



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1094524
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: _____

1094524

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
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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: _____ _____
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DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

LJ #1

13-15s-19w Ellis,KS

Start Date: 2012.07.23 @ 13:32:05

End Date: 2012.07.23 @ 19:03:59

Job Ticket #: 47900 DST #: 1

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

Printed: 2012.07.26 @ 08:51:16

TDI Inc
13-15s-19w Ellis,KS
LJ #1
DST # 1
LJC"A-C"
2012.07.23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc
 1310 Bison Rd
 Hays KS 67601
 ATTN: Herb Deines

13-15s-19w Ellis, KS
LJ #1
 Job Ticket: 47900 **DST#: 1**
 Test Start: 2012.07.23 @ 13:32:05

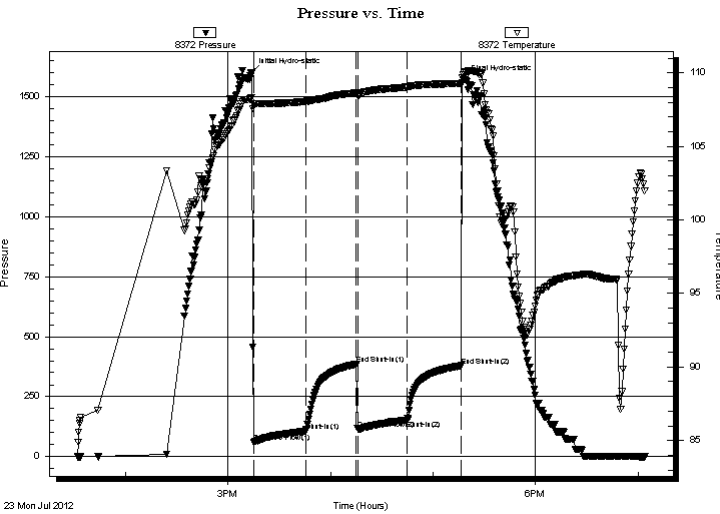
GENERAL INFORMATION:

Formation: **LKC"A-C"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:15:00
 Time Test Ended: 19:03:59
Interval: 3276.00 ft (KB) To 3329.00 ft (KB) (TVD)
 Total Depth: 3329.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Andy Carreira
 Unit No: 39
 Reference Elevations: 2002.00 ft (KB)
 1995.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8372 Outside

Press @ Run Depth: 152.78 psig @ 3288.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.07.23 End Date: 2012.07.23 Last Calib.: 2012.07.23
 Start Time: 13:32:05 End Time: 19:03:59 Time On Btm: 2012.07.23 @ 15:13:40
 Time Off Btm: 2012.07.23 @ 17:18:00

TEST COMMENT: IF:(30min) BOB, 2 min
 IS:(30min) No Return
 FF:(30min) BOB, 2 min. Gas To Surface 20 min.
 FS:(30min) Return Blow Built to 6", Decreased to 1"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1600.69	108.26	Initial Hydro-static
2	60.94	107.90	Open To Flow (1)
33	106.87	108.05	Shut-In(1)
62	385.94	108.62	End Shut-In(1)
63	116.10	108.47	Open To Flow (2)
92	152.78	109.03	Shut-In(2)
124	379.03	109.27	End Shut-In(2)
125	1570.42	109.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCGO m=20% g=35% o=45%	1.68
200.00	MCGO m=20% g=35% o=50%	2.81
50.00	HOCGM g=20% o=35% m=45%	0.70

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

13-15s-19w Ellis,KS
LJ #1
Job Ticket: 47900 **DST#: 1**
Test Start: 2012.07.23 @ 13:32:05

Tool Information

Drill Pipe:	Length: 3270.00 ft	Diameter: 3.80 inches	Volume: 45.87 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	42000.00 lb
			<u>Total Volume: 45.87 bbl</u>	Tool Chased	6.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	32000.00 lb
Depth to Top Packer:	3276.00 ft			Final	34000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	53.00 ft				
Tool Length:	73.00 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			3257.00	
Shut In Tool	5.00			3262.00	
Hydraulic tool	5.00			3267.00	
Packer	5.00			3272.00	20.00 Bottom Of Top Packer
Packer	4.00			3276.00	
Stubb	1.00			3277.00	
Perforations	10.00			3287.00	
Change Over Sub	1.00			3288.00	
Recorder	0.00	8017	Inside	3288.00	
Recorder	0.00	8372	Outside	3288.00	
Drill Pipe	32.00			3320.00	
Change Over Sub	1.00			3321.00	
Perforations	5.00			3326.00	
Bullnose	3.00			3329.00	53.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

13-15s-19w Ellis,KS
LJ #1
Job Ticket: 47900
Test Start: 2012.07.23 @ 13:32:05

DST#: 1

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: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.16 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3500.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

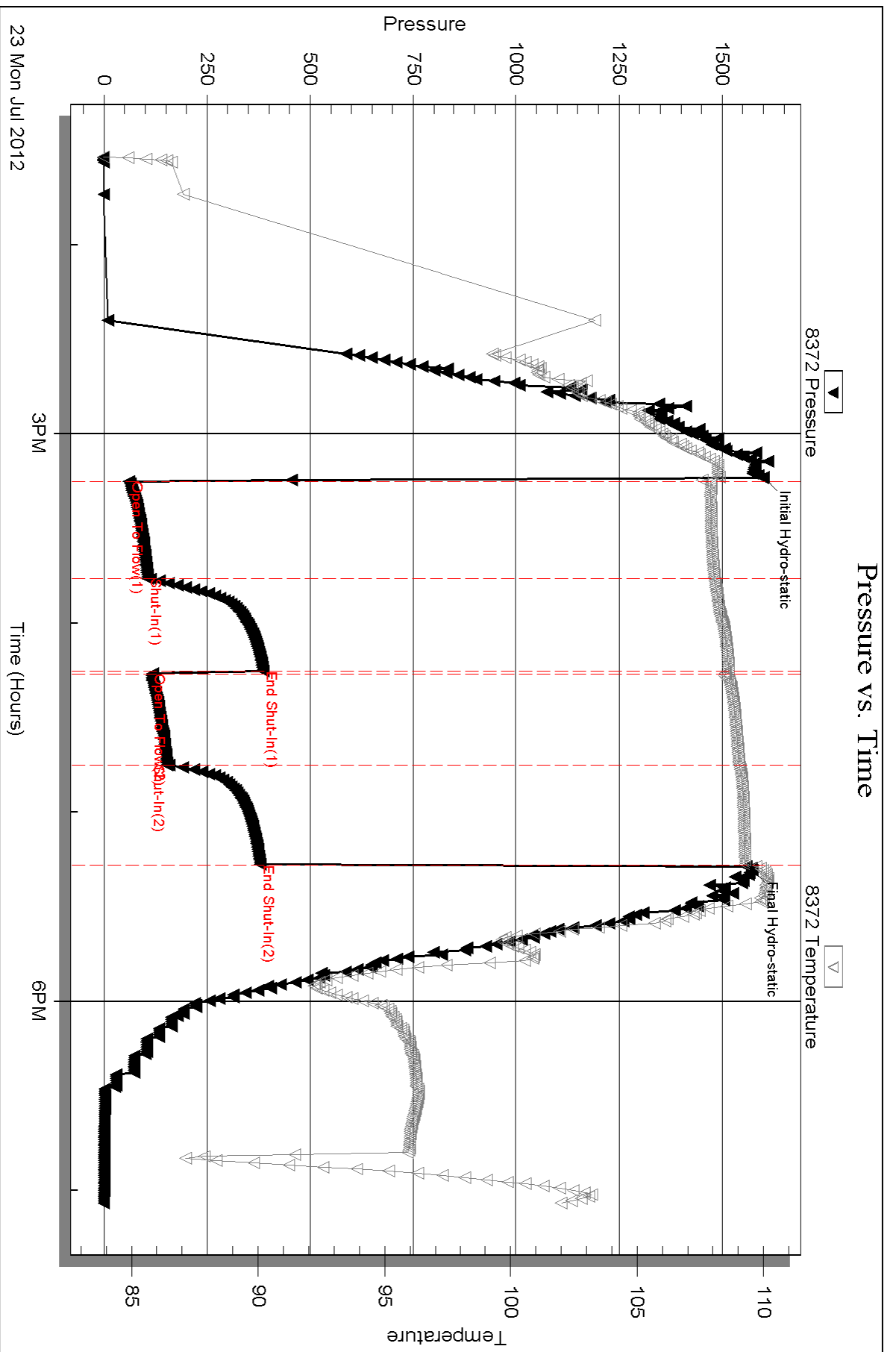
Length ft	Description	Volume bbl
120.00	MCGO m=20% g=35% o=45%	1.683
200.00	MCGO m=20% g=35% o=50%	2.805
50.00	HOCGM g=20% o=35% m=45%	0.701

Total Length: 370.00 ft Total Volume: 5.189 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



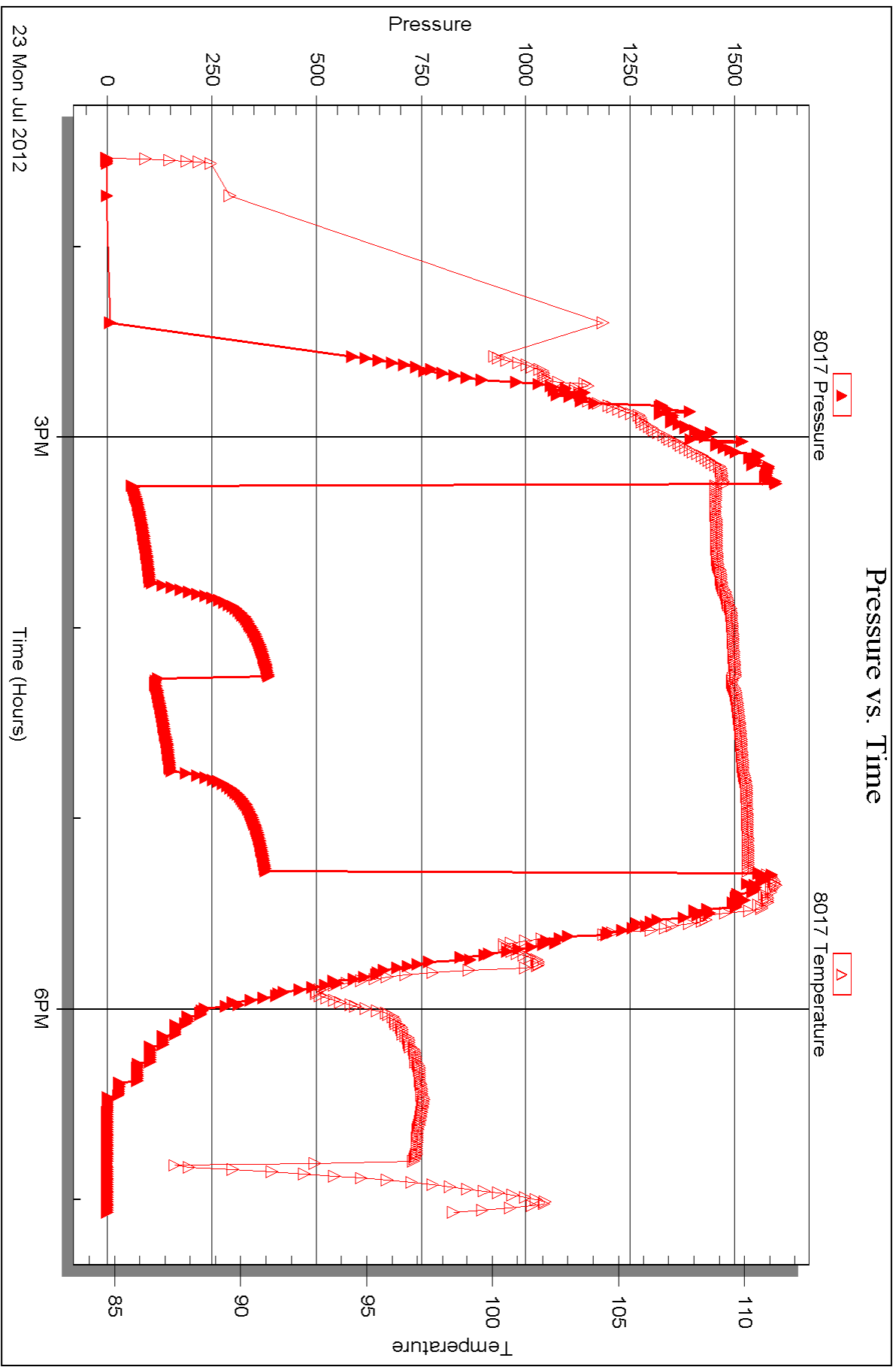
Serial #: 8017

Inside

TDI Inc

LJ#1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47900

Printed: 2012.07.26 @ 08:51:18



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

LJ #1

13-15s-19w Ellis,KS

Start Date: 2012.07.24 @ 09:25:05

End Date: 2012.07.24 @ 14:55:59

Job Ticket #: 47901 DST #: 2

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

Printed: 2012.07.26 @ 08:50:20

TDI Inc
13-15s-19w Ellis,KS
LJ #1
DST # 2
LJC:"H,I,J"
2012.07.24



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

13-15s-19w Ellis,KS
LJ #1
Job Ticket: 47901 **DST#: 2**
Test Start: 2012.07.24 @ 09:25:05

Tool Information

Drill Pipe:	Length: 3424.00 ft	Diameter: 3.80 inches	Volume: 48.03 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	40000.00 lb
			<u>Total Volume: 48.03 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	32000.00 lb
Depth to Top Packer:	3414.00 ft			Final	32000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	71.00 ft				
Tool Length:	91.00 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			3395.00	
Shut In Tool	5.00			3400.00	
Hydraulic tool	5.00			3405.00	
Packer	5.00			3410.00	20.00 Bottom Of Top Packer
Packer	4.00			3414.00	
Stubb	1.00			3415.00	
Perforations	5.00			3420.00	
Change Over Sub	1.00			3421.00	
Recorder	0.00	8017	Inside	3421.00	
Recorder	0.00	8372	Outside	3421.00	
Drill Pipe	32.00			3453.00	
Change Over Sub	1.00			3454.00	
Perforations	28.00			3482.00	
Bullnose	3.00			3485.00	71.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc **13-15s-19w Ellis,KS**
 1310 Bison Rd **LJ #1**
 Hays KS 67601 Job Ticket: 47901 **DST#: 2**
 ATTN: Herb Deines Test Start: 2012.07.24 @ 09:25:05

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: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.37 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3600.00 ppm			
Filter Cake: inches			

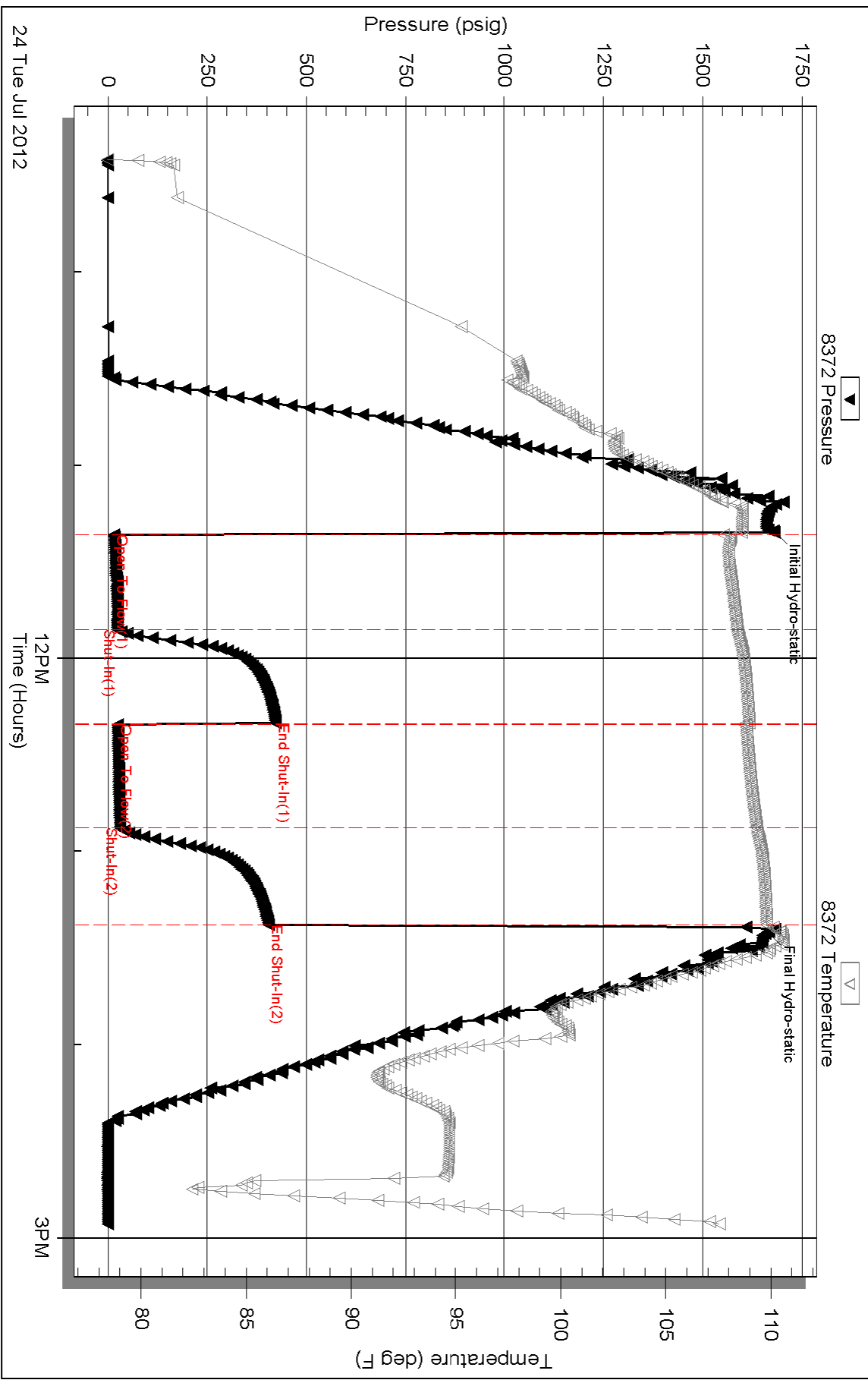
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	SOSM	0.491

Total Length: 35.00 ft Total Volume: 0.491 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

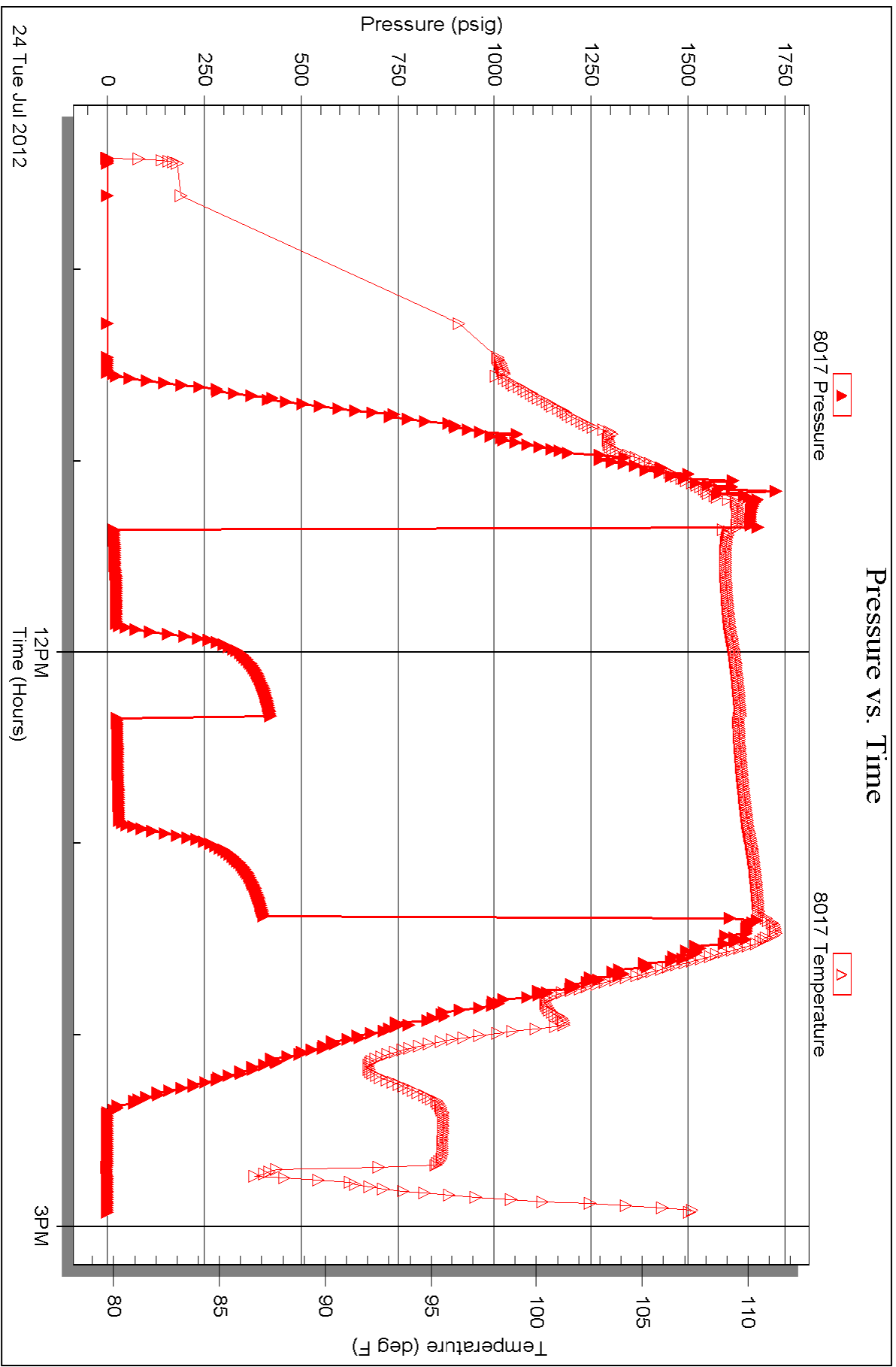


Serial #: 8017

Inside TDI Inc

LJ #1

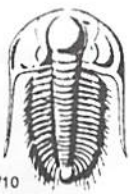
DST Test Number: 2



24 Tue Jul 2012

12PM
Time (Hours)

3PM



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47900

Well Name & No. LJ #1 Test No. 1 Date 7-23-12
 Company IDI inc. Elevation 2002 KB 1995 GL
 Address 1310 BISON RD Hays Ks. 67601 + 9696
 Co. Rep / Geo. Heb DEINES Rig Southwind #1
 Location: Sec. 13 Twp. 15 S Rge. 19 W Co. Ellis State Ks

Interval Tested 3276-3329 Zone Tested LKC "ABC"
 Anchor Length 53' Drill Pipe Run 3270 Mud Wt. 9.2
 Top Packer Depth 3271 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 3276 Wt. Pipe Run 0 WL 9.2
 Total Depth 3329 Chlorides 3500 ppm System LCM 1#

Blow Description IPI BOB 2min
ISI: No Return
FF: BOB, 2min. Gas to surface 20min
FSL: Return Blow built to 6" decreased to 1"

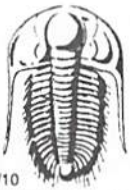
Rec	Feet of	%gas	%oil	%water	%mud
<u>50'</u>	<u>HOCGM</u>	<u>20%</u>	<u>35%</u>	<u>45%</u>	<u></u>
<u>200'</u>	<u>MCGO</u>	<u>30%</u>	<u>50%</u>	<u>20%</u>	<u></u>
<u>120'</u>	<u>MCGO</u>	<u>35%</u>	<u>45%</u>	<u>20%</u>	<u></u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 370' BHT 1090 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1600 Test 1150 T-On Location 12:05
 (B) First Initial Flow 60 Jars _____ T-Started 13:32
 (C) First Final Flow 106 Safety Joint _____ T-Open 15:15
 (D) Initial Shut-In 385 Circ Sub _____ T-Pulled 17:15
 (E) Second Initial Flow 116 Hourly Standby _____ T-Out 19:04
 (F) Second Final Flow 152 Mileage 33RT 49.60 Comments _____
 (G) Final Shut-In 399 Sampler _____
 (H) Final Hydrostatic 1570 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1199.60
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1199.60

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.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47901

Well Name & No. LJ #1 Test No. 2 Date 7-24-12
 Company IDI inc. Elevation 2002 KB 1995 GL
 Address 1310, BISON RD Hays Ks 67601 + 9696
 Co. Rep / Geo. HERB DEINES Rig Southwind #1
 Location: Sec. 13 Twp. 15s Rge. 19w Co. Ellis State Ks

Interval Tested 3414 - 3485 Zone Tested LK^u HIJ^s
 Anchor Length 71' Drill Pipe Run 3424 Mud Wt. 9.0
 Top Packer Depth 3409 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 3414 Wt. Pipe Run 0 WL 8.4
 Total Depth 3485 Chlorides 3600 ppm System LCM 1

Blow Description IF: Intermittent surface blow
ISI: NO RETURN
FF: Intermittent surface blow
FSI: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>505m</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 35 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1677 Test 1150 T-On Location 08:02
 (B) First Initial Flow 15 Jars T-Started 09:25
 (C) First Final Flow 23 Safety Joint T-Open 11:20
 (D) Initial Shut-In 422 Circ Sub T-Pulled 13:20
 (E) Second Initial Flow 24 Hourly Standby T-Out 14:56
 (F) Second Final Flow 30 Mileage 33RT 49.60 Comments _____
 (G) Final Shut-In 404 Sampler _____
 (H) Final Hydrostatic 1663 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1199.60 Total 1199.60 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.

OPERATOR

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

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-259-3141
 Well Name: L J # 1
 Location: N2 SE SW SW Sec.13-15s-19w
 Pool:
 State: KANSAS

API: 15-051-26307-00-00
 Field: UNNAMED
 Country: USA



TDI, Inc.
 1310 BISON ROAD
 HAYS, KANSAS 67601
 (785) 628-2593

Scale 1:240 Imperial

Well Name: L J # 1
 Surface Location: N2 SE SW SW Sec.13-15s-19w
 Bottom Location:
 API: 15-051-26307-00-00
 License Number: 4787
 Spud Date: 7/19/2012 Time: 1:15 PM
 Region: ELLIS COUNTY
 Drilling Completed: 7/25/2012 Time: 4:42 AM
 Surface Coordinates: 630' FSL & 990' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1992.00ft
 K.B. Elevation: 2002.00ft
 Logged Interval: 2900.00ft To: 3750.00ft
 Total Depth: 3750.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: FRESH WATER GEL/CHEMICAL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 630' FSL
 E/W Co-ord: 990' FWL

LOGGED BY

Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: Geologist Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
 Rig #: 1
 Rig Type: MUD ROTARY

Rig Type: MUD ROTARY
Spud Date: 7/19/2012
TD Date: 7/25/2012
Rig Release: 7/25/2012

Time: 1:15 PM
Time: 4:42 AM
Time: 11:30 PM

ELEVATIONS

K.B. Elevation: 2002.00ft
K.B. to Ground: 10.00ft

Ground Elevation: 1992.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE RESULTS OF DST # 1 AND HIGH STRUCTURAL POSITION ON STRUCTURE.

FORMATION TOPS AND SUMMARY OF DAILY ACTIVITY

LJ #1
630' FSL & 990' FWL, SW/4
Sec.13-15s-19w
1992' GL 2002' KB

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1182+ 820	1181+ 821
B-Anhydrite	1219+ 783	1217+ 785
Topeka	2965- 963	2964- 962
Heebner Shale	3247-1245	3245-1243
Toronto	3267-1265	3262-1260
LKC	3291-1289	3289-1287
BKC	3530-1528	3535-1533
Conglomerate Sand		3596-1594
Arbuckle	3613-1611	3608-1606
RTD	3750-1748	
LTD		3750-1747

7-19-12 RU, Spud 1:15PM
7-20-12 1194', set 8 5/8" SP to 1193' w/375 sxs. SMD, Swift Ticket 22871,
plug down 12:15PM, Slope 0 degrees, WOC 12 hrs.
7-21-12 1445', drilling
7-22-12 2570', drilling, displaced 2894'-2922'
7-23-12 3280'. drilling. DST # 1 3276'-3329' (A. B. C). slope 3/4 degree

DST # 1 EXPANDED CHART

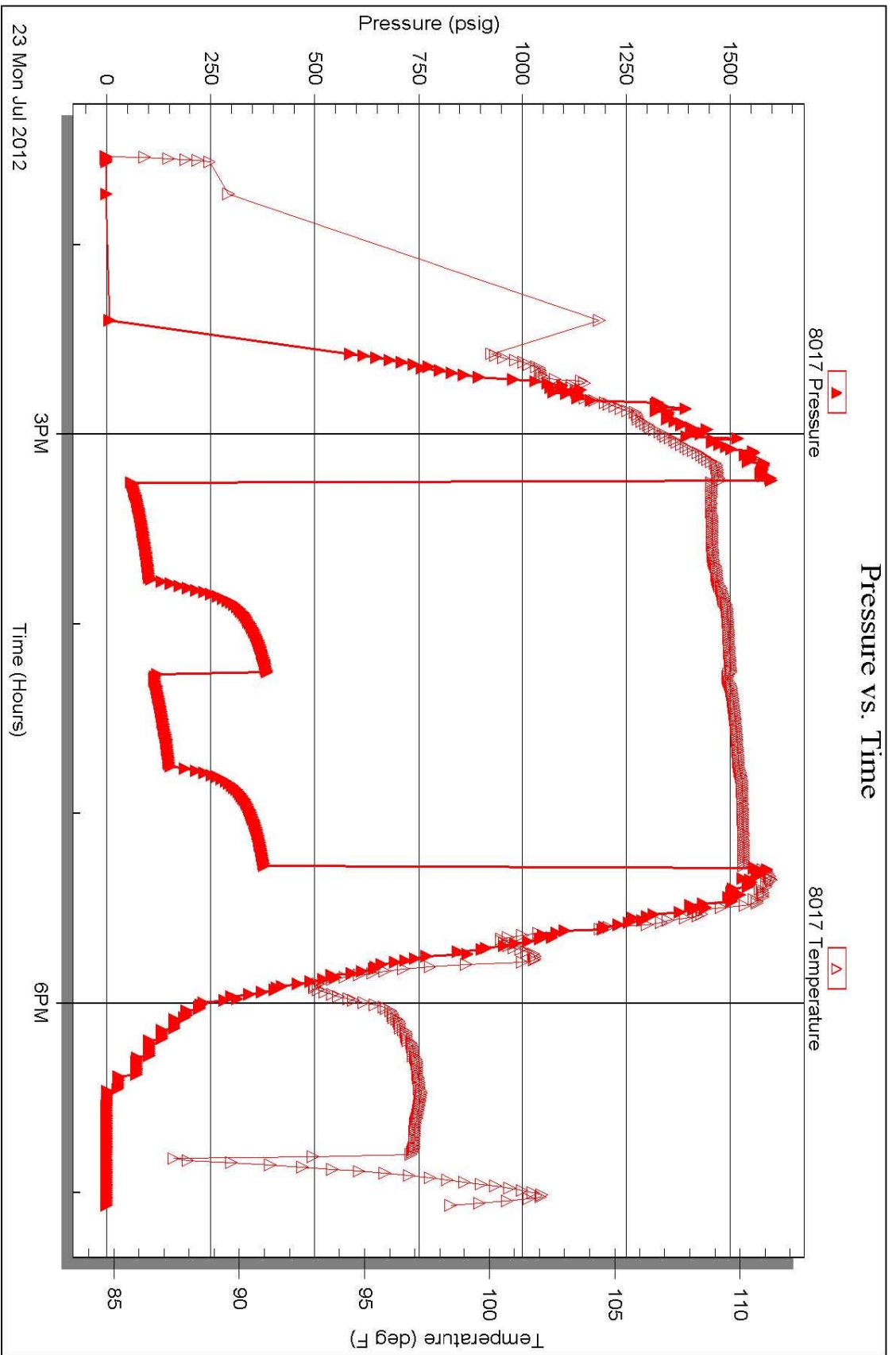
Serial #: 8017

Inside

TDI Inc

LJ#1

DST Test Number: 1

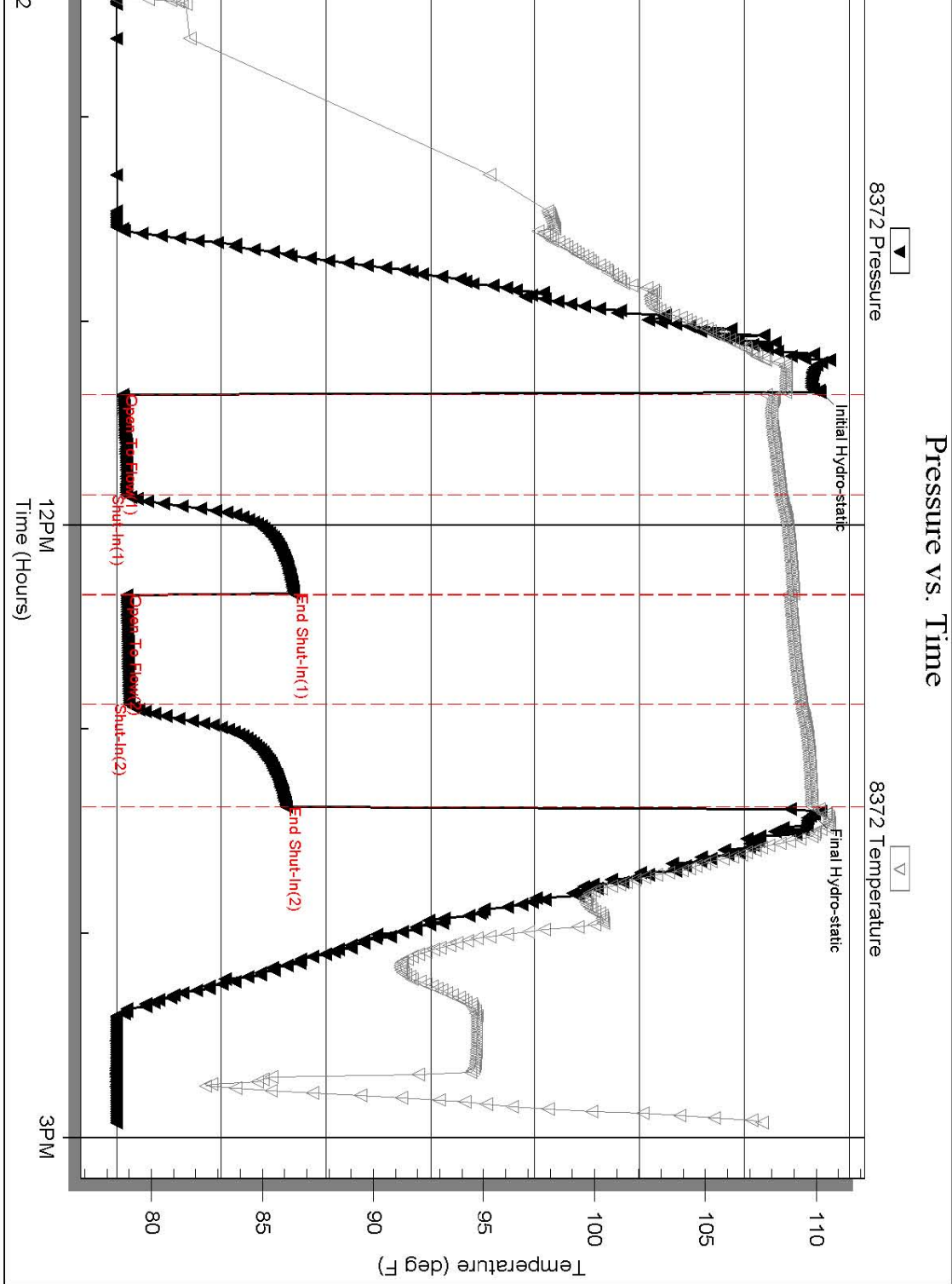


Trilobite Testing, Inc

Ref. No: 47900

Printed: 2012.07.24 @ 03:51:33

Pressure vs. Time



Ref. No: 47901

Printed: 2012.07.24 @ 16:51:08

ROCK TYPES

Cht	Lmst fw<7	shale, gry	Shcol	Lscongl
Cht vari	Lmst fw>7	Carbon Sh	Ss	
Dolprim	shale, grn	shale, red	Dol Lime	

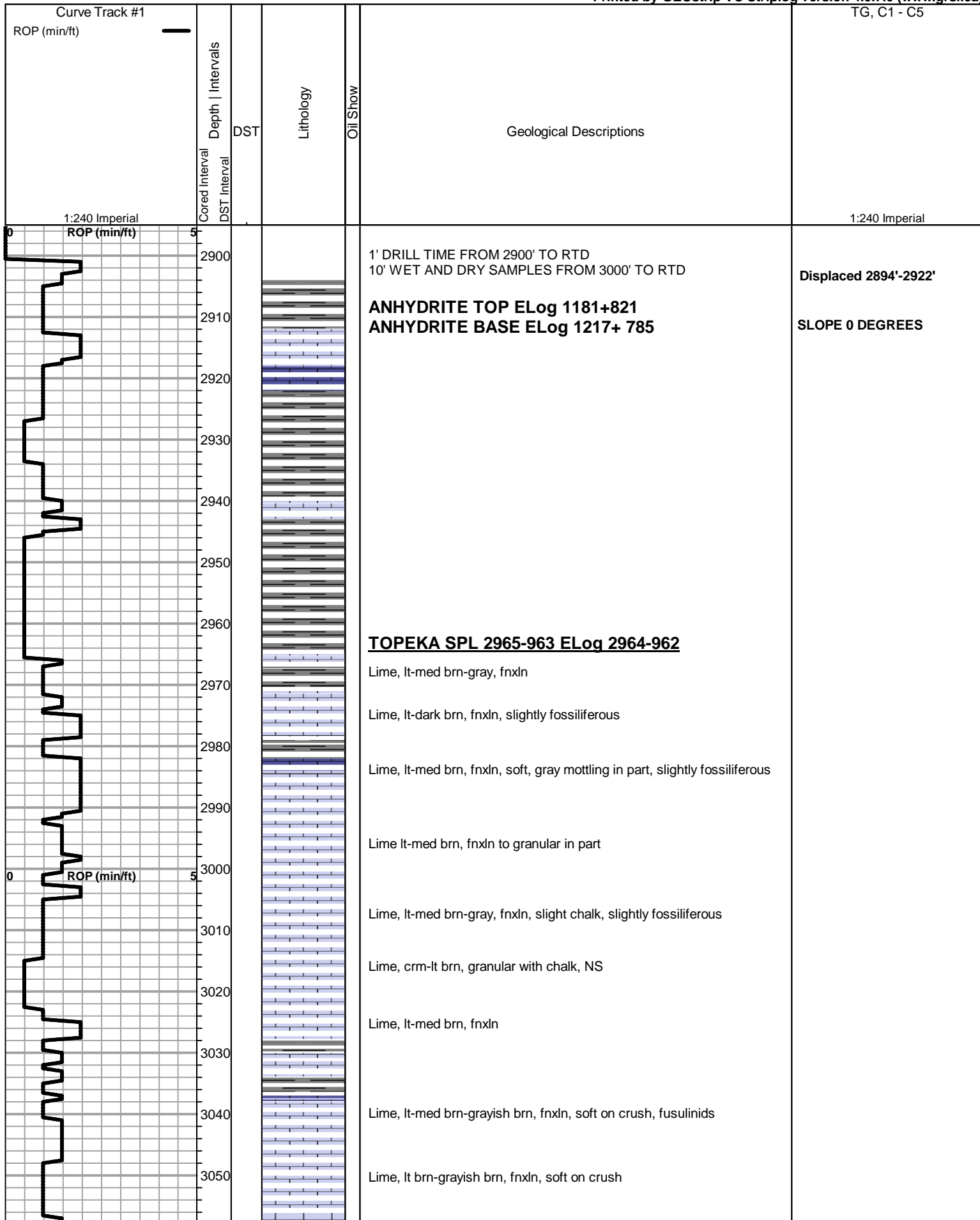
ACCESSORIES

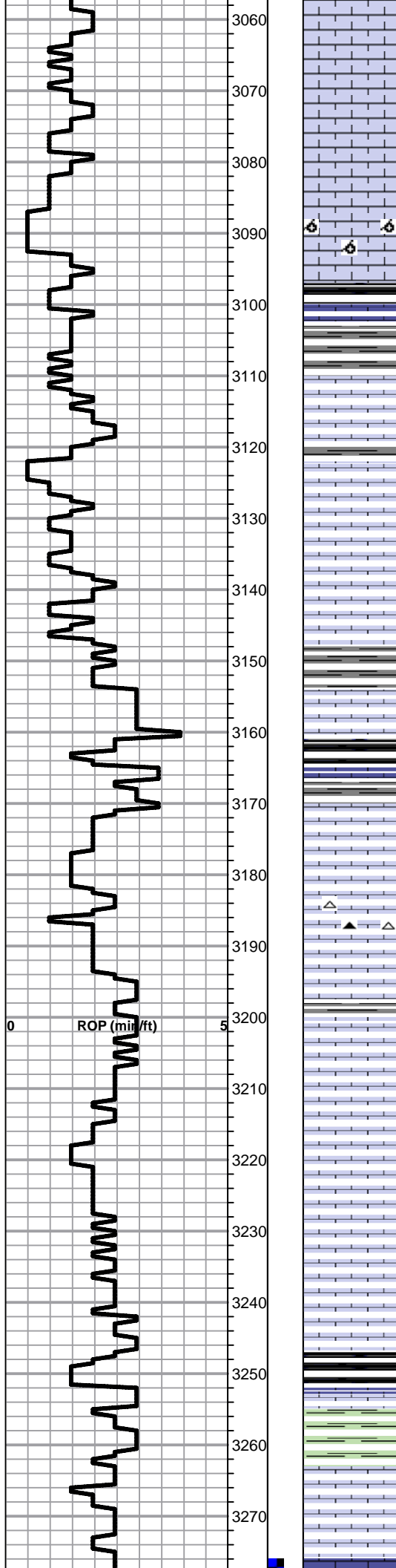
- MINERAL**
- ▲ Chert, dark
 - ∩ Glauconite
 - P Pyrite
 - Sandy
 - △ Chert White

- FOSSIL**
- ⊕ Oolite
 - ⊕ Oomoldic

OTHER SYMBOLS

- DST Int
- DST alt
- Core





Lime, lt-med brn, fnxln, slightly fossiliferous

Lt brn-lt grayish brn, fnxln, soft on crush

Lime, lt-med brn-lt gray, fnxln-granular, slight chalk in part

Fine oolmoldic in part, NS

Shale, gray to black carbonaceous
Lime, lt-med brn, fnxln

Lime, crm-lt brn, fnxln

Lime, crm, fn-crypto xln, scattered bedded chalk in part

Lime, lt-med brn, granular, NS

Lime, crm-lt brn, fnxln-granular

Lime, lt-med brn, fnxln

Shale, lt-med gray, fissile, slivers

Lime, lt-med brn, fnxln

Shale, black carbonaceous

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

Lime, lt-med brn, fnxln-granular
Chert, wht-lt gray fossiliferous

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln, slightly fossiliferous

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

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln

HEEBNER SHALE SPL 3247-1245 ELog 3245-1243

Shale, black carbonaceous, fissile
Lime, lt-med brn, fnxln, slightly fossiliferous
Shale, lt grayish green, soft blocky

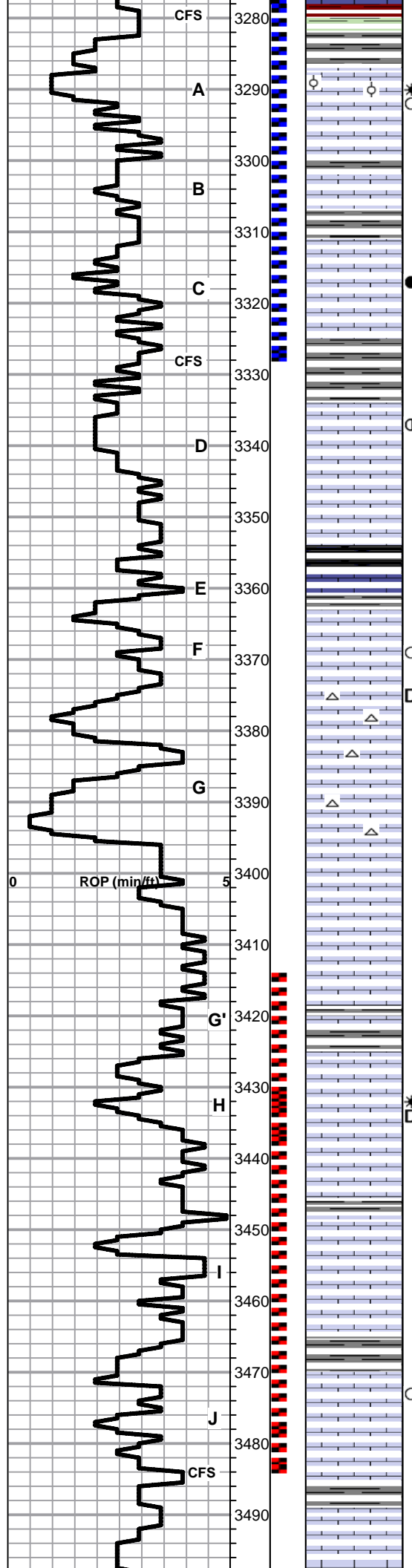
TORONTO SPL 3267-1265 ELog 3262-1260

Lime, whit-crm, fnxln, bedded chalk, NS

Shale, med gray-greenish gray soft

LKC SPL 3291-1289 ELog 3289-1287

DST #1 3276'-3329'
SEE HEADER FOR TEST
DETAIL



A * Lime, lt brn, mostly fnxn, few pieces oolitic with sparry backfill, vit odor, Microlog shows very thin, tight zone.

B Lime, lt-med brn, fnxn

C Lime, lt-med brn, mix of fossil fragments and oolitic material, saturated staining, lt odor, NFO

CFS Shale, gray, blocky and fissile in part

D Lime, crm-lt brn, fnxn with trace of scattered staining, lt odor in fine vuggy porosity

E Lime, crm-tan, fnxn

E Shale, black carbonaceous
Lime, lt gray, fnxn

F Lime, crm-tan, fnxn with scattered staining in fossiliferous lime,

D Lime, crm, fnxn, chalky with scattered gilsonitic staining, NFO, white fresh, sharp chert

G Lime, crm-tan, granular, barren, chalk in part

H Lime, crm, fn-vfxln

I Lime, crm, fn-vfxln

G' Shale, gray, calcareous
Lime, crm-lt brn, fnxn

H D* Lime, crm, fnxn, gilsonitic deposits in granular oolitic interval, vit odor, microlog shows interval to impermeable and poorly developed

J Lime, crm, fnxn

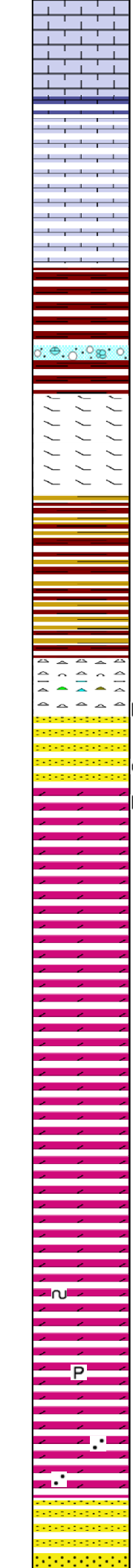
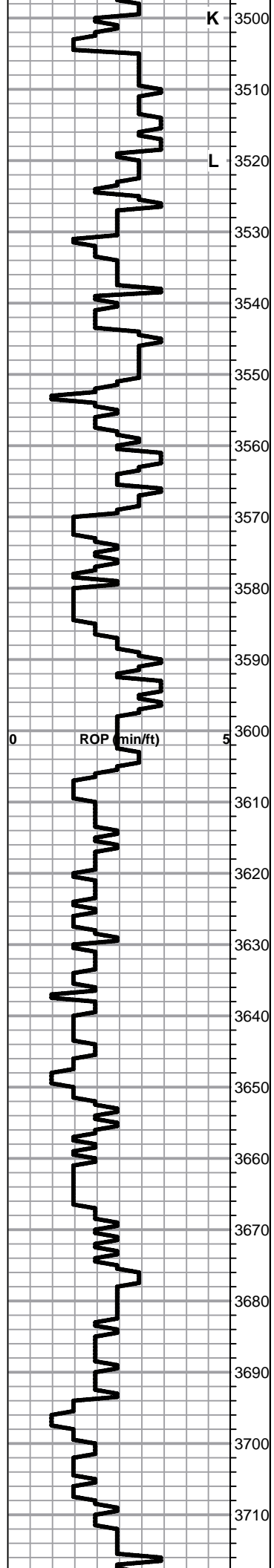
I Lime, wht-crm, slightly dolomitic, scattered vuggy porosity in vfxln matrix, scattered globules of floating oil, scattered staining. Microlog shows no development in this zone

J Lime, crm-tan, mostly fnxn, trace of staining in few pieces,

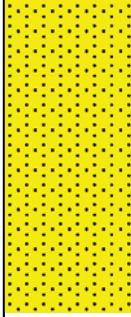
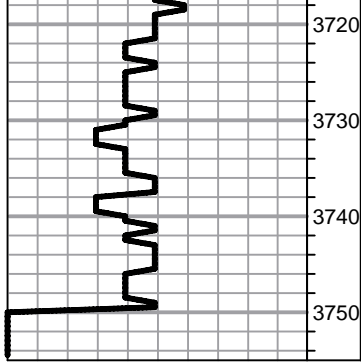
CFS Lime, crm-lt gray, crypto xln, slight chalk in part

Lime, crm, fn-vfxln

DST #2 3414'-3485'
SEE HEADER FOR TEST
DETAILS



Lime, crm, fn-vfxln, slight chalk, NS
 3500
 Lime, crm-tan, fnxln, bedded chalk
 3510
 Lime, crm-tan, fn-vfxln, slight chalk
 3520
 Lime, crm-tan, fn-vfxln, slight chalk
 3530
BKC ELog 3535-1533
 Shale, reddish brn-grayish brn, soft blocky
 3540
 Shale, red wash
 3550
 Lime, dolomitic, crm-lt brn, fnxln
 3560
 Shale, vari colored
 3570
 Shale, vari colored
 3580
 Chert, light gray, fresh sharp, bedded
 3590
CONGLOMERATE SAND ELog 3596-1594
 Sandstone, lt brn, poorly sorted, sat stain, good wet cut
 3600
ARBUCKLE ELog 3608-1606
 Dolomite, wht, fnxln, soft on crush, finely scattered dead staining, NFO, No Odor
 3610
 Dolomite, crm, fn-mdxln, granular
 3620
 Dolomite, whit-crm, fn-mdxln, granular
 3630
 Dolomite, crm, fn-med xln, granular
 3640
 Dolomite, crm, fnxln-granular
 3650
 Dolomite, crm, fnxln-granular, scattered specks of glauconite
 3660
 Dolomite, crm, fnxln, hard on break,
 3670
 Dolomite, crm, fnxln, scattered crystalline pyrite
 3680
 Dolomite, crm, fnxln with quartz grain inclusions
 3690
REAGAN SAND ELog 3709
 Sandstone, quartz, coarse grained, well sorted, clusters of fused sand
 3700
 Sandstone, quartz, coarse grained, well sorted, clusters of fused sand
 3710



grains, NS, No staining

AA

AA

RTD 3750-1748 LTD 3749-1747

Slope 0 degrees

JOB LOG

SWIFT Services, Inc.

DATE 7-20-12 PAGE NO. 1

CUSTOMER T.D.I. Petroleum WELL NO. #1 LEASE L & J JOB TYPE Cement Surface TICKET NO. 22817

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		TD 1194'	DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING		
	0630					23#/ft.	85/8		Do loc w/ F.E. - (R _s Short Trip)
	0850								Start 85/8" - 23#/ft casing to 1193' (29' ST)
									Cent 1-3-14 - Battelite 1 st Coloi @ 1164
	1050								Fin running casing
	11:00								Start cir - casing
	11:30								Fin cir - Hook to Swift truck
		5					150		Pump 500 gal Mud Flush
		5					150		Pump 20 BBL KCL Flush
		5					150		Start 100 SKS SMD @ 11.8 #/gal 47 BBL
		5	47				150		Start 100 SKS SMD @ 12.5 #/gal 38 BBL
		5	85				150		Start 100 SKS SMD @ 13.0 #/gal 34 BBL
		4 1/2	119				100		Start 75 SKS SMD @ 14.5 #/gal 20 BBL
		4	139				100		Fin cent - Release Top Plug
		5					150		Start H ₂ O Displ 74 BBL
		5	35				200		Cent cir -
	1215	4 1/2	74				350		Fin Displ - Plug Down
							450		Close in 200'
							200'		50 SKS cir to Pit
									Job Complete
									Thanks Washup/Rackup
									Alan, Brent & T.J.

JOB LOG

SWIFT Services, Inc.

DATE 7-25-12 PAGE NO. 7

CUSTOMER TOT WELL NO. #1 LEASE LJ JOB TYPE Long String TICKET NO. 21916

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							On Loc.
	1950							Run 5 1/2" 14# Csg.
								Insert Float Shoe
								Latch down Baffle
								Cent. #1, 3, 5, 7, 9, 2, 10, 12
								Basket #3, #13
								Set Pipe 3746'
	2100 2100							Drop Ball
								Tag Bottom Pickup 1'
	2135							Circulate + Rotate Csg.
	2235							Plug R.H. M.H. 30sk + 25sk
			12					Pump 500gal Mud Flush
			20					20 sk RCL Flush
		4.5						MIX 125sk EA 2 Cnd.
								Finish mixing
								Wash out Pump + Line
		6						Displ. Latch down Plug
	2320					1500		Plug Down 1500 PSE holding
								Release Dried up
								Wash + Rack up tool
								Job Complete

Handwritten signature

Roger Dowe E. Rob Dowe A.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 24, 2012

Tom Denning
TDI, Inc.
1310 BISON RD
HAYS, KS 67601-9696

Re: ACO1
API 15-051-26307-00-00
L J 1
SW/4 Sec.13-15S-19W
Ellis County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Tom Denning