OPERATOR

Company:	SANDLIN OIL CORPORATION		
Address:	621 17TH ST, STE. 2055 DENVER, CO 80293-2001		
Contact Geologist:	KATHIE SANDLIN		
Contact Phone Nbr:	303-292-3313		
Well Name:	PAUL MCRAE # 1		
Location:	NW NE SE NW, SEC.27-T12S-R18W		
API:	15-051-26,862-00-00		
Pool:		Field:	BEMIS-SHUTTS
State:	KANSAS	Country:	USA

Scale 1:240 Imperial

Well Name:	PAUL MCRAE # 1		
Surface Location:	NW NE SE NW, SEC.27-T12S-R18W		
Bottom Location:			
API:	15-051-26,862-00-00		
License Number:	6677		
Spud Date:	2/8/2017	Time:	6:00 PM
Region:	ELLIS COUNTY		
Drilling Completed:	2/14/2017	Time:	2:07 AM
Surface Coordinates:	1555' FNL & 2300' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	2160.00ft		
K.B. Elevation:	2166.00ft		
Logged Interval:	3000.00ft	To:	3752.00ft
Total Depth:	3750.00ft		
Formation:	ARBUCKLE		
Drilling Fluid Type:	CHEMICAL/FRESH WATER GEL		

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-99.3080127
Latitude:	38.9826829
N/S Co-ord:	1555' FNL
E/W Co-ord:	2300' 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:	ROYAL DRILLING, INC.		
Rig #:	1		
Rig Type:	MUD ROTARY		
Spud Date:	2/8/2017	Time:	6:00 PM
TD Date:	2/14/2017	Time:	2:07 AM
Rig Release:	2/14/2017	Time:	11:45 PM

ELEVATIONS

K.B. Elevation: 2166.00ft
K.B. to Ground: 6.00ft
Ground Elevation: 2160.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON LOW STRUCTURE AND NEGATIVE RESULTS OF TWO DSTS.

OPEN HOLE LOGGING BY ELI: DUAL INDUCTION LOG, COMPENSATED DENSITY/NEUTRON LOG AND MICRO LOG.

DRILL STEM TESTING BY TRILOBITE TESTING, INC: ONE (1) CONVENTIONAL TEST AND ONE (1) STRADDLE TEST.

	PAUL MCRAE #1 NW NE SE NW SEC.27-12S-18W 2160'GL 2166'KB	WERTH ETAL #1 SW SW SW SE SEC.22-12-18W KB 2165'	JOY # 1 SW NW SE NE SEC.27-12-18W KB 2151'
FORMATION	LOG TOPS	LOG TOPS	LOG TOPS
Anhydrite	1430 +736	+ 743	+ 743
B-Anhydrite	1465 +701	+ 708	+707
Topeka	3156 -990	-973	-986
Heebner Sh.	3388-1222	-1204	-1215
Toronto	3409-1243	-1226	
LKC	3437-1271	-1249	-1263
BKC	3658-1492	-1479	-1499
Arbuckle	3692-1526	-1508	-1519
RTD	3750-1584	-1602	-1574

SUMMARY OF DAILY ACTIVITY

2-08-17	RU, set 8 5/8" surface casing to 213' w/ 150 sxs 80/20 POS 2%Gel 3%CC, plug down 1:00 AM 2-09-17, slope 1 degree
2-09-16	213', WOC, rig maintenance
2-10-17	1240', drilling
2-11-17	2475', drilling, displace 3000'
2-12-17	3146', CFS 3470', short trip, CCH, TOWB, DST # 1 3414'-3470' "C" zone LKC, slope ½ degree
2-13-17	3470', finish DST #1, TIWB, lost returns @ 3551' and restored returns with LCM, drilling, CFS 3696'
2-14-17	3750', RTD 2:07 AM at 3750', CCH, TOWB, logs, straddle DST # 2

3656’ to 3707’ Arbuckle, decision to P&A

DRILL STEM TEST REPORT

Sandlin Oil Corporation

621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

27-12s-18w Ellis

Paul McRae #1

Job Ticket: 64091 **DST#: 1**

Test Start: 2017.02.13 @ 02:55:14

GENERAL INFORMATION:

Formation: **LKC A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:40:24
Time Test Ended: 09:19:08

Test Type: Conventional Bottom Hole (Initial)
Tester: Ray Schw ager
Unit No: 77

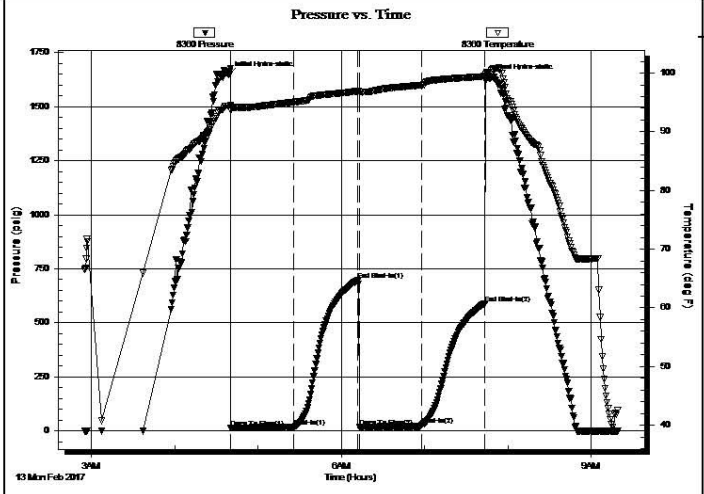
Interval: 3414.00 ft (KB) To 3470.00 ft (KB) (TVD)
Total Depth: 3470.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2166.00 ft (KB)
2160.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8360 **Inside**
Press@RunDepth: 26.85 psig @ 3416.00 ft (KB)
Start Date: 2017.02.13 End Date: 2017.02.13
Start Time: 02:55:14 End Time: 09:19:08

Capacity: 8000.00 psig
Last Calib.: 2017.02.13
Time On Btm: 2017.02.13 @ 04:39:09
Time Off Btm: 2017.02.13 @ 07:46:53

TEST COMMENT: 45-IFP-w k bl thru-out 1/2"to 2"bl
45-ISIP-no bl
45-FFP-w k surface bl thru-out
45-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.37	94.42	Initial Hydro-static
2	12.92	93.69	Open To Flow (1)
47	17.75	95.06	Shut-In(1)
93	696.19	96.91	End Shut-In(1)
94	17.22	96.72	Open To Flow (2)
139	26.85	97.95	Shut-In(2)
185	589.05	99.44	End Shut-In(2)
188	1631.21	100.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	VSOCM 1/2%O99 1/2%M	0.35

Gas Rates

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

DRILL STEM TEST REPORT

Sandlin Oil Corporation

621 17th st.
STE 2055
Denver Co 80293-2001
ATTN: Herb Deines ,Kathie

27-12s-18w Ellis

Paul McRae #1

Job Ticket: 64092 **DST#: 2**

Test Start: 2017.02.14 @ 10:30:27

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:42:22
Time Test Ended: 16:26:51

Test Type: Conventional Straddle (Reset)
Tester: Ray Schw ager
Unit No: 77

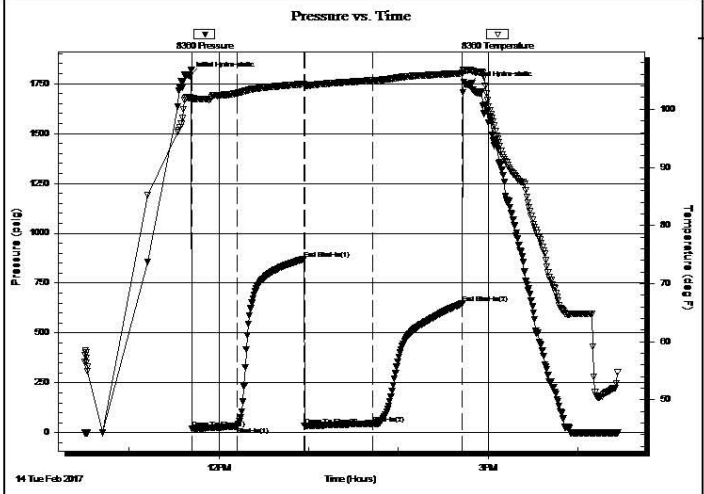
Interval: 3656.00 ft (KB) To 3707.00 ft (KB) (TVD)
Total Depth: 3752.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2166.00 ft (KB)
2160.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8360 **Inside**
Press@RunDepth: 46.04 psig @ 3665.00 ft (KB)
Start Date: 2017.02.14 End Date: 2017.02.14
Start Time: 10:30:27 End Time: 16:26:51

Capacity: 8000.00 psig
Last Calib.: 2017.02.14
Time On Btm: 2017.02.14 @ 11:40:37
Time Off Btm: 2017.02.14 @ 14:47:06

TEST COMMENT: 30-IFP-w k to a fr bl 1/2"to 5"bl
45-ISIP-no bl for approx 35 min then got surface bl
45-FFP-w k bl thru-out 1/2" to 2 1/4"bl
60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.71	101.99	Initial Hydro-static
2	19.39	101.67	Open To Flow (1)
32	31.91	102.77	Shut-In(1)
77	871.62	104.33	End Shut-In(1)
77	34.57	104.00	Open To Flow (2)
123	46.04	104.96	Shut-In(2)
183	647.06	106.20	End Shut-In(2)
187	1741.63	106.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	CO	0.56
40.00	HOCM 25%O75%M	0.56

Gas Rates

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

* Recovery from multiple tests

ROCK TYPES

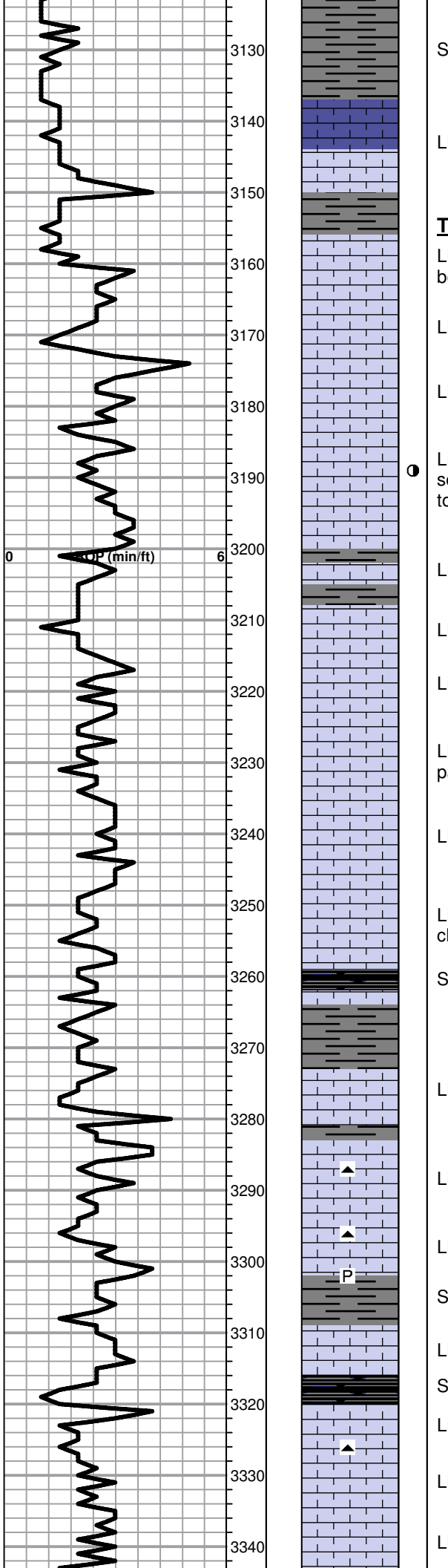
Dolprim	Lmst fw7>	shale, grn	Carbon Sh
Lmst fw<7	Lscongl	shale, gry	shale, red

ACCESSORIES

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

FOSSIL
- F Fossils < 20%
- Oomoldic

Curve Track #1 ROP (min/ft) 1:240 Imperial	Depth | Intervals Cored Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3 1:240 Imperial
0 ROP (min/ft) 6	3050 3060 3070 3080 3090 3100 3110 3120				BEGIN 1' DRILL TIME FROM 3050' TO RTD BEGIN 1' WET AND DRY SAMPLES FROM 3000' TO RTD **ANHYDRITE TOP 1430+736** **ANHYDRITE BASE 1465+701** Lime, lt brn-med gray, fnxln, slightly fossiliferous Shale, lt-med gray, soft mud-soft blocky Lime, lt-med brn, fnxln, fossiliferous-fusulinids Shale, lt gray, soft sticky mud to soft blocky Lime, lt brn-lt grayish brn, fnxln, fossiliferous Shale, lt-med gray, soft blocky with lt gray sticky clumping in part	8 5/8" SURFACE CASING SET TO 213' W/ 150 SXS 80/20 POS 2%GEL 3%CC CORRECTED DRILL TIME TO LOG BY 2'



Shale, lt-med gray, soft mud-soft blocky, slightly micaceous

Lime, lt brn-lt gray, fn-micro xln, fossiliferous

TOPEKA 3156-990

Lime, lt-med brn, fn-micro xln w/ thin cemented fusilinid beds in part

Lime, crm-lt brn, fn-vfxln with some grayish brn, micro xln

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

Lime, lt brn, very fine interxln and micro oolmoldic porosity, scattered to saturated staining, NFO or odor, judged to be to tight to give up fluid

Lime, offwhite-lt brn, fn-vfxln

Lime, lt brn-lt gray, fnxln

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

Lime, lt brn-lt gray, fn-vfxln with scattered granular chips in part

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

Lime, lt brn-lt grayish brn, fnxln with scattered chips with chalk matrix and thin fusulinid beds

Shale, black carbonaceous, blocky

Lime, lt brn, fnxln-granular, lt chalk wash

Lime, crm-lt brn, fnxln-granular

Lime, crm-tan, fnxln with bedded chalk

Shale, reddish brn-gray, soft blocky, pyrite clusters

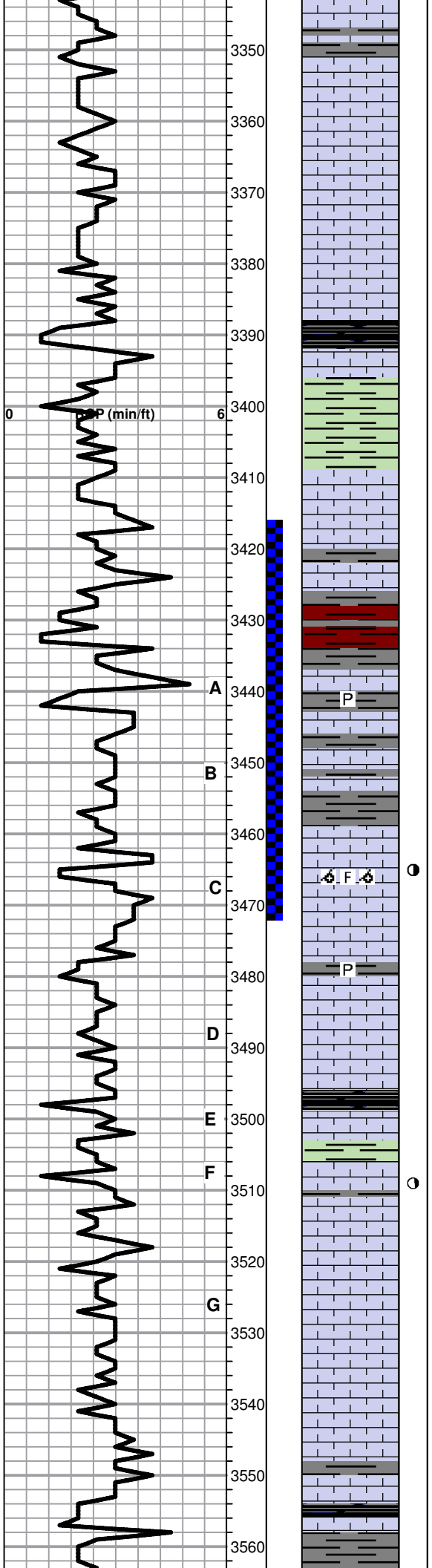
Lime, crm, fn-vfxln

Shale, black carbonaceous

Lime, med brn, fn-vfxln

Lime, crm-lt gray, fnxln, chert, tan, fresh, sharp

Lime, crm-lt-med brn, fnxln with thin bedded chalk



Lime, crm-lt brn, fnxln with chalky soft lime in part

Lime, crm-lt brn, fnxln with bedded chalk and soft chalky lime in part

Lime, offwhite-crm-lt brn, fnxln with scattered fossils

Lime, crm-lt brn, fnxln with chalky lime in part

HEEBNER SHALE 3388-1222

Shale, black carbonaceous, fissile, blocky
Lime, lt brn, micro xln

Shale, lt green, soft blocky

TORONTO 3409-1243

Lime, white-crm, fnxln-granular, NS, no staining, no wet cut

Lime, crm-lt brn, fn-vfxln

Shale, reddish brn, soft-firm blocky

LKC 3437-1271

DST # 1 3414' TO 3470' CORRECTED DEPTH 3416' TO 3472' SEE HEADER FOR TEST SUMMARY

Lime, lt brn, microxln

Lime, crm-lt brn, fn-micro xln, slightly fossiliferous

Lime, lt-med brn, fn-micro xln

Lime, tan-lt brn, fnxln with zone of oomoldic and oolitic lime, scattered to saturated stain, very lt odor, NFO, fair wet cut

SLOPE 1/2 DEGREE

Lime, lt-med brn, fn-micro xln

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

Shale, black carbonaceous, blocky
Lime, lt brn, fn-micro xln

Lime, crm-tan, slightly fossiliferous, few chips with spotty staining, NFO or odor, poorly developed

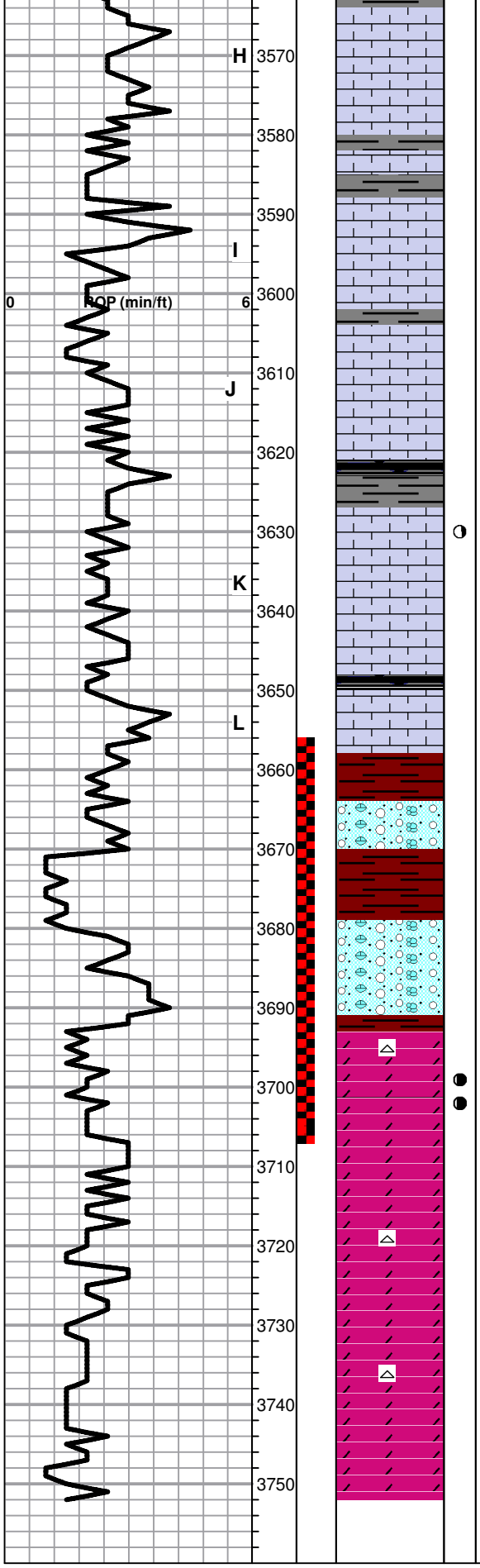
Lime, crm-lt brn, fnxln with bedded chalk with sticky chalk in part

Lime, crm-lt brn, fn-micro xln, moderate bedded chalk

Lime, crm-lt brn, fn-micro xln

LOST RETURNS-150 BBLS+ @3551' MIXED MUD AND LCM TO CONTROL LOST CIRCULATION AND GOT RETURNS WITH SOME CONTINUED LOSS OF FLUID

Shale, gray-black carbonaceous



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

Lime, crm-lt brn, fn-micro xln

Shale, lt-med gray, firm blocky

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

Lime, crm-lt brn, fn-vfxln

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

Lime, crm-lt brn, fn-micro xln

Shale, med-dark gray-carbonaceous

Lime, lt brn, fnxln with few chips with fine pinpoint porosity, spotty staining, NFO or odor, poorly developed

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

Shale, black carbonaceous, blocky
Lime, lt brn, fn-micro xln

BKC 3658-1492

Shale, reddish brn, soft blocky

Lime, lt grayish green, fnxln-granular, NS

Shale, reddish brn, soft blocky

DST # 2 STRADDLE TEST 3656' TO 3707' SEE HEADER FOR TEST SUMMARY

Lime, clastic mix, fnxln, chalky with some sticky clumping, NS

ARBUCKLE 3692-1526

Dolomite, crm-lt brn, fnxln, vuggy porosity with dark staining, fair odor and VMSFO

Dolomite, lt brn, fnxln, decreasing odor and staining

ZONE OF OIL SATURATION WAS THIN AND THE RESERVOIR HAD A PERMEABILITY ISSUE WHICH WAS CONFIRMED BY THE PRESSURE LOSS ON THE SECOND SHUT IN PRESSURE OF DST # 2.

Dolomite, crm-lt brn, fnxln-vuggy, lt sulfur odor

Dolomite, crm, fnxln-vuggy, lt sulfur odor, few chips of white oolitic chert, fresh, sharp

Dolomite, white-crm, fnxln

Dolomite, white-crm, fnxln with white sucrosic in part,

RTD 3750-1584 LTD 3752-1586