CORRECTION #1

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1179417

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 # 4787
Name: TDI, Inc.
Address 1: 1310 BISON RD
Address 2:
City: HAYS State: KS Zip: 67601 + 9696
Contact Person: Tom Denning
Phone: (785) 628-2593
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Herb Deines
Purchaser: Coffeyville Resources

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 #:

10/4/2013	10/9/2013	11/8/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26596-00-00
Spot Description:
SW SW NE SW Sec. 7 Twp. 13 S. R. 20 ☐ East ☑ West
1385 Feet from ☐ North / ☑ South Line of Section
1335 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellis
Lease Name: Raymond Trust Well #: 1
Field Name: Herbert North
Producing Formation: Marmaton
Elevation: Ground: 2138 Kelly Bushing: 2148
Total Vertical Depth: 3980 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1501 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: 61000 ppm Fluid volume: 700 bbls
Dewatering method used: Evaporated
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: 01/02/2014
☑ **Confidential Release Date:** 01/02/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 01/15/2014

CORRECTION #1
Page Two

[redacted] 1179417

Operator Name: TDI, Inc. Lease Name: Raymond Trust Well #: 1

Sec. 7 Twp. 13 S. R. 20 ☐ East ☑ West County: Ellis

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction Log
Dual Compensated Porosity Log
Microresistivity Log

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name Attached Top Attached Datum Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	1501	SMD	475	1/4# flo-seal
Production	7.875	5.5	14	3972	EA-2	130	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	Depth
4	3765'-3770'	750 gals 15%	

TUBING RECORD: Size: 2.875 Set At: 3911' Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 1/1/2014

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
Marmaton

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Raymond Trust 1
Doc ID	1179417

Tops

Name	Top	Datum
Anhydrite	1500'	+648'
Topeka	3181'	-1033'
Heebner	3411'	-1263'
Lansing/Kansas City	3447'	-1299'
Base Kansas City	3689'	-1541'
Marmaton-Pawnee	3754'	-1606'
Conglomerate Sand	3830'	-1682'
Arbuckle	3850'	-1702

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Raymond Trust 1
Doc ID	1179417

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	1501	SMD	475	1/4# flo-seal
Production	7.875	5.5	14	3972	EA-2	130	

Summary of Changes

Lease Name and Number: Raymond Trust 1

API/Permit #: 15-051-26596-00-00

Doc ID: 1179417

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	01/02/2014	01/15/2014
Producing Formation	Conglomerate Sand	Marmaton
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1168009	../../kcc/detail/operatorEditDetail.cfm?docID=1179417

Confidentiality Requested:
☑ Yes ☐ No

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1168009

Form ACO-1
August 2013
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Phone: (785) 628-2593
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Herb Deines
Purchaser: Coffeyville Resources

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 #:

10/4/2013	10/9/2013	11/8/2013
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1335 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellis
Lease Name: Raymond Trust Well #: 1
Field Name: Herbert North
Producing Formation: Conglomerate Sand
Elevation: Ground: 2138 Kelly Bushing: 2148
Total Vertical Depth: 3980 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1501 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: 61000 ppm Fluid volume: 700 bbls
Dewatering method used: Evaporated

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: 01/02/2014
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ I ☐ II ☐ III **Approved by:** NAOMI JAMES **Date:** 01/02/2014

Page Two

Operator Name: TDI, Inc. Lease Name: Raymond Trust Well #: 1

Sec. 7 Twp. 13 S. R. 20 ☐ East ☑ West County: Ellis

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 *(Attach Additional Sheets)*	☑ Yes	☐ No	☑ Log Formation (Top), Depth and Datum ☐ Sample
Samples Sent to Geological Survey	☐ Yes	☑ No	Name: Attached Top: Attached Datum: Attached
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☐ Yes	☐ No	

List All E. Logs Run:

Dual Induction Log
Dual Compensated Porosity Log
Microresistivity Log

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	1501	SMD	475	1/4# flo-seal
Production	7.875	5.5	14	3972	EA-2	130	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection: 1/1/2014	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL: Top / Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Marmaton /

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4					750 gals 15%

TUBING RECORD:	Size:	Set At:	Packer At:
	2.875	3911'	

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Raymond Trust 1
Doc ID	1168009

Tops

Name	Top	Datum
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Conglomerate Sand	3830'	-1682'
Arbuckle	3850'	-1702

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Raymond Trust 1
Doc ID	1168009

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3765'-3770'	750 gals 15%	

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Raymond Trust 1
Doc ID	1168009

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	1501	SMD	475	1/4# flo-seal
Production	7.875	5.5	14	3972	EA-2	130	

OPERATOR

Company:	TDI, INC.		
Address:	1310 BISON ROAD HAYS, KANSAS 67601		
Contact Geologist:	TOM DENNING		
Contact Phone Nbr:	785-628-2593		
Well Name:	RAYMOND TRUST # 1		
Location:	SW SW NE SW Sec.7-13s-20w	API:	15-051-26,596-00-00
Pool:	WILDCAT	Field:	UNNAMED
State:	KANSAS	Country:	USA

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

Scale 1:240 Imperial

Well Name:	RAYMOND TRUST # 1		
Surface Location:	SW SW NE SW Sec.7-13s-20w		
Bottom Location:			
API:	15-051-26,596-00-00		
License Number:	4787		
Spud Date:	10/4/2013	Time:	1:00 AM
Region:	ELLIS COUNTY		
Drilling Completed:	10/9/2013	Time:	12:21 PM
Surface Coordinates:	1385' FSL & 1335' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	2138.00ft		
K.B. Elevation:	2148.00ft		
Logged Interval:	3100.00ft	To:	3980.00ft
Total Depth:	3980.00ft		
Formation:	ARBUCKLE		
Drilling Fluid Type:	CHEMICAL/FRESH WATER GEL		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:	-99.5897419	Latitude:	38.9321944
N/S Co-ord:	1385' FSL		
E/W Co-ord:	1335' FWL		

LOGGED BY

SOLUTIONS CONSULTING

Company:	SOLUTIONS CONSULTING, INC.		
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		
Spud Date:	10/4/2013	Time:	1:00 AM
TD Date:	10/9/2013	Time:	12:21 PM
Rig Release:	10/10/2013	Time:	3:30 PM

ELEVATIONS

K.B. Elevation:	2148.00ft	Ground Elevation:	2138.00ft
K.B. to Ground:	10.00ft		

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON POSITIVE RESULTS OF DST # 1

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

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

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

Raymond Trust # 1	Kohl A-7
SW SW NE SW	SE SE SW
Sec. 7-13s-20w	Sec. 7-13s-20w
2138' GL 2148' KB	Reference Well

FORMATION	SAMPLE TOPS	LOG TOPS	LOG TOPS
Anhydrite	1498+ 650	**1500+ 648**	*+ 655*
B-Anhydrite	1544+ 604	**1543+ 605**	*+ 609*
Topeka	3183-1035	**3181-1033**	
Heebner Shale	3412-1264	**3411-1263**	*-1265*
Toronto	3431-1283	**3428-1280**	*-1284*
LKC	3447-1299	**3447-1299**	*-1303*
BKC	3690-1542	**3689-1541**	*-1546*
Marmaton-Pawnee	3750-1602	**3754-1606**	*-1610*
Conglomerate Sand	3830-1682	**3830-1682**	*-1686*
Arbuckle	3853-1705	**3850-1702**	*-1715*
RTD	3980-1832		
LTD		**3982-1834**	*-1793*

SUMMARY OF DAILY ACTIVITY

10-04-13 350', finish RU, spud 1:00AM, drilling

10-05-13 1415', set 8 5/8" to 1501' w/ 475 sxs SMD, plug down 7:00PM, WOC 12 hrs, slope 1/2 degree

10-06-13 1505', WOC, drill plug 8:10 AM

10-07-13 2510', drilling, displace 3090'-3113'

10-08-13 3245', drilling

10-09-13 3810', drilling, RTD 3980'@12:21PM, ST, CCH, TOWB, logs, start DST #1 straddle test of Conglomerate sand 3762'-3853'

10-10-13 3980', finish DST # 1, TIWB, LDDP, run production casing, RD

DST # 1 STRADDLE TEST 3762'-3853' BOTTOM PACKER HELD

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays, Ks 67601

ATTN: Herb Deines

7-13S-20W Ellis Co Ks

Raymond Trust #1

Job Ticket: 54448 **DST#: 1**

Test Start: 2013.10.10 @ 12:20:00

GENERAL INFORMATION:

Formation: **Marmaton, Cong. SD**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:11:00
Time Test Ended: 20:06:00

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson/Tim
Unit No: 59

Interval: 3762.00 ft (KB) To 3853.00 ft (KB) (TVD)
Total Depth: 3890.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

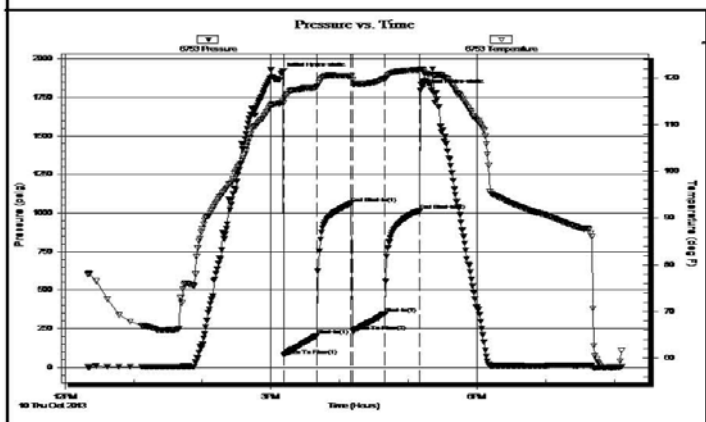
Reference Elevations: 2148.00 ft (KB)
2140.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6753 **Outside**

Press@RunDepth: 346.31 psig @ 3849.00 ft (KB)
Start Date: 2013.10.10 End Date: 2013.10.10
Start Time: 12:20:05 End Time: 20:05:59

Capacity: 8000.00 psig
Last Calib.: 2013.10.10
Time On Btm: 2013.10.10 @ 15:09:00
Time Off Btm: 2013.10.10 @ 17:10:30

TEST COMMENT: IFP-30-BOB in 4 min.
ISI-30-Blow back built to 4 in. in 18 min died back
FF-30-BOB in 3 min
FSI-30-Built to 2 in. in 12 min died back to 1 in.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.78	114.59	Initial Hydro-static
2	76.37	114.68	Open To Flow (1)
31	206.61	118.02	Shut-In(1)
61	1062.11	120.39	End Shut-In(1)
62	232.81	119.54	Open To Flow (2)
91	346.31	119.77	Shut-In(2)
121	1015.73	121.60	End Shut-In(2)
122	1793.95	121.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
370.00	GO 20%G 80%O	5.19
560.00	GMCO 20%G 20%M 60%O	7.86
0.00	120ft GIP	0.00

Gas Rates

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

Trilobite Testing, Inc Ref. No: 54448 Printed: 2013.10.10 @ 07:42:33

ROCK TYPES

Cht vari	Dolprim	Lscongl	shale, red
Clystgy	Dol Lime	shale, grn	Shcol
Congl	Lmst fw<7	shale, gry	CglSandy
Chtcongl	Lmst fw7>	Carbon Sh	

ACCESSORIES

MINERAL
- Chert, dark
- Sandy
- Varicolored chert
- Chert White

FOSSIL
- Oomoldic

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

Curve Track #1	Depth | Intervals	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3
ROP (min/ft)	Cored Interval / DST Interval					
1:240 Imperial						1:240 Imperial

0 ROP (min/ft) 5

3100

BEGIN 1' DRILL TIME FROM 3100' TO RTD
BEGIN 10' WET AND DRY SAMPLES FROM 3200'-RTD

8 5/8" SURFACE CASING SET TO 1501' W/ 475 SXS SMD WOC 12 HRS

SLOPE 1/2 DEGREE

3110

ANHYDRITE TOP 1500+648
ANHYDRITE BASE 1543+605

3120

3130

3140

3150

3160

3170

Lime, crm-lt brn-lt gray, fnxln-granular, slightly fossiliferous

3180

TOPEKA SPL 3183-1035 ELog 3181-1033

Lime, offwhite-lt gray, fnxln, lt chalk wash

3190

Lime, med brn-med gray, fn-vfxln, hard on crush

0 ROP (min/ft) 5

3200

Lime, lt brn-lt gray, trashy near shale boundary, fnxln

3210

Lime, lt-med brn-grayish brn, fnxln-granular in part, few chips with fine specks of oil, no odor, very spotty stain

3220

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

3230

Lime, lt-med brn, fnxln

3240

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

3250

Lime, lt-med brn, fnxln-granular, slight bedded chalk

3260

Lime, lt-med brn, fnxln, slightly granular with chalk matrix

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

3270

Lime, lt-med brn, granular, slight bedded chalk

3280

Shale, black carbonaceous, fissile, blocky
Lime, lt-med brn, fnxln

3290

Shale, med gray, soft blocky

3300

Lime, crm, fnxln, lithographic with bedded chalk

3310

Lime, crm-tan, fnxln, slight bedded chalk, fusulinids

Lime, lt brn, fnxln

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

Shale, med-dark gray, soft blocky

Lime, lt brnm lt gray, fnxln

Shale, gray-black carbonaceoous, soft blocky

Lime, crm-lt brn, granular, bedded chalk, few chips granular with fn interxln porosity, trace of FO on crush w lt odor, spotty stain when dried.

Lime crm-lt brn, fnxln-granular

Lime, crm-lt brn, fnxln

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

Lime, lt-med brn, fnxln

Lime, crm-lt brn-lt gray, fnxln,

HEEBNER SHALE SPL 3412-1264 ELog 3411-1263

Shale, black carbonaceous, fissile, blocky
Lime, lt-med brn, vfxln
Shale, dove gray-lime green, soft blocky

TORONTO SPL 3431-1283 ELog 3428-1280

Lime,white-crm, fossiliferous with spotty interfoss. stain, NFO, No Odor

Lime, crm, fnxln, bedded chalk grading into soft red shale

LKC SPL 3447-1299 ELog 3447-1299

D

Lime, crm-tan, fnxln, bedded chalk, fine speckled dark staining, NFO, no odor

Lime, lt gray, fnxln, slightly fossiliferous

Lime, lt gray, fnxln-slightly granular, shaley in part, slightly fossiliferous

Lime, crm-tan, fnxln with oomoldic chips in part, spotty staining, NFO, No Odor

Lime, crm-tan, fnxln, bedded chalk
Shale, lt gray-grayish green, soft blocky

Lime, crm, fnxln, slight bedded chalk

Lime, lt-med brn, fnxln
Shale, lt gray-black, soft blocky

Lime, white-crm, fnxln, fn vuggy in part with dark spotty stain, NFO, V Lt Odor

Lime, crm-tan, fnxln-granular in part, slight bedded chalk

Lime, crm-tan, fnxln, slight bedded chalk

Lime, crm, fnxln-granular in part

Lime, crm-tan, fnxln

Shale, lt-dark gray to black carbonaceous
Lime, crm-tan, fnxln, slight bedded chalk

Shale, lt-med gray, soft blocky forming soft mud in part

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

Lime, crm-tan, fnxln with lt chalk wash, NS

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

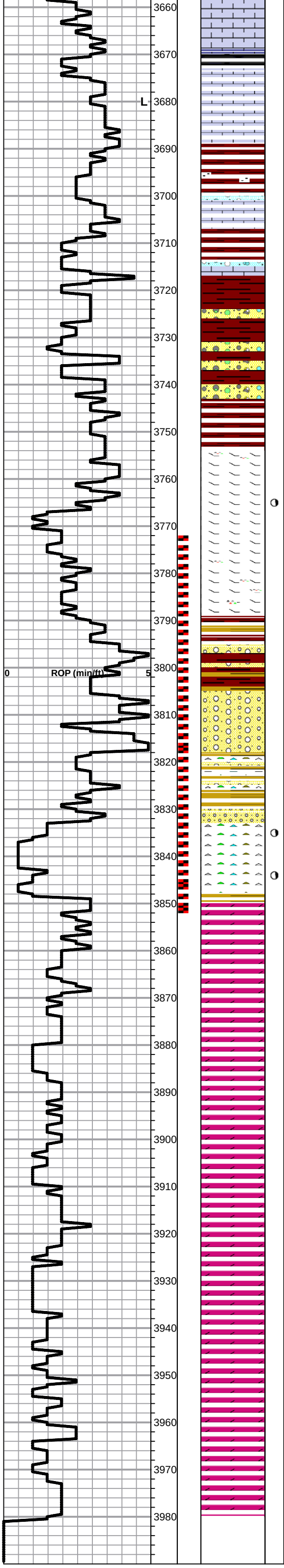
Lime, crm-lt brn, fnxln, bedded chalk, NS

Lime, lt brn, fn-micro xln, slight chalk, NS

Lime, crm-lt brn, fnxln, bedded chalk

Shale, gray-black, soft blocky

Lime, crm-tan, fnxln-granular, NS



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

Shale, black carbonaceous
Lime, crm-tan, fnxln- micro xln, NS

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

BKC SPL 3690-1542 ELog 3689-1541

Shale, reddish brn, soft blocky grading into sandy firmer shale with depth

Lime, white-tan-lt brn, fnxln, slight chalk, oolitic but cemented

Shale, red-brn, soft blocky, gritty in part

Lime, lt-med brn, micro xln, hard on crush

Shale, reddish brn with lt red wash

Shales, reds, brns, and grays, lt red wash, some clastic lime in mix

Shale, reds, brn, maroon, orange cherts in mix

Shale, lot of reddish brn-maroon

MARMATON-PAWNEE ELog 3754-1606

Lime, crm-lt brn, fnxln, chips of fresh orange chert grading into dolomitic lime with depth

Lime, fnxln-fine granular in part, free floating oil globules in fine inter xln porosity, spotty stain, no detectable odor

Lime, tan, fnxln with increasing fresh tan cherts

Lime, tan, fnxln, dolomitic, cherty, fresh, sharp

Shale, reds, brns, maroon, soft-firm blocky

Shale, as above vari colored with mixed vari colored cherts

Clastic mix of dolomite, cherts

DST # 1 3762' TO 3853' SEE HEADER FOR TEST SUMMARY

CONGLOMERATE SAND ELog 3830-1682

Few cemented SS clusters grading into mix of vari colored cherts with no shale, V Lt Odor, with spotty contact staining at best. few quartz grains noted in part with no clusters.

ARBUCKLE ELog 3850-1702

Dolomite, ivory-tan, fnxln, NS or staining

Dolomite, ivory-tan, fnxln, granular in part , NS

Dolomite, ivoty-crm, fnxln-granular, few chips of lt green shale

Dolomite, ivory, granular, fn-med grain

Dolomite, ivory-crm, fnxln-granular, lt chalk wash

Dolomite, crm-tan, fn-cxln, granular, lt chalk wash

Dolomite, tan, fn-cxln, granular, lt chalk wash

Dolomite, tan-lt brn, fn-cxln, firm to hard on crush in part

Dolomite, ivory-lt brn, granular, few specks of glauconite

Dolomite, lt brn, increasing fnxln, hard on crush with depth

Dolomite, as above

Dolomite, as above

Dolomite, tan-lt brn, fnxln-granular

RTD 3980-1832 LTD 3982-1834

RAN 5 1/2" PRODUCTION CASING TALLEY 3983' SET TO 3971.5' CEMENTED W/ 130 SXS EA2, 30 SXS IN RATHOLE, 15 SXS IN MOUSEHOLE

SLOPE 1 1/4 DEGREES

JOB LOG

SWIFT Services, Inc.

DATE 10-5-13 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
TDI	#1	Raymead Trust	Deep Surface	25130

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1210							on loc w/ FE
								TD 1503'
								8⅝" x 23# x 1503' x 45'
	1430							Start FE
	1630							Break Circ
	1700	5	0				150	Start 500 gal Mudflush
	1702	5	12/0				150	Start 150sks SMD @ 11.8#
	1717	5	69/0				150	Start 150sks SMD @ 12.5#
	1730	5	57/0				150	Start 100sks SMD @ 13.5#
	1737	5	31/0				150	Start 75sks SMD @ 14.5#
	1742		19					End Cement
								Drop Plug
	1750	1.5	0				50	Start Displacement
	1830	2	65				350	Circulate Cement
	1840		93.3				600/500	Land Plug
							500	Shut In
								circ. 50 sks to Pit
								Thank you
								Nick, David E. & Isaac

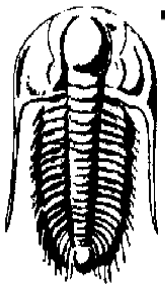
JOB LOG

SWIFT Services, Inc.

DATE 10-10-13 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
TDT	#1	Raymond Trust	Longstring	25135

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1210							on loc w/ FE.
								RTD 3980'
								5½" x 14# x 3979' x 42
								cent 1, 3, 5, 7, 9, 11, 13, 15
								Basket #3 ⅓ way up
	1210							Start FE
	1330							Break Circ
	1420	2	7/4					Plug RH & MH 30 sks EA-2
	1438	5	0				200	Start 500 gal Mud flush
	1440	5	12/0				200	Start 20 bbl KCL flush
	1444	5	20/0				200	Start 130 sks EA-2
	1450		31					End Cement
								Wash P/L
								Drop btm Plug
	1457	6	0				200	Start Displacement
	1510	5	71				250	Catch Cement
	1515		96				700/1200	Land Plug
								Release Pressure
								Float Held
								Thank you
								Nick, David E. & Sons



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays, KS 67601

ATTN: Herb Deines

Raymond Trust #1

7-13s-20w Ellis,Ks

Start Date: 2013.10.10 @ 12:20:00

End Date: 2013.10.10 @ 20:06:00

Job Ticket #: 54448 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.10 @ 09:17:33

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays, KS 67601

ATTN: Herb Deines

7-13s-20w Ellis,Ks

Raymond Trust #1

Job Ticket: 54448 **DST#: 1**

Test Start: 2013.10.10 @ 12:20:00

GENERAL INFORMATION:

Formation: **Marmaton, Cong. SD**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:11:00
Time Test Ended: 20:06:00

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson/Tim
Unit No: 59

Interval: 3762.00 ft (KB) To 3853.00 ft (KB) (TVD)
Total Depth: 3890.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

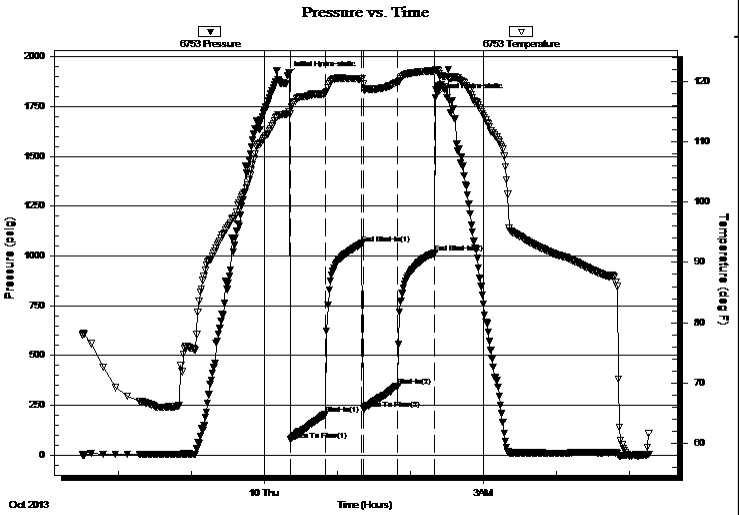
Reference Elevations: 2148.00 ft (KB)
2140.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6753 **Outside**

Press@RunDepth: 346.31 psig @ 3849.00 ft (KB)
Start Date: 2013.10.09 End Date: 2013.10.10
Start Time: 21:30:05 End Time: 05:15:59

Capacity: 8000.00 psig
Last Calib.: 2013.10.10
Time On Btm: 2013.10.10 @ 00:19:00
Time Off Btm: 2013.10.10 @ 02:20:30

TEST COMMENT: IFP-30-BOB in 4 min.
ISI-30-Blow back built to 4 in. in 18 min died back
FF-30-BOB in 3 min
FSI-30-Built to 2 in. in 12 min died back to 1 in.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.78	114.59	Initial Hydro-static
2	76.37	114.68	Open To Flow (1)
31	206.61	118.02	Shut-In(1)
61	1062.11	120.39	End Shut-In(1)
62	232.81	119.54	Open To Flow (2)
91	346.31	119.77	Shut-In(2)
121	1015.73	121.60	End Shut-In(2)
122	1793.95	121.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
370.00	GO 20%G 80%O	5.19
560.00	GMCO 20%G 20%M 60%O	7.86
0.00	120ft GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays, KS 67601

ATTN: Herb Deines

7-13s-20w Ellis,Ks

Raymond Trust #1

Job Ticket: 54448 **DST#: 1**

Test Start: 2013.10.10 @ 12:20:00

GENERAL INFORMATION:

Formation: **Marmaton, Cong. SD**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:11:00
Time Test Ended: 20:06:00

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson/Tim
Unit No: 59

Interval: 3762.00 ft (KB) To 3853.00 ft (KB) (TVD)
Total Depth: 3890.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

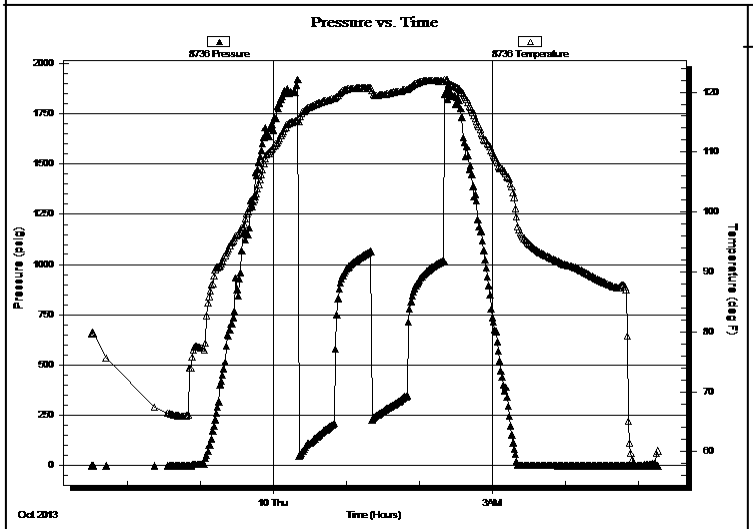
Reference Elevations: 2148.00 ft (KB)
2140.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8736 **Inside**

Press@RunDepth: psig @ 3849.00 ft (KB)
Start Date: 2013.10.09 End Date: 2013.10.10
Start Time: 21:30:05 End Time: 05:15:59

Capacity: 8000.00 psig
Last Calib.: 2013.10.10
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-30-BOB in 4 min.
ISI-30-Blow back built to 4 in. in 18 min died back
FF-30-BOB in 3 min
FSI-30-Built to 2 in. in 12 min died back to 1 in.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
370.00	GO 20%G 80%O	5.19
560.00	GMCO 20%G 20%M 60%O	7.86
0.00	120ft GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays, KS 67601

ATTN: Herb Deines

7-13s-20w Ellis,Ks

Raymond Trust #1

Job Ticket: 54448 **DST#: 1**

Test Start: 2013.10.10 @ 12:20:00

GENERAL INFORMATION:

Formation: **Marmaton, Cong. SD**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:11:00
Time Test Ended: 20:06:00

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson/Tim
Unit No: 59

Interval: 3762.00 ft (KB) To 3853.00 ft (KB) (TVD)
Total Depth: 3890.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

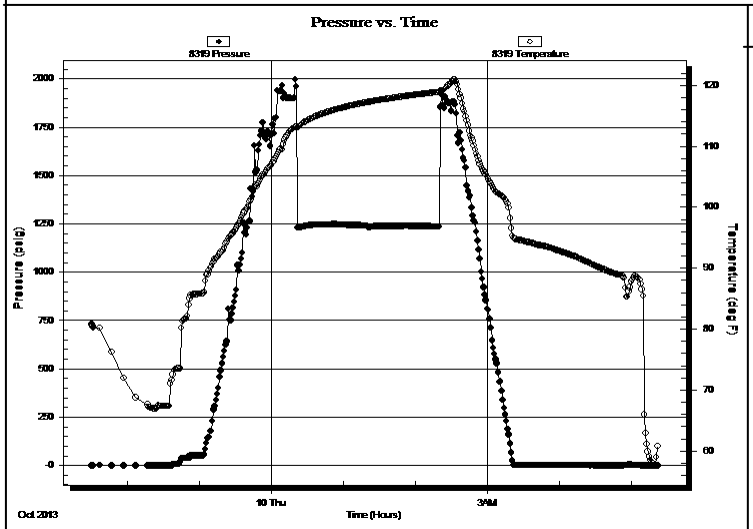
Reference Elevations: 2148.00 ft (KB)
2140.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8319 **Below (Straddle)**

Press@RunDepth: psig @ 3858.00 ft (KB)
Start Date: 2013.10.09 End Date: 2013.10.10
Start Time: 21:30:05 End Time: 05:21:59

Capacity: 8000.00 psig
Last Calib.: 2013.10.10
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-30-BOB in 4 min.
ISI-30-Blow back built to 4 in. in 18 min died back
FF-30-BOB in 3 min
FSI-30-Built to 2 in. in 12 min died back to 1 in.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
370.00	GO 20%G 80%O	5.19
560.00	GMCO 20%G 20%M 60%O	7.86
0.00	120ft GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc

1310 Bison Rd
Hays, KS 67601

ATTN: Herb Deines

7-13s-20w Ellis,Ks

Raymond Trust #1

Job Ticket: 54448 **DST#: 1**

Test Start: 2013.10.10 @ 12:20:00

Tool Information

Drill Pipe:	Length:	3753.00 ft	Diameter:	3.80 inches	Volume:	52.64 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	52.64 bbl	

Drill Pipe Above KB:	11.00 ft
Depth to Top Packer:	3762.00 ft
Depth to Bottom Packer:	3853.00 ft
Interval between Packers:	91.00 ft
Tool Length:	242.00 ft
Number of Packers:	3 Diameter: 6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	45000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	38000.00 lb
Final	41000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3743.00		
Shut In Tool	5.00			3748.00		
Hydraulic tool	5.00			3753.00		
Packer	4.00			3757.00	20.00	Bottom Of Top Packer
Packer	5.00			3762.00		
Stubb	1.00			3763.00		
Perforations	2.00			3765.00		
change Over Sub	1.00			3766.00		
Drill Pipe	63.00			3829.00		
Change Over Sub	1.00			3830.00		
Perforations	19.00			3849.00		
Recorder	0.00	8736	Inside	3849.00		
Recorder	0.00	6753	Outside	3849.00		
Blank Off Sub	4.00			3853.00	91.00	Tool Interval
Packer	4.00			3857.00		
Stubb	1.00			3858.00		
Recorder	0.00	8319	Below	3858.00		
perforations	1.00			3859.00		
Change Over Sub	1.00			3860.00		
Drill Pipe	124.00			3984.00	131.00	Bottom Packers & Anchor
Total Tool Length:	**242.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

1310 Bison Rd
Hays, KS 67601

ATTN: Herb Deines

7-13s-20w Ellis,Ks

Raymond Trust #1

Job Ticket: 54448 **DST#: 1**

Test Start: 2013.10.10 @ 12:20:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	37 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1600.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
370.00	GO 20%G 80%O	5.190
560.00	GMCO 20%G 20%M 60%O	7.855
0.00	120ft GIP	0.000

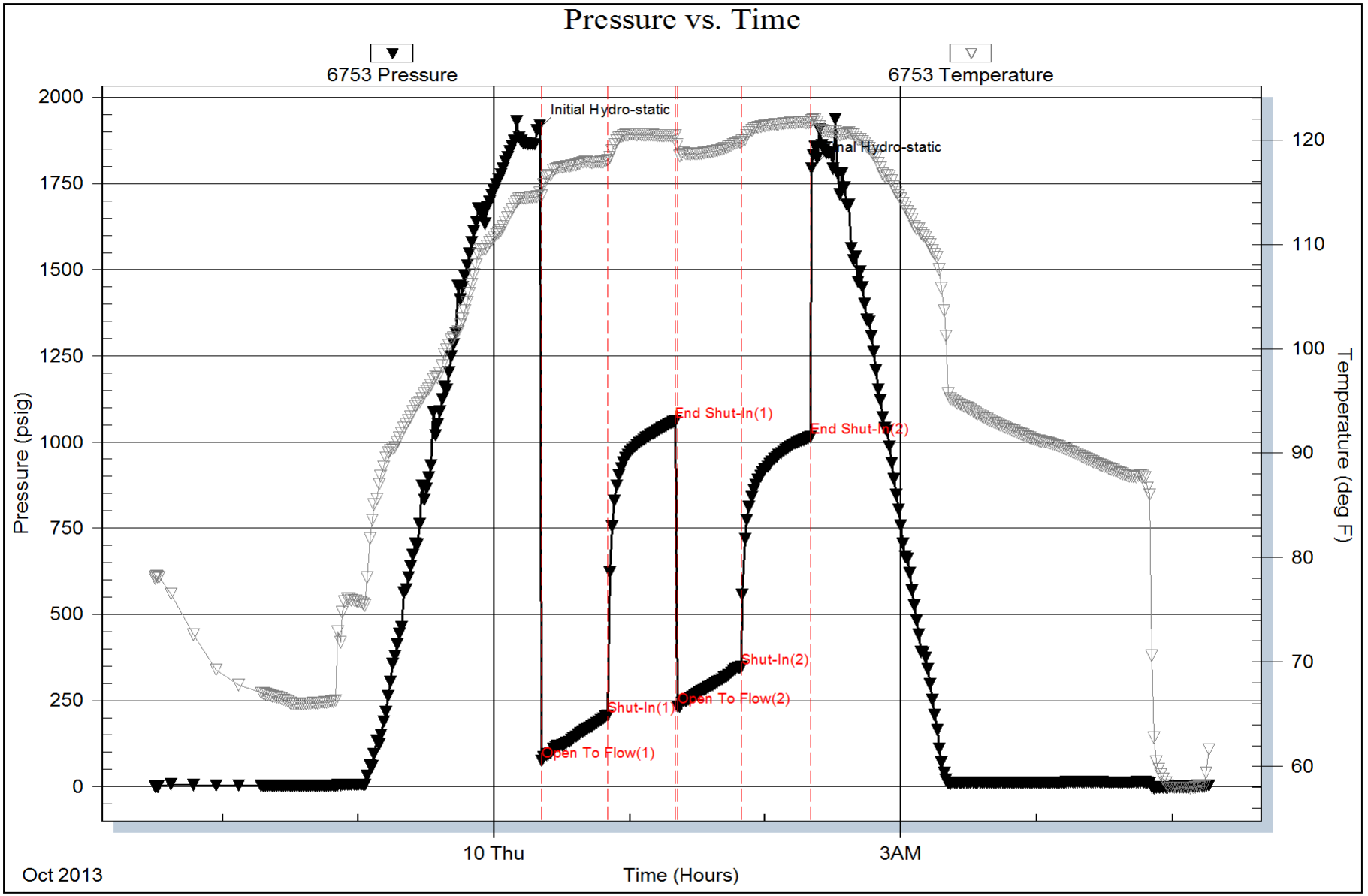
Total Length: 930.00 ft Total Volume: 13.045 bbl

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

Laboratory Name: Laboratory Location:

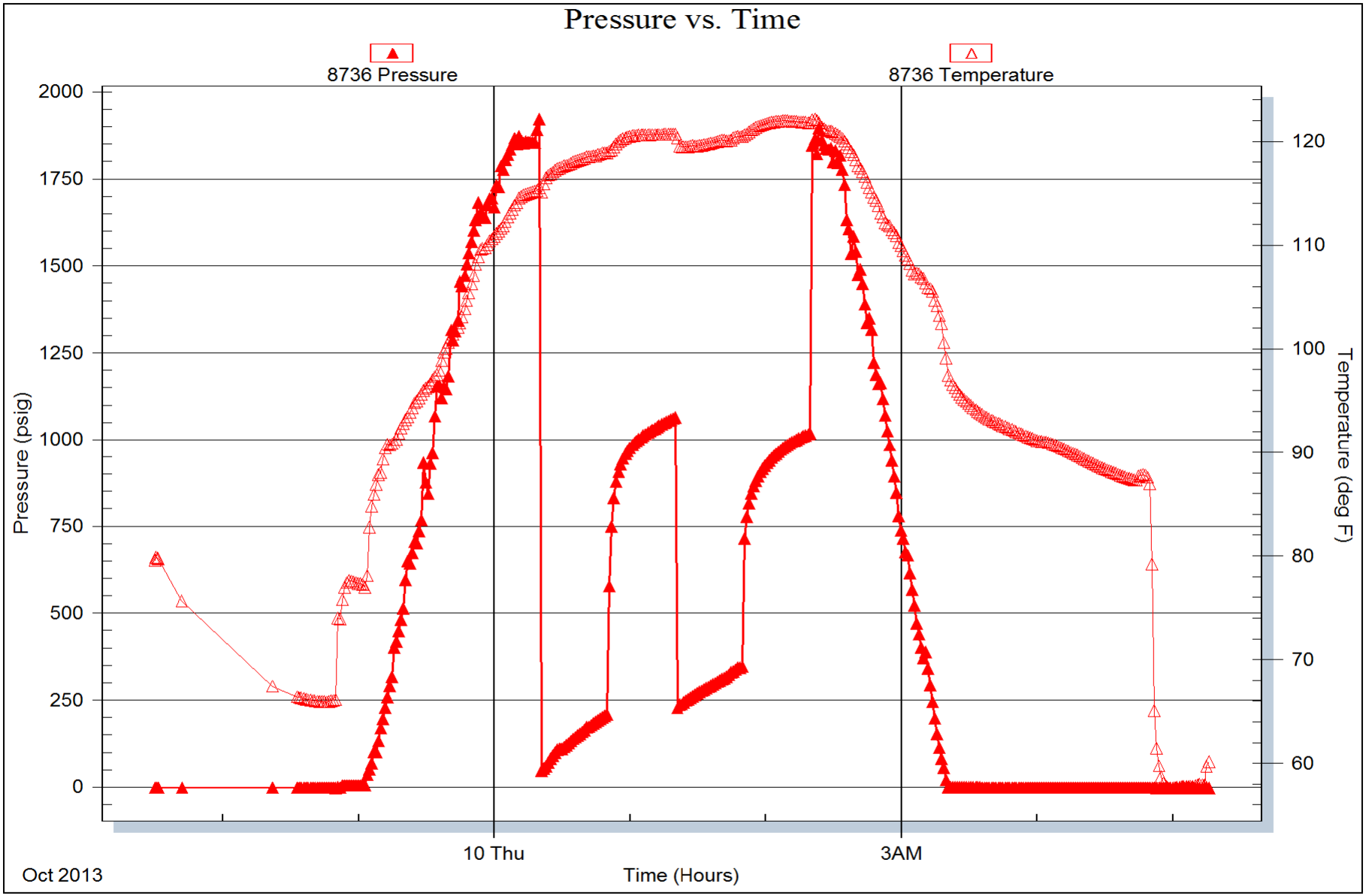
Recovery Comments:

Serial #: 6753 **Outside** TDI Inc Raymond Trust #1 DST Test Number: 1



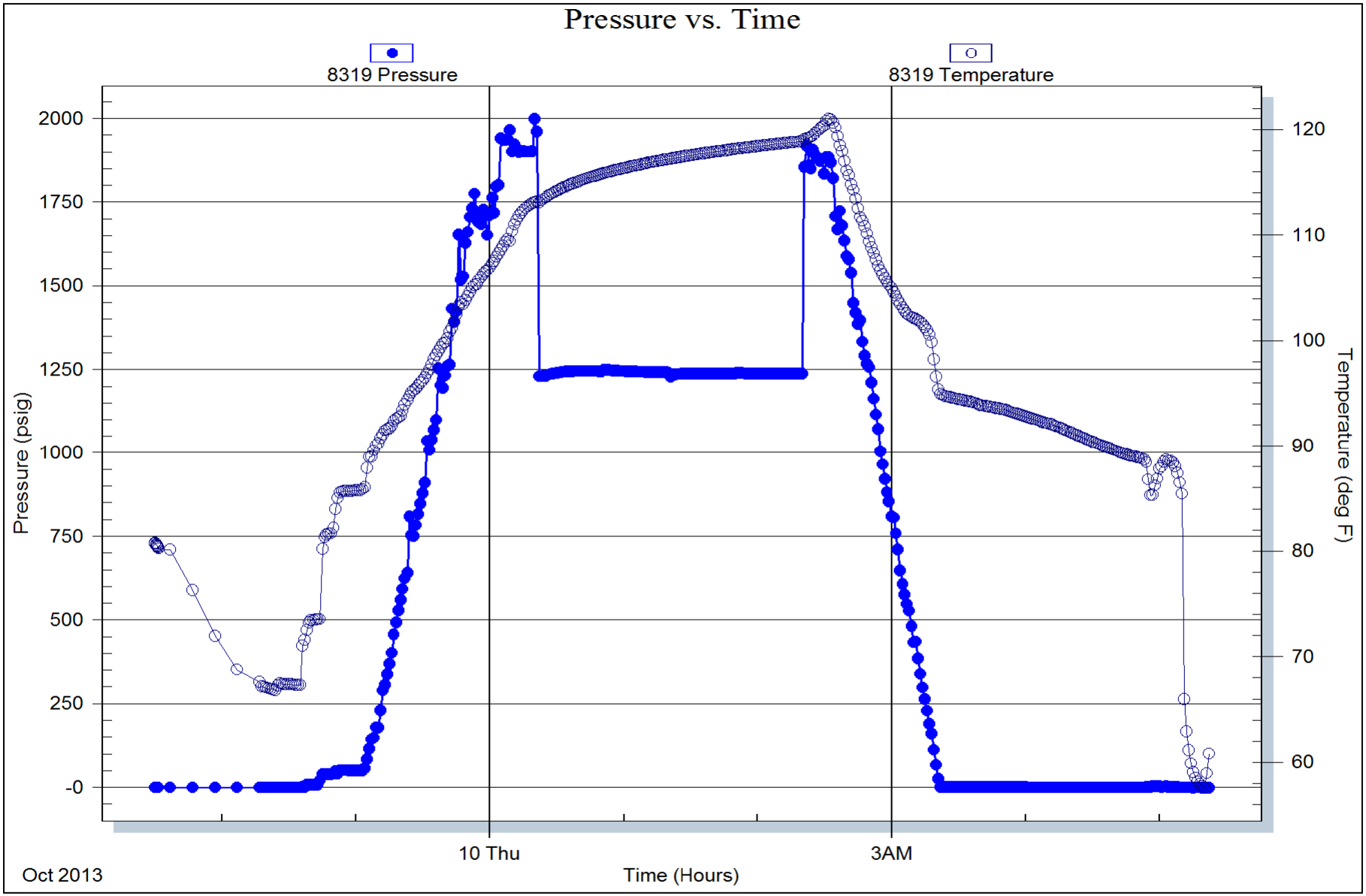
Trilobite Testing, Inc Ref. No: 54448 Printed: 2013.10.10 @ 09:17:34

Serial #: 8736 **Inside** TDI Inc Raymond Trust #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 54448 Printed: 2013.10.10 @ 09:17:34

Serial #: 8319 Below (Straddle) Raymond Trust #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 54448 Printed: 2013.10.10 @ 09:17:35

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 54448

Well Name & No. Raymond Trust # 1 Test No. 1 Date 10/09/2013

Company TDI Inc Elevation 2148 KB 2140 GL

Address 1310 Bison Rd Hays KS 67601

Co. Rep / Geo. Herb Deines Rig Southwind #1

Location: Sec. 7 Twp. 13 S Rge. 20 W Co. Ellis State KS

Interval Tested 3762 - 3853 Zone Tested Marmoton & Conglomerate

Anchor Length 91' Drill Pipe Run 3753 Mud Wt. 9.2

Top Packer Depth 3757, 3762 Drill Collars Run 0 Vis 52

Bottom Packer Depth 3853 Wt. Pipe Run 0 WL 6.0

Total Depth 3890 Chlorides 1600 ppm System LCM 2#

Blow Description IFP - 30 - BOB in 4 min

ISI - 30 - Blowback built to 4 in. in 18 min Died back

FF - 30 - BOB in 3 min

FSI - 30 - Built to 2 in. in 12 min Died back

Rec 370	Feet of GO ~~20%G~~	20 %gas	80 %oil	%water	%mud	
Rec 560	Feet of GMCO	20 %gas	60 %oil	%water	20 %mud	
Rec 0	Feet of 120 ft GIP	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 930 BHT 122 Gravity 37 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1904	☑ Test 1150	T-On Location 2028	
(B) First Initial Flow 76	☐ Jars	T-Started 2130	
(C) First Final Flow 206	☐ Safety Joint	T-Open 0020	
(D) Initial Shut-In 1062	☐ Circ Sub	T-Pulled 0220	
(E) Second Initial Flow 232	☐ Hourly Standby	T-Out 0516	
(F) Second Final Flow 346	☑ Mileage 40 R/T 62	Comments	
(G) Final Shut-In 1015	☐ Sampler		
(H) Final Hydrostatic 1794	☑ Straddle 600	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0	
Final Flow 30	☐ Day Standby	Total 1812	
Final Shut-In 30	☐ Accessibility	MP/DST Disc't	
	Sub Total 1812		

Approved By Our Representative Brad Sims / Dan Phillips