

# GEOLOGIST'S REPORT

## DRILLING TIME AND SAMPLE LOG

ITCHIE EXPLORATION, INC.

WELL: SCHNEWEIS-TURLEY #1  
 LOC.: 82' FNL & 1459' FEL  
 SEC. 19-27S-25W  
 FORD COUNTY, KANSAS  
 API: 15-057-20836-00-00

DRILLING CONTR.: DUKE RIG 19  
 SPUD: 08-17-12 COMP: 08-30-12  
 MUD UP: 3572' TYPE MUD: CHEM.  
 DRILL TIME: 2600-RTD  
 RTD: 5230' LTD: 5224'  
 SAMPLES SAVED: 3900'-RTD  
 GEOLOGIST: ROBERT J. PETERSEN

### ELEVATION

KB: 2605'  
 GL: 2594'  
 LOG MEASURED  
 FROM: KB

### SURFACE CASING

8 5/8" Set @353'

### PRODUCTION CASING

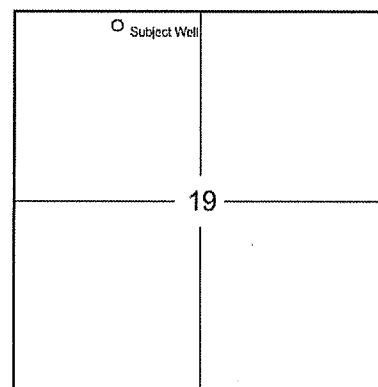
D & A

### WELL LOG SURVEYS

Dual Induction  
 Compensated Density

### ELECTRIC LOG TOPS

Formation	Depth	Datum	Pos. A	Pos. B
Chase	2693	-88	+24	-22
Stotler	3582	-977	+36	-17
Heebner	4249	-1644	+27	-62
Toronto	4264	-1659	+29	-57
Lansing	4359	-1754	+21	-68
Muncie Creek	4544	-1939	+15	-69
Stark	4660	-2055	+58	-51
Hushpuckney	4703	-2098	+50	-65
BKC	4755	-2150	+43	-66
Marmaton	4790	-2185	+48	-51
Pawnee	4883	-2278	+51	-48
Cherokee SH	4926	-2321	+53	-45
Huck	5016	-2411	+46	-47
Atoka	5024	-2419	+49	-41
Miss	5061	-2456	+48	-38



### REFERENCE WELL:

Well A: Blueridge Petroleum #1-11 Gjerstad 195' N/46' W of SE NW SW 11-27-25W	Well B: Rine Drilling #1-31 Broce Construction 660' FNL & 1980' FEL 31-26-25W
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### DAILY REPORT

@7:00 A.M.

8-17-12 MIRU  
 8-18-12 Setting Surface  
 8-19-12 827'  
 8-20-12 2509'  
 8-21-12 3227'  
 8-22-12 3776'  
 8-23-12 4275'  
 8-24-12 4578'  
 8-25-12 4906'

### REMARKS AND RECOMMENDATIONS

Based on the results of the drill stem test results this test was plugged and abandoned by the operator.

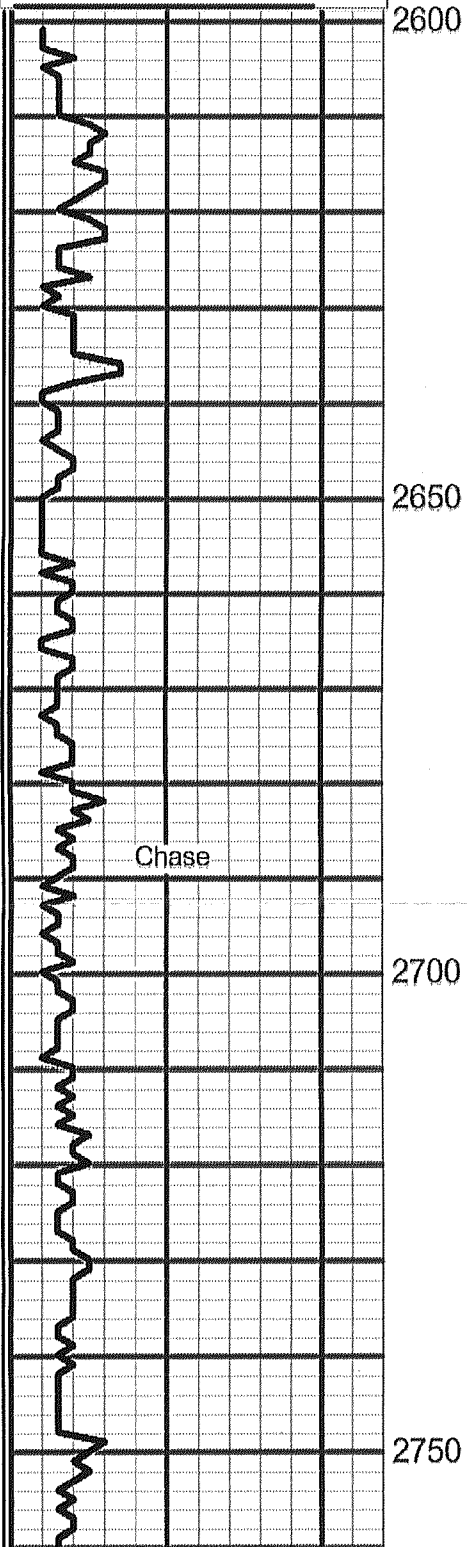
Respectfully submitted.

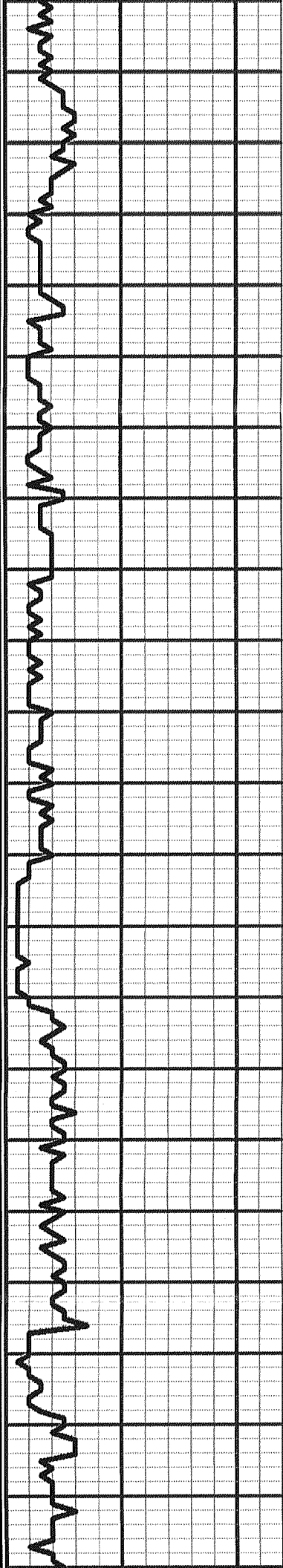
*Robert J. Petersen*  
Robert J. Petersen

8-25-12 4800'  
8-26-12 4930'  
8-27-12 5072'  
8-29-12 5178'  
8-30-12 5230' RTD

Drill Time Min./Ft.

0            5            10



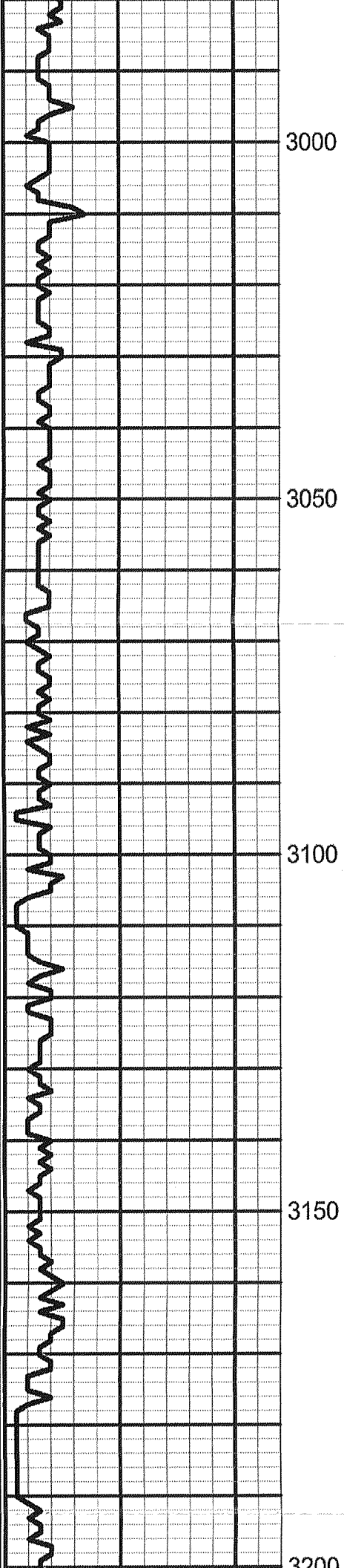


2800

2850

2900

2950



3200

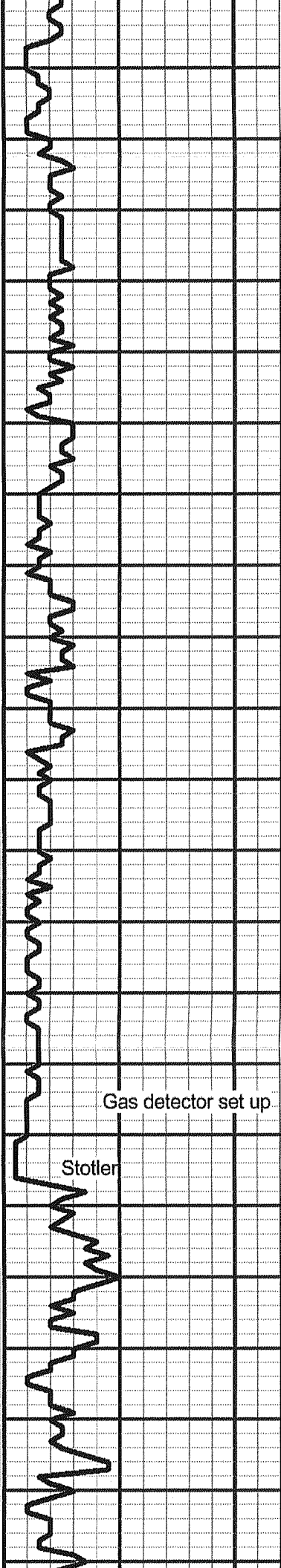
3250

3300

3350

3400





3450

3500

3550

3600

Gas detector set up

Stotter

Displaced  
@ 3572'

3650

3700

3750

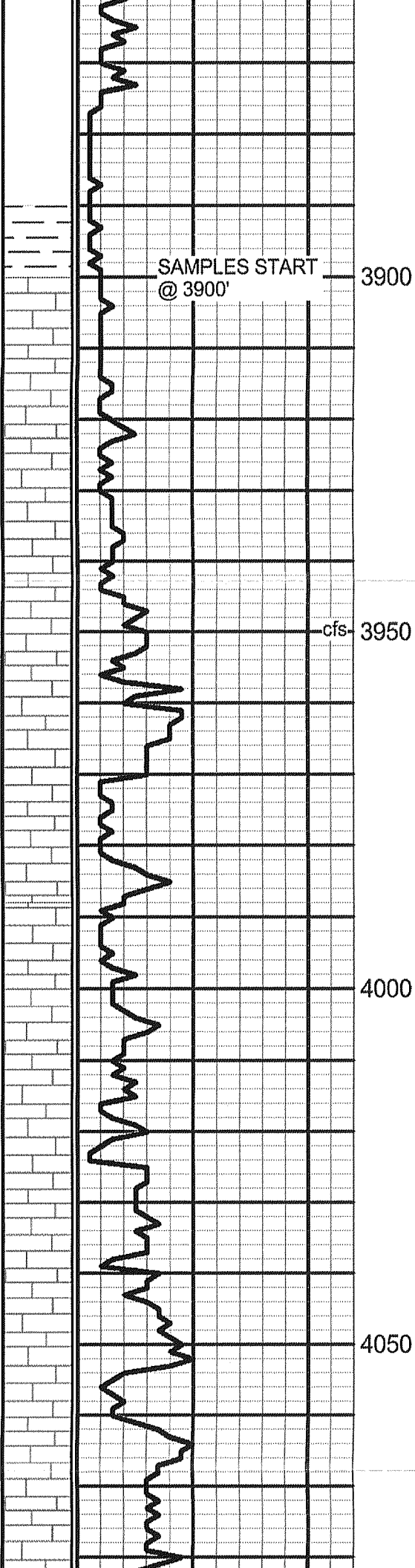
3800

3850

Vis 45  
Wt 8.5  
LCM 2#

Vis 43  
Wt 8.7  
LCM 2#

## SAMPLE DESCRIPTION



LS; Cream/tan, fine crystalline, foss + SD; Cream, fine grained + SH; Red/gray (3900)

LS; Cream, fine crystalline, foss, chalky + SH; Gray (3910)

SAMPLES START  
@ 3900'

3900

LS; Cream/gray, mottled, foss, chalky, trace dead stain + SH; Gray (3920)

SH; Gray (3930)

LS; Cream, fine crystalline, foss, cherty (3940)

LS; Cream, fine crystalline, ool, chalky (3950/ 30")

cfs- 3950

LS; Cream/tan, fine crystalline, ool, granular, sl chalky + SH; Gray (3960-3970)

LS; Lt gray/tan, fine crystalline, oolitic-granular, cherty + SH; Dark gray, sandy (3980)

LS; Cream/gray, fine crystalline, oolitic-granular/oomoldic w/gray chert inclusion, tr dead stain + SH; Red/gray (3990-4000)

LS; Gray, medium to coarse crystalline, ool, sl dolo, mineral stain + SH; Gray (4010)

LS; Cream/lt gray, fine crystalline, oomoldic, cherty (4020)

4000

LS; Tan, fine crystalline, dolo, foss (4030)

SH; Gray (4030)

LS; Cream/lt gray, fine to medium crystalline, foss, cherty (4040)

LS; Cream/tan, fine crystalline, oomoldic, sl chalky (4050) increase chalk (4060)

4050

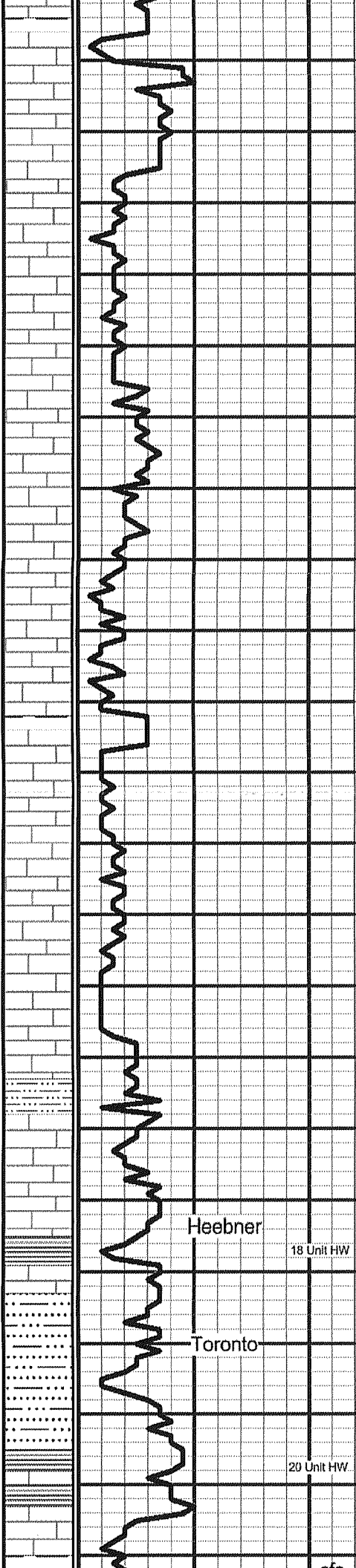
LS; Lt gray/cream, fine crystalline, foss, cherty, sl dolo + SH; Gray (4070)

LS; Tan/gray, fine crystalline, dolo, foss, cherty (4080)

LS; Cream, fine crystalline, sl ool, cherty (4090)

LS; Tan/cream, fine crystalline, ool, cherty, sl dol (4100)





SH; Black (trace 4110-4120)

4100

LS; Cream, fine crystalline, foss, sl chalky (4120)

LS; Cream/tan, fine crystalline, ool, chalky-mealy, trace dead stain (4130)

LS; Cream/lt gray, fine crystalline to dense, sl foss (4140-4150)

4150

LS; Cream, fine crystalline, very chalky (4160)

LS; Cream/lt gray, fine crystalline, foss, chalky (4170)

SH; Gray (4190)

LS; Cream/lt grau, fine crystalline, foss, chalky-soft (4190)

LS; Cream/tan, fine crystalline, foss-subgranular to granular, dolo, cherty (4200)

4200

LS; Cream/lt gray, fine crystalline, foss, sl chalky (4210)

LS; Gray, very fine crystalline to dense (4220)

SH; Dark gray (trace 4230-4240)

LS; Cream/lt gray, fine to medium crystalline, subgranular, chalky (4240)

LS; Cream, fine crystalline, foss, chalky (4250)

4250

LS; Cream/gray, fine crystalline, foss (4260)

Heebner

18 Unit HW

SH; Black (4260 increase 4270)

LS; Cream/lt gray, fine crystalline to dense, foss, chalky (4270)

SH; Gray, silty (4280-4290)

Toronto

LS; Cream, fine crystalline, foss, chalky, cherty (orange-sharp) (4300)

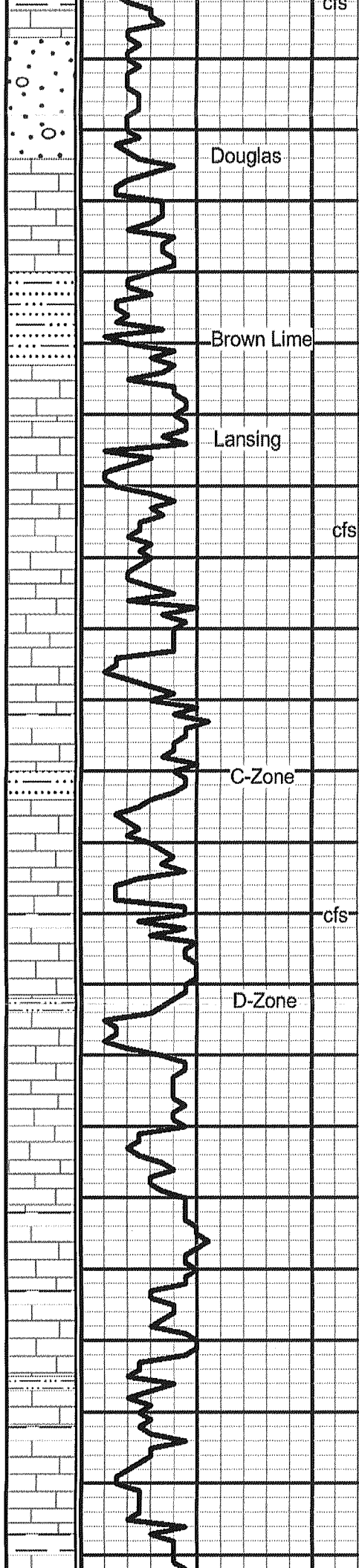
Vis 60  
Wt 9.2  
LCM 2#

20 Unit HW

SH; Gray/dark gray (4300)

4300

LS; Cream, fine crystalline, foss, cherty (orange blocky)+ LS; Gray, fine crystalline to dense, foss (4303/30")



cfs

4350

4400

4450

4500

Douglas

Brown Lime

Lansing

C-Zone

D-Zone

LS; Cream/gray, fine crystalline, dolo, foss, chalky-soft, cherty (gray-blocky)(4310-4320)

SH; Dark gray/gray (4320)

SH; Gray, silty-soft (4330)

LS; Cream/lt gray, fine crystalline to dense, foss, dolo (4840)

LS; Cream/gray, fine crystalline, mottled, chalky (4350)

SH; Gray (4350)

LS; Tan/brown, fine crystalline to dense, foss-granular in part + LS; Cream/gray, fine crystalline, mottled, chalky (4360)

SH; Maroon/gray (4370/4375)

LS; Cream/tan, fine crystalline to dense, foss, chalky, chert (orange/white blocky) (4375/30-60")

LS; Cream, fine crystalline, sl foss, chalky + SH; Gray (4390)

LS; Cream/tan, fine crystalline, foss, moldic por, cherty (white-blocky) + SH; Gray (4400)

LS; Cream/brown fine crystalline to dense, dolo, chalky (4410)

LS; Cream/gray, fine crystalline, foss, chalky, chert (blocky)(4420)

SH; Dark gray (4420)

LS; Gray, fine crystalline, foss, chalky-mealy trace dead stain + LS; Cream, fine crystalline, dolo, cherty (white-blocky) (4430)

LS; Cream/lt gray, fine crystalline, sl foss, dolo, w/chert inclusions (4430/30')

SH; Gray (4430/60")

LS; Cream/tan, fine crystalline, foss (4440)

LS; Cream/gray, fine to medium crystalline, foss, dolomitic, chert-black-blocky + SH; Gray (4450)

LS; Tan/cream, fine crystalline, sl foss, chalky, mealy-tr dead stain + SH; Gray (4460)

LS; Cream/brown, fine crystalline to dense, foss, chalky + SH; Gray (4470-4480)

LS; Cream/tan, fine crystalline to dense, foss, chalky, dolo, trace dead stain (4490)

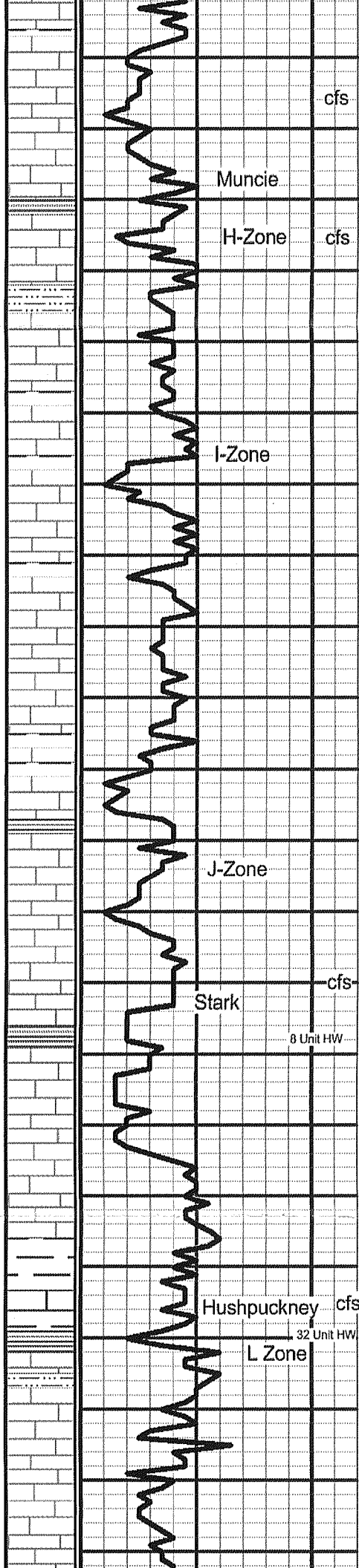
LS; Tan/cream/gray, fine crystalline, foss, cherty (blocky-white), chalky (4500)

LS; Cream, fine crystalline, foss, chalky, soft (4510-4520)

SH; Gray/dark gray (4530)

LS; Tan, fine to medium crystalline, chalky (4530)

Vis 58  
Wt 9.2  
LCM 2#



SH; Green/gray (4537)  
 LS; Tan/lt gray, fine to medium crystalline, dense, chaly + LS; Tan, fine to medium crystalline, fossiliferous-granular, mealy, trace dead stain (4537)  
 LS; Cream/lt gray, fine crystalline, foss + LS; Lt gray, dense, cherty (4537/60")

LS; Cream, fine to medium crystalline, foss, dolo, trace moldic por, sl cherty (4550)

4550

SH; Black (4555/30")  
 LS; Cream, fine crystalline, sl foss, trace moldic por (4555/60")

LS; Cream, fine crystalline, sl foss, chalky (4570)

SH; Gray (4570-4580)

LS; Cream, fine crystalline, sl foss, chalky (4580)

LS; Cream/white, fine crystalline, foss, chalky, cherty (4590)

SH; Gray (4600)

LS; Cream/tan, fine crystalline to dense, foss, chalky, cherty (4600)

4600

LS; Cream/tan, fine crystalline to dense, oolitic-granular in part, chalky, dolomitic w/poor moldic por (4610)

LS; Cream/tan, fine crystalline to dense, dolo, chalky (4620) cherty (4630)

SH; Gray (4640)

LS; Cream/tan, fine to medium crystalline, foss, trace moldic por (4640)

LS; Cream/gray, fine to medium crystalline, foss, dolo w/good moldic por (barren), chalky (4640/60")(4650)

LS; Cream/tan/gray, fine to medium crystalline, dolomitic w/good moldic por, chalky, ssdo flakes (1-2 in sample tray)(4460)

4650

LS; Cream/lt gray, fine to dense, w/some coarse crystalline, chalky + SH; Black (4660/20-40")

LS; Gray, fine to coarse crystalline, foss, cherty (4670)

SH; Black (trace 4680 increase 4690)

LS; Tan/gray, fine crystalline to dense, sl foss, chalky + SH; Gray (4680)

LS; Cream/tan, fine crystalline to dense, ool-granular in part, chalky (4690)

LS; Cream/tan, fine crystalline, ool, chalky-soft (4700)

LS; Gray, fine crystalline to dense, cherty (gray-angular) (4705)

4700

LS; Cream/gray, fine crystalline to dense, foss, cherty, chalky (4705/60")

LS; Cream, fine crystalline, oolitic granular packstone + LS; Cream, fine crystalline, chalky (4720)

SH; Black, carb (4720-4730)

LS; Cream/lt gray, fine crystalline to dense, ool-granular in part, chalky, cherty (4730)

trace moldic por, increase chert (white-angular)(4740)

LS; Tan/gray/cream, dense, chalky-soft (4740/20")

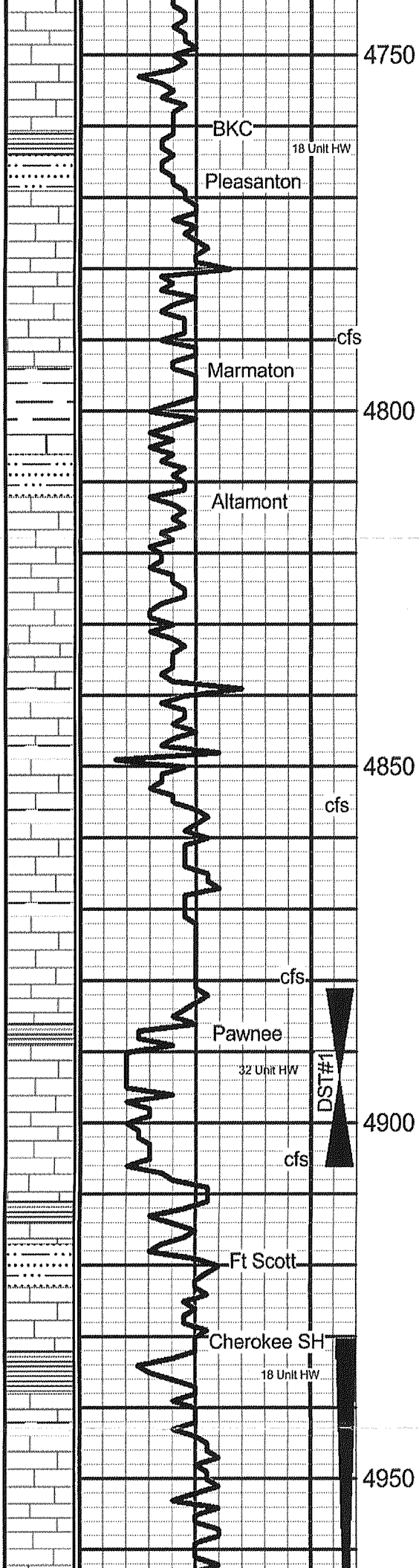
LS; Cream/gray, fine crystalline to dense, foss-granular in part-mostly dense, chalky-brittle (4740/60")

Vis 68  
 Wt 9.2  
 LCM 2#

Vis 65  
 Wt 9.4  
 LCM 2#

Vis 57  
 Wt 9.6  
 LCM 2#

Vis 60  
 Wt 9.5#



LS; Cream, fine crystalline, chalky, cherty (sharp)(4750-4760)

Wt 9.3#  
LCM 1#

LS; Tan, fine crystalline + SH; Gray (4770)

SH; Black (flood 4780)

LS; Cream/gray, fine crystalline to dense, arg, chety, sl foss, chalky + SH; Dark gray (4789)

LS; Tan/gray, dense, sl foss, chalky + SH; Gray (4789/30")

LS; Gray, dense, arg, chalky, cherty + SH; Gray (4789/60")

LS; Gray/brown, dense, foss, chalky + SH; Dark gray (4810)

SH; Gray + LS; Gray/cream, fine crystalline to dense, fossm chalky (4820)

LS; Cream/gray, dense, foss, cherty, sl dolo (4830)

LS; Cream/tan, fine crystalline to dens, sl foss, chalky, tr edge stain, dull fl (1 piece) + SH; Gray (4840)

LS; Cream/white, fine crystalline, m dolo, sl foss, chalky + SH; Gray (4850)

SH; Gray, sandy (4855)

LS; Cream/white, dense, dolo, chalky + SH; Red/black/green, silty(4855/20")

LS; Gray/cream, dense, sl foss (4855/40")

LS; Cream/lt gray, fine crystalline, foss, poor moldic por (4855/60" 4860)

LS; Cream/lt gray, fine crystalline to dense, sl foss + SH; Gray, sandy (4870)

Vis 53  
Wt 9.4  
LCM 2#

LS; Cream, fine crystalline, foss, dolomitic + SH; Gray, silty (4880)

LS; Cream/tan, fine crystalline to dense, foss granular in part, oolitic, cherty (4880/60")

Add Premix

SH; Black (4900)

LS; Cream, fine crystalline, ool-granular in part, trace edge stain, light stain on dry, moldic por, trace paraffin (4906/20")

DST #1  
4881-4906'  
30-30-30-30"  
IF: Weak surface blow died after 13 min.  
FF: Dead after 10 min. flushed tool  
Recovered: 35' Oil spotted mud -1% oil  
SIP: 1389-1214#  
FP: 41-49/50-68#  
HP: 2473-2442#

LS; Cream/lt gray, fine crystalline to dense, sl foss, cherty (4906/40")

Strap 5.15 Short

LS; Lt gray, fine crystalline to dense, foss, blocky, cherty (4906/60")(4920)

SH; Black (flood 4930)

SH; Red/gray, sandy (4930)

Vis 60  
Wt 9.4  
LCM 1#

LS; Cream, fine crystalline, foss, chalky + LS; Lt brown/gray, fine crystalline to dense, cherty (4930)

LS; Cream, lt gray/tan, fine crystalline to dense, chalky, blocky, foss (4940)

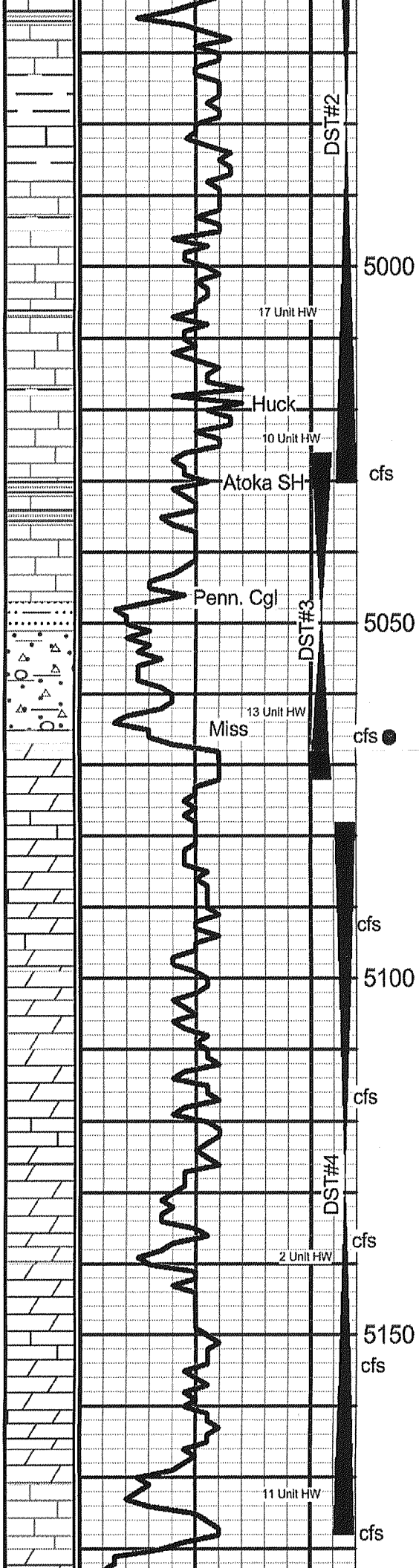
SH; Black (4950)

LS; Gray/lt brown, fine crystalline to dense, foss, chalky, sl cherty (sharp) trace edge stain, light stain on dry, poor intercrystalline por + LS: Tan, fine crystalline, fossm w/edge stain (4950)

LS; Cream, fine crystalline, sl fos, chalky, sl dolo + SH; Gray (4960)

LS; Brown, dense, blocky, foss  
LS; Cream, fine crystalline, chalky (4970)

Vis 52  
Wt 9.4  
LCM 2#



LS; Tan/cream, fine crystalline to dense, pelletal, chalky (4980)

LS; Gray/brown, dense, ool in part, foss, w/ trace frac por, edge stain (4990)

DST#2  
 4930-5030'  
 30-30-30-30'  
 IF: Weak surface blow died after 10 min.  
 FF: No blow - flushed tool no help  
 Recovered: 7' Mud  
 SIP: 96-93#  
 FP: 80-80/82-83#  
 HP: 2508-2336#

+ SH; Green-gray, silty (5000)

SH; Dark gray (5010)

Vis 51  
 Wt 9.4  
 Wt 2#

LS; Cream/lt gray, fine crystalline, fossm sl ool + SH; Gray, silty (5020)

SH; Red/gray (5030)

LS; Lt gray, fine crystalline to dense, foss, cherty, w/poor moldic por, trace light stain (5030)

LS; Tan, very fine crystalline to dense, foss, cherty w/poor moldic por, trace stain, fair odor, very light stain on dry (5030/20")

LS; Lt gray, fine crystalline to dense, foss, sl dolo, blocky, poor intercrystalline por, cherty, tr stain, fair odor (5030 40-60")

Added LCM

DST #3  
 5024-5071'  
 30-30-30-30#  
 IF: Weak surface blow died after 6 min.  
 FF: Dead after 8 min. flushed tool no help  
 Recovered: 4' Oil spotted mud 100% mud  
 SIP: 68-60#  
 FP: 54-55/56-54#  
 HP: 2537-2358#

SH; Black (5030/60")

LS; Lt brown/cream/lt gray, fine crystalline to dense, blocky, cherty + SH; Tan/gray, brittle-soft (5050)

LS; Gray, dense + SH; Black (5050/20")

SH; Dark gray + LS; Lt gray, fine crystalline, trace SD; Clear, coarse, friable to loos (5050/40")

LS; White/cream/tan, fine crystalline to dense, ool/foss, chalky, sl dolo, few loose ool + SH; Gray, trace mustard yellow/pale green (5050/60")

LS; Cream/lt gray/white, fine crystalline to dense, foss, chalky, dolo, Cherty; Gray, sharp+ SH; Black w/trace mustard yellow/pinkish purple (5060)

LS; Cream/tan/gray, dense, foss, chalky + SH; Gray + SS; White, fine grained, friable (5065/20")

trace Chert; White, foss, vugular w/gso, odor, dark stain on dry (5065/40")

Dolo; Gray, fine to medium crystalline, foss, vug + Chert; White, foss, vug w/gso, odor, med to dark stain on dry (5065/60")

LS; Cream/lt gray, dense, foss + Chert; White/tan, blocky, foss, trace vug por, ssfo (5072 20-40")

SH; Pale green/gray/maroon, blocky-soft (5080)

LS; Cream, fine crystalline, foss (bry) dolo, cherty(white-blocky)(5090)

LS; Cream, fine crystalline, foss, dolomitic, chalky + SH; Gray (5092 20-40")

LS; Cream/lt gray, fine crystalline, foss-subgranular, blocky + Chert; White, blocky, foss, tr vug por, vssfo (5092/60")

+Chert; Orange/gray, angular to blocky, no show (5100)

LS; Cream/lt gray, fine to medium crystalline, foss, dolo, chalky, trace edge stain + Chert; White, angular to sharp (5110)

Vis 61  
 Wt 9.2  
 LCM 4#

LS; Cream/lt gray, fine crystalline to dense, sl foss, dolo, chalky, cherty (gray-angular) (5117)

LS; Cream/lt gray, fine crystalline, chalky, trace moldic por, vssfo (5117/20")

Chert; Gray, angular to sharp + Chert; White/cream/gray, foss, blocky, trace (1 to pieces)LS AA w/poor moldic por w/ vssfo (5117 40-60")

LS; Cream/lt gray, fine crystalline, foss, dolo in part, cherty w/chert inclusion -white-angular (5130)

DST#4  
 5078-5178'  
 30-30-30-30"  
 IF: Weak surface blow died after 15 min.  
 FF: No blow-flushed tool no help  
 Recovered: 20' Mud  
 SIP: 1209-1047#  
 FP: 83-98/87-91#  
 HP: 2657-2377#

+ Chert; Translucent gray, angular (5137)

LS; Cream, fine crystalline, chalky w/streaks

Dolo; Cream, med crystalline, suc (5137/20")

+ SH; Green, sandy/gray, decrease dolo w/trace

LS; Cream, fine crystalline, w/moldic/intercrystalline por, vssfo (5137/40")

LS; Tan, fine crystalline, sl ool w/Dolo; Tan/gray, fine crystalline, soft (5150)

LS; Cream, fine crystalline, ool, chalky w/trace of poor ppt por w/spotty black stain (5154/20")

+Chert; Gray/white, foss, blocky, Dolo, Cream, fine crystalline, w/poor vug por, sl stain, vssfo (5154/40")

LS; Cream, oolitic w/some moldic por + SH; Black (5154/60")

Vis 60  
 Wt 9.3  
 LCM 4#

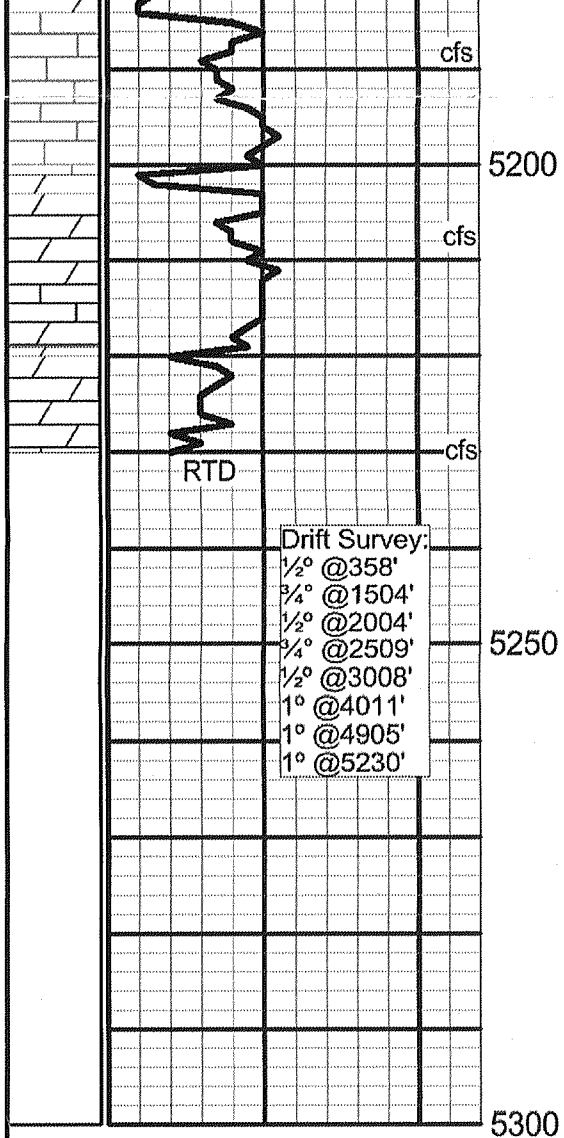
LS; Cream, fine crystalline to dense, sl ool, cherty (gray blocky)(5170)

LS; Cream, fine crystalline oolitic + LS: Cream, very fine crystalline + Chert; White, angular (5178)

LS; Cream/tan, very fine crystalline, chalky, soft, trace edge stain on dry+ Chert; White/gray, banded (5178/20")

+ Chert; Blue-gray, sharp to angular w/edge stain, vssfo (5178/40"-60")

Dolo; Cream/gray, fine crystalline, suc, cherty(white-blocky-sl foss w/ppt vug por) + LS; Cream, med crystalline, foss, tr stain, ssdo, abundant Chalk; White, soft, trace edge stain(5188/20")



+SH; Dark gray (5188/40")  
 LS; Cream/tan, fine crystalline, ool + LS; Tan, dense, dolo, cherty (blocky) (5188/60")  
 Dolo; Tan, fine crystalline to dense, cherty (white/gray/blocky/sl vug), trace ppt stain + SH;  
 Reddish-brown, earthy (5200)

**Vis 58/Wt 9.2/LCM 3#**

Dolo; Tan, med crystalline to dense, foss in part, some vug por dev, trace of stain on dry-rare +  
 Dolo; Tan, fine crystalline, ool, Chert; Gray/white, blocky + Chalk, white, soft (5208/20") + Dolo;  
 Gray, dense, trace of stain on chert (5208/40")

Dolo; Lt brown/gray, fine to med crystalline w/poor vug por, faint stain on gray dolo w/ssdo on  
 break (5208/60")

**Vis 58/Wt 9.3/LCM 3#**

Dolo; Tan/lt brown, fine crystalline to dense, sl foss (5220) + Chert; Gray, angular to sharp, SH;  
 Black (5230)

Dolo; Cream, fine crystalline to dense, cherty( gray sl foss) + Chalk, White, soft (5230/30")