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Geologist

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COMPANY **MULL DRILLING COMPANY, INC.**

WELL **HALL "D" NO. 2-17**

FIELD
17

COUNTY **STAFFORD** STATE **KANSAS**

LOCATION:
345' FNL & 1147' FEL

Elevations
KB **1868**
DF
GL **1857**

SEC **17** TWP **21S** RGE **12W**

Logging by: **Superior**
Well Services

1. OIL-GR-SP
2. CNL / CDL-GR-PE-CAL
3. MICRO LOG
4. SONIC LOG
- 5.
- 6.

Contractor **STERLING DRILLING COMPANY RIG NO. 2**

Commenced **7-1-10** Completed **7-13-10**
RTD **3580** LTD **3578**

Surface Casing **8 5/8" 23# @ 265'**

Production Casing **5 1/2" 14# @ 3570'**

Drilling Time **2800-TD** Samples **3000-TD**

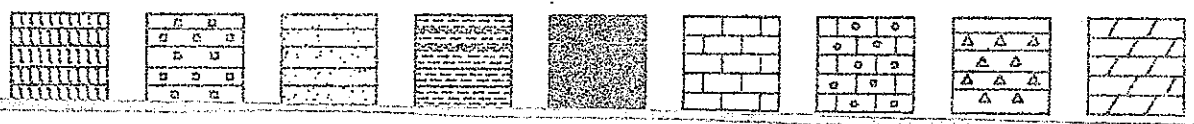
Daily Penetration Rate Date	Depth	Activity @ 7:00AM.	Date	Depth	Activity
7-1-10	SPUD				
7-2-10	280	WAIT ON CEMENT			
7-3-10	280	SHUT DOWN			
7-4-10	280	SHUT DOWN			
7-5-10	280	RIG UP			
7-6-10	1575	DRILLING			
7-7-10	2635	DRILLING			
7-8-10	3295	DST NO. 1			
7-9-10	3330	DST NO. 2			
7-10-10	3406	DST NO. 3			
7-11-10	3473	DST NO. 4			
7-12-10	3560	CIR FOR LOG			
7-13-10	3580	SET 5 1/2"			

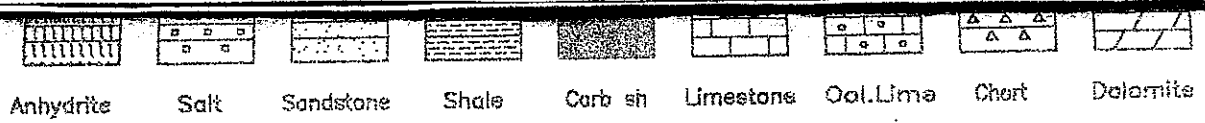
REMARKS	BIT RECORD					
	Make & Type	Serial No.	Nozzles	Depth In	Depth Out	Hours
PIPE WAS SET TO FURTHER TEST THE LANSING AND ARBUCKLE ZONES. Respectfully submitted, M. Dublin M. Armstrong	12 1/4" GA-1C	F31370		0	280	
	7 7/8" J25X20	H00482	14-14-15	280	3295	43 1/8
	7 7/8" J20X20	G03667	14-14-15	3295	3580	1 1/2

Formation	Sample	Log	Datum	*	Formation	Sample	Log	Datum	*
HEEBNER	3099	3094	-1226	+5					
TORONTO	3117	3112	-1244	+1					
DOUGLAS	3130	3126	-1258	+6					
BROWN LIME	3224	3222	-1354	+7					
LANSING	3240	3237	-1369	+6					
B/KANSAS CITY	3460	3460	-1589						
ARBUCKLE	3469	3468	-1598	+19					
TOTAL DEPTH	3580	3578	-1710						

* Structural Position to: HUDSON PETROLEUM
WESTAFTER NO. 1 330' FNL & 1650' FEL SEC 17T 21S R 12W

LEGEND

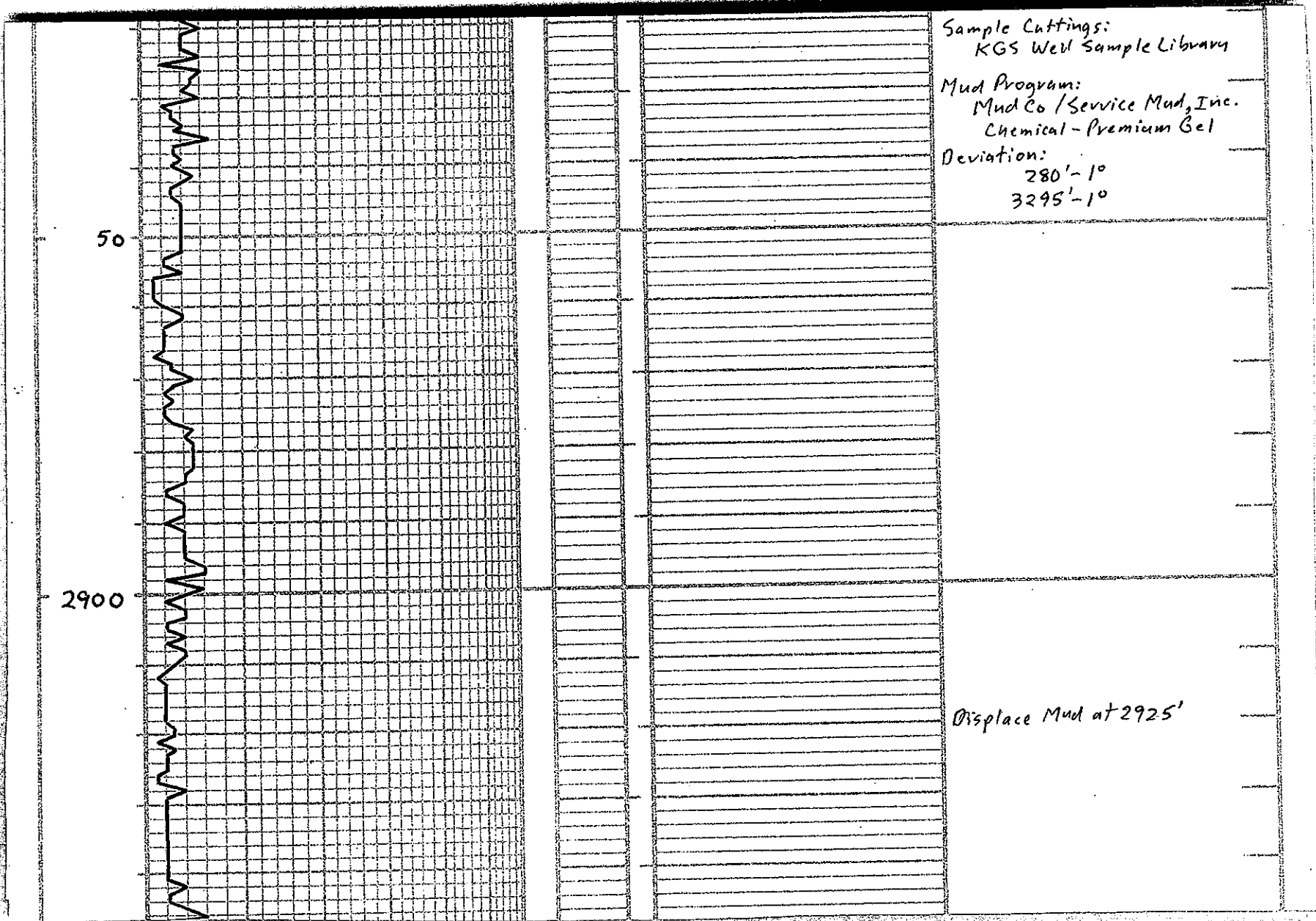




SCALE " = 100'

DEPTH	DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Increases	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
	 5" 10" 15" 20" 25"			
2800				Geo on Loc at 2780' at 11:27am on 7-7-10 Testing: Diamond Testing

76 770B



Sample Cuttings:
KGS Well Sample Library

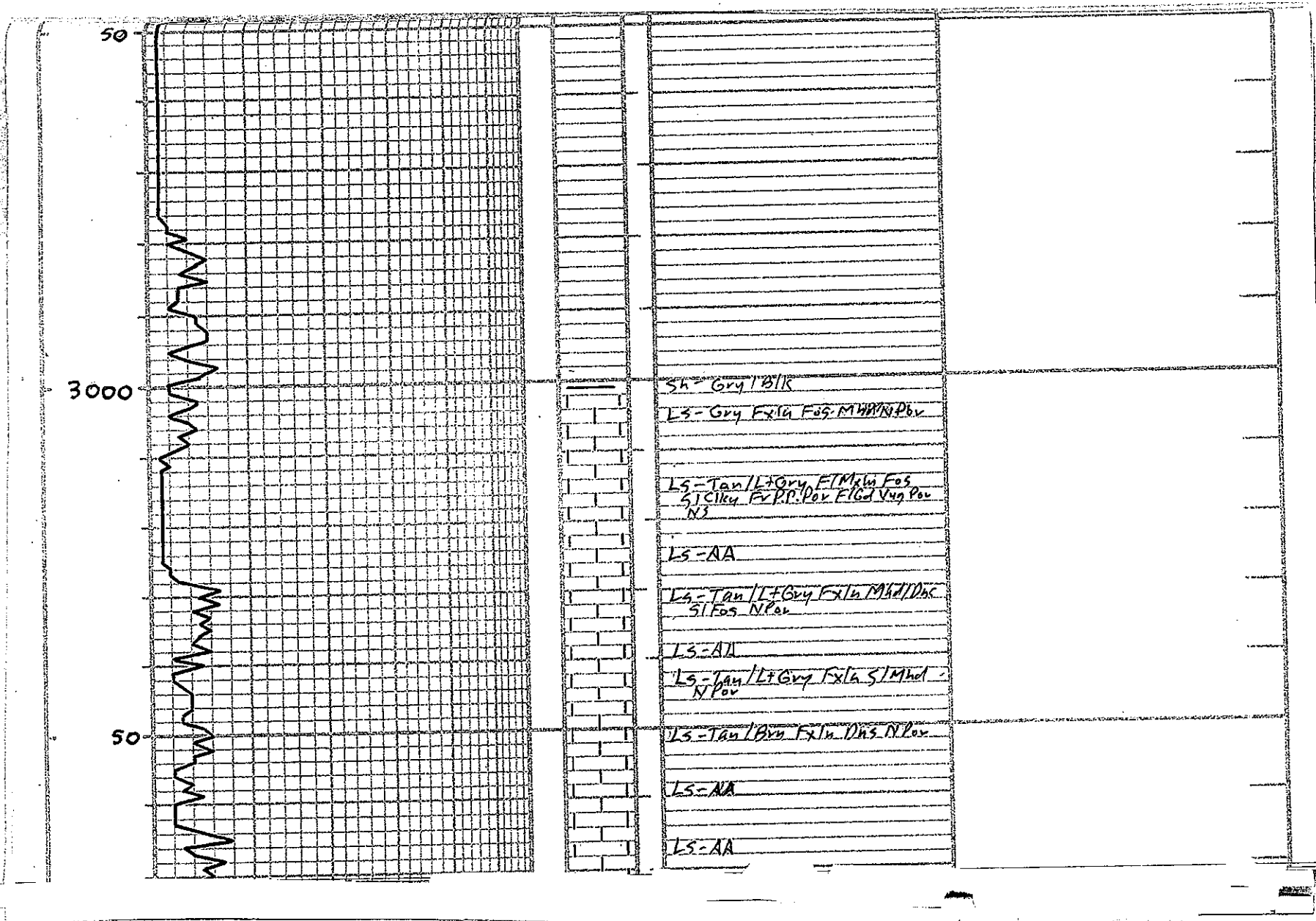
Mud Program:
Mud Co / Service Mud, Inc.
Chemical - Premium Gel

Deviation:
280' - 10
3295' - 10

50

2900

Displace Mud at 2925'

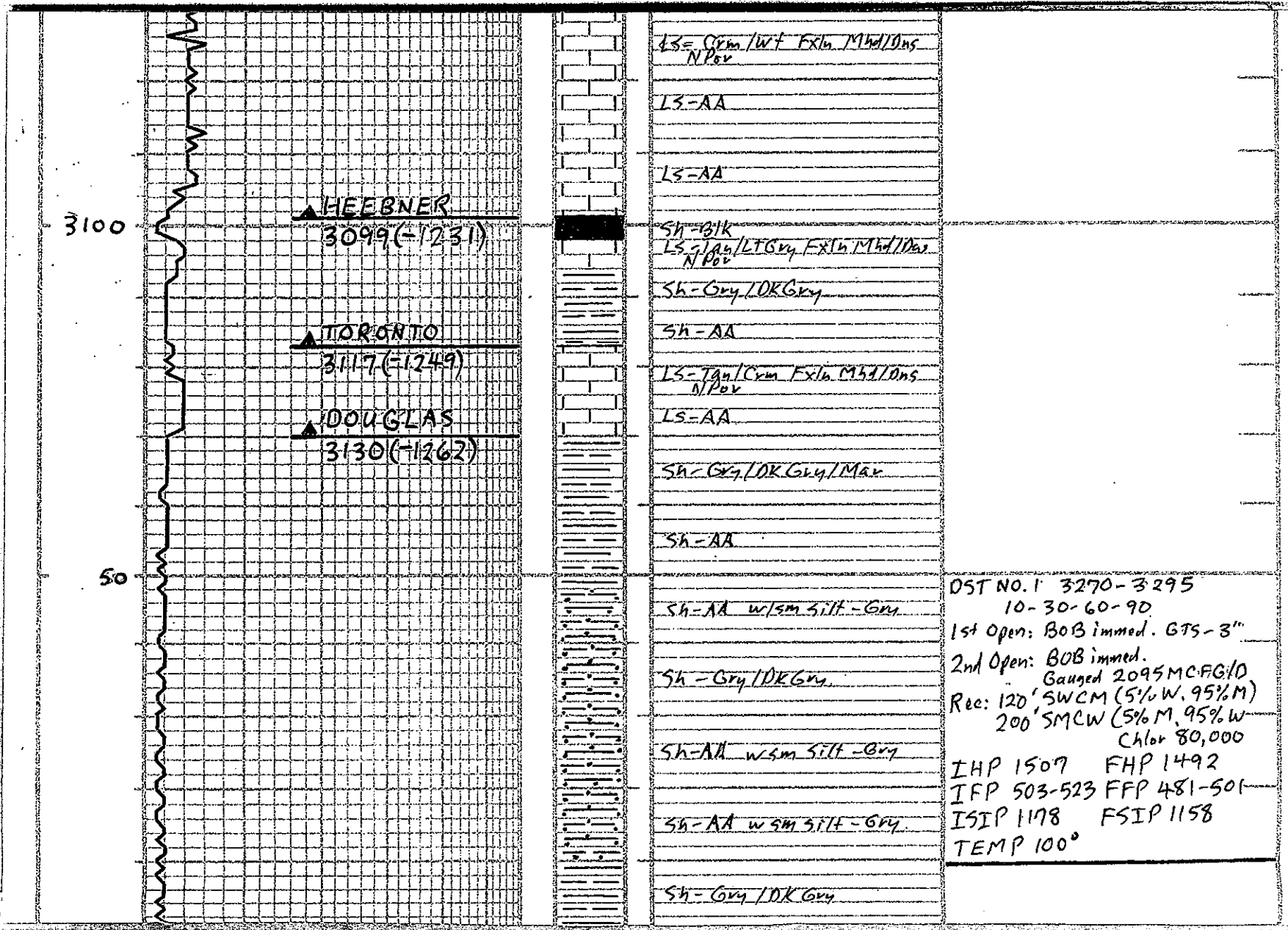


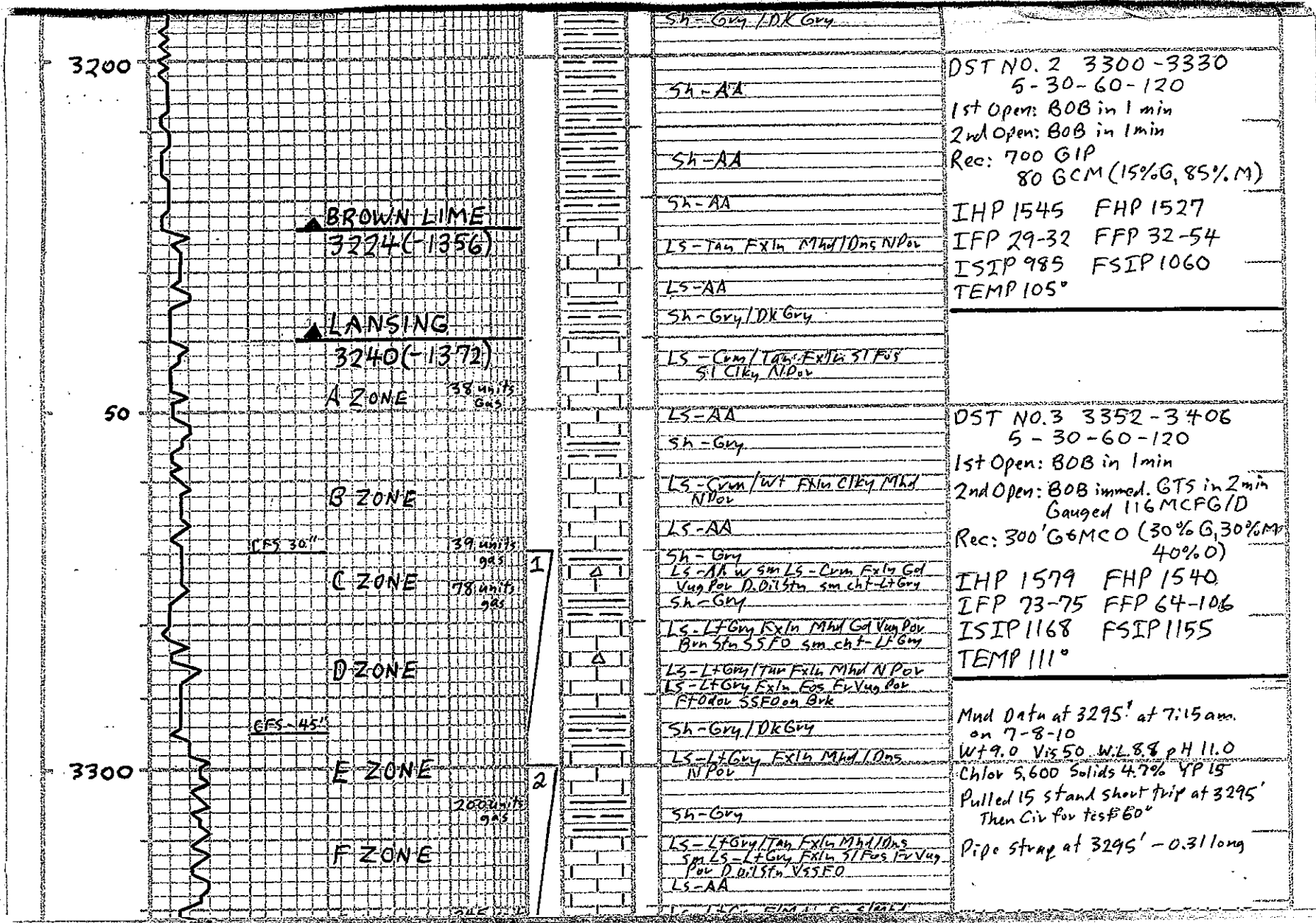
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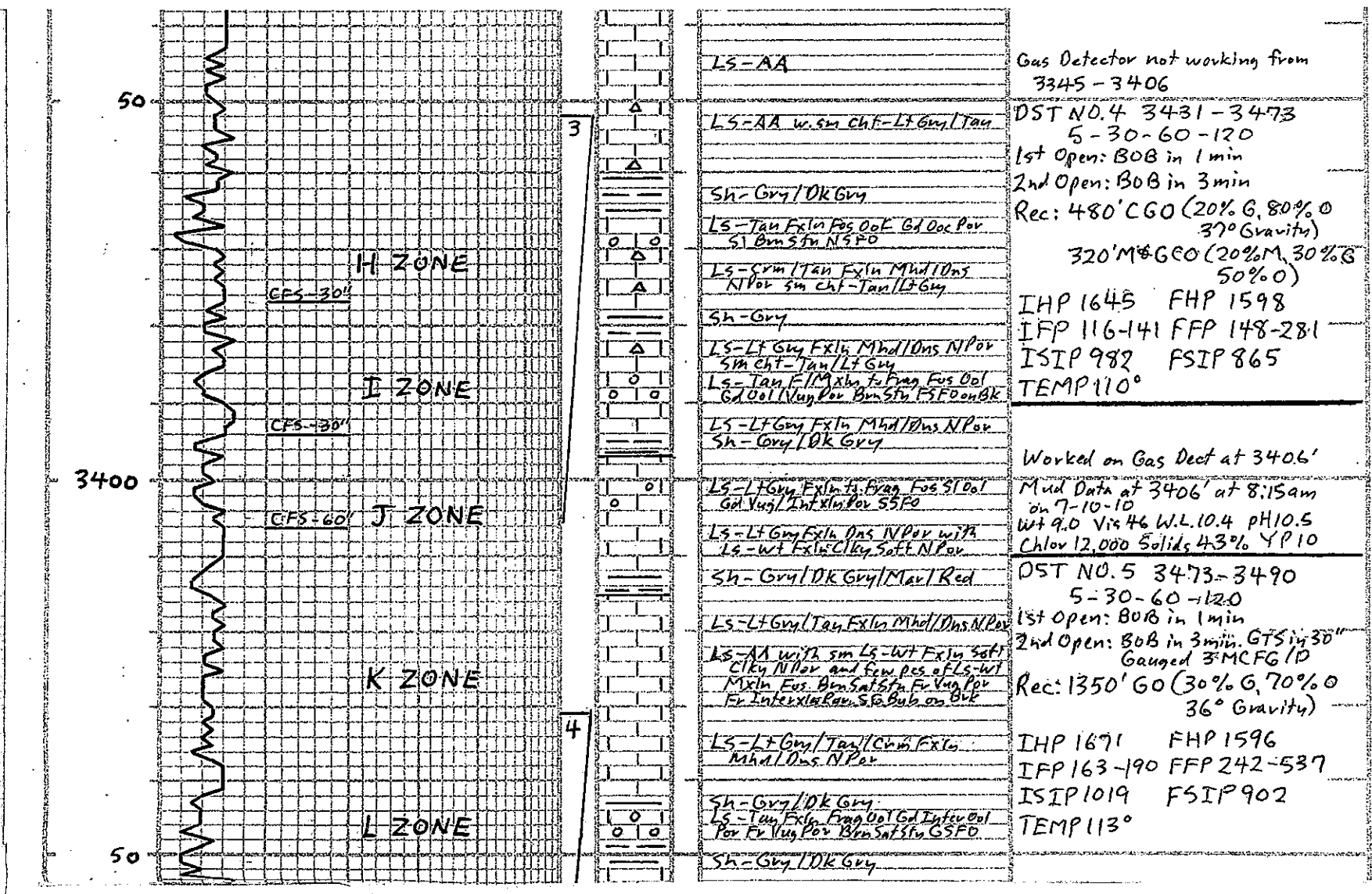
3000

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Sh = Gry / BIR
 LS - Gry Fx la Fos MHRN Pov
 LS - Tan / Lt Gry F / Mch Fos
 S / Clry Fr R.P. Pov F / Gd Vng Pov
 NS
 LS - AA
 LS - Tan / Lt Gry Fx la Mhd / Dsc
 S / Fos N Pov
 LS - AA
 LS - Tan / Lt Gry Fx la S / Mhd
 N Pov
 LS - Tan / Avn Fx la Dns N Pov
 LS - AA
 LS - AA







Gas Detector not working from 3345 - 3406

DST NO. 4 3431 - 3473
5-30-60-120

1st Open: BOB in 1 min
2nd Open: BOB in 3 min

Rec: 480' CGO (20% G, 80% O
37° Gravity)

320' M&GEO (20% M, 30% B
50% O)

IHP 1645 FHP 1598

IFP 116-141 FFP 148-281

ISIP 982 FSIP 865

TEMP 110°

Worked on Gas Deet at 3406'

Mud Data at 3406' at 8:15am
on 7-10-10

Wt 9.0 Vis 46 W.L. 10.4 pH 10.5
Chlor 12,000 Solids 43% YP 10

DST NO. 5 3473 - 3490
5-30-60-120

1st Open: BOB in 1 min
2nd Open: BOB in 3 min. GTS in 30"

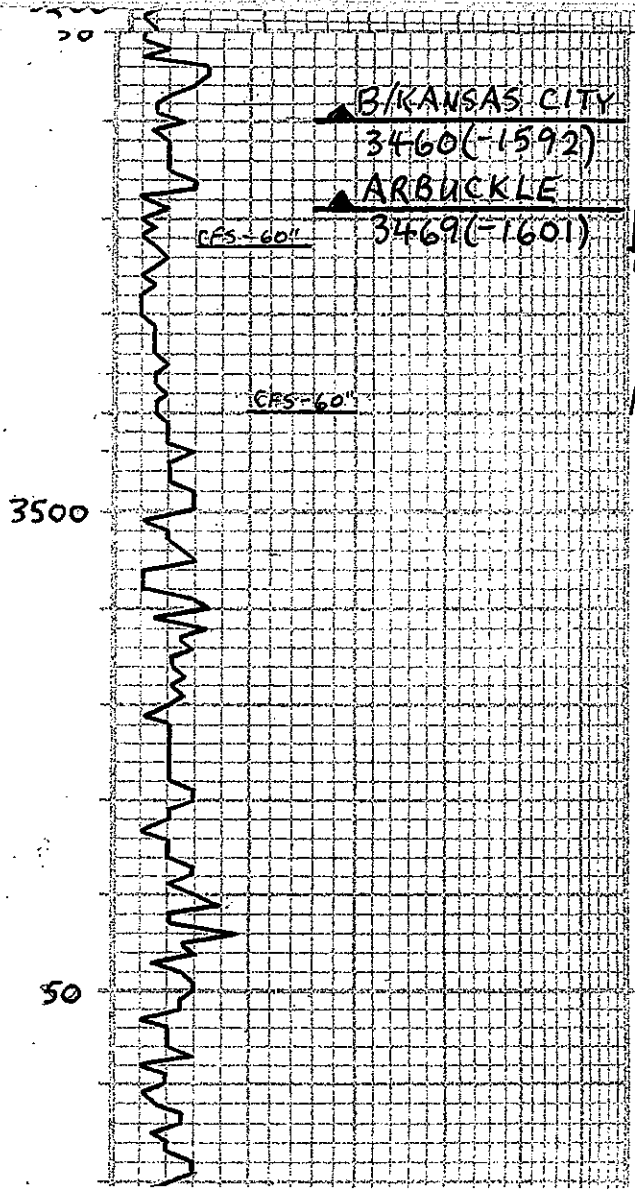
Gauged 3" MCFG/D
Rec: 1350' GO (30% G, 70% O
36° Gravity)

IHP 1671 FHP 1596

IFP 163-190 FFP 242-537

ISIP 1019 FSIP 902

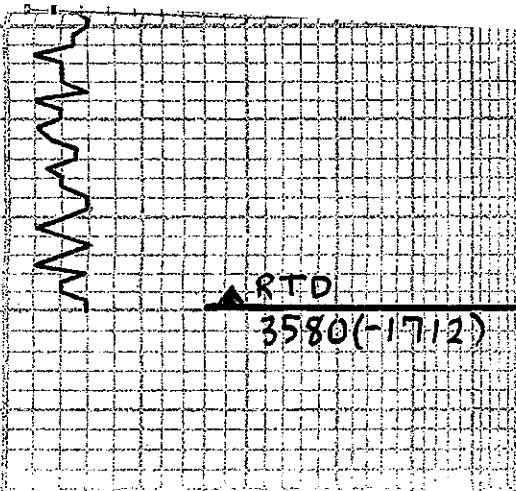
TEMP 113°



Sh-Gry/DK Gry
Ls-Tan Fxln Fss Ool Gd Inter Ool Per Brn Sat Stn GSFO
Sh-Gry/DK Gry/Brn/Rid/Max
Dolo-Brn Mixln to Suc Sat Brn Stn GSFO FT Ool Fr Vng/Interxln Per
Dolo-Brn/Tan Suc Sat Brn Stn Fr Vng Per FSFO
Dolo-Brn/Tan F/Mixln to Suc Fr Gd Vng/Interxln Per Sat Brn Stn GSFO Fr Ool
Dolo-Brn Mixln to Suc Fr Vng Per Sat Brn Stn GSFO Stn Ool
Dolo-AA
Dolo-Brn/Tan Mixln to Suc Fr Vng/Interxln Per FT Ool Brn Stn FSFO
Dolo-AA sm Dolo-Tan Dol + Ool Gd Ool Per Brn Stn FSFO
Dolo-AA
Dolo-Tan Fxln to S/Suc w/ Dolo-Brn/Tan Dol + Ool Fr Ool Per SSFO
Dolo-AA
Dolo-Tan Fxln to S/Suc Mhd Dns N's sm cht - Lt Gry/Tan
Dolo-AA sm cht - Lt Gry/Tan

OCT NO 7 22AA 222A
 Mud Data at 3473' at 8:30am
 on 7-11-10
 Wt 8.8 Vis 50 W.L. 10.8 pH 11.0
 Chlor 13,500 Solids 2.8% YP 14
 Mud Data at 3580' at 9:05am
 on 7-12-10

50



Dolo - Tan Fxla to 5150' Mud
Dns Ns Sm ch+ - Lt Gray/Tan

Dolo - AA sm ch+ - Lt Gray/Tan

Dolo - AA

Mud Data at 3580' at 9:05am
on 7-12-10
Wt 8.9 Vis 52 W.L. 13.2 pH 11.0
Chlor 15:800 Solids 3.4% YP 18

Finished Drilling at 6:43am
on 7-12-10 Cir For Log 60"

Finished Logging at 2:05 p.m
on 7-12-10

DEPTH

DRILLING TIME Minutes/Foot

5" 10" 15" 20" 25"

Rate of Penetration Increases

LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

COMPANY MULL DRILLING COMPANY, INCLEASE HALL "D" NO. 2-17LOCATION 345' ENL & 1147' FEL SEC 17 TWP 21S RNG 12WCOUNTY STAFFORD STATE KANSASELEVATION: 1868 KB