

OPERATOR

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

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: BEVERLY # 1
 Location: NE SE SW NE, Sec.2-17s-19w
 API: 15-165-22,074-00-00
 Pool: WILDCAT
 State: KANSAS

Field: UNNAMED
 Country: USA



Scale 1:240 Imperial

Well Name: BEVERLY # 1
 Surface Location: NE SE SW NE, Sec.2-17s-19w
 Bottom Location:
 API: 15-165-22,074-00-00
 License Number: 4787
 Spud Date: 7/23/2014 Time: 2:30 PM
 Region: RUSH COUNTY
 Drilling Completed: 7/29/2014 Time: 10:50 AM
 Surface Coordinates: 2075' FNL & 1560' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2085.00ft
 K.B. Elevation: 2095.00ft
 Logged Interval: 3000.00ft To: 3855.00ft
 Total Depth: 3855.00ft
 Formation: REAGAN SAND
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.3886552
 Latitude: 38.6060949
 N/S Co-ord: 2075' FNL
 E/W Co-ord: 1560' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 WEST 35TH STREET
 HAYS, KANSAS 67601

Phone Nbr: 785-625-3380
 Logged By: GEOLOGIST Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 7/23/2014 Time: 2:30 PM
 TD Date: 7/29/2014 Time: 10:50 AM

ELEVATIONS

K.B. Elevation: 2095.00ft
K.B. to Ground: 10.00ft

Ground Elevation: 2085.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON LOG ANALYSIS AND NEGATIVE RESULTS OF TWO DSTS

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

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

FORMATION TOPS COMPARISON

	BEVERLY # 1	HERMAN #1	EVANS # 1
	NE SE SW NE	SE SE SW	SW SW SW
	SEC. 2-17S-19W	SEC. 35-16-19W	SEC. 35-16-19W
	2085'GL 2095'KB	KB 2084'	KB 2079'
<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1280 +815	+ 819	+799
B-Anhydrite	1311 +784	+ 781	+769
Topeka	3103-1008	-1011	-1010
Heebner Sh.	3386-1291	-1298	-1291
Toronto	3406-1311	-1318	-1309
LKC	3433-1338	-1344	-1336
BKC	3686-1591	-1586	-1591
Marmaton	3708-1613	-1618	-1619
Pawnee	3736-1641	-1649	-1647
Conglomerate	3775-1680	-1678	-1677
Arbuckle	NONE	NONE	NONE
Reagan Sand	3791-1696	-1701	-1693
RTD	3855-1760	-1724	-1736

SUMMARY OF DAILY ACTIVITY

7-23-14 RU, spud 2:30 PM, set 8 5/8" surface casing to 223.33' w/ 150 sxs
Common 2%Gel 3%CC, slope 3/4 degree, plug down 8:45 PM

7-24-14 320', drill plug 4:45 AM

7-25-14 1680', drilling


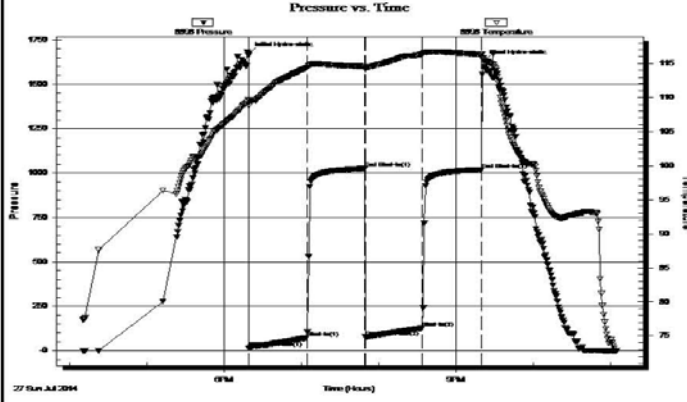
7-26-14 2715', drilling, displaced 2814' to 2840'

7-27-14 3400', CFS 3410', short trip-25 stands, CFS 3476', DST #1 3446'-3476'


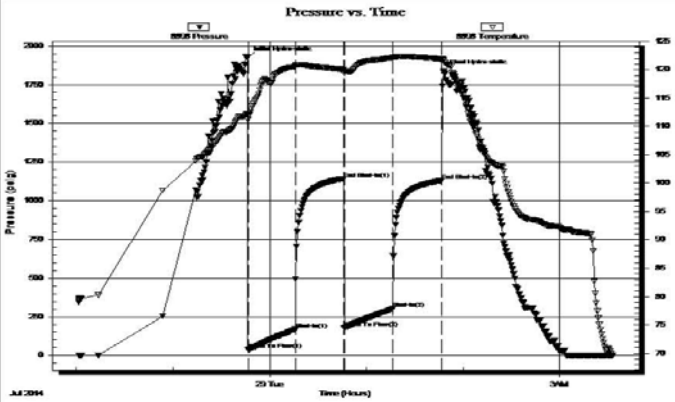
7-28-14 3595' drilling, CFS 3800' CCH TOWB, DST #2 3761' to 3800'

7-28-14 3595', drilling, CFS 3800', CCH, TOWB, DST # 2 3761 to 3800
 7-29-14 3805', CFS 3805', CFS 3815', RTD 3855'@10:50AM, TOWB, logs, P&A
 7-30-14 3855', finish LDDP and plugging, last plug down 1:00AM, RD

DST # 1 TEST SUMMARY

	DRILL STEM TEST REPORT TDI 1310 Bison Rd Hays, Ks 67601 ATTN: Herb Deines	2-17-19- Rush Co. Beverly #1 Job Ticket: 58920 DST#: 1 Test Start: 2014.07.27 @ 16:10:29																																				
GENERAL INFORMATION: Formation: LKC "C" Deviated: No Whipstock: ft (KB) Time Tool Opened: 18:19:29 Time Test Ended: 23:04:49 Interval: 3446.00 ft (KB) To 3476.00 ft (KB) (TVD) Total Depth: 3476.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good Test Type: Conventional Bottom Hole (Initial) Tester: Tate Lang Unit No: 77 Reference Elevations: 2095.00 ft (KB) 2083.00 ft (CF) KB to GR/CF: 12.00 ft																																						
Serial #: 8898 Outside Press@RunDepth: 127.48 psig @ 3448.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.07.27 End Date: 2014.07.27 Last Calib.: 2014.07.27 Start Time: 16:10:30 End Time: 23:04:49 Time On Btm: 2014.07.27 @ 18:19:19 Time Off Btm: 2014.07.27 @ 21:21:19																																						
TEST COMMENT: Strong blow built to 10 in. Dead no blow back Strong blow built to 8 1/2 in. Dead no blow back																																						
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DST # 2 TEST SUMMARY

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT TDI 1310 Bison Rd Hays, Ks 67601 ATTN: Herb Deines	2-17-19- Rush Co. Beverly #1 Job Ticket: 58921 DST#: 2 Test Start: 2014.07.28 @ 22:01:39																																				
GENERAL INFORMATION: Formation: Cong. Sand Deviated: No Whipstock ft (KB) Time Tool Opened: 23:46:29 Time Test Ended: 03:32:39 Interval: 3761.00 ft (KB) To 3800.00 ft (KB) (TVD) Total Depth: 3476.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good Test Type: Conventional Bottom Hole (Reset) Tester: Tate Lang Unit No: 77 Reference Elevations: 2095.00 ft (KB) 2083.00 ft (CF) KB to GR/CF: 12.00 ft																																						
Serial #: 8898 Outside Press@RunDepth: 302.22 psig @ 3763.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.07.28 End Date: 2014.07.29 Last Calib.: 2014.07.29 Start Time: 22:01:40 End Time: 03:32:39 Time On Btm: 2014.07.28 @ 23:46:19 Time Off Btm: 2014.07.29 @ 01:47:49																																						
TEST COMMENT: B.O.B. in 7 mins Dead no blow back B.O.B. in 8 mins Dead no blow back																																						
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Trilobite Testing, Inc

Ref. No: 58921

Printed: 2014.07.29 @ 04:45:48

Image Header 04

Image Header 05

ROCK TYPES

	Cht vari		Lmst fw7> shale, grn		Carbon Sh shale, red		Ss		Dol Lime
	Clystgy		Lmst fw7> shale, grn		Carbon Sh shale, red		Lscong		

Lmst fw<7

shale, gry

Shcol

CglSandy

ACCESSORIES

MINERAL

- ▲ Chert, dark
- Varicolored chert

FOSSIL

- Oolite
- ⊕ Oomoldic

OTHER SYMBOLS

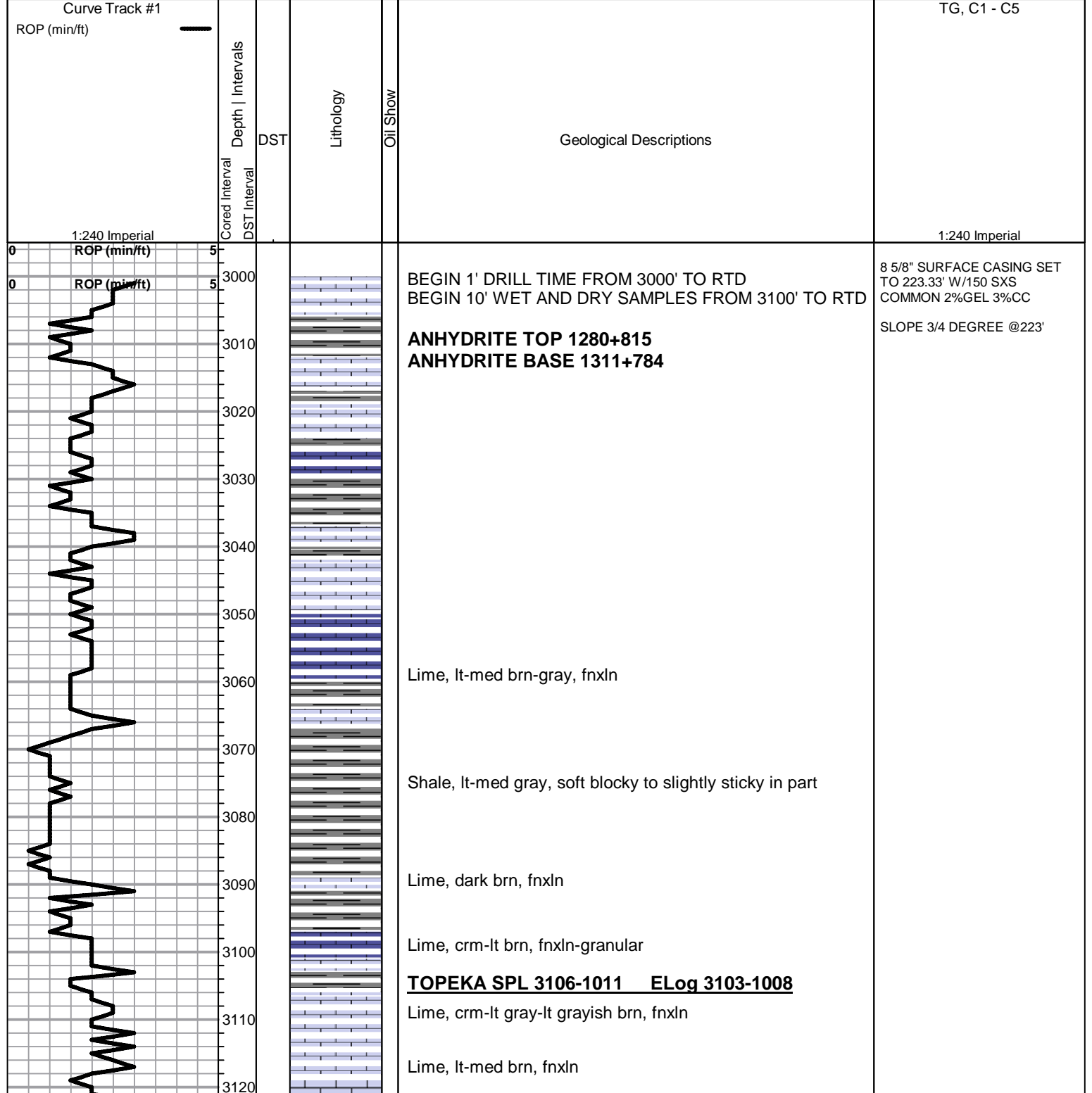
Oil Show

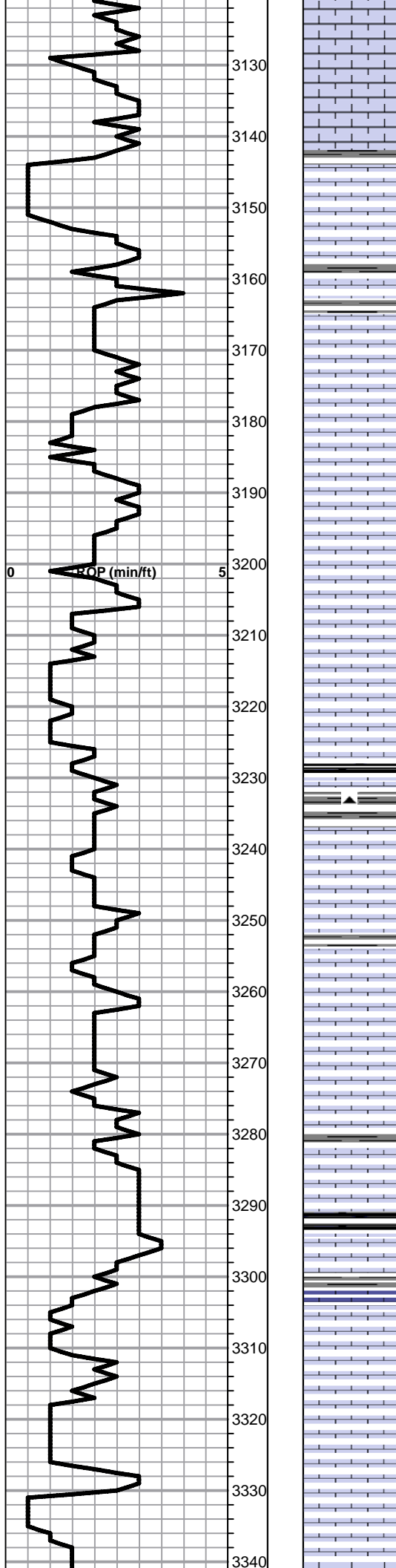
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Strn
- D Dead Oil Strn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.9 (www.grsi.ca)





Lime, offwhite-lt-med gray, fnxln

Lime, off white-lt gray, fnxln, slight bedded chalk

Lime, lt brn, granular, NS

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

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

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

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

Lime, lt brn, fnxln-granular, bedded chalk with sticky clumps in part

Lime, lt brn, fnxln-granular, chalky matrix with bedded chalk with sticky clumps, slightly fossiliferous

Lime, lt brn, granular with increasing bedded chalk with lt chalk wash

Lime, lt-med brn, granular, bedded chalk

Shale, black carbonaceous, blocky

Shale, lt gray, soft blocky, calcareous with fossil fragments

Lime, crm, fn-vfxln, lithographic, slight bedded chalk

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

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

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

Lime, lt-med brn, fnxln

Shale, black carbonaceous, blocky

Lime, crm-lt brn, fnxln

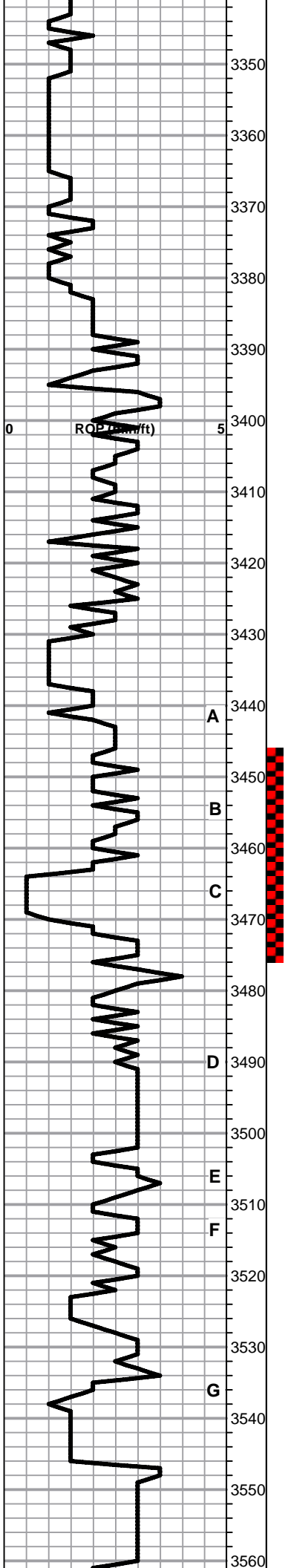
Lime, lt-med brn, fnxln-granular, slightly fossiliferous, lt chalk wash

Lime, med brn, fnxln, slightly fossiliferous but well cemented

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

Lime, crm-lt brn, fine oolitic/oomoldic, NS, No Wet Cut

Lime, lt-med brn, granular-fnxln, bedded chalk with sticky



Lime, lt-med brn, granular, fnxn, bedded chalk with sticky clumps

Lime, tan-lt brn, granular, bedded chalk with lt chalky wash

Lime, lt brn, granular, bedded chalk with sticky clumps in part

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

HEEBNER SHALE SPL 3391-1296 ELog 3386-1291
 Shale, black carbonaceous, fissile, blocky
 Lime, lt brn, fn-vfxln

Shale, lime green, mostly soft mud

TORONTO SPL 3408-1313 ELog 3406-1311
 Lime, white-crm, fn-vfxln, NS

Lime, lt-med brn, fn-vfxln

Shale, reddish brn-red, soft blocky with lt red wash

LKC SPL 3436-1341 ELog 3433-1338
 Lime, lt brn, fnxn

Lime, lt-med brn-grayish brn, fn-vfxln, gray mottling in part

Lime, lt brn, fnxn-oolitic/oomoldic, NS, tested to confirm in DST # 1

Lime, lt brn, fnxn

Lime, crm, fnxn with lot of bedded chalk. NS

Lime, tan, fn-vfxln, NS

Shale, black carbonaceous, blocky
 Lime, offwhite-lt gray, micro xln

Lime, tan, fnxn, slight bedded chalk, NS

Lime, tan-lt brn, fn-vfxln, slight bedded chalk, NS

Lime, tan, fnxn, lot of bedded chalk, NS

Lime, tan, fnxn, bedded chalk, NS

Lime, tan, fnxn, bedded chalk

CFS 3410', SHORT TRIP
 PULLED 25 STANDS

DST # 1 3446' TO 3476' SEE
 HEADER FOR TEST SUMMARY

CFS 3476'

0

A

B

C

D

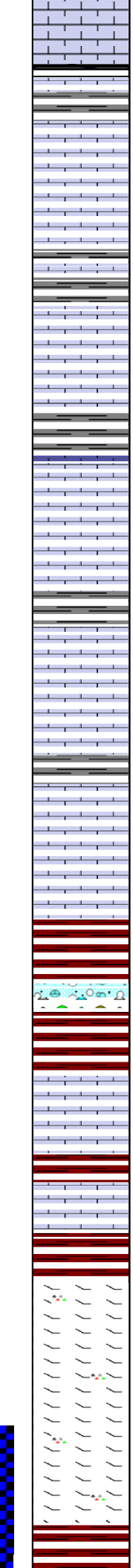
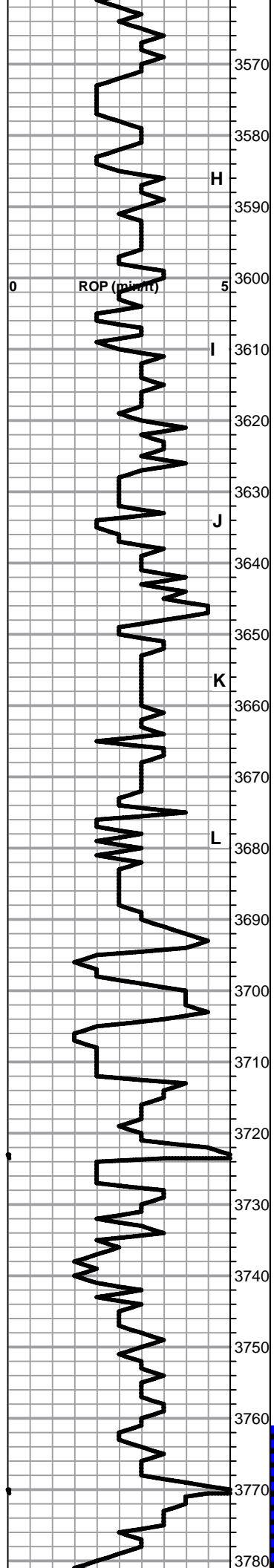
E

F

G

ROP (min/ft)

3350
3360
3370
3380
3390
3400
3410
3420
3430
3440
3450
3460
3470
3480
3490
3500
3510
3520
3530
3540
3550
3560



Shale, med gray-black carbonaceous, soft, blocky
Lime, tan-lt brn, fn-micro xln

Lime, lt-med brn, fnxln, scattered oolitic and fossil fragments but well cemented, NS

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

Lime, lt-med brn, fn-vfxln
Shale, med-dark gray, firm blocky

Lime, crm-tan, fn-vfxln, bedded chalk, sub lithographic, NS

Lime, tan-lt brn, fnxln

Lime, crm-tan, fn-vfxln, slight bedded chalk, NS

Lime, crm-lt brn, fn-micro xln

Shale, dark gray-black, firm blocky

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

Lime, tan-med brn, fnxln

Shale, gray-black, firm blocky

Lime, tan-lt brn, fn-micro xln, slight bedded chalk

Lime, tan-med brn, fn-micro xln

BKC SPL 3690-1595 ELog 3686-1591

Shale, dark brn-reddish brn, firm blocky with cherty conglomerate mix in part

Shale, reddish brn, soft, blocky, lt red wash

MARMATON SPL 3712-1617 ELog 3708-1613

Lime, crm-tan, fnxln

Shale, brn, red, firm blocky

Lime, crm-lt brn, fnxln

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

PAWNEE SPL 3741-1646 ELog 3736-1641

Lime, grayish green tinted, fnxln, fragments of orange chert

Lime, crm-tan, fn-vfxln, increasing chert content, tans, orange, fresh, sharp, slightly dolomitic

Lime, crm-tan, fn-vfxln, cherts, tan, orange, fresh, sharp

Lime, tan-lt brn, fn-micro xln

CONGLOMERATE SPL 3775-1680 ELog 3775-1680

Shale, brn-dark brn, soft blocky

