API #15-137-20603-00-00

GEOLOGICAL REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC.
LEASE Esslinger Ranch, Inc. #2-26
FIELD Wildcat
LOCATION 2265'FSL + 330'FEL
SEC 26 TWSP 3s RGE 22w
COUNTY Norton STATE Kansas

ELEVATION
KB 2309'
DF 2307'
GL 2404'
Depths Measured From
Log KB Drilling KB

CONTRACTOR WW Drilling Rig #8
SPUD 4-18-12 COMP 4-25-12
SAMPLES SAVED FROM 3300' TO R.T.D.

CASING
Surface 8 5/8" @ 213'
Production 5 1/2" @ 3860'

ELECTRIC LOGS
Superior Well Services

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
				0			
Anhydrite	1994	1994	+ 315	+ 325			
Base Anhydrite	2021	2021	+ 288	+ 297			
Topeka	3308	3308	- 999	- 995			
Heebner	3508	3508	- 1199	-1196			
Toronto	3534	3534	- 1225	-1222			
Lansing	3550	3550	- 1241	-1237			
Base Kansas City	3738	3739	- 1430	-1430			
Marmaton	3765	3766	- 1457	- 1461			
Wea. Granite	3801	3803	- 1494				
Granite	3836	3838	- 1529	- 1516			
Total Depth	3860	3863	- 1554	- 1546			

REFERENCE WELLS

A Baird Oil Co., LLC. Esslinger Ranch, Inc. #1-26, 910'FSL & 1635'FEL Sec. 26-3s-22w
B
C
D Port collar @ 2017'

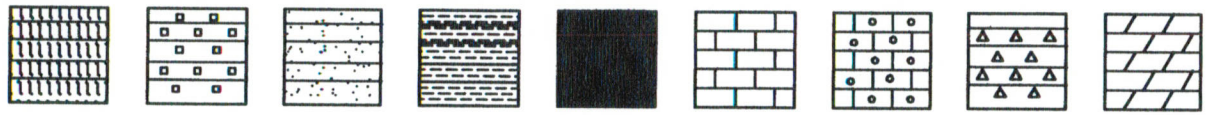
REMARKS

This well ran 4 feet lower on the Lansing top than the reference well. After evaluating the suite of open hole logs and drill stem test data, it was decided production casing would be cemented. The following zones should be tested; 3797'-3802', 3766'-3771', 3700'-3702' and 3596'-3598'.

Richard E. Bell
4-26-12

7502

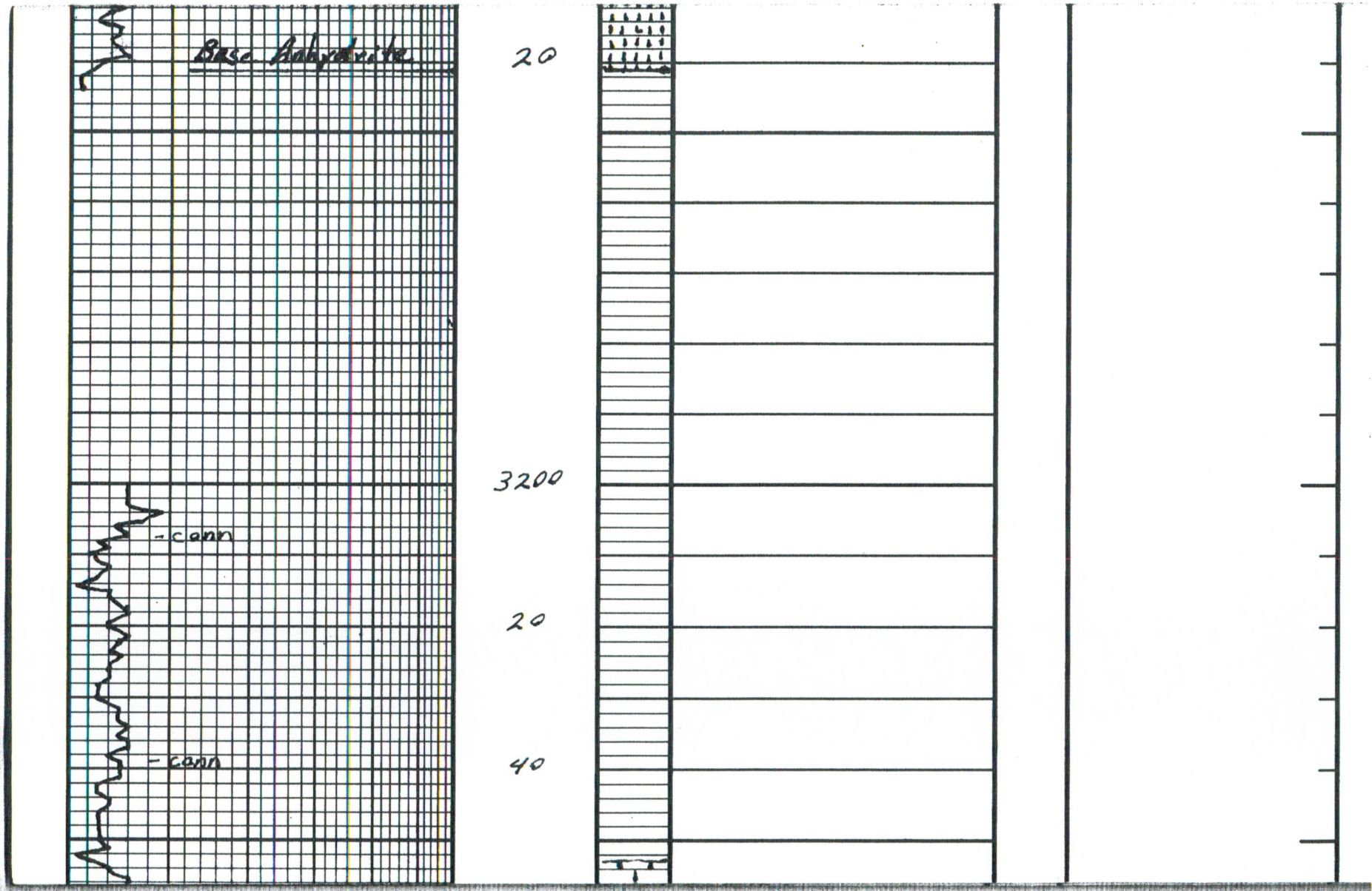
LEGEND

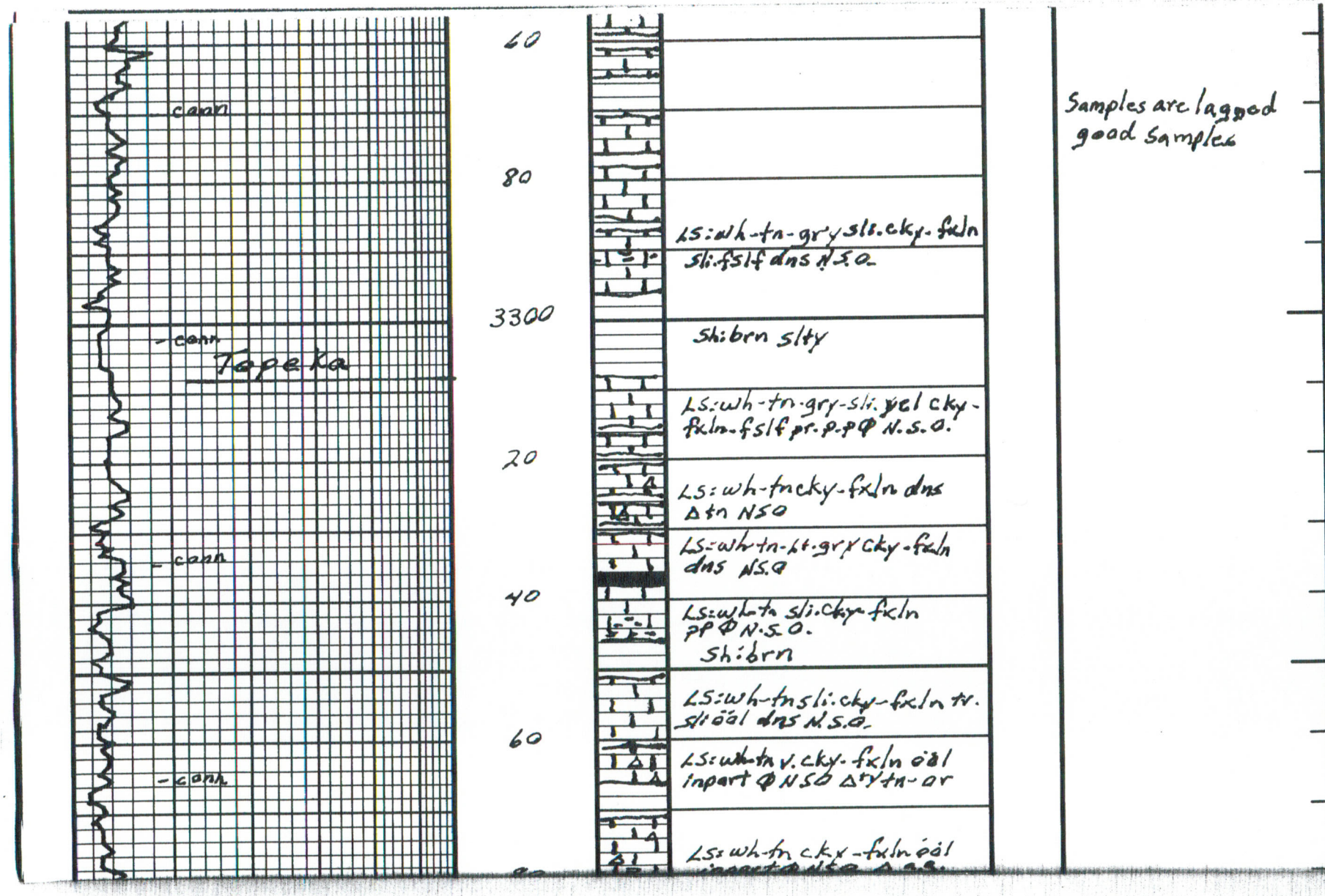


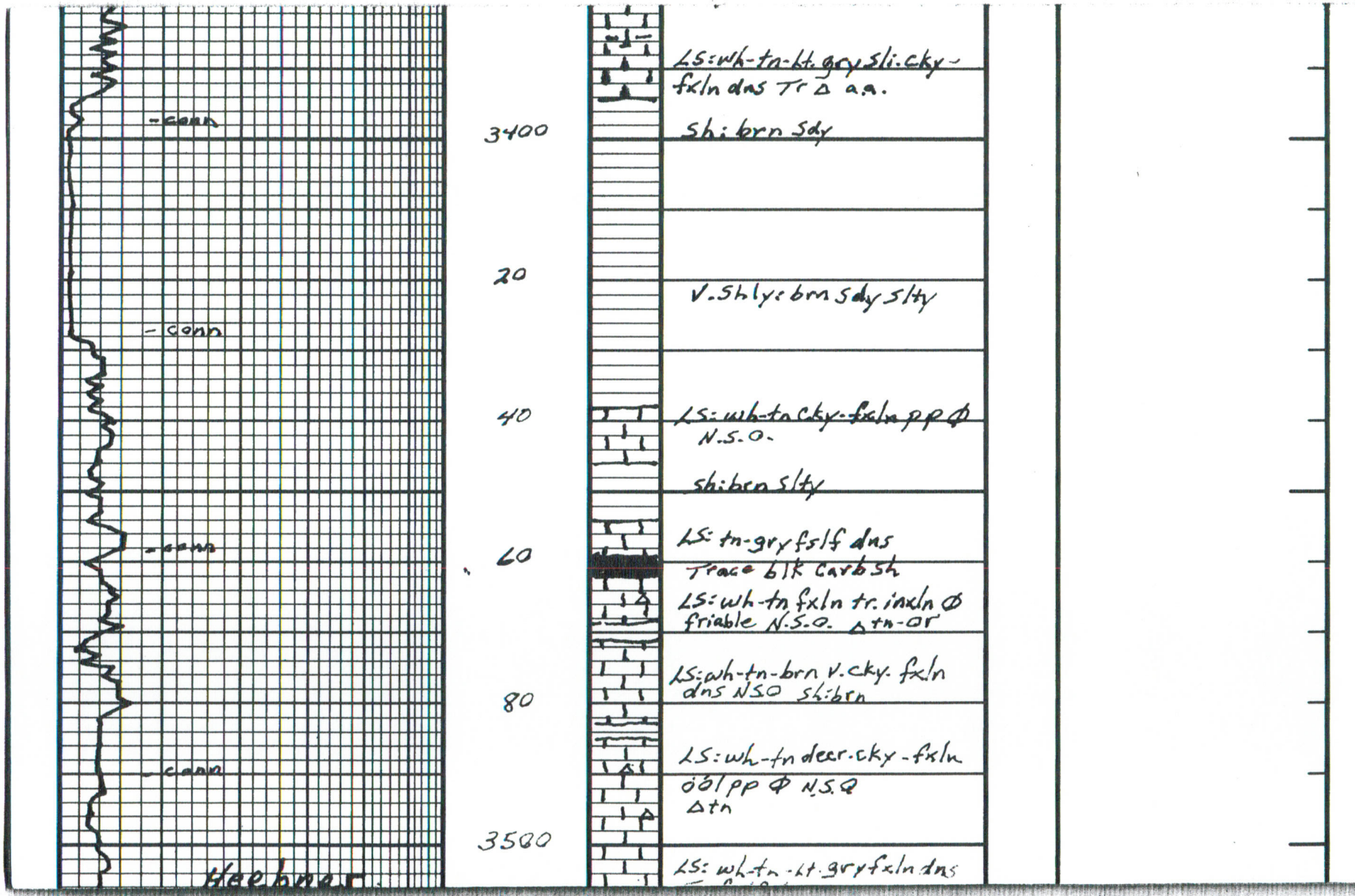
Anhydrite | Salt | Sandstone | Shale | Carb sh | Limestone | Ool.Lime | Chert | Dolomite

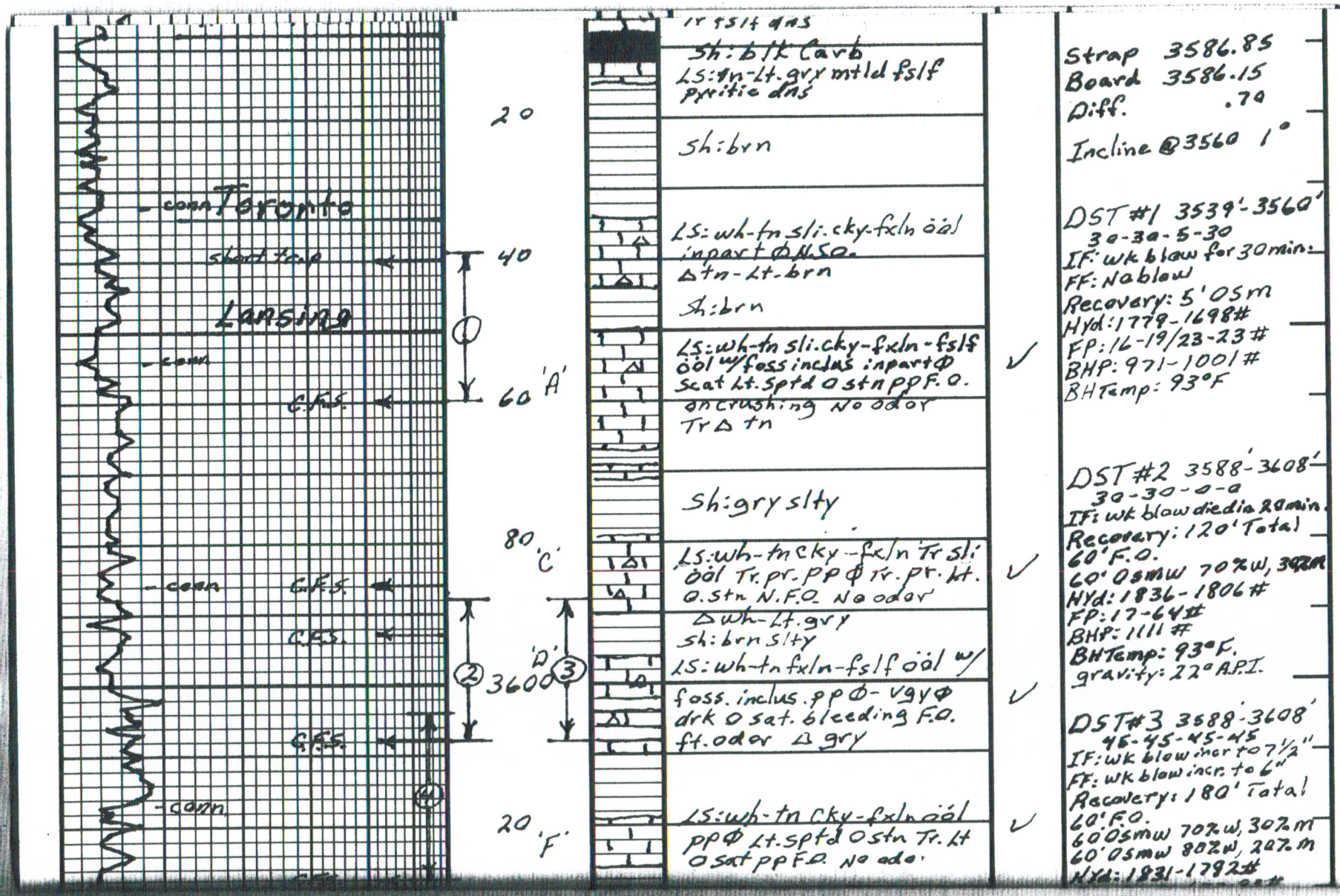
LOG 7710

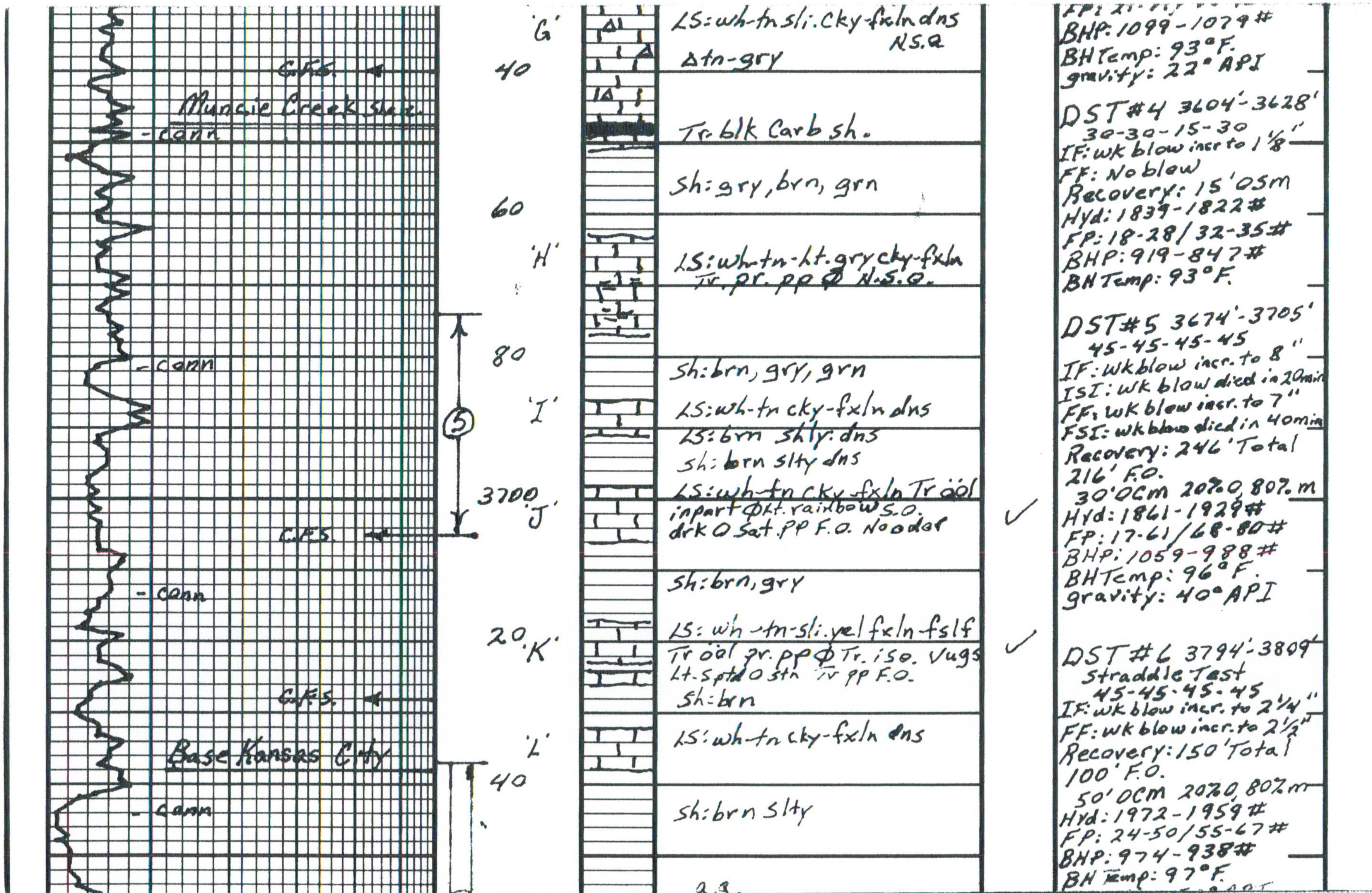
DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases 5" 10" 15" 20" 25"	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
Anhydrite - conn	1990 2000				


Base Anhydrite
20
3200
20
40
- conn
- conn

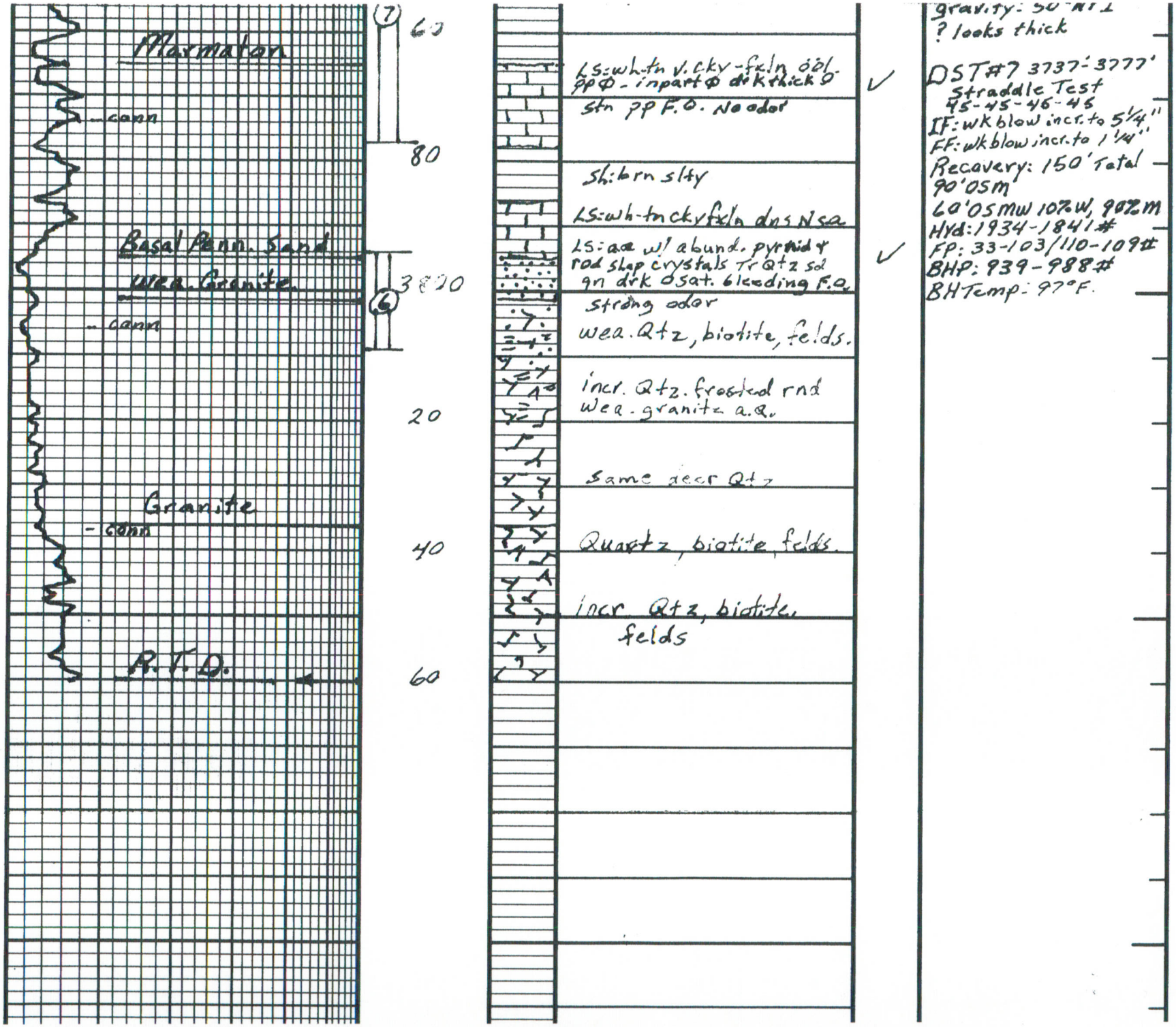

conn
conn
Topeka
conn
conn
60
80
3300
20
40
60
LS: wh-tn-gry sli. cky-fxln sli-fslf dns N.S.O.
Sh: brn slty
LS: wh-tn-gry-sli. yel cky-fxln-fslf pr-p-p Φ N.S.O.
LS: wh-tn cky-fxln dns Δtn NSO
LS: wh-tn-lt. gry cky-fxln dns NSO
LS: wh-tn sli. cky-fxln pp Φ N.S.O.
Sh: brn
LS: wh-tn sli. cky-fxln tr. sli oil dns N.S.O.
LS: wh-tn v. cky-fxln oil inpart Φ NSO Δtn-or
LS: wh-tn cky-fxln oil
Samples are lagged good samples


-conn
3400
20
-conn
40
-conn
60
-conn
80
3500
Heebner
LS: wh-tn-lt. gry sli. cky - fxln dns Tr Δ a.a.
Sh: brn sdy
V. Shly: brn sdy slty
LS: wh-tn cky-fxln pp Φ N.S.O.
sh: brn slty
LS: tn-gry fs/f dns Trace blk carb sh
LS: wh-tn fxln tr. inxln Φ friable N.S.O. Δ tn-or
LS: wh-tn-brn v. cky. fxln dns N.S.O sh: brn
LS: wh-tn dear. cky - fxln oo/pp Φ N.S.O Δ tn
LS: wh-tn - lt. gry fxln dns


Toronto
Lansing
C.F.S.
C.F.S.
C.F.S.
C.F.S.
conn
conn
conn
20
40
60
80
3600
'A'
'B'
'C'
'D'
'F'
1
2
3
4
Sh: blk carb
LS: tn-lt.gry mtld fslf pyritic dns
Sh: brn
LS: wh-tn sli. cky-fxln ool inpart Φ N.S.O.
Δ tn-lt-brn
Sh: brn
LS: wh-tn sli. cky-fxln-fslf ool w/ foss inclus inpart Φ scat Lt. sptd O stn pp F.O. on crushing No odor
Tr Δ tn
Sh: gry slty
LS: wh-tn cky-fxln Tr sli ool Tr. pr. pp Φ Tr. pr. Lt. O. stn N.F.O. No odor
Δ wh-Lt. gry
Sh: brn slty
LS: wh-tn fxln-fslf ool w/ foss. inclus. pp Φ- v gy Φ drk O sat. bleeding F.O. ft. odor Δ gry
LS: wh-tn cky-fxln ool pp Φ Lt. spt'd O stn Tr. Lt O sat pp F.O. No odo
Strap 3586.85
Board 3586.15
Diff. .70
Incline @ 3560 1°
DST #1 3539'-3560'
30-30-5-30
IF: wk blow for 30 min.
FF: No blow
Recovery: 5' OSM
Hyd: 1779-1698#
FP: 16-19/23-23#
BHP: 971-1001#
BH Temp: 93°F
DST #2 3588'-3608'
30-30-0-0
IF: wk blow died a 20 min.
Recovery: 120' Total
60' F.O.
60' OSMW 70% W, 30% M
Hyd: 1836-1806#
FP: 17-64#
BHP: 1111#
BH Temp: 93°F.
gravity: 22° A.P.I.
DST #3 3588'-3608'
45-45-45-45
IF: wk blow incr to 7½"
FF: wk blow incr. to 6"
Recovery: 180' Total
60' F.O.
60' OSMW 70% W, 30% M
60' OSMW 80% W, 20% M
Hyd: 1831-1792#



C.F.S.
Muncie Creek Sh.
- conn
- conn
C.F.S.
- conn
C.F.S.
Base Kansas City
- conn
'G'
40
60
'H'
80
'I'
5
3700 'J'
20 'K'
'L'
40
LS: wh-tn sli. cky-fxln dns N.S.O.
Δ tn-gry
Tr. blk Carb sh.
Sh: gry, brn, grn
LS: wh-tn-lt. gry cky-fxln Tr. pr. pp Φ N.S.O.
Sh: brn, gry, grn
LS: wh-tn cky-fxln dns
LS: brn shly: dns
sh: brn slty dns
LS: wh-tn cky-fxln Tr öol inpart Φ lt. rainbow S.O. drk O sat. pp F.O. No odor
Sh: brn, gry
LS: wh-tn-sli. yel fxln-fslf Tr öol pr. pp Φ Tr. iso. Vugs Lt. sptd O stn Tr pp F.O.
Sh: brn
LS: wh-tn cky-fxln dns
Sh: brn slty
✓
✓
BHP: 1099-1079#
BHTemp: 93°F.
gravity: 22° API
DST#4 3604'-3628'
30-30-15-30
IF: wk blow incr to 1 1/8"
FF: No blow
Recovery: 15' OSM
Hyd: 1839-1822#
FP: 18-28/32-35#
BHP: 919-847#
BHTemp: 93°F.
DST#5 3674'-3705'
45-45-45-45
IF: wk blow incr. to 8"
ISI: wk blow died in 20 min
FF: wk blow incr. to 7"
FSI: wk blow died in 40 min
Recovery: 246' Total
216' F.O.
30' OCM 20% O, 80% M
Hyd: 1861-1929#
FP: 17-61/68-80#
BHP: 1059-988#
BHTemp: 96°F.
gravity: 40° API
DST#6 3794'-3809'
Straddle Test
45-45-45-45
IF: wk blow incr. to 2 1/4"
FF: wk blow incr. to 2 1/2"
Recovery: 150' Total
100' F.O.
50' OCM 20% O, 80% M
Hyd: 1972-1959#
FP: 24-50/55-67#
BHP: 974-938#
BH Temp: 97°F.


Marmaton
conn
Basal Penn. Sand
Wea. Granite
conn
Granite
conn
R.T.D.
7
6
60
80
3800
20
40
60
LS: wh-tn v. cky-fxln ool. ppΦ - in part Φ dk thick O stn pp F.O. No odor
Sh: brn slty
LS: wh-tn cky fxln dns N sa
LS: aa w/ abund. pyrhid & rod shap crystals Tr Qtz sd gn drk Osat. bleeding F.O. strong odor
wea. Qtz, biotite, felds.
incr. Qtz. frosted rnd wea. granite a.a.
same incr Qtz
Quartz, biotite, felds.
incr Qtz, biotite, felds
gravity: 50 API
? looks thick
DST #7 3737'-3777'
Straddle Test
45-45-46-45
IF: wk blow incr. to 5 1/4"
FF: wk blow incr. to 1 1/4"
Recovery: 150' total
90' OSM
60' OSMW 10% W, 90% M
Hyd: 1934-1841#
FP: 33-103/110-109#
BHP: 939-988#
BH Temp: 97°F.