Schlumberger

DUAL INDUCTION-SFL 5"

CSU

COMPANY: REICHHOLD ENERGY CORPORATION

WELL: PAUL #34-32 RD-1

FIELD: MIST
COUNTY: COLUMBIA
STATE: OREGON

LOCATION: 741'N & 255'E OF THE SOUTH
1/4 CORNER OF...
SEC: 32 **TWP:** 7N **RGE:** 25W

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 614.0 F
LOG MEASURED FROM: KB
13.0 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 627.0 F
DF:
GL: 614.0 F

OTHER SERVICES-
BHC SONIC
HDT

PROGRAM TAPE NO:
26.2
SERVICE ORDER NO:
432256

DATE: 17 SEP 84
RUN NO: 1

DEPTH-DRILLER: 2915.0 F
DEPTH-LOGGER: 2898.0 F
BTM. LOG INTERVAL: 2892.0 F
TOP LOG INTERVAL: 497.0 F

CASING-DRILLER: 497 F
CASING-LOGGER: 497 F
CASING: 8 5/8"

BIT SIZE: 7 7/8"

TYPE FLUID IN HOLE: GEL-LIGNO
DENSITY: 10.0 LB/G
VISCOSITY: 25.0 S
PH: 8.5
FLUID LOSS: 6.2 C3
SOURCE OF SAMPLE: FLOWLINE
RM: 2.100 OHMM AT 83.0 DEGF
RMF: 2.090 OHMM AT 74.0 DEGF
RMC: 2.550 OHMM AT 71.0 DEGF
SOURCE RMF/RMC: MEASURED/MEASURED
RM AT BHT: 1.834 OHMM AT 96.0 DEGF
RMF AT BHT: 1.643 OHMM AT 96.0 DEGF
RMC AT BHT: 1.931 OHMM AT 96.0 DEGF

TIME CIRC. STOPPED: 1600 9-17
TIME LOGGER ON BTM.: 1830

MAX. REC. TEMP: 96.0 DEGF

LOGGING UNIT NO: 8178
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: R. BENTLEY
WITNESSED BY: M.ALGER/T.THOMAS

REMARKS:

EQUIPMENT NUMBERS-

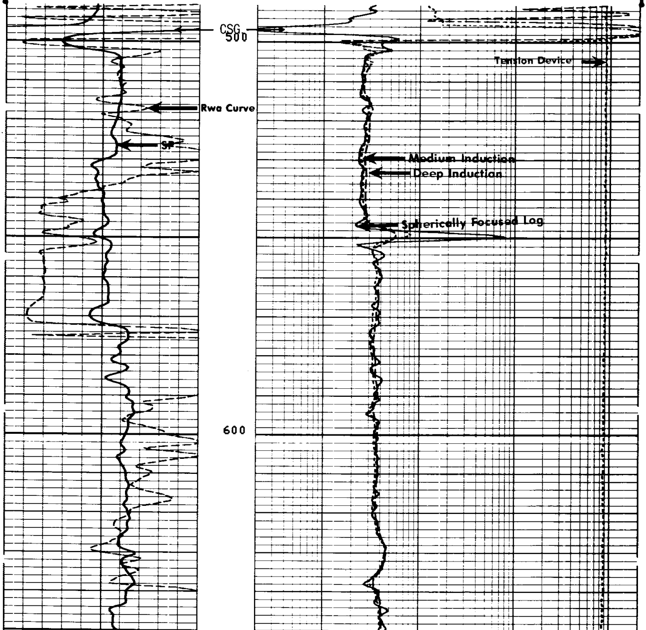
DIS 1422 DIC 342 SLS RC 236 SLC FA 1589
MCD B 1502 IEM BD 686 SLM DA 1281

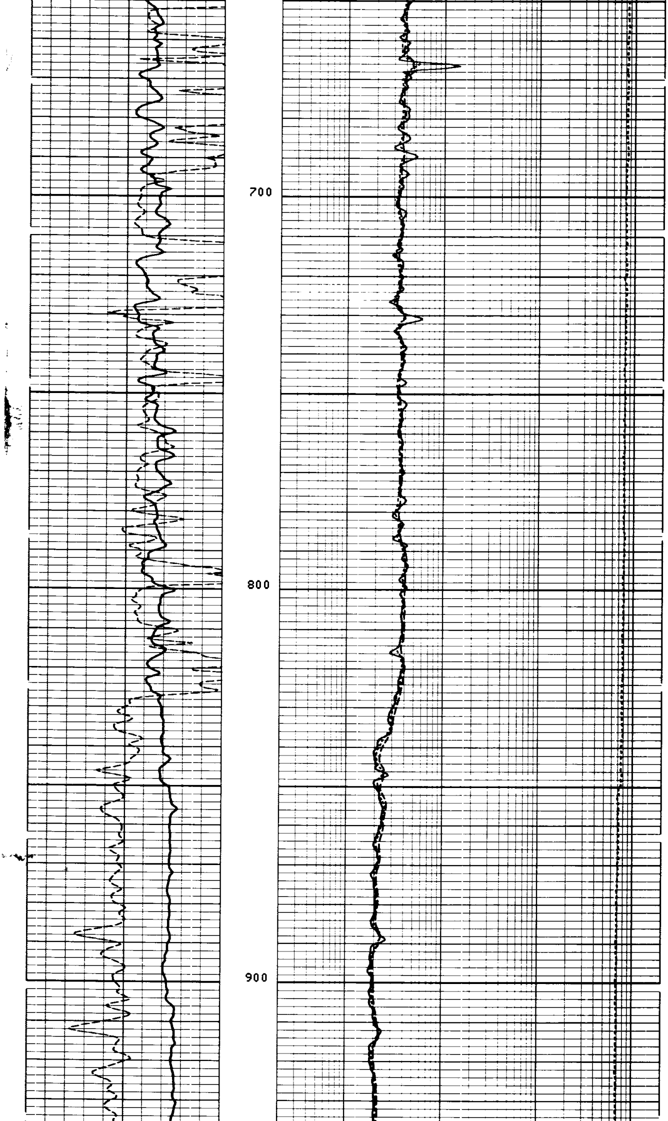
ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, 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 OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

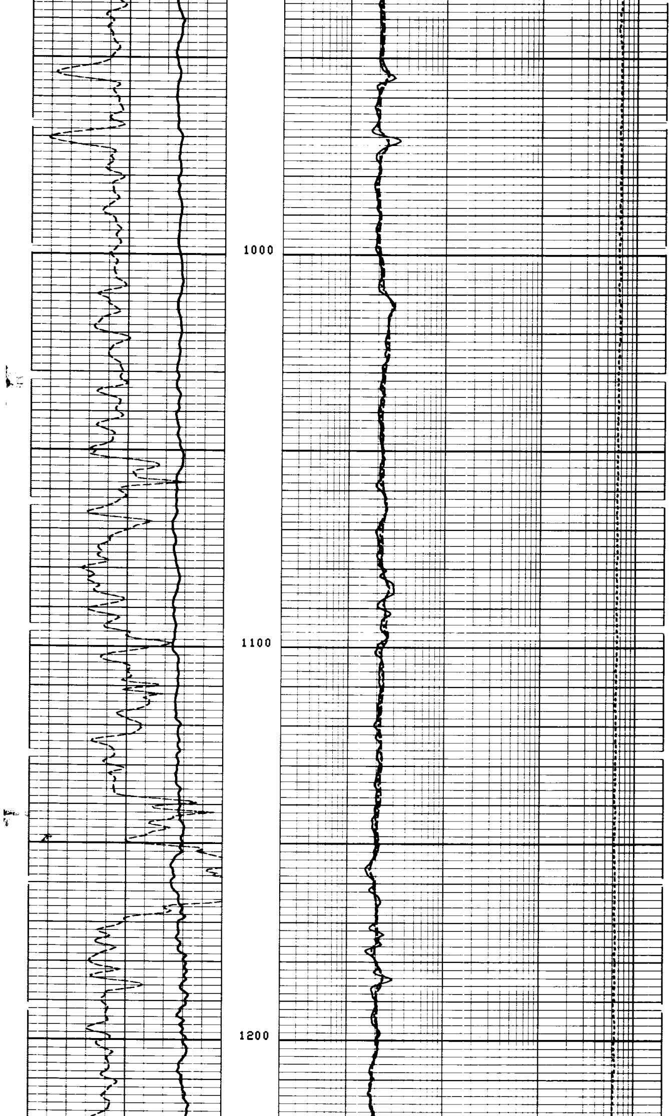
FILE 101 17-SEP-84 20:23
DATA ACQUIRED 17-SEP-84 19:46

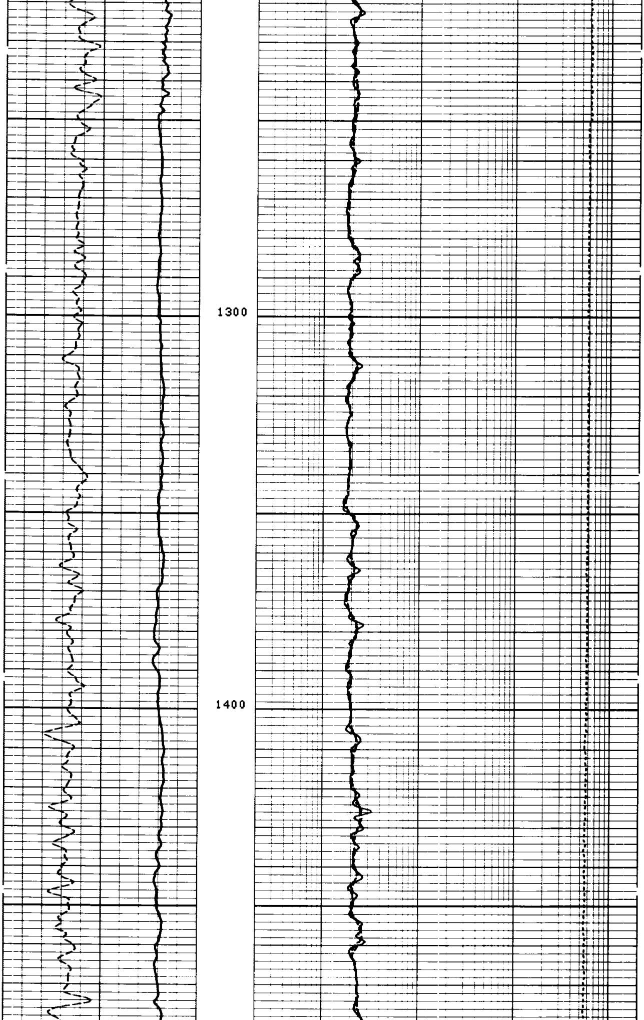
TENS(LB)
5000.0 0.0
ILD (OHMM)
.20000 2000.0
RWA (OHMM)
0.0 3.0000
ILM (OHMM)
.20000 2000.0
SP (MV)
-100.0 0.0
SFLU(OHMM)
.20000 2000.0

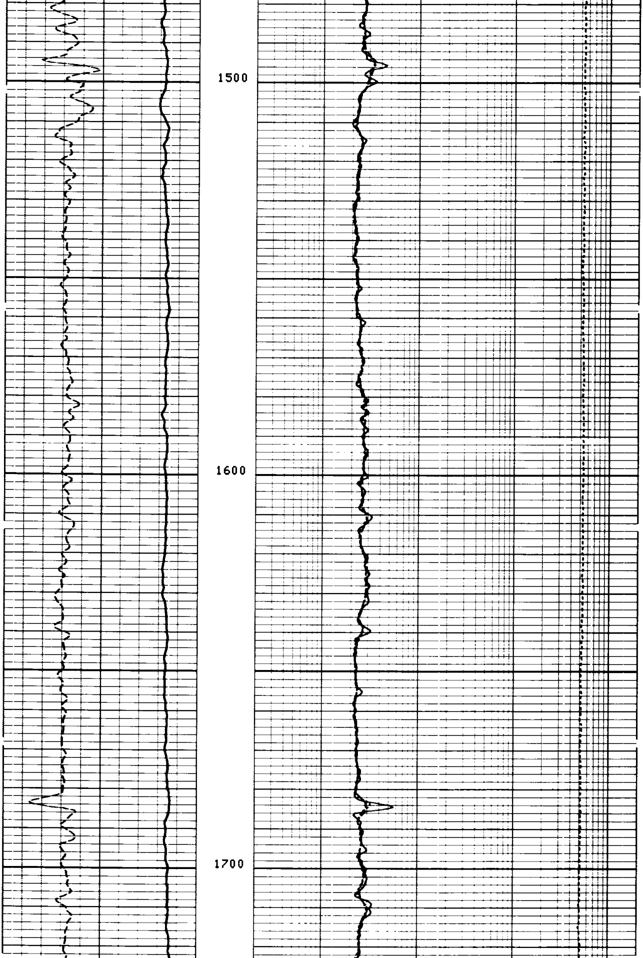
FILE 101 17-SEP-84 20:22
DATA ACQUIRED 17-SEP-84 19:46

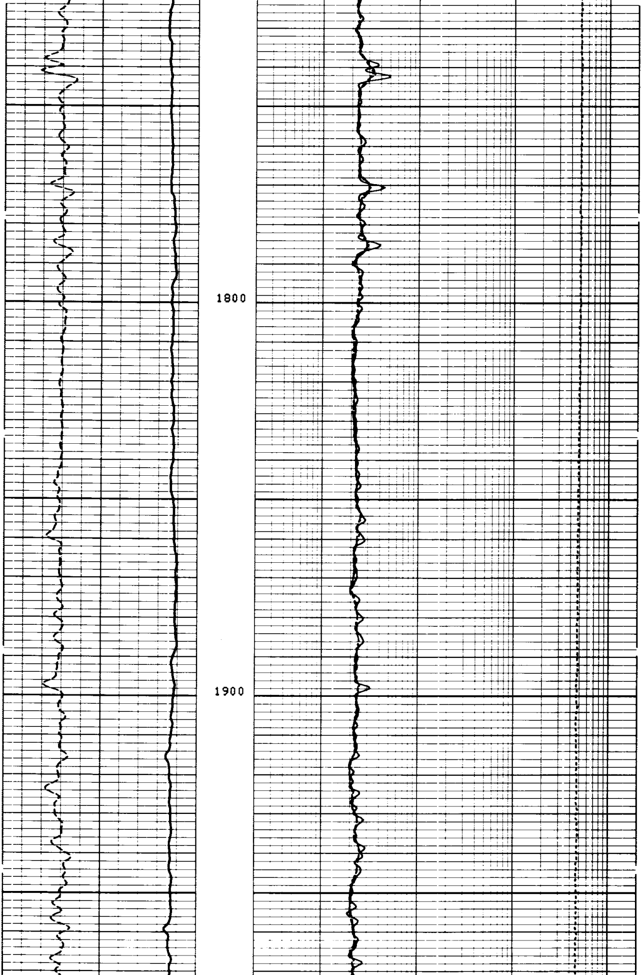


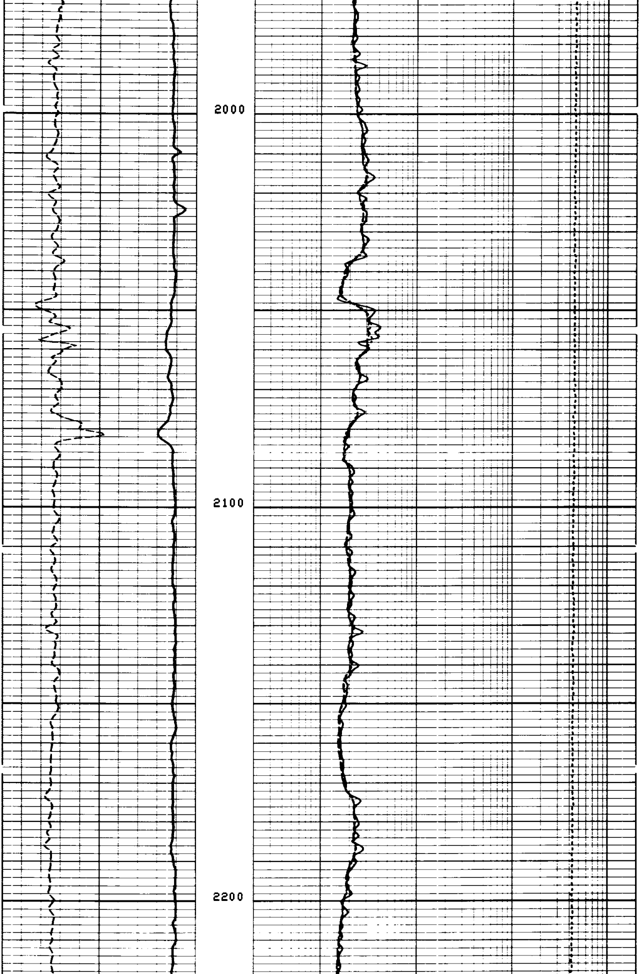


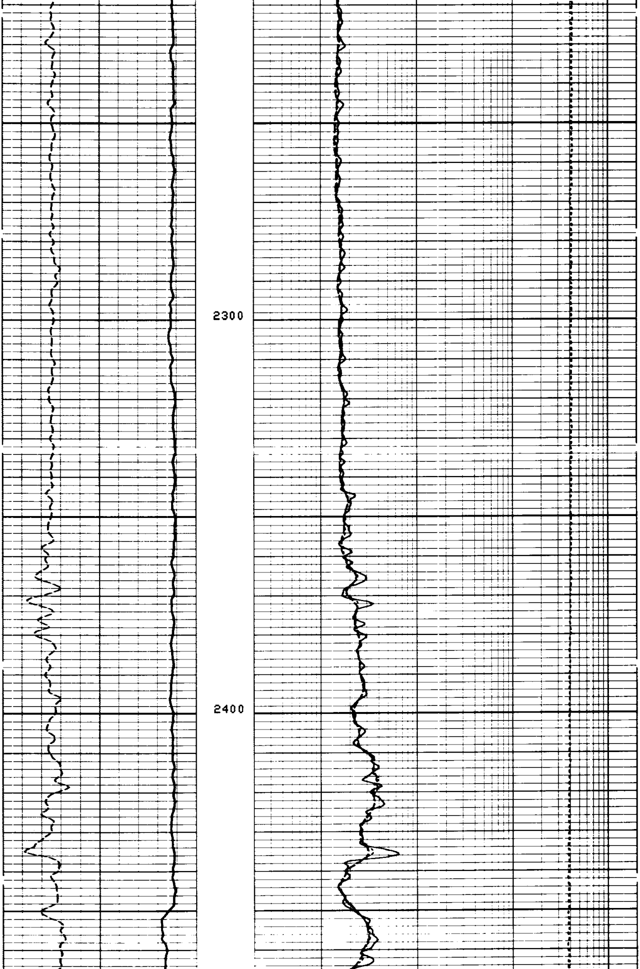


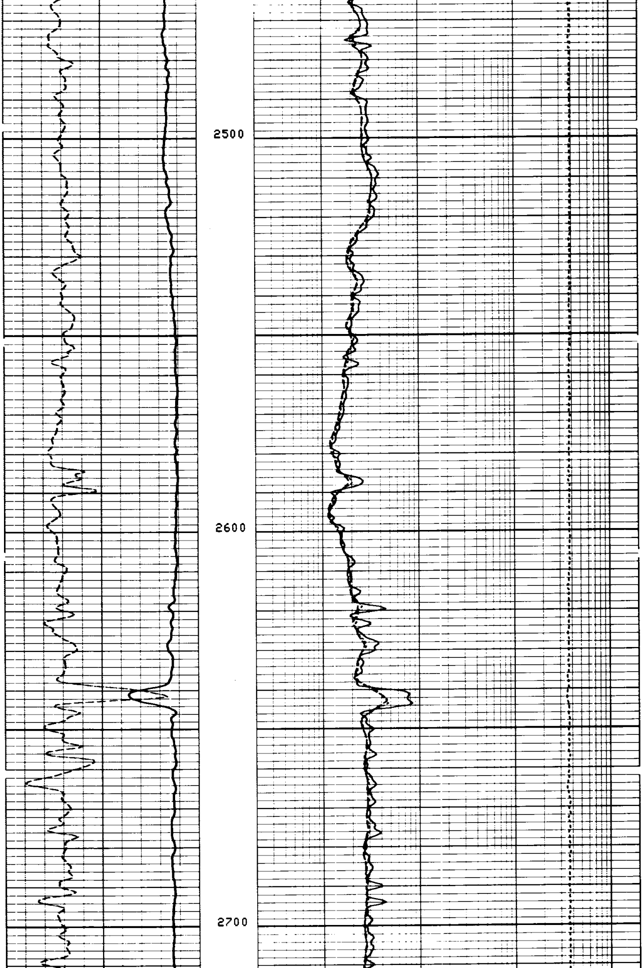


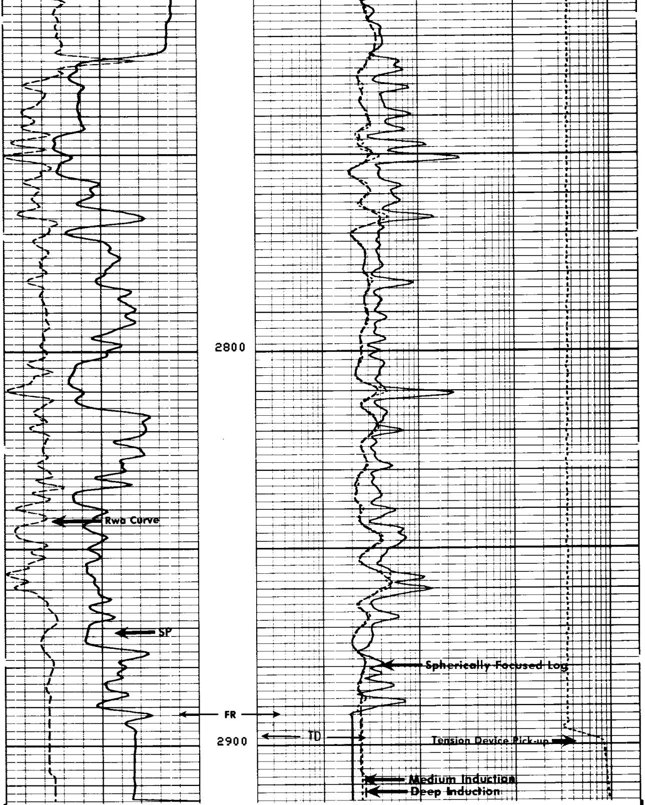












FILE 101 17-SEP-84 20:18
DATA ACQUIRED 17-SEP-84 18:38

TENS(LB)
5000.0 0.0

ILD (OHMM)
.20000 2000.0

ILM (OHMM)
.20000 2000.0

SFLU(OHMM)
.20000 2000.0

RWA (OHMM)
0.0 3.0000

SP (MV)
-100.0 0.0

SENSOR MEASURE POINT TO TOOL ZERO

CBL	37.0	FEET	AMPL	37.0	FEET
TT3	33.3	FEET	TT4	32.3	FEET
TT1	36.0	FEET	TT2	37.0	FEET
CALI	56.1	FEET	SRAT	34.5	FEET
SFL	6.4	FEET	ILD	9.4	FEET
SP	2.5	FEET	ILM	5.7	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	28.8	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
WSV1	WF1		DWS	16	
DSIN	5	US	DDEL	200	US
CDTS	100.000		DWCO	512	
DTF	189.000	US/F	DTM	56.0000	US/F
SBR	1.00000	OHMM	DSEC	3.30000	MMHO
FPHI	SPHI		MSEC	6.30000	MMHO
FNUM	.620000		FEXP	2.15000	
BS	7.87500	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

TAPE NOT MADE

TENS(LB) 5000.0 0.0

RWA (OHMM) 0.0 3.0000

SP (MV) -100.0 0.0

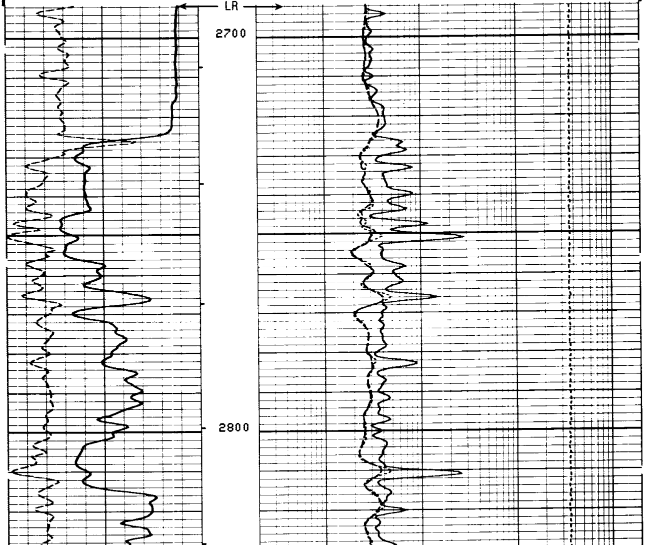
ILD (OHMM) .20000 2000.0

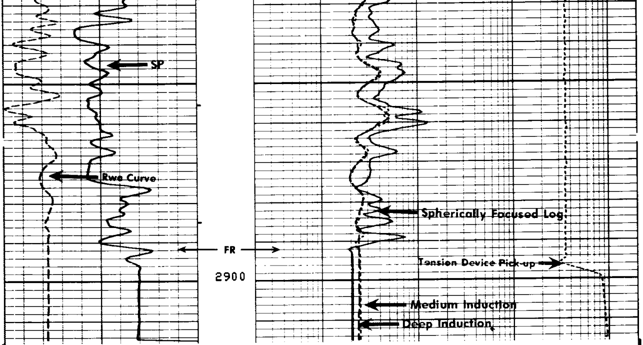
ILM (OHMM) .20000 2000.0

SFLU(OHMM) .20000 2000.0

REPEAT SECTION

FILE 3 17-SEP-84 20:16
DATA ACQUIRED 17-SEP-84 18:36





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FILE     3        17-SEP-84 20:16
DATA ACQUIRED     17-SEP-84 18:32
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```
                                                      TENS(LB  )
                                                 5000.0               0.0
                                     ILD (OHMM)
                         .20000                                    2000.0
       RWA (OHMM)                    ILM (OHMM)
0.0            3.0000    .20000                                    2000.0
       SP   (MV  )                   SFLU(OHMM)
-100.0            0.0    .20000                                    2000.0
```

```
                 SENSOR MEASURE POINT TO TOOL ZERO

     CBL   37.0   FEET                     AMPL 37.0  FEET
     TT3   33.3   FEET                     TT4  32.3  FEET
     TT1   36.0   FEET                     TT2  37.0  FEET
     CALI  56.1   FEET                     SRAT 34.5  FEET
     SFL    6.4   FEET                     ILD   9.4  FEET
     SP     2.5   FEET                     ILM   5.7  FEET
     TENS   2.5   FEET                     SPAR  2.5  FEET
     NOIS  28.8   FEET
```

```
                          PARAMETERS

     NAME  VALUE     UNIT                  NAME  VALUE     UNIT

     WSV1  WF1                             DWS   16
     DSIN  5         US                    DDEL  200       US
     CDTS  100.000                         DWCO  512
     DTF   189.000   US/F                  DTM   56.0000   US/F
     SBR   1.00000   OHMM                  DSEC  3.30000   MMHO
     FPHI  SPHI                            MSEC  6.30000   MMHO
     FNUM  .620000                         FEXP  2.15000
     BS    7.87500   IN                    BHS   OPEN
     PP    NORM                            DO    0.0       F

                         TAPE NOT MADE
```

```
                BEFORE SURVEY CALIBRATION SUMMARY


  PERFORMED:      84/09/17
  PROGRAM FILE: ISN    (VERSION    26.2     00/00/00)


DITD              ELECTRONICS CALIBRATION SUMMARY

                MEASURED                    CALIBRATED
              ZERO     PLUS               ZERO       PLUS          UNITS
     ILD       3.8    543.9                0.0      493.5          MMHO
     ILM       3.6    536.2                0.0      504.2          MMHO
     SFL        .1    537.5                0.0      500.0          MMHO
```

```
ILD  SONDE ERROR CORRECTION :         3.3 MMHO
ILM  SONDE ERROR CORRECTION :         6.3 MMHO


MCDB              CALIPER CALIBRATION SUMMARY

                 MEASURED                       CALIBRATED
               SMALL   LARGE                 SMALL     LARGE       UNITS
  CALI          8.4    12.6                   8.0      12.0         IN

                            FILE   1        17-SEP-84 18:25



                    AFTER SURVEY TOOL CHECK SUMMARY


  PERFORMED:      84/09/17
  PROGRAM FILE: ISN     (VERSION     26.2     00/00/00)


DITD                          TOOL  CHECK

                     ZERO                            PLUS
             BEFORE         AFTER           BEFORE       AFTER      UNITS
    ILD        0.0           -.0            493.5        492.2      MMHO
    ILM        0.0            .0            504.2        503.1      MMHO
    SFL        0.0           -.0            500.0        498.6      MMHO

ILD  SONDE ERROR CORRECTION :         3.3 MMHO
ILM  SONDE ERROR CORRECTION :         6.3 MMHO

                            FILE    8       17-SEP-84 19:48

                    SHOP SUMMARY


  PERFORMED:      84/09/11
  PROGRAM FILE: SHOP    (VERSION     26.2     83/11/17)


DITD              ELECTRONICS CALIBRATION SUMMARY

                    TEST LOOP CALIBRATION                 TOOL CHECK
               MEASURED            CALIBRATED             CALIBRATED
             ZERO     PLUS       ZERO      PLUS        ZERO       PLUS     UNITS
    ILD      -.7      545.7      0.0       500.0       0.0        494.0    MMHO
    ILM      -3.0     525.8      0.0       500.0       0.0        504.7    MMHO
ILD  SONDE ERROR CORRECTION :         3.3 MMHO
ILM  SONDE ERROR CORRECTION :         6.3 MMHO

                            (IS:1422, IC:342 )
```