Schlumberger

DUAL INDUCTION -SFL W/LINEAR CORR.

CSU

COMPANY: ARCO OIL AND GAS

WELL: CAVENHAM FOREST IND. #41-9

FIELD: MIST
COUNTY: COLUMBIA
STATE: OREGON
NATION: USA
LOCATION: 1244.46' SOUTH AND 355.73' WEST
FROM THE NE CORNER OF:
SEC: 9 TWP: 5 NORTH RGE: 4 WEST

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 835.9 F
LOG MEASURED FROM: KB
11.0 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 846.9 F
DF: 845.9 F
GL: 835.9 F

DATE: 9 OCT 86
RUN NO: ONE

DEPTH-DRILLER: 2500.0 F
DEPTH-LOGGER: 2497.0 F
BTM. LOG INTERVAL: 2491.0 F
TOP LOG INTERVAL: 470.0 F

CASING-DRILLER: 470.0 F
CASING-LOGGER: 470.0 F
CASING: 9 5/8"
WEIGHT: 47.0000 LB/F
BIT SIZE: 8 1/2"
DEPTH: 2600.0 F

JAN 28 1987
DOGAMI
Portland

OTHER SERVICES-
DIL
BHC
HDT
FDC/CNL/GR
WST

PROGRAM
TAPE NO: 28.4A
SERVICE ORDER NO: 524312

TYPE FLUID IN HOLE: LIGNOSULFONATE
DENSITY: 9.90 LB/G
VISCOSITY: 38.0 S
PH: 10.0
FLUID LOSS: 5.0 C3
SOURCE OF SAMPLE: FLOWLINE
RM: 2.680 OHMM AT 78.0 DEGF
RMF: 4.290 OHMM AT 60.0 DEGF
RMC: 3.100 OHMM AT 61.0 DEGF
SOURCE RMF/RMC: MEAS/MEAS
RM AT BHT: 2.170 OHMM AT 98.0 DEGF
RMF AT BHT: 2.737 OHMM AT 98.0 DEGF
RMC AT BHT: 2.008 OHMM AT 98.0 DEGF

TIME CIRC. STOPPED: 0350 10/9
TIME LOGGER ON BTM.: 0700 10/9

MAX. REC. TEMP: 98.0 DEGF

LOGGING UNIT NO: 8128.
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: BLAZE
WITNESSED BY: M. ANDERSON

REMARKS:

RIG: H&C #5
TWO THERMOMETERS RUN

EQUIPMENT NUMBERS-

DIS 1181	DIC 658	PGS 542	PDH 340
GSR 6608	SFT 1171	CNC 1132	

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 28.4A FILE 2 09-OCT-86 08:09
DATA ACQUIRED 09-OCT-86 07:49

EVENT MARK SUMMARY:

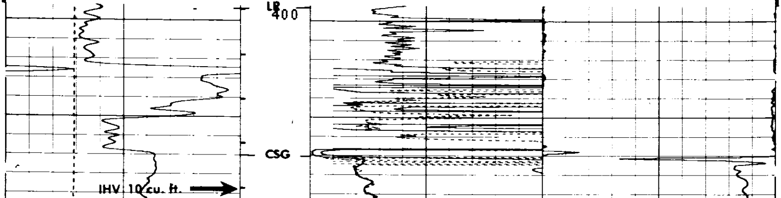
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

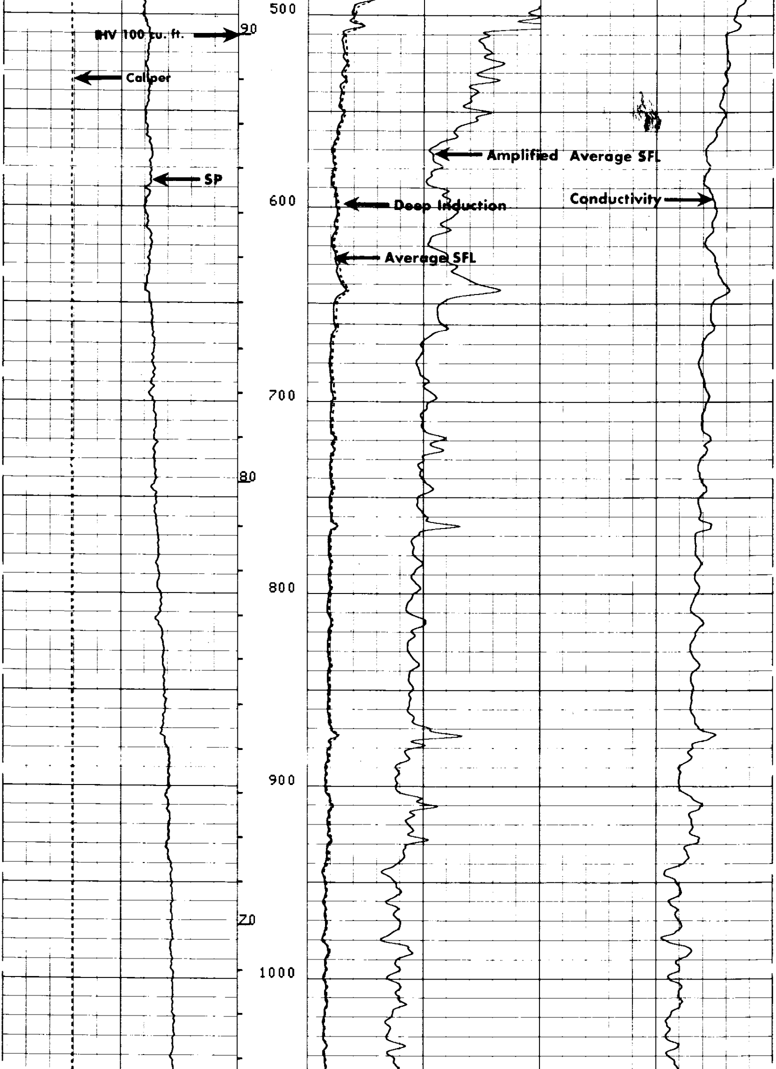
CALI(IN)
6.0000 16.000
SP (MV)
-100.0 0.0

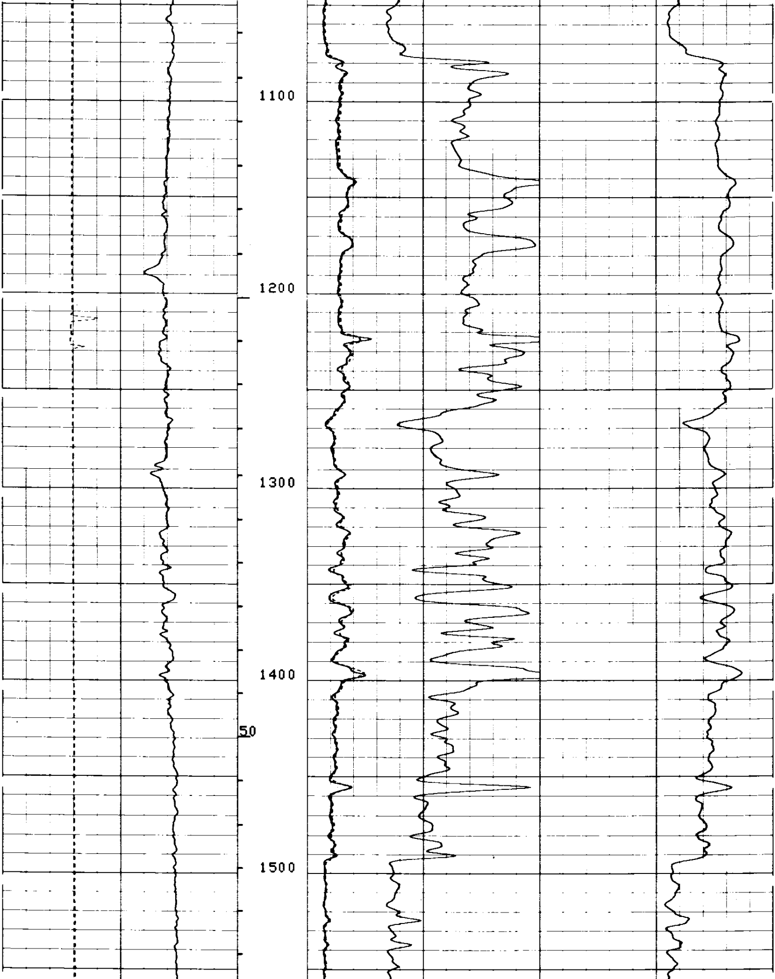
ILD (OHMM)
0.0 30.000
SFLA(OHMM)
0.0 6.0000
SFLA(OHMM)
0.0 30.000

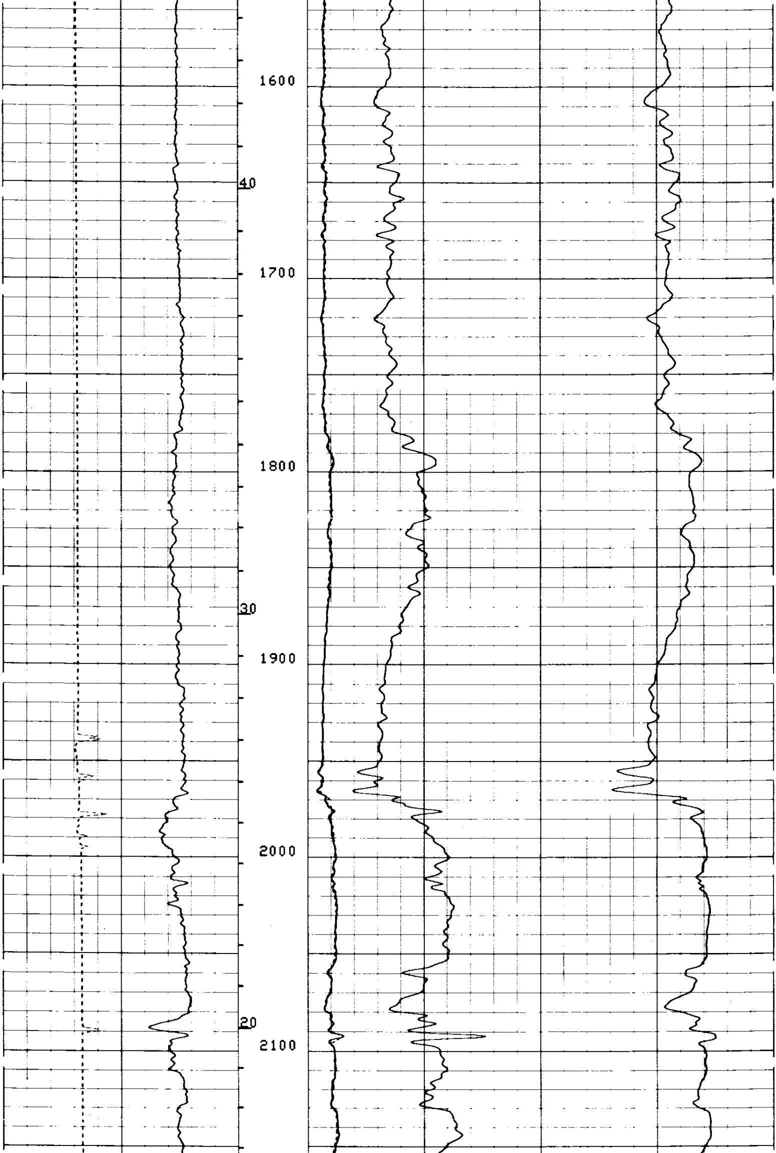
CILD(MMHO)
1000.0 0.0

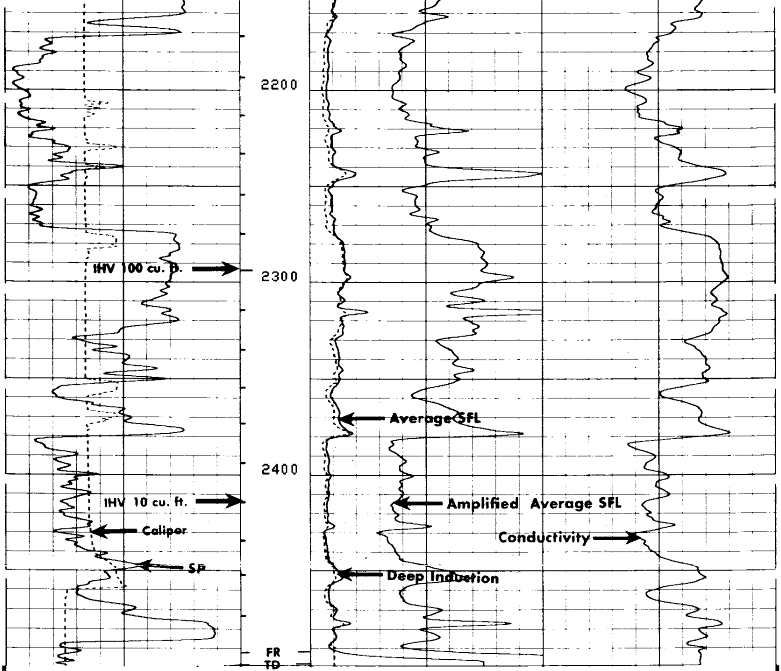
CP 28.4A FILE 2 09-OCT-86 08:00
DATA ACQUIRED 09-OCT-86 07:49











CP 28.4A FILE 2 09-OCT-86 07:56

DATA ACQUIRED 09-OCT-86 07:05

CALI(IN)		ILD (OHMM)	CILD(MMHO)
6.0000 — 16.000		0.0 — 30.000	
SP (MV)		SFLA(OHMM)	
-100.0 — 0.0		0.0 — 6.0000	
		SFLA(OHMM)	
		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

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SLTT 43.9  FEET                          TT    43.9  FEET
CALI 31.8  FEET                          SCBL  43.9  FEET
ILM   5.8  FEET                          ILD    9.4  FEET
SP    2.5  FEET                          SFL    6.4  FEET
TENS  2.5  FEET                          SPAR   2.5  FEET
NOIS  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
DSEC  9.40000      MMHO                 DWCO  512
MSEC  2.90000      MMHO                 SBR   1.00000      OHMM
BHS   OPEN                              FPHI  SPHI
DO    0.0          F                    BS    8.50000      IN
PP    NORM

                            TAPE NOT MADE
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EVENT MARK SUMMARY:

OUTPUT  INTERVAL        DEPTH TRACK
        BETWEEN PIPS    EDGE

IHV     10.0000 F3      LEFT EDGE
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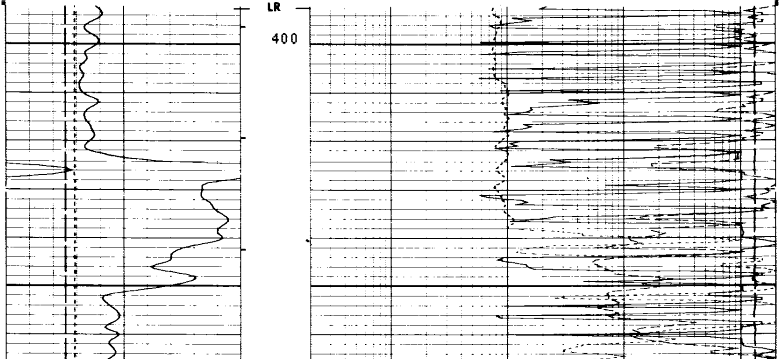
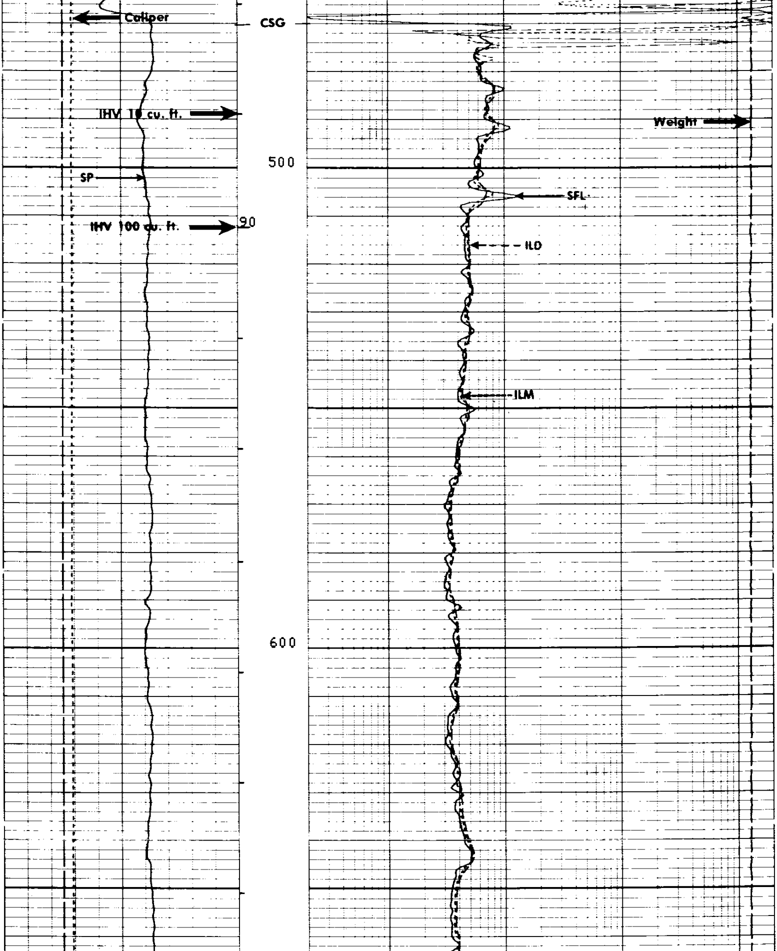
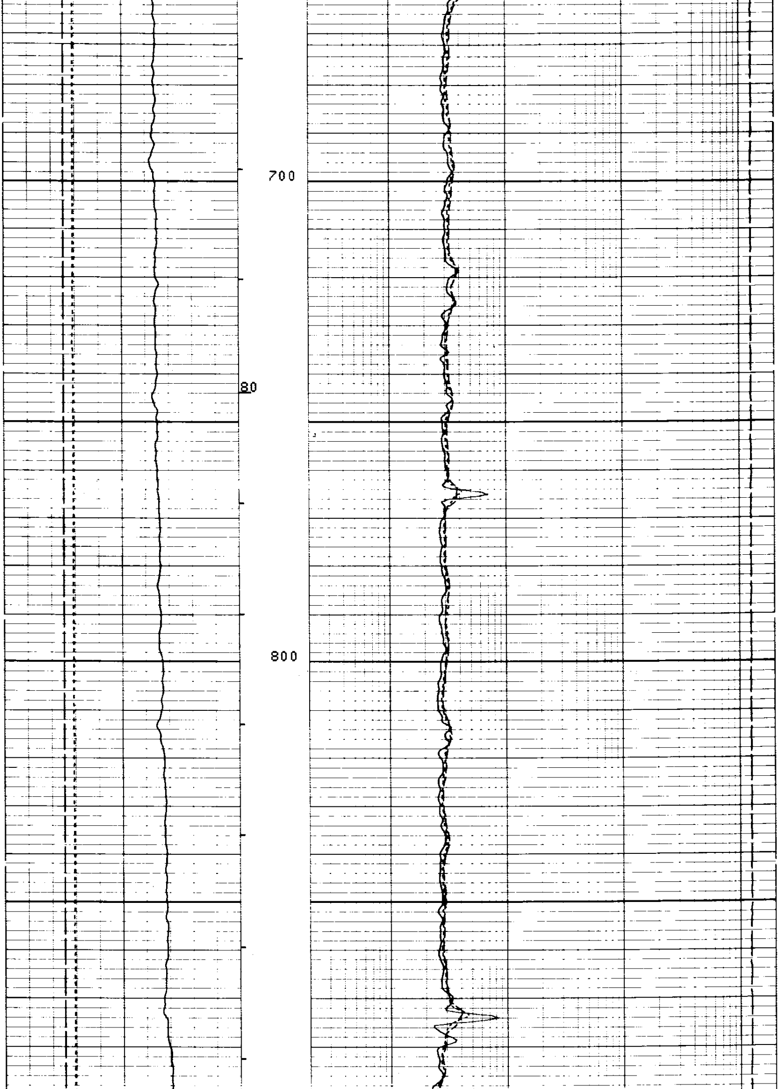
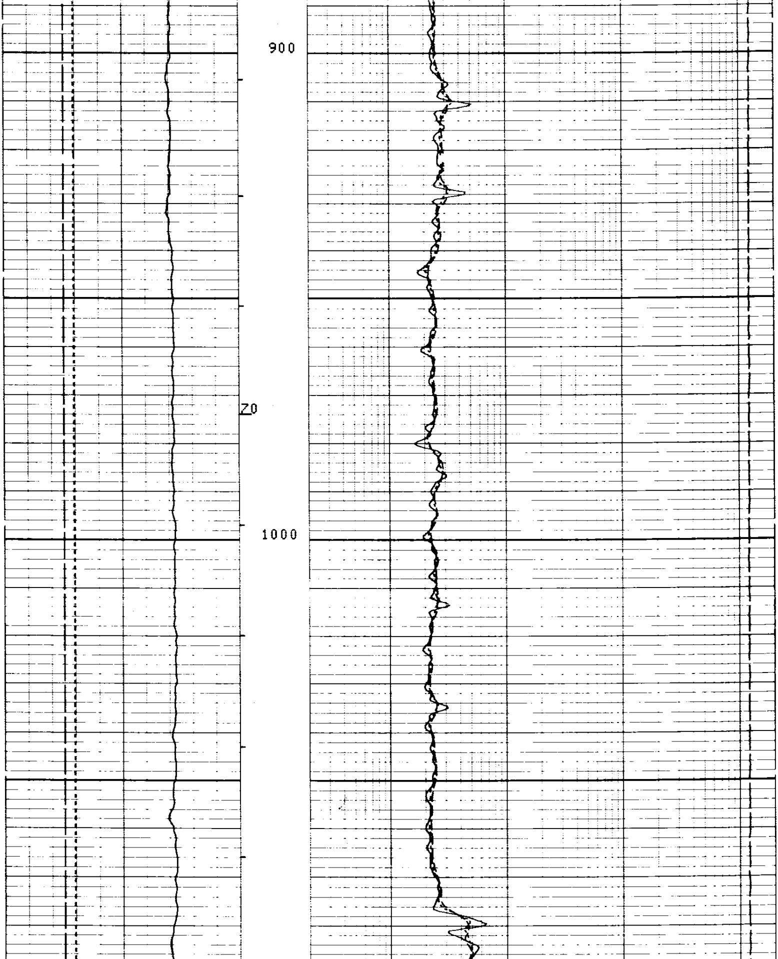
                                                         TENS(LB   )
                                                    10000.           0.0
        BS  (IN  )                               ILD (OHMM)
6.0000           16.000         .20000                            2000.0
        CALI(IN  )                               ILM (OHMM)
6.0000           16.000         .20000                            2000.0
        SP  (MV  )                               SFLU(OHMM)
-100.0              0.0         .20000                            2000.0
```

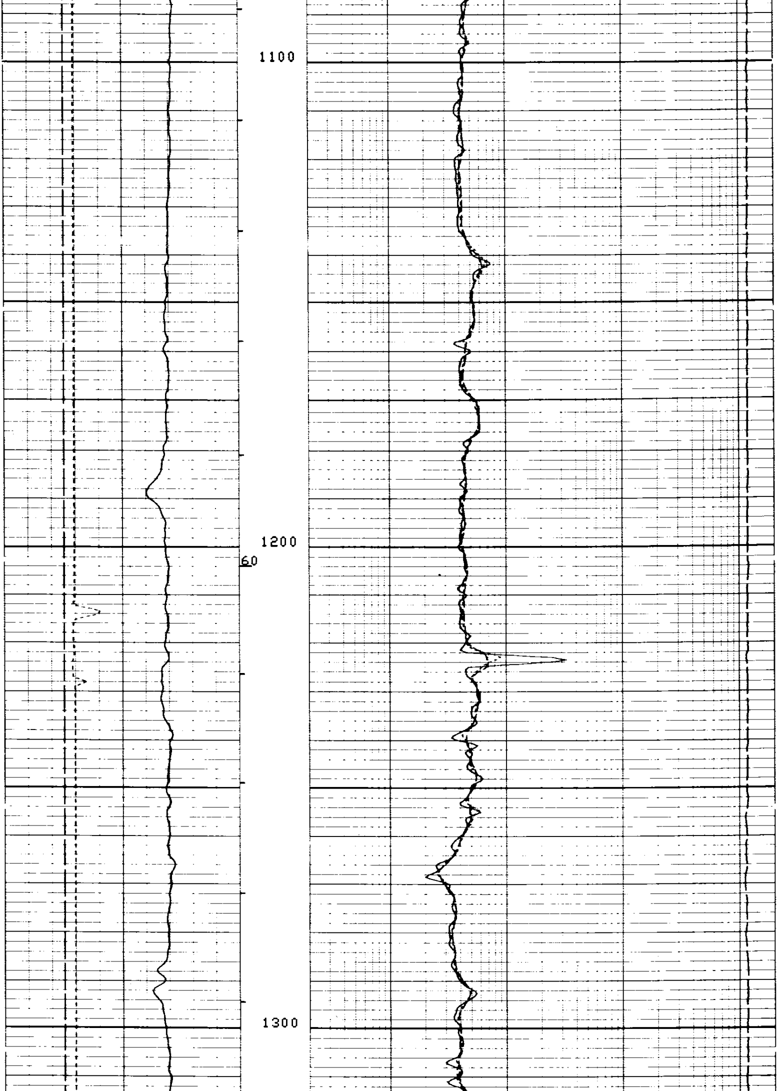
CP 28.4A   FILE   2   09-OCT-86 07:49

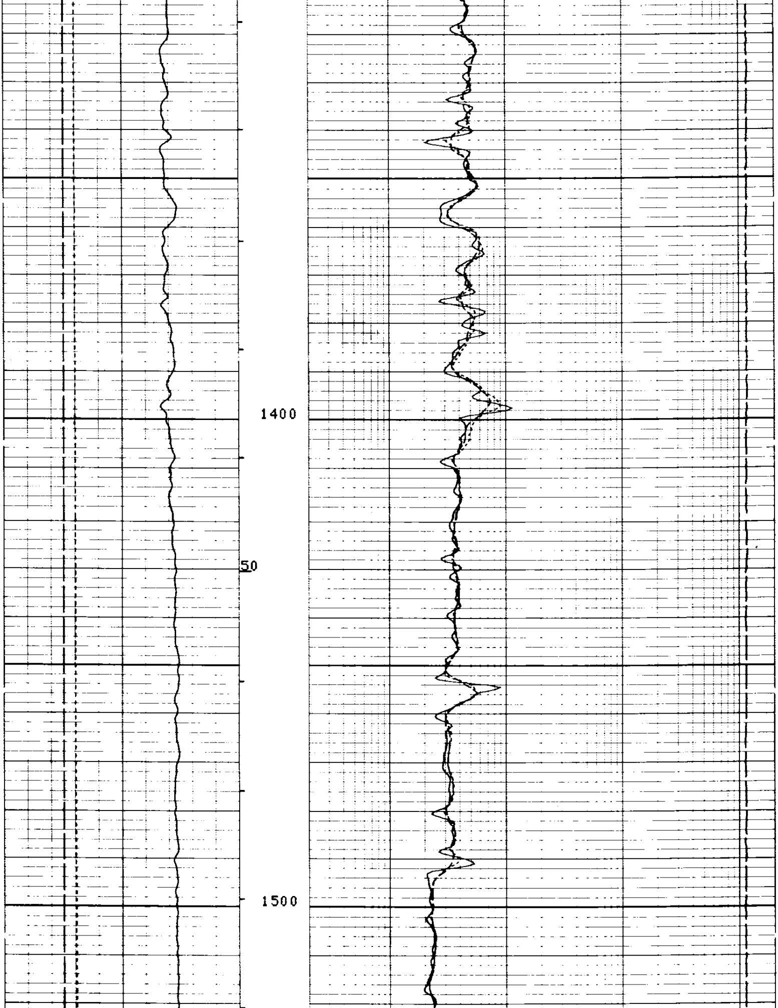


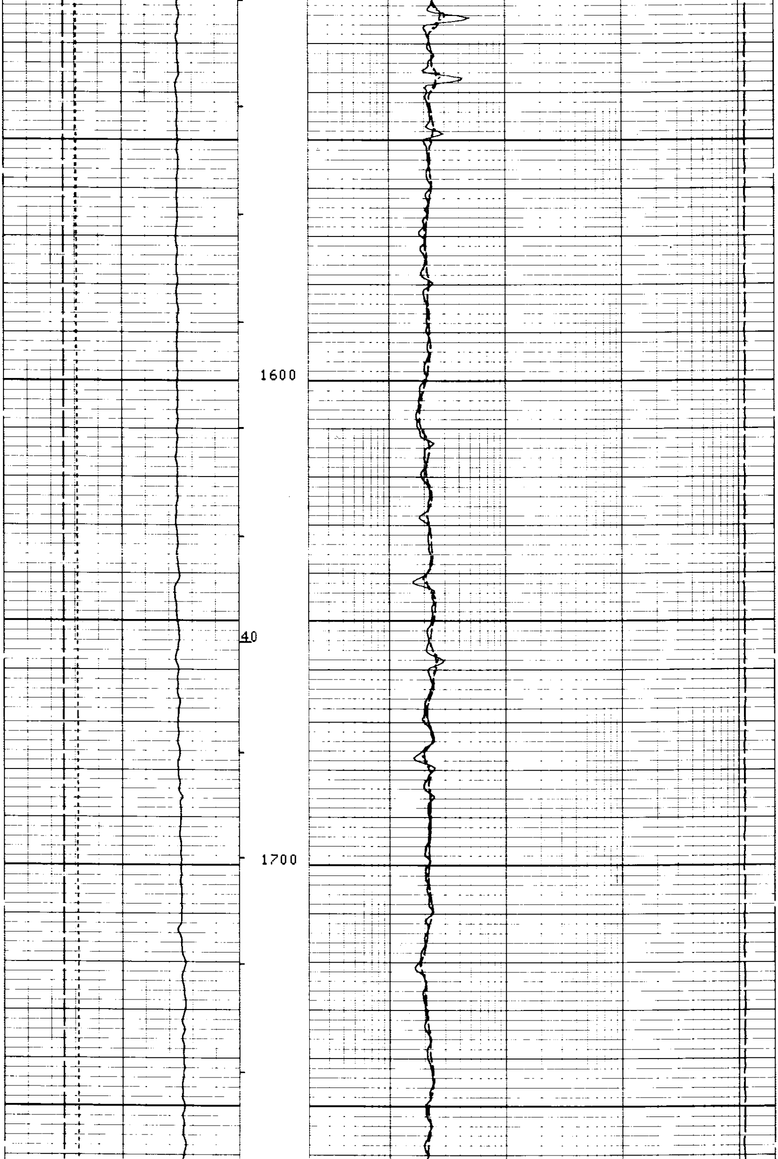


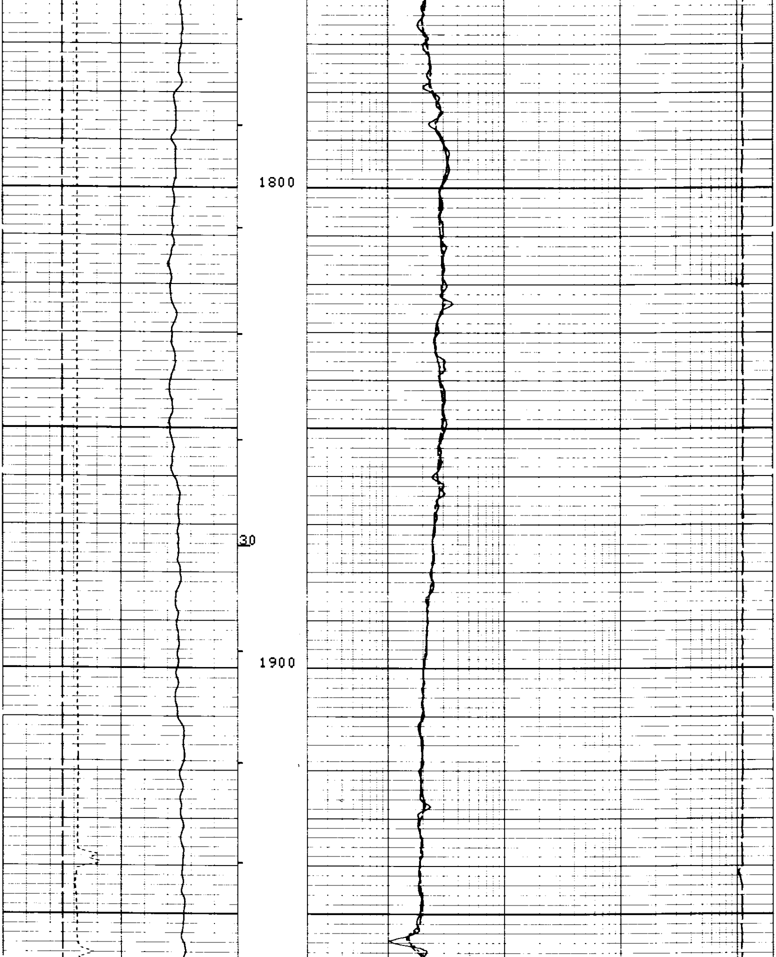


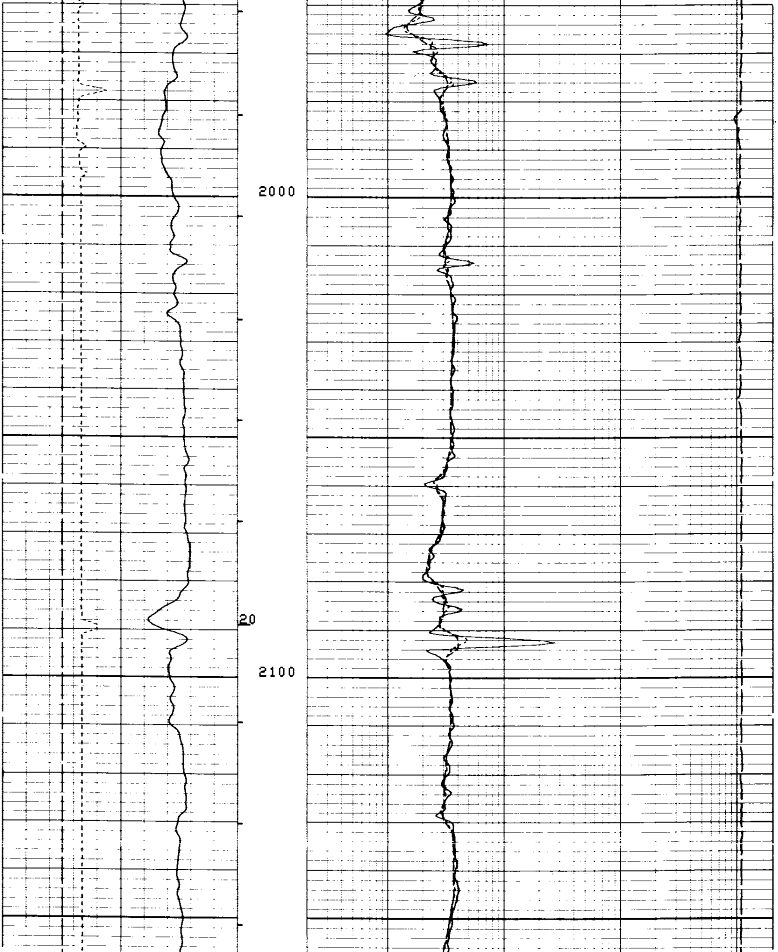


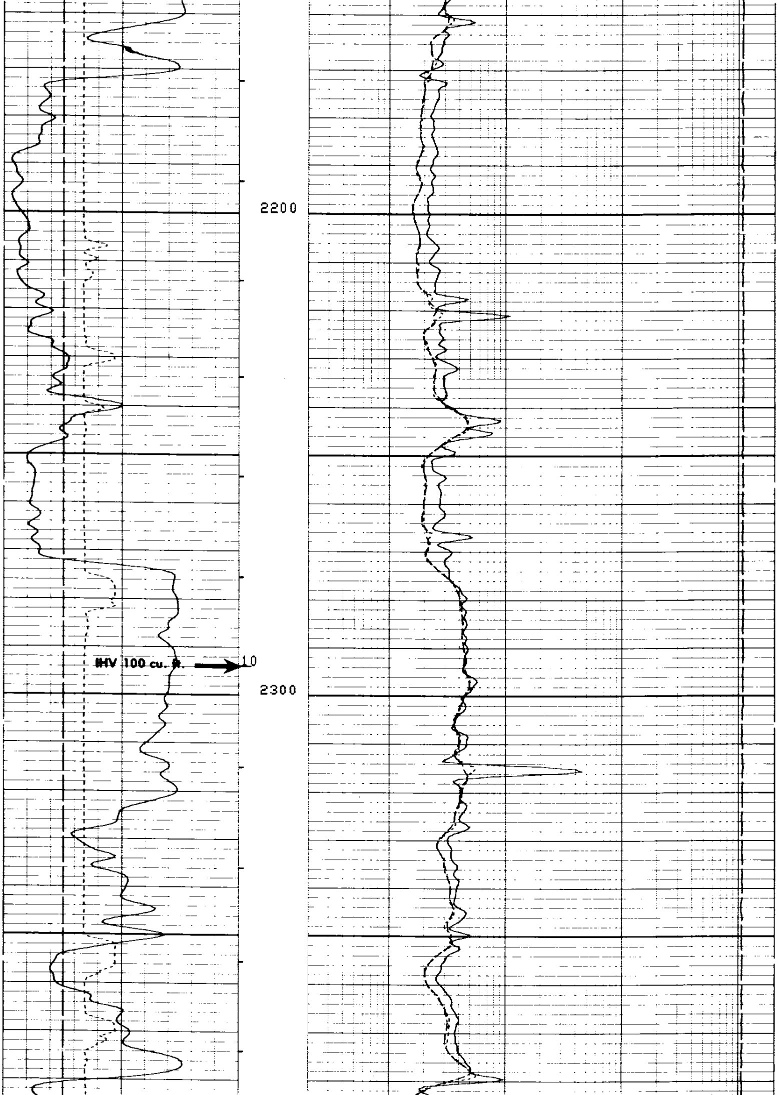


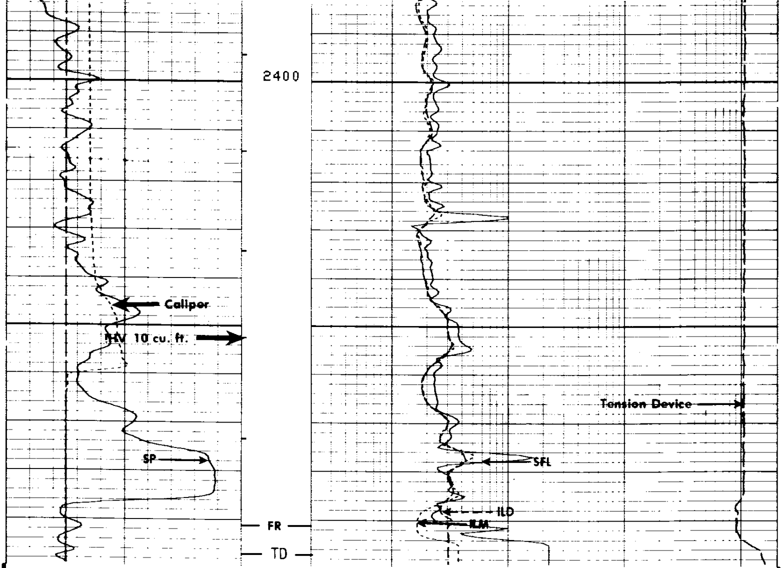












CP 28.4A FILE 2 09-OCT-86 07:05

TENS(LB)	10000.	0.0
BS (IN)	6.0000	16.000
ILD (OHMM)	.20000	2000.0
CALI(IN)	6.0000	16.000
ILM (OHMM)	.20000	2000.0
SP (MV)	-100.0	0.0
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
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	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
DSEC	9.40000	MMHO	DWCO	512	
MSEC	2.90000	MMHO	SBR	1.00000	OHMM
BHS	OPEN		FPHI	SPHI	
BS	8.50000	IN			

EVENT MARK SUMMARY:

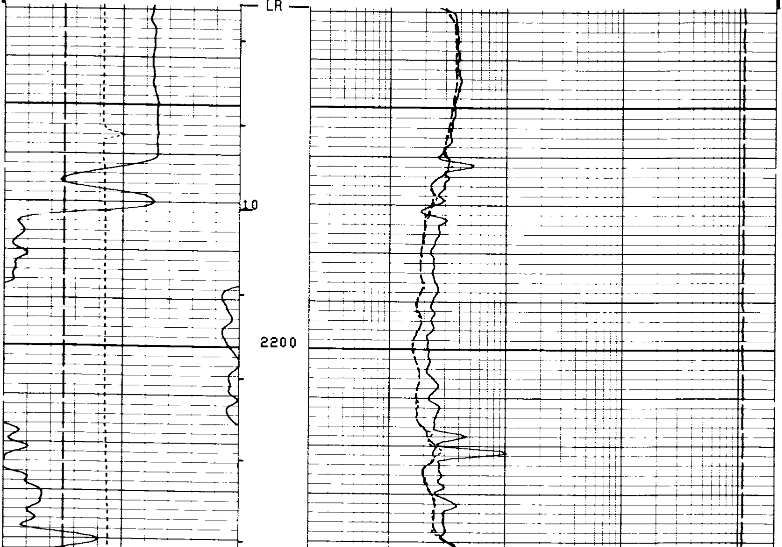
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

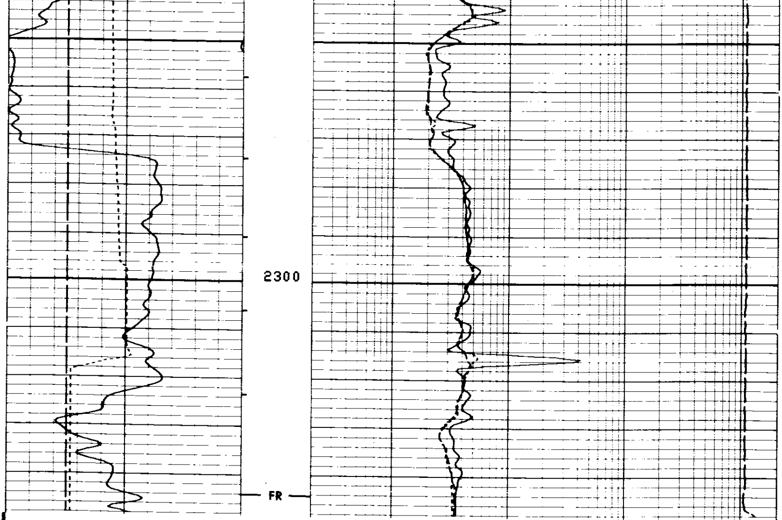
BS (IN)
6.0000 16.000
CALI(IN)
6.0000 16.000
SP (MV)
-100.0 0.0

TENS(LB)
10000. 0.0
ILD (OHMM)
.20000 2000.0
ILM (OHMM)
.20000 2000.0
SFLU(OHMM)
.20000 2000.0

REPEAT SECTION

CP 28.4A FILE 1 09-OCT-86 06:50





CP 28.4A FILE 1 09-OCT-86 06:45 **REPEAT SECTION**

BS (IN) 6.0000 16.000	TENS(LB) 10000. 0.0
CALI(IN) 6.0000 16.000	ILD (OHMM) .20000 2000.0
SP (MV) -100.0 0.0	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
TO	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

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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
DSEC 9.40000       MMHO                 DWCO 512
MSEC 2.90000       MMHO                 SBR  1.00000       OHMM
BHS  OPEN                               FPHI SPHI
BS   8.50000       IN
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                    BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:     09-OCT-86 06:13
   PROGRAM FILE: MISN   (VERSION    28.4A   86/04/03)

 DITD                 ELECTRONICS CALIBRATION SUMMARY

              MEASURED                          CALIBRATED
            ZERO     PLUS                     ZERO       PLUS          UNITS
    ILD      .98     519.1                    0.0        494.6          MMHO
    ILM    -1.40     508.4                    0.0        499.7          MMHO
    SFL    -3.09     525.5                    0.0        500.0          MMHO

 ILD SONDE ERROR CORRECTION :          9.4 MMHO
 ILM SONDE ERROR CORRECTION :          2.9 MMHO

 MCDB                 CALIPER CALIBRATION SUMMARY

              MEASURED                          CALIBRATED
            SMALL    LARGE                    SMALL      LARGE         UNITS
   CALI     7.52     10.7                     8.00       12.0           IN

    CP 28.4A             FILE    0        09-OCT-86 06:13
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                    AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:     09-OCT-86 07:52
   PROGRAM FILE: MISN   (VERSION    28.4A   86/04/03)

 DITD                           TOOL  CHECK

                      ZERO                           PLUS
               BEFORE          AFTER          BEFORE        AFTER      UNITS
    ILD          0.0             .0           494.6         489.2      MMHO
    ILM          0.0             .2           499.7         489.3      MMHO
    SFL          0.0             .2           500.0         498.1      MMHO

 ILD SONDE ERROR CORRECTION :          9.4 MMHO
 ILM SONDE ERROR CORRECTION :          2.9 MMHO

    CP 28.4A             FILE    4        09-OCT-86 07:52
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                    SHOP SUMMARY


   PERFORMED:     08-SEP-86 14:15
   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   -8.8     512.7     0.0        500.0        0.0        494.5    MMHO
    ILM   -1.6     504.8     0.0        500.0        0.0        499.5    MMHO
 ILD  SONDE ERROR CORRECTION :          9.4 MMHO
 ILM  SONDE ERROR CORRECTION :          2.9 MMHO

                      (IS:1181, IC:658 )
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COMPANY ARCO OIL AND GAS

WELL CAVENHAM FOREST IND. #41-9

FIELD MIST

COUNTY COLUMBIA STATE OREGON

SCHL. FR 2491
SCHL. TD 2497
DRLR. TD 2500

Elev: KB 846.9
DF 845.9
GL 835.9