



DST #1 "Dear Creek" 3247'-3260' 30-60-45-90  
Recovered: 345' VSOSGMW 95% water, 4% mud, 1% gas  
IFP: 34-115, FFP: 120-169, BHP: 943-934, BHT: 107 Deg.

DST #2 LKC "B-E" zones 3455'-3518' 30-60-45-90  
Recovered: 15' Mud  
IFP: 8-18, FFP: 20-27, BHP: 974-960, BHT: 109 Deg.

DST #3 LKC "F-G" zones 3498'-3556' 30-60-45-90  
Flushed tool on both IF and FF with intermittent surface blow.  
Recovered: 205' drlg. mud with oil specks.  
IFP: 8-96, FFP: 98-123, BHP: 1037-1013, BHT: 107 deg.

DST #4 LKC "H-I-J-K-L" zones 3541'-3636' 30-60-45-90  
Recovered: 60' of drilling mud.  
IFP: 11-24, FFP: 26-38, BHP: 840-746, BHT: 109 deg.

DST #5 3672'-3683' 30-60-30-90  
Recovered: 2335' SGMW. 1% gas, 98% water, 1% mud.  
IFP: 310-1012, FFP: 1014-1101, BHP: 1107-1107, BHT: 116 deg.

#### Formations

#### Structural Comparison

Raymond Oil Raymond Oil Viking Resources  
45's & 75'w. NE-NE-SW-SE 4070'ESI & 3080'EEI

Sec. 12-6s-21w      Log Tops      Sec. 13-6s-21w      Log Tops

	Sample Tops	Log Tops	Log Tops
Anhy.	1814 (+957)	1813 (+ 1858)	1815 (+385)
Howard	3157 (-957)	3155 (-955)	3147 (-953)
Topeka	3196 (-996)	3197 (-996)	3185 (-990)
Deer Cr.	3247 (-1047)	3246 (-1046)	3240 (-1045)
Lac	3347 (-1117)	3314 (- 1114)	3307 (-1112)
Heebner	3398 (1198)	3400 (-1100)	3388 (-1193)
LKC	3438 (-1238)	3442 (-1242)	3447 (-1247)
BKC	3581 (-1381)	3481 (-1381)	3618 (-1483)
Marmaton	3666 (-1466)	3665 (-1465)	None
Arbuckle	None	None	3663 (-1468)
GW	3704 (-1504)	None	None
Granite	3718 (-1518)	3718 (-1508)	NA
TD	3731 (-1531)	3732 (-1532)	3711 (-1516)

LKC  
BKC  
Arbuckle

ROCK TYPES

	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

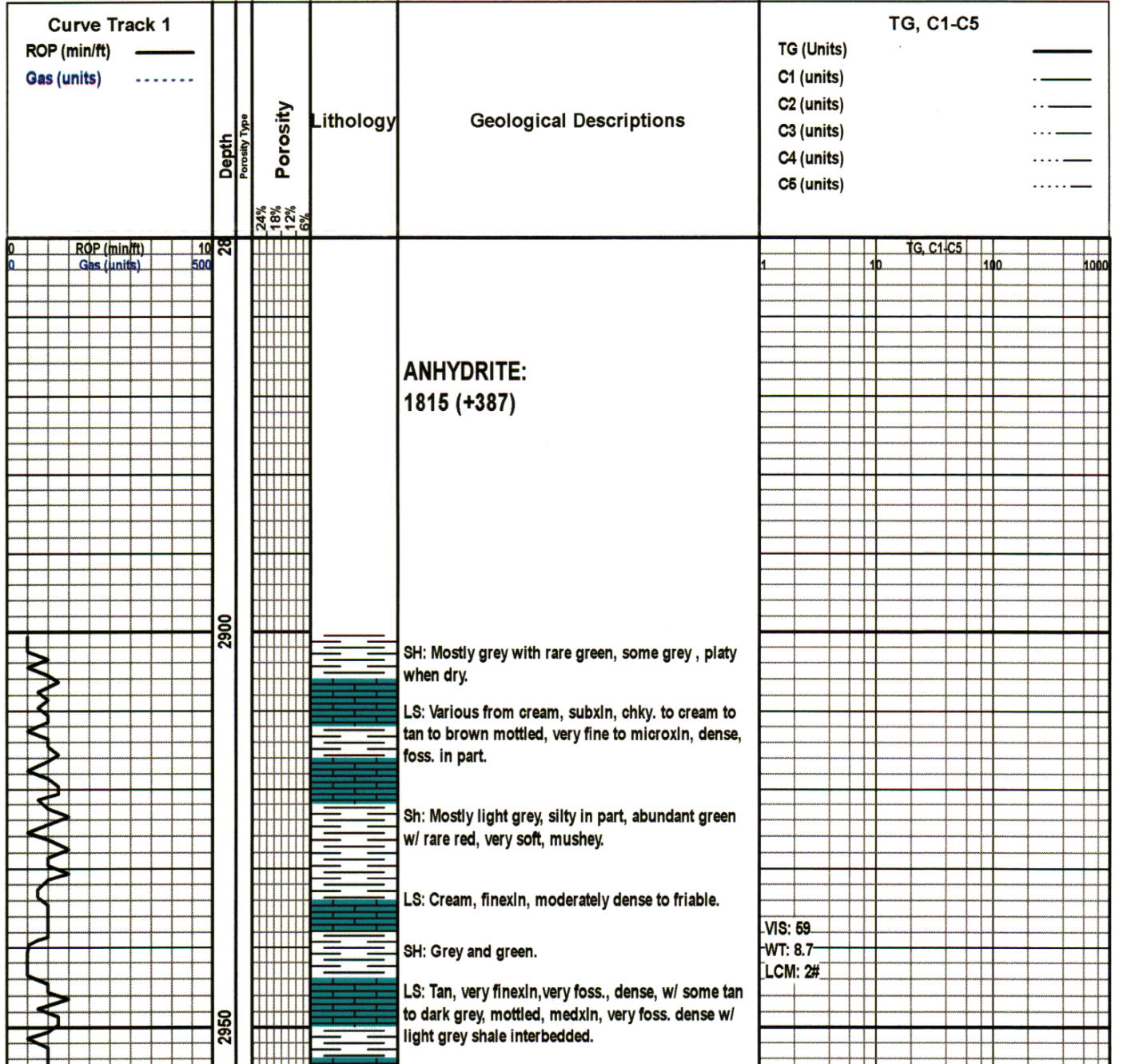
ACCESSORIES

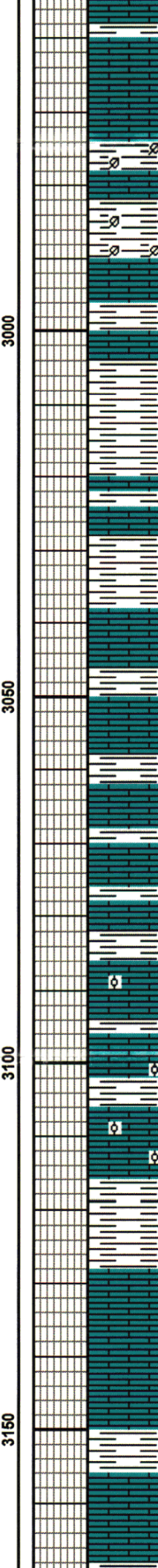
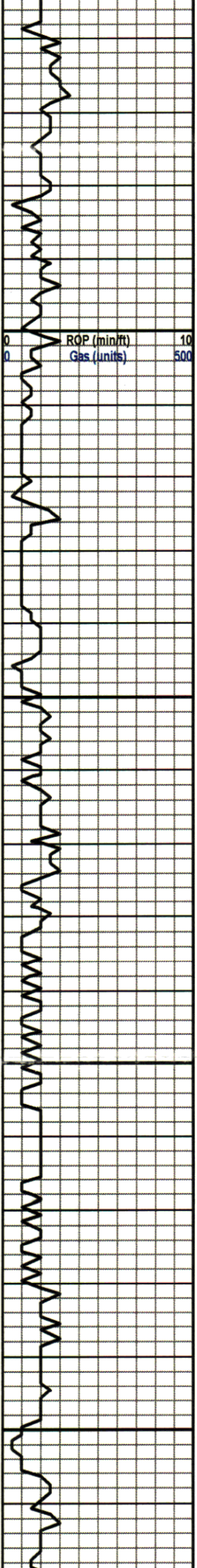
<b>MINERAL</b>		Gyp	<b>FOSSIL</b>		Ostra		Sltstrg	
	Anhy			Algae		Pelec		Ssstrg
	Arggrn			Amph		Pellet		
	Arg			Belm		Pisolite	<b>TEXTURE</b>	
	Bent			Bioclst		Plant		Boundst

Bit	Nodule	Brach	Strom	Chalky
Brecfrag	Phos	Bryozoa	Cryxln	Earthy
Calc	Pyr	Cephal	Finexln	Grainst
Carb	Salt	Coral	Lithogr	Microxln
Chtdk	Sandy	Crin	Mudst	Packst
Chtlt	Silt	Echin	Wackest	
Dol	Sil	Fish		
Feldspar	Sulphur	Foram		
Ferrpel	Tuff	Fossil		
Ferr		Gastro		
Glau		Oolite		
			<b>STRINGER</b>	
			Anhy	
			Arg	
			Bent	
			Coal	
			Dol	
			Gyp	
			Ls	
			Mrst	

**OTHER SYMBOLS**

<b>POROSITY</b>	<input checked="" type="checkbox"/> Vuggy	<b>ROUNDING</b>	<input type="checkbox"/> Spotted	<b>EVENT</b>
<input type="checkbox"/> Earthy	<b>SORTING</b>	<input type="checkbox"/> Rounded	<input type="checkbox"/> Ques	<input type="checkbox"/> Rft
<input type="checkbox"/> Fenest	<input type="checkbox"/> Well	<input type="checkbox"/> Subrnd	<input type="checkbox"/> Dead	<input type="checkbox"/> Sidewall
<input type="checkbox"/> Fracture	<input type="checkbox"/> Moderate	<input type="checkbox"/> Subang	<b>INTERVAL</b>	
<input type="checkbox"/> Inter	<input type="checkbox"/> Poor	<input type="checkbox"/> Angular	<input type="checkbox"/> Core	
<input type="checkbox"/> Moldic		<b>OIL SHOW</b>	<input type="checkbox"/> Dst	
<input type="checkbox"/> Organic		<input type="checkbox"/> Even		
<input type="checkbox"/> Pinpoint				





LS: Cream to tan, mostly finexln, very foss. , very dense w/ some tan to light brown, mottled, fine, rarely medxln, foss. dense.

SH: Mostly light grey, platy when dry, with some having dark organic material interbedded with mostly grey, finexln dense limestone.

LS: Creame to tan, mottled, medxln, very foss., dense w/abdt. light grey, very finexln, dense.

SH: Mostly light grey, platy when dry, with green and rare red, very soft mudstone.

LS: Mostly crean to light tan, finexln, very foss., moderately dense, friable in part.

SH: Mostly light grey W/some red, slightly silty in part to very soft.

LS: Tan, mostly fine with rare medxln, dense, very foss. interbedded with mostly grey shale.

LS: Tan as above with much grey marley limestone. Very rare stain. No show of free oil or odor.

LS: Mostly cream finexln, moderately dense with some cream to grey, mottled, finexln, dense interbedded with grey platy and some red, slightly silty in part shale.

LS: Cream, very fine to microxln, dense, with some tan, finexln very foss. rarely oolitic with some grey, finexln, very dense with interbedded shales as above.

LS: Tan, finexln, sucrosic, dense with grey, green, brown and rare red shale interbedded.

SH: Mostly very light grey, very soft.

LS: Cream to tan to grey, slightly mottled, finexln, foss., dense with very rare trace of stain. NSFO, no cut, no odor or fluor.

LS: Cream, finexln, moderately dense, with trace of stain as above.

SH: Mostly light grey, slightly silty in part, very soft.

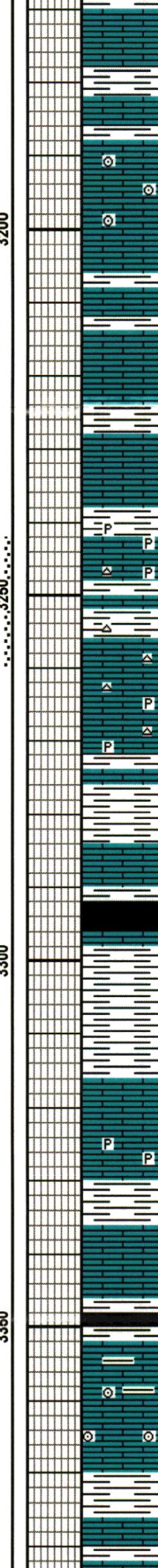
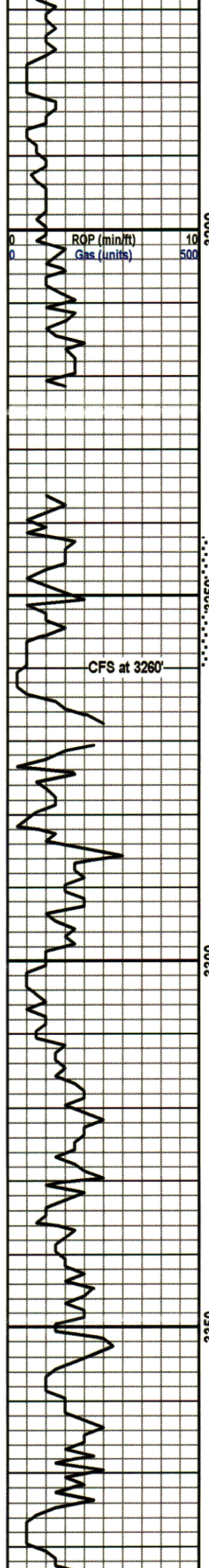
LS: Grey, microxln, very dense with abundant tan, finexln, very foss. dense ls. Interbedded with silty, microxln, very dense ls.

07:00 hrs. 10/8/2013

VIS: 61 TG, C1-C5  
WT: 8.8 10 100 1000  
LCM: 3#

VIS: 60  
WT: 8.8  
LCM: 2#

HOWARD: 3156' (-956)



microphyritic grey shale.

SH: light grey, green with red silty.

LS: Cream to tan to brown, some mottled, mostly finexln, very foss. in part, mostly crinoids.

LS: Mostly cream to tan, very fine to microxln, very dense, vety foss in part. No Show.

LS: Tan, finexln, mostly very dense with very rare poor show of oil in poor pin point porosity. No odor. No cut.

SH: Mostly grey, microphyritic, very soft.

LS: Cream, fine to mediumxln, friable with fair oil saturation in poor to fair interxln porosity. Poor to fair cut. Weak odor. Abundant cream, fresh, opaque chert w/ common free pyrite and white subxln, chalky microphyritic limestone.

LS: Cream, finexln, very dense w/ abundant tan, finexln, very foss. No Show.

LS: Very light grey, microxln, very dense.

SH: grey w/ occasional red, silty.

LS: Tan, finexln, very foss., dense.

SH: Black, carb.

SH: Grey, red, silty w/ abundant very light green, very soft mudstone.

LS: Cream to light tan, microxln, foss., rare gloc., very dense with a some subxln, chalky, rarely microphyritic. No show.

SH: mostly grey w/ rare red.

LS: As above w/ some brown to very dark brown, very finexln, foss. in part, very dense.

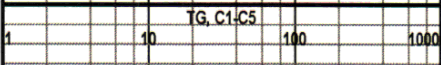
SH: Black, carb.

LS: Mostly cream, very finexln, dense w/ rare dark grey, mottled, marley, crinoids. No apparent porosity. No show.

SH: Mostly grey, platy when dry.

LS: Cream to dark grey, mottled, marley in part, dark foss. inclusions interbedded w/ mostly grey shale.

**TOPEKA: 3196' (-996)**



**NOTE: Geograph Broken. No drill time from 3223'-3238'**

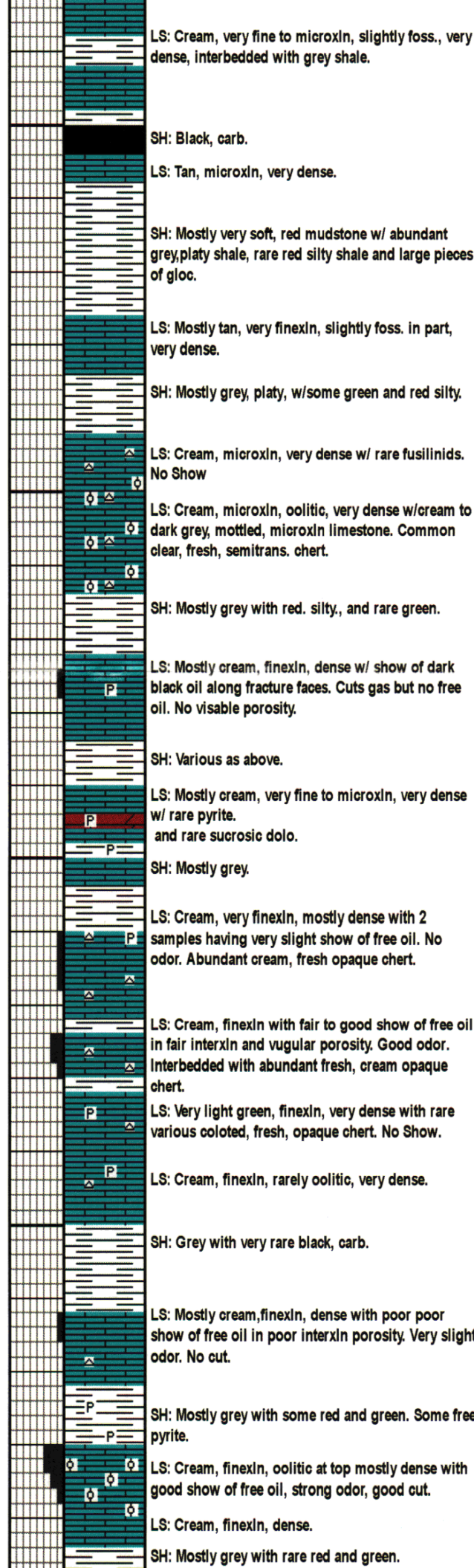
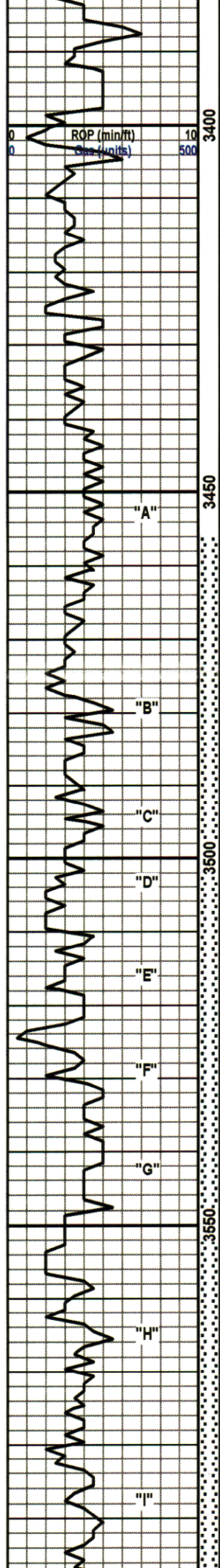
**DEAR CREEK: 3248' (-1048)**

**NOTE: Geograph line broke at 3251'**

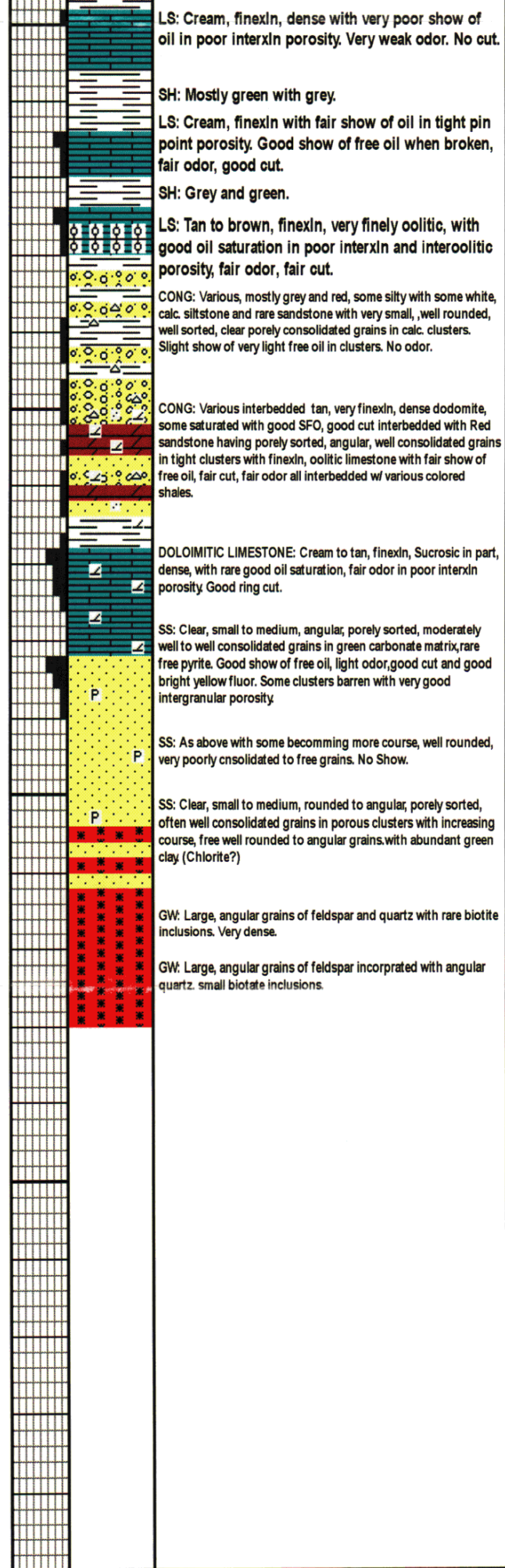
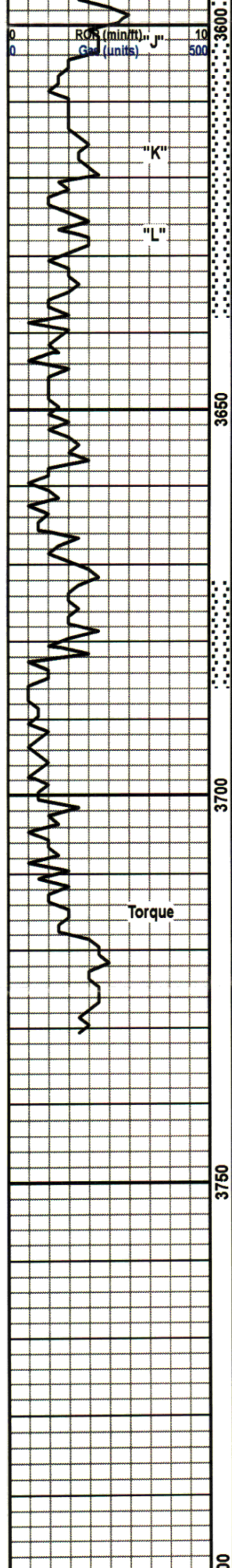
07:00 hrs 10-9-2013  
 DST #1 3243-3260 "Dear Creek"  
 30-60-45-90  
 Recovered: 345' VSOSGMW  
 IFP: 34-115  
 FFP: 120-169  
 BHP: 943-934  
 BHT: 107 Deg.  
 VIS: 52  
 WT: 9.0  
 LCM: 1#

**LACOMPTON: 3317' (-1117)**

**OREAD: 3352' (-1152)**



<b>HEEBNER: 3400' (-1200)</b>	
1	10 100 1000
<b>TORONTO: 3436' (-1226)</b>	
<b>LKC: 3442' (-1242)</b>	
VIS: 50	
WT: 9.4	
LCM: 2#	
CFS at 3484'	
07:00 hrs 10-10-2013	
CFS at 3502'	
CFS at 3518'	
DST #2 3455-3518 LKC: "B-E" 30-60-45-90	
Recovered: 15' mud.	
IFP: 8-18	
FFP: 20-27	
BHP: 974-960	
BHT: 109 deg.	
VIS: 51	
WT: 9.4	
LCM: 2#	
CFS at 3556'	
07:00 hrs. 10-11-2013	
DST #3 3498-3556 LKC: "F & G" zones. 30-60-45-90	
Flushed tool w/ intermittant surface blow on IF & FF.	
Recovered: 205' drlg. mud w/ rare oil spks. IFP: 8-96	
FFP: 98-123	
BHP: 1037-1013	
BHT: 107 deg.	



	TG, C1-C5		
CFS at 3604'	10	100	1000
DST #4 3541-3636 LKC: "H-I-J-K-L" zones. 30-60-45-90			
Recovered: 60' of drilling mud.			
IFP: 11-24			
FFP: 26-38			
BHP: 840-746			
BHT: 109 deg.			
<b>BKC: 3630 (-1430)</b>			
CFS at 3636'			
VIS: 68			
WT: 9.2			
LCM: 1#			
CFS at 3676'			
Regan Sand: 1482 (-1482)			
CFS at 3686'			
DST #5 3672-3686			
30-60-30-90			
Recovered: 2335' SGMW 1% gas, 98% wtr., 2% mud.			
IFP: 310-1020			
FFP: 1014-1101			
BHP: 1107-1107			
BHT: 116 deg.			
<b>GRANITE WASH: 3712 (-1512)</b>			
VIS: 74			
WT: 9.2			
LCM: Trace			
Chlor: 3,100			
FILT: 8.0			
RTD: 3731 (-1531)			
LTD: 3732 (-1532)			



