Schlumberger

5" DUAL INDUCTION-SFL

CSU

COMPANY: ARCO OIL AND GAS

WELL: COLUMBIA COUNTY 14-23

FIELD: MIST
COUNTY: COLUMBIA
STATE: OREGON
NATION: USA
LOCATION: 102.97'S & 1099.69' E
FR NW COR
SEC: 26 TWP: 6N RGE: 5W

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 652.7 F
LOG MEASURED FROM: KB
11.0 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 663.7 F
DF:
GL: 652.7 F

DATE: 11 AUG 86
RUN NO: 1

DEPTH-DRILLER: 2180.0 F
DEPTH-LOGGER: 2180.0 F
BTM. LOG INTERVAL: 2174.0 F
TOP LOG INTERVAL: 432.0 F

CASING-DRILLER: 433.0 F
CASING-LOGGER: 432.0 F
CASING: 9 5/8
WEIGHT:
IT SIZE: 8 1/2
DEPTH:

OTHER SERVICES-
LDT CNL
VSP
HDT

PROGRAM
TAPE NO:
28.2A
SERVICE
ORDER NO:
524217

TYPE FLUID IN HOLE: LIGNOSULFONATE
DENSITY: 10.50 LB/G
VISCOSITY: 38.0 S
PH: 9.0
FLUID LOSS: 5.8 C3
SOURCE OF SAMPLE: FLOWLINE
RM: 2.290 OHMM AT 75.0 DEGF
RMF: 3.050 OHMM AT 76.0 DEGF
RMC: 2.290 OHMM AT 76.0 DEGF
SOURCE RMF/RMC: MEAS/MEAS
RM AT BHT: 1.605 OHMM AT 110. DEGF
RMF AT BHT: 2.164 OHMM AT 110. DEGF
RMC AT BHT: 1.625 OHMM AT 110. DEGF

TIME CIRC. STOPPED: 09:00 8/11
TIME LOGGER ON BTM.: 12*15 8/11

MAX. REC. TEMP: 110.0 DEGF

LOGGING UNIT NO: 8128
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: HARPER/KUNKLER
WITNESSED BY: SHARP

REMARKS:

CHLORIDES: 1500 MG/L
DIL AND SLT RUN IN COMBINATION.
1.5 INCH STANDOFFS USED ON DIL.
2 CMEZS USED TO CENTRALIZE SONIC.

EQUIPMENT NUMBERS-

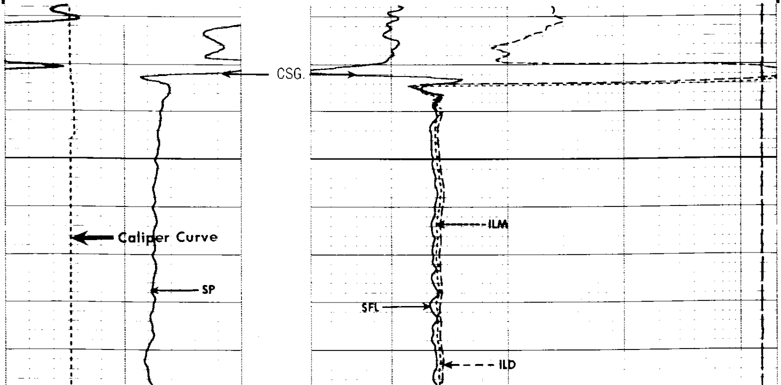
SLS 1086 SLC 1259 MCD 305 DIS 1342
DIC 1386 IEM 685 SLM 214

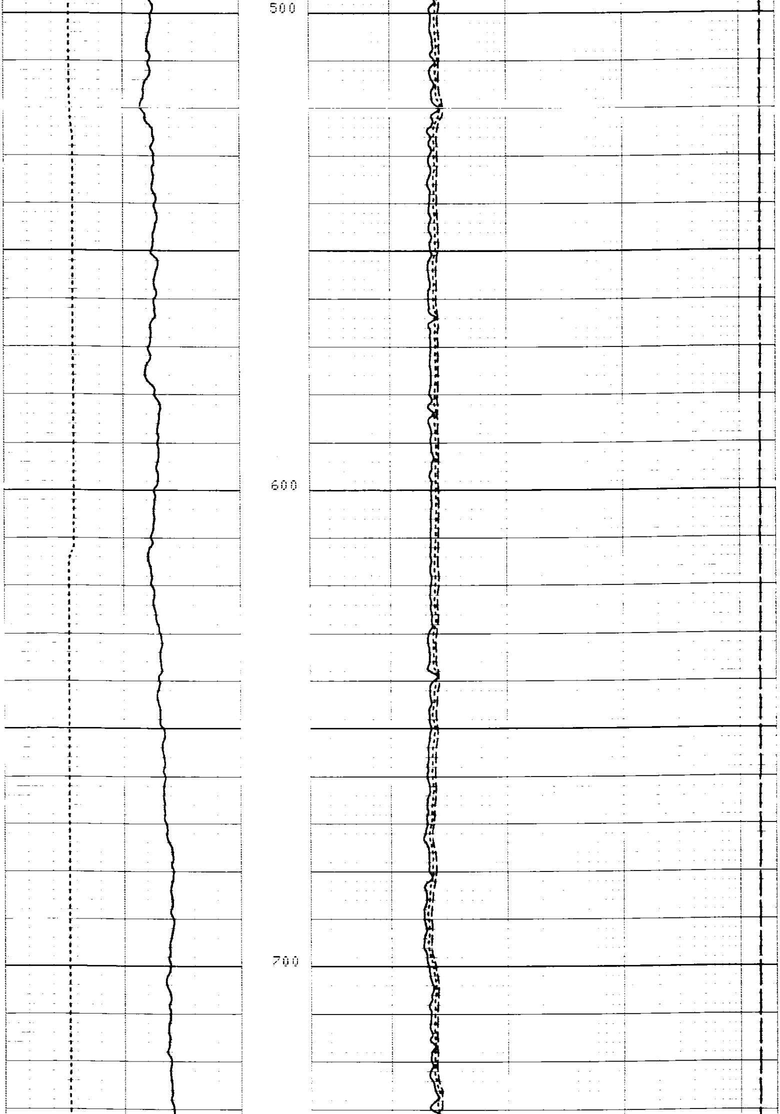
ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS,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

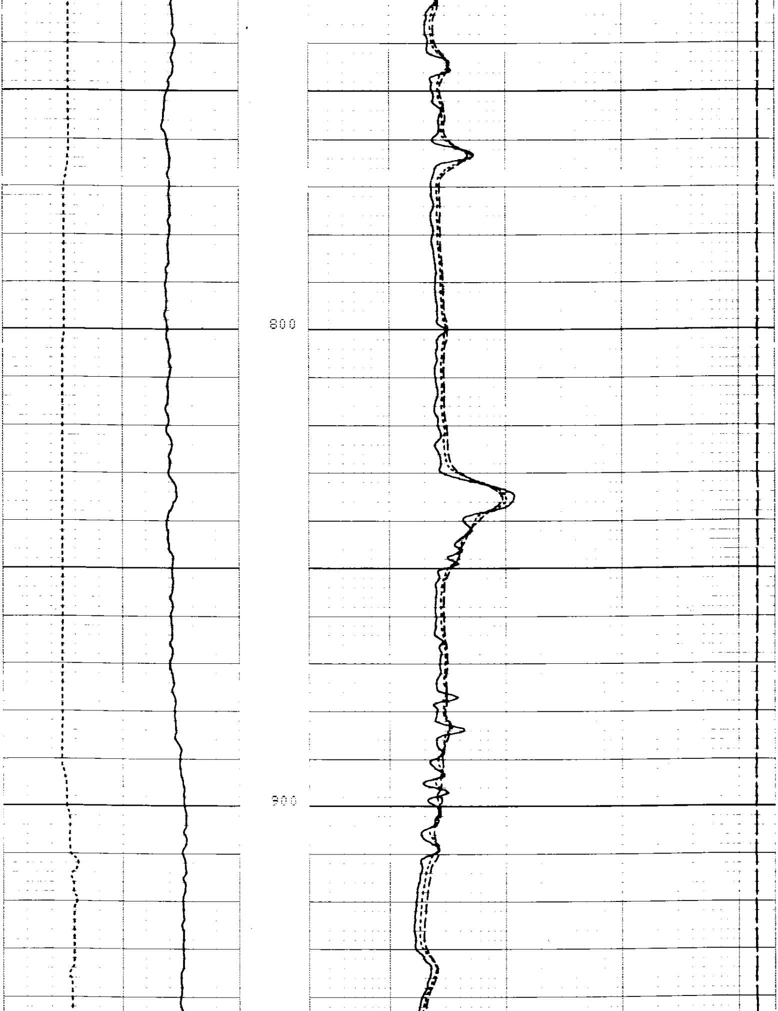
CP 28.2A FILE 9 11-AUG-86 12:57
DATA ACQUIRED 11-AUG-86 12:37

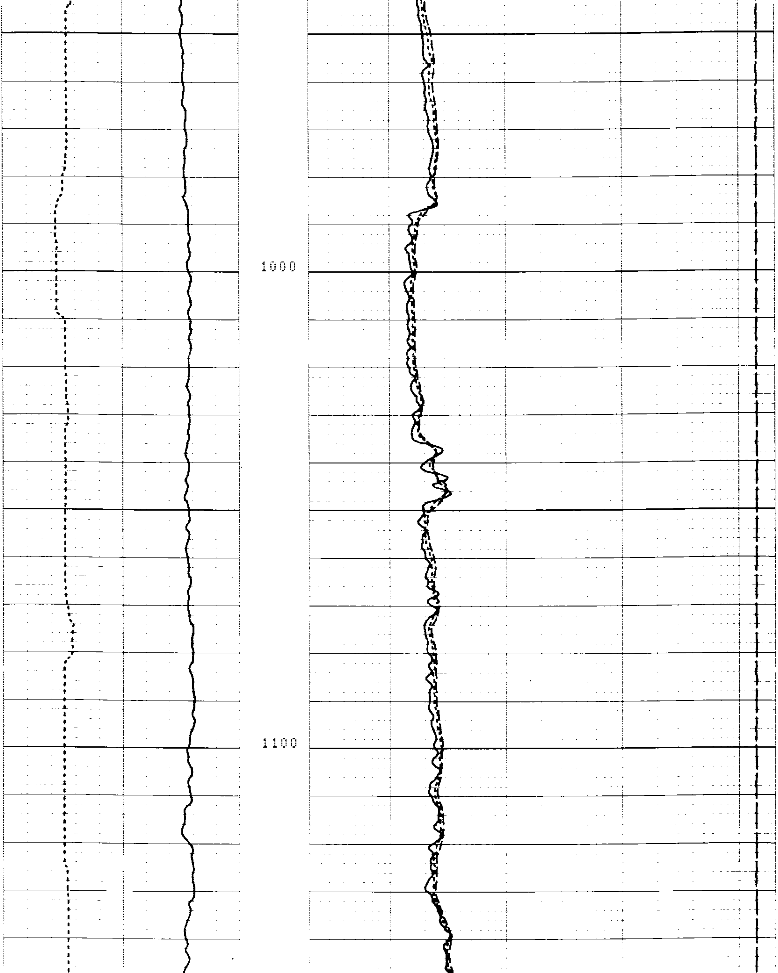
TENS(LB) 10000. 0.0
ILD (OHMM) .20000 2000.0
CALI(IN) 6.0000 16.000
ILM (OHMM) .20000 2000.0
SP (MV) -100.0 0.0
SFLU(OHMM) .20000 2000.0

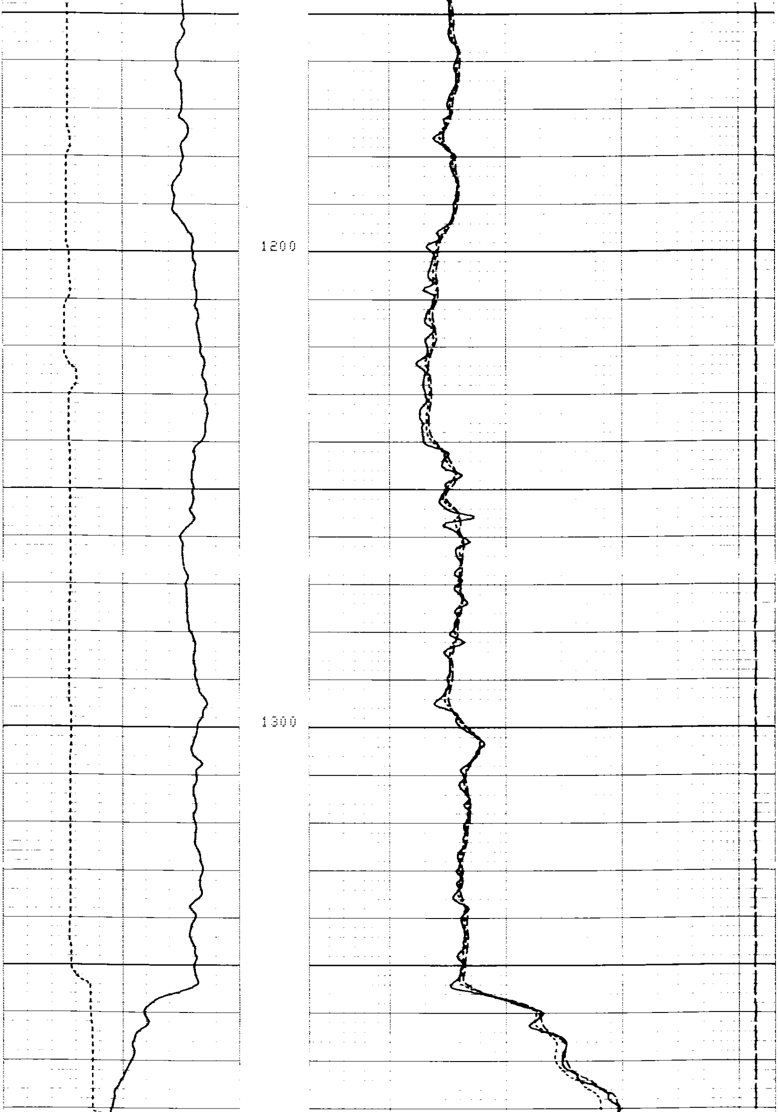
CP 28.2A FILE 9 11-AUG-86 12:37

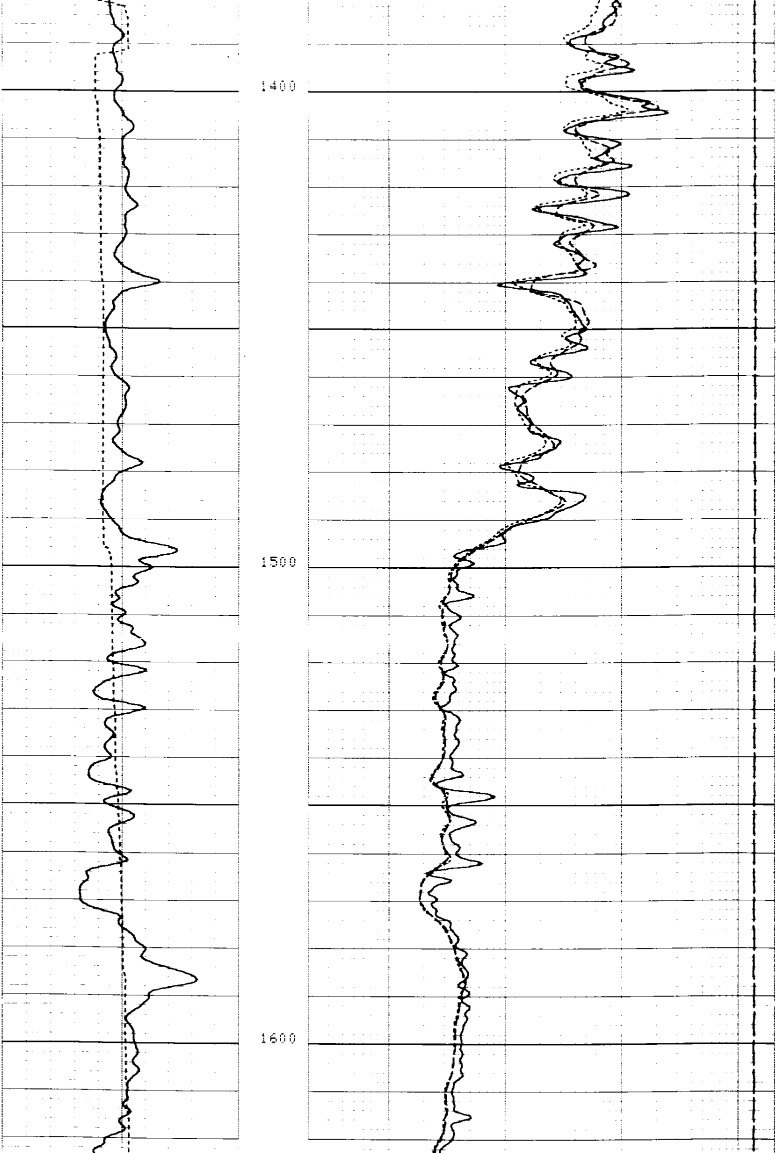


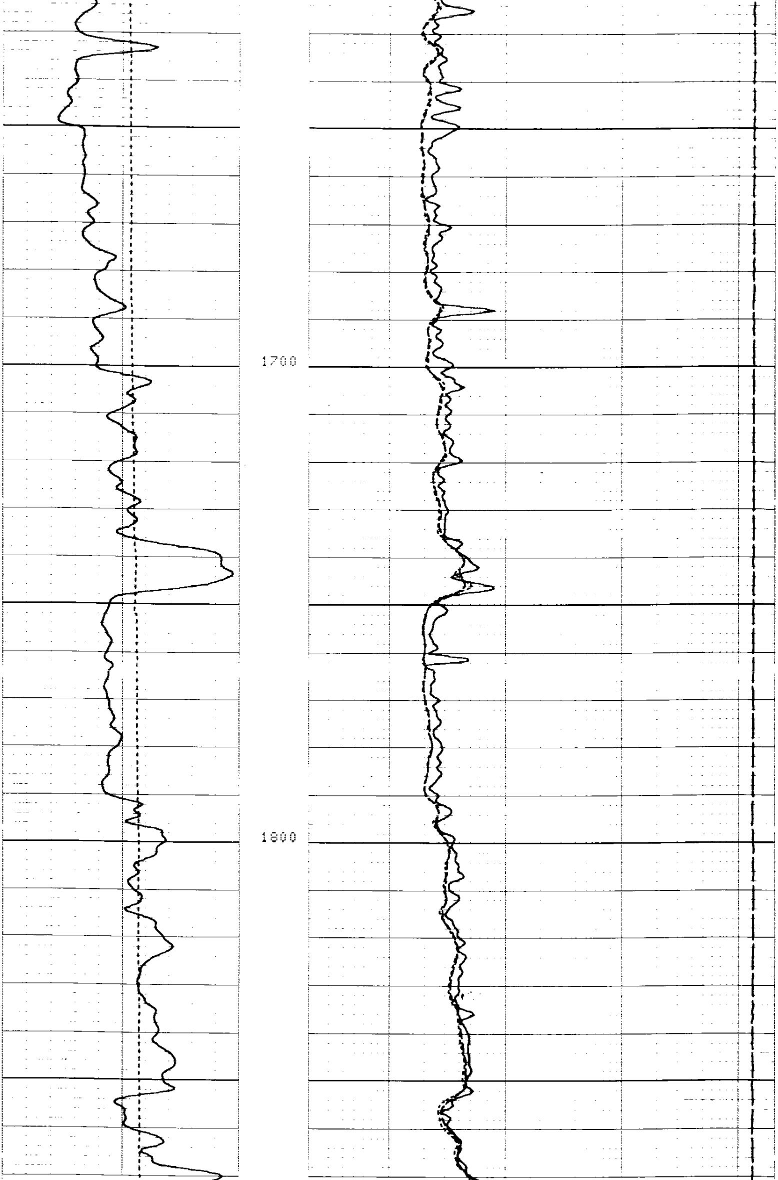


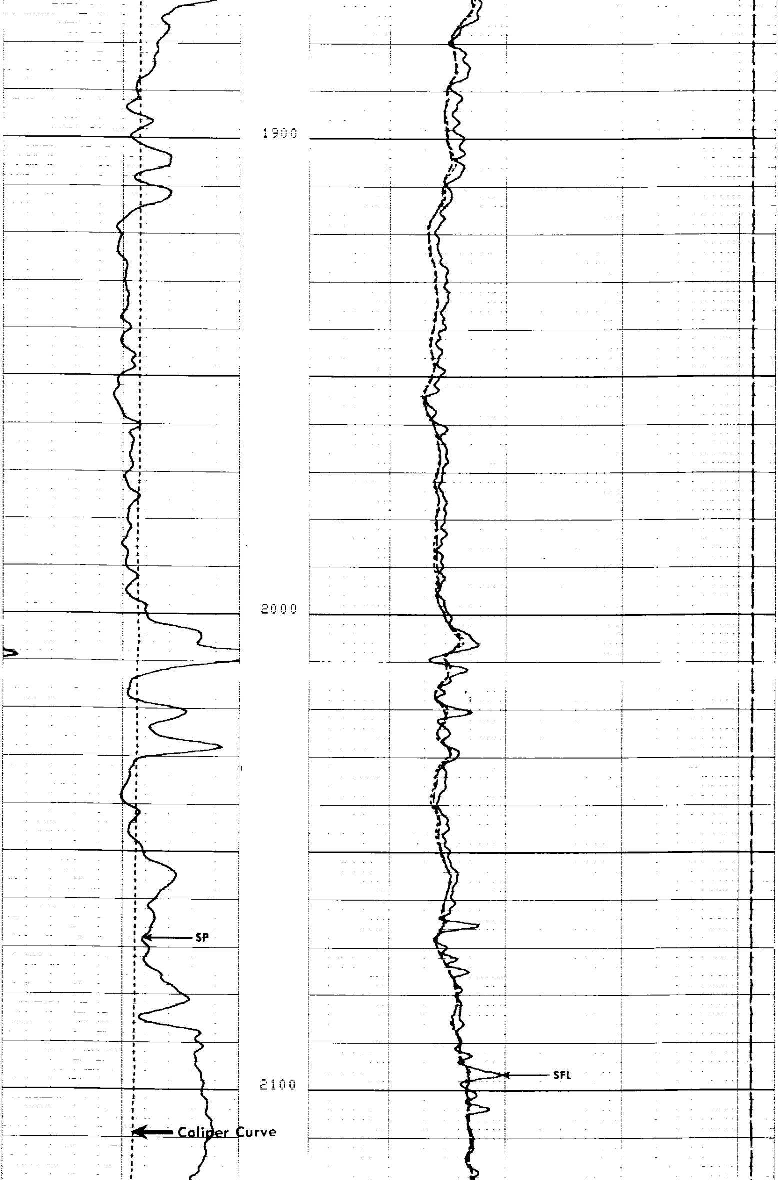


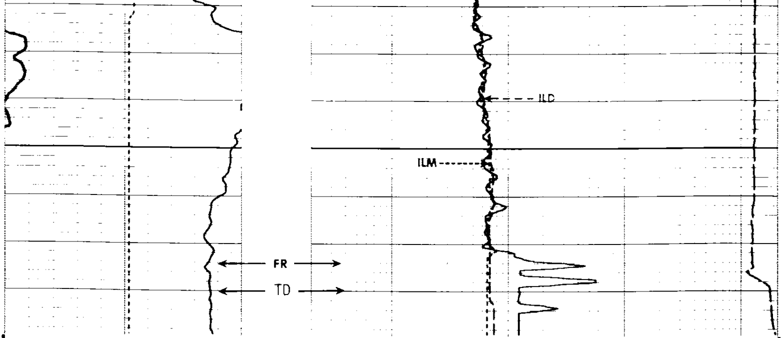












CP 28.2A FILE 9 11-AUG-86 12:10

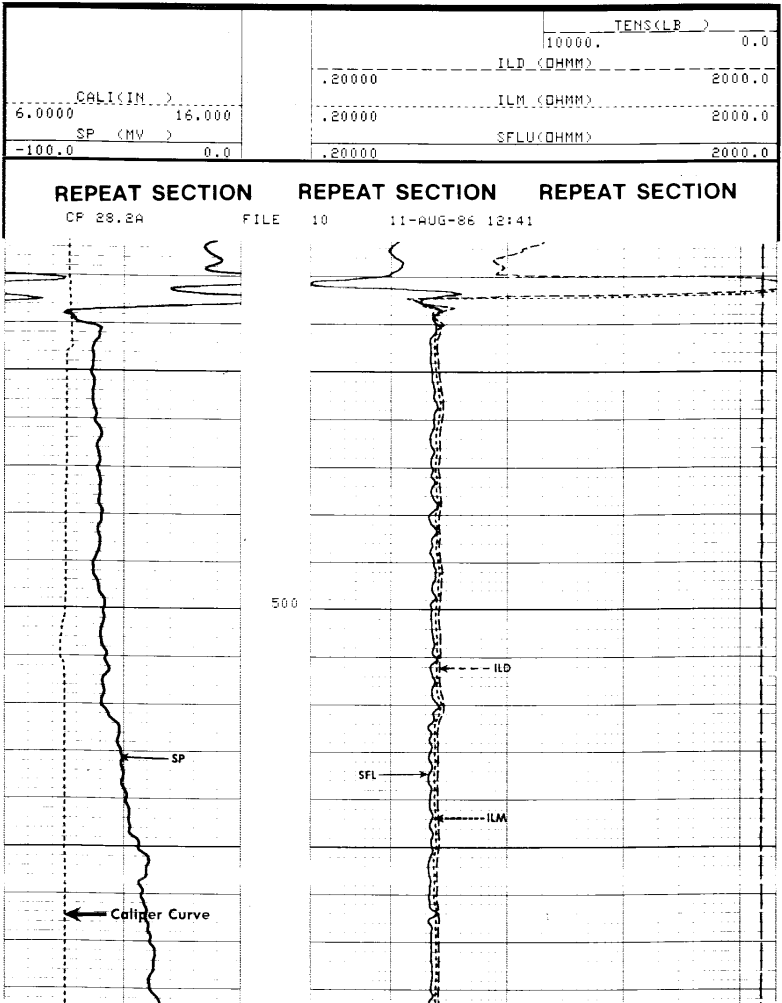
TENS(LB)
10000. 0.0
ILD (OHMM)
.20000 2000.0
CALI(IN)
6.0000 16.000
ILM (OHMM)
.20000 2000.0
SP (MV)
-100.0 0.0
SFLU(OHMM)
.20000 2000.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	34.6	FEET	AMPL	37.1	FEET
TT1	36.1	FEET	CBL	37.1	FEET
TT3	33.3	FEET	TT2	37.1	FEET
T0	37.1	FEET	TT4	32.3	FEET
SLTT	37.1	FEET	TT	37.1	FEET
CALI	56.2	FEET	SCBL	37.1	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			

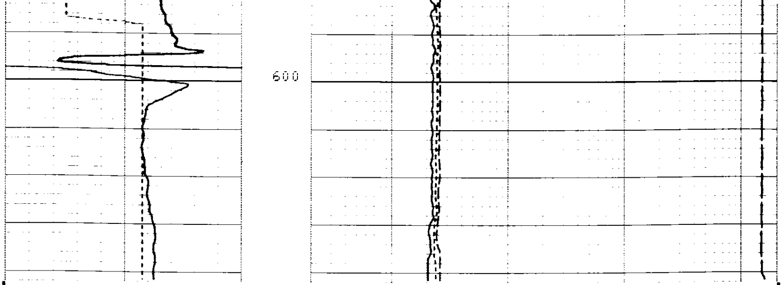
PARAMETERS

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	6.80000	MMHO	DWCO	512	
MSEC	8.40000	MMHO	SBR	1.00000	OHMM
BHS	OPEN		FPHI	SPHI	
BS	8.50000	IN			



REPEAT SECTION REPEAT SECTION REPEAT SECTION

CP 28.2A FILE 10 11-AUG-86 12:41



CP 28.2A FILE 10 11-AUG-86 12:38

TENS(LB)
10000. 0.0

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	34.6	FEET	AMPL	37.1	FEET
TT1	36.1	FEET	CBL	37.1	FEET
TT3	33.3	FEET	TT2	37.1	FEET
T0	37.1	FEET	TT4	32.3	FEET
SLTT	37.1	FEET	TT	37.1	FEET
CALI	56.2	FEET	SCBL	37.1	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	6.80000	MMHO	DWCO	512	
MSEC	8.40000	MMHO	SBR	1.00000	OHMM
BHS	OPEN		FPHI	SPHI	
BS	8.50000	IN			

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                BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:    11-AUG-86 12:00
   PROGRAM FILE: ISN    (VERSION    28.2A   85/07/10)


 DITD                ELECTRONICS CALIBRATION SUMMARY

               MEASURED                           CALIBRATED
             ZERO     PLUS                   ZERO        PLUS          UNITS
    ILD       .09     548.6                  0.0         493.5          MMHO
    ILM     -1.67     532.6                  0.0         498.6          MMHO
    SFL     -2.74     521.0                  0.0         500.0          MMHO

 ILD SONDE ERROR CORRECTION :          6.8 MMHO
 ILM SONDE ERROR CORRECTION :          8.4 MMHO


 MCDB                CALIPER CALIBRATION SUMMARY

               MEASURED                           CALIBRATED
             SMALL    LARGE                  SMALL       LARGE         UNITS
   CALI      7.26     10.4                   8.00        12.0          IN

    CP 28.2A            FILE    5       11-AUG-86 12:00
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                AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:    11-AUG-86 12:44
   PROGRAM FILE: ISN    (VERSION    28.2A   85/07/10)


 DITD                       TOOL  CHECK

                     ZERO                          PLUS
               BEFORE        AFTER           BEFORE       AFTER      UNITS
    ILD          0.0           -.1           493.5        491.9      MMHO
    ILM          0.0           -.0           498.6        497.3      MMHO
    SFL          0.0           -.2           500.0        491.2      MMHO

 ILD SONDE ERROR CORRECTION :          6.8 MMHO
 ILM SONDE ERROR CORRECTION :          8.4 MMHO

    CP 28.2A            FILE    12      11-AUG-86 12:43
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                  SHOP SUMMARY


   PERFORMED:     86/07/23
   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      -6.8     544.6    0.0        500.0    0.0        494.0   MMHO
    ILM      -9.4     523.3    0.0        500.0    0.0        499.2   MMHO
 ILD  SONDE ERROR CORRECTION :          6.8 MMHO
 ILM  SONDE ERROR CORRECTION :          8.4 MMHO

                         (IS:1342, IC:1386)
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COMPANY	ARCO OIL AND GAS	SCHL. FR	2174
		SCHL. TD	2180
WELL	COLUMBIA COUNTY 14-23	DRLR. TD	2180
FIELD	MIST	Elev: KB	663.7
		DF	
COUNTY	COLUMBIA STATE OREGON	GL	652.7