Schlumberger

2" & 5" DUAL INDUCTION-SFL

CSU Field Log

COMPANY: ARCO OIL AND GAS COMPANY

WELL: C.F.I. #33-9

FIELD: MIST
COUNTY: COLUMBIA
STATE: OREGON
NATION: U.S.A
LOCATION: 1706' NORTH AND 2536' WEST
FROM SOUTHEAST CORNER
SEC: 9 TWP: 5N RGE: 4W

PERMANENT DATUM: G.L
ELEV. OF PERM. DATUM: 1110.3 F
LOG MEASURED FROM: K.B
12.0 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: K.B

ELEVATIONS-
KB: 1122.3 F
DF:
GL: 1110.3 F

DATE: 6 SEP 86
RUN NO: 2

DEPTH-DRILLER: 3243.0 F
DEPTH-LOGGER: 3234.0 F
BTM. LOG INTERVAL: 3231.0 F
TOP LOG INTERVAL: 1768.0 F

CASING-DRILLER: 1773.0 F
CASING-LOGGER: 1768.0 F
CASING: 7
WEIGHT: 26.0000 LB/F
BIT SIZE: 6.25
DEPTH: 3243.0 F

OTHER SERVICES-
BHC
LDT-CNL-GR

PROGRAM
TAPE NO:
28.2A
SERVICE
ORDER NO:
524307

TYPE FLUID IN HOLE: LIGNO-SULFONATE
DENSITY: 10.20 LB/G
VISCOSITY: 39.0 S
PH: 9.5
FLUID LOSS: 5.6 C3
SOURCE OF SAMPLE: FLOWLINE
RM: 2.310 OHMM AT 88.0 DEGF
RMF: 1.950 OHMM AT 72.0 DEGF
RMC: 2.760 OHMM AT 72.0 DEGF
SOURCE RMF/RMC: M /M
RM AT BHT: 1.908 OHMM AT 108. DEGF
RMF AT BHT: 1.340 OHMM AT 108. DEGF
RMC AT BHT: 1.896 OHMM AT 108. DEGF

TIME CIRC. STOPPED: 15:15
TIME LOGGER ON BTM.: 18:11

MAX. REC. TEMP: 108.0 DEGF

LOGGING UNIT NO: 8128
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: HARPER/PILCH
WITNESSED BY: M. ANDERSON

REMARKS:

DUAL RAN IN COMBINATION WITH SONIC

EQUIPMENT NUMBERS-

DIS 567	DIC 552	SLC	SLS RC

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.

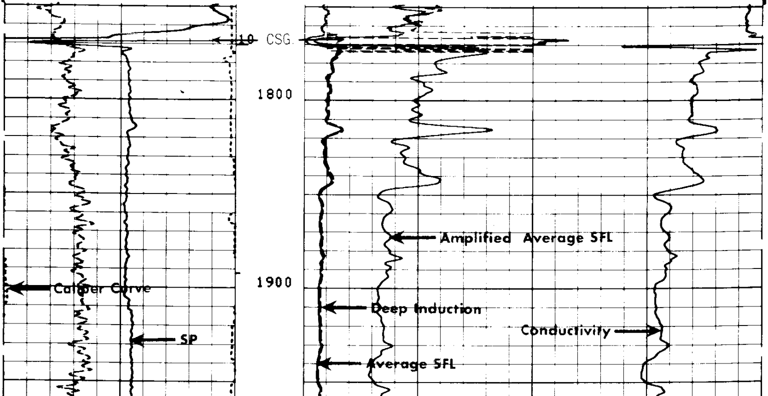
CP 28.2A FILE 7 06-SEP-86 18:58
DATA ACQUIRED 06-SEP-86 18:05

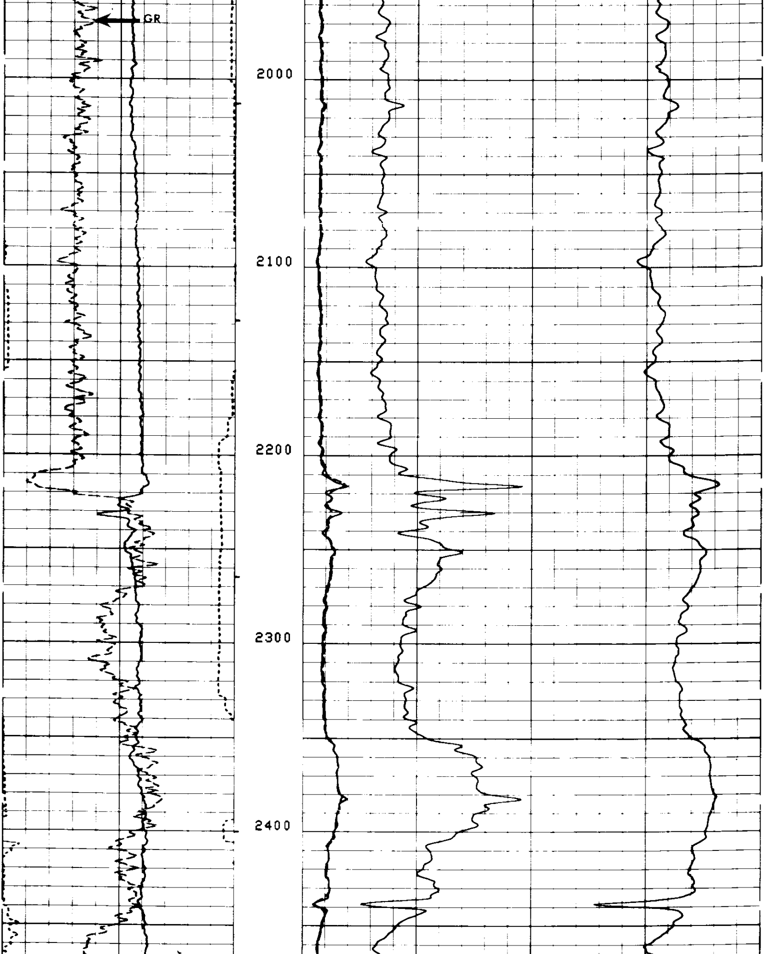
CALI (IN) 4.0000 14.000
GR (GAPI) 0.0 150.00
SP (MV) -80.00 20.000

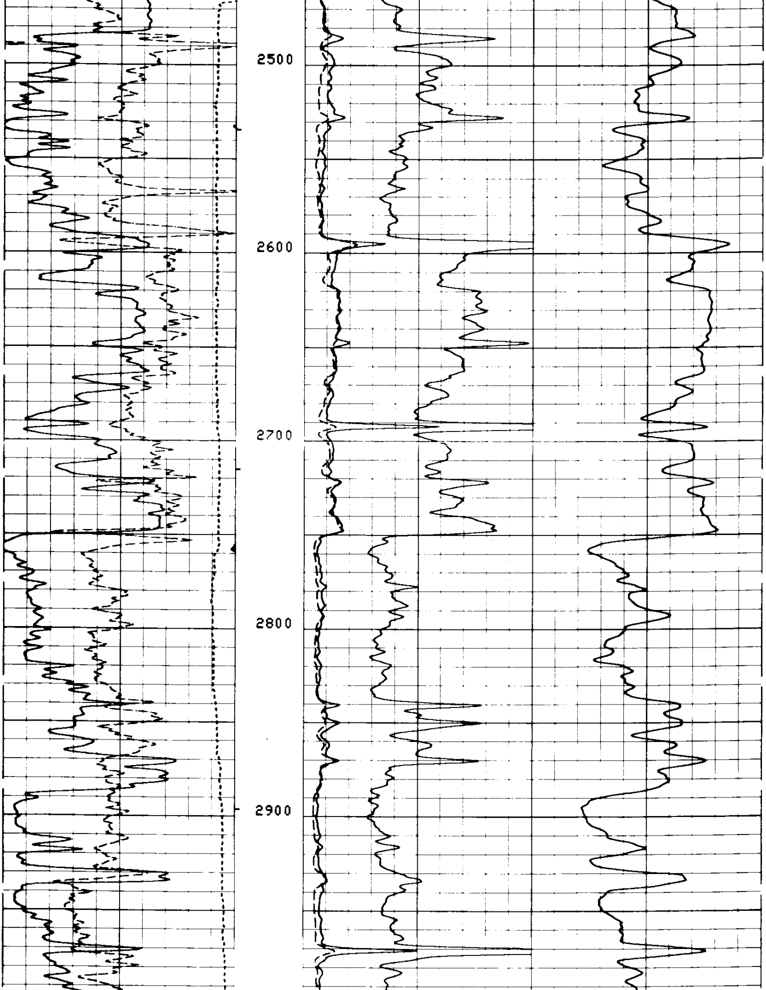
ILD (OHMM) 0.0 30.000
SFLA(OHMM) 0.0 6.0000
SFLA(OHMM) 0.0 30.000

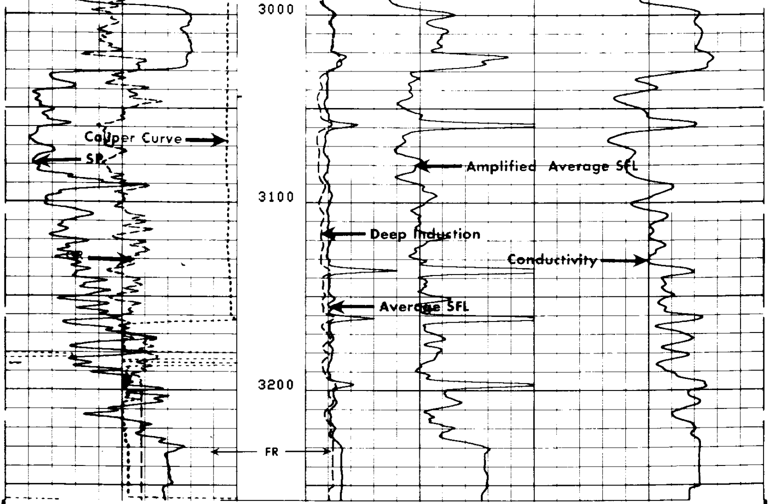
CILD(MMHO) 1000.0 0.0

CP 28.2A FILE 8 06-SEP-86 18:50
DATA ACQUIRED 06-SEP-86 18:38









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CP 28.2A          FILE      8       06-SEP-86 18:48
                  DATA ACQUIRED     06-SEP-86 18:10
```

```
       CALI(IN  )                          ILD (OHMM)
4.0000           14.000          0.0                30.000
       GR   (GAPI)                         SFLA(OHMM)
0.0              150.00          0.0                6.0000
       SP   (MV   )                        SFLA(OHMM)                       CILD(MMHO)
-80.00           20.000          0.0                30.000 1000.0                      0.0
```

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
WMUD	10.2000	LB/G	DWCO	512	
SBR	1.00000	OHMM	DSEC	10.5000	MMHO
FPHI	SPHI		MSEC	6.60000	MMHO
BS	6.25000	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

TAPE NOT MADE

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

TENS(LB) 10000. 0.0

GR (GAPI) 0.0 150.00

CALI(IN) 4.0000 14.000

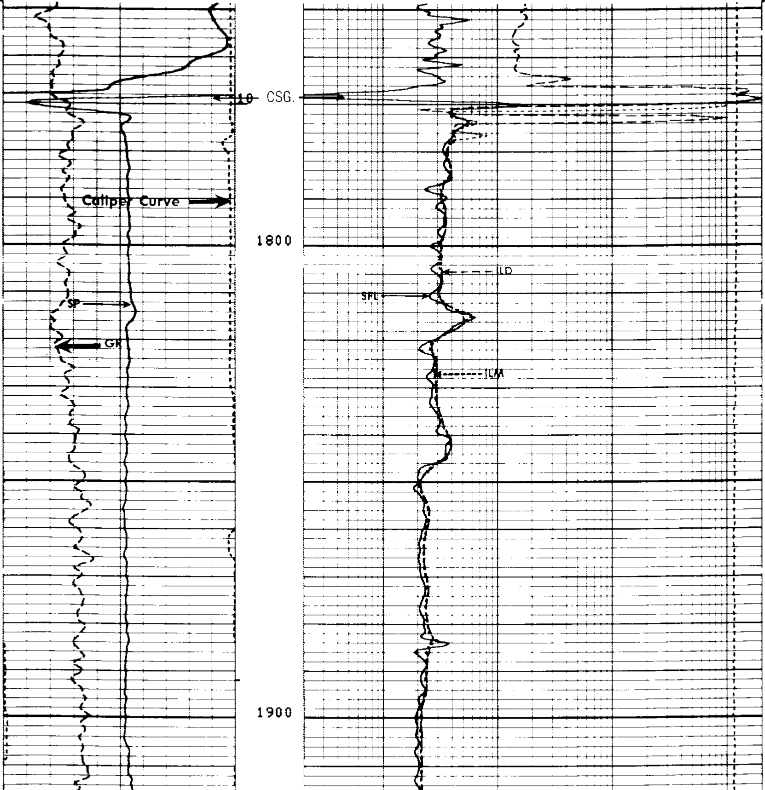
SP (MV) -80.00 20.000

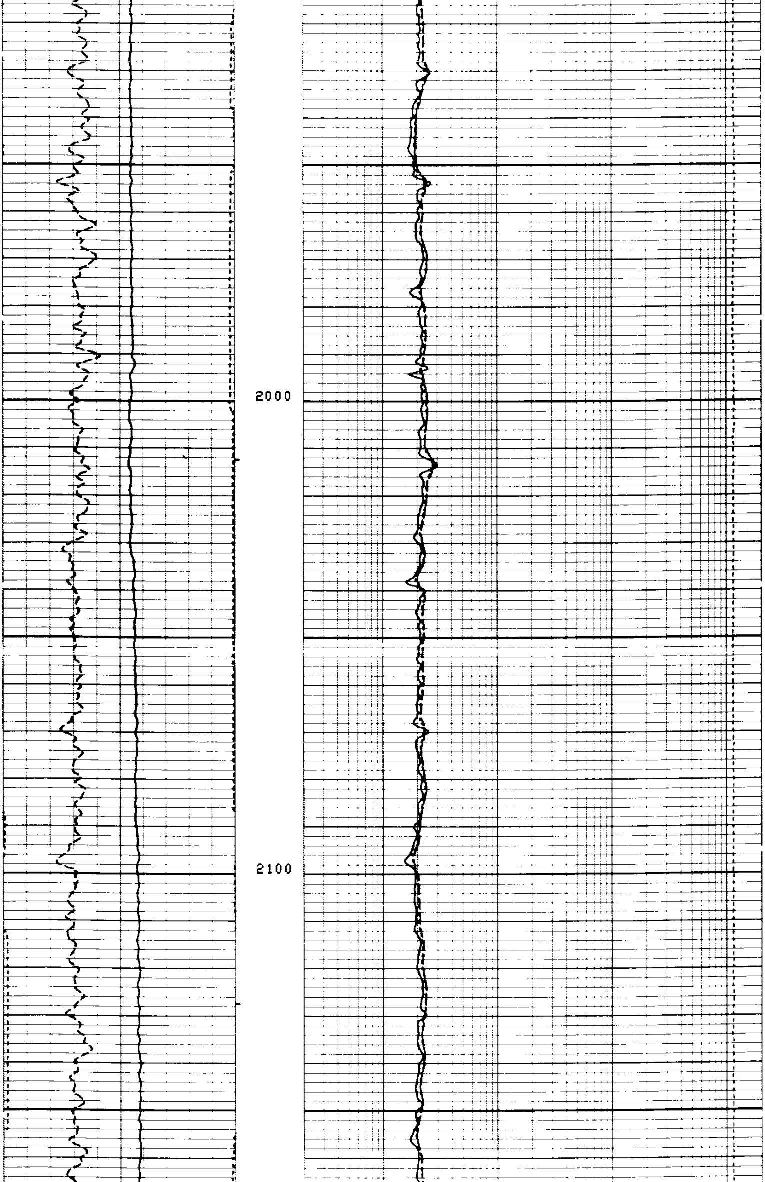
ILD (OHMM) .20000 2000.0

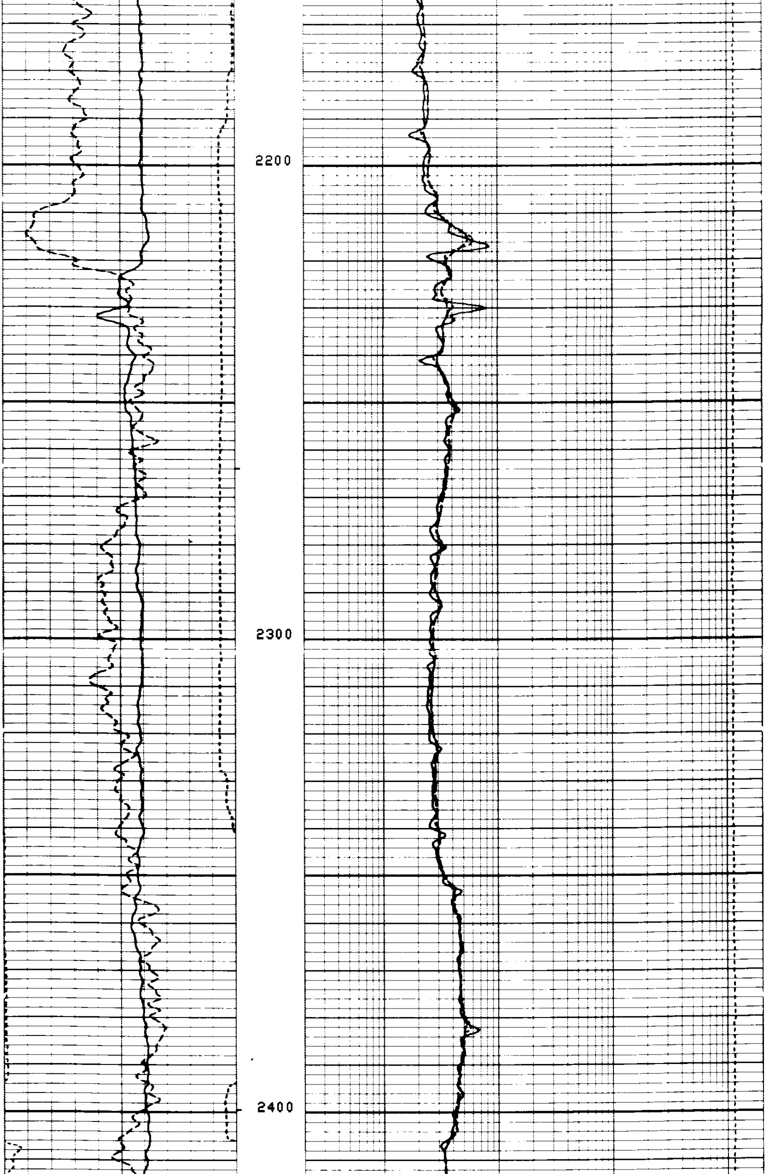
ILM (OHMM) .20000 2000.0

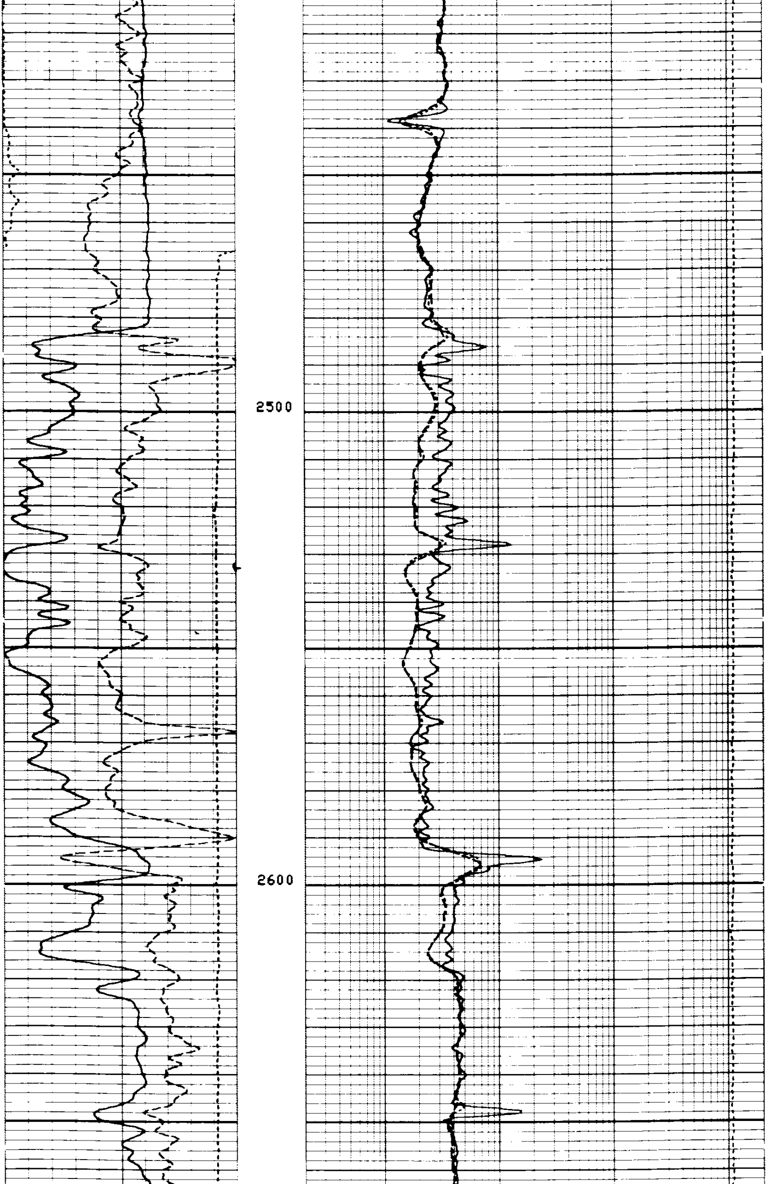
SFLU(OHMM) .20000 2000.0

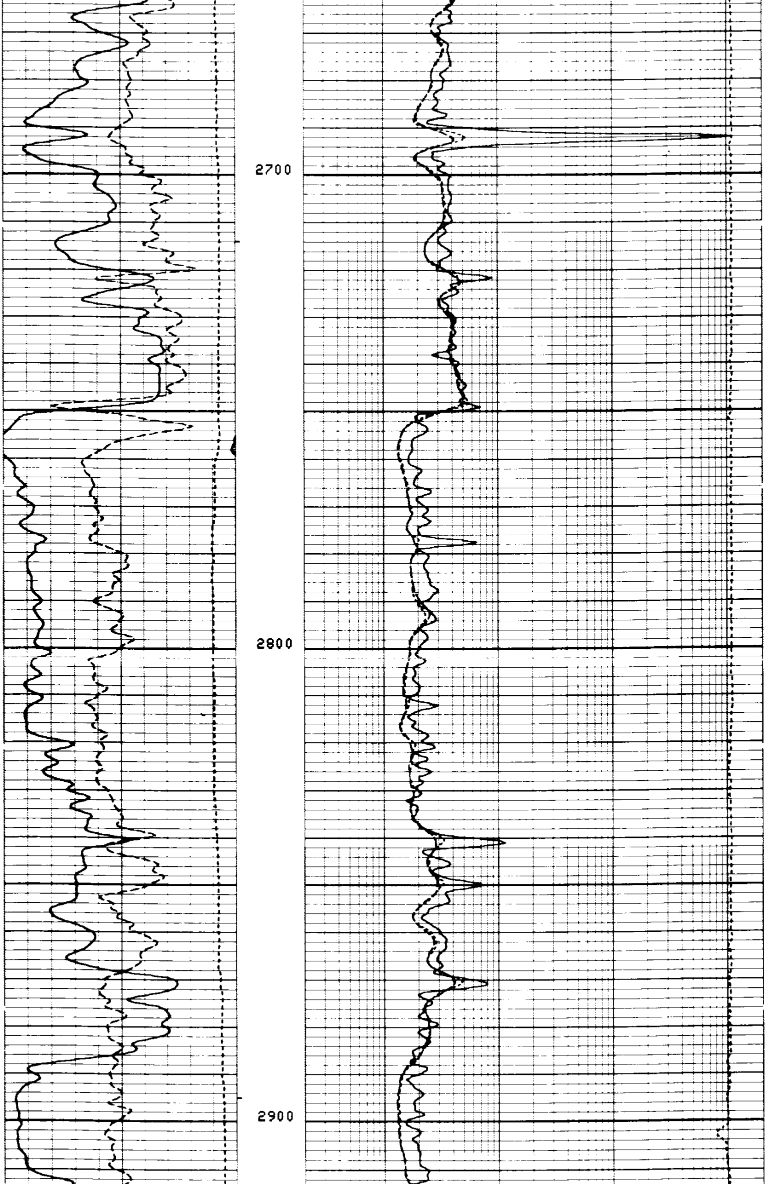
CP 28.2A FILE 8 06-SEP-86 18:38

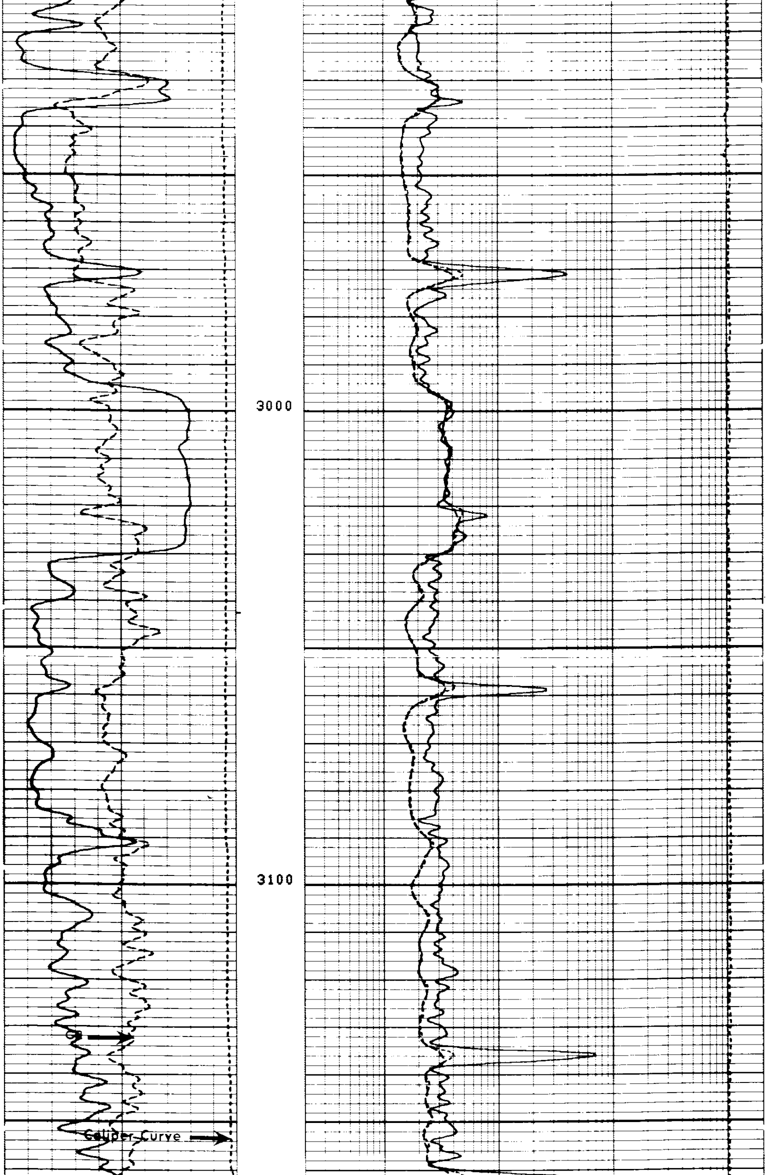


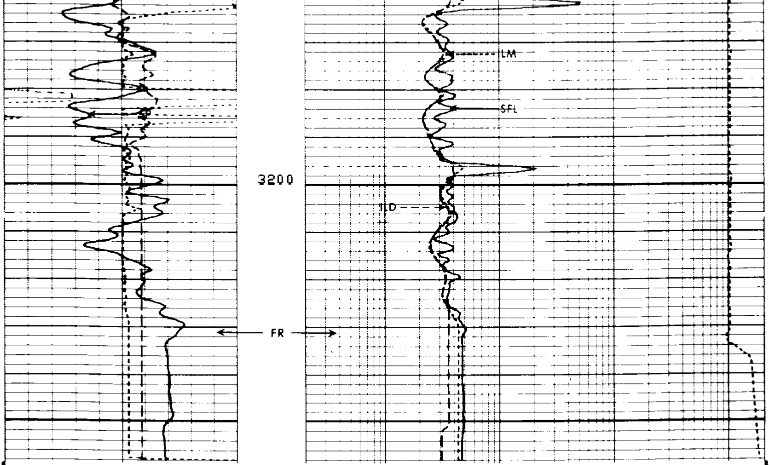












CP 28.2A FILE 8 06-SEP-86 18:10

TENS(LB)
10000. 0.0

GR (GAPI)
0.0 150.00

CALI(IN)
4.0000 14.000

SP (MV)
-80.00 20.000

ILD (OHMM)
.20000 2000.0

ILM (OHMM)
.20000 2000.0

SFLU(OHMM)
.20000 2000.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
WMUD	10.2000	LB/G	DWCO	512	
SBR	1.00000	OHMM	DSEC	10.5000	MMHO
FPHI	SPHI		MSEC	6.60000	MMHO
BS	6.25000	IN	BHS	OPEN	

EVENT MARK SUMMARY:

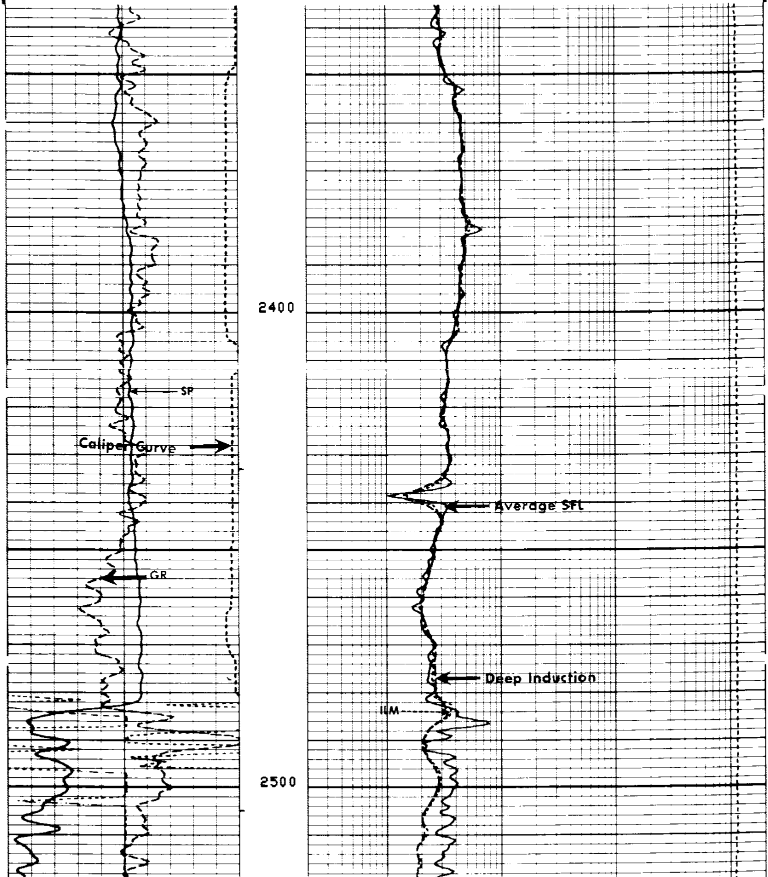
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE

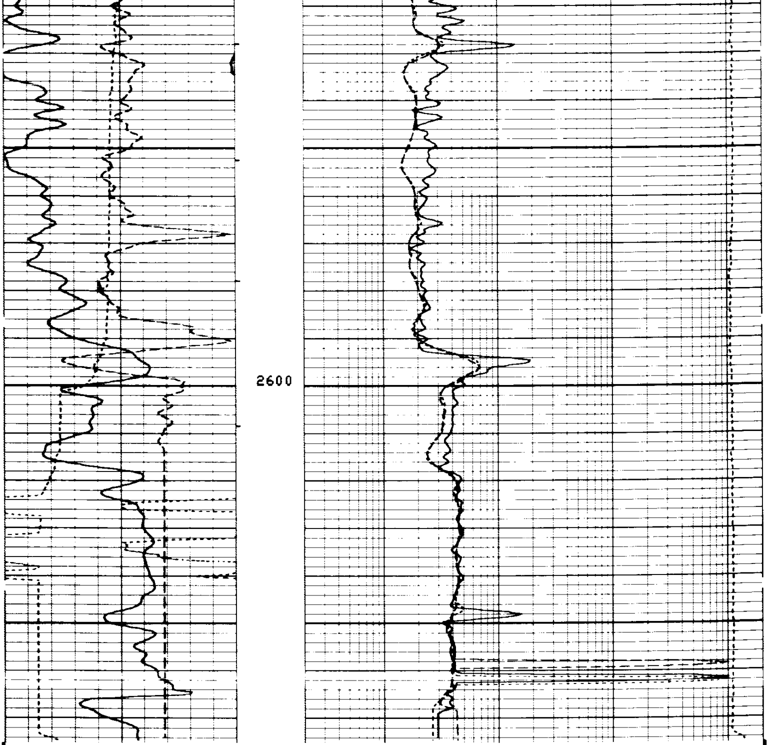
IHV 10.0000 F3 LEFT EDGE

		TENS(LB) 10000. 0.0
GR (GAPI) 0.0 150.00	ILD (OHMM) .20000 2000.0	
CALI(IN) 4.0000 14.000	ILM (OHMM) .20000 2000.0	
SP (MV) -100.0 0.0	SFLU(OHMM) .20000 2000.0	

REPEAT SECTION REPEAT SECTION REPEAT SECTION

CP 28.2A FILE 7 06-SEP-86 18:57
DATA ACQUIRED 06-SEP-86 18:05





CP 28.2A FILE 7 06-SEP-86 18:56
DATA ACQUIRED 06-SEP-86 17:59

TENS(LB)
10000. 0.0

GR (GAPI)
0.0 150.00

CALI(IN)
4.0000 14.000

SP (MV)
-100.0 0.0

ILD (OHMM)
.20000 2000.0

ILM (OHMM)
.20000 2000.0

SFLU(OHMM)
.20000 2000.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

```
                              PARAMETERS

      NAME  VALUE       UNIT                   NAME  VALUE       UNIT

      CDTS 100.000                             SPFS R-H
      DTF  189.000      US/F                   DTM  56.0000      US/F
      DSIN 5            US                     DDEL 200          US
      WMUD 10.2000      LB/G                   DWCO 512
      SBR  1.00000      OHMM                   DSEC 10.5000      MMHO
      FPHI SPHI                                MSEC 6.60000      MMHO
      BS   6.25000      IN                     BHS  OPEN
      PP   NORM                                DO   0.0          F

                            TAPE NOT MADE
```

```
               BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:     06-SEP-86 17:58
   PROGRAM FILE: ISN    (VERSION    28.2A   85/07/10)


 DITD                  ELECTRONICS CALIBRATION SUMMARY

            MEASURED                        CALIBRATED
          ZERO     PLUS                  ZERO       PLUS          UNITS
    ILD    -.22    545.0                 0.0        499.9          MMHO
    ILM   -1.86    530.1                 0.0        500.0          MMHO
    SFL   -2.92    515.0                 0.0        500.0          MMHO

 ILD SONDE ERROR CORRECTION :        10.5 MMHO
 ILM SONDE ERROR CORRECTION :         6.6 MMHO


 SGTE                  DETECTOR CALIBRATION SUMMARY

            MEASURED
          BKGD      JIG         CALIBRATED          UNITS
     GR    22       178            165              GAPI

 MCDB                  CALIPER CALIBRATION SUMMARY

            MEASURED                        CALIBRATED
          SMALL    LARGE                 SMALL      LARGE         UNITS
   CALI   8.25     10.7                  8.00       12.0           IN

    CP 28.2A           FILE     6       06-SEP-86 17:58


               AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:     06-SEP-86 18:40
   PROGRAM FILE: ISN    (VERSION    28.2A   85/07/10)


 DITD                        TOOL  CHECK

                   ZERO                           PLUS
          BEFORE          AFTER          BEFORE      AFTER      UNITS
    ILD     0.0              .1           499.9       499.6      MMHO
    ILM     0.0              .0           500.0       499.8      MMHO
    SFL     0.0             -.4           500.0       494.9      MMHO

 ILD SONDE ERROR CORRECTION :        10.5 MMHO
 ILM SONDE ERROR CORRECTION :         6.6 MMHO
```

```
   CP 28.2A          FILE  10      06-SEP-86 18:40


                SHOP SUMMARY


  PERFORMED:    14-AUG-86 13:50
  PROGRAM FILE: SHOP   (VERSION    28.4    85/11/11)


DITD                ELECTRONICS CALIBRATION SUMMARY

                TEST LOOP CALIBRATION               TOOL CHECK
             MEASURED          CALIBRATED           CALIBRATED
           ZERO     PLUS     ZERO       PLUS      ZERO       PLUS    UNITS
    ILD   -10.5    524.8      0.0      500.0       0.0      495.5    MMHO
    ILM    -6.6    496.1      0.0      500.0       0.0      500.2    MMHO
ILD  SONDE ERROR CORRECTION :         10.5 MMHO
ILM  SONDE ERROR CORRECTION :          6.6 MMHO

                     (IS:567 , IC:552 )
```