

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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
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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				

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top _____ Bottom _____
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Summary of Changes

Lease Name and Number: Desmarteau 1

API/Permit #: 15-051-26808-00-00

Doc ID: 1314813

Correction Number: 1

Approved By: Karen Ritter

Field Name	Previous Value	New Value
Approved By	NAOMI JAMES	Karen Ritter
Approved Date	02/10/2016	08/30/2016
CasingNumbSacksUse dPDF_2	50	150
Completion Or Recompletion Date	11/10/2015	8/10/2016
Date of First or Resumed Production or SWD or Enhr Perf_Material_2		8/25/2016 1250 gals. 15%
Perf_Material_3		1250 gal. 15%
Perf_Material_4		250 gal. 20%
Perf_Record_1	None	3438'-3442'
Perf_Record_2		3444'-3446'

Summary of changes for correction 1 continued

Field Name	Previous Value	New Value
Perf_Record_3		3454'-3460'
Perf_Record_4		3576'-3580'
Perf_Shots_1		4
Perf_Shots_2		4
Perf_Shots_3		4
Perf_Shots_4		4
Producing Formation	NA	Lansing/Kansas City
Producing Method Pumping	No	Yes
Production Interval #1		Lansing/Kansas City
Purchaser's Name		CVR Refining, LP
Save Link	../../../../kcc/detail/operatorEditDetail.cfm?docID=1283897	../../../../kcc/detail/operatorEditDetail.cfm?docID=1314813
Tubing Set At		3710'
Tubing Size		2.875



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1283897
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL 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: _____

OPERATOR

Company: TDI, INC.
 Address: 1310 BISON ROAD
 HAYS, KANSAS 67601-9696

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: DESMARTEAU # 1
 Location: NE SW SE SW Sec.31-T11S-R18W
 API: 15-051-26,808-00-00
 Pool: WILDCAT
 State: KANSAS
 Field:
 Country: USA



Scale 1:240 Imperial

Well Name: DESMARTEAU # 1
 Surface Location: NE SW SE SW Sec.31-T11S-R18W
 Bottom Location:
 API: 15-051-26,808-00-00
 License Number: 4787
 Spud Date: 11/4/2015 Time: 7:00 PM
 Region: ELLIS COUNTY
 Drilling Completed: 11/10/2015 Time: 2:19 AM
 Surface Coordinates: 400' FSL & 1800' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 2114.00ft
 K.B. Elevation: 2124.00ft
 Logged Interval: 3050.00ft To: 3775.00ft
 Total Depth: 3775.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.364007
 Latitude: 39.0460112
 N/S Co-ord: 400' FSL
 E/W Co-ord: 1800' FWL

LOGGED BY

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: 11/4/2015 Time: 7:00 PM
 TD Date: 11/10/2015 Time: 2:19 AM

ELEVATIONS

K.B. Elevation: 2124.00ft
K.B. to Ground: 10.00ft

Ground Elevation: 2114.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON POSITIVE RESULTS OF DSTS AND LOG ANALYSIS.

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

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

	DESMARTEAU # 1	HARMAN # 1
	NE SW SE SW	NW NW NW
	SEC.31-11S-18W	SEC.6-12-18W
	2124'KB	KB 2076'
<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite-top	1458 +666	+662
Anhydrite-base	1492 +632	+625
Topeka	3136-1012	-1014
Heebner Shale	3361-1237	-1242
Toronto	3382-1258	-1262
LKC	3403-1279	-1284
BKC	3636-1512	-1516
Arbuckle	3684-1560	-1584
RTD	3775-1651	-1622

SUMMARY OF DAILY ACTIVITY

11-04-15 Spud 7:00 PM, set 8 5/8" surface casing to 215.44' w/150 sxs
Common 2% Gel 3%CC, slope 1/2 degree

11-05-15 217', plug down 2:00 AM, WOC 8 hrs, drill plug 10:00AM

11-06-15 2030', drilling

11-07-15 2995', drilling, displace, CFS 3400', short trip

11-08-15 3455', CFS 3455', DST # 1 3360' – 3455' Tor-"C" LKC, CFS 3475',
DST # 2 "D" LKC

11-09-15 3610', CFS 3615', DST #3 3554'-3615' "I" – "K" LKC, drilling

11-10-15 3775', RTD 3775' @2:19AM, CCH, TOWB, slope 1 degree, logs,
TIWB, LDDP, run production casing and cement, RD



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

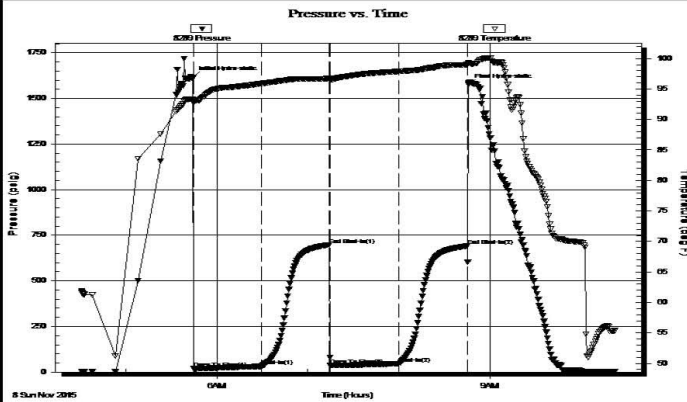
31 11s 18w Ellis
Desmarteau # 1
Job Ticket: 61669 **DST#: 1**
Test Start: 2015.11.08 @ 04:31:00

GENERAL INFORMATION:

Formation: **Toronto - LKC " A- C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:44:30
Time Test Ended: 10:22:00
Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 76
Interval: **3360.00 ft (KB) To 3455.00 ft (KB) (TVD)**
Total Depth: 3455.00 ft (KB) (TVD)
Reference Elevations: 2124.00 ft (KB)
2119.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair
KB to GR/CF: 5.00 ft

Serial #: 8289 Outside
Press@RunDepth: 46.19 psig @ 3364.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.08 End Date: 2015.11.08 Last Calib.: 2015.11.08
Start Time: 04:31:02 End Time: 10:22:00 Time On Btm: 2015.11.08 @ 05:44:15
Time Off Btm: 2015.11.08 @ 08:45:45

TEST COMMENT: 45-IF- Surface Blow Building to 1 1/4in. In 6min.
45-ISI- No Blow
45-FF- 2 1/4in. Blow in 1min. Died Back in 5min.
45-FSI- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.65	93.36	Initial Hydro-static
1	18.58	92.76	Open To Flow (1)
46	31.41	95.90	Shut-In(1)
90	698.06	96.71	End Shut-In(1)
91	36.68	96.47	Open To Flow (2)
136	46.19	97.91	Shut-In(2)
181	691.73	98.98	End Shut-In(2)
182	1574.83	99.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbt)
67.00	OCM 30%o 70% m	0.94
0.00	120 GIP	0.00

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: Herb Dienes

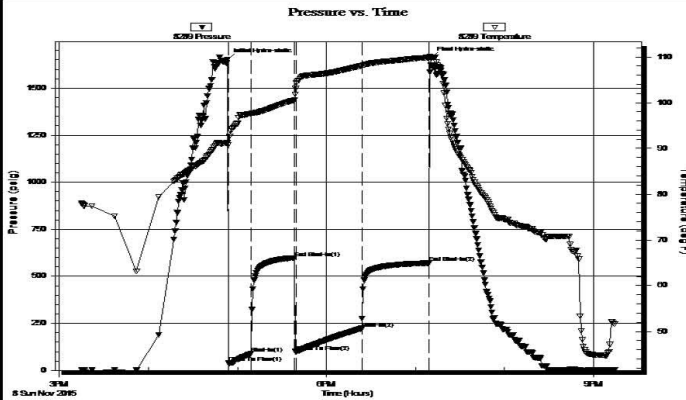
31 11s 18w Ellis
Desmarteau # 1
Job Ticket: 61670 **DST#: 2**
Test Start: 2015.11.08 @ 15:15:00

GENERAL INFORMATION:

Formation: **LKC " D "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:54:00
Time Test Ended: 21:14:00
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76
Interval: **3450.00 ft (KB) To 3475.00 ft (KB) (TVD)**
Reference Elevations: 2124.00 ft (KB)
Total Depth: 3475.00 ft (KB) (TVD) 2119.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8289 Outside
Press@RunDepth: 223.35 psig @ 3452.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.08 End Date: 2015.11.08 Last Calib.: 2015.11.08
Start Time: 15:15:02 End Time: 21:14:15 Time On Btm: 2015.11.08 @ 16:53:30
Time Off Btm: 2015.11.08 @ 19:10:15

TEST COMMENT: 15-IF- BOB in 2min.
30-ISI- Weak Surface Blow
45-FF- BOB in 6min.
45-FSI- Surface Blow Building to 6 1/4in. In 16min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1653.50	91.20	Initial Hydro-static
1	38.75	90.79	Open To Flow (1)
16	89.14	97.59	Shut-In(1)
45	598.12	100.56	End Shut-In(1)
46	98.68	103.07	Open To Flow (2)
91	223.35	108.05	Shut-In(2)
136	570.47	109.84	End Shut-In(2)
137	1659.67	109.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
137.00	Oil Speck MCW 5% m 95% w	1.92
113.00	GWMCO 15% w 15% m 30% g 40% o	1.59
250.00	CO 100%	3.51
0.00	935 GIP	0.00

* Recovery from multiple tests

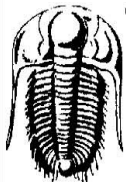
Gas Rates

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

Trilobite Testing, Inc

Ref. No: 61670

Printed: 2015.11.08 @ 22:47:30



TRILOBITE TESTING, INC.

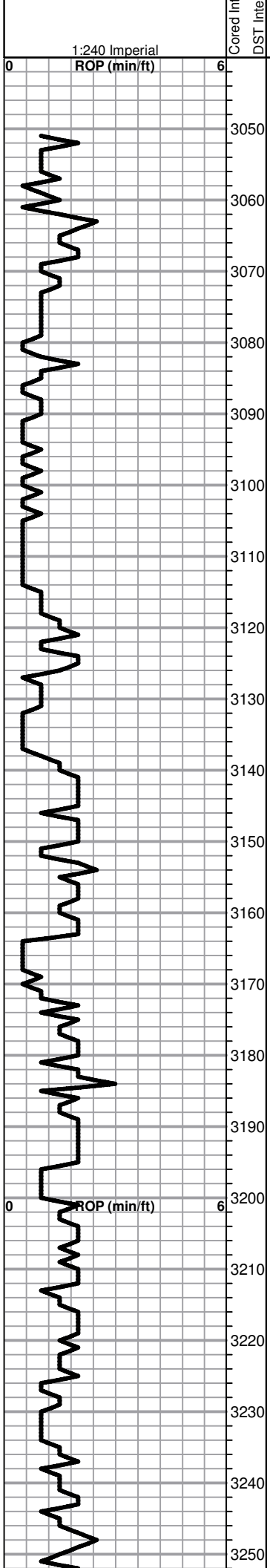
DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

31 11s 18w Ellis
Desmarteau # 1
Job Ticket: 61671 **DST#: 3**
Test Start: 2015.11.09 @ 11:02:00

GENERAL INFORMATION:

Formation: **LKC " I - K "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:44:15
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty



BEGIN 1' DRILL TIME FROM 3050' TO RTD
 BEGIN 10' WET AND DRY SAMPLES FROM 3100' TO RTD

1:240 Imperial
 8 5/8" SURFACE CASING SET TO 215.44' W/ 150 SXS
 COMMON 2%GEL 3%CC
 SLOPE 1/2 DEGREE @217'

ANHYDRITE TOP 1458+666
ANHYDRITE BASE 1492+632

Lime, lt-med grayish brn, fnxln, fossiliferous

Shale, lt-med gray, soft-firm blocky

Shale, lt gray, soft sticky
 Lime, med brn, fnxln, soft on crush

Shale, lt gray, soft mud to soft sticky clumps

Lime, crm, fnxln with soft chalk

Shale, med gray, firm blocky, calcareous in part

TOPEKA SPL 3137-1013 ELog 3136-1012

Lime, med brn-med grayish brn, fn-micro xln

Lime, lt brn-lt grayish brn, fn-micro xln

Lime, lt brn-lt grayish brn, fnxln

① Lime, tan, granular, fine grained, NS, No Odor, Scattered fine pinpoint vugs with spotty staining.

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

Lime, lt brn-lt gray, fn-vfxln, slightly fossiliferous, slight bedded chalk

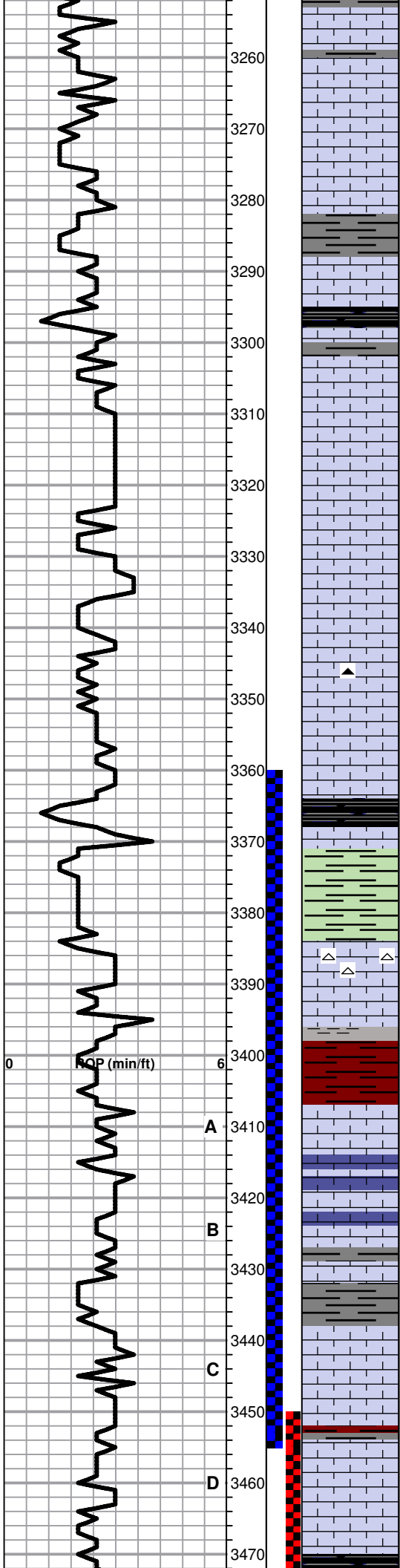
Lime, lt gray-lt brn, fnxln-granular with bedded chalk, slightly fossiliferous

Lime, lt gray, fnxln-granular in part with increasing bedded chalk content

Lime, lt grayish brn, fnxln-granular, slightly fossiliferous, lt bedded chalk in chalky matrix

Lime, tan-lt brn, granular with bedded chalk with sticky clumping in part

Shale, black carbonaceous, fissile, blocky
 Lime, tan-lt brn, fn-vfxln



Lime, crm, fn-vfxln, sub lithographic

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

Lime, crm-lt brn, fnxln

Shale, lt gray, soft mud

Shale, black carbonaceous, fissile, blocky

○ Lime, lt brn, fnxln, granular in part with scattered pinpoint vugs and fossil casts with lt fresh oil staining, no detectable odor, NFO

Lime, crm, vfxln-micro, slightly fossiliferous

○ Lime, lt-med brn, fn-vfxln with thin oolitic zone with spotty staining and lt odor, NFO

Lime, crm-tan, fnxln

▲ Lime, gray, fnxln, shaley, trashy

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

HEEBNER SHALE SPL 3364-1240 ELog 3361-1237
 Shale, black carbonaceous, fissile, blocky
 Lime, crm-lt brn, fn-vfxln

Shale, lime green, soft sticky

○ **TORONTO SPL 3384-1260 ELog 3382-1258**
 Lime, white-crm, fn-micro xln with white fresh chert, few chips with specks of staining in oolite casts, NFO, no odor

Lime, lt brn, fn-micro xln

Shale, red wash, soft mud

LKC SPL 3407-1283 ELog 3403-1279

A Lime, white, fn-vfxln, NS, No staining

B Lime, tan-lt gray, fnxln, NS

C Lime, lt brn-med gray, fnxln, trashy mix with gray shale

Shale, med gray, soft blocky, calcareous in part

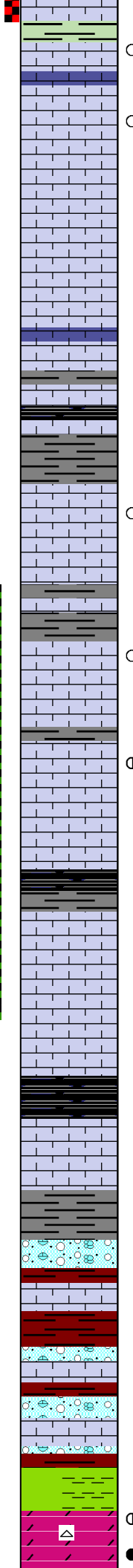
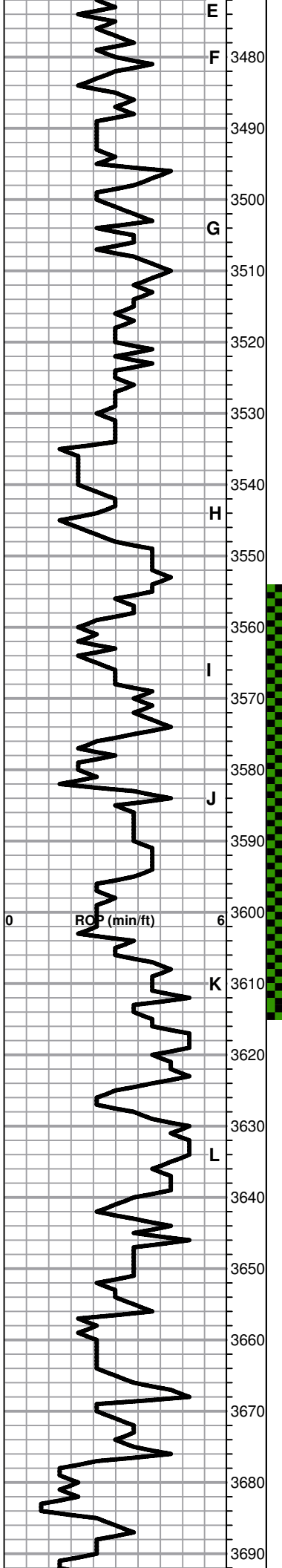
○ Lime, tan, fn-micro xln with thin oolitic-oomoldic zone, spotty stain, very lt odor, NFO

○ Lime, crm, fn-vfxln with oolitic zone, interoolitic porosity, lt odor, scat-sat staining, NFO

D Shale, gray-black carbonaceous

DST # 1 3360' TO 3455' SEE
 HEADER FOR TEST
 SUMMARY

DST # 2 3450' TO 3475' SEE
 HEADER FOR TEST
 SUMMARY



Lime, med brn-med gray, fn-vfxln

3480 ○ Lime, tan, fnxln with thin zone of fine, granular with interxln porosity. Lt spotty staining, NFO, No Odor, chalky white wash in part

3490 ○ Lime, white, oolitic-oomoldic with interoolitic porosity, spotty fresh oil staining, NFO, No odor

3500 Lime, crm-tan, mostly vfxln, lt white chalky wash

3510 Lime, crm, fn-vfxln, sublithographic

3520 Lime, crm-lt brn, fn-micro xln

3530 Shale, gray-black carbonaceous
Lime, lt brn with lt gray tinting, fnxln

3540 Shale, dove gray, soft mud

3550 ○ Lime, crm, fnxln-granular, few chips with lt specks of staining, NFO, No odor

3560 Lime, white-crm, fn-micro xln

3570 Shale, lt gray with green tinting, firm blocky, calcareous in part

3580 ○ Lime, tan-lt brn, fnxln-granular with oolites and fossil fragments, lt spotty staining, NFO, No odor

3590 Lime, white-crm, fn-micro xln

3600 ○ Lime, tan, oolitic-oolmoldic, scattered to saturated staining in small chips, lt odor, SFO on crush

3610 Lime, crm-offwhite, fn-vfxln

3620 Shale, black carbonaceous, fissile, blocky

3630 Lime, crm-offwhite, fnxln, NS

3640 Lime, crm-offwhite, fn-micro xln

3650 Lime, white-offwhite, fn-micro xln

3660 Shale, black carbonaceous, fissile, blocky

3670 Lime, offwhite-crm, fn-micro xln, slightly chalky

BKC SPL 3639-1515 ELog 3636-1512

3680 Shale, lt gray, sticky clumping

3690 Lime, clastic mix, fn-vfxln

Shale, deep red wash, soft mud

Lime, crm-brn, fnxln with clastic content, slight bedded chalk in part

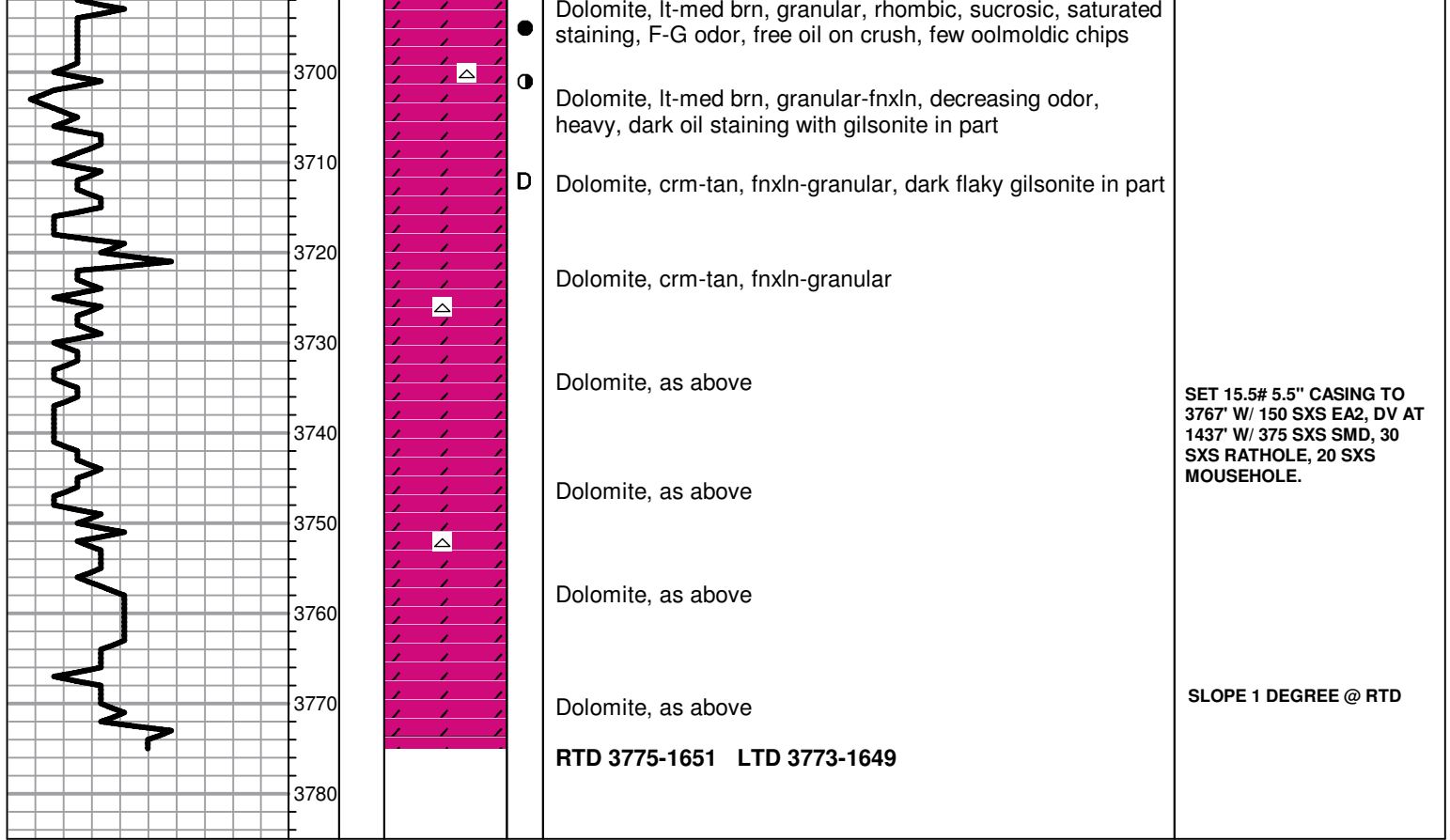
Lime, as above

Shale, blue green, waxy, blocky

ARBUCKLE SPL 3684-1560 ELog 3684-1560

○ Dolomite, tan-lt brn, fnxln-granular, sucrosic in part, lt odor, dark, saturated staining, some bleeding chips with SO

DST # 3 3554' TO 3615' SEE
HEADER FOR TEST
SUMMARY



GLOBAL CEMENTING, L.L.C.

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT: Russell KS

DATE <u>11-5-15</u>	SEC. <u>31</u>	TWP. <u>11</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Desmartheau #1</u>	WELL # <u>#1</u>	LOCATION <u>Hays KS 7N BUCKEY RD W-TO 230 RD</u>	COUNTY <u>ELLIS</u>	STATE <u>KANSAS</u>			
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)		<u>Desmartheau 3N</u>		<u>1/2 W 49N INTO</u>			

CONTRACTOR SOUTHWIND DRILL RIG #

TYPE OF JOB Cement Surface

HOLE SIZE 12 1/4 T.D. 218

CASING SIZE 8 5/8 DEPTH 215'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS

DISPLACEMENT 12 3/4 BBL

EQUIPMENT

OWNER

CEMENT AMOUNT ORDERED 150 sx Com

2% GEL

3% CC

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE 40

TOTAL

PUMP TRUCK # P-2 CEMENTER HELPER Heath L. Glenn G.

BULK TRUCK # B-5 DRIVER Jason M.

BULK TRUCK DRIVER

REMARKS:

Set 8 5/8 @ 215'

Recurve circ.

Cement w/ 150sx Com 342

Displace 12 3/4 BBL

SHUT IN @ 250 FT.

Cement Circ.

THANK'S

CHARGE TO: T.D.I. INC

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

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

PRINTED NAME LARRY BEAUVENS

SIGNATURE Larry Beauvens

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

JOB LOG

SWIFT Services, Inc.

DATE 11-10-15 PAGE NO. 1

CUSTOMER TDZ WELL NO. #1 LEASE DESMARTEAU JOB TYPE 5 1/2" 2-STAGE LONGSTRING TICKET NO. 28600

CHART NO.	TIME	RATE (BPM)	VOLUME (BBB) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1600							ON LOCATION
	1615							START 5 1/2" CASING IN WELL
								TD-3773 SET = 3767
								TP-3767 5 1/2" #14
								ST-44'
								CENTRALIZERS - 1, 3, 5, 6, 8, 10, 12, 14, 16, 53
								CMT BSKTS - 2, 11, 54
								DV TOOL - 1437 TOP JF # 54
	1745							DROP BALL - CIRCULATE ROTATE
	1850	6	12		✓	350		PUMP 500 GAL MVDFLUSH
	1852	6	20		✓	350		PUMP 20 BBB KCL - FLUSH
	1858	4	36		✓	200		MIX CEMENT - 150 SKS EA-2 = 15.4 PPG
	1907							WASH OUT PUMP - LINES
	1907							RELEASE 1ST STAGE LATCH DOWN PLUG
	1910	6 1/2	0		✓			DISPLACE PLUG
	1923	5 1/2	90.8			1500		PLUG DOWN - PSE UP LATCH IN PLUG
	1925							OK RELEASE PSE - HELD
	1928							DROP DV OPENING PLUG
	1940				✓	1300		OPEN DV - CIRCULATE
	1940	6	20		✓	350		PUMP 20 BBB KCL FLUSH
	1945		7-5					PLUG RH (30 SKS) MH (20 SKS)
	1950	6 1/2	97		✓	350		MIX CEMENT - 175 SKS SMD = 11.2 PPG
	2008							WASH OUT PUMP - LINES
	2008							RELEASE DV CLOSING PLUG
	2010	6 1/2	0		✓			DISPLACE PLUG
	2015	5	35.1			1500		PLUG DOWN - PSE UP CLOSE DV TOOL
	2020							OK RELEASE PSE - HELD
								CIRCULATED 20 SKS CEMENT TO PSE
								WASH TRUCK
	2100							JOB COMPLETE

THANK YOU
WAYNE, AUSTIN, PRESTON



DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Dienes

Desmarteau #1

31-11s-18w Ellis,KS

Start Date: 2015.11.08 @ 04:31:00

End Date: 2015.11.08 @ 10:22:00

Job Ticket #: 61669 DST #: 1

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

Printed: 2015.11.10 @ 16:42:17



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

31-11s-18w Ellis,KS
Desmarteau #1
Job Ticket: 61669 **DST#: 1**
Test Start: 2015.11.08 @ 04:31:00

GENERAL INFORMATION:

Formation: **Toronto - LKC " C "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:44:30
 Time Test Ended: 10:22:00
 Interval: **3360.00 ft (KB) To 3455.00 ft (KB) (TVD)**
 Total Depth: 3455.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 2129.00 ft (KB)
 2119.00 ft (CF)
 KB to GR/CF: 10.00 ft

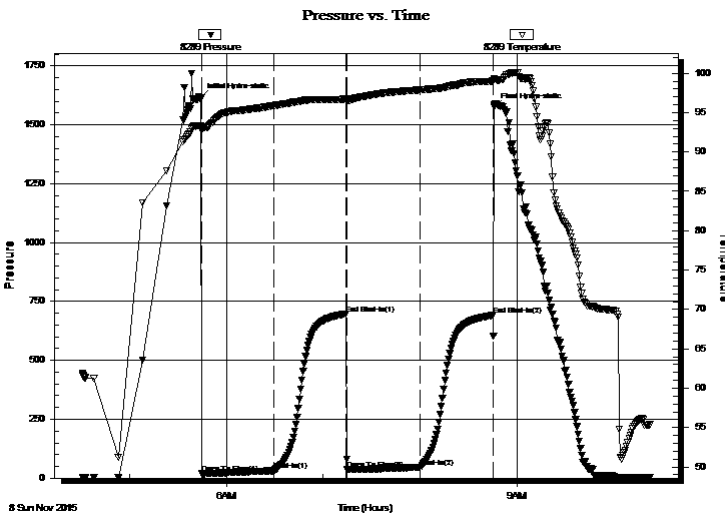
Serial #: 8289

Outside

Press@RunDepth: 46.19 psig @ 3364.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.11.08 End Date: 2015.11.08 Last Calib.: 2015.11.08
 Start Time: 04:31:02 End Time: 10:22:00 Time On Btm: 2015.11.08 @ 05:44:15
 Time Off Btm: 2015.11.08 @ 08:45:45

TEST COMMENT: 45-IF- Surface Blow Building to 1 1/4". In 6 min.
 45-ISI- No Blow
 45-FF- 2 1/4" Blow in 1 min. Died Back in 5 min.
 45-FSI- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.65	93.36	Initial Hydro-static
1	18.58	92.76	Open To Flow (1)
46	31.41	95.90	Shut-In(1)
90	698.06	96.71	End Shut-In(1)
91	36.68	96.47	Open To Flow (2)
136	46.19	97.91	Shut-In(2)
181	691.73	98.98	End Shut-In(2)
182	1574.83	99.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
67.00	OCM 30%o 70%m	0.94
0.00	120 GIP	0.00

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: Herb Dienes

31-11s-18w Ellis, KS
Desmarteau #1
 Job Ticket: 61669 **DST#: 1**
 Test Start: 2015.11.08 @ 04:31:00

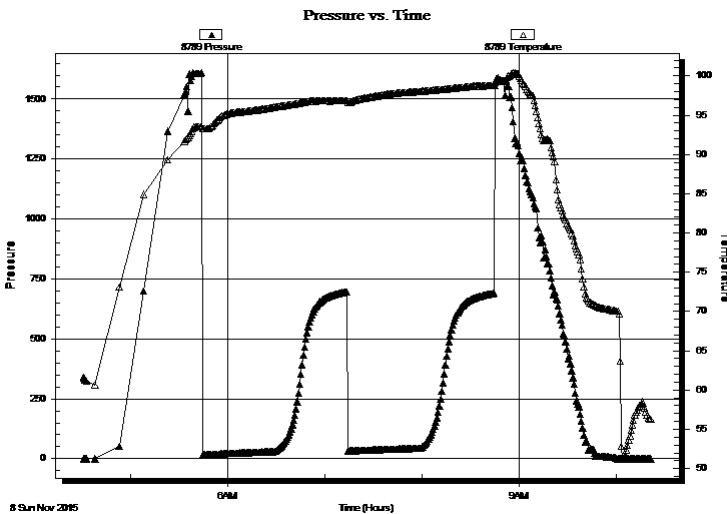
GENERAL INFORMATION:

Formation: **Toronto - LKC " C "**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 05:44:30 Tester: Jim Svaty
 Time Test Ended: 10:22:00 Unit No: 76
Interval: 3360.00 ft (KB) To 3455.00 ft (KB) (TVD) Reference Elevations: 2129.00 ft (KB)
 Total Depth: 3455.00 ft (KB) (TVD) 2119.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8789 Inside
 Press@RunDepth: psig @ 3364.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.11.08 End Date: 2015.11.08 Last Calib.: 2015.11.08
 Start Time: 04:31:02 End Time: 10:21:45 Time On Btm:
 Time Off Btm:

TEST COMMENT: 45-IF- Surface Blow Building to 1 1/4". In 6 min.
 45-ISI- No Blow
 45-FF- 2 1/4" Blow in 1 min. Died Back in 5 min.
 45-FSI- No Blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
67.00	OCM 30%o 70%m	0.94
0.00	120 GIP	0.00

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 Dienes

31-11s-18w Ellis,KS
Desmarteau #1
Job Ticket: 61669 **DST#: 1**
Test Start: 2015.11.08 @ 04:31:00

Tool Information

Drill Pipe:	Length: 3370.00 ft	Diameter: 3.80 inches	Volume: 47.27 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 47.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3360.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.00 ft			
Tool Length:	116.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			3340.00	
Shut In Tool	5.00			3345.00	
Hydraulic tool	5.00			3350.00	
Packer	5.00			3355.00	21.00 Bottom Of Top Packer
Packer	5.00			3360.00	
Stubb	1.00			3361.00	
Perforations	2.00			3363.00	
Change Over Sub	1.00			3364.00	
Recorder	0.00	8789	Inside	3364.00	
Recorder	0.00	8289	Outside	3364.00	
Blank Spacing	62.00			3426.00	
Change Over Sub	1.00			3427.00	
Perforations	25.00			3452.00	
Bullnose	3.00			3455.00	95.00 Bottom Packers & Anchor

Total Tool Length: 116.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **31-11s-18w Ellis,KS**
 1310 Bison Rd **Desmarteau #1**
 Hays KS 67601 Job Ticket: 61669 **DST#: 1**
 ATTN: Herb Dienes Test Start: 2015.11.08 @ 04:31:00

Mud and Cushion Information

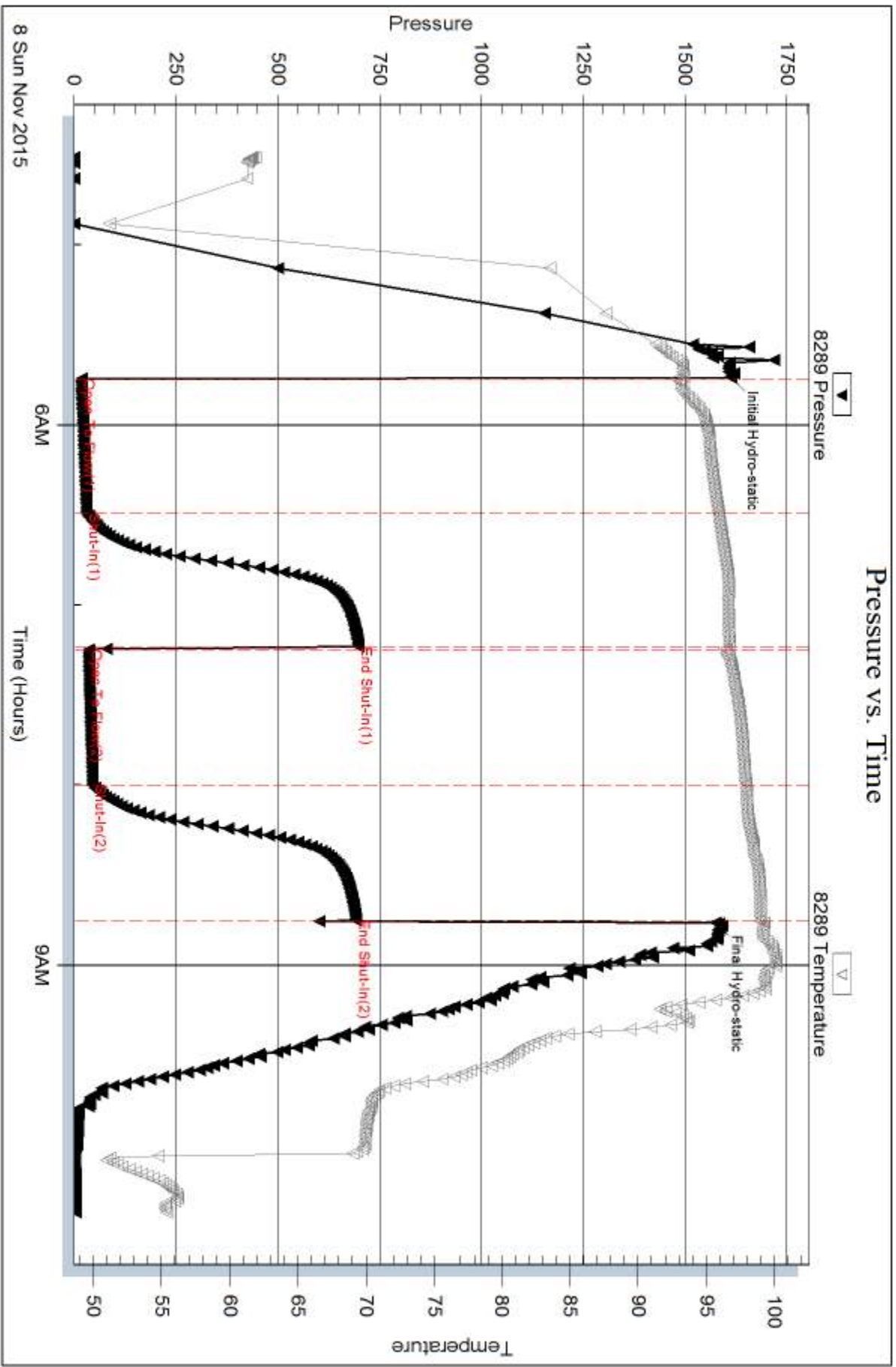
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 8.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
67.00	OCM 30%o 70%m	0.940
0.00	120 GIP	0.000

Total Length: 67.00 ft Total Volume: 0.940 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



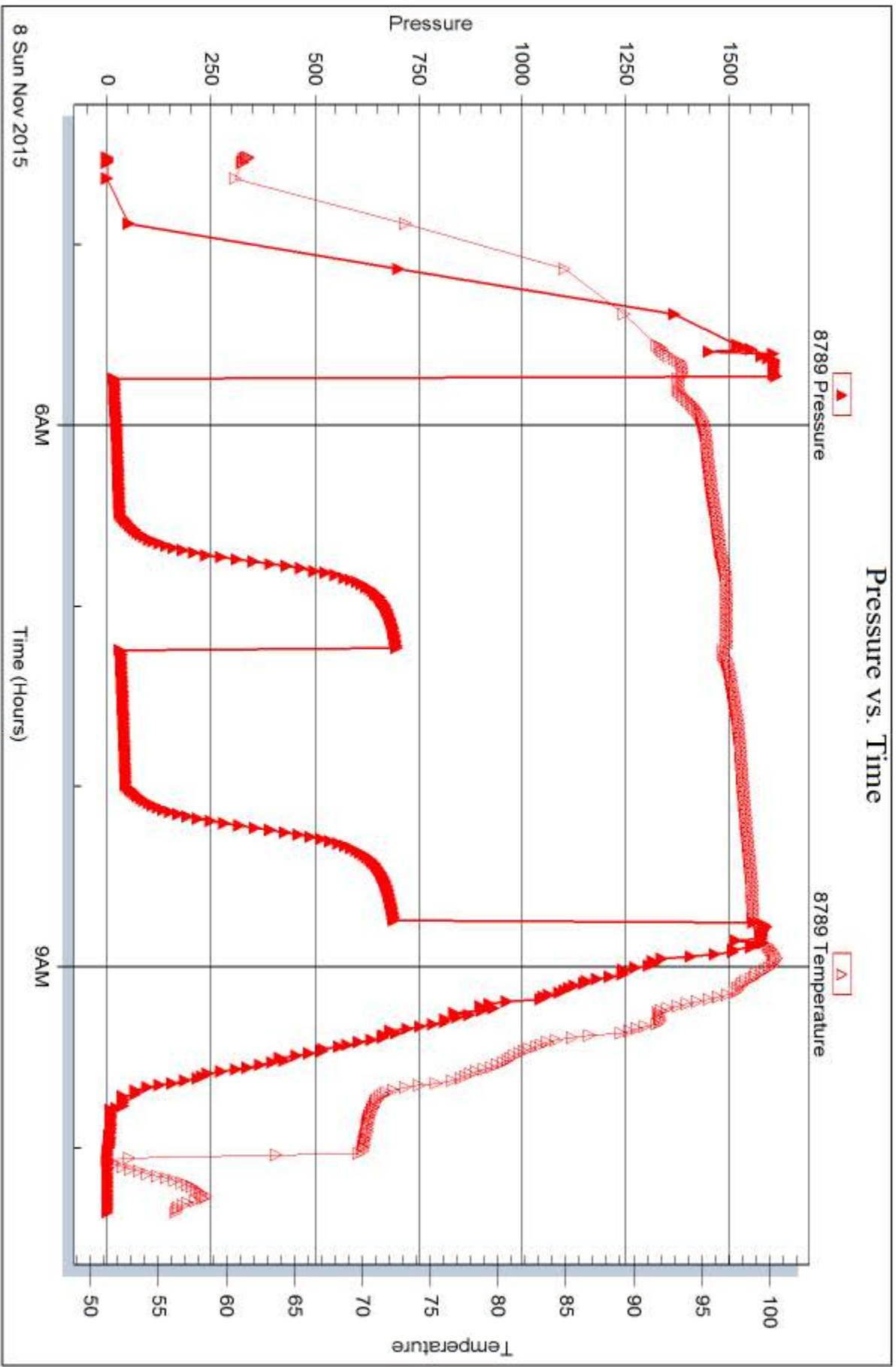
Serial #: 8789

Inside

TDI Inc.

Desmarneau #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Dienes

Desmarteau #1

31-11s-18w Ellis,KS

Start Date: 2015.11.08 @ 15:15:00

End Date: 2015.11.08 @ 21:14:00

Job Ticket #: 61670 DST #: 2

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

Printed: 2015.11.10 @ 16:41:59

TDI Inc.
31-11s-18w Ellis,KS
Desmarteau #1
DST # 2
LKC " D "
2015.11.08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

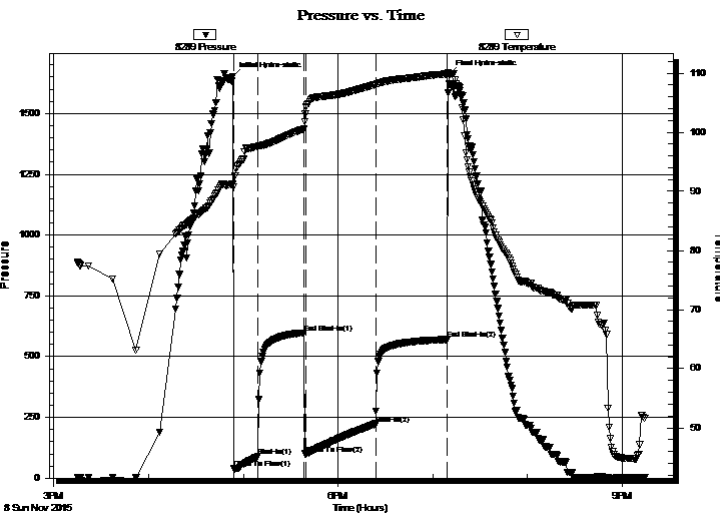
31-11s-18w Ellis,KS
Desmarteau #1
Job Ticket: 61670 **DST#: 2**
Test Start: 2015.11.08 @ 15:15:00

GENERAL INFORMATION:

Formation: **LKC " D "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:54:00
Time Test Ended: 21:14:00
Interval: **3450.00 ft (KB) To 3475.00 ft (KB) (TVD)**
Total Depth: 3475.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2129.00 ft (KB)
2119.00 ft (CF)
KB to GR/CF: 10.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76

Serial #: 8289 Outside
Press@RunDepth: 223.35 psig @ 3452.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.08 End Date: 2015.11.08 Last Calib.: 2015.11.08
Start Time: 15:15:02 End Time: 21:14:15 Time On Btm: 2015.11.08 @ 16:53:30
Time Off Btm: 2015.11.08 @ 19:10:15

TEST COMMENT: 15-IF- BOB in 2 min.
30-ISI- Weak Surface Blow
45-FF- BOB in 6 min.
45-FSI- Surface Blow Building to 6 1/4" in 16 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1653.50	91.20	Initial Hydro-static
1	38.75	90.79	Open To Flow (1)
16	89.14	97.59	Shut-In(1)
45	598.12	100.56	End Shut-In(1)
46	98.68	103.07	Open To Flow (2)
91	223.35	108.05	Shut-In(2)
136	570.47	109.84	End Shut-In(2)
137	1659.67	109.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
137.00	Oil Speck MCW 5% m 95% w	1.92
113.00	GWMCO 15% w 15% m 30% g 40% o	1.59
250.00	CO 100%	3.51
0.00	935 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

31-11s-18w Ellis,KS
Desmarteau #1
Job Ticket: 61670 **DST#: 2**
Test Start: 2015.11.08 @ 15:15:00

Tool Information

Drill Pipe:	Length: 3433.00 ft	Diameter: 3.80 inches	Volume: 48.16 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 48.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3450.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	46.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Change Over Sub	1.00			3430.00	
Shut In Tool	5.00			3435.00	
Hydraulic tool	5.00			3440.00	
Packer	5.00			3445.00	21.00 Bottom Of Top Packer
Packer	5.00			3450.00	
Stubb	1.00			3451.00	
Perforations	1.00			3452.00	
Recorder	0.00	8789	Inside	3452.00	
Recorder	0.00	8289	Outside	3452.00	
Perforations	20.00			3472.00	
Bullnose	3.00			3475.00	25.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **31-11s-18w Ellis,KS**
 1310 Bison Rd **Desmarteau #1**
 Hays KS 67601 Job Ticket: 61670 **DST#: 2**
 ATTN: Herb Dienes Test Start: 2015.11.08 @ 15:15:00

Mud and Cushion Information

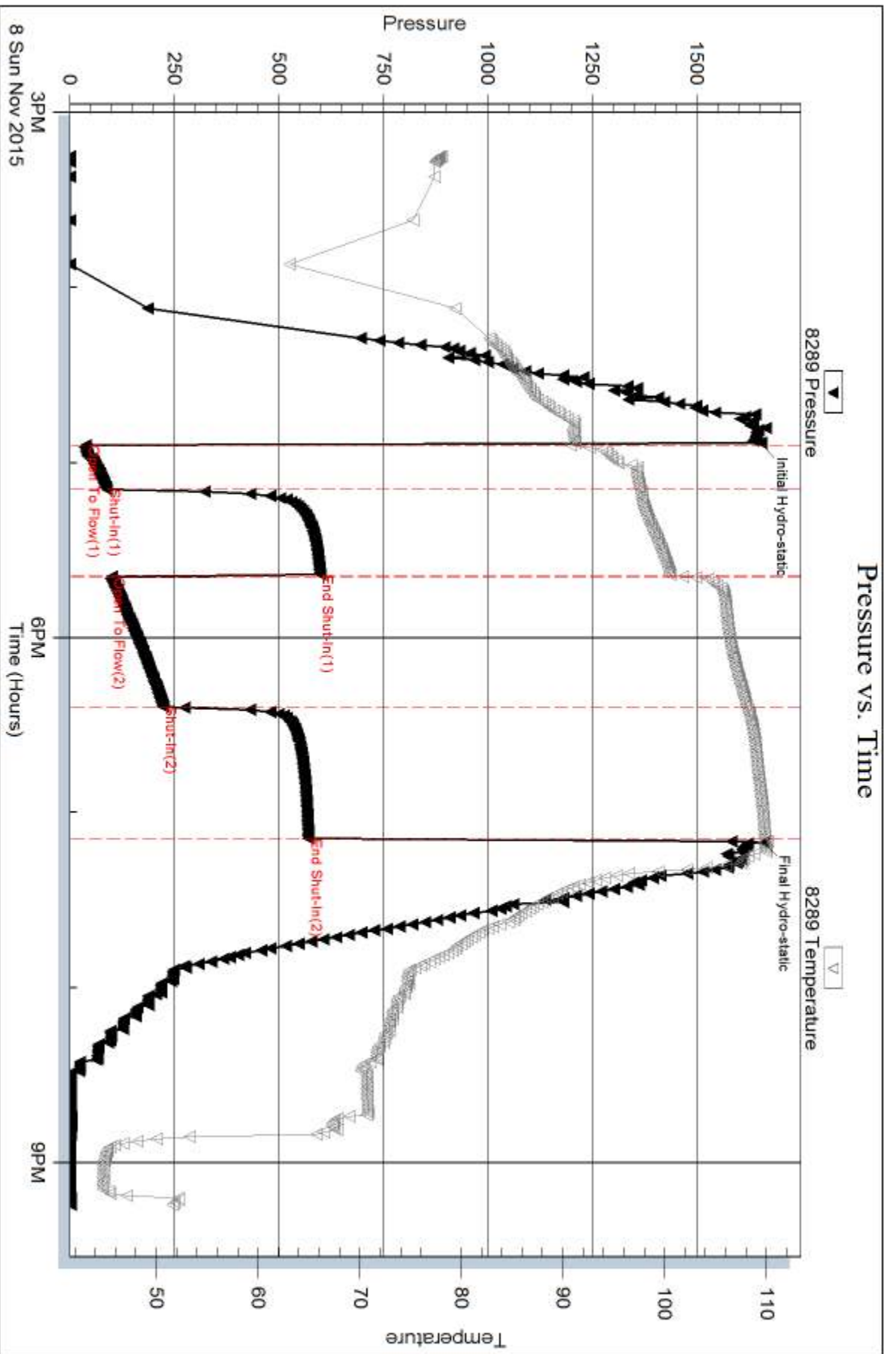
Mud Type: Gel Chem	Cushion Type:	Oil API: 31 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 125000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.96 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4800.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
137.00	Oil Speck MCW 5%m 95%w	1.922
113.00	GWMCO 15%w 15%m 30%g 40%o	1.585
250.00	CO 100%	3.507
0.00	935 GIP	0.000

Total Length: 500.00 ft Total Volume: 7.014 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .095 @ 53



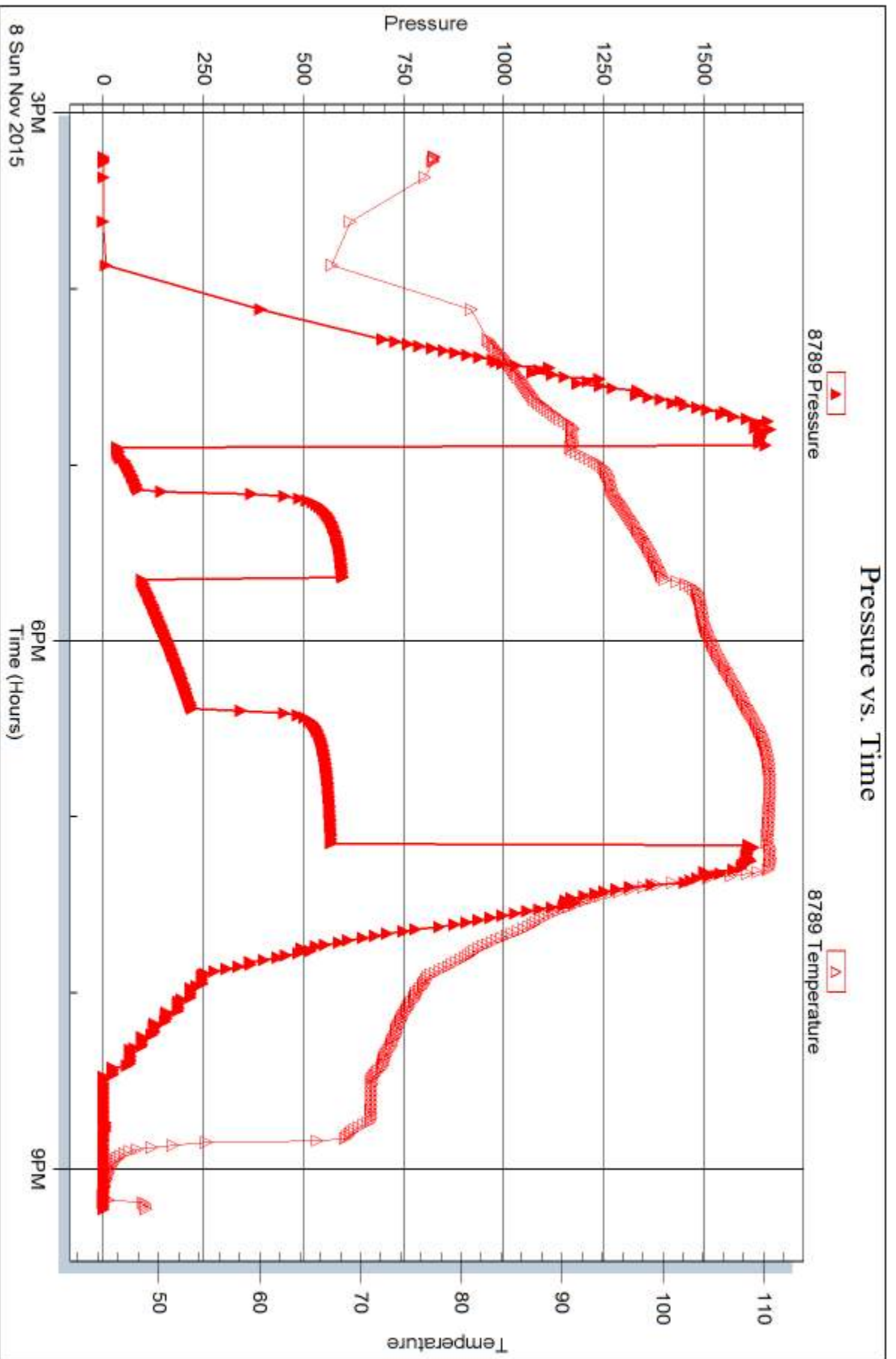
Serial #: 8789

Inside

TDI Inc.

Desmarneau #1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 61670

Printed: 2015.11.10 @ 16:42:00



DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Dienes

Desmarteau #1

31-11s-18w Ellis,KS

Start Date: 2015.11.09 @ 11:02:00

End Date: 2015.11.09 @ 17:17:00

Job Ticket #: 61671 DST #: 3

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

Printed: 2015.11.10 @ 16:41:28

TDI Inc.
31-11s-18w Ellis,KS
Desmarteau #1
DST # 3
LKC " I - K "
2015.11.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

31-11s-18w Ellis,KS
Desmarteau #1
Job Ticket: 61671 **DST#: 3**
Test Start: 2015.11.09 @ 11:02:00

GENERAL INFORMATION:

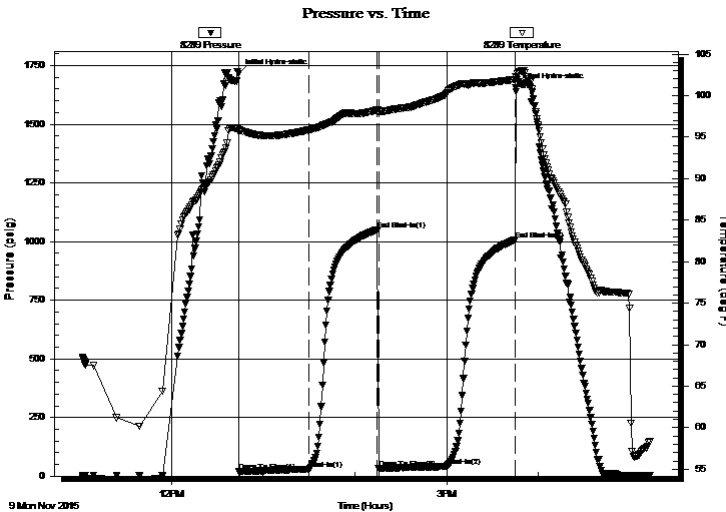
Formation: **LKC "I - K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:44:15
Time Test Ended: 17:17:00
Interval: **3554.00 ft (KB) To 3615.00 ft (KB) (TVD)**
Total Depth: 3615.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2129.00 ft (KB)
2119.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8289 Outside

Press@RunDepth: 41.47 psig @ 3559.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.09 End Date: 2015.11.09 Last Calib.: 2015.11.09
Start Time: 11:02:02 End Time: 17:13:00 Time On Btm: 2015.11.09 @ 12:44:00
Time Off Btm: 2015.11.09 @ 15:45:15

TEST COMMENT: 45-IS- Surface Blow Building to 2 1/4"
45-IS- No Blow
60-FF- Surface Blow Died in 8 min.
60-FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1715.07	96.15	Initial Hydro-static
1	20.07	95.62	Open To Flow (1)
46	29.84	95.87	Shut-In(1)
91	1050.16	98.29	End Shut-In(1)
92	34.51	98.01	Open To Flow (2)
136	41.47	100.23	Shut-In(2)
181	1007.71	101.97	End Shut-In(2)
182	1656.13	102.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Oil Speck WCM 25%w 75%m	0.63
0.00	6 inch Oil Cap 100%	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc.
1310 Bison Rd
Hays KS 67601
ATTN: Herb Dienes

31-11s-18w Ellis,KS
Desmarteau #1
Job Ticket: 61671 **DST#: 3**
Test Start: 2015.11.09 @ 11:02:00

Tool Information

Drill Pipe:	Length: 3557.00 ft	Diameter: 3.80 inches	Volume: 49.90 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 49.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3554.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3534.00	
Shut In Tool	5.00			3539.00	
Hydraulic tool	5.00			3544.00	
Packer	5.00			3549.00	21.00 Bottom Of Top Packer
Packer	5.00			3554.00	
Stubb	1.00			3555.00	
Perforations	3.00			3558.00	
Change Over Sub	1.00			3559.00	
Recorder	0.00	8789	Inside	3559.00	
Recorder	0.00	8289	Outside	3559.00	
Blank Spacing	32.00			3591.00	
Change Over Sub	1.00			3592.00	
Perforations	20.00			3612.00	
Bullnose	3.00			3615.00	61.00 Bottom Packers & Anchor

Total Tool Length: 82.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **31-11s-18w Ellis,KS**
 1310 Bison Rd **Desmarteau #1**
 Hays KS 67601 Job Ticket: 61671 **DST#: 3**
 ATTN: Herb Dienes Test Start: 2015.11.09 @ 11:02:00

Mud and Cushion Information

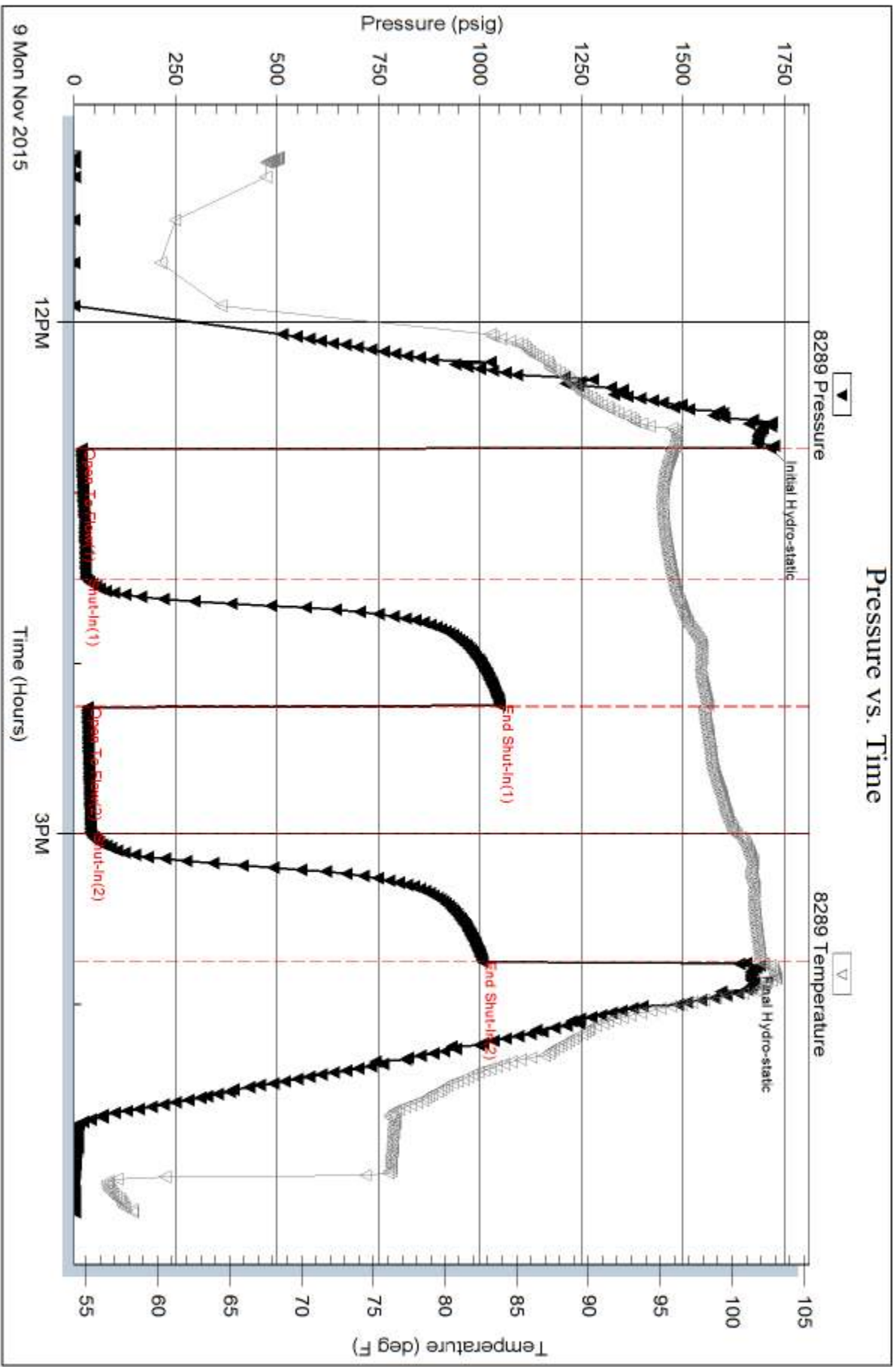
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	26000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5700.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Oil Speck WCM 25%w 75%m	0.631
0.00	6 inch Oil Cap 100%	0.000

Total Length: 45.00 ft Total Volume: 0.631 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .275 @ 67



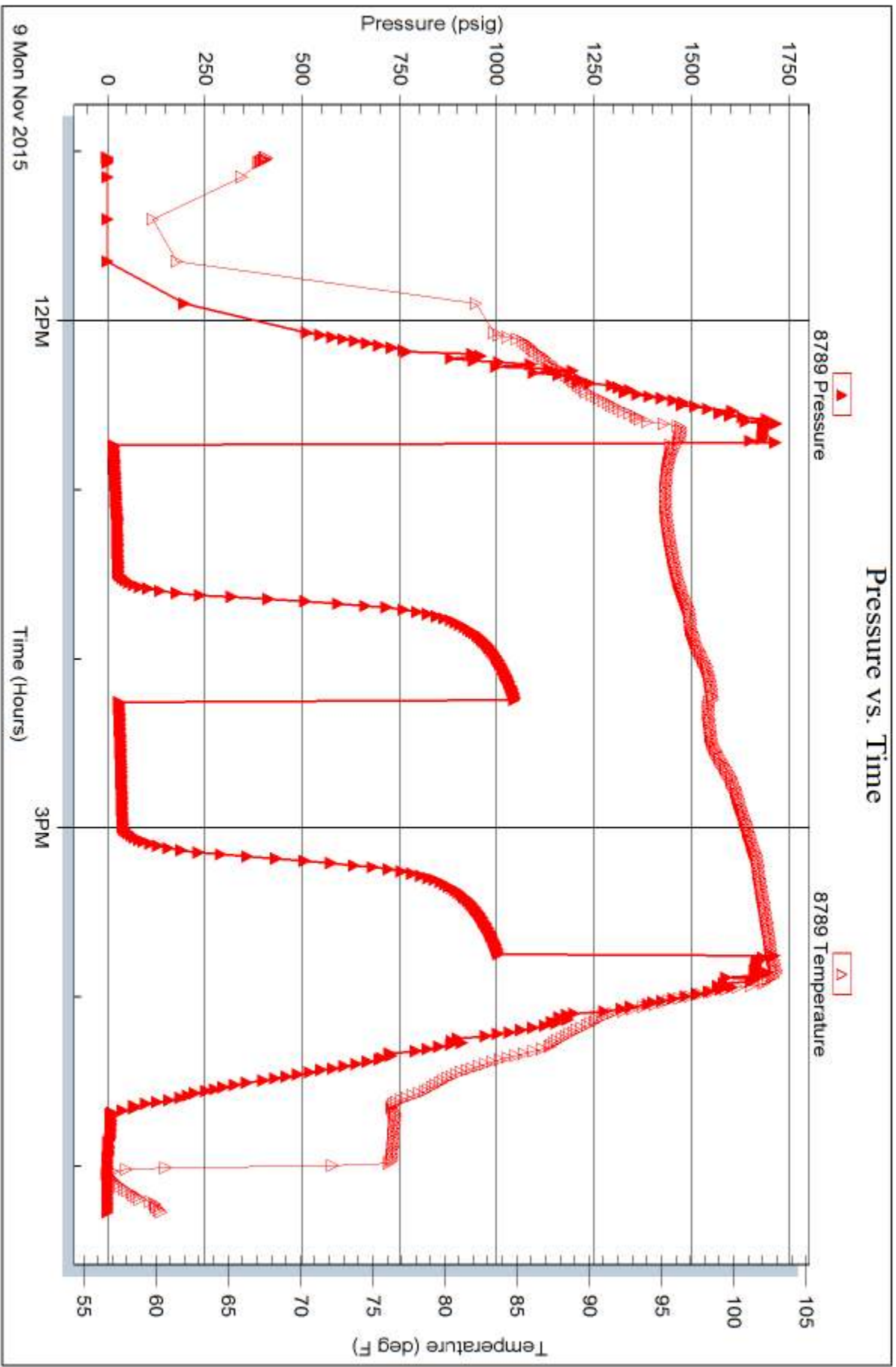
Serial #: 8789

Inside

TDI Inc.

Desmarteau #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 61671

Printed: 2015.11.10 @ 16:41:30



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61669

Well Name & No. Desmarreau #1 Test No. 1 Date 11-8-15
 Company TDI Inc. Elevation 2129 KB 2119 GL
 Address 1310 Bison Rd Hays KS, 67601
 Co. Rep / Geo. Herb Dienes Rig Southwind #1
 Location: Sec. 31 Twp. 11S Rge. 18W Co. Ellis State KS

Interval Tested 3360-3455 Zone Tested Toronto + LKC A-C
 Anchor Length 95 Drill Pipe Run 3370 Mud Wt. 8.5
 Top Packer Depth 3355 Drill Collars Run 0 Vis 62
 Bottom Packer Depth 3360 Wt. Pipe Run 0 WL 7.2
 Total Depth 3455 Chlorides 2200 ppm System LCM 2

Blow Description IF - Surface Blow Building to 1 1/4 in. in 6 min.
ISI - No Blow
FF - 2 1/4 in. Blow in 1 min. Died Back in 5 min.
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>67</u>	<u>OCM</u>	<u>30</u>		<u>70</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>120 DIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 67 BHT 99 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1613 Test 1050 T-On Location 3:46
 (B) First Initial Flow 18 Jars _____ T-Started 4:31
 (C) First Final Flow 31 Safety Joint _____ T-Open 5:45
 (D) Initial Shut-In 698 Circ Sub _____ T-Pulled 8:45
 (E) Second Initial Flow 36 Hourly Standby _____ T-Out 10:22
 (F) Second Final Flow 46 Mileage 31 RT Comments _____
 (G) Final Shut-In 691 Sampler _____
 (H) Final Hydrostatic 1574 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 45 Shale Packer _____
 Initial Shut-In 45 Extra Packer _____
 Final Flow 45 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1081
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1081

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.
7856395864



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61670

Well Name & No. Desmar Teau #1 Test No. 2 Date 11-8-15
 Company TDT Inc. Elevation 2129 KB 2119 GL
 Address 1310 Bison Rd Hays KS 67601
 Co. Rep / Geo. Herb Dienes Rig Southwind #1
 Location: Sec. 31 Twp. 11^s Rge. 18^w Co. Ellis State KS

Interval Tested 3450-3475 Zone Tested LKC "D"
 Anchor Length 25 Drill Pipe Run 3433 Mud Wt. 8.8
 Top Packer Depth 3445 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 3450 Wt. Pipe Run 0 WL 8
 Total Depth 3475 Chlorides 4800 ppm System LCM 2

Blow Description IF - BOB in 2 min.
ISI - Weak Surface Blow

EF - BOB in 6 min.
FSI - Surface Blow Building to 6 1/4 in. In. 16 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>137</u>	<u>Oil Speck MCW</u>		<u>95</u>	<u>5</u>	
<u>113</u>	<u>Wash WMCO</u>	<u>30</u>	<u>40</u>	<u>15</u>	<u>15</u>
<u>250</u>	<u>COO</u>	<u>100</u>			

Rec Total 500 BHT 110 Gravity 31 API RW 1095 @ 53 °F Chlorides 125000 ppm

(A) Initial Hydrostatic 1653 Test 1050 T-On Location 15:11
 (B) First Initial Flow 38 Jars T-Started 15:15
 (C) First Final Flow 89 Safety Joint T-Open 16:54
 (D) Initial Shut-In 598 Circ Sub T-Pulled 19:09
 (E) Second Initial Flow 98 Hourly Standby T-Out 21:14
 (F) Second Final Flow 223 Mileage 31 Comments _____
 (G) Final Shut-In 570 Sampler _____
 (H) Final Hydrostatic 1659 Straddle _____

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 15
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 45
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1081 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61671

Well Name & No. Desmarteau #1 Test No. 3 Date 11-9-15
 Company TDI Inc. Elevation 2129 KB 2119 GL
 Address 1310 Bison Rd Hays KS 67601
 Co. Rep / Geo. Herb Dienes Rig Southwind #1
 Location: Sec. 31 Twp. 11^s Rge. 18^w Co. Ellis State KS

Interval Tested 3554-3615 Zone Tested LKC "I-K"
 Anchor Length 61 Drill Pipe Run 3557 Mud Wt. 9.2
 Top Packer Depth 3549 Drill Collars Run ⊘ Vis 50
 Bottom Packer Depth 3554 Wt. Pipe Run ⊘ WL 8
 Total Depth 3615 Chlorides 5700 ppm System LCM 1

Blow Description IF - Surface Blow Building to 2 1/4 in.
ISI - No Blow
FF - Surface Blow Dried in 8 min.
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Oil Speck WCM</u>		<u>25</u>	<u>75</u>	
	<u>6 inch Oil CAP</u>	<u>100</u>			

Rec Total 45 BHT 102 Gravity 1050 API RW 275 @ 67 °F Chlorides 26000 ppm
 (A) Initial Hydrostatic 1715 Test 1050 T-On Location 8:45
 (B) First Initial Flow 20 Jars _____ T-Started 11:02
 (C) First Final Flow 29 Safety Joint _____ T-Open 12:45
 (D) Initial Shut-In 1050 Circ Sub _____ T-Pulled 15:45
 (E) Second Initial Flow 34 Hourly Standby _____ T-Out 17:17
 (F) Second Final Flow 41 Mileage 31 Comments _____
 (G) Final Shut-In 1007 Sampler _____ loaded tools 11/10 9:00
 (H) Final Hydrostatic 1656 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 45 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1112
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 _____
 Sub Total 1112

Approved By _____ Our Representative [Signature]

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