

OPERATOR

Company: CARRIE EXPLORATION DEVELOPMENT, A GENERAL PARTNERSHIP
 Address: 210 W 22ND STREET
 HAYS, KS 67601

Contact Geologist: RON HEROLD
 Contact Phone Nbr:
 Well Name: MATZEK # 4
 Location: S2 SE NE SE Sec.25-19s-11w
 Pool: IN FIELD
 State: KANSAS
 API: 15-009-25708-00-00
 Field: CHASE-SILICA
 Country: USA

Scale 1:240 Imperial

Well Name: MATZEK # 4
 Surface Location: S2 SE NE SE Sec.25-19s-11w
 Bottom Location:
 API: 15-009-25708-00-00
 License Number: 6768
 Spud Date: 7/2/2012 Time: 8:30 AM
 Region: BARTON COUNTY
 Drilling Completed: 7/7/2012 Time: 1:44 AM
 Surface Coordinates: 1325' FSL & 330' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 1763.00ft
 K.B. Elevation: 1772.00ft
 Logged Interval: 2500.00ft To: 3400.00ft
 Total Depth: 3400.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: GEL/CHEMICAL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude:
 N/S Co-ord: 1325' FSL
 E/W Co-ord: 330' FEL
 Latitude:

LOGGED BY

Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: Geologist Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING INC.
 Rig #: 2
 Rig Type: MUD ROTARY
 Spud Date: 7/2/2012 Time: 8:30 AM
 TD Date: 7/7/2012 Time: 1:44 AM
 Rig Release: 7/7/2012 Time: 11:00 PM


ELEVATIONS

K.B. Elevation: 1772.00ft
 K.B. to Ground: 9.00ft
 Ground Elevation: 1763.00ft

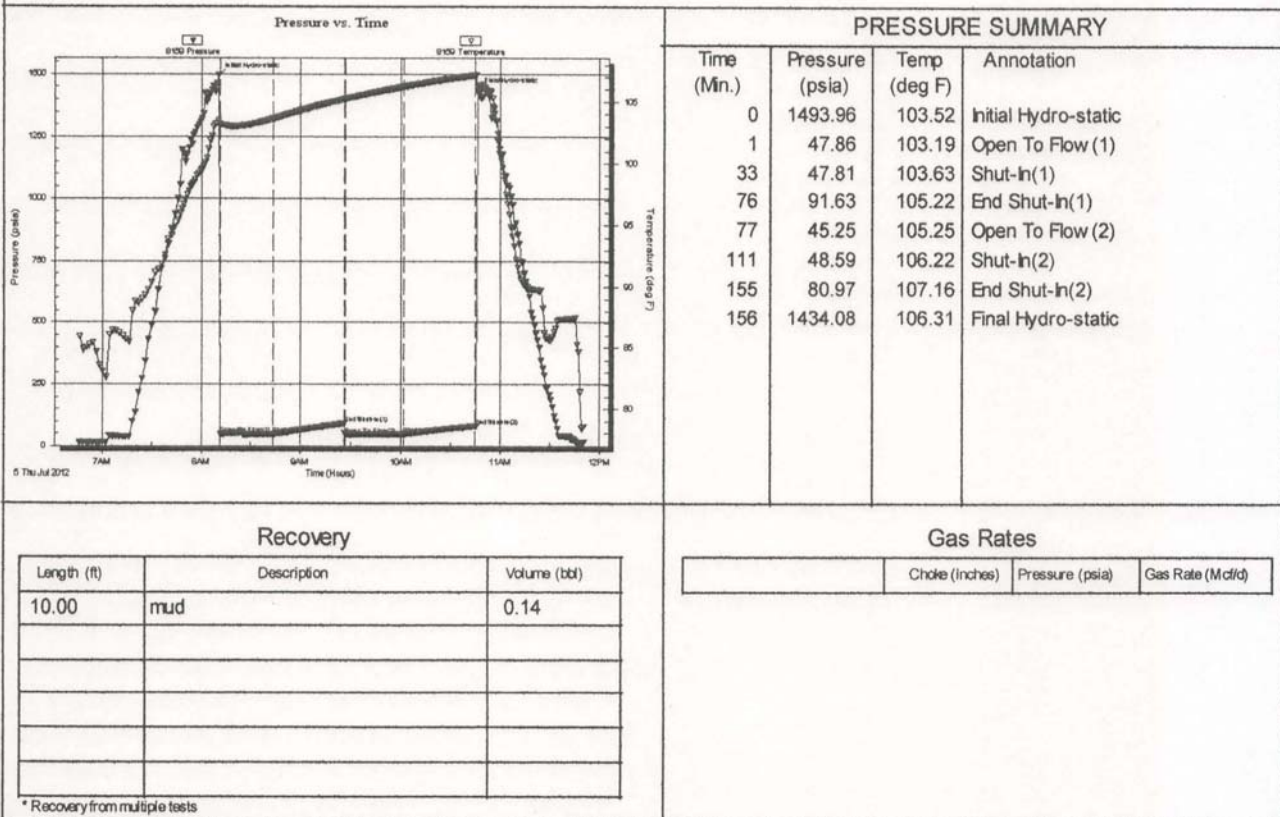
NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE STRUCTURE IN LANSING-KANSAS AND ARBUCKLE.

DST # 1 SUMMARY PAGE

		DRILL STEM TEST REPORT	
Carrie Exploration & Development		25-19-11w Barton	
210 w 22nd Hays Ks 67601		Matzek #4	
ATTN:		Job Ticket: 17355	DST#: 1
		Test Start: 2012.07.05 @ 06:45:00	
GENERAL INFORMATION:			
Formation:	Lansing A-B	Test Type:	Conventional Bottom Hole (Reset)
Deviated:	No Whipstock: ft (KB)	Tester:	Jared Scheck
Time Tool Opened:	08:11:30	Unit No:	3320-Great Bend-
Time Test Ended:	11:51:00	Reference Elevations:	1773.00 ft (KB)
Interval:	2993.00 ft (KB) To 3042.00 ft (KB) (TVD)		1763.00 ft (CF)
Total Depth:	3042.00 ft (KB) (TVD)	KB to GR/CF:	10.00 ft
Hole Diameter:	7.88 inches	Hole Condition:	Fair
Serial #: 8159			
Press@RunDepth:	48.59 psia @ ft (KB)	Capacity:	5000.00 psia
Start Date:	2012.07.05	Last Calib.:	2012.07.05
Start Time:	06:45:00	End Date:	2012.07.05
		End Time:	11:51:00
		Time On Btm:	2012.07.05 @ 08:10:30
		Time Off Btm:	2012.07.05 @ 10:46:30
TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 1 1/2 into water in 30 minutes			

1st Shut-in 45 Minutes- No blow
 2nd Opening 30 Minutes-Weak blow built 1 1/2 inches into water in 30 minutes
 2nd Shut-in 45 Minutes-No blow back



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1493.96	103.52	Initial Hydro-static
1	47.86	103.19	Open To Flow (1)
33	47.81	103.63	Shut-In(1)
76	91.63	105.22	End Shut-In(1)
77	45.25	105.25	Open To Flow (2)
111	48.59	106.22	Shut-In(2)
155	80.97	107.16	End Shut-In(2)
156	1434.08	106.31	Final Hydro-static

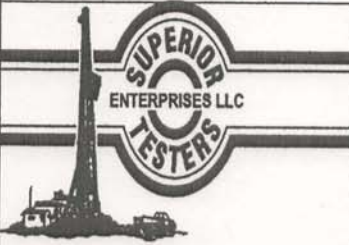
Length (ft)	Description	Volume (bbl)
10.00	mud	0.14

	Choke (Inches)	Pressure (psia)	Gas Rate (Mcf/d)

Superior Testers Enterprises LLC Ref. No: 17355 Printed: 2012.07.05 @ 12:03:45

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DST # 2 SUMMARY PAGE



DRILL STEM TEST REPORT

Carrie Exploration & Development **25-19-11w Barton**
 210 w 22nd Hays Ks 67601 **Matzek #4**
 ATTN: Job Ticket: 17356 DST#: 2
 Test Start: 2012.07.05 @ 18:03:00

GENERAL INFORMATION:

Formation: Lansing" DEF "	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Jared Scheck
Time Tool Opened: 19:33:30	Unit No: 3320-Great Bend -40
Time Test Ended: 23:17:00	Reference Elevations: 1773.00 ft (KB)
Interval: 3040.00 ft (KB) To 3089.00 ft (KB) (TVD)	1763.00 ft (CF)
Total Depth: 3089.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches Hole Condition: Fair	

Serial #: 6731

Press@RunDepth: 169.30 psia @ ft (KB)	Capacity: 5000.00 psia
Start Date: 2012.07.05 End Date: 2012.07.05	Last Calib.: 2012.07.05
Start Time: 18:04:00 End Time: 23:17:00	Time On Btm: 2012.07.05 @ 19:31:30
	Time Off Btm: 2012.07.05 @ 21:34:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 minutes Gas to surface 25 minutes see gas report
 1st Shut-in 30 Minutes-Weak blow back
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute
 2nd Shut-in 30 Minutes Fair blow back 8 inches into bucket

Time (Min.)	Pressure (psia)	Temp (deg F)
0	1552.71	103.80
2	86.58	103.06
31	134.58	103.39
64	382.98	104.12
66	145.59	104.09
92	169.30	104.71
122	370.19	105.48
123	1458.30	108.96

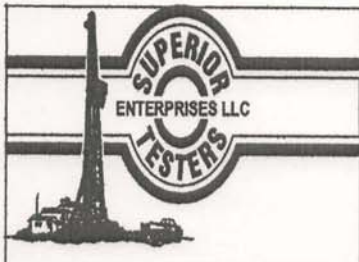
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1552.71	103.80	Initial Hydro-static
2	86.58	103.06	Open To Flow (1)
31	134.58	103.39	Shut-In(1)
64	382.98	104.12	End Shut-In(1)
66	145.59	104.09	Open To Flow (2)
92	169.30	104.71	Shut-In(2)
122	370.19	105.48	End Shut-In(2)
123	1458.30	108.96	Final Hydro-static

Length (ft)	Description	Volume (bbl)
120.00	Gassy oil cut muddy w ater	1.68
0.00	20%gas 40%oil 10%mud 30%w ater	0.00
120.00	Gassy oil cut muddy w ater	1.68
0.00	15%gas 45%oil 10%mud 30%w ater	0.00
60.00	muddy w ater 20%mud 80%w ater	0.84

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	4.00	1.50
Last Gas Rate	0.13	12.00	4.49
Max. Gas Rate	0.13	12.00	4.49

Superior Testers Enterprises LLC Ref. No: 17356 Printed: 2012.07.05 @ 23:42:15

DST # 3 SUMMARY PAGE



DRILL STEM TEST REPORT

Carrie Exploration & Development **25-19-11w Barton**
 210 w 22nd Hays Ks 67601 **Matzek #4**
 ATTN: Ron Herold Job Ticket: 17357 **DST#: 3**
 Test Start: 2012.07.06 @ 06:10:00

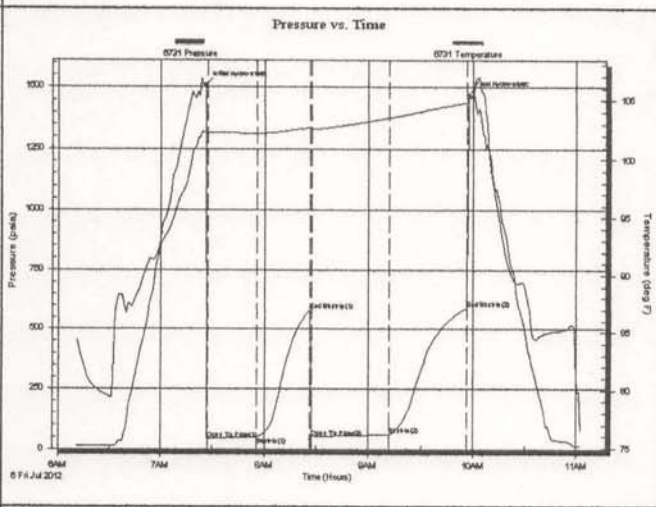
GENERAL INFORMATION:

Formation: **Lansing "G"**
 Deviated: **No Whipstock** ft (KB)
 Test Type: **Conventional Bottom Hole (Initial)**
 Time Tool Opened: 07:27:00 Tester: **Jared Scheck**
 Time Test Ended: 11:03:00 Unit No: **3320-Great Bend-40**
 Interval: **3092.00 ft (KB) To 3130.00 ft (KB) (TVD)** Reference Elevations: **1773.00 ft (KB)**
 Total Depth: **3130.00 ft (KB) (TVD)** **1763.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **10.00 ft**

Serial #: 6731

Press@RunDepth: **59.84 psia @** ft (KB) Capacity: **5000.00 psia**
 Start Date: **2012.07.06** End Date: **2012.07.06** Last Calib.: **2012.07.06**
 Start Time: **06:10:00** End Time: **11:03:00** Time On Btm: **2012.07.06 @ 07:26:00**
 Time Off Btm: **2012.07.06 @ 09:57:30**

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built 5 inches into water in 30 minutes
 1st Shut-in 30 Minutes-No blow back
 2nd Opening 45 Minutes-Weak blow built 4 inches into water in 45 minutes
 2nd Shut-in 45 Minutes-No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1510.35	102.42	Initial Hydro-static
1	42.95	102.15	Open To Flow (1)
30	48.67	102.19	Shut-in(1)
61	583.06	102.67	End Shut-in(1)
62	50.14	102.54	Open To Flow (2)
106	59.84	103.48	Shut-in(2)
151	589.20	104.80	End Shut-in(2)
152	1470.27	105.28	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
45.00	Spot oil cut mud 2%oil 98%mud	0.63

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

Superior Testers Enterprises LLC Ref. No: 17357 Printed: 2012.07.06 @ 11:19:02

ROCK TYPES

Dolprim	Lmst fw<7	shale, grn	shale, red
Dolsec	Lmst fw7>	Carbon Sh	Shgy

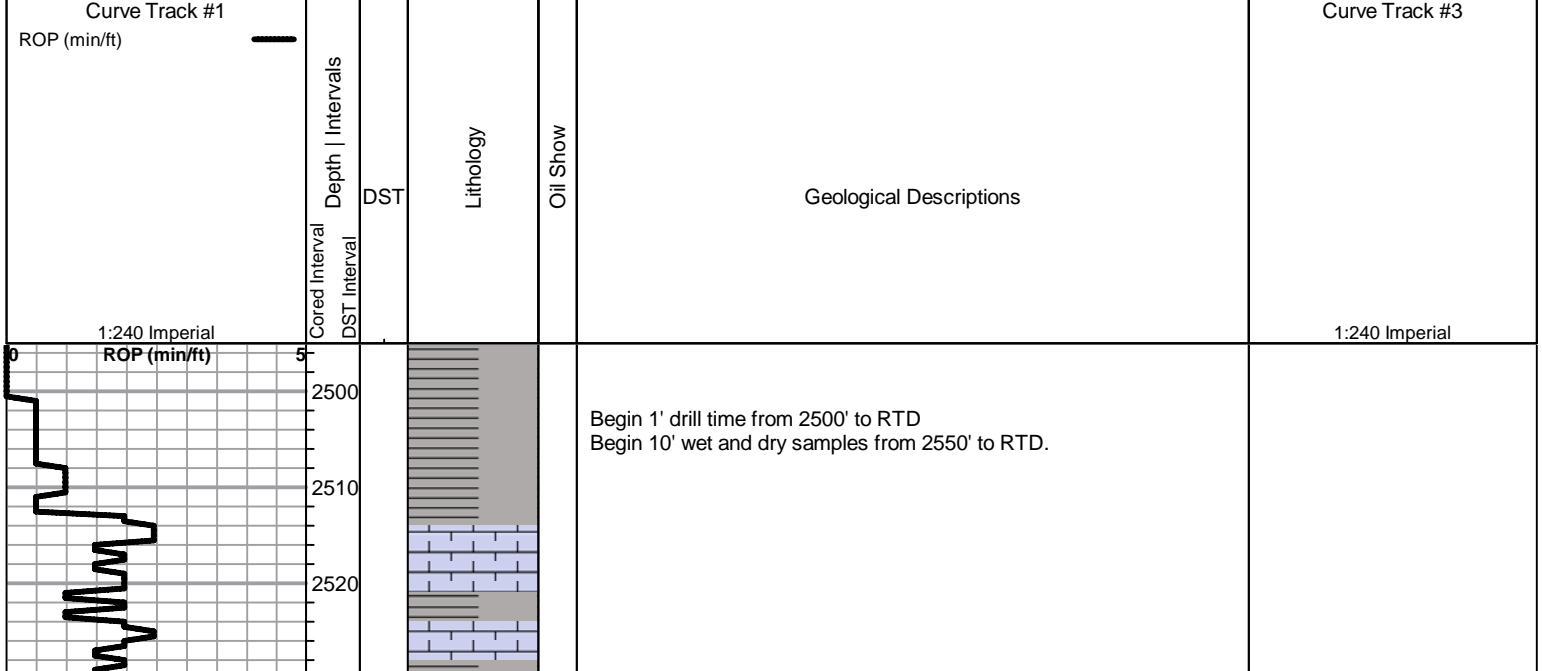
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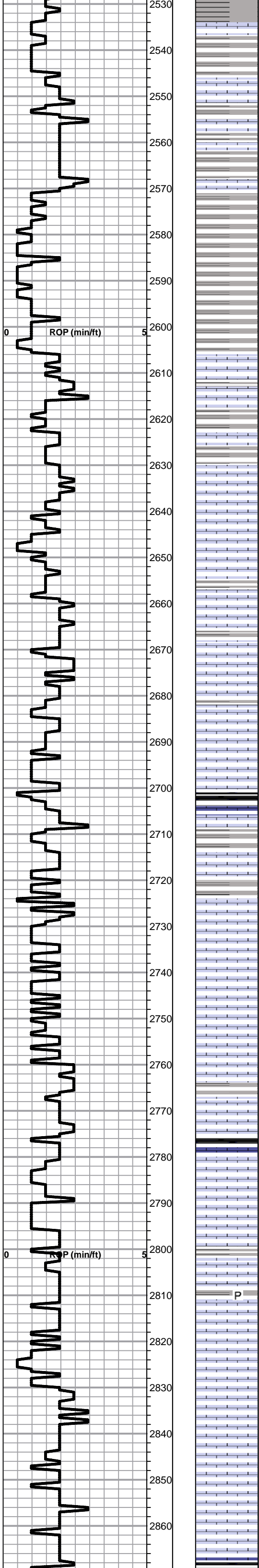
MINERAL	FOSSIL
P Pyrite	o Oolite
△ Chert White	o Oomoldic
▧ Euhed rhombs of dol or	

OTHER SYMBOLS

DST
 DST Int
 DST alt

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





TOPEKA ELog 2606-834

Lime, lt-med brn, fnxln, fossiliferous

Lime, crm-lt brn, fnxln, fossiliferous, fusulinids

Lime, crm-lt brn, fnxln, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly fossiliferous
Shale, med gray, blocky

Lime, lt-med brn, fnxln with fusulinids

Lime, crm-lt brn, fnxln to granular in part, scattered bedded chalk

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

Lime, lt-med brn, fnxln

Lime, crm-med brn, fnxln, fossiliferous in part

Shale, black carbonaceous

Lime, lt-med brn, fnxln with calcareous shale with fossil fragments

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln

Lime, lt brn, fnxln

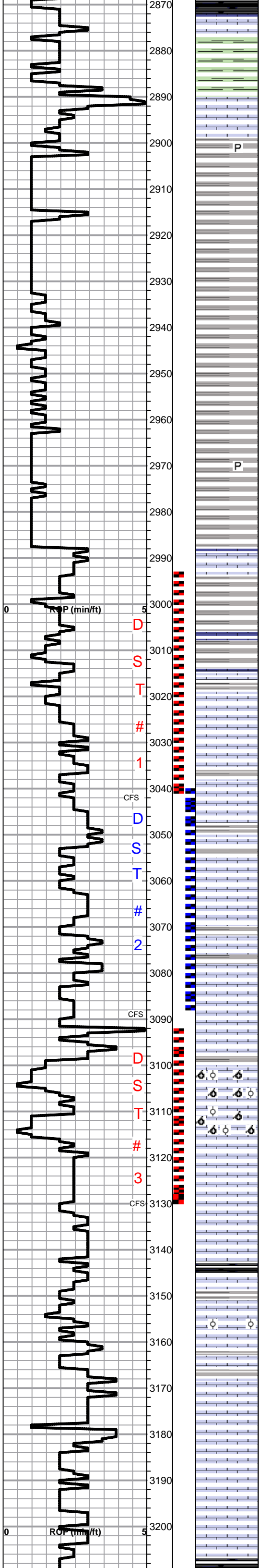
Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln

HEEBNER SHALE ELog 2868-1096

FINISH DISPLACEMENT
OF MUD SYSTEM



Shale, black carbonaceous
Lime, med-dark brn, fn-vfxln

Shale, dove gray to lime green

TORONTO ELog 2890-1118
Lime, crm, mostly fnxln, scattered hvy oil stain in vuggy porosity

DOUGLAS SHALE ELog 2899-1127
Shale, lt gray-lt green, pyritic

Shale, lt-med gray, soft blocky

Shale, lt-med gray, soft blocky

Shale, dove gray to lt gray, soft

Shale, lt-med gray, soft blocky, few chips of gritty sandstone, NS

Shale, lt-med gray, soft blocky

Shale, lt gray, soft with pyrite clusters

Shale, lt gray, soft

BROWN LIME SPL 2987-1215 ELog 2990-1218
Lime, med-dark brn, fn-vfxln, fossiliferous in part

Shale, dove gray, soft mud balls in part to soft blocky

Shale, med-dark gray, soft blocky

LKC ELog 3014-1242
Lime, lt-med brn, mostly fn-vfxln, few chips with flaky gilsonite, NFO

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

Lime, crm-lt-med brn, mostly fn-vfxln

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

Lime, lt brn-gray, fn-vfxln, slightly fossiliferous

Lime, lt brn, mostly fnxln with few chips with pinpoint porosity, scattered stain with light odor

Lime, brn-grayish brn, fn-vfxln

Lime, crm, mostly fnxln with bed of fossil fragments, scattered stain with very lite odor, NFO

Lime, med brn, vfxln

Shale, dove gray forming soft mud balls

Lime, lt brn, fnxln with well cemented oolite bed, oolmoldic with scattered staining, trace oil stain with very lite odor

Lime, med brn, oolitic-oolmoldic, barren material, no staining

Lime, med brn, fnxln

Lime, lt-med grayish brn, fn-vfxln

Shale, gray-black carbonaceous

Lime, crm-lt-med brn, mostly fnxln with scattered oolitic chips with fair odor, lt scattered to saturated staining

Lime, lt-med grayish brn, fnxln, oolmoldic with lite odor and light oil staining. Microlog shows no permeability in interval.

Lime, lt-med grayish brn, fnxln

Lime, lt-med brn, fn-vfxln

Lime, lt-med brnish gray, fnxln

Lime, med brn, fn-vfxln

DST # 1 2993'-3042'
SEE HEADER FOR TEST
DETAILS

DST # 2 3040'-3089'
SEE HEADER FOR TEST
DETAILS

DST # 3 3092'-3130'
SEE HEADER FOR TEST
DETAILS

