Crown Zellerbach 11-28-59

Schlumberger

FOUR — ARM HIGH RESOLUTION* CONTINUOUS DIPMETER

COUNTY CLATSOP
FIELD SEASIDE
LOCATION 28-5N-9W
WELL CROWN ZELLERBACH NO. 11-28
COMPANY DIAMOND SHAMROCK CORPORATION

COMPANY DIAMOND SHAMROCK CORPORATION
WELL CROWN ZELLERBACH NO. 11-28
FIELD SEASIDE
COUNTY CLATSOP STATE OREGON

LOCATION 1151' FNL & 1142' FWL OF

API SERIAL NO.	SEC	TWP	RANGE
	28	5N	9W

Other Services:
DIL, BHC
FDC/CNL/GR

Permanent Datum: GL ; Elev.: 609
Log Measured From KE 9 Ft. Above Perm. Datum
Drilling Measured From KE

Elev.: K.B. 618
D.F. ---
G.L. 609

RECEIVED-PTO
FEB 2 1982
DEPT OF GEOL

Date	6/16/81							
Run No.	ONE							
Depth—Driller	5700							
Depth—Logger (Schl.)	5620							
Btm. Log Interval	5620							
Top Log Interval	1010							
Casing—Driller	9 @ 1011		@		@		@	
Casing—Logger	1010							
Bit Size	8							
Type Fluid in Hole	GEL/LIGNOSULFONATE							
Dens. | Visc.	9.0	45						
pH | Fluid Loss	9.5	2.4 ml		ml		ml		ml
Source of Sample	FLOWLINE							
Rm @ Meas. Temp.	0.31 @ 90 °F		@ °F		@ °F		@ °F	
Rmf @ Meas. Temp.	0.39 @ 68 °F		@ °F		@ °F		@ °F	
Rmc @ Meas. Temp.	1.00 @ 80 °F		@ °F		@ °F		@ °F	
Source: Rmf | Rmc	M	M						
Rm @ BHT	0.72 @ 114 °F		@ °F		@ °F		@ °F	
TIME Circulation Stopped	1200 6/15							
TIME Logger on Bottom	0100							
Max. Rec. Temp.	114 °F		°F		°F		°F	
Equip. | Location	8128	SAC						
Recorded By	LINDGREN							
Witnessed By Mr.	GUSTAFSON							

SWS-1500-J

FOLD HERE The well name, location and borehole reference data were furnished by the customer.

REMARKS: Service Order No. [illegible] Magnetic Declination

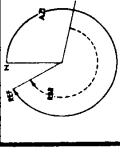
Run No.	1		2		3		4	
Tool Type	HDT-D							
HDP	1891							
DDR | TTR	-	-						
DPI	-							
HDM	1726							
HDE	1879							
HDS	1954							
Adapter Head	-							
UG | CG | SAH	-	-	-					
5" Film | 10" Film | 60" Record	X	-	-					
Analog | Digital		X						
TIME Circulation Stopped	1200 6/15							
TIME Schl. on Bottom	0100							

ROLL NO.	INTERVAL

TOOL AZIMUTH AND HOLE DIRECTION CALCULATION

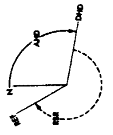
DEFINITIONS

(DHD) HIGH SIDE OF TOOL = Direction from center of tool to upper side of tool.
(N) NORTH = Direction from center of tool to Magnetic North.
(REF) REFERENCE ELECTRODE = Direction from center of tool to #1 electrode.
(AZI) AZIMUTH OF REFERENCE ELECTRODE = Clockwise angle from N to REF.
(RBR) RELATIVE BEARING = Clockwise angle from DHD to REF.
(AHD) AZIMUTH OF HOLE DEV. (TOOL AXIS) = Clockwise angle from N to DHD.



LOW ANGLE UNIT ☒

EXAMPLE
HDM - Low Angle Unit (0-36°)
AZI (solid curve) = 330°
RBR (dotted curve) = 230°
AHD = AZI − RBR = 330° − 230° = 100°



HIGH ANGLE UNIT ☐

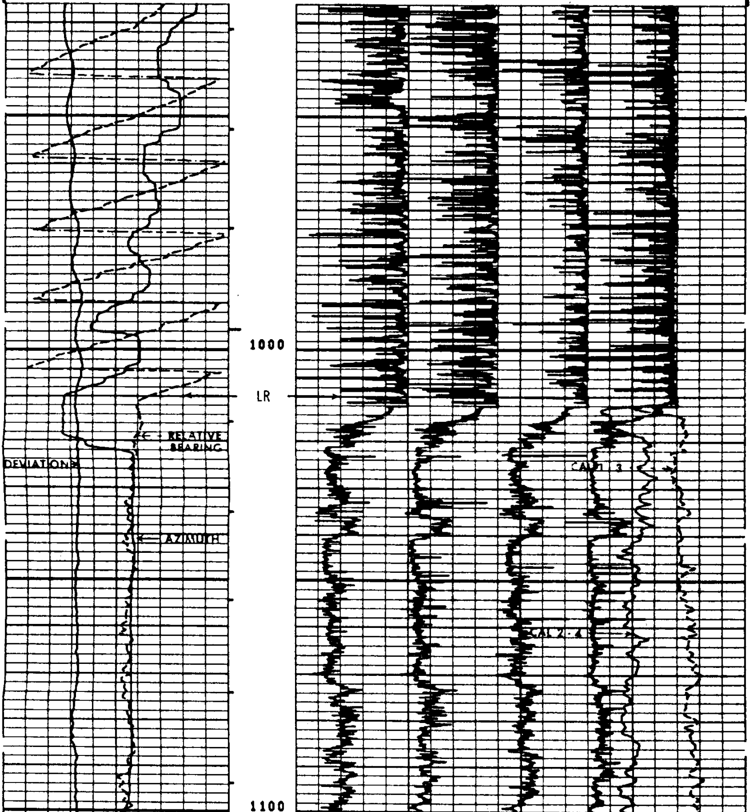
EXAMPLE
HDM - High Angle Unit (0-72°)
AHD (solid curve) = 100°
RBR (dotted curve) = 230°
AZI = AHD + RBR = 100° + 230° = 330°

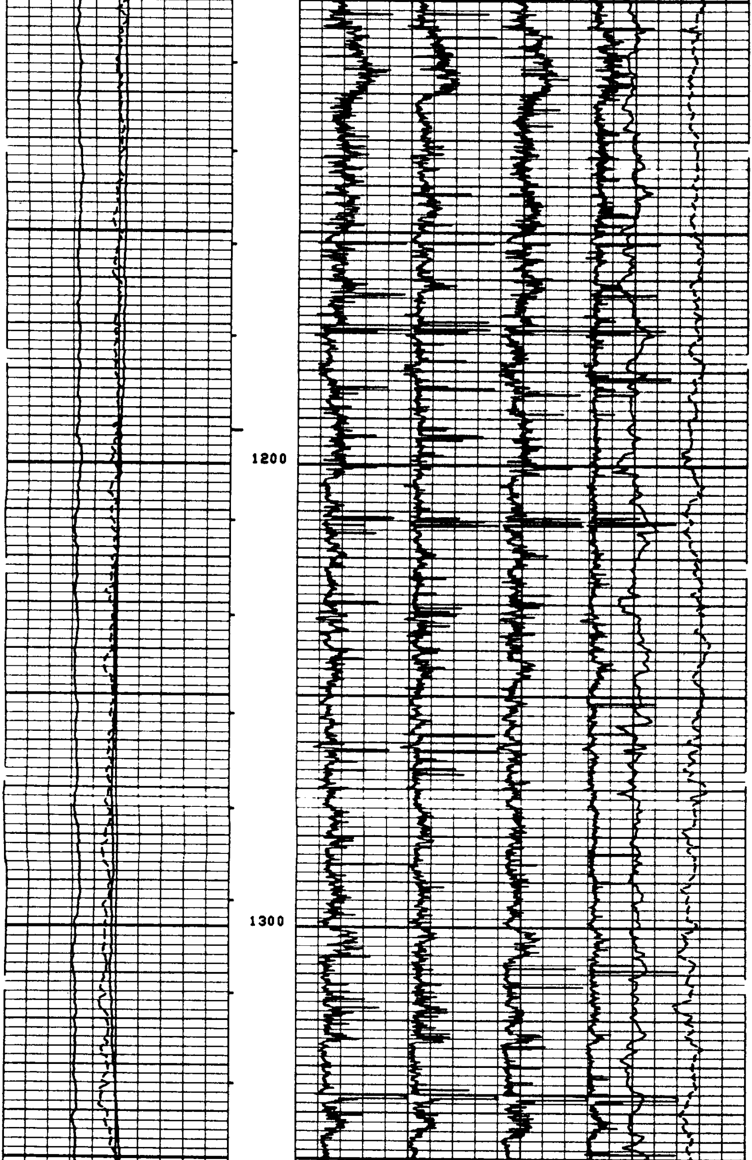
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule

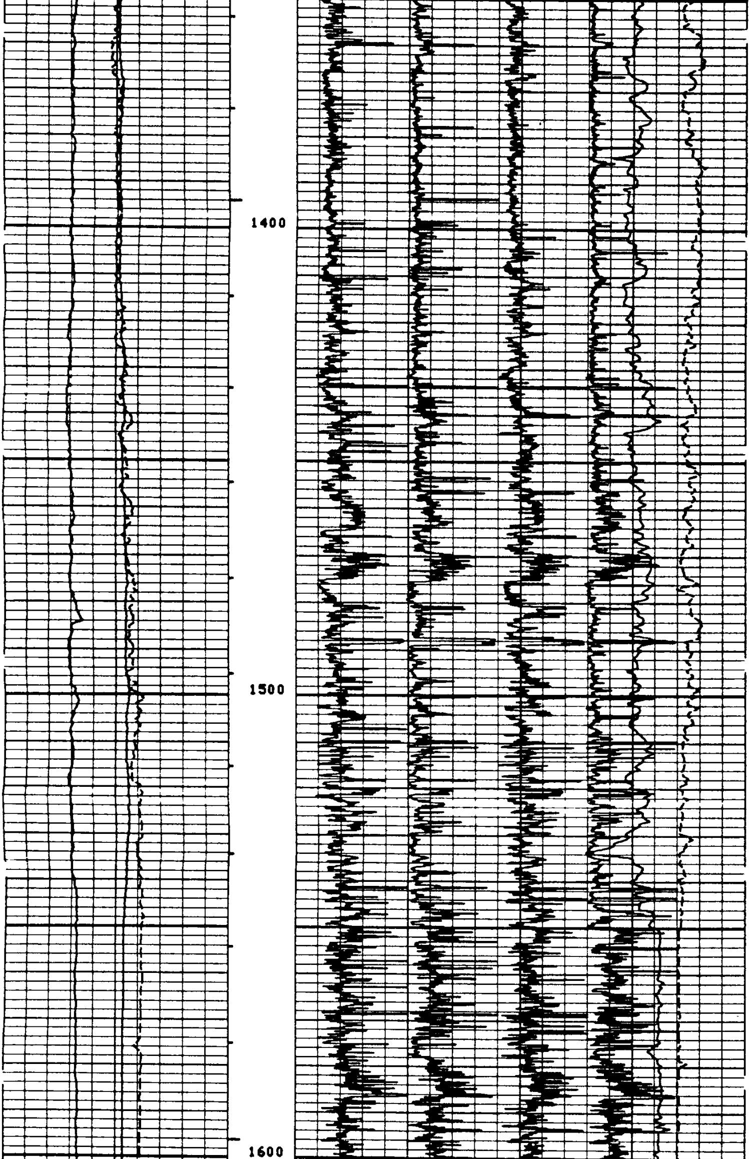
DEVI(DEG)				
-1.000	9.000			
RB (DEG)			C2 (IN)	
-40.00	360.0	26.00		6.000
AZIM(DEG)			C1 (IN)	
-40.00	360.0	26.00		6.000

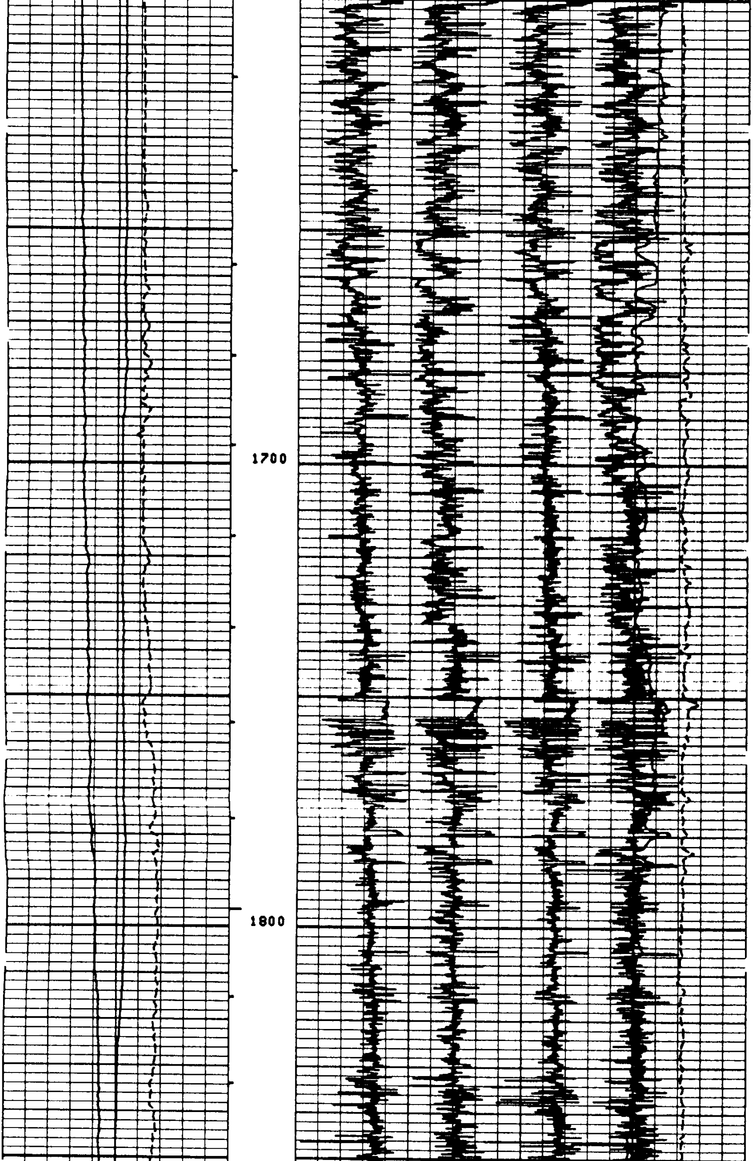
FILE

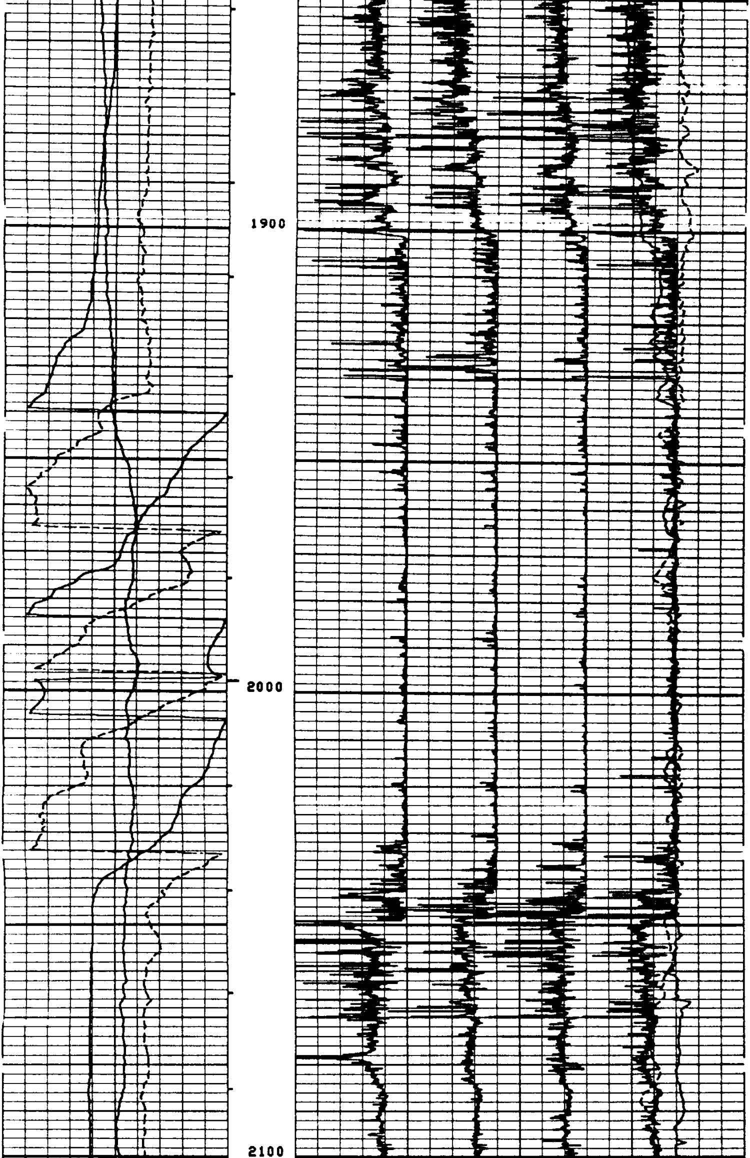
8

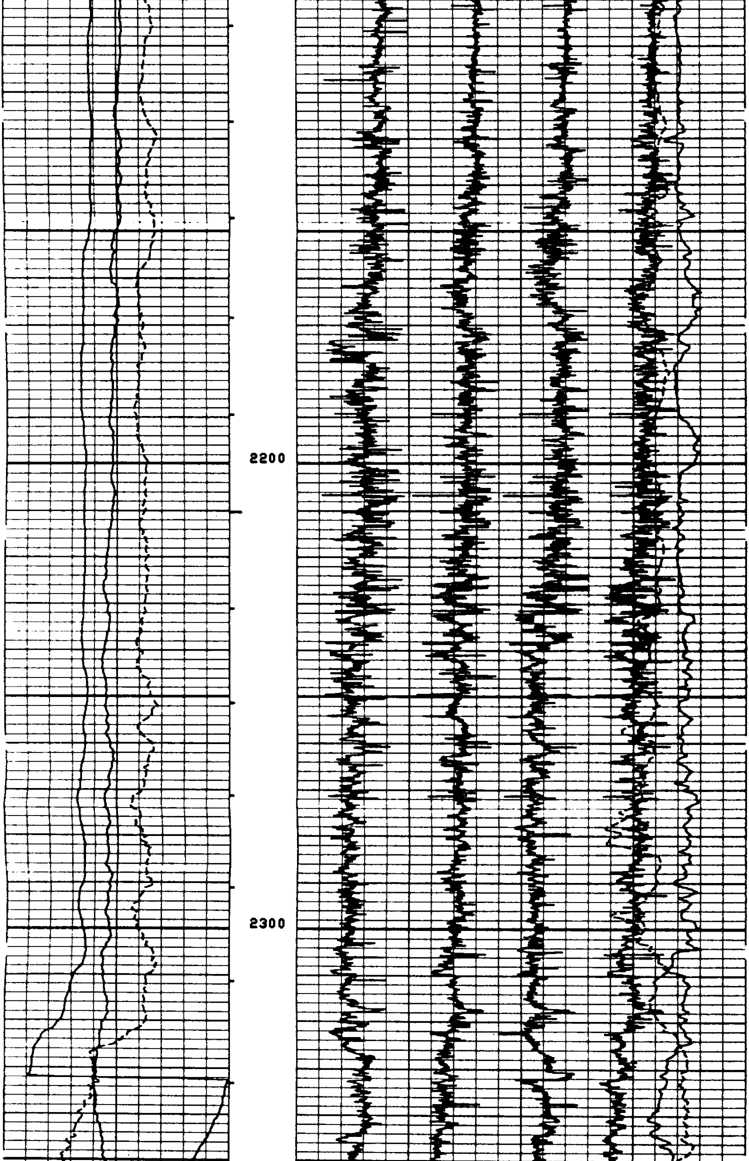


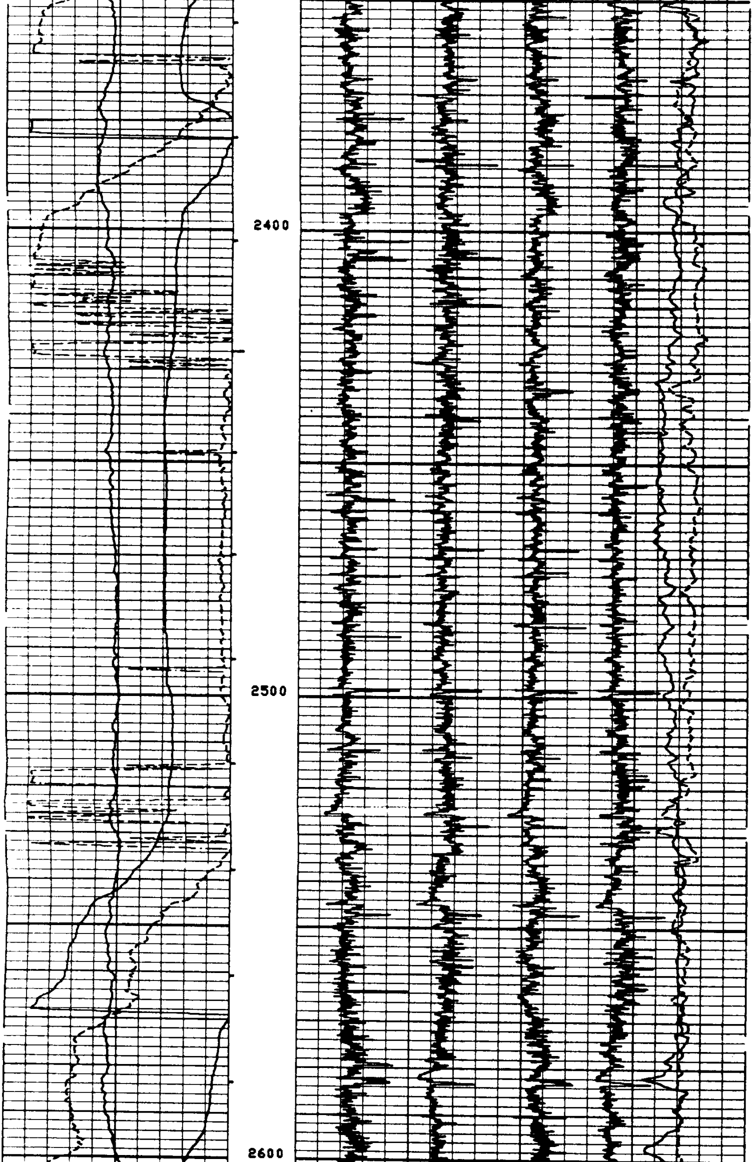


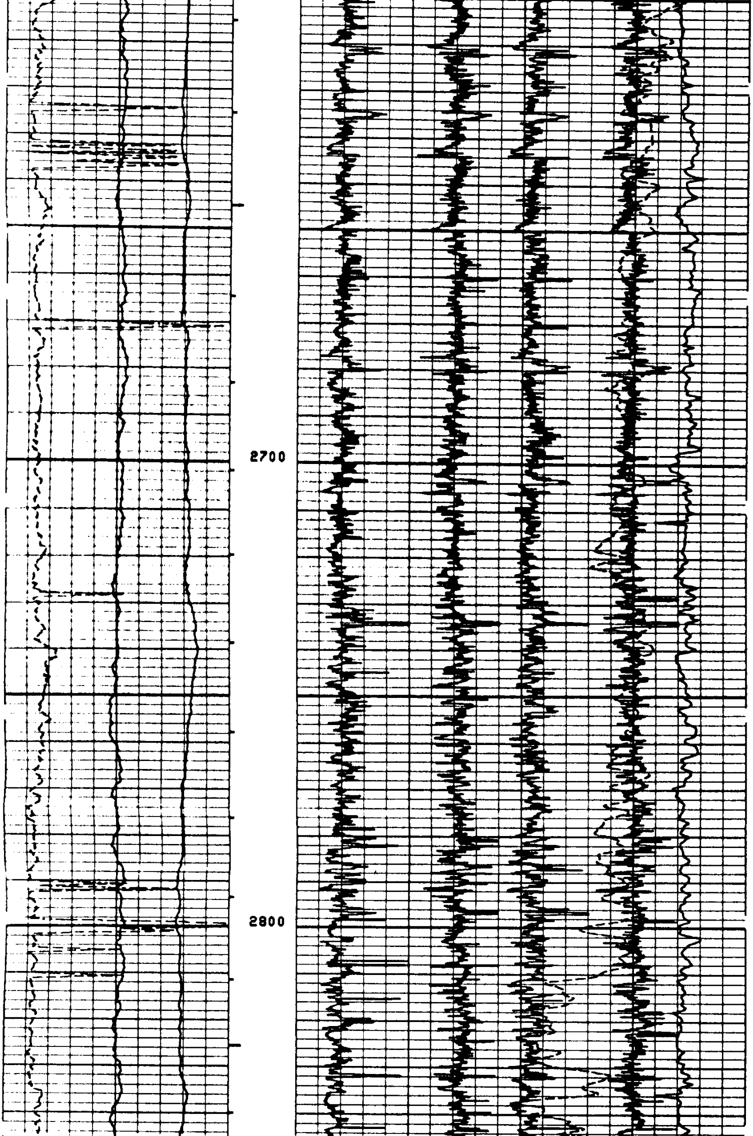


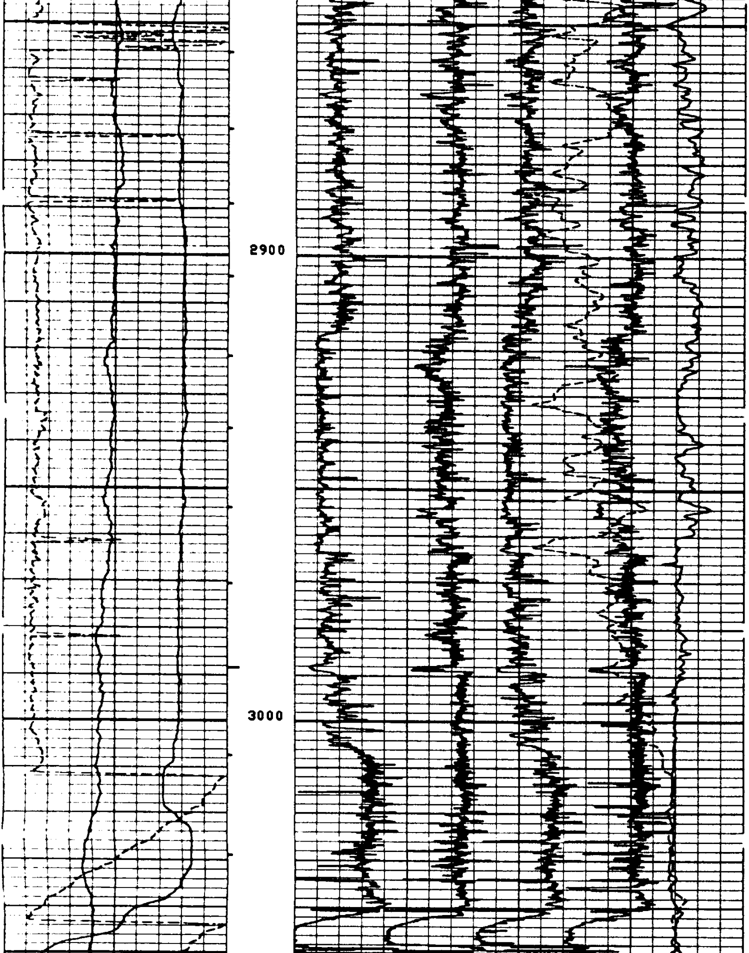


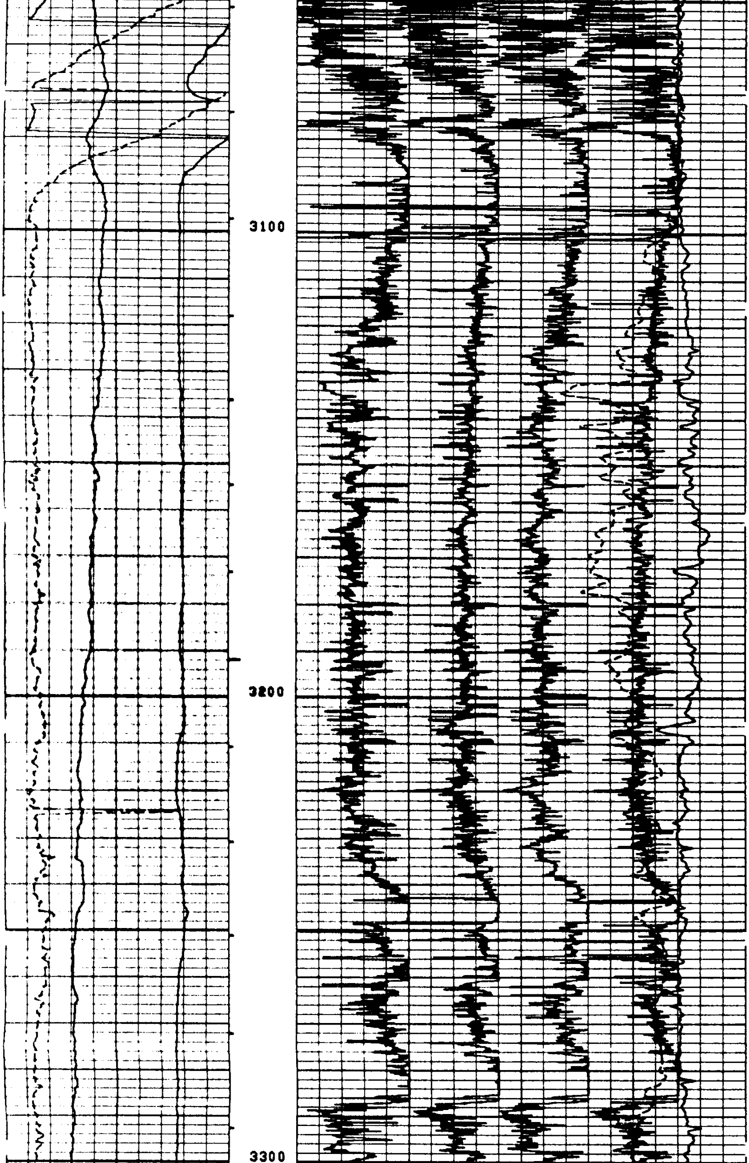


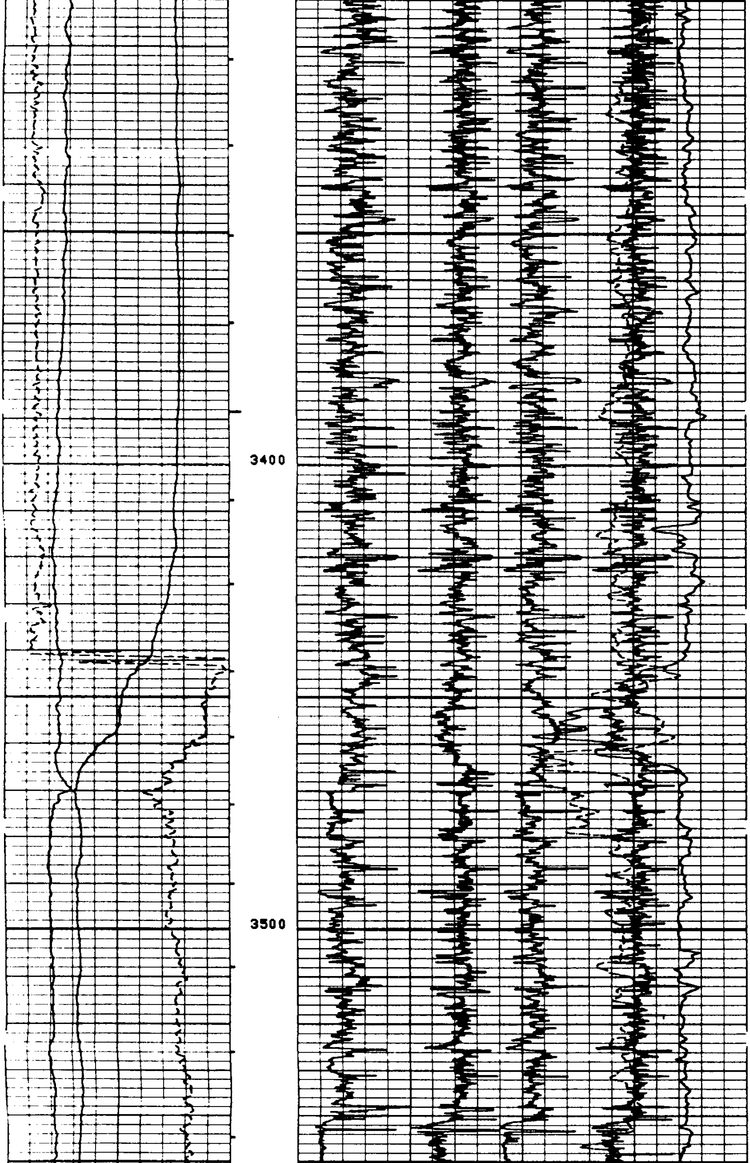


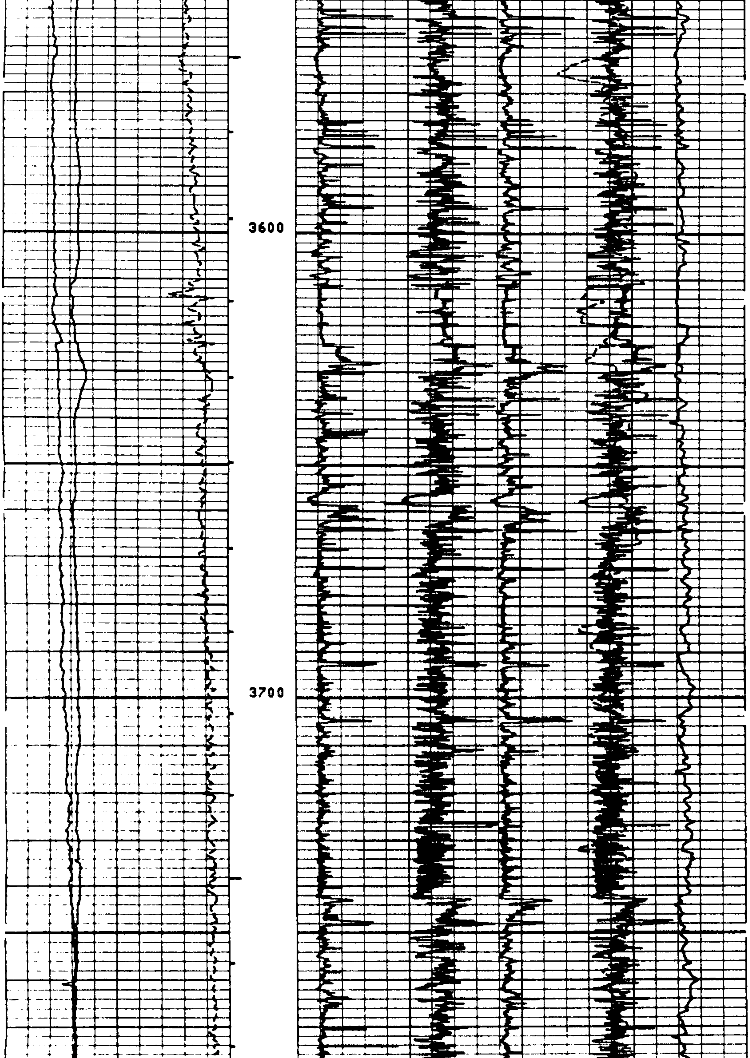


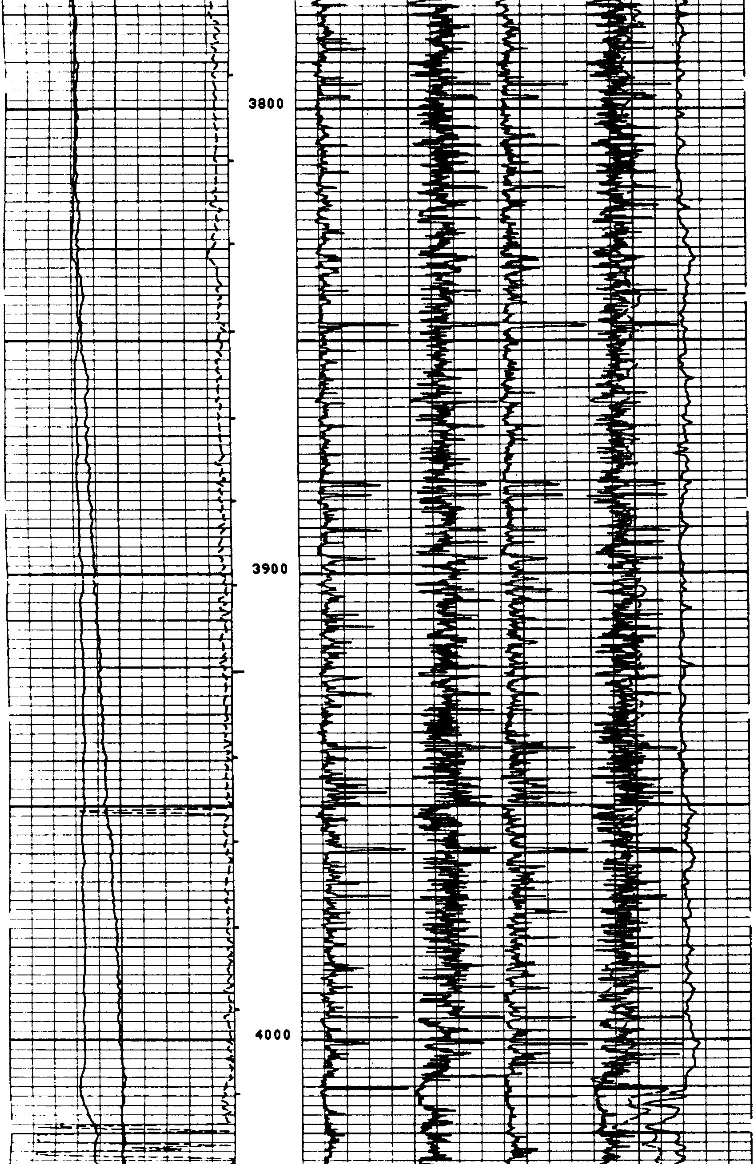


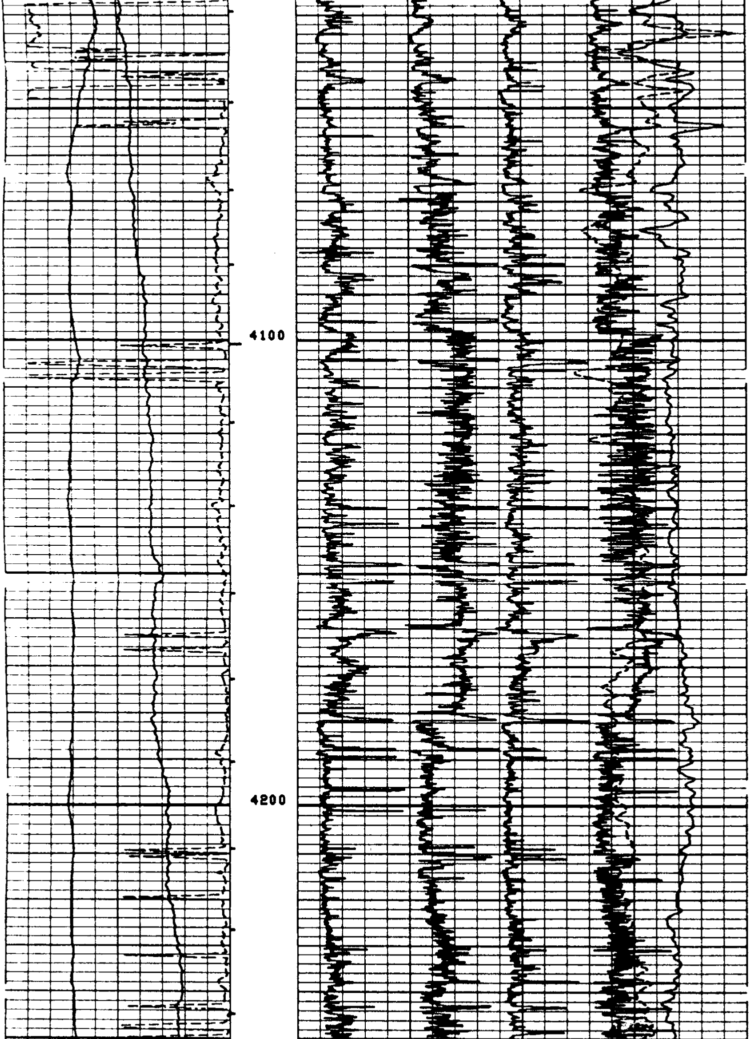


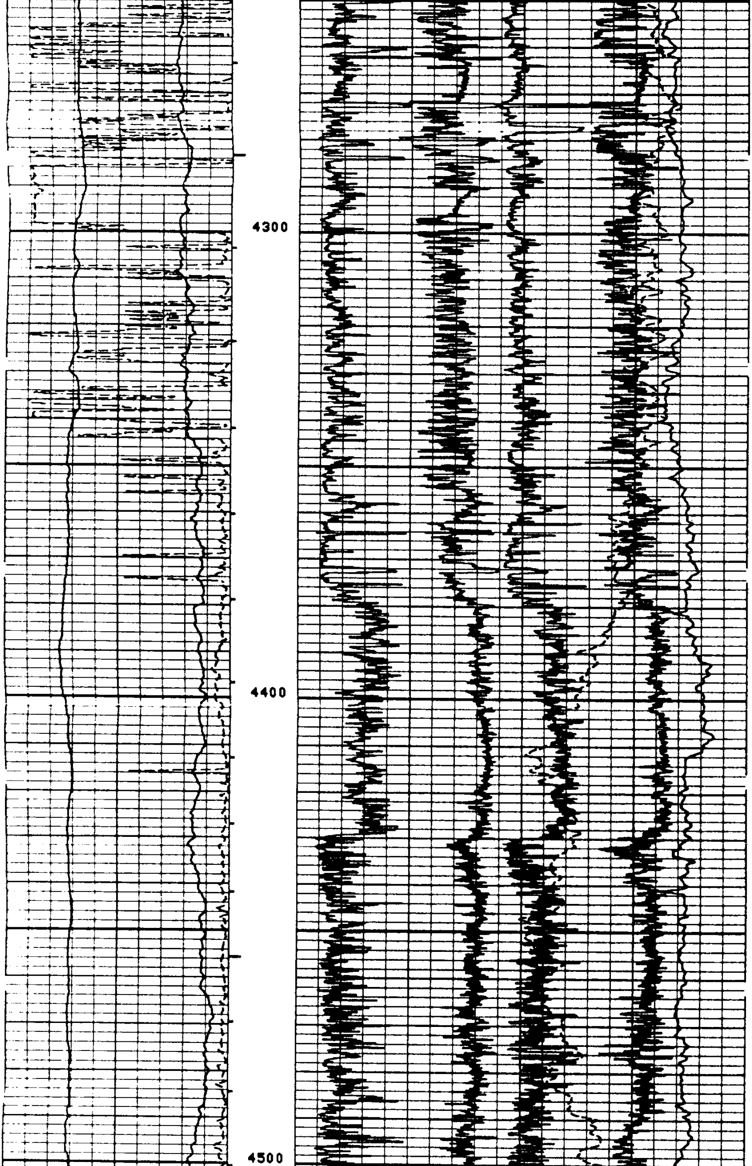


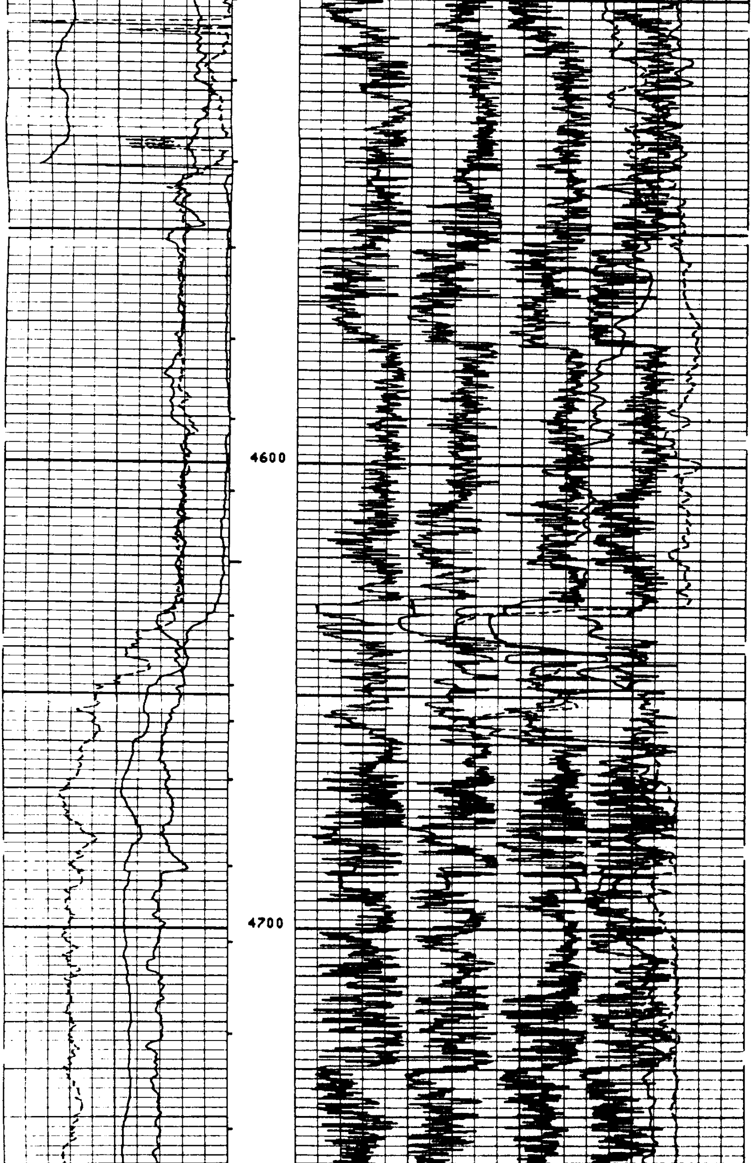


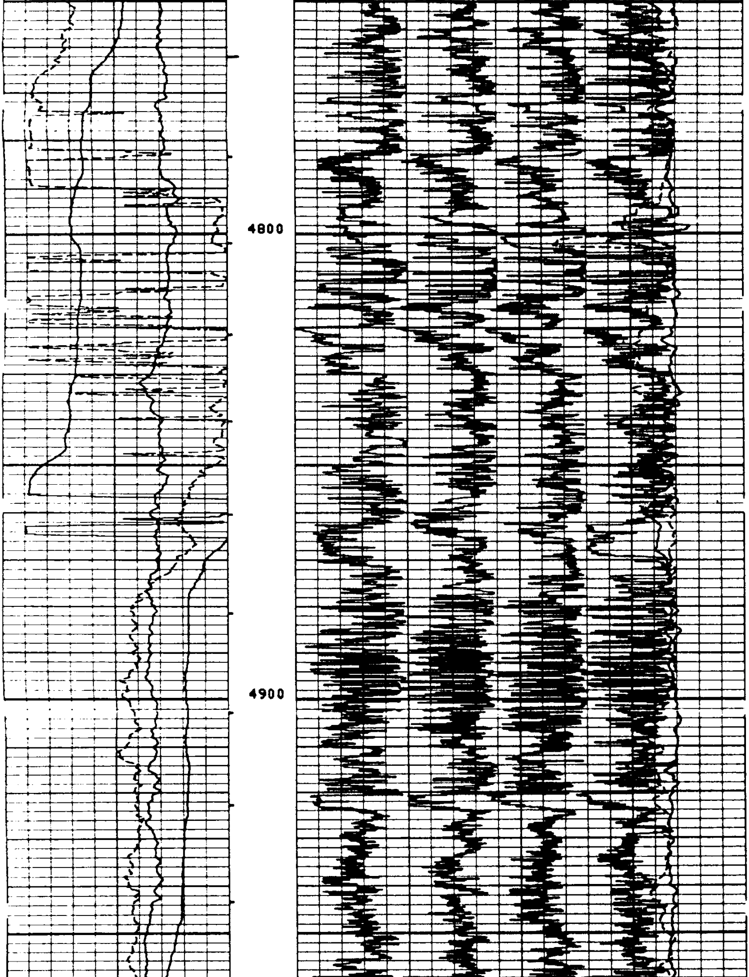


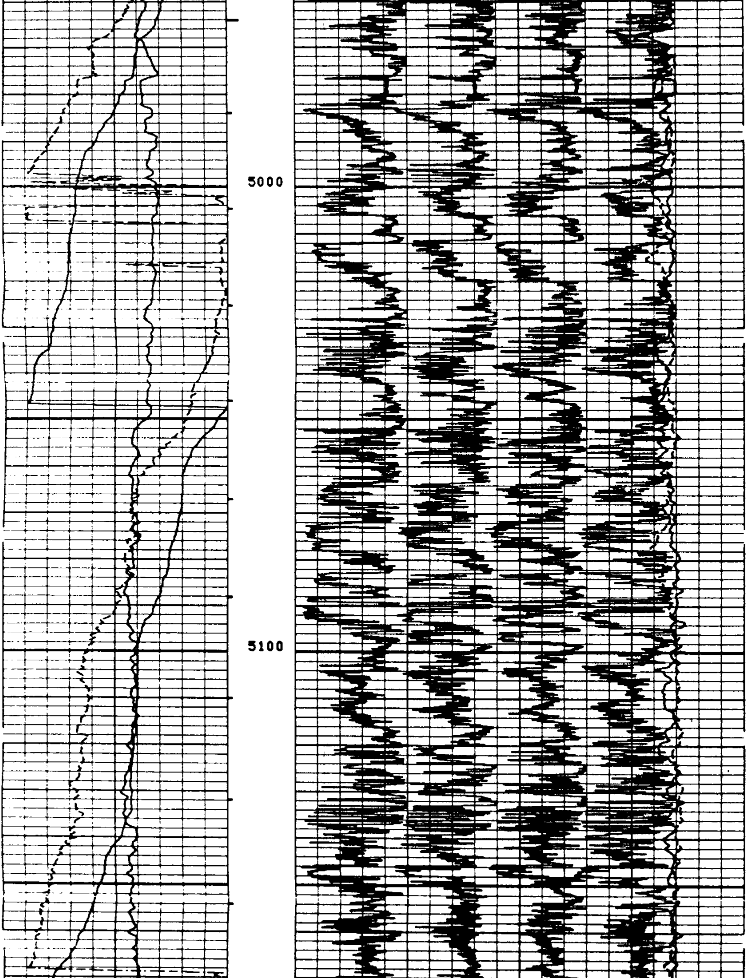


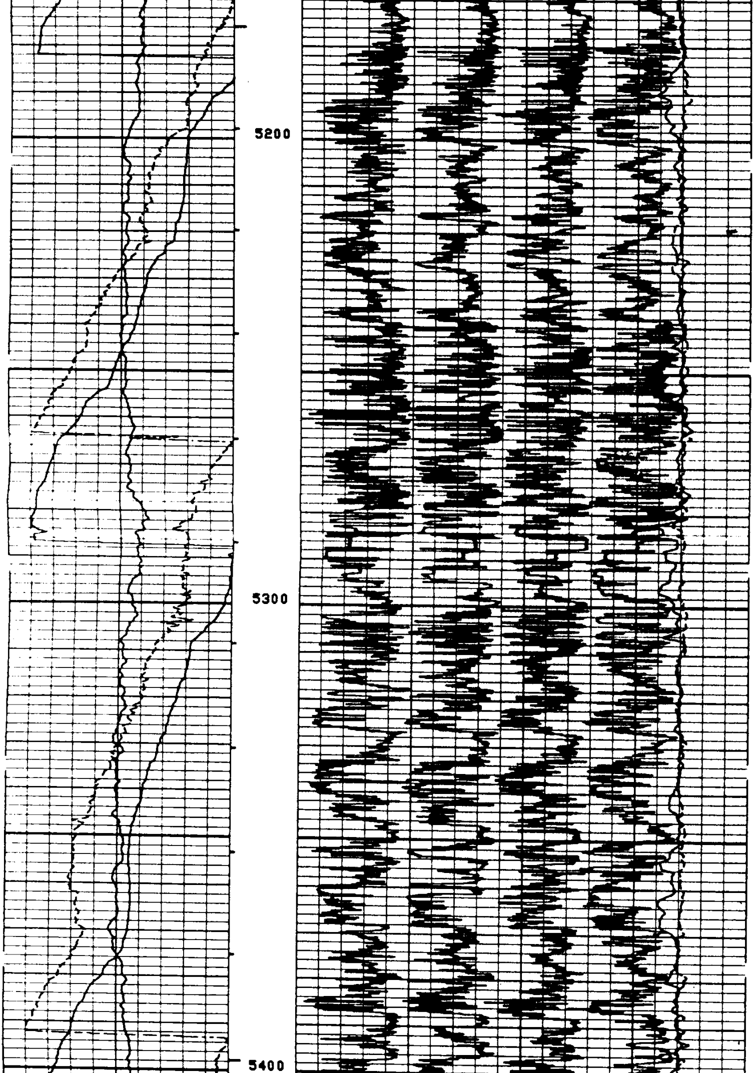


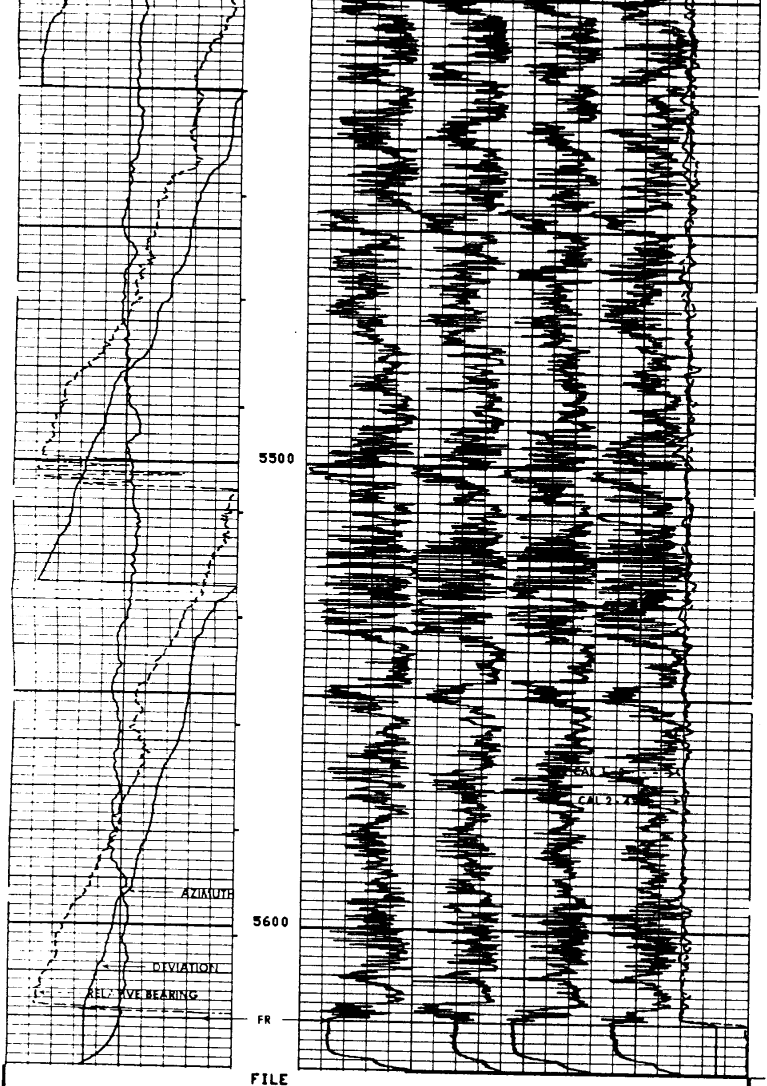












FILE

8

DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (IN)
26.00 6.000
C1 (IN)
26.00 6.000

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

RB	.0	FEET	AZIM	.0	FEET
FEP1	.0	FEET	DEVI	.0	FEET
REFE	.0	FEET	FEP2	.0	FEET
EMEX	.0	FEET	RC	.0	FEET
C2	.0	FEET	C1	.0	FEET
RC2	.0	FEET	RC1	.0	FEET
TEMP	.0	FEET	PP	.0	FEET
FC0	.0	FEET	TENS	.0	FEET
FC2	.0	FEET	FC1	.0	FEET
FC4	.0	FEET	FC3	.0	FEET
SHDT	.0	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
MCT	36	DEG	BS	8.750	IN
BHS	OPEN		STYP	HDSD	
DO	0.0				

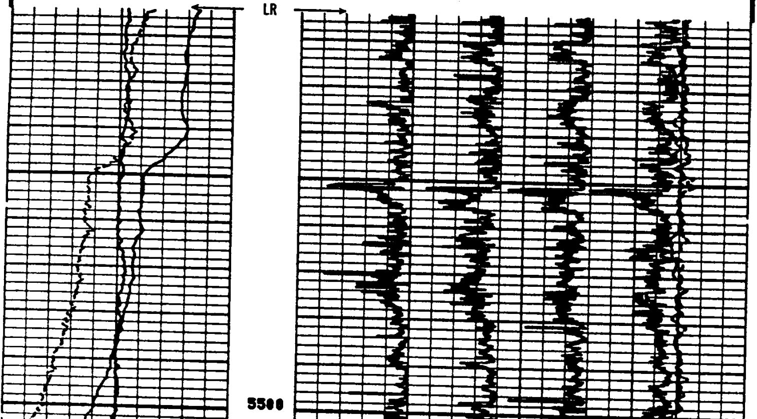
REPEAT SECTION

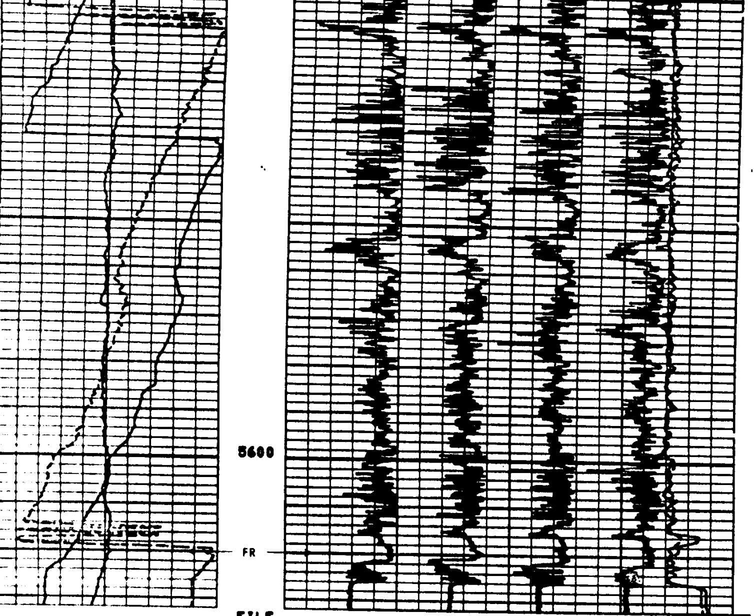
DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (IN)
26.00 6.000
C1 (IN)
26.00 6.000

FILE

5





FILE

5

DEVI(DEG)	
-1.000	9.000
RB (DEG)	
-40.00	360.0
AZIM(DEG)	
-40.00	360.0

C2 (IN)	
26.00	6.000
C1 (IN)	
26.00	6.000

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

RB	.0	FEET	AZIM	.0	FEET
FEP1	.0	FEET	DEVI	.0	FEET
REFE	.0	FEET	FEP2	.0	FEET
EMEX	.0	FEET	RC	.0	FEET
C2	.0	FEET	C1	.0	FEET
RC2	.0	FEET	RC1	.0	FEET
TEMP	.0	FEET	PP	.0	FEET
FC0	.0	FEET	TENS	.0	FEET
FC2	.0	FEET	FC1	.0	FEET
FC4	.0	FEET	FC3	.0	FEET
SHDT	.0	FEET			

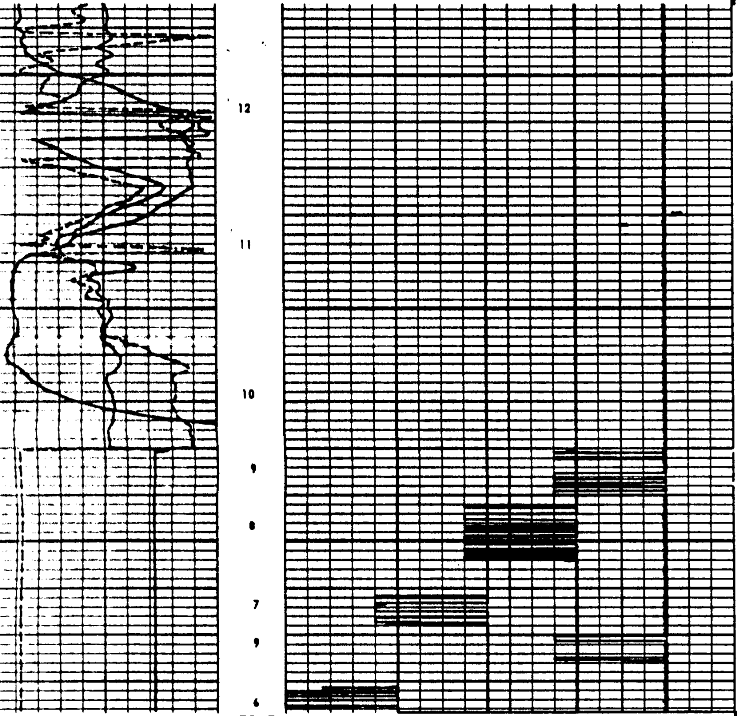
PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
NCT	36	DEG	DS	0.750	IN
BHS	OPEN		STYP	HDS3	
BS	0.0				

DEVI(DEG)
-1.000 9.000
RB (DEG)
-40.00 360.0
AZIM(DEG)
-40.00 360.0

C2 (IN)
26.00 6.000
C1 (IN)
26.00 6.000

FILE
3



FILE
3

```
        DEVI(DEG )
-1.000              9.000
        RB  (DEG )
-40.00              360.0
        AZIM(DEG )
-40.00              360.0
```

```
                              C2  (IN  )
26.00                                                    6.000
                              C1  (IN  )
26.00                                                    6.000
```

```
            SENSOR MEASURE POINT TO TENSION REFERENCE POINT

      RB       .0   FEET                     AZIM     .0   FEET
      FEP1     .0   FEET                     DEVI     .0   FEET
      REFE     .0   FEET                     FEP2     .0   FEET
      EMEX     .0   FEET                     RC       .0   FEET
      C2       .0   FEET                     C1       .0   FEET
      RC2      .0   FEET                     RC1      .0   FEET
      TEMP     .0   FEET                     PP       .0   FEET
      FC0      .0   FEET                     TENS     .0   FEET
      FC2      .0   FEET                     FC1      .0   FEET
      FC4      .0   FEET                     FC3      .0   FEET
      SHDT     .0   FEET
```

```
                          PARAMETERS

      NAME   VALUE     UNIT                  NAME   VALUE     UNIT

      MCT    36        DEG                   DS     0.750     IN
      BHS    OPEN                            STYP   HDSD
      DD     0.0
```

HIGH RESOLUTION DIPMETER CALIBRATION CODING

1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. FULL SCALE ADJUST
4. CALIPER ADJUST AT 6" AND 16" CALIPER 1-3 IS CODED
5. CALIPER ADJUST AT 6" AND 16" CALIPER 2-4 IS SOLID
6. PAD #1 RESPONSE CHECK
7. PAD #2 RESPONSE CHECK
8. PAD #3 RESPONSE CHECK
9. PAD #4 RESPONSE CHECK
10. SONDE HANGING VERTICALLY
11. TOOL AND PAD #1 POINTED NORTH
12. TOOL ROTATING

```
                 BEFORE SURVEY CALIBRATION SUMMARY


  PERFORMED:      81/06/15
  PROGRAM FILE: HDT     (VERSION    20.2    01/ 1/30)


 HDT               CALIPER CALIBRATION SUMMARY

           MEASURED                        CALIBRATED
         SMALL   LARGE                  SMALL     LARGE        UNITS
   C1     8.8    13.4                    8.0      12.0          IN
   C2     8.6    13.4                    8.0      12.0          IN
                   FILE

                    2
```

COMPANY DIAMOND SHAMROCK CORPORATION

WELL CROWN ZELLERBACH NO. 11-28

FIELD SEASIDE

COUNTY CLATSOP STATE OREGON

ROLL NO.

DEPTH INTERVAL THIS ROLL

From 5620 To 1010