



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1109560
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: _____



1109560

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
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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: Tom Denning

Dreiling "D" #8

21-14s-16w Ellis.KS

Start Date: 2012.11.07 @ 07:54:45

End Date: 2012.11.07 @ 13:44:15

Job Ticket #: 48613 DST #: 1

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

Printed: 2012.11.15 @ 16:15:51

TDI, Inc. 21-14s-16w Ellis.KS Dreiling "D" #8 DST # 1 Arbuckle 2012.11.07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Tom Denning

21-14s-16w Ellis.KS
Dreiling "D" #8
Job Ticket: 48613 **DST#: 1**
Test Start: 2012.11.07 @ 07:54:45

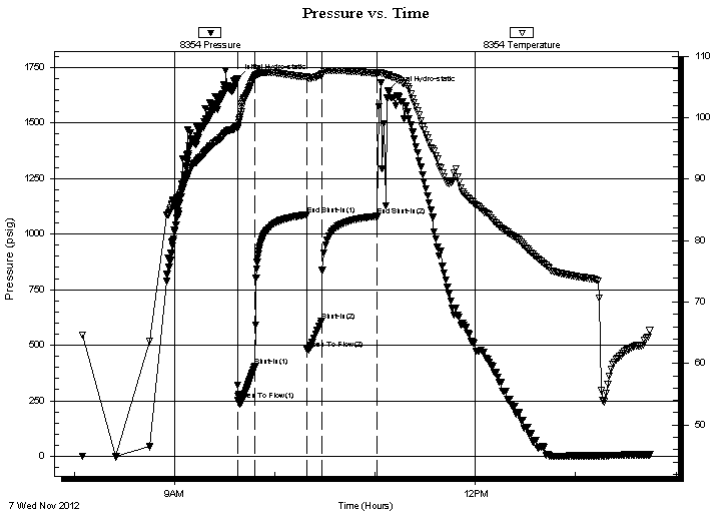
GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:37:45
Time Test Ended: 13:44:15
Interval: **3340.00 ft (KB) To 3420.00 ft (KB) (TVD)**
Total Depth: 3497.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Straddle (Initial)
Tester: Dustin Rash
Unit No: 38
Reference Elevations: 1885.00 ft (KB)
1875.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8354 Inside
Press @ Run Depth: 607.65 psig @ 3346.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.11.07 End Date: 2012.11.07 Last Calib.: 2012.11.07
Start Time: 08:04:45 End Time: 13:44:15 Time On Btm: 2012.11.07 @ 09:37:25
Time Off Btm: 2012.11.07 @ 11:07:45

TEST COMMENT: IF-Strong building blow . BOB in 45 seconds.
ISI-No Return.
FF-Strong building blow . BOB in 45 seconds.
FSI-No Return.

PRESSURE SUMMARY



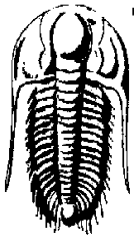
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1697.90	98.60	Initial Hydro-static
1	251.74	98.46	Open To Flow (1)
11	407.41	106.64	Shut-In(1)
42	1086.34	106.61	End Shut-In(1)
42	481.07	106.43	Open To Flow (2)
51	607.65	106.93	Shut-In(2)
84	1079.97	107.18	End Shut-In(2)
91	1646.97	106.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
252.00	5%Oil/90%Water/5%Mud	3.53
819.00	10%Gas/5%Oil/60%Water/30%Mud	11.49
504.00	10%Gas/5%Oil/15%Water/70%Mud	7.07

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI, Inc.
 1310 Bison Rd.
 Hays, KS 67601
 ATTN: Tom Denning

21-14s-16w Ellis.KS
Dreiling "D" #8
 Job Ticket: 48613 **DST#: 1**
 Test Start: 2012.11.07 @ 07:54:45

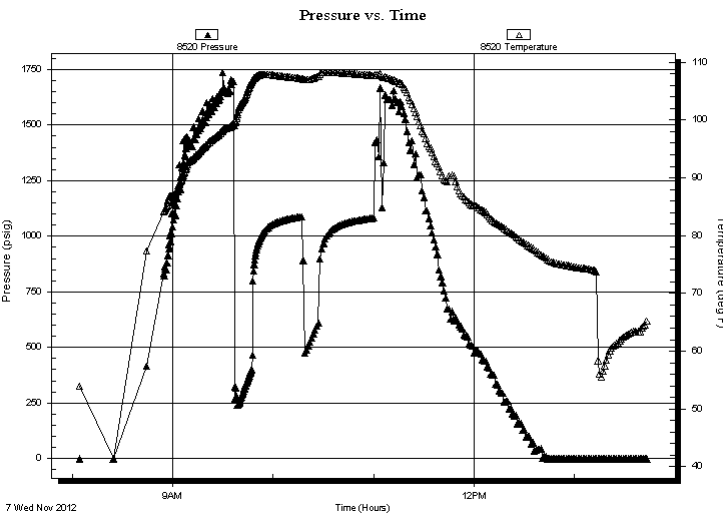
GENERAL INFORMATION:

Formation:	Arbuckle		
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Straddle (Initial)
Time Tool Opened:	09:37:45		Tester: Dustin Rash
Time Test Ended:	13:44:15		Unit No: 38
Interval:	3340.00 ft (KB) To 3420.00 ft (KB) (TVD)		Reference Elevations: 1885.00 ft (KB)
Total Depth:	3497.00 ft (KB) (TVD)		1875.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Fair	KB to GR/CF: 10.00 ft

Serial #: 8520 Outside

Press@RunDepth:	psig @	3346.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2012.11.07	End Date:	2012.11.07	Last Calib.:	2012.11.07
Start Time:	08:04:30	End Time:	13:43:00	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF-Strong building blow . BOB in 45 seconds.
 IS-No Return.
 FF-Strong building blow . BOB in 45 seconds.
 FS-No Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
252.00	5%Oil/90%Water/5%Mud	3.53
819.00	10%Gas/5%Oil/60%Water/30%Mud	11.49
504.00	10%Gas/5%Oil/15%Water/70%Mud	7.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Tom Denning

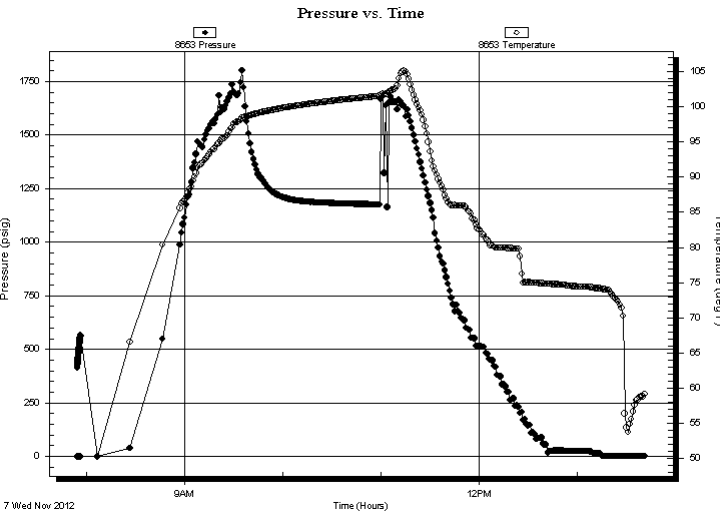
21-14s-16w Ellis.KS
Dreiling "D" #8
Job Ticket: 48613 **DST#: 1**
Test Start: 2012.11.07 @ 07:54:45

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Initial)
Time Tool Opened: 09:37:45 Tester: Dustin Rash
Time Test Ended: 13:44:15 Unit No: 38
Interval: 3340.00 ft (KB) To 3420.00 ft (KB) (TVD) Reference Elevations: 1885.00 ft (KB)
Total Depth: 3497.00 ft (KB) (TVD) 1875.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8653 Below (Straddle)
Press@RunDepth: psig @ 3422.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.11.07 End Date: 2012.11.07 Last Calib.: 2012.11.07
Start Time: 07:54:46 End Time: 13:41:15 Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Strong building blow . BOB in 45 seconds.
ISI-No Return.
FF-Strong building blow . BOB in 45 seconds.
FSI-No Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
252.00	5%Oil/90%Water/5%Mud	3.53
819.00	10%Gas/5%Oil/60%Water/30%Mud	11.49
504.00	10%Gas/5%Oil/15%Water/70%Mud	7.07

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: Tom Denning

21-14s-16w Ellis.KS
Dreiling "D" #8
Job Ticket: 48613 **DST#: 1**
Test Start: 2012.11.07 @ 07:54:45

Tool Information

Drill Pipe:	Length: 3328.00 ft	Diameter: 3.80 inches	Volume: 46.68 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 20000.00 lb
		Total Volume: 46.68 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	3340.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	3417.00 ft			
Interval between Packers:	77.00 ft			
Tool Length:	177.00 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			3321.00	
Shut In Tool	5.00			3326.00	
Hydraulic tool	5.00			3331.00	
Packer	5.00			3336.00	20.00 Bottom Of Top Packer
Packer	4.00			3340.00	
Stubb	1.00			3341.00	
Perforations	5.00			3346.00	
Recorder	0.00	8354	Inside	3346.00	
Recorder	0.00	8520	Outside	3346.00	
Change Over Sub	1.00			3347.00	
Drill Pipe	62.00			3409.00	
Change Over Sub	1.00			3410.00	
Perforations	6.00			3416.00	
Blank Off Sub	1.00			3417.00	77.00 Tool Interval
Packer	4.00			3421.00	
Change Over Sub	1.00			3422.00	
Recorder	0.00	8653	Below	3422.00	
Drill Pipe	62.00			3484.00	
Change Over Sub	1.00			3485.00	
Perforations	9.00			3494.00	
Bullnose	3.00			3497.00	80.00 Bottom Packers & Anchor

Total Tool Length: 177.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Tom Denning

21-14s-16w Ellis.KS
Dreiling "D" #8
Job Ticket: 48613 **DST#: 1**
Test Start: 2012.11.07 @ 07:54:45

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:	19000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: 0.38 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4500.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
252.00	5%Oil/90%Water/5%Mud	3.535
819.00	10%Gas/5%Oil/60%Water/30%Mud	11.488
504.00	10%Gas/5%Oil/15%Water/70%Mud	7.070

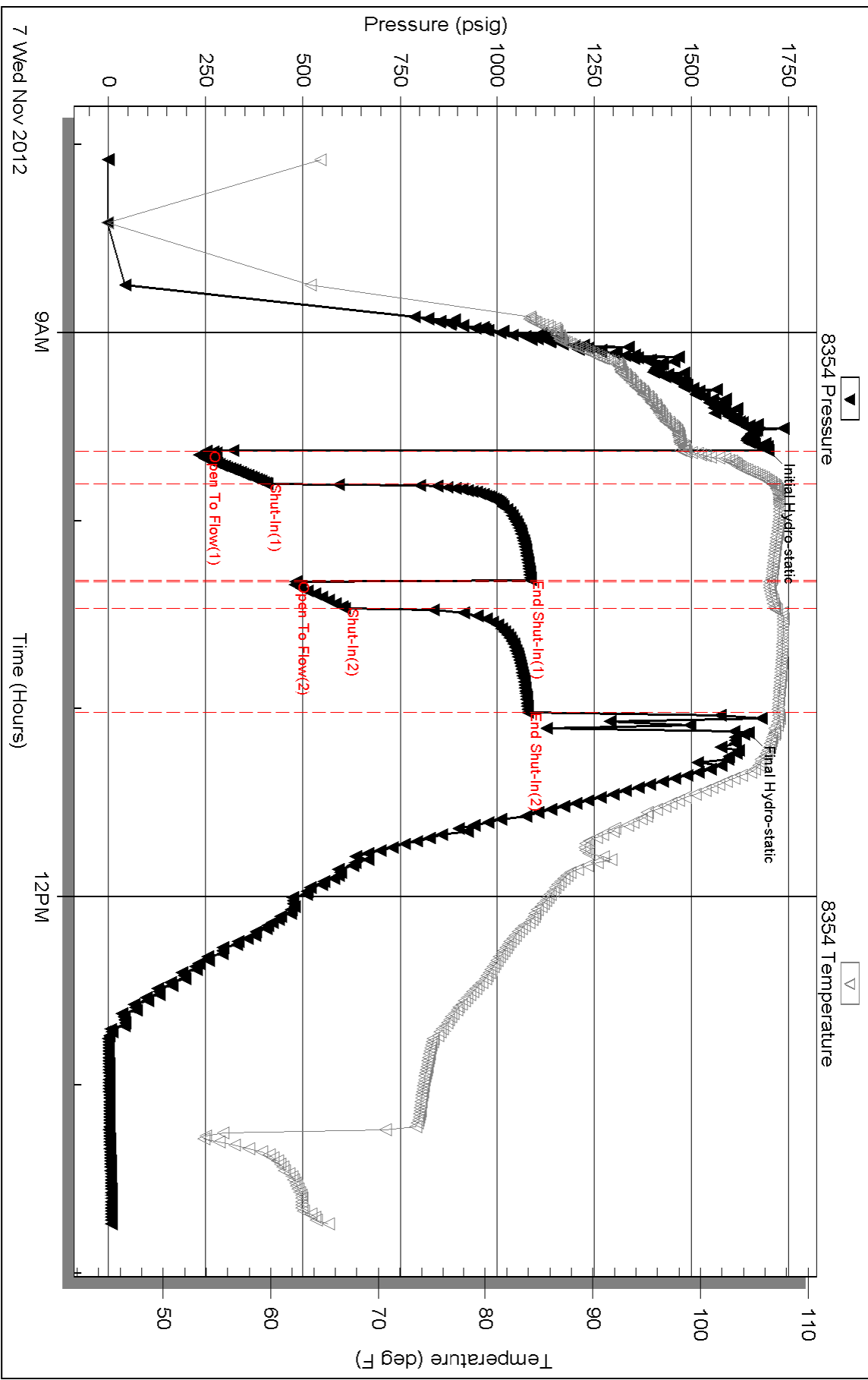
Total Length: 1575.00 ft Total Volume: 22.093 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

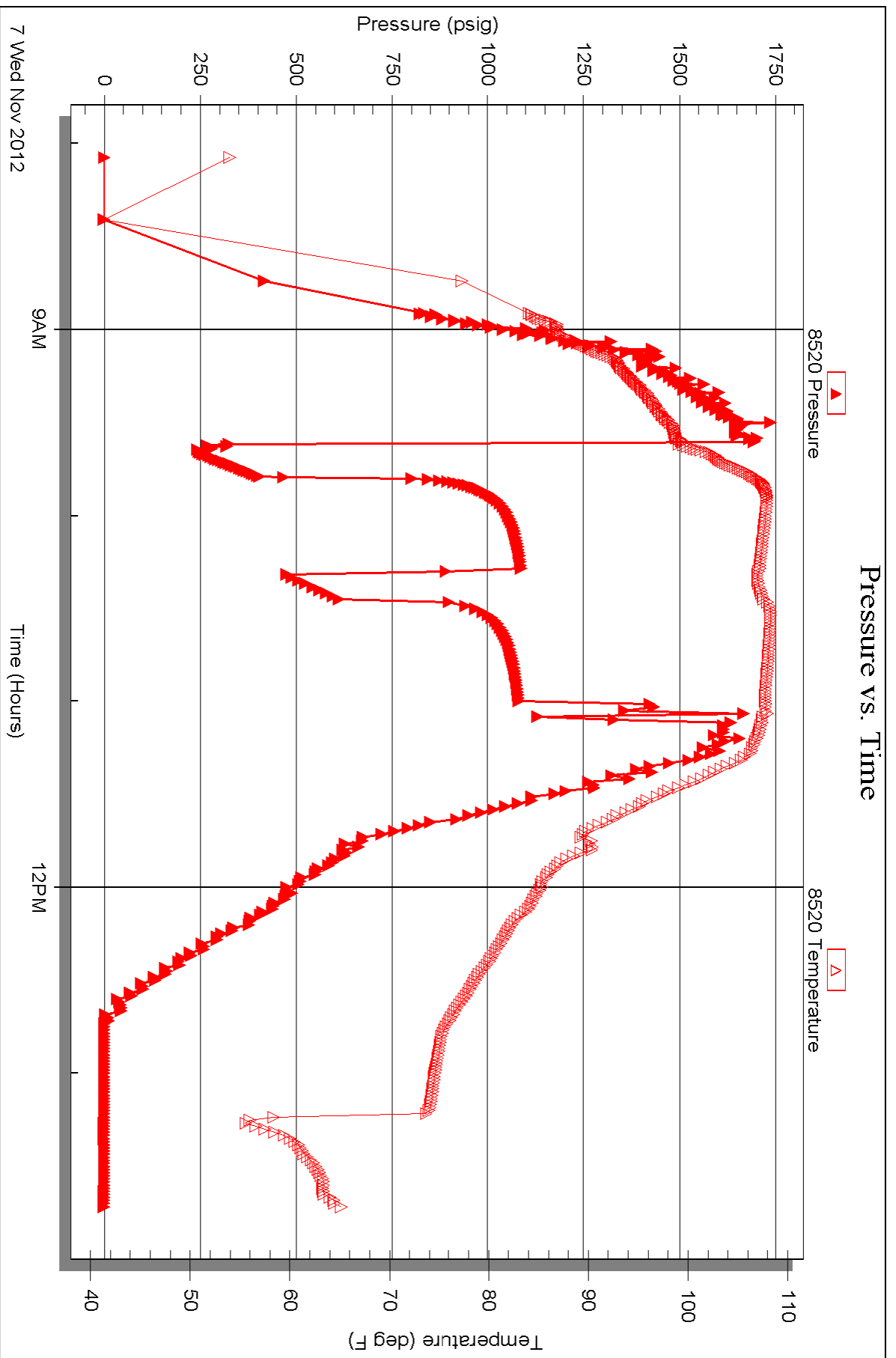


Serial #: 8520

Outside TDI, Inc.

Drilling "D" #8

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 48613

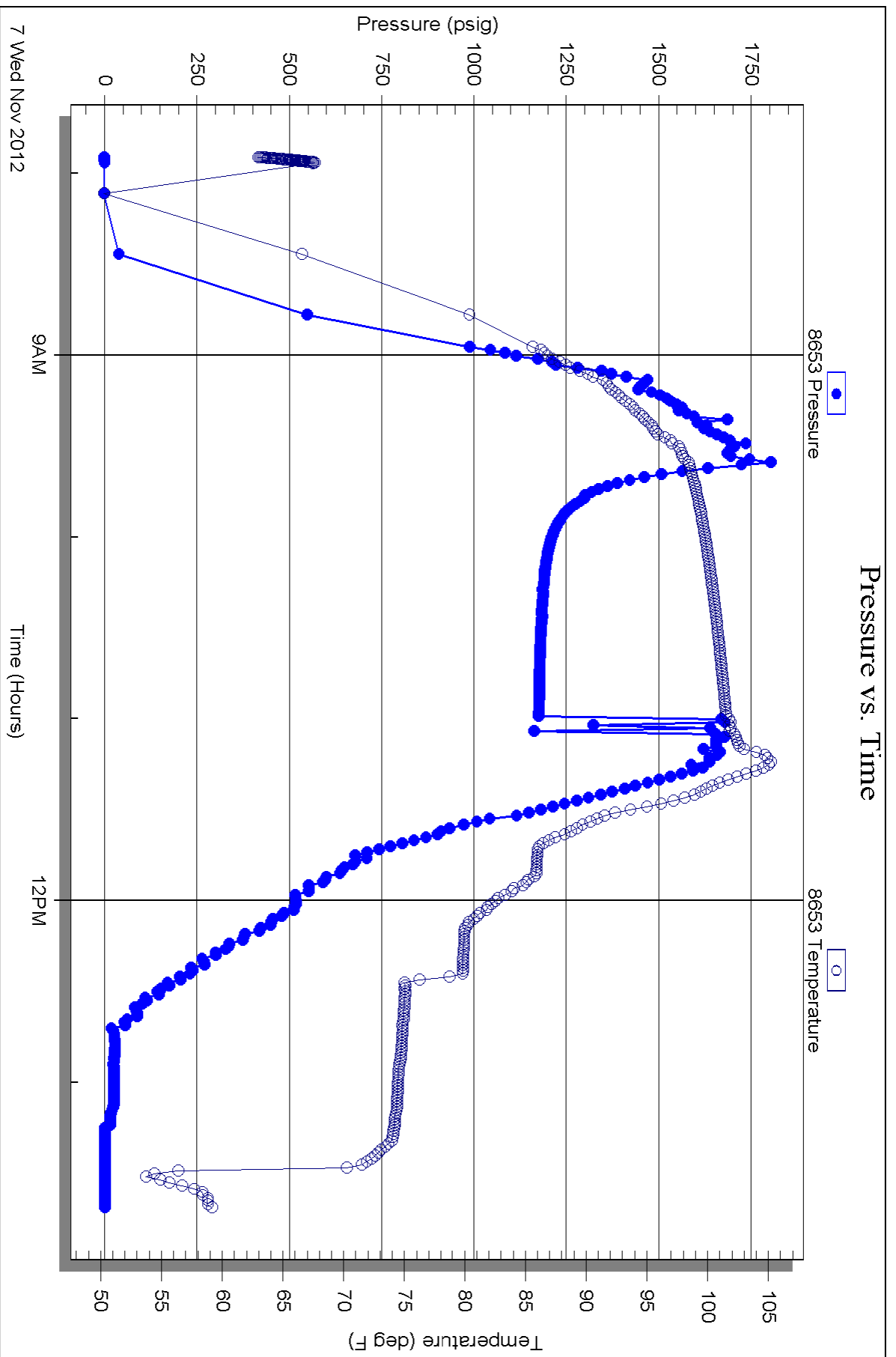
Printed: 2012.11.15 @ 16:15:57

Serial #: 8653

Below (Straddle)

Drilling "D" #8

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48613

Well Name & No. Dwelling "A" #8 Test No. 1 Date 11-7-12
 Company TDI, Inc. Elevation 1885 KB 1875 GL
 Address 1310, Bison Rd. Hays, KS 67601
 Co. Rep / Geo. Herb Dernes Rig Southwind 1
 Location: Sec. 21 Twp. 14S Rge. 16W Co. Ellis State KS

Interval Tested 3340-3420 Zone Tested Arbuckle
 Anchor Length 80' 71' TP Drill Pipe Run 3328 Mud Wt. 9.3
 Top Packer Depth 3335 Drill Collars Run 0 Vis 56
 Bottom Packer Depth 3340 Wt. Pipe Run 0 WL 8.0
 Total Depth 3499 Chlorides 4500 ppm System LCM 2#

Blow Description IF-Strong building blow, BOB in 45 seconds.
ISI-No Return.
FF-Strong building blow, BOB in 45 seconds.
FST-No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>504</u>	<u>GOCWM</u>	<u>10</u>	<u>5</u>	<u>15</u>	<u>70</u>
<u>819</u>	<u>GOCMW</u>	<u>10</u>	<u>5</u>	<u>80</u>	<u>30</u>
<u>252</u>	<u>SOCMW</u>	<u>0</u>	<u>5</u>	<u>90</u>	<u>5</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1575 BHT _____ Gravity _____ API RW 1381 @ 65 ° F Chlorides 19,000 ppm

(A) Initial Hydrostatic 1698 Test 1150 T-On Location 0600
 (B) First Initial Flow 252 Jars _____ T-Started 0800
 (C) First Final Flow 407 Safety Joint _____ T-Open 0937
 (D) Initial Shut-In 1086 Circ Sub _____ T-Pulled 1100
 (E) Second Initial Flow 481 Hourly Standby _____ T-Out 1345
 (F) Second Final Flow 608 Mileage 17X2 52.70 Comments But-0754
 (G) Final Shut-In 1080 Sampler _____
 (H) Final Hydrostatic 1647 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 10 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1802.70
 Final Flow 10 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1802.70

Approved By _____ Our Representative D. Rash

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

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: DREILING D # 8
 Location: SW SW NE NE Sec.21-14s-16w
 Pool: IN FIELD
 State: KANSAS

API: 15-051-26,408-00-00
 Field: DREILING
 Country: USA



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

Scale 1:240 Imperial

Well Name: DREILING D # 8
 Surface Location: SW SW NE NE Sec.21-14s-16w
 Bottom Location:
 API: 15-051-26,408-00-00
 License Number: 4787
 Spud Date: 11/2/2012 Time: 3:15 PM
 Region: ELLIS COUNTY
 Drilling Completed: 11/6/2012 Time: 8:33 PM
 Surface Coordinates: 1090' FNL & 1230' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 1875.00ft
 K.B. Elevation: 1885.00ft
 Logged Interval: 2500.00ft To: 3496.00ft
 Total Depth: 3496.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 1090' FNL
 E/W Co-ord: 1230' FEL

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: 11/2/2012
TD Date: 11/6/2012
Rig Release: 11/8/2012

Time: 3:15 PM
Time: 8:33 PM
Time: 1:00 AM

ELEVATIONS

K.B. Elevation: 1885.00ft
K.B. to Ground: 10.00ft

Ground Elevation: 1875.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON RESULTS OF DST # 1, FAVORABLE STRUCTURE AND EXISTING LEASE INFRASTRUCTURE TO HANDLE OIL AND PRODUCED SALT WATER.

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

DRILL STEM TESTING BY TRILOBITE TESTERS INC.: ONE(1) STRADDLE TEST

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

DREILING D # 8

1090' FNL & 1230' FEL, NE/4

Sec. 21-14s-16w

1875' GL 1885' KB

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>
Anhydrite	983+ 902	977+ 908
B-Anhydrite	1018+ 867	1016+ 869
Topeka	2852- 967	2853- 968
Heebner Shale	3069-1184	3070-1185
Toronto	3086-1201	3088-1203
LKC	3114-1229	3115-1230
BKC	3345-1460	3354-1469
Arbuckle		3403-1518
RTD	3496-1611	
LTD		3498-1613

SUMMARY OF DAILY ACTIVITY

11-02-12 Spud 3:15 PM, set 8 5/8" surface casing to 223' w/ 150 sxs common, 2%Gel, 3%CC, plug down 7:00pm, WOC 8 hrs

11-03-12 411', drill plug at 3:00 AM


11-04-12 1690', drilling

11-05-12 2460', drilling, displace 2672'-2687'

11-06-12 3185', drilling, RTD 3496' @ 8:33pm, CCH, short trip

11-07-12 3496', CCH 1 1/2 hrs, TOWB, logs, straddle test # 1 3340' - 3420',
 LDDP, run 5 1/2 "production casing, cementing top stage
 11-08-12 3496', finish cementing, plug down 1:00AM, RD

DST # 1 STRADDLE TEST SUMMARY

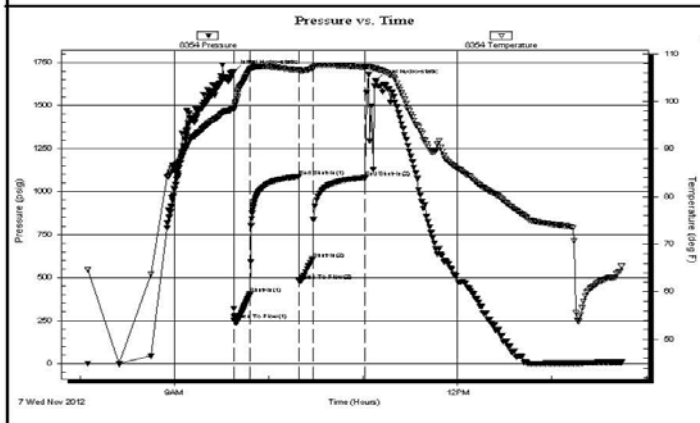
 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT		
	TDI, Inc. 1310 Bison Rd. Hays, KS 67601 ATTN: Tom Denning	21/14S/16W-Ellis Dreiling "D" #8 Job Ticket: 48613 DST#: 1 Test Start: 2012.11.07 @ 07:54:45	

GENERAL INFORMATION:

Formation: Arbuckle	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Dustin Rash
Time Tool Opened: 09:37:45	Unit No: 38
Time Test Ended: 13:44:15	Reference Elevations: 1885.00 ft (KB)
Interval: 3340.00 ft (KB) To 3420.00 ft (KB) (TVD)	1875.00 ft (CF)
Total Depth: 3497.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Fair

Serial #: 8354 Inside	Capacity: 8000.00 psig
Press@RunDepth: 607.65 psig @ 3346.00 ft (KB)	Last Calib.: 2012.11.07
Start Date: 2012.11.07 End Date: 2012.11.07	Time On Btm: 2012.11.07 @ 09:37:25
Start Time: 08:04:45 End Time: 13:44:15	Time Off Btm: 2012.11.07 @ 11:07:45

TEST COMMENT: IF-Strong building blow. BOB in 45 seconds.
 ISI-No Return.
 FF-Strong building blow. BOB in 45 seconds.
 FSI-No Return.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1697.90	98.60	Initial Hydro-static
1	251.74	98.46	Open To Flow (1)
11	407.41	106.64	Shut-In(1)
42	1086.34	106.61	End Shut-In(1)
42	481.07	106.43	Open To Flow (2)
51	607.65	106.93	Shut-In(2)
84	1079.97	107.18	End Shut-In(2)
91	1646.97	106.92	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
252.00	5%Oil/90%Water/5% Mud	3.53
819.00	10%Gas/5%Oil/60%Water/30% Mud	11.49
504.00	10%Gas/5%Oil/15%Water/70% Mud	7.07

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

DST # 1 STRADDLE TEST EXPANDED CHART

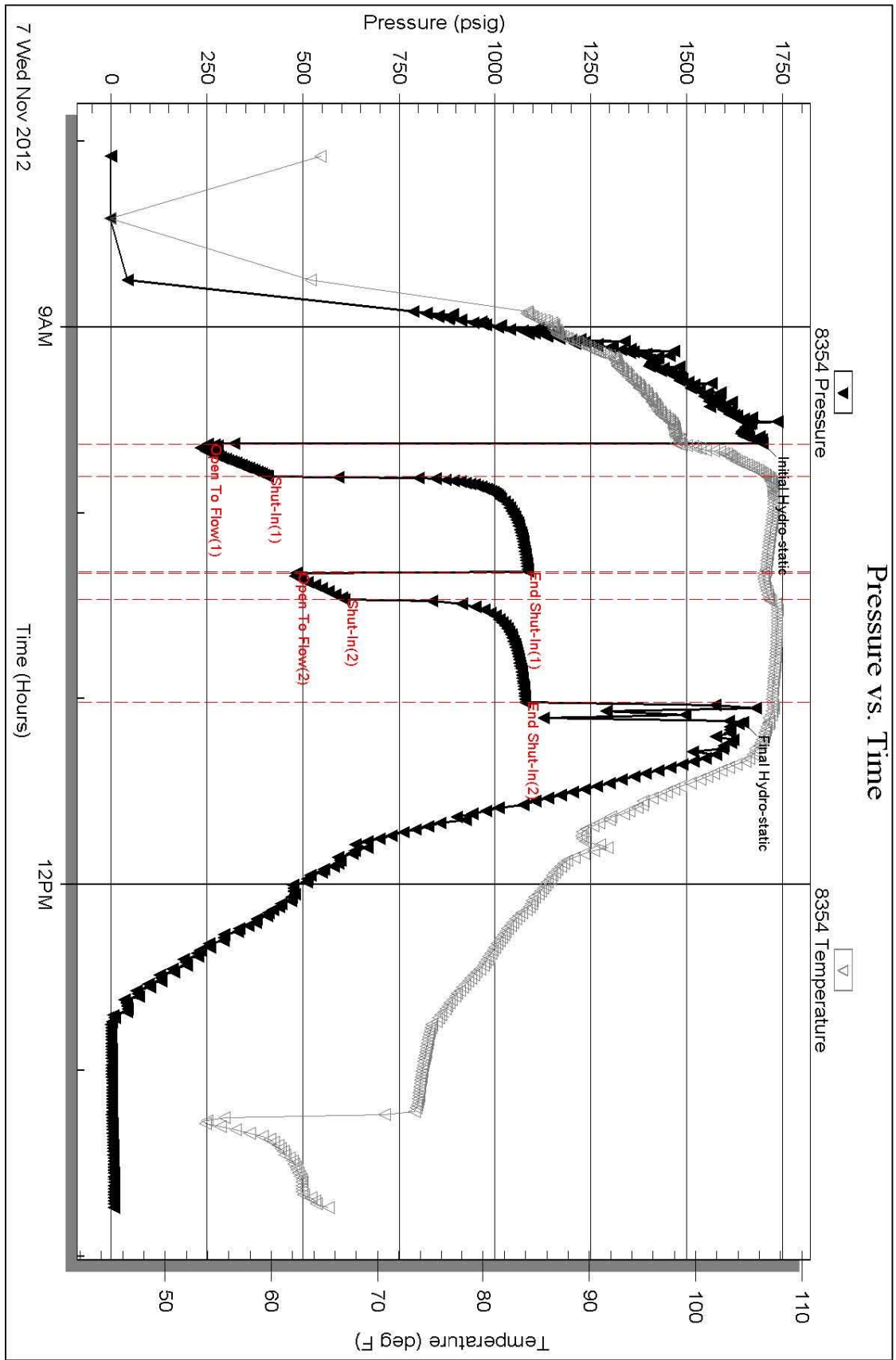
Serial #: 8354

Inside

TDI, Inc.

Drilling "D" #8

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 48613

Printed: 2012.11.07 @ 15:10:46

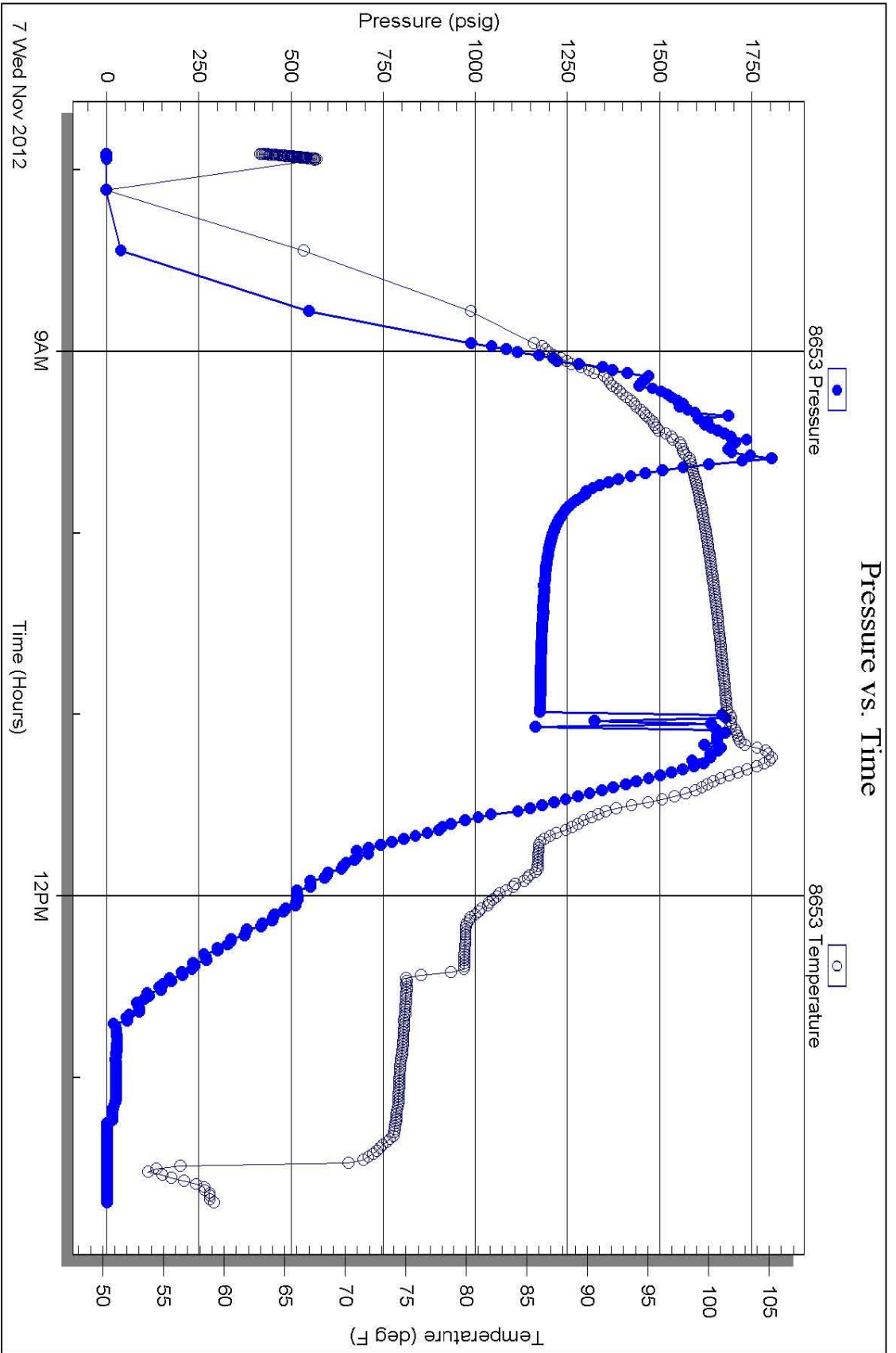
DST # 1 STRADDLE TEST BOTTOM PACKER CHART

Serial #: 8653

Below (Straddle) (bp)

Drilling "D" #8

DST Test Number: 1

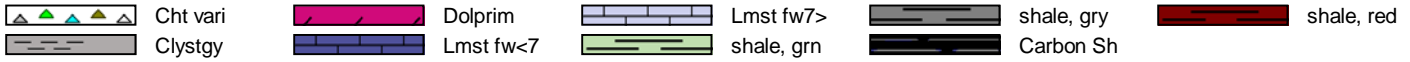


Trilobite Testing, Inc

Ref. No: 48613

Printed: 2012.11.07 @ 15:10:47

ROCK TYPES



ACCESSORIES

MINERAL

- ▲ Chert, dark
- P Pyrite
- △ Chert White

FOSSIL

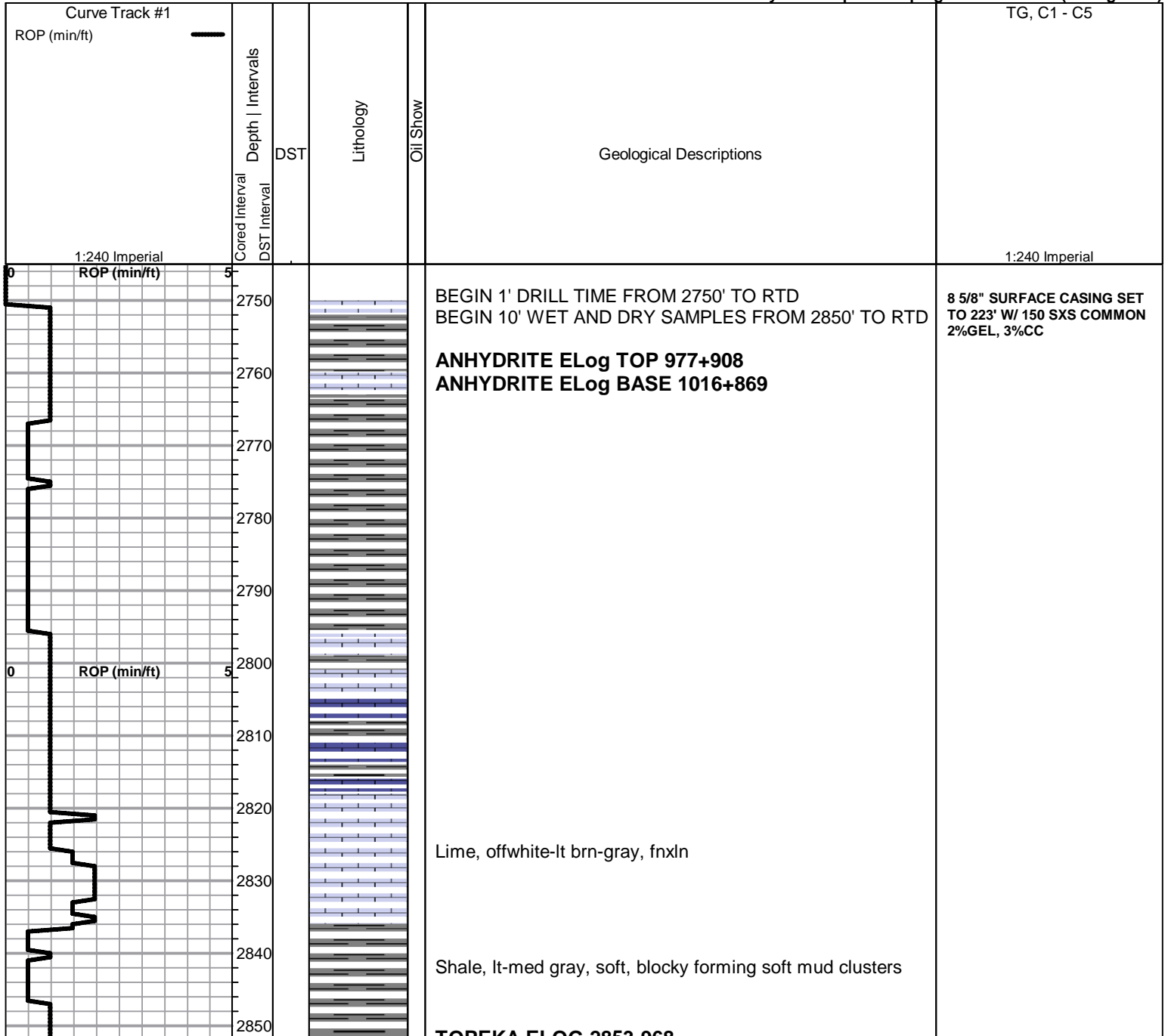
- ⊕ Oolite
- ⊕ Oomoldic

OTHER SYMBOLS

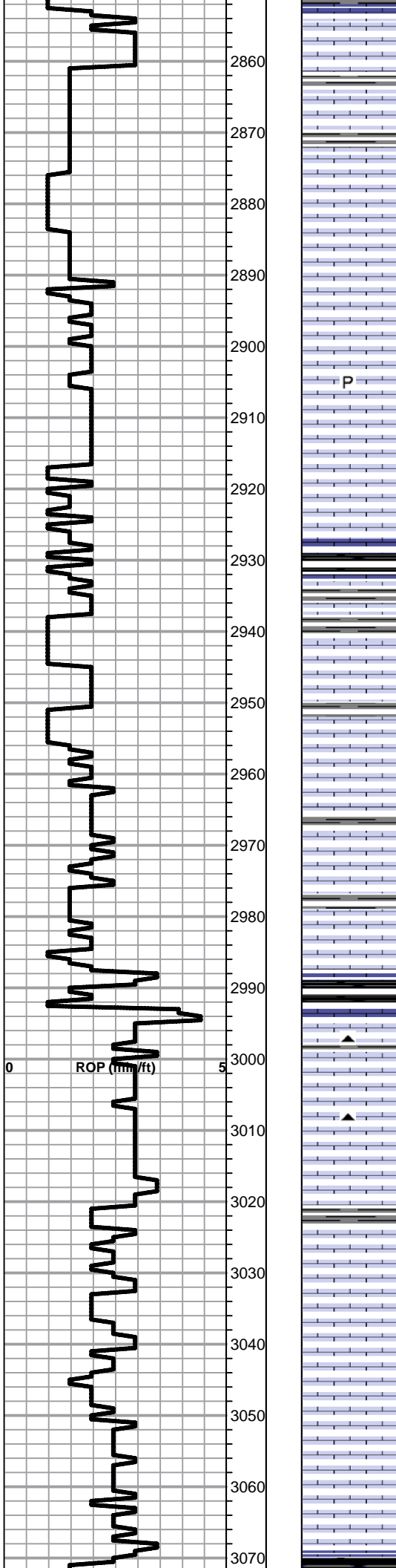
DST

- DST Int
- DST alt
- Core

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



TOPEKA ELOG 2853-968



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

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

Lime, lt brn-grayish brn, fnxln, bedded chalk in part

Lime, lt-med grayish brn, fnxln, fusulinids, slight chalk

Lime, lt brn-grayish brn, fnxln, slight chalk in part

P
Lime, grayish brn, fnxln, crinoid segments in part

Lime, grayish brn, fnxln

Lime, lt brn-grayish brn, fnxln with sticky chalk clumps

Lime, lt-med brn-gray, soft, crumbly with sticky chalk clumps with gray fossil traces

Shale, gray-black carbonaceous, fissile, blocky

Lime, lt-med brn-grayish brn, fnxln

Lime, lt-med brn, fnxln, bedded chalk in part

Lime, lt-med brn, fnxln-granular, bedded chalk in part

Lime, crm-lt brn, fn-vfxln, slight chalk in part

Lime, lt-dark brn, fn-vfxln

Lime, lt-dark brn, fn-vfxln

Shale, black carbonaceous, fissile, blocky

Lime, lt-med brn-grayish brn, fn-vfxln

Lime, lt-dark brn, fnxln, hard on crush, slightly fossiliferous

Lime, lt-dark, fnxln, slight bed chalk in part

Lime, lt-dark brn-gray, fn-vfxln, hard on crush

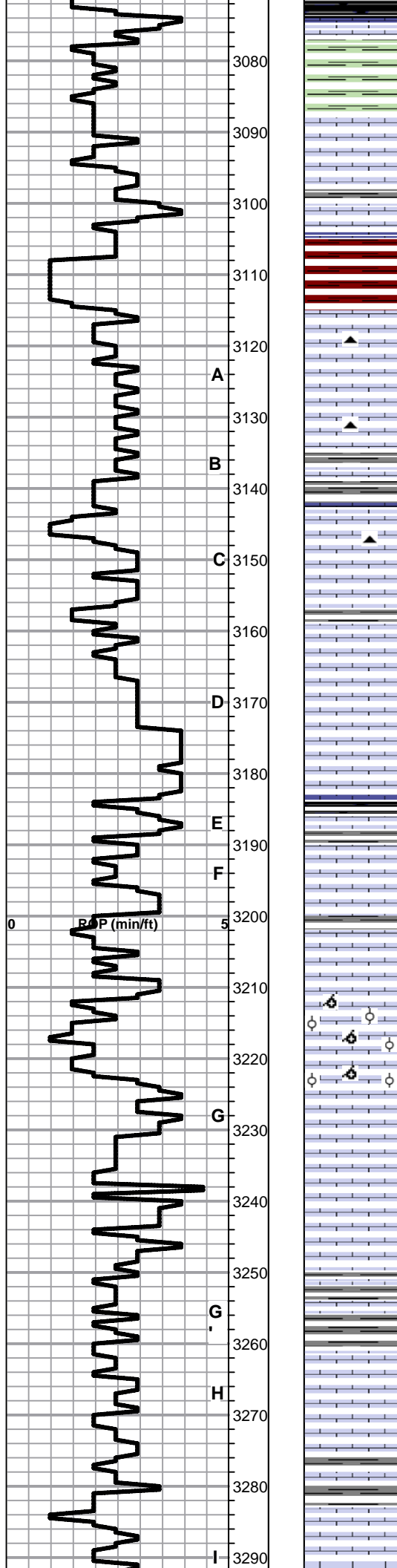
Lime, lt brn-lt grayish brn, fnxln, slight chalk in part

Lime, lt brn-lt grayish brn, fnxln, slight bed chalk in part

Lime, lt brn, fnxln, slightly fossiliferous

Lime, lt-brn, fn-vfxln, slight chalk in part

HEEBNER SHALE ELOG 3070-1185



Shale, black carbonaceous, fissile, blocky
 Lime, lt-med brn, vfxln
 Shale, lime green, soft forming soft mud in part

TORONTO ELOG 3088-1203

Lime, white-cream-lt brn, fnxln-granular in part , bed chalk in part, NS

Shale, red with light red wash, forming soft mud in part

LKC ELOG 3115-1229

Lime, lt-med brn, fn-vfxln, slight bed chalk in part, NS

Lime, cream-tan, fnxln, chalk in part, lt odor, scattered pinpoint vuggy porosity with scattered stain

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

Lime, lt-med brn, fnxln, few chips with light scattered staining

Lime, lt-med brn, fn-vfxln, few barren oolitic chips in part

Lime, cream-tan, fn-vfxln, chalk in part, NS

Shale, gray-black carbonaceous

Lime, cream-tan, fnxln, bed chalk in part, NS

Lime, cream-tan, fnxln, hard on crush, chalk

Lime, cream-lt gray, fn-vfxln, slight chalk

Lime, cream, fn-vfxln

Lime, cream-tan, fnxln with oolitic in part, lt scattered staining in top of interval, NFO, No Odor

Lime, cream-tan, fn-vfxln, slight chalk in part

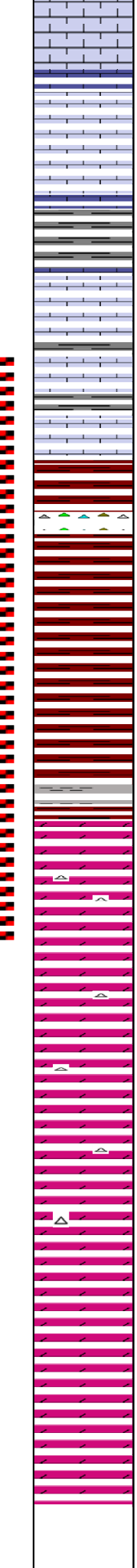
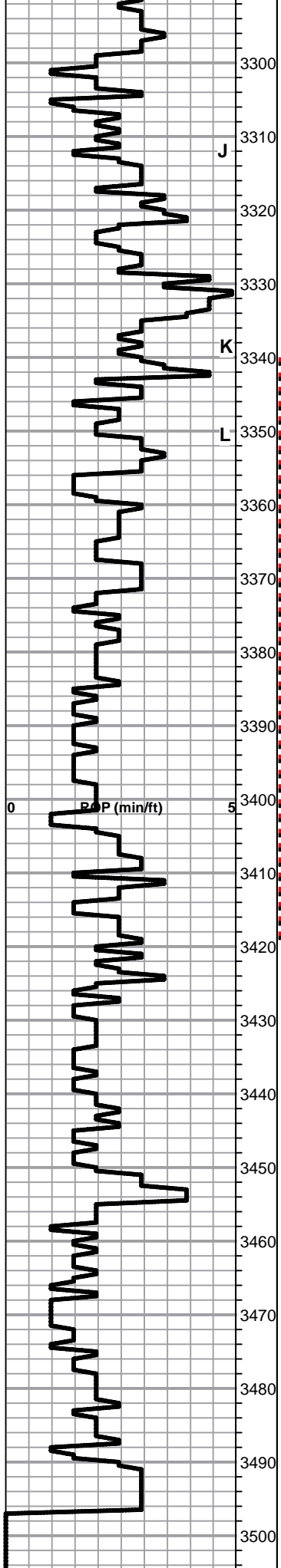
Lime, cream-lt gray, fn-vfxln, slight chalk in part

Lime, lt gray, fn-vfxln, slight chalk in part

Lime, lt-med brnish gray, fn-vfxln, NS

Lime, lt gray, vfxln, glassy appearance

Lime, cream-lt gray, fn-vfxln, slight chalk, glassy appearance



Lime, crm-lt gray, fn-vfxln, very hard on crush, glasslike

Lime, crm-lt gray, fn-vfxln, bed chalk in part

Lime, lt gray with pale green tint, fn-vfxln

Shale, lt gray, soft forming soft sticky clusters

Lime, crm, fn-vfxln, lots of bedded chalk

Lime, crm-pale gray, fn-vfxln, NS

Lime, crm-pale gray, fn-vfxln, NS

BKC ELOG 3354-1469

Shale, reddish brn, soft, blocky with tan chert,

Shale, lt red wash, soft

Shale, red wash, soft with sticky clusters forming in part

Shale, white - red - pink forming sticky clumps

Shale, red, soft sticky clumps

Shale, red to white, soft sticky clumps

ARBUCKLE ELOG 3403-1518

Dolomite, tan-lt brn, cxln, very fine samples mixed in shale

Dolomite, crm-lt brn, fnxln with fresh, sharp white chert
finer granular and sucrosic dolomite ground up in
samples even with reduced pump pressure

Dolomite, crm-lt brn, fnxln, no detectable odor

Dolomite, crm-lt brn, fnxln, oolitic chert in part

Dolomite, crm-lt brn, fnxln-granular

Dolomite, crm-tan, fnxln with glauconitic specks in part

Dolomite, crm-tan, fnxln-granular

Dolomite, ivory-crm, granular

Dolomite, crm, fnxln-granular

Dolomite, ivory-crm, fnxln-granular

RTD 3496-1611 LTD 3498-1613

DST # 1 STRADDLE TEST
3340' TP 3420' SEE HEADER
FOR TEST SUMMARY

RAN 84 JTS 14# 5 1/2" CASING
SET TO 3496' W/ 150 SXS EA2
ON BOTTOM STAGE, 105 SXS
SMD ON TOP STAGE.

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. 6177

Date	11-2-12	Sec.	21	Twp.	14	Range	16	County	Ellis	State	Ks	On Location		Finish	7:00 PM
------	---------	------	----	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	---------

Lease **Dreiling D** Well No. **8** Location **Walker, Ks - 2 1/2 S, 1 W, 1/4 S, 1/2 E**

Contractor	Southwind #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.
Type Job	Surface	Charge To	T D I Inc.

Hole Size	12 1/4"	T.D.	225'	Street	
Csg.	8 5/8"	Depth	223'	City	

Tbg. Size		Depth		State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	15'	Shoe Joint	15'	Cement Amount Ordered	150 SX Common 3% CC

Meas Line		Displace	13 BLS	2 1/2 Gel
EQUIPMENT				Common 150

Pumptrk	9	No.		Cementer	Cody	Poz. Mix	
Bulktrk	1	No.		Helper		Gel.	3
Bulktrk	p.u.	No.		Driver	Lonnie M	Calcium	5
				Driver	Rick		

JOB SERVICES & REMARKS				Hulls	
Remarks:	Cement did circulate			Salt	
Rat Hole				Flowseal	
Mouse Hole				Koi-Seal	
Centralizers				Mud CLR 48	
Baskets				CFL-117 or CD110 CAF 38	
D/V or Port Collar				Sand	
				Handling 158	
				Mileage	

FLOAT EQUIPMENT			
			Guide Shoe
			Centralizer
			Baskets
			AFU Inserts
			Float Shoe
			Latch Down

Pumptrk Charge	Surface
Mileage	16

X Signature [Signature]	Tax	
	Discount	
	Total Charge	

JOB LOG

SWIFT Services, Inc.

DATE 1-7-12 PAGE NO. 1

CUSTOMER TDI WELL NO. D 28 LEASE Drilling JOB TYPE 2-stage TICKET NO. 21962

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2145							01 loc set up Trks
								RTD 3498' LTD 3496'
								5 1/2" x 14" x 3498' x 42'
								Cent. 1, 3, 5, 87, 8, 10, 12, 59
								Back 2, 13, 60, 74
								DV 60 @ 972'
	2115							Start FE
	2220							Break Circ.
	2330	5	0			200		Start Preflushes 500 gal Mod Flush 20 bbl KCL Flush
		5	32/0			200		Start 150 sks EA-2
	2345		36					End Cement
								Wash Pth / Drop LD Plug
	2350	6	0			200		Start Displacement
	0000	5	61			250		Catch Cement / KCL in last 20 bbl
	0007		84.5					Land Plug
								Release Pressure / Float Held
	0010							Drop Opening Plug
	0015	2.5	7/4					Plug RH & MH 30/15 sks SMD
	0030		0			1100		Per DV
	0031	4.5	0			150		Start Cement
	0045		60			150		End Cement
								Drop Closing Plug
	0050	5	0			150		Start Displacement
		4	27			250		Circ Cement
	0100		28			350		Land Plug
						1500		Close DV / Release Pressure / DV Closed
								circ 15 sks to pit
								Thank you
								Nick, Wayne, David E. & Donna

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

January 23, 2013

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

Re: ACO1
API 15-051-26408-00-00
Dreiling D 8
NE/4 Sec.21-14S-16W
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