Scanned

Schlumberger

DUAL INDUCTION - SFL

COUNTY	COLUMBIA
FIELD	MIST
LOCATION	SEE REMARKS
WELL	FOSTER 42-30-65
COMPANY	ARCO OIL AND GAS COMPANY

COMPANY ARCO OIL AND GAS COMPANY

WELL FOSTER 42-30-65

FIELD MIST

COUNTY COLUMBIA **STATE** OREGON

LOCATION SEE REMARKS

Other Services:
LDT CNL
SHDT
CST

API SERIAL NO.	SECT.	TWP.	RANGE
	30	6N	5W

Permanent Datum	GL	Elev.	545.5 F	Elev.:K.B. 556.5 F
Log Measured From	KB	11.0 F	above Perm. Datum	D.F. 555.5 F
Drilling Measured From	KB			G.L. 545.5 F

Date		22-NOV-87			
Run No.		ONE			
Depth Driller		2658.0 F			
Depth Logger (Schl.)					
Btm. Log Interval		2650.0 F			
Top Log Interval		474.0 F			
Casing-Driller		9 5/8 @ 476.0 F	@	@	@
Casing-Logger		474.0 F			
Bit Size		8 1/2			
Type Fluid in Hole		DRISPAC			
Dens.	Visc.	11.40 LB/G	40.0 S		
pH	Fld. Loss	9.5	6.8 C3		
Source of Sample		FLOWLINE			
Rm @ Meas. Temp.		2.320 OHMM @ 87.0 DEGF		@	
Rmf @ Meas. Temp.		3.240 OHMM @ 46.0 DEGF		@	
Rmc @ Meas. Temp.		4.910 OHMM @ 46.0 DEGF		@	
Source: Rmf	Rmc	MEAS	MEAS		
Rm @ BHT		2.117 OHMM @ 96.0 DEGF		@	
TIME Circulation Ended		20:00 11/22			
TIME Logger on Bottom		21:46			
Max. Rec. Temp.		96.0 DEGF			
Equip.	Location	8504	SACRAMENTO		
Recorded By		KUNKLER			
Witnessed By		ANDERSON			

FOLD HERE

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

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 interpretations 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.

Run No.	ONE	
Service Order No.	506377	
Drilling Fluid Level	0.0 F	
Salinity	50.0 PPM	
Rmf @ BHT	1.667 OHMM @ 96.0 DEGF	@
Rmc @ BHT	2.527 OHMM @ 96.0 DEGF	@
Logging Speed	3600.0 F/HR	
Equipment Data		
Tool Number 1	DIS 2179	
Tool Number 2	DIC 2230	
Tool Number 3	SLS 375	
Tool Number 4	SLC 1259	
Tool Number 5	MCD 305	
Tool Number 6	EM 304	
Tool Number 7	SLM 443	
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

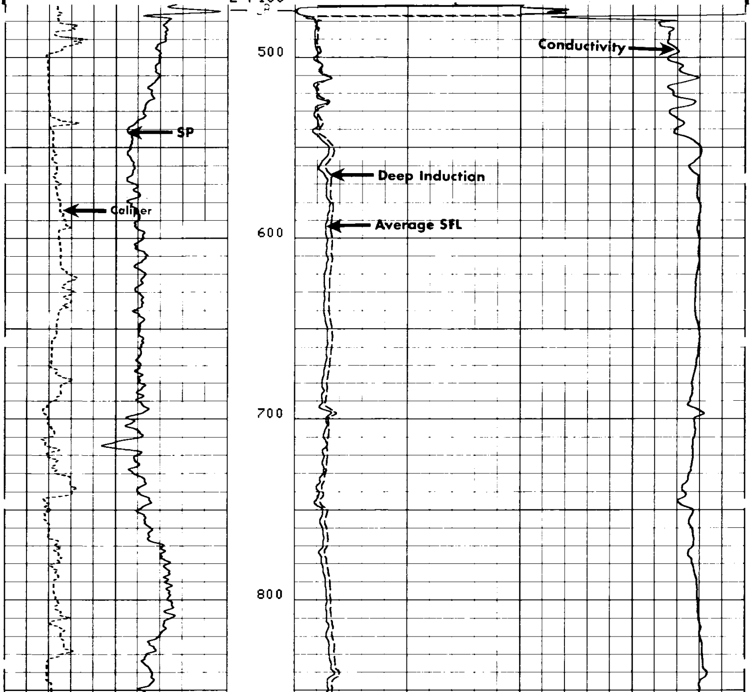
SO. 0 DEG 39'38"
E 2302.67'
SO. 89 DEG 20'22"
W 621.59'
DIL AND SONIC RUN IN COMBINATION.
1.5 INCH STANDOFFS USED ON DIL.

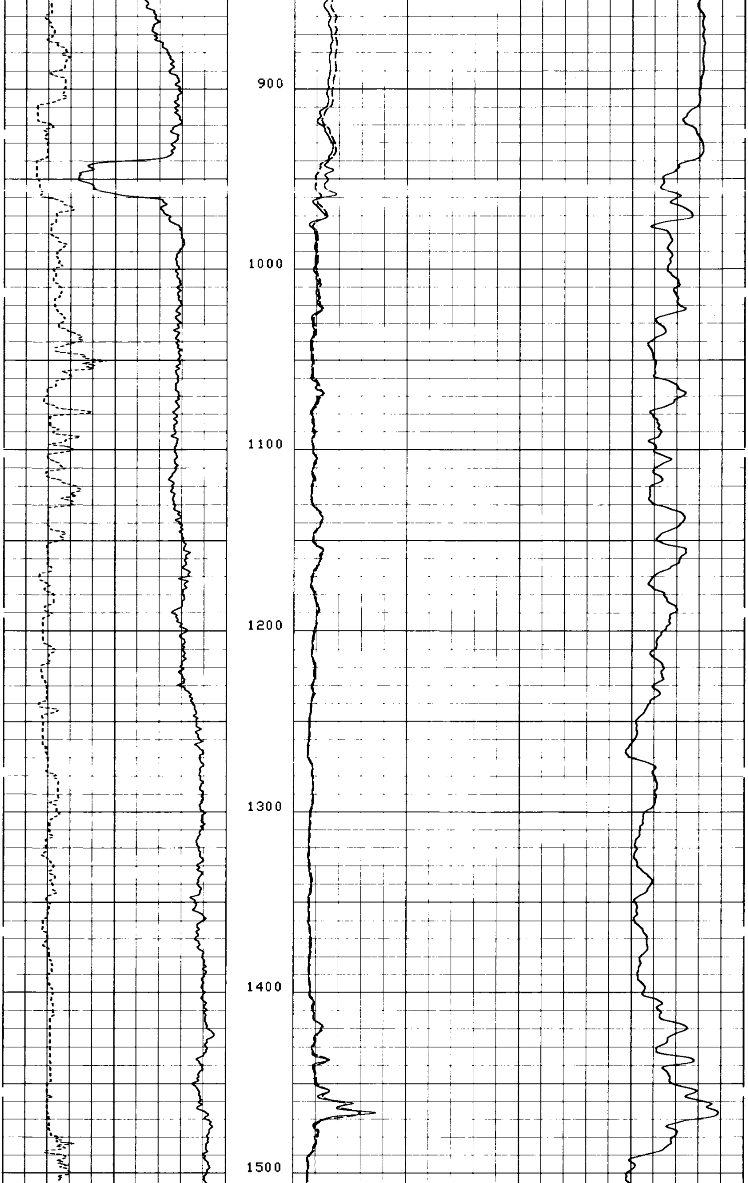
CALI(IN) 6.0000 16.000		ILD (OHMM) 0.0 30.000	
SP (MV) -100.0 0.0		SFLA(OHMM) 0.0 30.000	CILD(MMHO) 1000.0 0.0

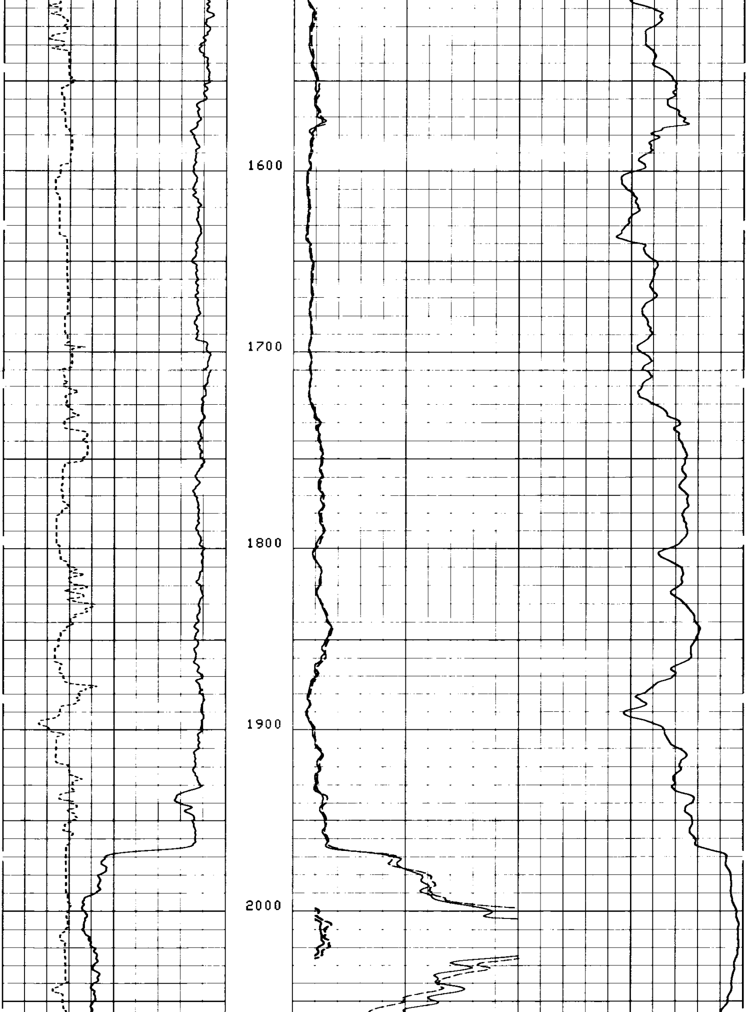
CP 30.22 FILE 3 22-NOV-87 19:22

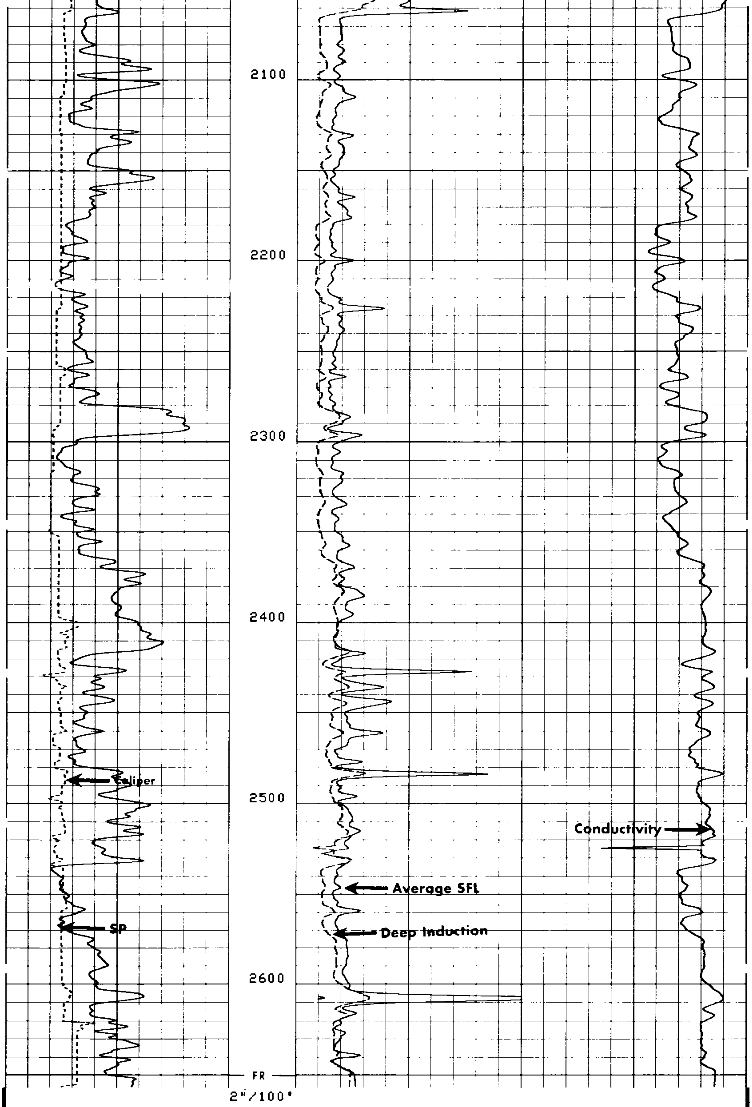
INPUT FILES DATA ACQUIRED
25 22-NOV-87 23:02
18 NA

2"/100'









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CP 30.22            FILE    2       22-NOV-87 19:11

        INPUT FILES                 DATA ACQUIRED
        25                          22-NOV-87 22:22
```

17 NA

CALI(IN)		ILD (OHMM)	
6.0000 16.000		0.0 30.000	
SP (MV)		SFLA(OHMM)	CILD(MMHO)
-100.0 0.0		0.0 30.000	1000.0 0.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.8	FEET
TT1	42.8	FEET	CBL	43.8	FEET
TT3	40.1	FEET	TT2	43.8	FEET
T0	43.8	FEET	TT4	39.1	FEET
SLTT	43.8	FEET	TT	43.8	FEET
CALI	31.8	FEET	SCBL	43.8	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

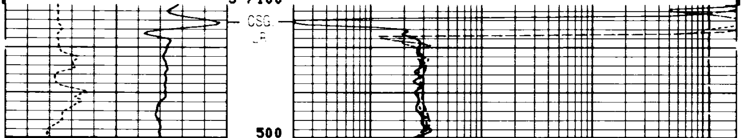
NAME	VALUE	UNIT	NAME	VALUE	UNIT
BS	8.50000	IN	BHS	OPEN	
SPFS	R-H		FPHI	SPHI	
DTM	56.0000	US/F	CDTS	100.000	
DDEL	200	US	DTF	189.000	US/F
DWCO	512		DSIN	5	US
SBR	1.00000	OHMM	DSEC	1.70000	MMHO
DO2	0.0	F	MSEC	7.40000	MMHO
PP	NORM		DO	0.0	F

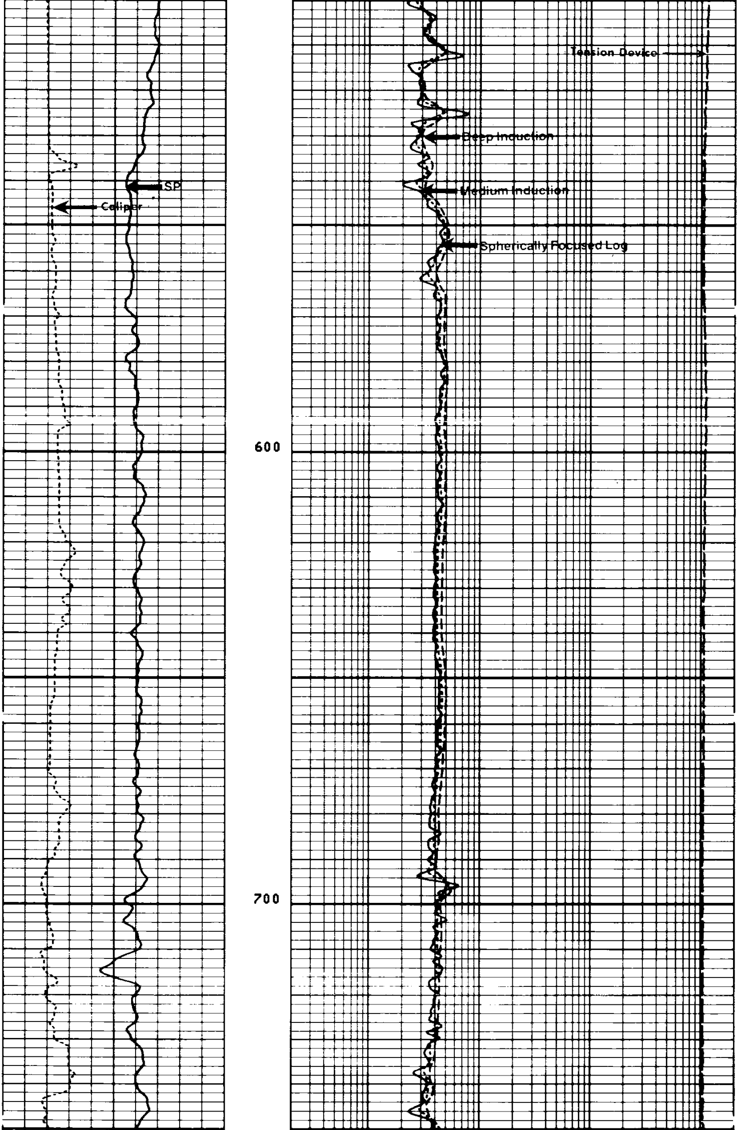
			TENS(LB)
			10000. 0.0
		ILD (OHMM)	
		.20000 2000.0	
CALI(IN)		ILM (OHMM)	
6.0000 16.000		.20000 2000.0	
SP (MV)		SFLU(OHMM)	
-100.0 0.0		.20000 2000.0	

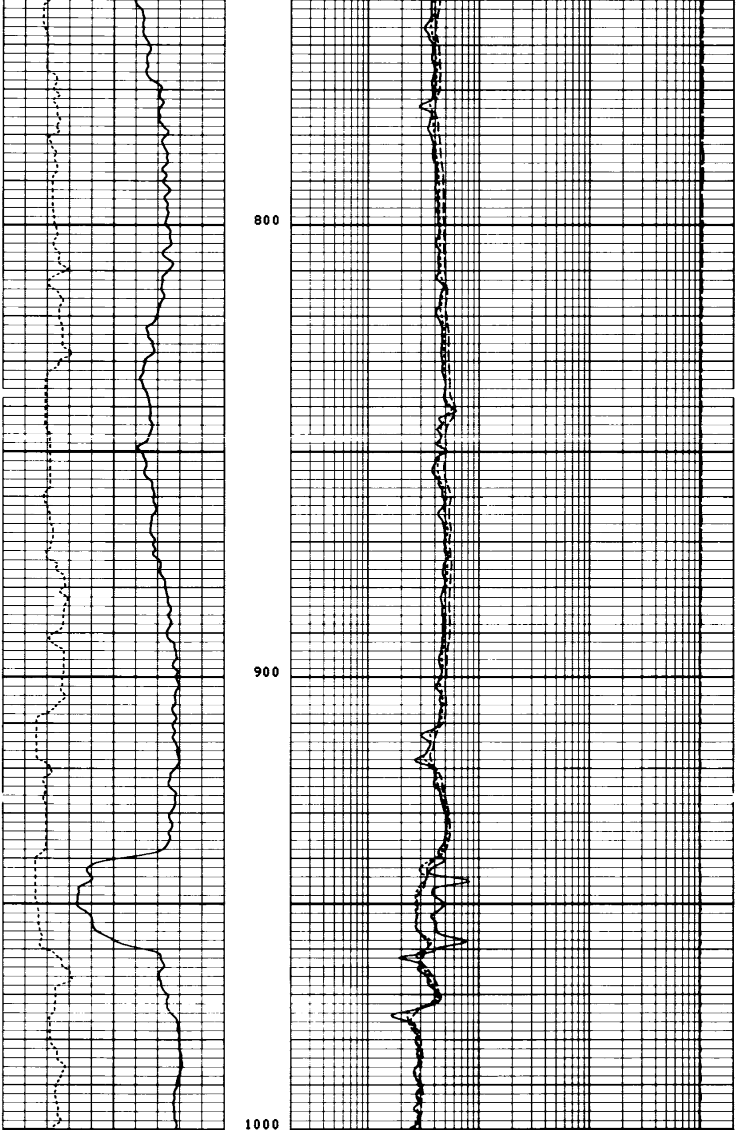
CP 30.22 FILE 3 22-NOV-87 19:22

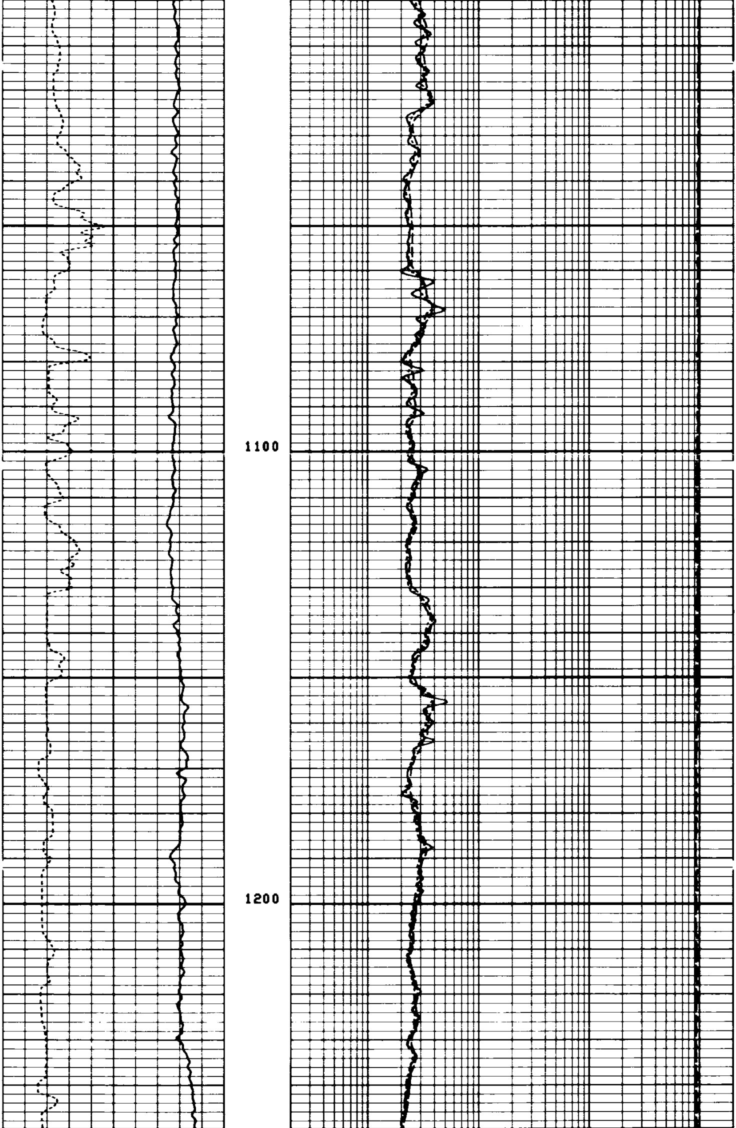
INPUT FILES	DATA ACQUIRED
25	22-NOV-87 23:02
18	NA

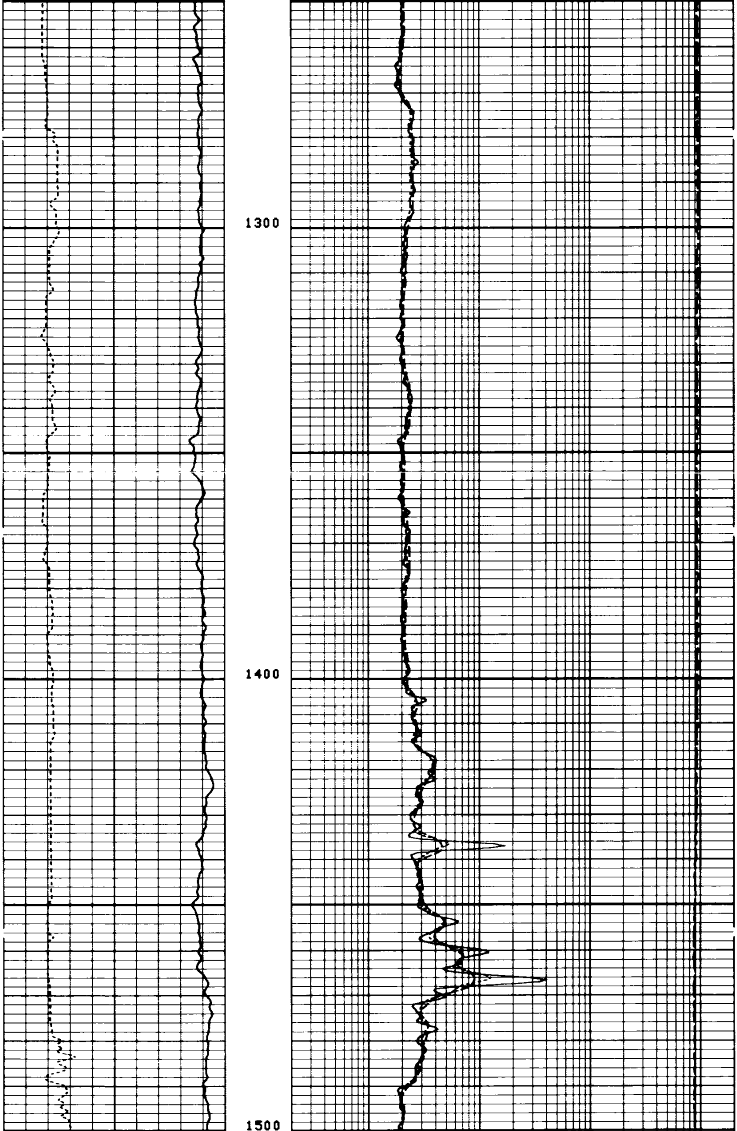
5"/100'

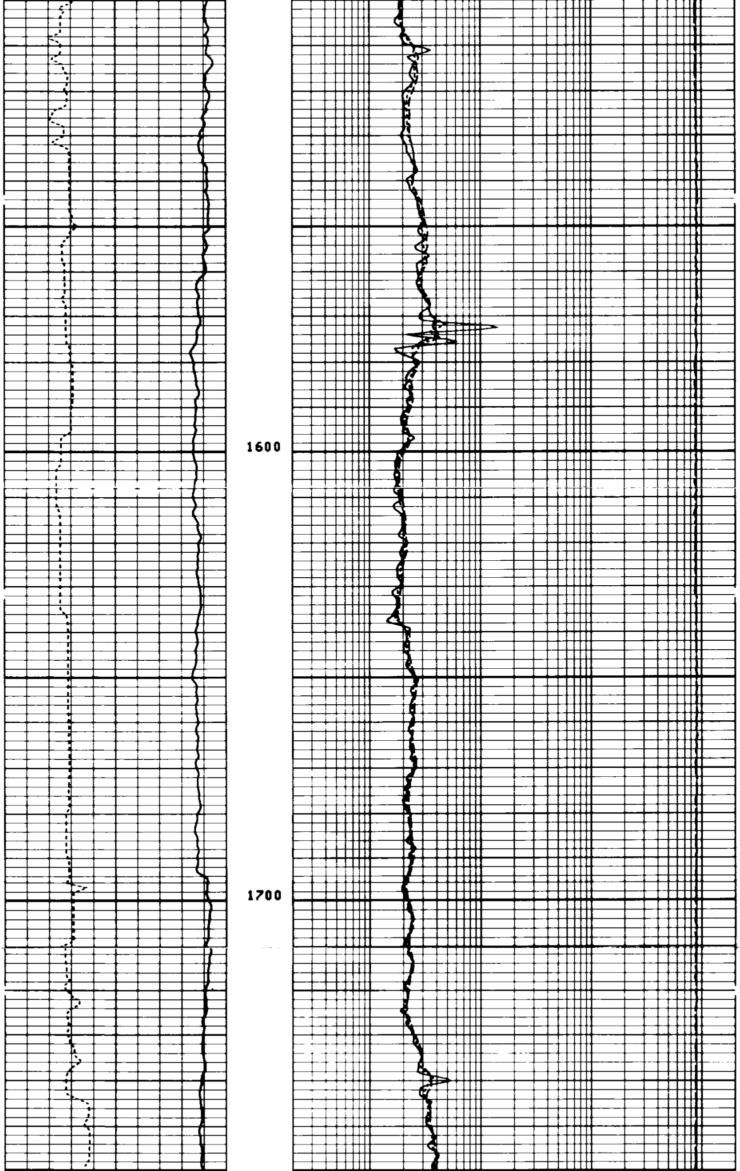


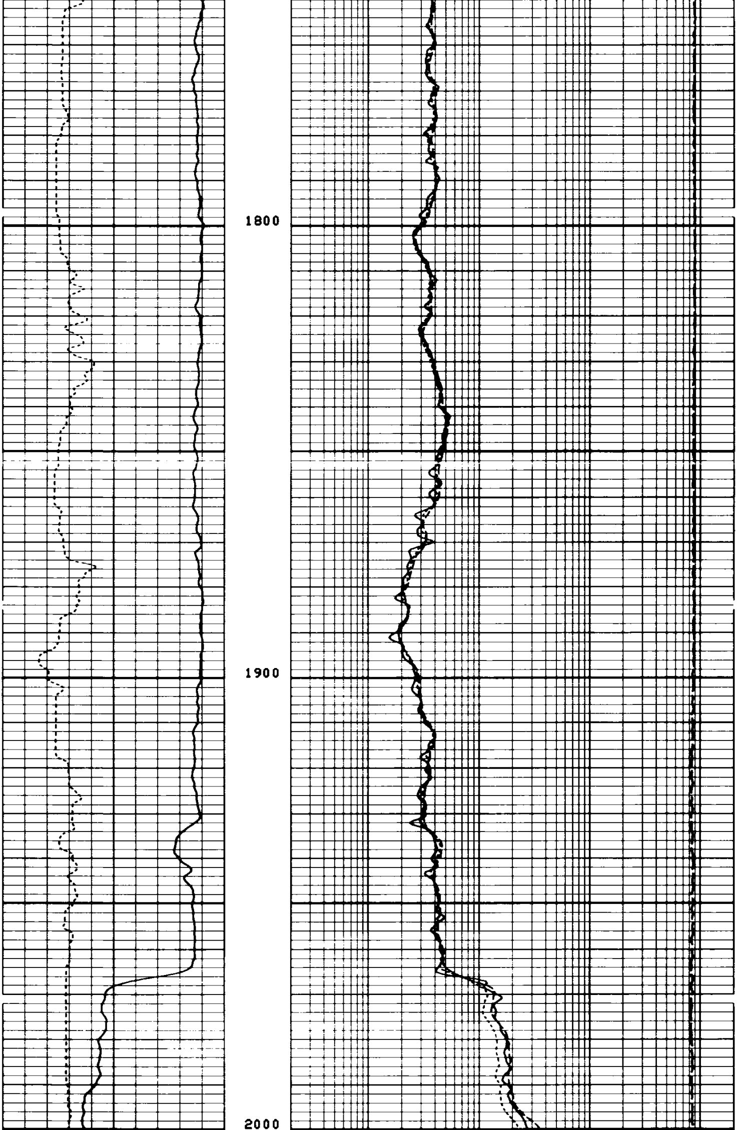


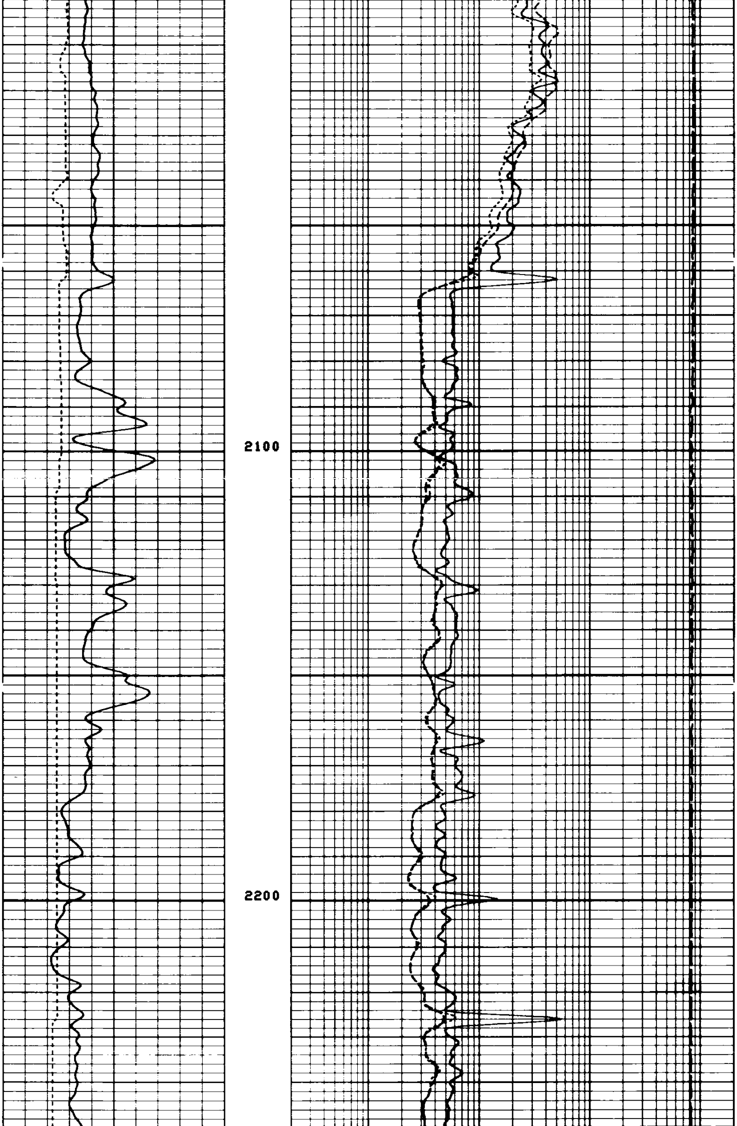


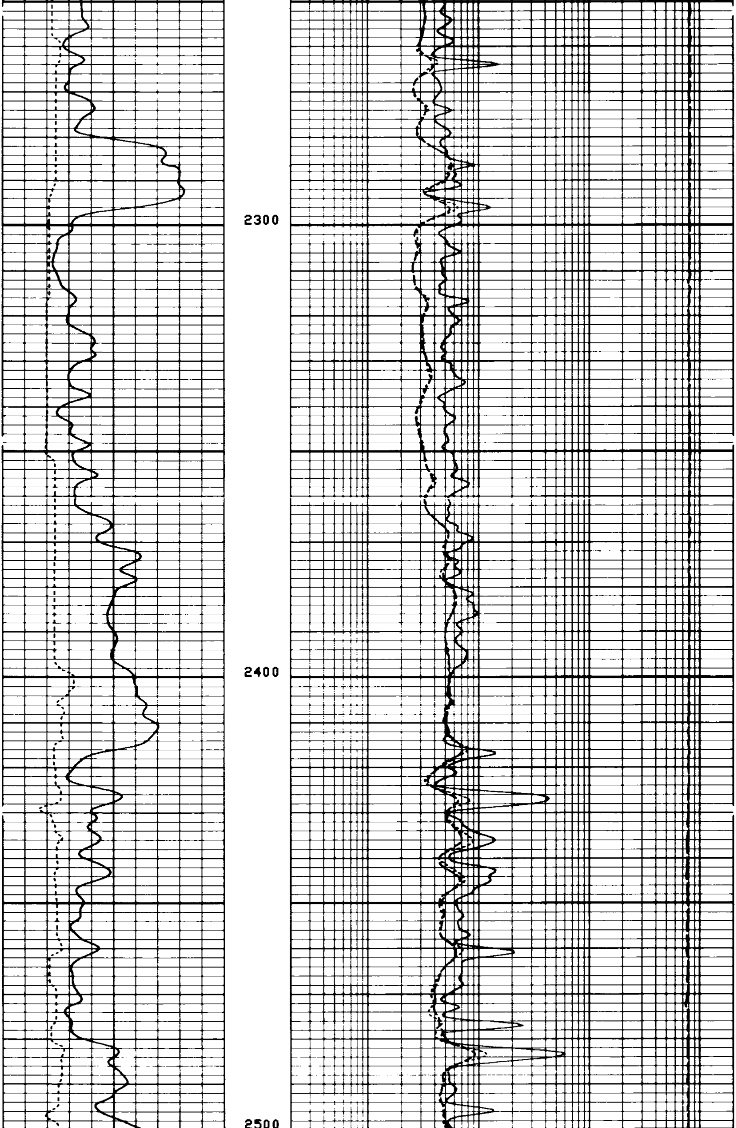


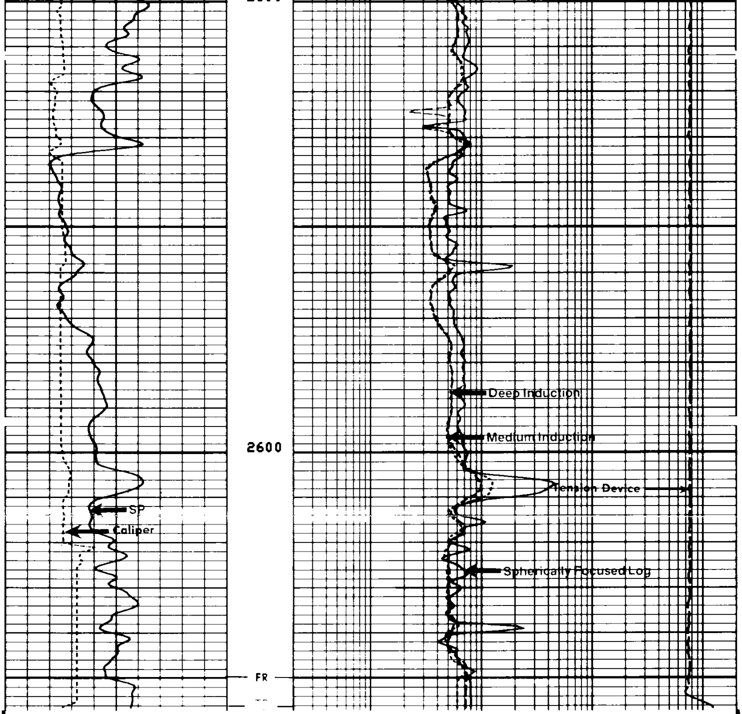












5"/100'

CP 30.22 FILE 2 22-NOV-87 19:11

INPUT FILES
25
17

DATA ACQUIRED
22-NOV-87 22:22
NA

TENS(LB)
10000. 0.0

ILD (OHMM)
.20000 2000.0

ILM (OHMM)
.20000 2000.0

SFLU(OHMM)
.20000 2000.0

CALI(IN)
6.0000 16.000

SP (MV)
-100.0 0.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.8	FEET
TT1	42.8	FEET	CBL	43.8	FEET
TT3	40.1	FEET	TT2	43.8	FEET
T0	43.8	FEET	TT4	39.1	FEET
SLTT	43.8	FEET	TT	43.8	FEET
CALI	31.8	FEET	SCBL	43.8	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
BS	8.50000	IN	BHS	OPEN	
SPFS	R-H		FPHI	SPHI	
DTM	56.0000	US/F	CDTS	100.000	
DDEL	200	US	DTF	189.000	US/F
DWCO	512		DSIN	5	US
SBR	1.00000	OHMM	DSEC	1.70000	MMHO
DO2	0.0	F	MSEC	7.40000	MMHO
PP	NORM		DO	0.0	F

CEMENT VOLUME = 61.2734 F3
HOLE VOLUME = 103.675 F3
FROM 2656.0 TO 2399.0 FEET

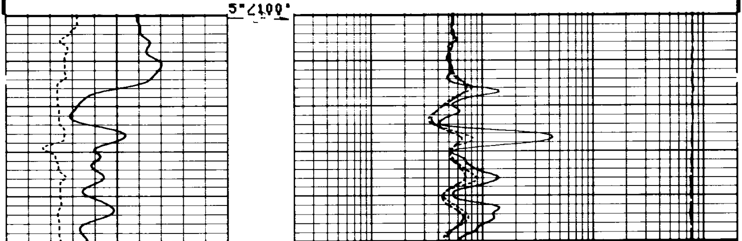
TENS(LB)
10000. 0.0
ILD (OHMM)
.20000 2000.0
CALI(IN)
6.0000 16.000
ILM (OHMM)
.20000 2000.0
SP (MV)
-100.0 0.0
SFLU(OHMM)
.20000 2000.0

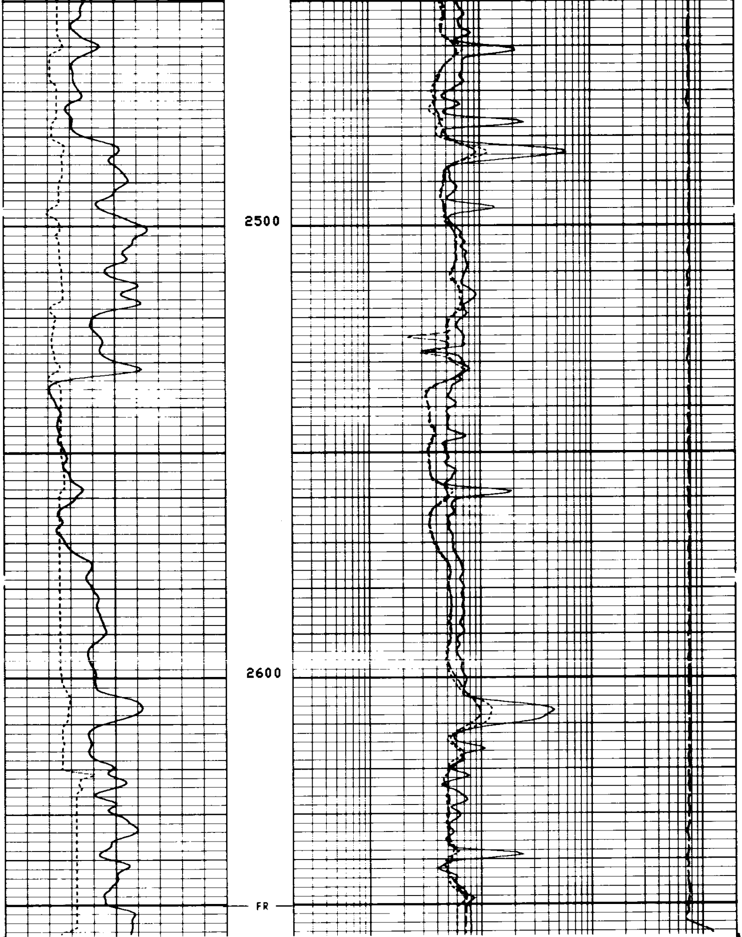
REPEAT SECTION

CP 30.22 FILE 1 22-NOV-87 19:07

INPUT FILES

DATA ACQUIRED
22-NOV-87 22:26
NA





5"/100'

CP 30.22 FILE 1 22-NOV-87 19:06

INPUT FILES

DATA ACQUIRED
22-NOV-87 22:22

```
                                         NA

                                                                    TENS(LB  )
                                                            10000.                 0.0
                                                  ILD (OHMM)
                                   .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
```

```
                     SENSOR MEASURE POINT TO TOOL ZERO

          SRAT 41.4   FEET                          AMPL  43.8   FEET
          TT1  42.8   FEET                          CBL   43.8   FEET
          TT3  40.1   FEET                          TT2   43.8   FEET
          T0   43.8   FEET                          TT4   39.1   FEET
          SLTT 43.8   FEET                          TT    43.8   FEET
          CALI 31.8   FEET                          SCBL  43.8   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

        BS    8.50000       IN                      BHS   OPEN
        SPFS  R-H                                   FPHI  SPHI
        DTM   56.0000       US/F                    CDTS  100.000
        DDEL  200           US                      DTF   189.000      US/F
        DWCO  512                                   DSIN  5            US
        SBR   1.00000       OHMM                    DSEC  1.70000      MMHO
        DO2   0.0           F                       MSEC  7.40000      MMHO
        PP    NORM                                  DO    0.0          F
```

```
                  BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:     22-NOV-87 22:00
   PROGRAM FILE: ISN     (VERSION    30.22   87/02/10   87/02/09)


 DITD                ELECTRONICS CALIBRATION SUMMARY

              MEASURED                          CALIBRATED
           ZERO     PLUS                    ZERO        PLUS         UNITS
   ILD     1.69     478.8                   0.0         500.1         MMHO
   ILM      .41     492.9                   0.0         499.3         MMHO
   SFL      .30     530.1                   0.0         500.0         MMHO

 ILD SONDE ERROR CORRECTION :          1.7 MMHO
 ILM SONDE ERROR CORRECTION :          7.4 MMHO

 ZERO: 22-NOV-87 22:00    PLUS: 22-NOV-87 22:00    COMP: 22-NOV-87 22:00


 MCDB                CALIPER CALIBRATION SUMMARY

              MEASURED                          CALIBRATED
           SMALL    LARGE                   SMALL       LARGE        UNITS
   CALI    8.12     10.7                    8.00        12.0          IN

 SMALL: 22-NOV-87 20:55  LARGE: 22-NOV-87 20:56  COMP: 22-NOV-87 20:56
```

```
CP 30.22            FILE    15        22-NOV-87 22:00

                 AFTER SURVEY TOOL CHECK SUMMARY


  PERFORMED:     23-NOV-87 00:11
  PROGRAM FILE: ISN     (VERSION    30.22   87/02/10  87/02/09)


DITD                       TOOL  CHECK

                    ZERO                           PLUS
            BEFORE         AFTER           BEFORE       AFTER     UNITS
   ILD        0.0            -.3           500.1        503.1     MMHO
   ILM        0.0            .0            499.3        499.3     MMHO
   SFL        0.0            .2            500.0        500.8     MMHO

ILD SONDE ERROR CORRECTION :         1.7 MMHO
ILM SONDE ERROR CORRECTION :         7.4 MMHO

BEFORE SURVEY:           ZERO: 22-NOV-87 22:00   PLUS: 22-NOV-87 22:00
AFTER SURVEY CHECK:      ZERO: 23-NOV-87 00:10   PLUS: 23-NOV-87 00:10
```

```
CP 30.22            FILE    24        23-NOV-87 00:10

                 SHOP SUMMARY


  PERFORMED:     25-OCT-87 12:02
  PROGRAM FILE: SHOP    (VERSION    30.22   87/02/09  87/02/09)


DITD                   ELECTRONICS CALIBRATION SUMMARY

                TEST LOOP CALIBRATION             TOOL CHECK
            MEASURED           CALIBRATED         CALIBRATED
          ZERO     PLUS     ZERO       PLUS      ZERO       PLUS    UNITS
   ILD     -.3     476.8    0.0        500.0     0.0        500.1   MMHO
   ILM    -7.5     486.3    0.0        500.0     0.0        499.3   MMHO
ILD  SONDE ERROR CORRECTION :         1.7 MMHO
ILM  SONDE ERROR CORRECTION :         7.4 MMHO

                       (IS:2179, IC:2230)
```

COMPANY	ARCO OIL AND GAS COMPANY			SCHL.	FR	2666.0 F
				SCHL.	TD	
WELL	FOSTER 42-30-65			DRLR.	TD	2656.0 F
				Elev:	KB	566.5 F
FIELD	MIST				DF	565.5 F
COUNTY	COLUMBIA	**STATE**	OREGON		GL	546.5 F

Schlumberger

DUAL INDUCTION - SFL

[illegible]