

OPERATOR

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

Contact Geologist: TOM DENNING
Contact Phone Nbr: 785-628-2593
Well Name: JOY UNIT # 1
Location: NE NE SE SW SEC.12-T12S-R19W
API: 15-051-26,835-00-00
Pool: WILDCAT
State: KANSAS

Field: UNNAMED
Country: USA



Scale 1:240 Imperial

Well Name: JOY UNIT # 1
Surface Location: NE NE SE SW SEC.12-T12S-R19W
Bottom Location:
API: 15-051-26,835-00-00
License Number: 4787
Spud Date: 6/17/2016 Time: 12:00 PM
Region: ELLIS COUNTY
Drilling Completed: 6/22/2016 Time: 10:11 PM
Surface Coordinates: 1025' FSL & 2535' FWL
Bottom Hole Coordinates:
Ground Elevation: 2210.00ft
K.B. Elevation: 2218.00ft
Logged Interval: 0.00ft To: 0.00ft
Total Depth: 3813.00ft
Formation: LANSING-KANSAS CITY
Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.3809039
Latitude: 39.0186021
N/S Co-ord: 1025' FSL
E/W Co-ord: 2535' 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 #: 3
Rig Type: MUD ROTARY
Spud Date: 6/17/2016
TD Date: 6/22/2016

Time: 12:00 PM
Time: 10:11 PM

ELEVATIONS

K.B. Elevation: 2218.00ft
K.B. to Ground: 8.00ft

Ground Elevation: 2210.00ft

NOTES

PRIMARY PRODUCTIVE ZONES WERE TESTED WITH NEGATIVE RESULTS. WELL RAN FLAT TO REFERENCE WELL WHICH HAD MINOR SHOWS IN PRIMARY ZONES BUT WAS PLUGGED DUE TO LACK OF STRUCTURE AND RESEVOIR DEVELOPMENT. THIS WELL LOOKED THE SAME AND RAN STRUCTURALLY FLAT TO THE REFERENCE WELL. RECOMMENDATION TO PLUG AND ABANDON.

NO OPEN HOLE LOGS WERE RAN ON THIS WELL.

DRILL STEM TESTING BY TRILOBITE TESTING, INC: TWO (2) CONVENTIONAL TESTS.

JOY UNIT # 1

NE NE SE SW

SEC.12-12S-19W

2210'GL 2218'KB

STACKHOUSE RANCH 1

SW SE NE NE

SEC.13-12-19W

KB 2208'

KEITH # 1

S2 SW SW NE

SEC.12-12-19W

KB 2197'

FORMATIONSPL TOPSLOG TOPSLOG TOPS

Anhydrite	1564 +654	+ 674	+ 667
B-Anhydrite	1600 +621	+ 644	+ 627
Topeka	3247-1029	-1011	-1031
Heebner Sh.	3478-1260	-1241	-1261
Toronto	3498-1280	-1260	-1279
LKC	3521-1303	-1286	-1303
BKC	3755-1537	-1518	-1537
Arbuckle	NOT REACHED	-1610	NR
RTD	3813-1595	-1677	-1705

SUMMARY OF DAILY ACTIVITY

6-17-16 Spud 12:00 PM, set 8 5/8" surface casing to 212' w/150 sxs 70/30
Pos 2%Gel 3%CC, slope 1/4 degree, plug down 4:00PM

6-18-16 750', drill plug 12:00 AM

6-19-16 2380', drilling

6-20-16 3055', drilling, displaced 2901' to 2922'

6-21-16 3550', drilling, CFS 3510', CFS 3566', CFS 3590,' short trip, DST #1
3472' to 3590' Toronto to "D" LKC, TIWB, drilling

6-22-16 3710', drilling, CFS 3710', DST # 2 3688' to 3710' "J" LKC, TIWB, RTD
3813' @ 10:00PM, LDDP

6-23-16 3813', LDDP and finish plugging well, RD



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI, Inc.

1310 Bison Rd.
Hays, KS 67601

ATTN: Herb Deines

12-12S-19W Ellis, KS

Joy Unit #1

Job Ticket: 58091

DST#: 1

Test Start: 2016.06.21 @ 14:08:46

GENERAL INFORMATION:

Formation: **Tor-LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:40:16

Time Test Ended: 20:11:16

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: **3472.00 ft (KB) To 3590.00 ft (KB) (TVD)**

Total Depth: 3590.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2218.00 ft (KB)

2210.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6651 Inside

Press@RunDepth: 17.86 psig @ 3490.00 ft (KB)

Start Date: 2016.06.21

End Date: 2016.06.21

Capacity: 8000.00 psig

Last Calib.: 2016.06.21

Start Time: 14:08:47

End Time: 20:11:16

Time On Btm: 2016.06.21 @ 16:39:46

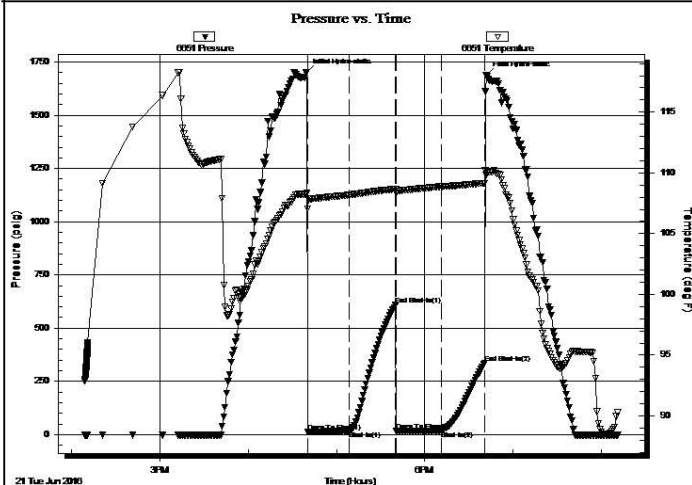
Time Off Btm: 2016.06.21 @ 18:41:46

TEST COMMENT: 30- IF- Surface blow died 23mins

30- IS- No blow

30- FF- No blow

30- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1702.21	108.33	Initial Hydro-static
1	12.39	107.07	Open To Flow (1)
29	15.22	108.18	Shut-In(1)
61	609.09	108.66	End Shut-In(1)
61	15.85	108.33	Open To Flow (2)
92	17.86	108.86	Shut-In(2)
121	335.27	109.16	End Shut-In(2)
122	1686.56	109.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mw / oil spots	0.21

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Trilobite Testing, Inc

Ref. No: 58091

Printed: 2016.06.22 @ 08:15:12



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TDI, Inc.

1310 Bison Rd.
Hays, KS 67601

ATTN: Herb Deines

12-12S-19W Ellis, KS

Joy Unit #1

Job Ticket: 58092

DST#: 2

Test Start: 2016.06.22 @ 08:12:59

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:46:29

Time Test Ended: 14:11:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: **3688.00 ft (KB) To 3710.00 ft (KB) (TVD)**

Total Depth: 3710.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2218.00 ft (KB)

2210.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6651

Inside

Press@RunDepth: 63.24 psig @ 3707.00 ft (KB)

Start Date: 2016.06.22

End Date:

2016.06.22

Start Time: 08:13:00

End Time:

14:11:29

Capacity: 8000.00 psig

Last Calib.: 2016.06.22

Time On Btm: 2016.06.22 @ 09:45:59

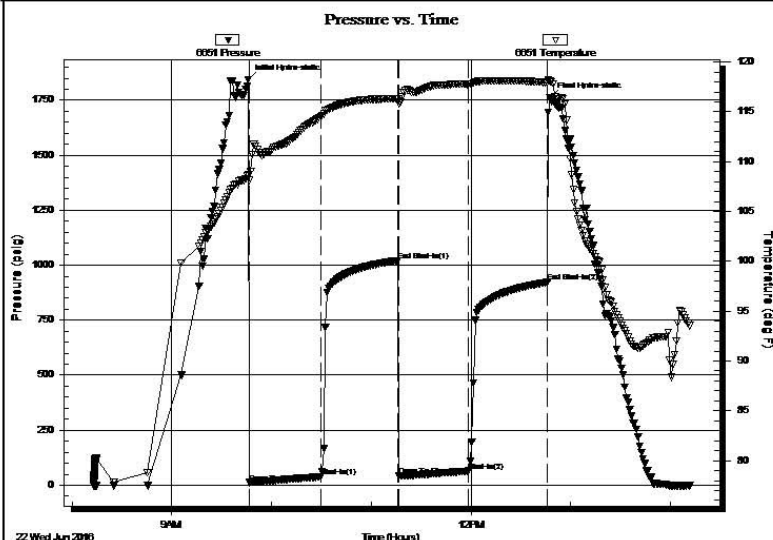
Time Off Btm: 2016.06.22 @ 12:47:29

TEST COMMENT: 45- IF- Slow ly built to 4.5"

45- IS- No blow

45- FF- Slow ly built to 2"

45- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1843.99	108.64	Initial Hydro-static
1	11.48	108.13	Open To Flow (1)
44	38.09	114.51	Shut-In(1)
90	1021.15	116.28	End Shut-In(1)
91	41.09	115.85	Open To Flow (2)
132	63.24	117.76	Shut-In(2)
180	922.59	117.91	End Shut-In(2)
182	1762.02	118.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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

95.00	MW, 15%M 85%W	1.35

* Recovery from multiple tests

ROCK TYPES

 Lmst fw<7	 Lscongl	 shale, gry	 shale, red
 Lmst fw7>	 shale, grn	 Carbon Sh	

ACCESSORIES

MINERAL

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

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

