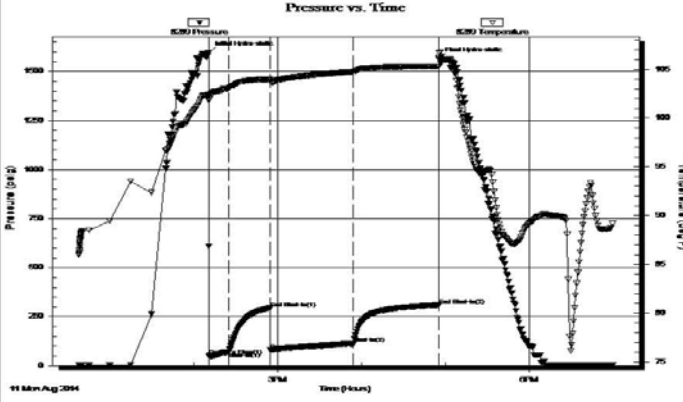
FORMATION TOPS SUMMARY

	JEROME # 1	SWIRES # 1	NICKEL # 2
	SW NE NW SE	NE SW SW	SE NE SE
	SEC.7-15S-18W	SEC.7-15-18W	SEC.7-15-18W
	2028'GL 2038'KB	KB 2074'	KB 2015'
<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1220 +818	+ 815	+832
B-Anhydrite	1256 +782	+ 778	
Topeka	3008 - 970	- 973	
Heebner Sh.	3267-1229	-1234	-1235
Toronto	3289-1251	-1255	-1254
LKC	3315-1277	-1280	-1281
BKC	3558-1520	-1527	-1540
Arbuckle	3640-1602	-1585	-1651
RTD	3725-1687	-1634	-1657


SUMMARY OF DAILY ACTIVITY

8-07-14	RU, spud 4:00 PM, set 8 5/8" surface casing to 221' w/ 150 sxs Common 2%Gel 3% CC, slope 3/4 degree, plug down 11:00PM
8-08-14	222', WOC, drill plug 7:00 AM
8-09-14	2094', drilling
8-10-14	2754', drilling, displaced 2848' to 2880'
8-11-14	3325', CFS 3360', TOWB, DST # 1 3304' to 3360' "A"- "C" LKC, TIWB
8-12-14	3436', CFS 3436, DST # 2 3375' to 3436' "F" to "G", TIWB, CFS 3536', DST # 3 3438' to 3536' "H" to "K"
8-13-14	3536', finish DST # 3, TIWB, RTD 3725' @4:54PM, CCH, TOWB, logs
8-14-14	3725', finish logging, TIWB, LDDP, run production casing, RD

DST # 1 TEST SUMMARY

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT TDI 7 15s 18w Ellis 1310 Bison Rd Jerome # 1 Hays KS 67601-9696 Job Ticket: 65130 DST#: 1 ATTN: Herb Deines Test Start: 2014.08.11 @ 12:38:00																																				
GENERAL INFORMATION: Formation: LKC " A - C " Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial) Time Tool Opened: 14:11:15 Tester: Jim Svaty Time Test Ended: 19:00:00 Unit No: 76 Interval: 3304.00 ft (KB) To 3360.00 ft (KB) (TVD) Reference Elevations: 2038.00 ft (KB) Total Depth: 3360.00 ft (KB) (TVD) 2028.00 ft (CF) Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft																																					
Serial #: 8289 Outside Press@RunDepth: 112.55 psig @ 3305.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.08.11 End Date: 2014.08.11 Last Calib.: 2014.08.11 Start Time: 12:38:02 End Time: 18:59:45 Time On Btm: 2014.08.11 @ 14:10:45 Time Off Btm: 2014.08.11 @ 16:55:45																																					
TEST COMMENT: 15-IFP- BOB in 1min. 30-ISIP- No Blow 60-FFP- BOB in 1min. 60-FSP- No Blow																																					
	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>1596.92</td><td>102.39</td><td>Initial Hydro-static</td></tr> <tr><td>1</td><td>51.44</td><td>101.90</td><td>Open To Flow (1)</td></tr> <tr><td>15</td><td>71.36</td><td>103.08</td><td>Shut-In(1)</td></tr> <tr><td>44</td><td>293.71</td><td>103.99</td><td>End Shut-In(1)</td></tr> <tr><td>45</td><td>79.44</td><td>103.78</td><td>Open To Flow (2)</td></tr> <tr><td>104</td><td>112.55</td><td>104.76</td><td>Shut-In(2)</td></tr> <tr><td>165</td><td>309.38</td><td>105.29</td><td>End Shut-In(2)</td></tr> <tr><td>165</td><td>1564.16</td><td>106.19</td><td>Final Hydro-static</td></tr> </tbody> </table>	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1596.92	102.39	Initial Hydro-static	1	51.44	101.90	Open To Flow (1)	15	71.36	103.08	Shut-In(1)	44	293.71	103.99	End Shut-In(1)	45	79.44	103.78	Open To Flow (2)	104	112.55	104.76	Shut-In(2)	165	309.38	105.29	End Shut-In(2)	165	1564.16	106.19	Final Hydro-static
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation																																		
0	1596.92	102.39	Initial Hydro-static																																		
1	51.44	101.90	Open To Flow (1)																																		
15	71.36	103.08	Shut-In(1)																																		
44	293.71	103.99	End Shut-In(1)																																		
45	79.44	103.78	Open To Flow (2)																																		
104	112.55	104.76	Shut-In(2)																																		
165	309.38	105.29	End Shut-In(2)																																		
165	1564.16	106.19	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>125.00</td><td>MWCGO 10% m 20% w 20% g 50% o</td><td>1.75</td></tr> <tr><td>62.00</td><td>WGOCM 10% w 20% g 25% o 45% m</td><td>0.87</td></tr> <tr><td>50.00</td><td>OSM 2% o 98% m</td><td>0.70</td></tr> <tr><td>0.00</td><td>1963 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)	125.00	MWCGO 10% m 20% w 20% g 50% o	1.75	62.00	WGOCM 10% w 20% g 25% o 45% m	0.87	50.00	OSM 2% o 98% m	0.70	0.00	1963 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)												
Length (ft)	Description	Volume (bbl)																																			
125.00	MWCGO 10% m 20% w 20% g 50% o	1.75																																			
62.00	WGOCM 10% w 20% g 25% o 45% m	0.87																																			
50.00	OSM 2% o 98% m	0.70																																			
0.00	1963 GIP	0.00																																			
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)																																			

DST # 2 TEST SUMMARY

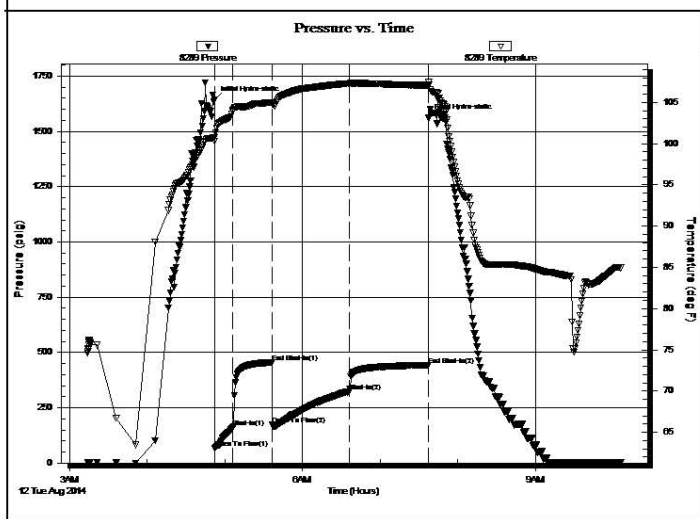
	DRILL STEM TEST REPORT	
	TDI 1310 Bison Rd Hays KS 67601-9696 ATTN: Herb Deines	7 15s 18w Ellis Jerome # 1 Job Ticket: 56131 DST#: 2 Test Start: 2014.08.12 @ 03:14:00

GENERAL INFORMATION:

Formation: LKC " F & G "	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: Jim Svaty
Time Tool Opened: 04:52:15	Unit No: 76
Time Test Ended: 10:06:00	Reference Elevations: 2038.00 ft (KB)
Interval: 3375.00 ft (KB) To 3436.00 ft (KB) (TVD)	2028.00 ft (CF)
Total Depth: 3436.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches Hole Condition: Fair	

Serial #: 8289	Outside	Capacity: 8000.00 psig
Press@RunDepth: 324.04 psig @ 3376.00 ft (KB)	Start Date: 2014.08.12	Last Calib.: 2014.08.12
Start Time: 03:14:02	End Date: 2014.08.12	Time On Btm: 2014.08.12 @ 04:52:00
End Time: 10:06:00	Time Off Btm: 2014.08.12 @ 07:37:30	

TEST COMMENT: 15-IFP- BOB in 1min. 45sec.
 30-ISIP- Surface Blow Building to 4in. In 5min. Died Back in 9min.
 60-FFP- BOB in 2min. 45sec. Gas to Surface
 60-FSIP- BOB in 6min. 30sec.




PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.72	100.77	Initial Hydro-static
1	66.61	100.29	Open To Flow (1)
15	160.67	104.08	Shut-In(1)
45	455.64	104.96	End Shut-In(1)
45	172.79	104.79	Open To Flow (2)
105	324.04	107.28	Shut-In(2)
165	442.66	107.08	End Shut-In(2)
166	1561.44	107.51	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
30.00	GOMCW 3%o 15%g 15%m 67%w	0.42
345.00	GMWCO 5%m 10%w 20%g 65%o	4.84
252.00	GMCO 10%m 40%o 50%g	3.53
156.00	GCO 50%G 50%O	2.19
0.00	Gas to Surface	0.00

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

* Recovery from multiple tests

DST # 3 TEST SUMMARY

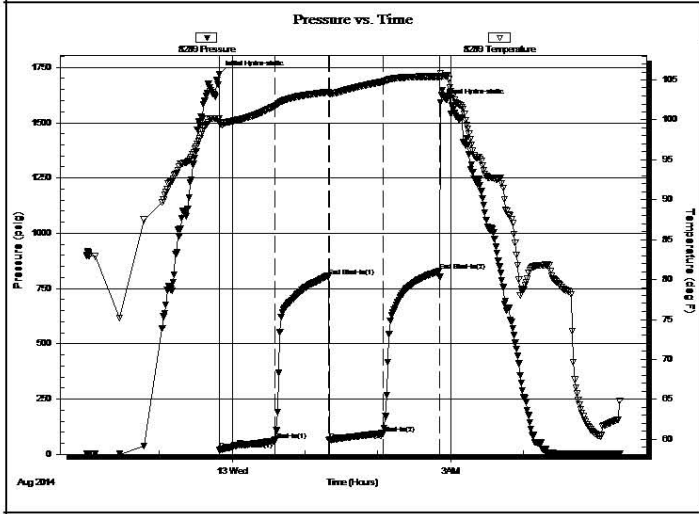
	DRILL STEM TEST REPORT	
	TDI 1310 Bison Rd Hays KS 67601-9696 ATTN: Herb Deines	7 15s 18w Ellis Jerome # 1 Job Ticket: 56132 DST#: 3 Test Start: 2014.08.12 @ 22:00:00

GENERAL INFORMATION:

Formation: LKC " H - K "	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: Jim Svaty
Time Tool Opened: 23:49:30	Unit No: 76
Time Test Ended: 05:19:00	
Interval: 3438.00 ft (KB) To 3536.00 ft (KB) (TVD)	Reference Elevations: 2038.00 ft (KB)
Total Depth: 3536.00 ft (KB) (TVD)	2028.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair	KB to GR/CF: 10.00 ft

Serial #: 8289	Outside		
Press@RunDepth: 95.04 psig @ 3439.00 ft (KB)	Capacity: 8000.00 psig		
Start Date: 2014.08.12	End Date: 2014.08.13	Last Calib.: 2014.08.13	
Start Time: 22:00:02	End Time: 05:19:15	Time On Btm: 2014.08.12 @ 23:49:15	
		Time Off Btm: 2014.08.13 @ 02:51:30	

TEST COMMENT: 45-IFP- BOB in 28min.
 45-ISIP- No Blow
 45-FFP- BOB in 23min.
 45-FSIP- Surface Blow in 1min.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.29	100.17	Initial Hydro-static
1	20.71	99.65	Open To Flow (1)
46	61.59	101.73	Shut-In(1)
90	805.76	103.47	End Shut-In(1)
91	63.07	103.28	Open To Flow (2)
136	95.04	104.79	Shut-In(2)
182	827.50	105.44	End Shut-In(2)
183	1590.99	105.85	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
125.00	OWCM 3%o 47%w 50%m	1.75
30.00	OSM 2%o 98%m	0.42
15.00	CO 100%	0.21
0.00	GIP 267	0.00

* Recovery from multiple tests

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

Image Header 05

ROCK TYPES



ACCESSORIES

MINERAL

- ▲ Chert, dark
- ∩ Glauconite
- P Pyrite
- Sandy
- △ Chert White

FOSSIL

- Oolite
- ⊕ Oomoldic

OTHER SYMBOLS

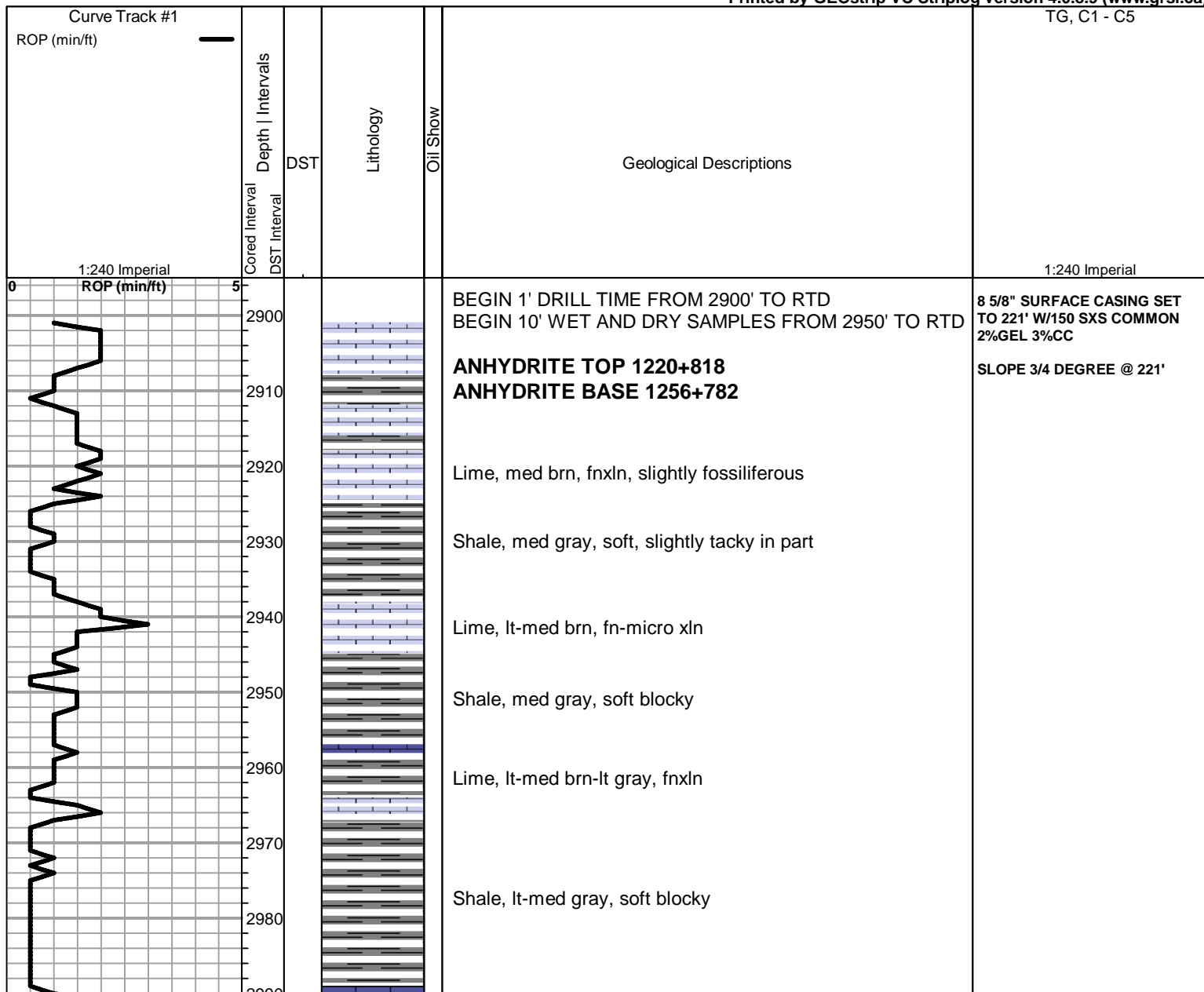
Oil Show

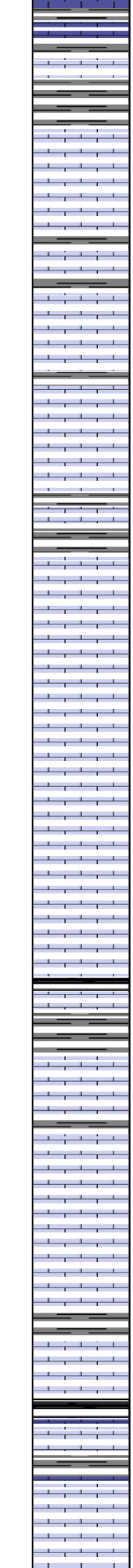
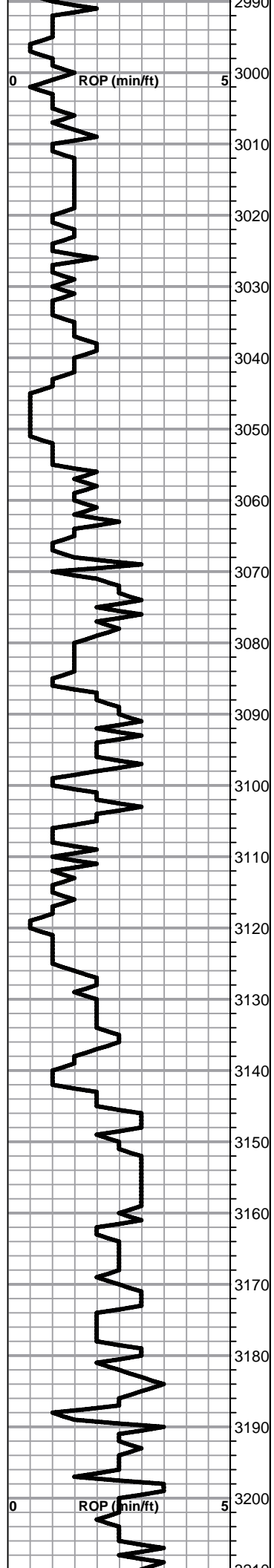
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- Dead Oil Stn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.9 (www.grsi.ca)





Lime, med grayish brn, fnxln

Lime, lt-med brn-lt grayish brn, fnxln, lt gray mottling in part

TOPEKA ELog 3008-970

Lime, lt brn-lt grayish brn, fnxln, slightly fossiliferous

Lime, crm-lt brn, fnxln-granular in part, slight bedded chalk

Lime, lt brn-lt grayish brn, fnxln-granular, slightly fossiliferous

Lime, lt brn, fnxln grading into granular

Lime, lt brn, granular, fn grained, NS, No Wet Cut

Lime, lt-med brn-med grayish brn, fnxln, slightly fossiliferous

Lime, lt brn-med grayish brn, fnxln

Lime, crm-lt brn, fnxln, slightly fossiliferous

Lime, lt-med brn, fnxln

Lime, rm-lt brn, fnxln-granular in part

Lime, lt brn-lt grayish brn, fnxln-granular, slightly fossiliferous

Lime, lt-med brn, granular, slightly fossiliferous-fusulinids, slight bedded chalk

Shale, gray-black carbonaceous, blocky

Lime, crm-lt brn, fnxln, bedded chalk grading into sub-lithographic

Lime, crm-lt brn, fn-micro xln, slight bedded chalk

Lime, crm-lt brn, fn-micro xln

Lime, crm-lt brn, fn-vfxln, slight bedded chalk

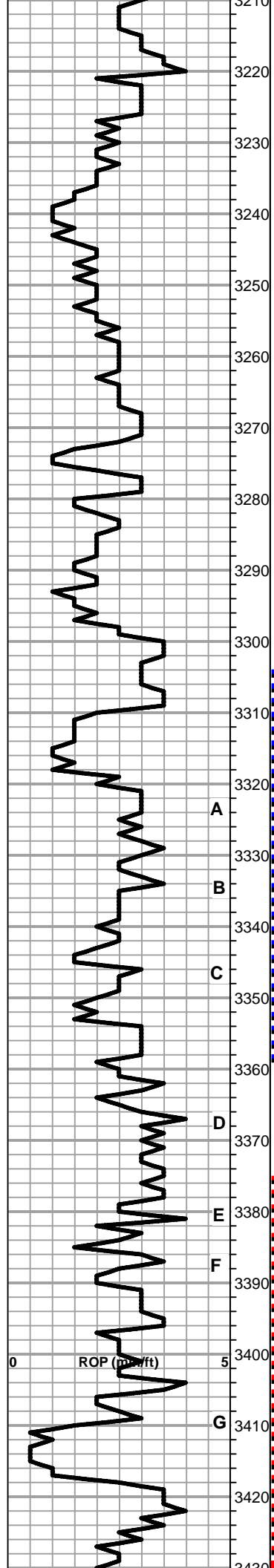
Shale, grayish green, firm, blocky

Lime, lt brn-lt gray, fnxln

Shale, black carbonaceous, fissile, blocky
Lime, med grayish brn, fn-vfxln

Lime, crm-lt brn, fn-micro xln, slight bedded chalk

Lime, lt brn, fnxln, lt chalky matrix with bedded chalk. NS



Lime, lt brn-lt grayish brn, fn-micro xln, bedded chalk, NS

Lime, crm-tan, fnxln-granular with increasing bedded chalk content

Lime, crm-tan, fnxln-granular, bedded chalk, NS

Lime, lt brn-lt grayish brn, fnxln, slight bedded chalk

Lime, crm-lt brn, fnxln, bedded chalk

Lime, lt grayish brn, fn-vfxln

HEEBNER SHALE SPL 3271-1233 ELog 3267-1229

Shale, black carbonaceous, fissile, blocky
Lime, lt brn, fn-micro xln

Shale, lime green with green wash, soft mud

TORONTO SPL 3292-1254 ELog 3289-1251

Lime, crm-lt brn, fnxln, slight bedded chalk, few chips with spotty staining in fine inter xln porosity, scattered fine vugs, NFO, No Odor

Lime, tan-lt brn, fn-vfxln

LKC SPL 3318-1280 ELog 3315-1277

Lime, lt brn, fnxln, few chips lt spotty stain with lt sheen in fine granular lime with inter xln porosity, NFO, No Odor

Lime, lt-med brn, fn-vfxln

Lime, lt-med brn, fnxln, white chert, pyritic

Lime, lt-med brn, mostly fnxln, slightly fossiliferous

Lime, white, granular, fine-coarse grained, gilsonitic in part with spotty fresh oil staining, very lt odor, NFO, few barren oomoldic chips

Lime, lt-med brn, fnxln

Lime, lt-med brn, fn-vfxln, few chips oolitic with spotty staining, NFO, No Odor, partial sparry calcite backfill

Lime, crm-lt brn, fn-vfxln, slight bedded chalk

Shale, black carbonaceous, blocky
Lime, med brn-med grayish brn, fn-vfxln

Lime, crm-tan, mostly fnxln, lt chalky wash, few chips oolitic with fossil fragments with spotting staining, NFO

Lime, tan-lt brn, fnxln, bedded chalk, lt white chalk wash

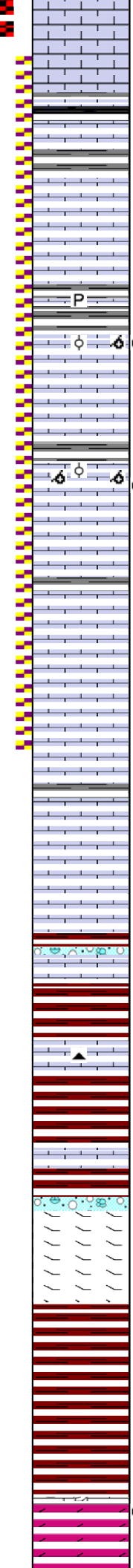
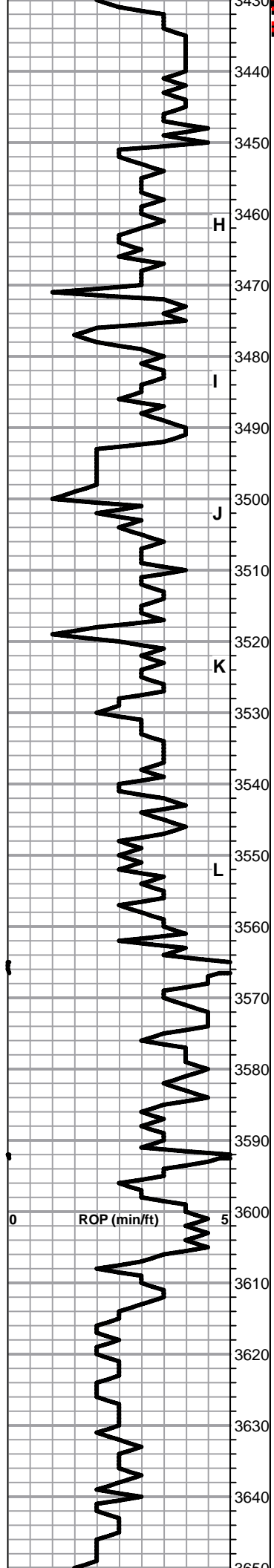
Lime, crm-white, coarse granular in part with SFO on crush grading into oolitic/oomoldic with spotty dark staining

Lime, crm-tan, fn-micro xln, bedded chalk

Lime, crm-tan, fn-micro xln, bedded chalk

DST # 1 3304' TO 3360' SEE
HEADER FOR TEST
SUMMARY

DST # 2 3375' TO 3436' SEE
HEADER FOR TEST
SUMMARY



Lime, crm-tan, fn-micro xln, slight bedded chalk

3440

Lime, lt-med brn, fn-vfxln

3450

Lime, lt-med brn, fn-vfxln

3460

Lime, crm-tan, fn-vfxln, slightly fossiliferous, slight bed chalk

3470

Shale, lt-med gray, soft blocky, pyritic

3480

Lime, crm-tan, oolitic/oomoldic with fossil fragments with fine inter xln granular, scattered ppt porosity, scattered to saturated staining, scattered gilsonite flakes, spotty staining, NFO

3490

Lime, crm-tan-lt brn, fn-vfxln, slight bedded chalk

3500

Lime, crm-tan, oolitic/oomoldic, scattered to saturated staining, lt odor

3510

Lime, lt brn, fn-vfxln

3520

Lime, lt-med brn, fnxln

3530

Lime, lt-med brn, fn-vfxln, NS noted in samples

3540

Lime, tan-lt brn, fnxln, bedded chalk

3550

Lime, tan-lt brn, fn-vfxln

3560

Lime, crm-lt brn, fn-vfxln

3570

Lime, crm-lt brn, fnxln

3580

BKC SPL 3561-1523 ELog 3558-1520

Shale, reddish brn, soft blocky

Lime, lt brn, fn-vfxln, clastic in part

3590

Shale, lt red wash, red, soft blocky

3600

Lime, lt brn, fn-vfxln, slightly dolomitic, tan chert, fresh, sharp

3610

Shale, lt red wash

3620

Lime, lt-med brn, fn-vfxln

3630

Lime, crm-lt brn, fnxln, dolomitic in part, red shale staining in reworked clastic contact with shales

3640

Shale, red-brn, lt red wash, vari colored cherts

3650

Shale, dark brn, firm blocky

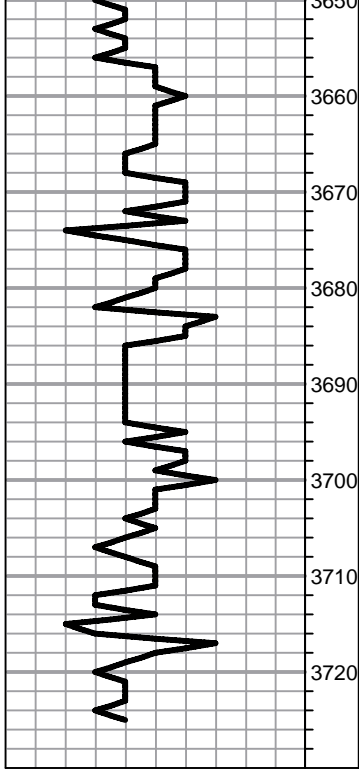
Shale, dark brn, firm blocky

3660

ARBUCKLE SPL & ELog 3640-1602

Dolomite, ivory-lt brn, fnxln-granular/sucrosic in part trace of FO on crush, lt saturated staining in poorly developed inter xln porosity

DST # 3 3438' TO 3536' SEE HEADER FOR TEST SUMMARY



Dolomite, ivory, med-cxln, interxln porosity

Dolomite, ivory-frm, fnxln-granular, fine-coarse grained
sucrosic, few flakes of glauconite

Dolomite, ivory, fnxln-granular in part

Dolomite, offwhite-ivory, fnxln, pyritic with scattered quartz
grain inclusions

Dolomite, offwhite-ivory-lt salmon, fnxln, scattered quartz
grain inclusions

Dolomite, as above

RTD 3725-1687 LTD 3724-1686

**RAN 5 1/2" PRODUCTION
CASING SET TO 3719'
CEMENTED W/ 150 SXS EA2**

**DV SET IN ANHYDRITE W/ 150
SXS SMD, RH W/25SXS, MH W/
25 SXS, PLUG DOWN 12:50
PM 8/14/2014**

SLOPE 1 1/2 DEGREE @3725'

GLOBAL CEMENTING, L.L.C.

1411

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT: Russell KS

DATE <u>8-7-14</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>11:00 AM</u>
LEASE <u>Tecoma</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>10 Ellis</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)							

CONTRACTOR Southwind Rig #1
 TYPE OF JOB Surface
 HOLE SIZE 12 3/4 T.D. 226
 CASING SIZE 8 3/4 DEPTH
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS
 DISPLACEMENT

EQUIPMENT
 PUMP TRUCK CEMENTER Casey
 # 11 HELPER Blod
 BULK TRUCK DRIVER Erick
 # BU
 BULK TRUCK DRIVER
 #

OWNER
 CEMENT AMOUNT ORDERED 150sks Cem 3 1/2 cc 2 1/2 gal
 COMMON @
 POZMIX @
 GEL @
 CHLORIDE @
 ASC @
 @
 @
 @
 @
 @
 @
 @
 @
 @
 HANDLING @
 MILEAGE
 TOTAL

REMARKS:
Run 5 Joints 8 3/4 casing + Landing Joint
Esc Circulation Holed up pumped 150sks
circulated cement Displaced 12.5 bbls H₂O
Shut in at 200psi

CHARGE TO: TPI Inc
 STREET
 CITY STATE ZIP

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

PRINTED NAME Larry Beaman
 SIGNATURE [Signature]

SERVICE
 DEPTH OF JOB
 PUMP TRUCK CHARGE
 EXTRA FOOTAGE @
 MILEAGE @
 MANIFOLD @
 @
 @
 TOTAL

PLUG & FLOAT EQUIPMENT
 @
 @
 @
 @
 @
 TOTAL

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

JOB LOG

SWIFT Services, Inc.

DATE: 4 Aug 14 PAGE NO.

CUSTOMER: TDI WELL NO. LEASE: GEROME #1 JOB TYPE: 5 1/2 LONGSTRING TICKET NO. 27804

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0700							ON LOCATION
	0900							START PIPE 5 1/2 - 14# RTD @ 3725 SHADEJT - 42.00 CENTRALIZERS 1, 3, 5, 7, 9, 11, 12, 14, 16, 58 BASKETS 2, 6, 17, 59 DV TOOL # 59 @ 1190
	1027							DROP BALL - CIRCULATE
	1125	6	12				300	Pump 500 gal mud FLUSH
		6	20				300	Pump 20 Bbl KCL SPACER
	1129	4	36					MIX 150 sx STANDARD EA-2
	1143							WASH OUT Pump & LINES.
	1146	6						START DISPLACING PLUG
	1202	Ø	90				1500	PLUG DOWN LATCH PLUG IN
	1203							RELEASE PSI - DRY
	1204							DROP DV OPENING TOOL
	1205		7.5					PLUG RA-30sx MH-20sx
	1214						1200	OPEN DV TOOL
	1214	6	20				200	Pump 20 Bbl KCL SPACER
	1217	4	83					MIX 150 sx SMD
	1244							WASH OUT Pump & LINES.
	1247	6						START DISPLACING DV CLOSING PLUG
	1252	Ø	29				1500	PLUG DOWN - CLOSE DV TOOL
								CIRCULATE 35 sx TO PIT
								RELEASE PSI - DRY
	1255							WASH TRUCK
	1330							JOB COMPLETE
								THANKS # 115
								JASON DOUG ROIB



DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Herb Deines

Jerome #1

7 15s 18w Ellis,KS

Start Date: 2014.08.11 @ 12:38:00

End Date: 2014.08.11 @ 19:00:00

Job Ticket #: 56130 DST #: 1

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

Printed: 2014.08.13 @ 15:43:28

TDI
7 15s 18w Ellis,KS
Jerome #1
DST # 1
LKC " A - C "
2014.08.11



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI
1310 Bison Rd
Hays KS 67601-9696
ATTN: Herb Deines

7 15s 18w Ellis,KS
Jerome #1
Job Ticket: 56130 **DST#: 1**
Test Start: 2014.08.11 @ 12:38:00

Tool Information

Drill Pipe:	Length: 3307.00 ft	Diameter: 3.80 inches	Volume: 46.39 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 46.39 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3304.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	56.00 ft				
Tool Length:	77.00 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			3284.00	
Shut In Tool	5.00			3289.00	
Hydraulic tool	5.00			3294.00	
Packer	5.00			3299.00	21.00 Bottom Of Top Packer
Packer	5.00			3304.00	
Stubb	1.00			3305.00	
Recorder	0.00	8789	Inside	3305.00	
Recorder	0.00	8289	Outside	3305.00	
Perforations	19.00			3324.00	
Change Over Sub	1.00			3325.00	
Blank Spacing	31.00			3356.00	
Change Over Sub	1.00			3357.00	
Bullnose	3.00			3360.00	56.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI **7 15s 18w Ellis,KS**
 1310 Bison Rd **Jerome #1**
 Hays KS 67601-9696 Job Ticket: 56130 **DST#: 1**
 ATTN: Herb Deines Test Start: 2014.08.11 @ 12:38:00

Mud and Cushion Information

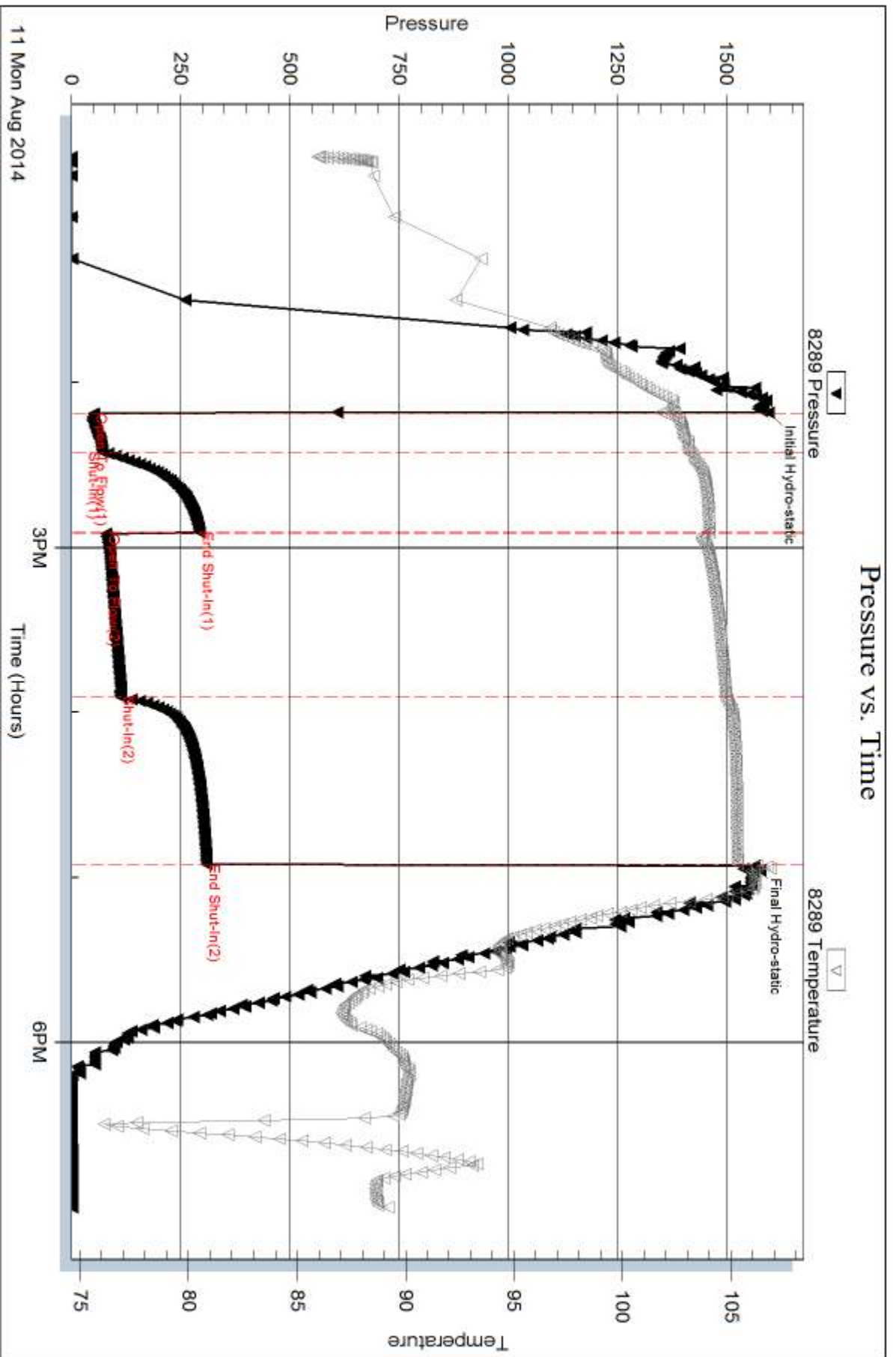
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.74 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4600.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	MWCGO 10%m 20%w 20%g 50%o	1.753
62.00	WGOCM 10%w 20%g 25%o 45%m	0.870
50.00	OSM 2%o 98%m	0.701
0.00	1963 GIP	0.000

Total Length: 237.00 ft Total Volume: 3.324 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

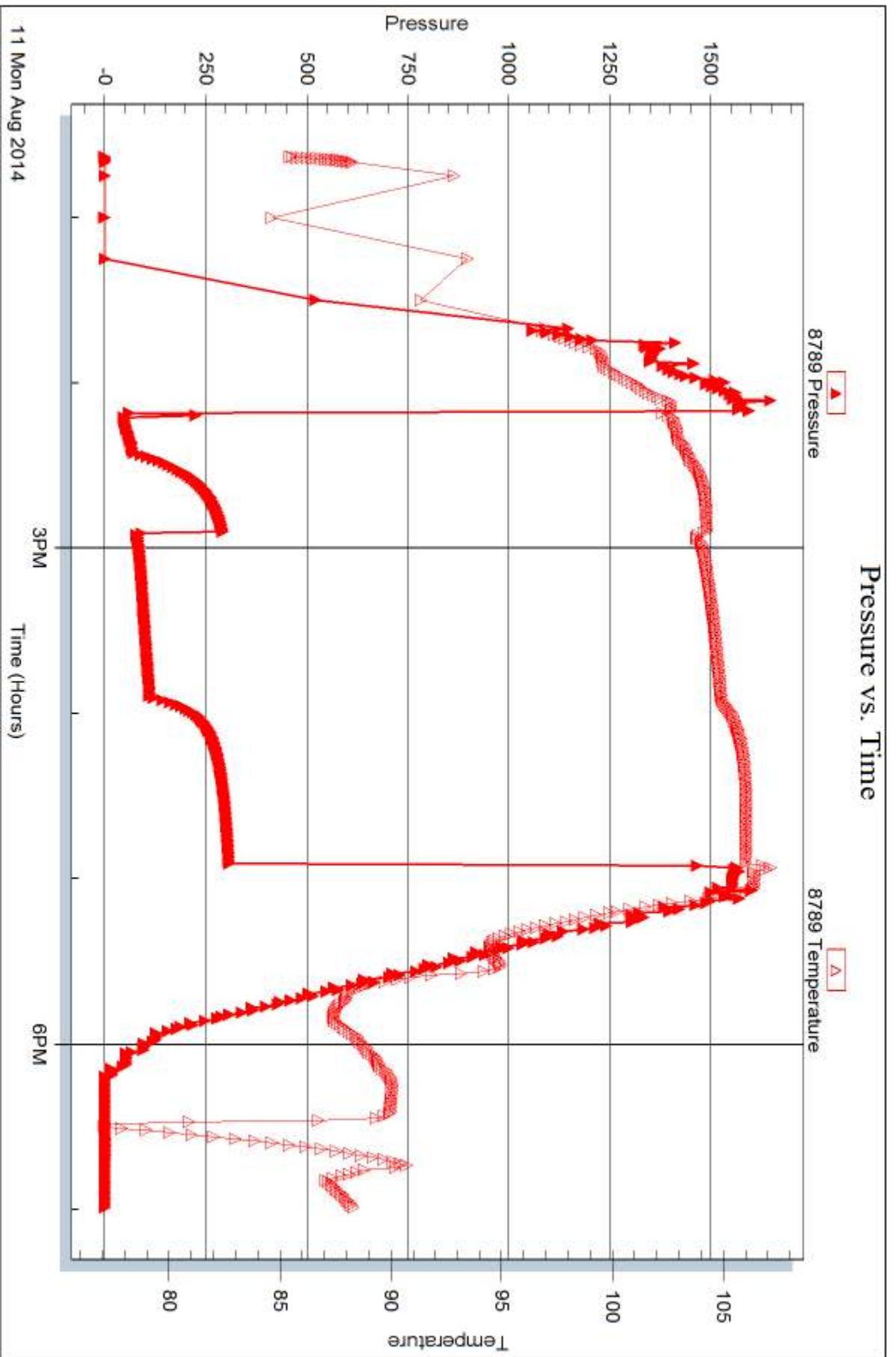


Serial #: 8789

Inside TDI

Jerome #1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 56130

Printed: 2014.08.13 @ 15:43:30



DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Herb Deines

Jerome #1

7 15s 18w Ellis,KS

Start Date: 2014.08.12 @ 03:14:00

End Date: 2014.08.12 @ 10:06:00

Job Ticket #: 56131 DST #: 2

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

Printed: 2014.08.13 @ 15:42:55

TDI
7 15s 18w Ellis,KS
Jerome #1
DST # 2
LKC " F & G "
2014.08.12



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI
1310 Bison Rd
Hays KS 67601-9696
ATTN: Herb Deines

7 15s 18w Ellis,KS
Jerome #1
Job Ticket: 56131 **DST#: 2**
Test Start: 2014.08.12 @ 03:14:00

Tool Information

Drill Pipe:	Length: 3371.00 ft	Diameter: 3.80 inches	Volume: 47.29 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 47.29 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3375.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	61.00 ft				
Tool Length:	82.00 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			3355.00	
Shut In Tool	5.00			3360.00	
Hydraulic tool	5.00			3365.00	
Packer	5.00			3370.00	21.00 Bottom Of Top Packer
Packer	5.00			3375.00	
Stubb	1.00			3376.00	
Recorder	0.00	8789	Inside	3376.00	
Recorder	0.00	8289	Outside	3376.00	
Perforations	24.00			3400.00	
Change Over Sub	1.00			3401.00	
Blank Spacing	31.00			3432.00	
Change Over Sub	1.00			3433.00	
Bullnose	3.00			3436.00	61.00 Bottom Packers & Anchor

Total Tool Length: 82.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI **7 15s 18w Ellis,KS**
 1310 Bison Rd **Jerome #1**
 Hays KS 67601-9696 Job Ticket: 56131 **DST#: 2**
 ATTN: Herb Deines Test Start: 2014.08.12 @ 03:14:00

Mud and Cushion Information

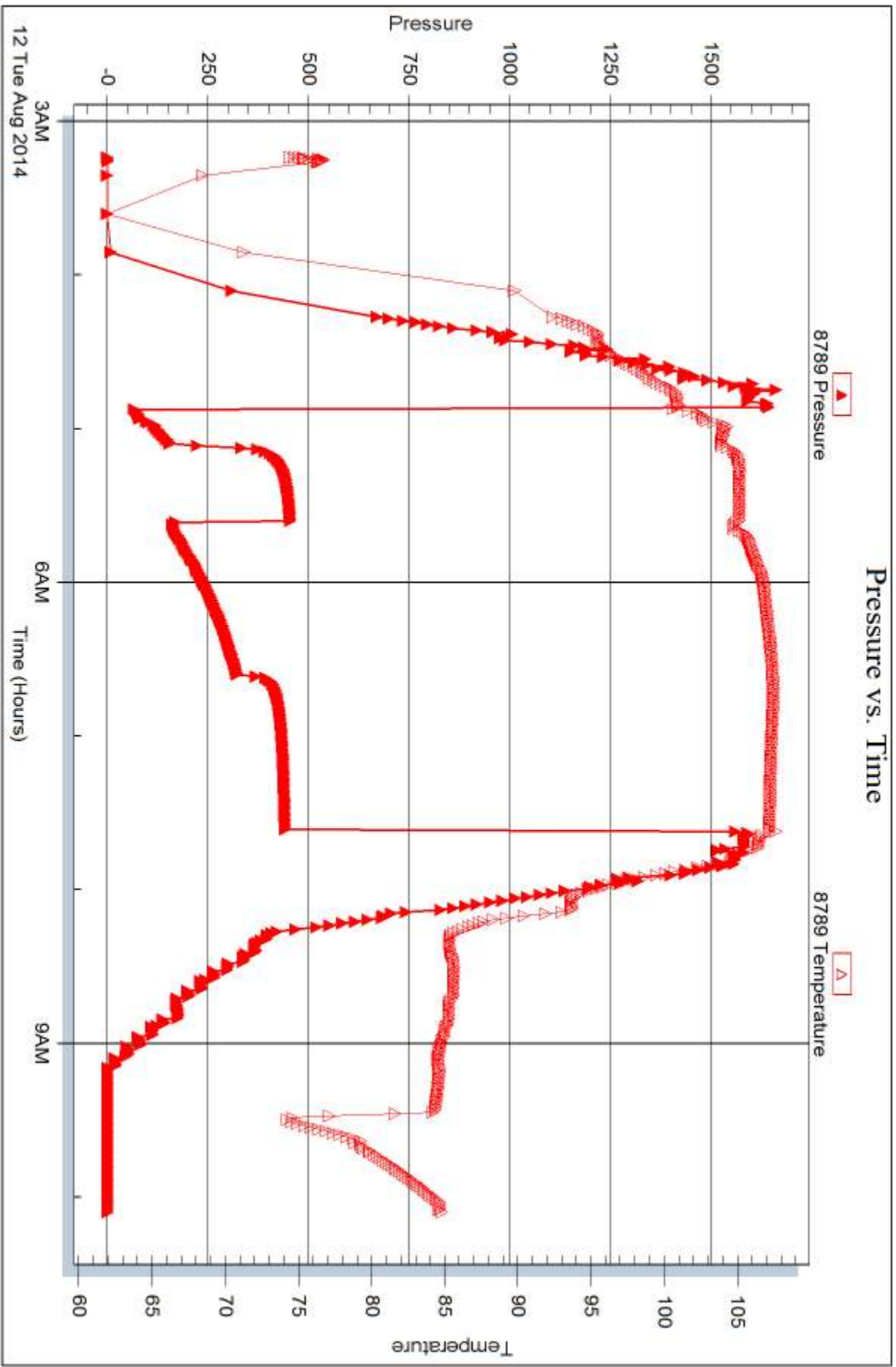
Mud Type: Gel Chem	Cushion Type:	Oil API: 32 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 21000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.76 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4600.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GOMCW 3%o 15%g 15%m 67%w	0.421
345.00	GMWCO 5%m 10%w 20%g 65%o	4.839
252.00	GMCO 10%m 40%o 50%g	3.535
156.00	GCO 50%G 50%O	2.188
0.00	Gas to Surface	0.000

Total Length: 783.00 ft Total Volume: 10.983 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .296 @ 78





DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Herb Deines

Jerome #1

7 15s 18w Ellis,KS

Start Date: 2014.08.12 @ 22:00:00

End Date: 2014.08.13 @ 05:19:00

Job Ticket #: 56132 DST #: 3

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

Printed: 2014.08.13 @ 15:40:23

TDI
7 15s 18w Ellis,KS
Jerome #1
DST # 3
LKC " H - K "
2014.08.12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI
1310 Bison Rd
Hays KS 67601-9696
ATTN: Herb Deines

7 15s 18w Ellis, KS
Jerome #1
Job Ticket: 56132 **DST#: 3**
Test Start: 2014.08.12 @ 22:00:00

GENERAL INFORMATION:

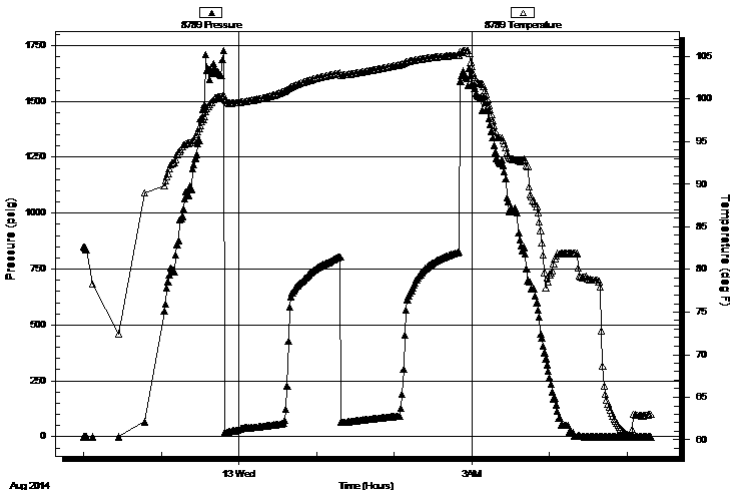
Formation: **LKC "H - K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:49:30
Time Test Ended: 05:19:00
Interval: **3438.00 ft (KB) To 3536.00 ft (KB) (TVD)**
Total Depth: 3536.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76
Reference Elevations: 2038.00 ft (KB)
2028.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8789 Inside

Press@RunDepth: psig @ 3439.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.08.12 End Date: 2014.08.13 Last Calib.: 2014.08.13
Start Time: 22:00:02 End Time: 05:19:00 Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IFP- BOB in 28 min.
45-ISIP- No Blow
45-FFP- BOB in 23 min.
45-FSIP- Surface Blow in 1 min.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
125.00	OWCM 3%o 47%w 50%m	1.75
30.00	OSM 2%o 98%m	0.42
15.00	CO 100%	0.21
0.00	GIP 267	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

TDI
1310 Bison Rd
Hays KS 67601-9696
ATTN: Herb Deines

7 15s 18w Ellis,KS
Jerome #1
Job Ticket: 56132 **DST#: 3**
Test Start: 2014.08.12 @ 22:00:00

Tool Information

Drill Pipe:	Length: 3434.00 ft	Diameter: 3.80 inches	Volume: 48.17 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 48.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3438.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	98.00 ft			
Tool Length:	119.00 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			3418.00	
Shut In Tool	5.00			3423.00	
Hydraulic tool	5.00			3428.00	
Packer	5.00			3433.00	21.00 Bottom Of Top Packer
Packer	5.00			3438.00	
Stubb	1.00			3439.00	
Recorder	0.00	8789	Inside	3439.00	
Recorder	0.00	8289	Outside	3439.00	
Perforations	29.00			3468.00	
Change Over Sub	1.00			3469.00	
Blank Spacing	63.00			3532.00	
Change Over Sub	1.00			3533.00	
Bullnose	3.00			3536.00	98.00 Bottom Packers & Anchor

Total Tool Length: 119.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI **7 15s 18w Ellis,KS**
 1310 Bison Rd **Jerome #1**
 Hays KS 67601-9696 Job Ticket: 56132 **DST#: 3**
 ATTN: Herb Deines Test Start: 2014.08.12 @ 22:00:00

Mud and Cushion Information

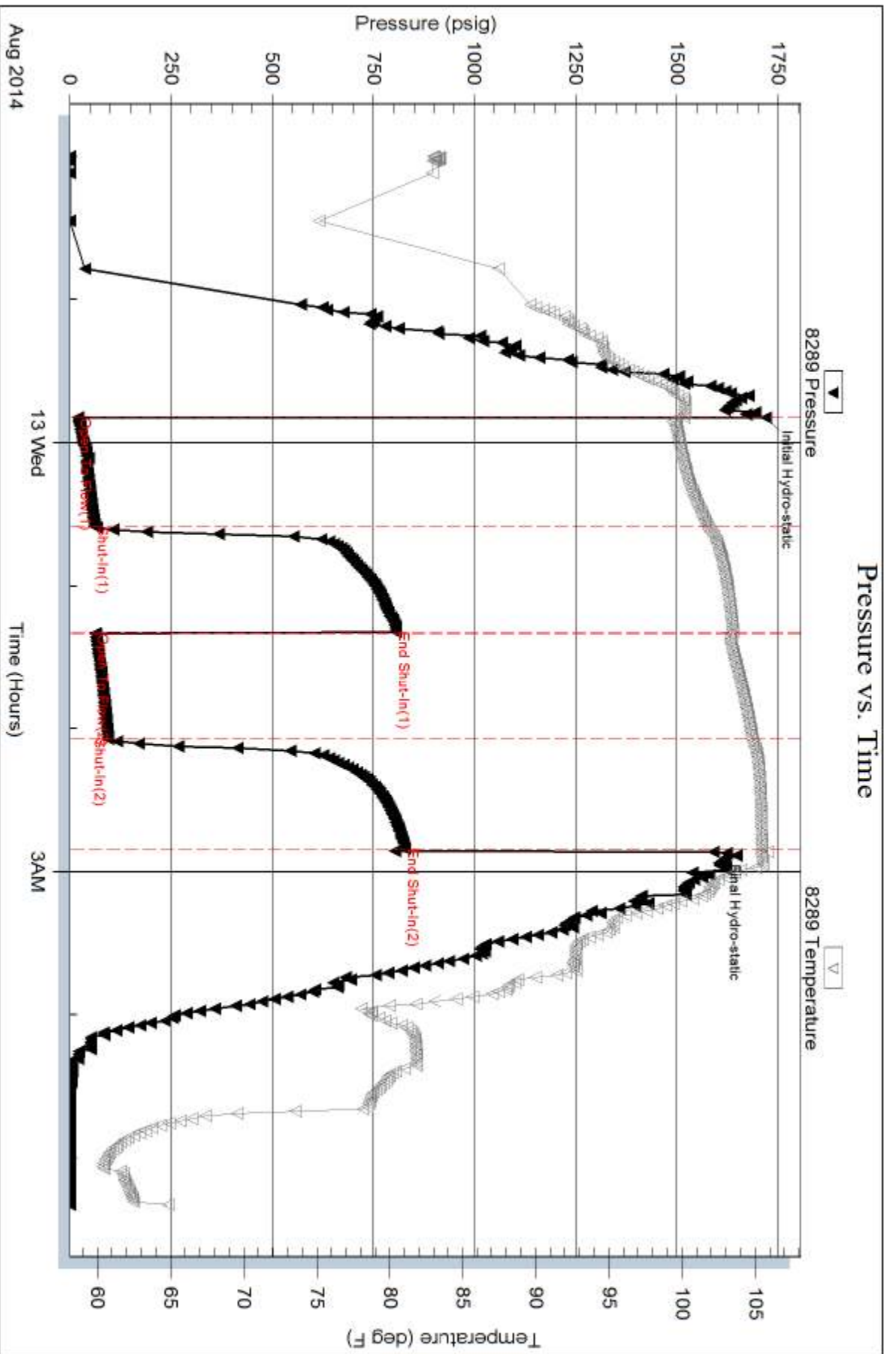
Mud Type: Gel Chem	Cushion Type:	Oil API: 41 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 26500 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.37 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4500.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	OWCM 3%o 47%w 50%m	1.753
30.00	OSM 2%o 98%m	0.421
15.00	CO 100%	0.210
0.00	GIP 267	0.000

Total Length: 170.00 ft Total Volume: 2.384 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .290 @ 63

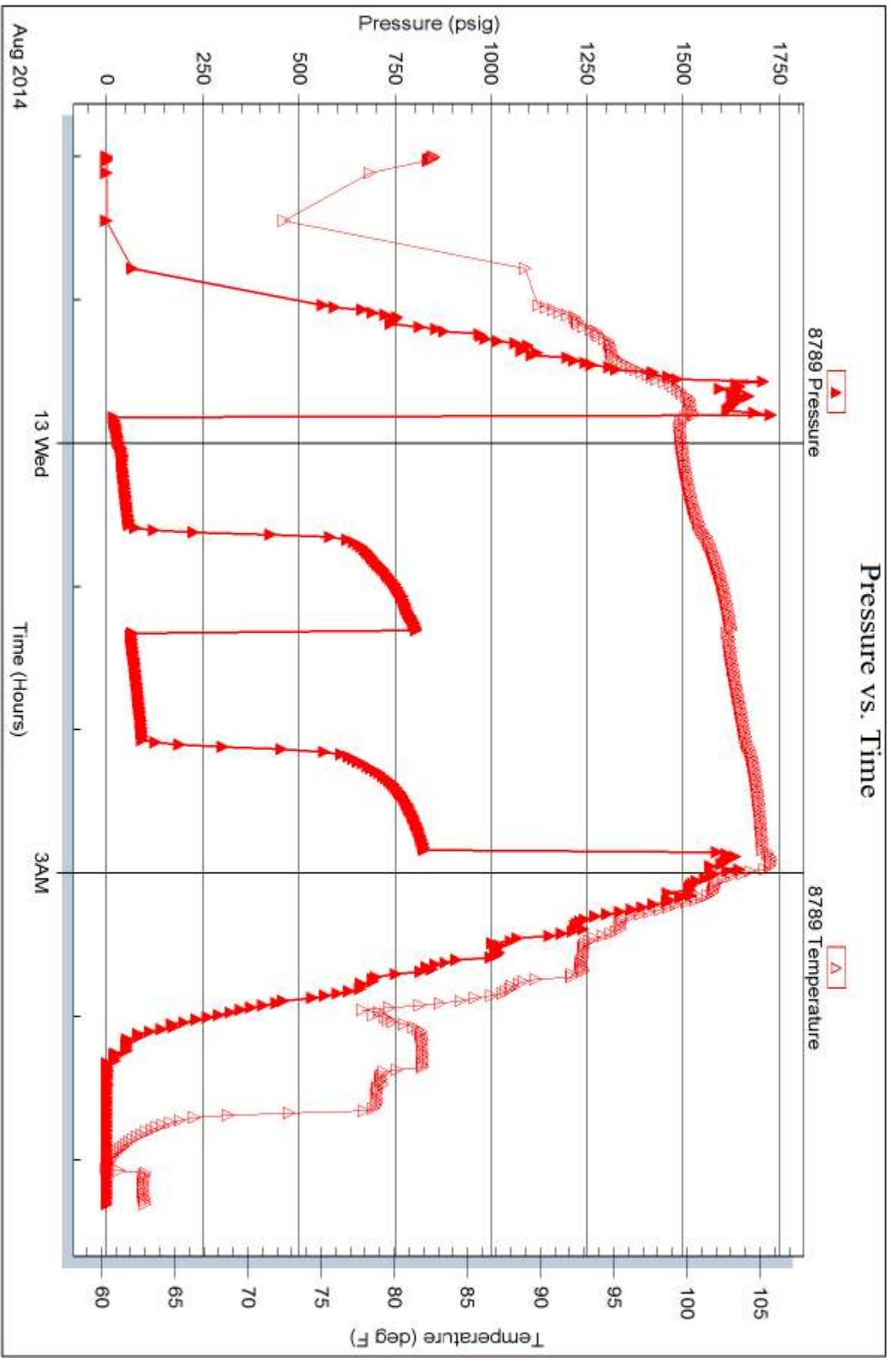


Serial #: 8789

Inside TDI

Jerome #1

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 56132

Printed: 2014.08.13 @ 15:40:25



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56130

Well Name & No. Jerome # 1 Test No. 1 Date 8-11-14
 Company TDI Elevation 2038 KB 2028 GL
 Address 1310 Bison Rd Hays K.S. 67601-9696
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 7 Twp. 15S Rge. 18W Co. Ellis State KS

Interval Tested 3304-3360 Zone Tested LRC-"A-C"
 Anchor Length 56 Drill Pipe Run 3307 Mud Wt. 8.9
 Top Packer Depth 3299 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3304 Wt. Pipe Run 0 WL 8.8
 Total Depth 3360 Chlorides 4600 ppm System LCM TR

Blow Description IFP - BOB 1min.
ISIP - No Blow
FFP - BOB in 1min
FSTIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>MNC 40</u>	<u>20</u>	<u>50</u>	<u>20</u>	<u>10</u>
<u>62</u>	<u>W 20 CM</u>	<u>20</u>	<u>25</u>	<u>10</u>	<u>45</u>
<u>50</u>	<u>05m</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>98</u>
<u>1963</u>	<u>IFP</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>13 Ft</u>	<u>Slide</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Rec Total 237 BHT 106 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1596 Test 1150 T-On Location 9:55
 (B) First Initial Flow 51 Jars _____ T-Started 12:38
 (C) First Final Flow 71 Safety Joint _____ T-Open 14:10
 (D) Initial Shut-In 293 Circ Sub _____ T-Pulled 16:55
 (E) Second Initial Flow 79 Hourly Standby _____ T-Out 19:00
 (F) Second Final Flow 112 Mileage 27 RT 41.85 Comments _____
 (G) Final Shut-In 309 Sampler _____
 (H) Final Hydrostatic 1564 Straddle _____ Ruined Shale Packer _____

Initial Open 15 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 30 Extra Packer _____ Extra Copies _____
 Final Flow 60 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1191.85
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1191.85

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. 56131

Well Name & No. Jerome #1 Test No. 2 Date 8-12-14
 Company TPI Elevation 2038 KB 2028 GL
 Address 1310 Bison Rd HAYS KS 67601-9696
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 7 Twp. 15S Rge. 18W Co. Ellis State KS

Interval Tested 3375 - 3436 Zone Tested LKC "FTA"
 Anchor Length 61 Drill Pipe Run 3371 Mud Wt. 8.9
 Top Packer Depth 3370 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3375 Wt. Pipe Run 0 WL 8.8
 Total Depth 3436 Chlorides 4600 ppm System LCM TR

Blow Description IFP - BOB in 45sec.
ISIP - Surface Blow Building to 4 in. in 5 min. Dried Back in 9 min.
FFP - BOB in 2 min 45 sec. GAS TO SURFACE.
FSIP - BOB in 6 min 30 sec

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>DOMCW</u>	<u>15</u>	<u>3</u>	<u>67</u>	<u>15</u>
<u>345</u>	<u>DMWCO</u>	<u>20</u>	<u>65</u>	<u>10</u>	<u>5</u>
<u>252</u>	<u>DMCO</u>	<u>50</u>	<u>40</u>	<u>10</u>	<u>10</u>
<u>156</u>	<u>DCO</u>	<u>50</u>	<u>50</u>		
	<u>ATS</u>				

Rec Total 783 BHT 107 Gravity 32 API RW 296 @ 78 °F Chlorides 21000 ppm

(A) Initial Hydrostatic 1643 Test 1150 T-On Location 2:14
 (B) First Initial Flow 66 Jars _____ T-Started 3:14
 (C) First Final Flow 160 Safety Joint _____ T-Open 4:52
 (D) Initial Shut-In 455 Circ Sub _____ T-Pulled 7:37
 (E) Second Initial Flow 172 Hourly Standby _____ T-Out 10:06
 (F) Second Final Flow 324 Mileage 41.85 Comments _____
 (G) Final Shut-In 442 Sampler _____
 (H) Final Hydrostatic 1561 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 15 Extra Packer _____ Extra Copies _____
 Initial Shut-In 30 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1191.85
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1191.85

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. **56132**

Well Name & No. Jerome #1 Test No. 3 Date 8-12-14
 Company TDI Elevation 2038 KB 2028 GL
 Address 1310 Bison Rd Hays KS 67601-9696
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 7 Twp. 15^s Rge. 18^w Co. Ellis State KS

Interval Tested 3438-3536 Zone Tested LKC "H-K"
 Anchor Length 98 Drill Pipe Run 3434 Mud Wt. 9.1
 Top Packer Depth 3433 Drill Collars Run 0 Vis 60
 Bottom Packer Depth 3438 Wt. Pipe Run 0 WL 8.4
 Total Depth 3536 Chlorides 4500 ppm System LCM 1

Blow Description FFP- BOB in 28min.
ISIP- No Blow
FFP- BOB in 23min.
FSIP- Surface Blow in 1min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>0WCM</u>	<u>3</u>	<u>47</u>	<u>50</u>	
<u>30</u>	<u>0.5m</u>	<u>2</u>		<u>98</u>	
<u>15</u>	<u>0</u>	<u>100</u>			

Rec Total 170 BHT 105 Gravity 41 API RW 290 @ 63 °F Chlorides 26500 ppm
 (A) Initial Hydrostatic 1720 Test 1150 T-On Location 21:00
 (B) First Initial Flow 20 Jars _____ T-Started 22:00
 (C) First Final Flow 61 Safety Joint _____ T-Open 23:50
 (D) Initial Shut-In 805 Circ Sub _____ T-Pulled 02:50
 (E) Second Initial Flow 63 Hourly Standby _____ T-Out 05:19
 (F) Second Final Flow 95 Mileage 41.85 Comments _____
 (G) Final Shut-In 827 Sampler _____
 (H) Final Hydrostatic 1590 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 0
 Total 1191.85
 Sub Total 1191.85

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.