



**MUSTANG**  
**ENERGY CORPORATION**

Scale 1:240 Imperial

Well Name: VINE E #8  
Surface Location: NW NE SW NE SEC. 22 T11S R19W  
Bottom Location:  
API: 15-051-26955  
License Number: 33922  
Spud Date: 6/1/2019 Time: 3:00 PM  
Region: ELLIS COUNTY  
Drilling Completed: 6/6/2019 Time: 9:30 PM  
Surface Coordinates: 1420' FNL & 1780' FEL  
Bottom Hole Coordinates:  
Ground Elevation: 1935.00ft  
K.B. Elevation: 1943.00ft  
Logged Interval: 2800.00ft To: 3576.00ft  
Total Depth: 3576.00ft  
Formation: ARBUCKLE  
Drilling Fluid Type: CHEMICAL

**OPERATOR**

Company: MUSTANG ENERGY CORPORATION  
Address: PO BOX 1121

Contact Geologist: ROD BRIN  
Contact Phone Nbr: 785-623-0533  
Well Name: VINE E #8  
Location: NW NE SW NE SEC. 22 T11S R19W  
API: 15-051-26955  
Pool: State: KS Field: SOLOMON  
Country:

**SURFACE CO-ORDINATES**

Well Type: Vertical  
Longitude: -99.41360  
Latitude: 39.08453  
N/S Co-ord: 1420' FNL  
E/W Co-ord: 1780' FEL

**LOGGED BY**

Company:  
Address: 2717 HICKORY  
HAYS, KS 67601  
Phone Nbr: 785-639-0721  
Logged By: Geologist Name: CAMERON BRIN

**CONTRACTOR**

Contractor: DISCOVERY DRILLING INC.  
Rig #: 2  
Rig Type: MUD ROTARY  
Spud Date: 6/1/2019 Time: 3:00 PM  
TD Date: 6/6/2019 Time: 9:30 PM  
Rig Release: 6/7/2019 Time: 8:30 PM

**ELEVATIONS**

K.B. Elevation: 1943.00ft Ground Elevation: 1935.00ft

**NOTES**

DUE TO GOOD SHOWS THROUGHOUT THE ARBUCKLE AND POSITIVE LOG RESULTS, THE DECISION WAS MADE TO RUN 5 1/2" PRODUCTION CASING TO FURTHER EVALUATE THE VINE E #8 WELL

LOGGING PROVIDED BY: ELI- DUAL INDUCTION, COMPENSATED NEUTRON/ DENSITY, MICRORESISTIVITY LOGS WERE COMPLETED

NO DRILL STEM TESTS WERE RAN








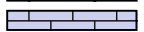


**STRUCTURAL COMPARISON**

	Mustang Energy Corporation		Skelly Oil Company		Mustang Energy Corporation		Mustang Energy Corporation	
	Vine E #8		Mauder R. Allen #8		M.R. Allen #17		Vine E #7	
			Producing				Producing	
	NW NE SW NE 22-11S-19W		NE SE NW 22-11S-19W		SE SE NW 22-11S-19W		S2 N2 NE 22-11S-19W	
	KB 1943		KB 1967		KB 1988		KB 1943	
Formation	Sample Tops	Log Tops	Log Tops		Log Tops		Log Tops	
Anhydrite	1231' (+712)	1239' (+704)	1256' (+711)	-7	1278' (+710)	-6	1230' (+713)	-9
Base	1266' (+677)	1276' (+667)	1291' (+676)	-9	1314' (+674)	-7	1267' (+676)	-9
Topeka	2896' (-953)	2899' (-956)	2915' (-948)	-8	2938' (-950)	-6	2892' (-949)	-7
Heebner	3118' (-1175)	3121' (-1178)	3136' (-1169)	-9	3160' (-1172)	-6	3114' (-1171)	-7
LKC	3160' (-1217)	3165' (-1222)	3177' (-1210)	-12	3201' (-1213)	-9	3156' (-1213)	-9
BKC	3380' (-1437)	3384' (-1441)	3400' (-1433)	-8	3426' (-1438)	-3	3377' (-1434)	-7
Arbuckle	3460' (-1517)	3462' (-1519)	3481' (-1514)	-5	3504' (-1516)	-3	3456' (-1513)	-6
RTD	3576' (-1633)	3582' (-1639)	3486' (-1519)		3590' (-1592)		3540' (-1597)	

**Summary of Daily Activity**

- 6/1/19** R.U., SPUD @ 3:00, DRILLING
- 6/2/19** 904', DRILLING, 8 5/8" SURFACE CASING SET @1235' KB W/ 460 SKS COMMON 2% GEL & 3% CC, WOC
- 6/3/19** 1235', WOC, DRILLED PLUG @ 7:15AM, DRILLING
- 6/4/19** 2383', DRILLING, LOST PUMP PRESSURE, TOH, TIH
- 6/5/19** 2996', TIH, DRILLING
- 6/6/19** 3447', DRILLING, TOHWB, TIHWB, DRILLING, CFS @3466, DRILLING, RTD 3576' (-1633) @ 9:30PM, SHORT TRIP (10 STANDS), CCH, TOWB
- 6/7/19** 3576', TOWB, LOGGING, RUNNING PRODUCTION CASING AND CEMENT, COMPLETED @8:00PM RIG RELEASE @8:30PM

**ROCK TYPES**

 Dolprim	 Lscong1	 Carbon Sh	 Ss
 Dolsec	 shale, grn	 shale, red	
 Lmst fw7>	 shale, gry	 Shcol	

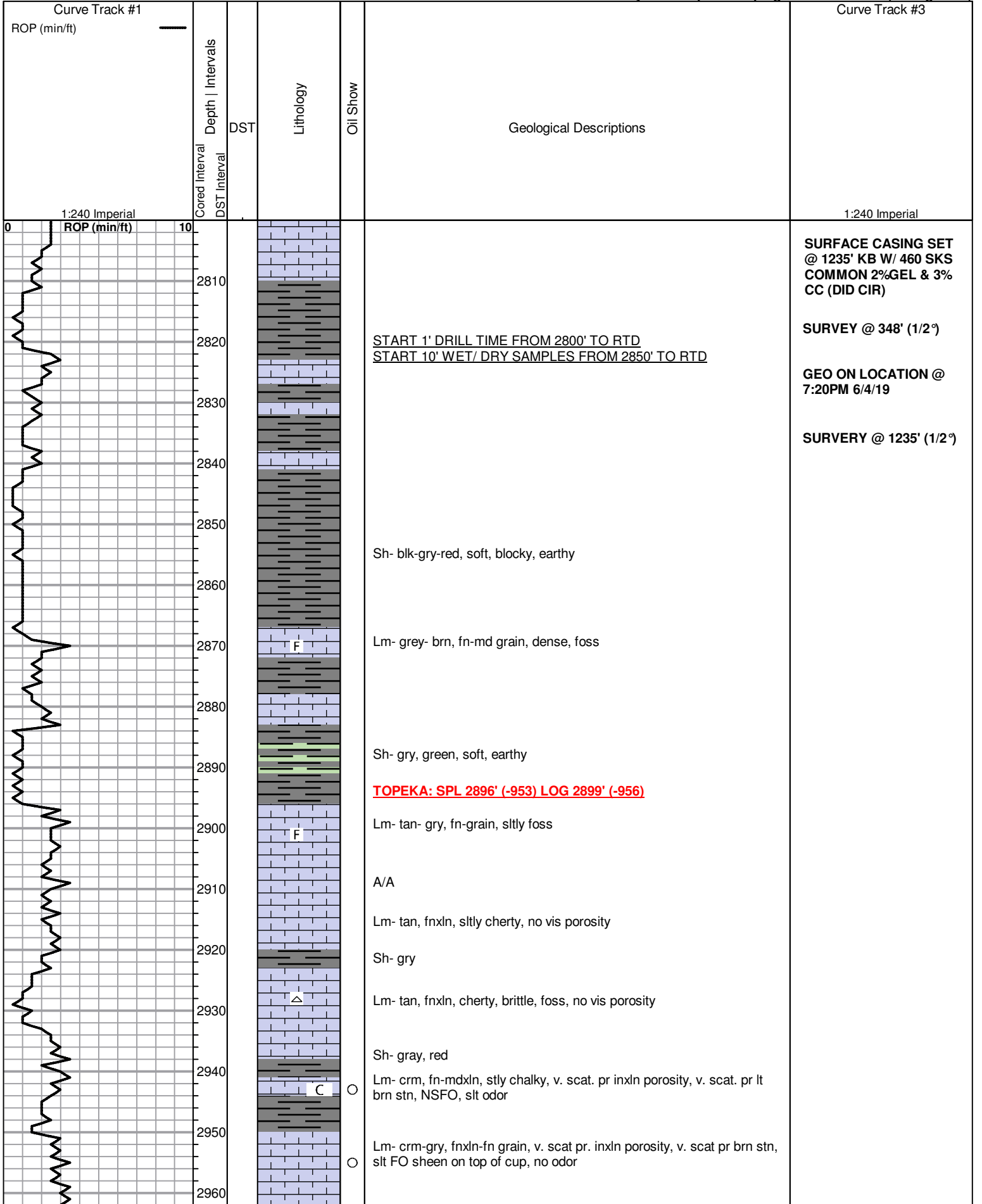
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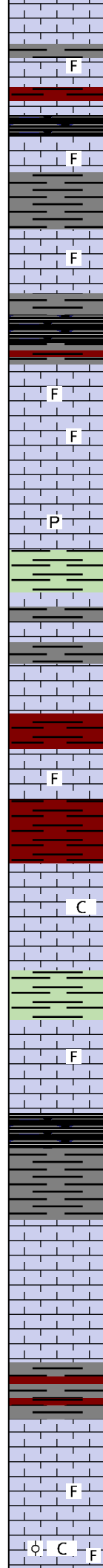
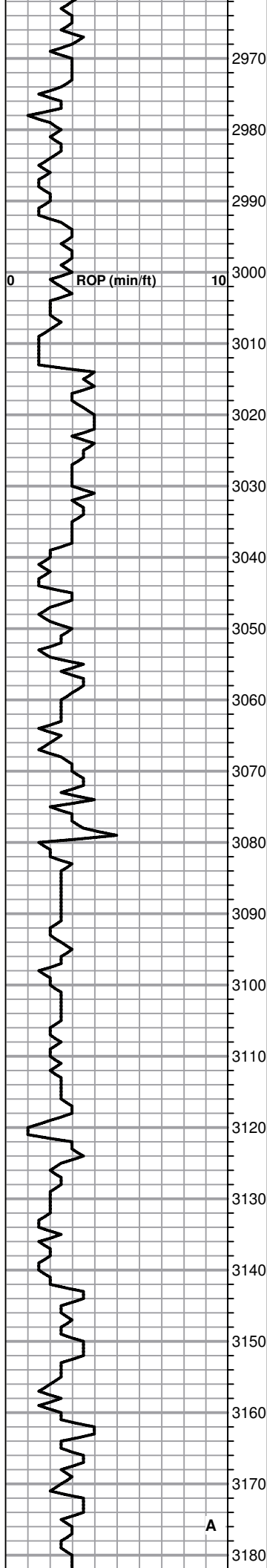
**MINERAL**

**FOSSIL**

**TEXTURE**

- P Pyrite
- Sandy
- △ Chert White
- ◊ Euhed rhombs of dol or
- F Fossils < 20%
- Oolite
- ⊕ Oomoldic
- C Chalky





Lm- A/A, foss

Lm- crm- lt gry, fnxln, v. foss, scat pr pinpoint porosity, no vis show, no odor

Sh- black, red, waxy

Lm- crm- gry, fn-mdxln, stly chalky, stly foss, no vis porosity, no vis show, no odor

Sh- blk, red

Lm- crm-tan, fn-mdxln, foss, no vis porosity, no vis show, no odor

Sh- blk-gry-red, soft, waxy

Lm- crm- tan, fn-mdxln, v. foss, no vis porosity, no vis show, no odor

Lm- crm- fnxln, stly foss, scat pr inxln porosity, v. scat lt brn stn, NSFO, no odor, chert, white, angular

Lm- crm- lt gry, fnxln, stly cherty, stly foss, pyrite in part

Lm- crm-tan, fnxln, scat pr. inxln porosity, v. scat lt brn stn, NSFO, no odor

Sh- black- red- green

Lm- crm-tan, fnxln, scat pr inxln porosity, v.scats pr v. lt brn, NSFO, no odor

**OREAD: LOG 3057' (-1114)**

Sh- blk, red

Lm- crm-off wt, micro-fnxln, scat foss, N.S, no odor, stly cherty

Sh- red, blk

Lm- crm- gry, fnxln, scat pr inxln porosity, v. scat lt brn stn, NSFO, no odor, stly chalky

Lm- crm- fnxln, scat pr inxln porosity, pr-fr lt brn stn, slt SFO sheen in cup, pr-no odor

Sh- turquoise, black

Lm- crm-brn, fnxln, foss, scat pr-fr inxln porosity, scat pr-fr brn stn, no vis SFO, v. slt odor,

**HEEBNER: SPL 3118' (-1175)**

Sh- blk, carb

Sh- blk, red

**TORONTO: LOG 3138' (-1195)**

Lm- crm- lt brn,fn-mdxln, scat pr inxln porosity, pr lt rn stn, NSFO, no odor

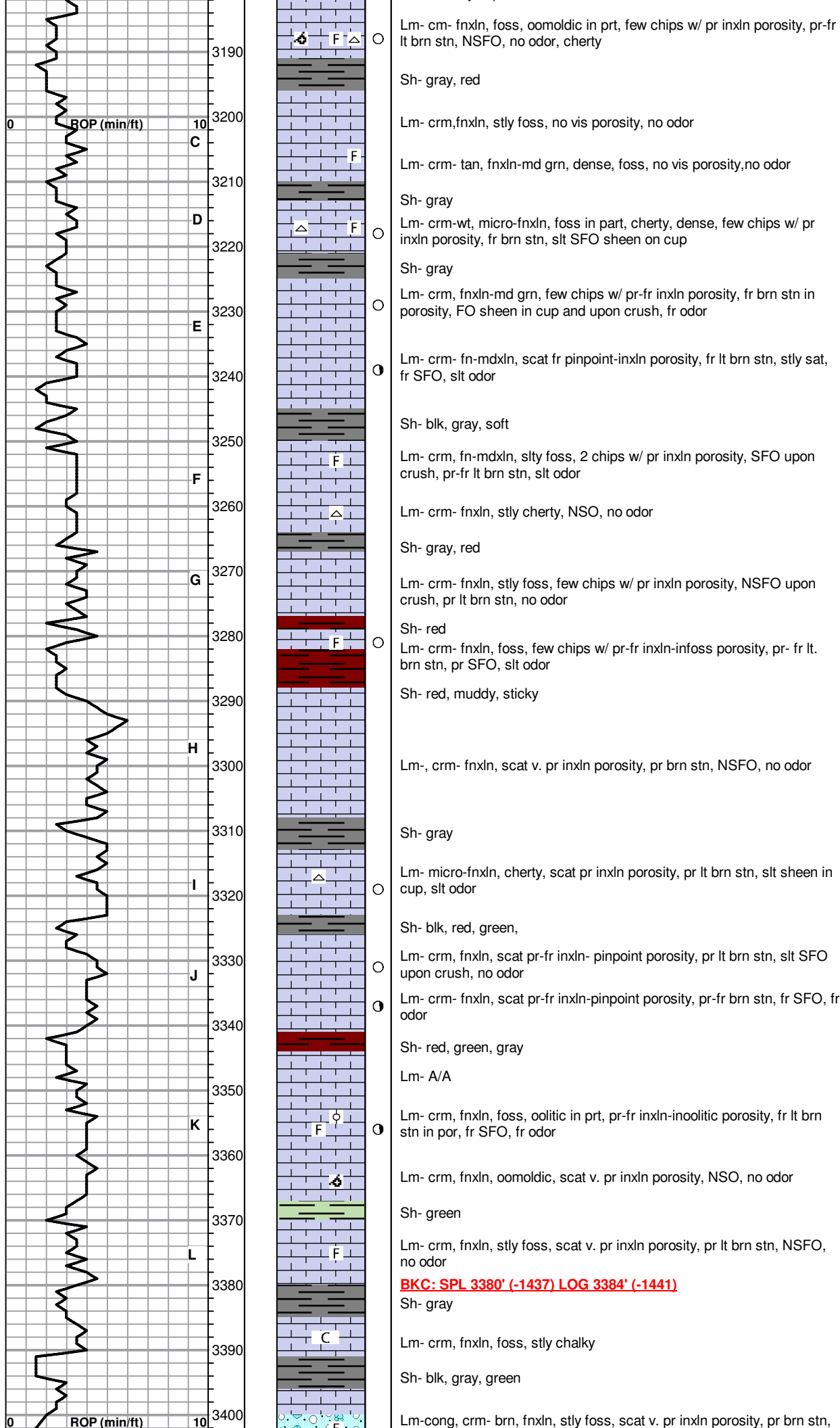
Sh- blk, red

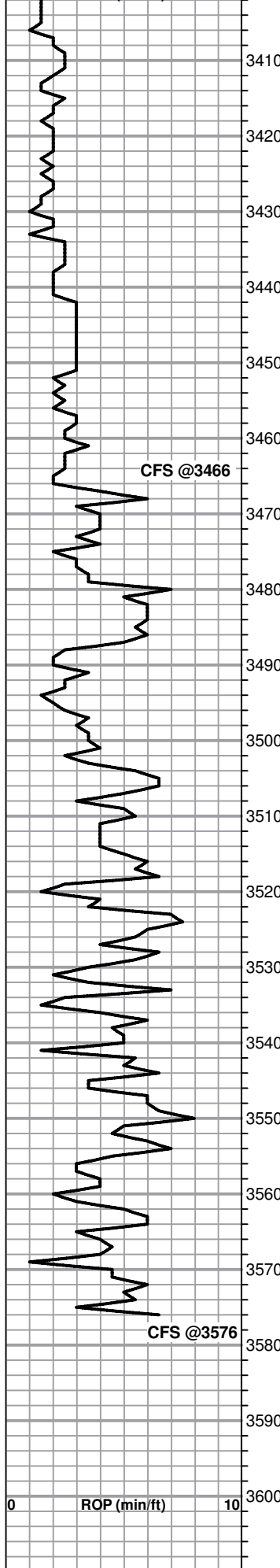
**LKC: SPL 3160' (-1217) LOG 3165' (-1222)**

Lm- crm-brn, fnxln, 1-2 chips w/ pr inxln porosity, lt brn stn NSFO, no odor

Lm- crm, fn-mdxln, foss, scat pr inxln porosity, NSO, no odor, stly cherty

Lm- crm- fnxln, foss throughout, oolitic, scat v pr inxln porosity, NSO, slt odor, chalky in part





○ NSFO, no odor

○ Lm-cong- fn-mdxn, var colors, foss in prt, scat pr inxln porosity, brn stn, NSFO, slt odor, chert, orange-wt

Ss- off wt quartz, sub-rounded, well sorted

Sh- red, blk

Lm- crm-fnxln, cherty, NSO, slt odor

Sh- red

Lm- crm-tan, fnxln, sandy in prt. chert vari colors,

Sh- red

Lm- crm- fnxln, scat chert, scat white dolo, NSO, no odor

Dolo- wt, microxln, NSO

Sh- vari colors

**ARBUCKLE: SPL 3460' (-1517) LOG 3462' (-1519)**

● Dolo- crm- micro-fnxln, stly sandy, scat pr-fr inxln porosity, fr brn stn, 1 chip gd inxln porosity, blk stn, gd sat, fr SFO, fr-gd odor

● Dolo- crm- mdxn, rhombic in prt, fr inxln-pinpoint porosity vuggy in prt, fr-gd drk brn stn, gd sat, fr SFO, pr-fr odor

● Dolo- crm- mdxn, rhombic in prt, fr-gd inxln-pinpt porosity, fr-gd blk stn, fr sat, fr-gd SFO, fr odor

● Dolo- crm- fnxln-fn grn, fr inxln porosity, fr blk stn, scat pr-fr sat, fr-gd SFO, fr odor

● Dolo- crm, fnxln, scat rhombic, oolitic, fr inxln-gd oolitic porosity, gd blk stn, fr-gd sat, fr-gd SFO, fr-gd odor

● Dolo- crm, mdxn, sandy, fr inxln porosity, fr blk stn in por, fr-gd SFO, pr-fr odor

● Dolo- off wt, fn-mdxn, foss, sandy, pr-fr inxln porosity, pr-fr blk stn, pr sat, fr-gd SFO, fr odor

● Dolo- crm- lt pink, fn-mdxn, sandy, fr inxln porosity, fr blk stn, pr- fr sat, gd SFO, pr odor

● Dolo- crm, mdxn-mdgrn, sandy fr inxln porosity w/ few scat vuggs, fr blk stn, fr-gd SFO, fr odor,

● Dolo- crm- off wt, mdxn-mdgrn, frly dense and well consolidated, scat fr inxln porosity, scat blk stn, gd SFO upon crush and sheen in cup, fr odor

○ Dolo- crm-lt pnk, mdxn, mostly dense, well consolidated, scat fr inxln porosity, scat blk stn, gd SFO upon crush, pr sat, fr-gd odor

○ Dolo- crm, mdxn-fngrn, mostly dense, well consolidated, scat chips w/ fr inxln por, scat blk stn, fr-gd SFO upon crush, slt FO sheen in cup, fr odor

**RTD: SPL: 3576' (-1633) LOG: 3582' (-1639)**

3576' 30min- Dolo, crm, fn-mdxn, mostly dense, well consolidated, few chips w/ pr-fr inxln porosity, pr-fr blk stn, pr-fr sat, fr SFO upon crush, sheen and few blk oil specs in cup, pr-fr odor

3576' 60min- Dolo- crm-lt pnk, fr-mdxn, mostly dense, well consolidated, scat gd inxln porosity NSO, 3-5 chips w/ pr-fr inxln porosity, fr blk stn, SFO up crush, pr odor, shows most likely from above

**SURVEY @3576' (1°)**

**GEO OFF LOCATION @ 6:30AM 6/7/19**

**5 1/2" CASING SET TO 3579' w/ 135 SKS COMMON**