Schlumberger

FORMATION MICROSCANNER

COUNTY	COLUMBIA
FIELD	MIST
LOCATION	1780'S AND 290'E
WELL	"Buzzard" #12-35-65
COMPANY	Nahama & Weagant Energy Co.

COMPANY Nahama & Weagant Energy Co.

LF B
WELL "Buzzard" #12-35-65

FIELD MIST

COUNTY COLUMBIA **STATE** OREGON

LOCATION	1780'S AND 290'E FROM NW CORNER			Other Services: DIL-BHC-GR
API SERIAL NO. 36-009-00301	SECT. 35	TWP. 6N	RANGE 5W	

Permanent Datum	GL	Elev.	800.0 F	Elev.: K.B.810.0 F
Log Measured From	KB	10.0 F	above Perm. Datum	D.F. 809.0 F
Drilling Measured From	KB			G.L.800.0 F

Date		09-JUN-1993				
Run No.		ONE				
Depth Driller		3727.0 F				
Depth Logger (Schl.)		3726.0 F				
Btm. Log Interval		3724.0 F				
Top Log Interval		1000.0 F				
Casing-Driller		8 5/8" @ 500.0 F		4 1/2 @ 4793.0 F		@
Casing-Logger		501.0 F				
Bit Size		7 7/8" @ 3727.0 F		@		@
Type Fluid in Hole		DRISPAC/POLYMER				
Dens.	Visc.	9.70 LB/G	39.0 S			
pH	Fld. Loss	8.0	6.2 C3			
Source of Sample		FLOWLINE				
Rm @ Meas. Temp.		3.110 OHMM @ 64.0 DEGF			@	
Rmf @ Meas. Temp.		3.070 OHMM @ 60.0 DEGF			@	
Rmc @ Meas. Temp.		3.160 OHMM @ 60.0 DEGF			@	
Source: Rmf	Rmc	MEASURED	MEASURED			
Rm @ BHT		2.165 OHMM @ 95.0 DEGF			@	
TIME	Circulation Ended	11:00 09-JUN-1993				
TIME	Logger on Bottom	18:11 09-JUN-1993				
Max. Rec. Temp.		95.0 DEGF				
Equip.	Location	8504	SACRAMENTO			
Recorded By		SCOTT PILCH				
Witnessed By		ROB LUCAS / BOB PINOTTI				

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.	624451	
Drilling Fluid Level	5.0 F	
Salinity	800.0 PPM	
Rmf @ BHT	2.017 OHMM @ 95.0 DEGF	@
Rmo @ BHT	2.076 OHMM @ 95.0 DEGF	@
Logging Speed	3600.0 F/HR	

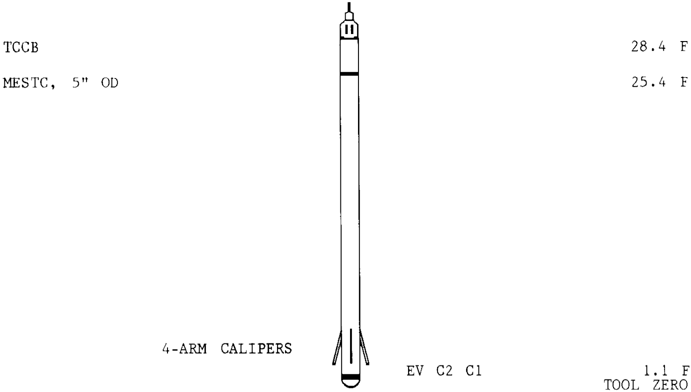
EQUIPMENT DATA

Tool Number 1	MEDS-C 411	
Tool Number 2	MEAC-A 446	
Tool Number 3	TCC-B 2886	
Tool Number 4	TCM-AB 1516	
Tool Number 5		
Tool Number 6		
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

REPEAT SECTION CHOSEN BY CLIENT.

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 31.9 F.
TOTAL TOOL STRING WEIGHT IS 459. LB IN AIR.

MAIN LOG

```
AZIM PRESENTATION DISALLOWED WHEN  DEVI IS LESS THAN .500000 DEG
```

```
        SPEED CORRECTION NOT APPLIED
```

```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume!   1019.34 F3    FROM 3726.00 F     TO 979.000 F
Integrated Cement Volume: 715.942 F3    FROM 3726.00 F     TO 979.000 F
  (ASSUMING 4.50000 IN   O.D. CASING)
```

```
EVENT MARK SUMMARY:

OUTPUT                           INTERVAL        DEPTH TRACK
                                 BETWEEN PIPS    EDGE

Integrated Hole Volume           10.0000 F3      LEFT EDGE
Integrated Cement Volume         10.0000 F3      RIGHT EDGE
```

ANOR(M/S2)
9.0000 11.000
FNOR(OER)
.20000 .70000

EV(V)
0.0 5.0000
TENS(LBF)
10000. 0.0
MRB8
-1000. 19000
MRB7
-3000. 17000
MRB6
-5000. 15000
MRB5
-7000. 13000
MRB4
-9000. 11000
MRB3
-11000 9000.0
MRB2
-13000 7000.0
MRB1
-15000 5000.0

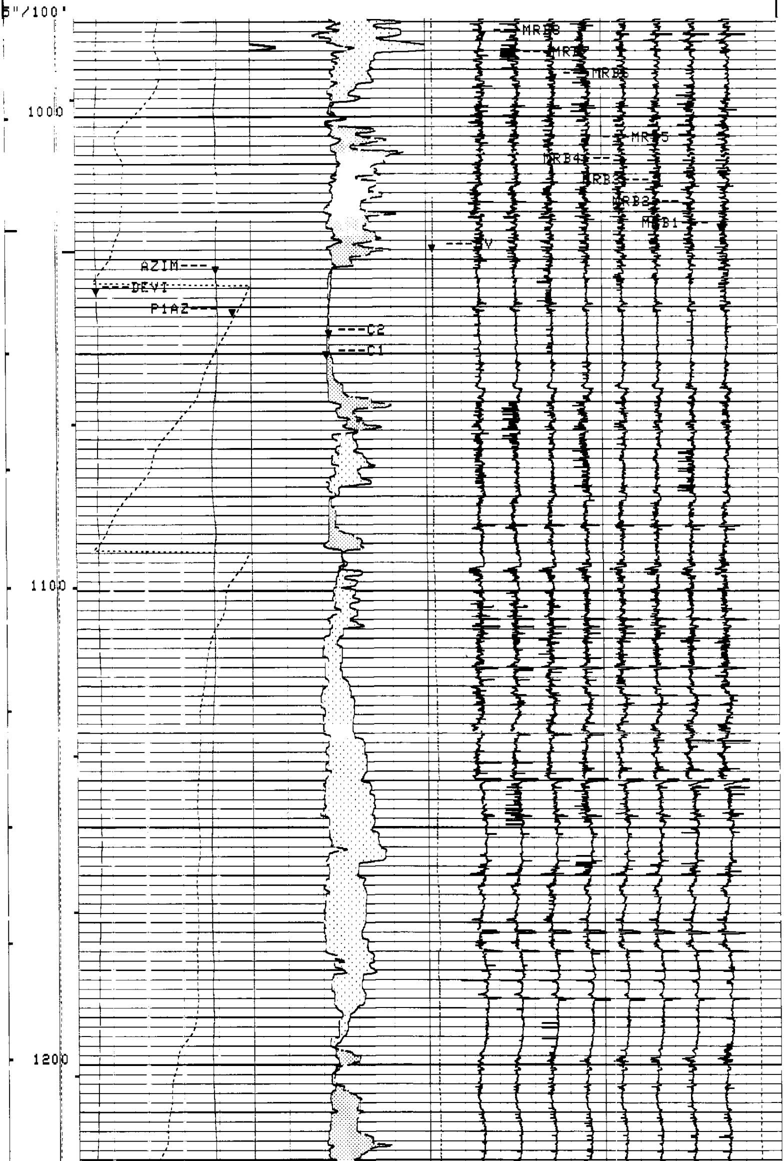
AZIM(DEG)
-40.00 360.00
DEVI(DEG)
0.0 10.000
P1AZ(DEG)
-40.00 360.00

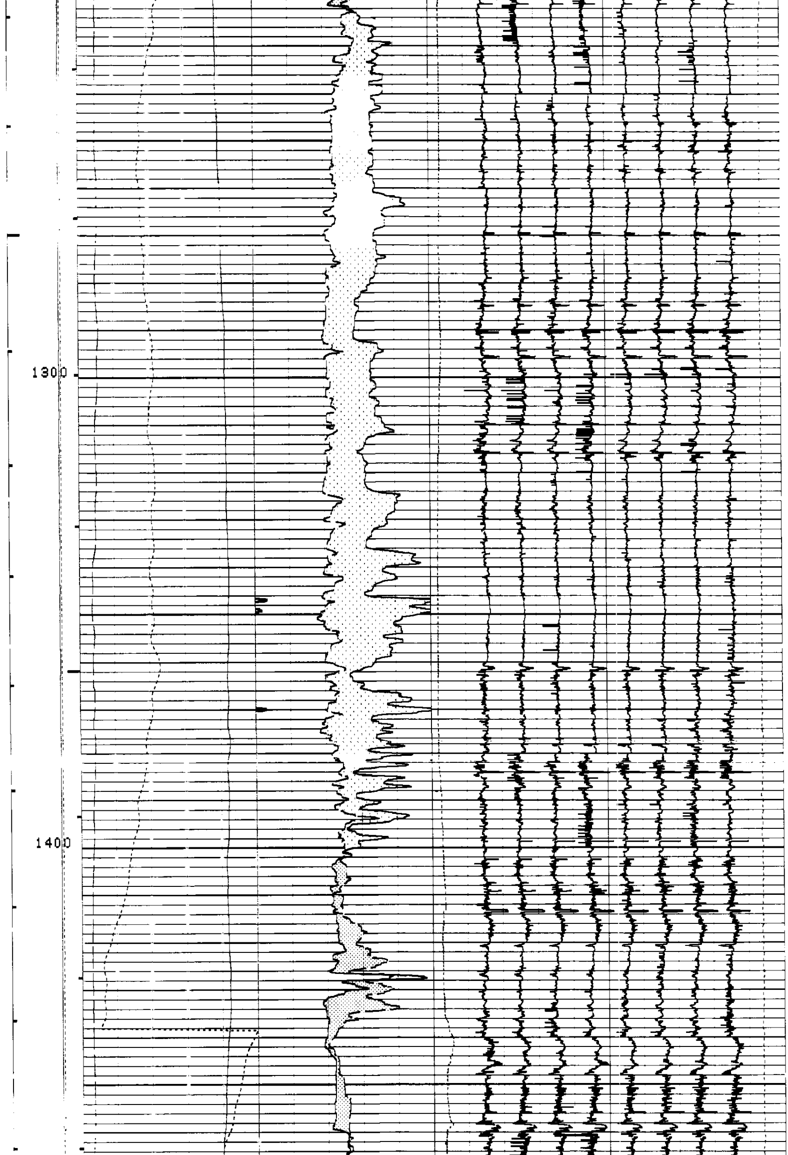
AZ(M/S2)
0.0 10.000
C2(IN)
6.0000 11.000
C1(IN)
6.0000 11.000

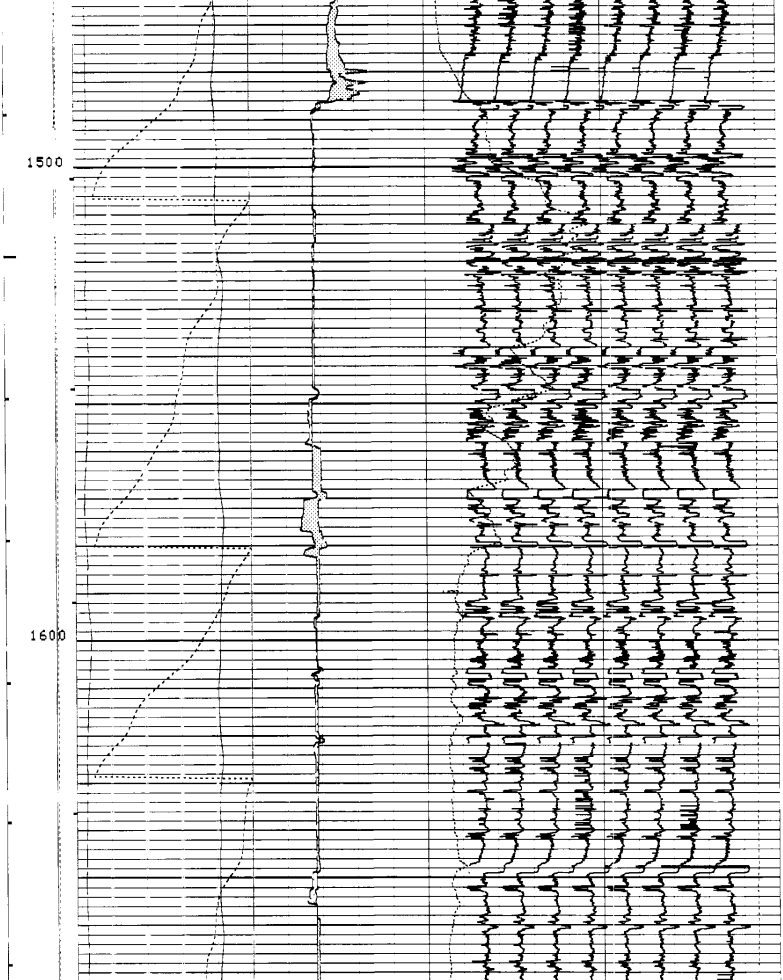
C2A -- C1A

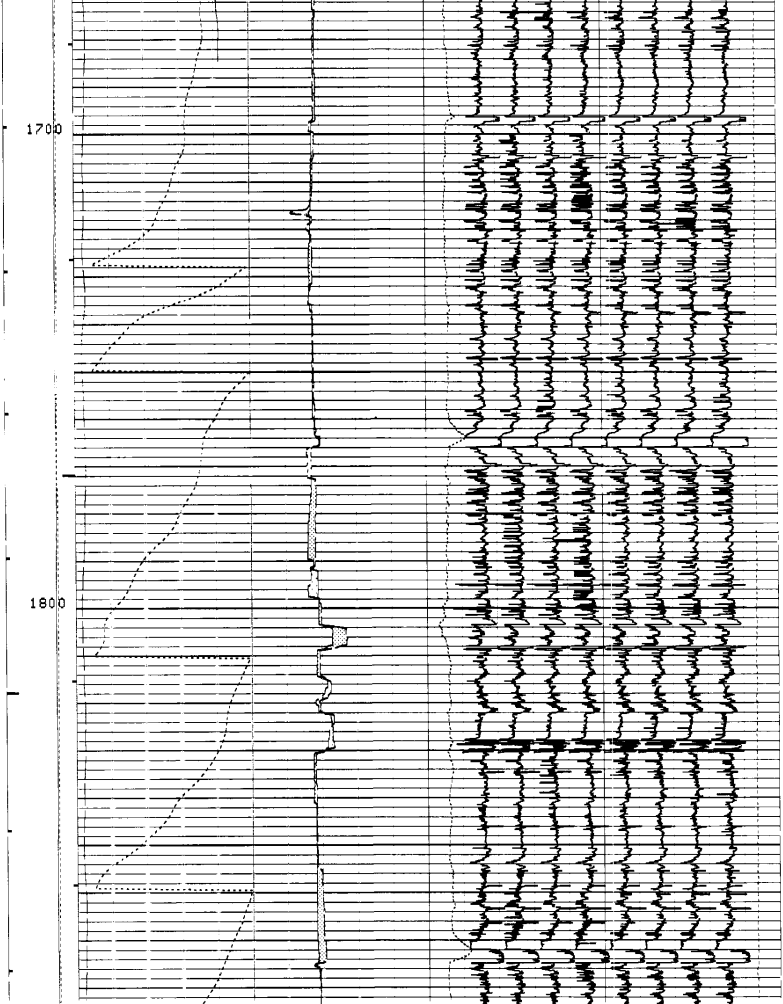
C1A -- C2A

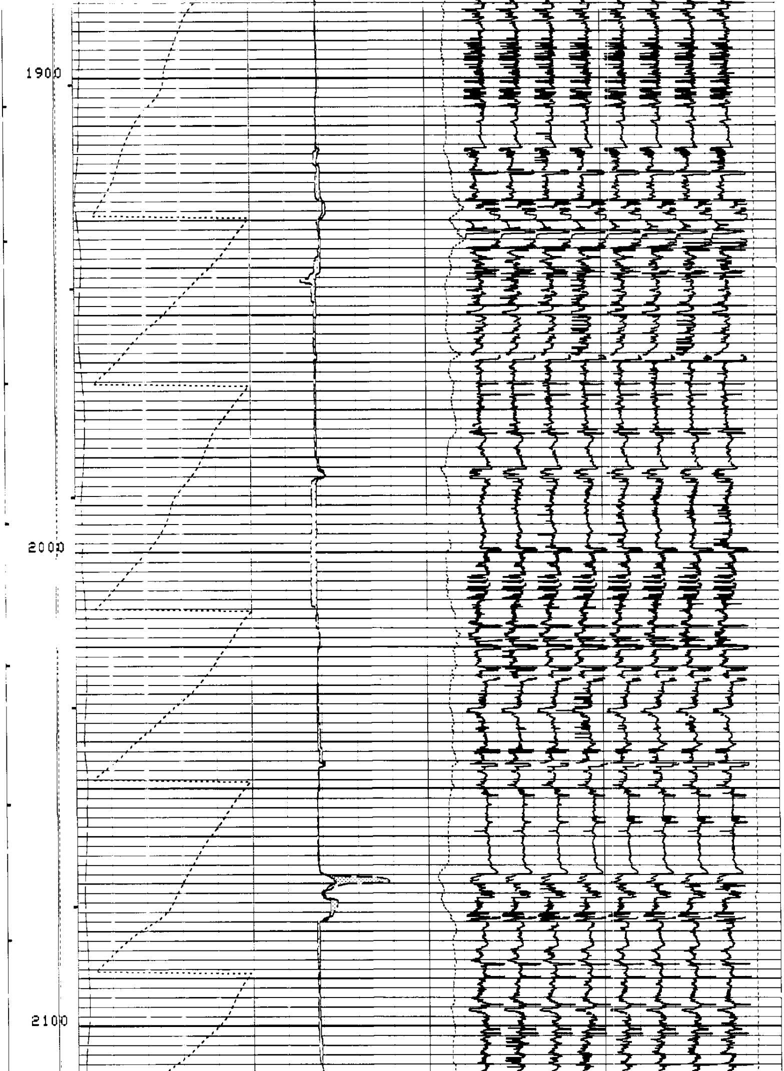
CP 38.2 FILE 19 09-JUN-1993 20:02 (UP)

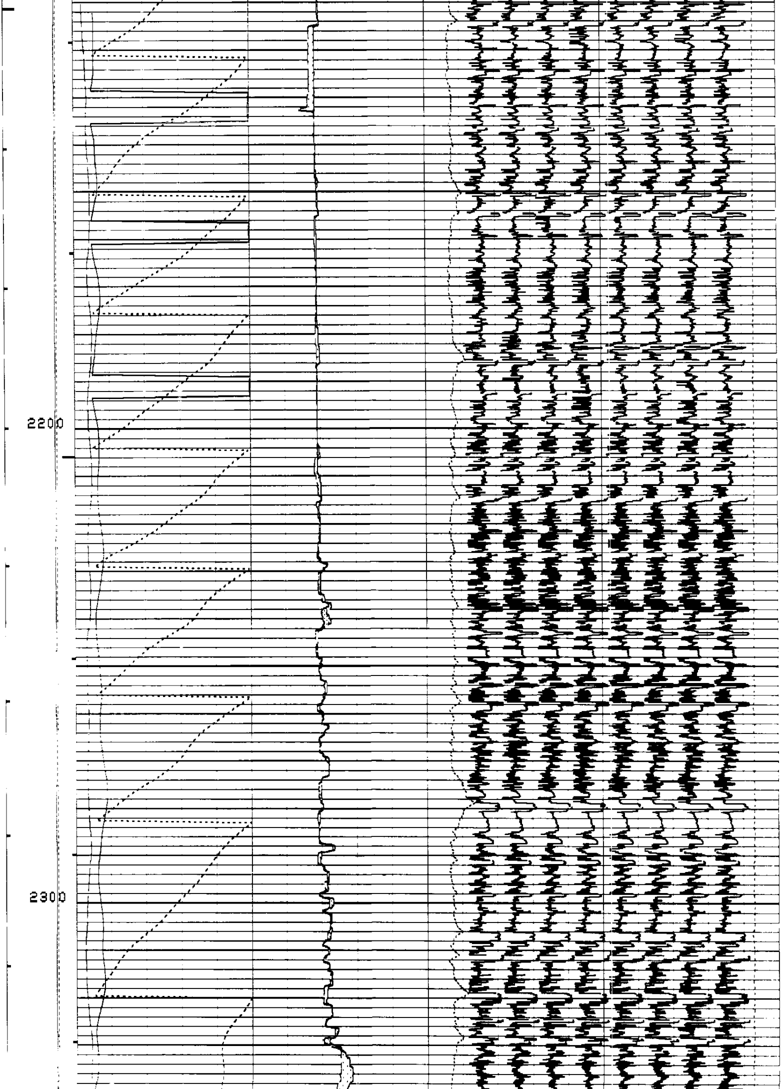


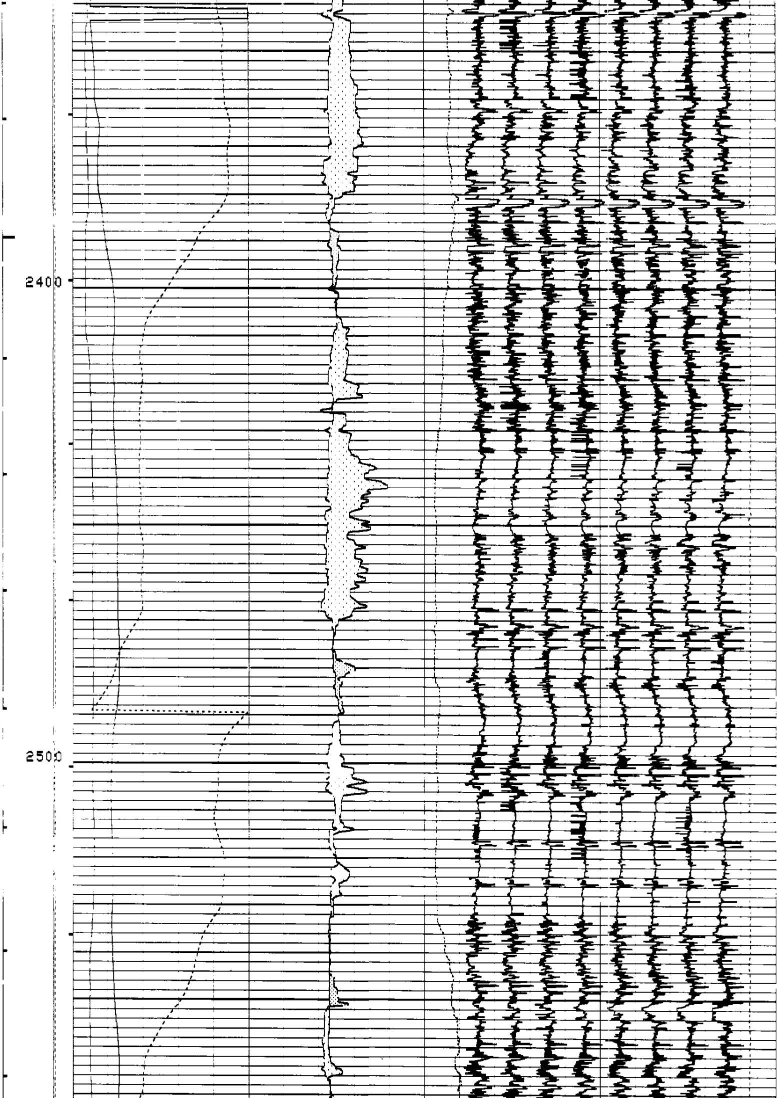


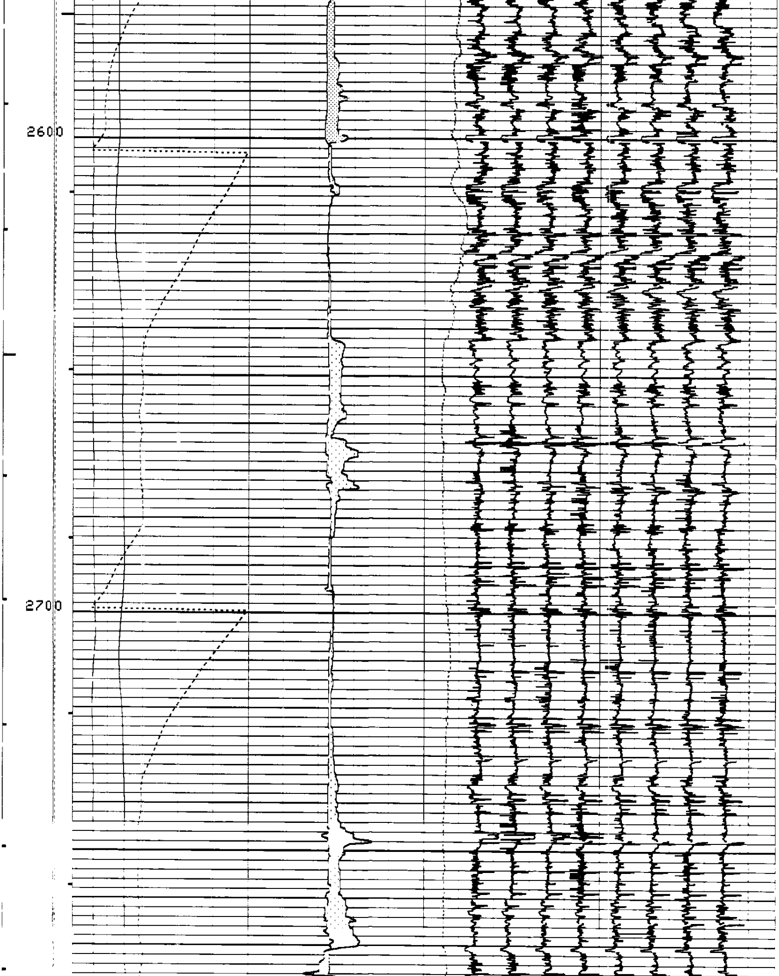


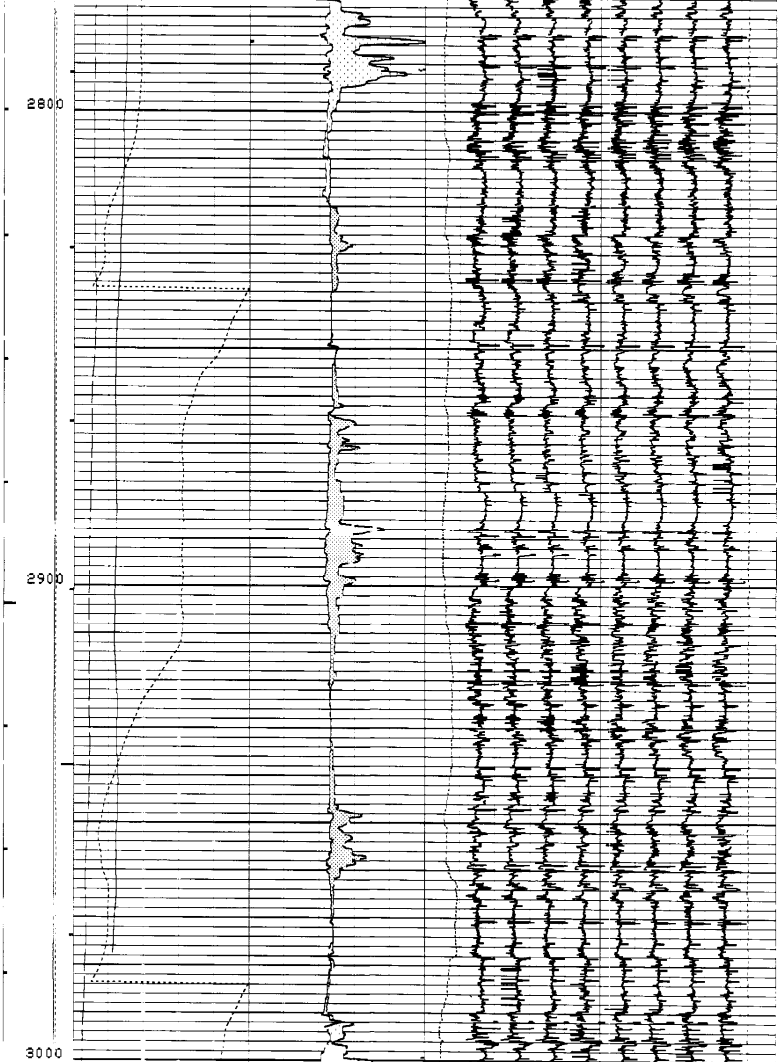


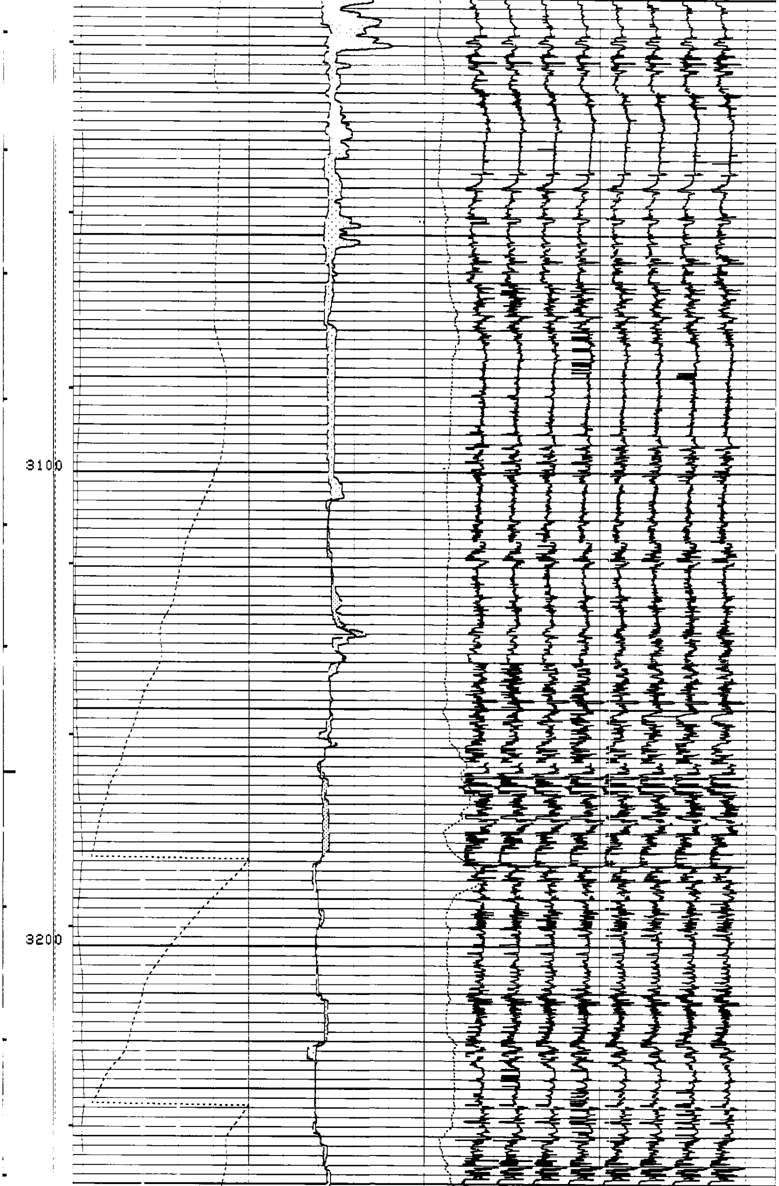


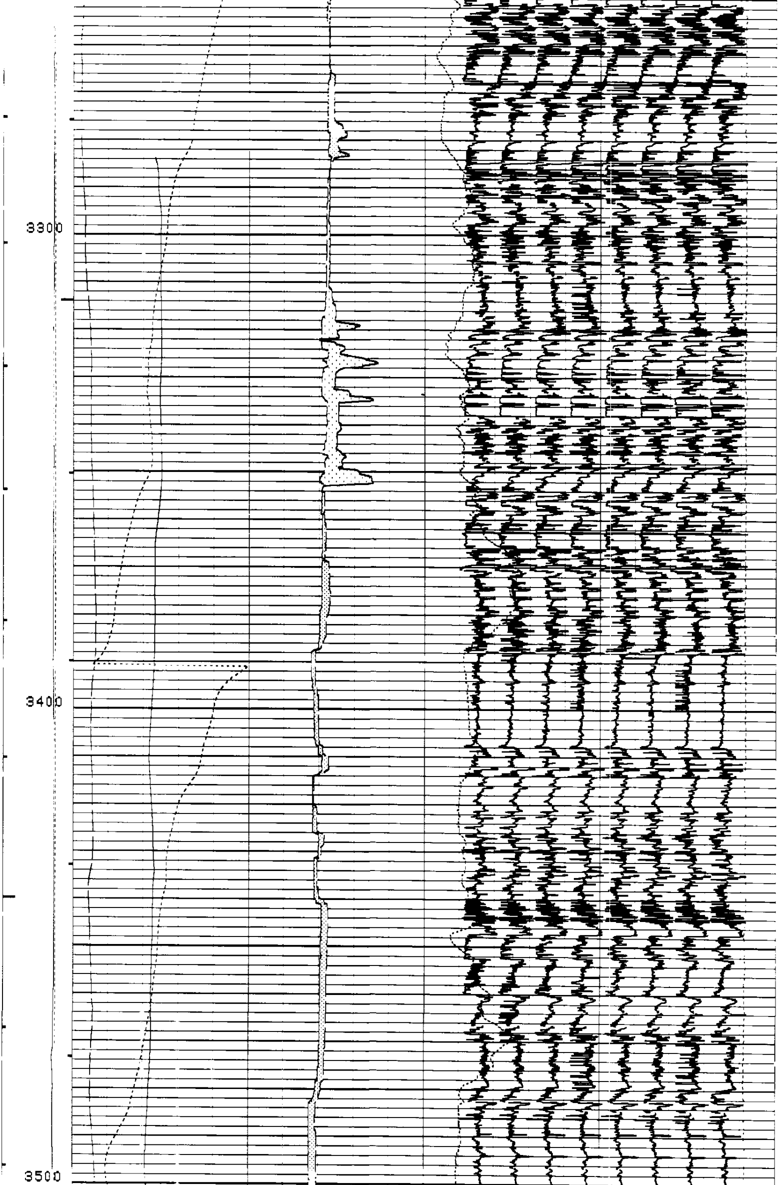


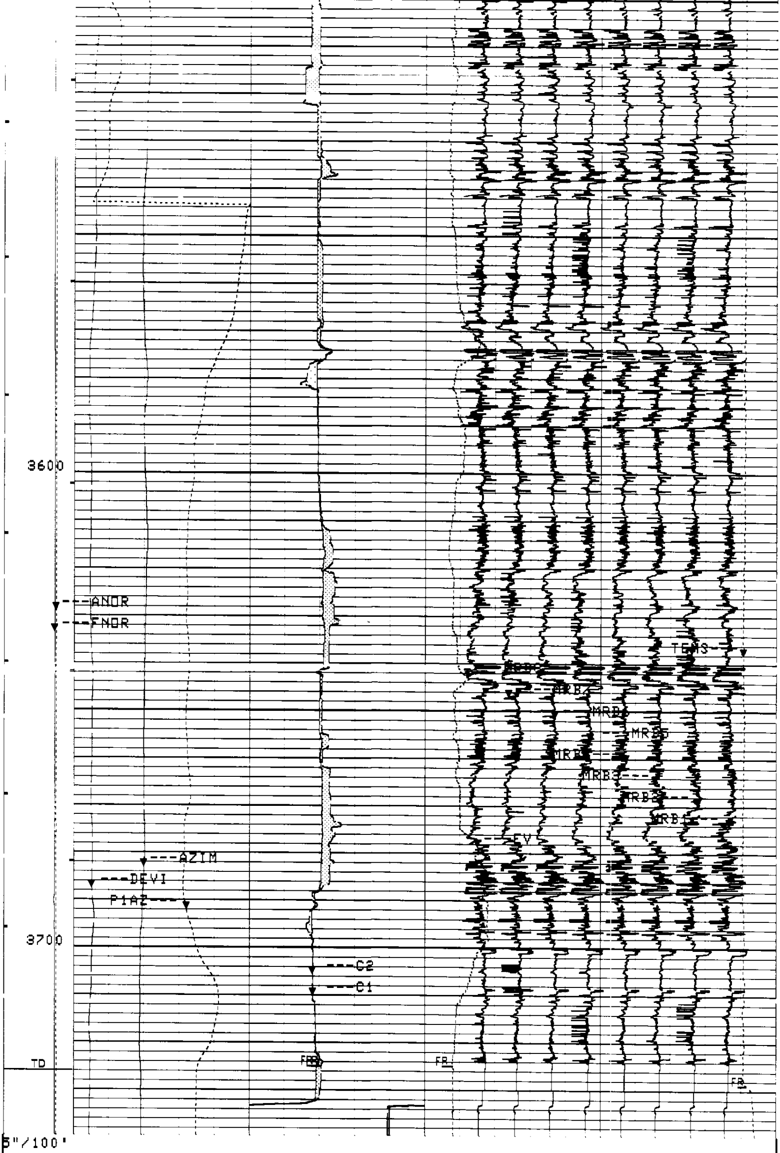












CP 38.2 FILE 19 09-JUN-1993 18:30 (UP)

C2A -- C1A

C1A -- C2A

ANCR(M/S2)
9.0000 11.000
FNOR(OER)
.20000 .70000

EV(V)
0.0 5.0000
TENS(LBF)
10000. 0.0

MRB8
-1000. 19000
MRB7
-3000. 17000
MRB6
-5000. 15000
MRB5
-7000. 13000
MRB4
-9000. 11000
MRB3
-11000 9000.0
MRB2
-13000 7000.0
MRB1
-15000 5000.0

AZIM(DEG)
-40.00 360.00
DEVI(DEG)
0.0 10.000
P1AZ(DEG)
-40.00 360.00

AZ(M/S2)
0.0 10.000
C2(IN)
6.0000 11.000
C1(IN)
6.0000 11.000

SENSOR MEASURE POINT TO TOOL ZERO

MESTC 1.1 FEET
GPIT 1.1 FEET

DTT -2.9 FEET

PARAMETERS

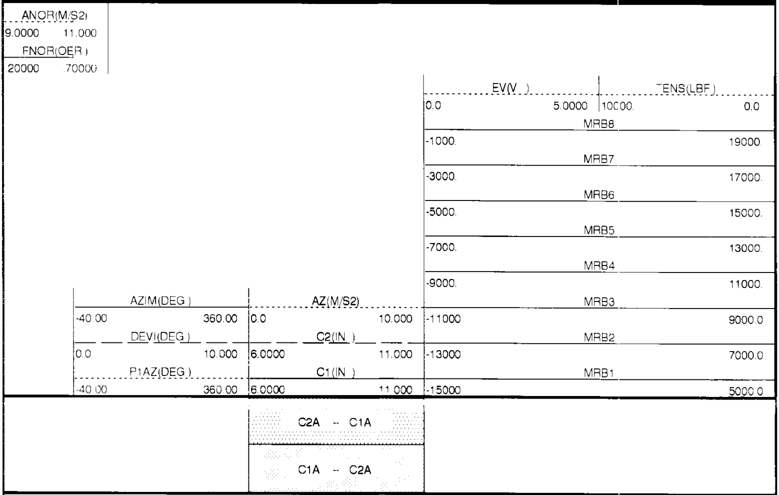
PARAMETER	VALUE	UNIT
PADT - Presentation Allow Disallow Threshold	.500000	DEG
FCSR - Fast Channel Sample Rate	0.1"	
AFMO - Accelerometer Filtering Mode	HAMM	
ICMO - Inclinometry Computation Mode	AUTO	
MDEC - Magnetic Field Declination	19.0000	DEG
GLM - GPIT Logging Mode	DIPM	
ICSD - Inclinometry Computation Stop Depth	-50000.0	F
RBS - Resistivity Button Selection	AUTO	
PTYP - Platform Type	MEC	
MLM - MEST Logging Mode	1800	
SOFF - Stand Off	-1.00000	IN
CSR - Curves Sampling Rate	.6"	
ODFO - Output Data Format	RAW	
XMOD - EMEX Voltage Regulation Mode	AUTO	
XGAI - Gain Setting	2	
XOFF - Offset Setting	0	
FCD - Future Casing Diameter	4.50000	IN
SPCR - Speed Correction Constant	DISA	
BS - Bit Size	7.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	
CSIZ - Casing Size	4.50000	IN

REPEAT SECTION

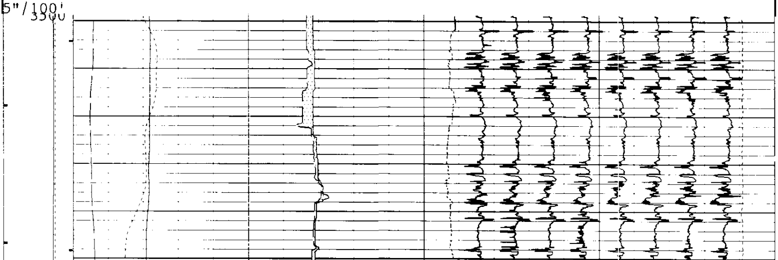
```
SPEED CORRECTION NOT APPLIED
```

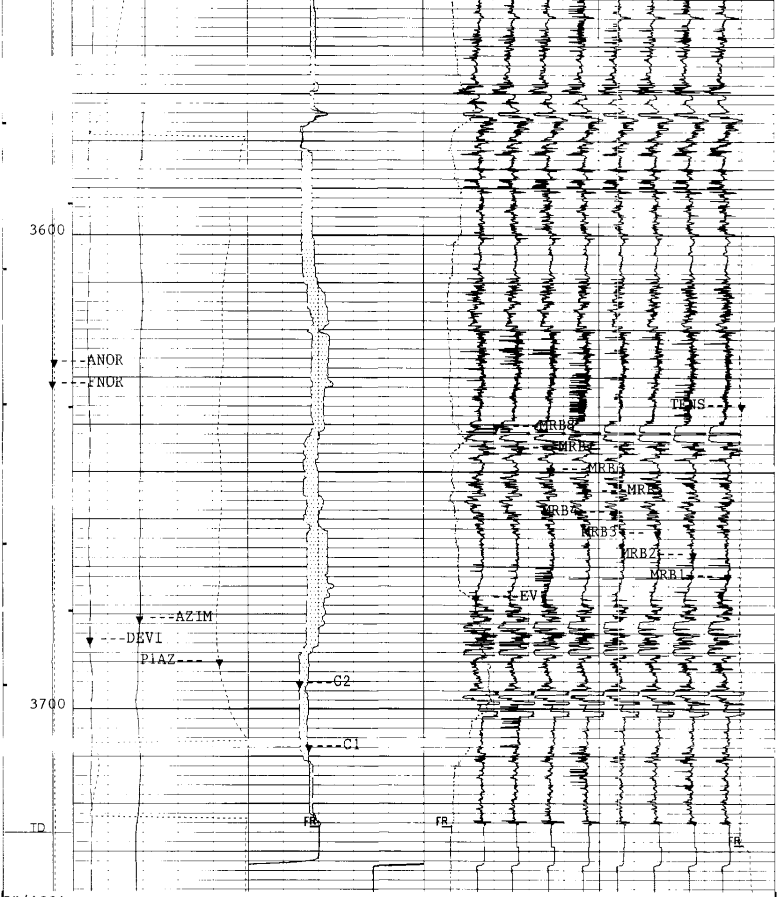
```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:    76.5092 F3     FROM 3726.00 F     TO 3493.50 F
Integrated Cement Volume: 51.3826 F3     FROM 3726.00 F     TO 3493.50 F
  (ASSUMING 4.50000 IN    O.D. CASING)
```

```
EVENT MARK SUMMARY:

OUTPUT                              INTERVAL        DEPTH TRACK
                                    BETWEEN PIPS    EDGE

Integrated Hole Volume              10.0000 F3      LEFT EDGE
Integrated Cement Volume            10.0000 F3      RIGHT EDGE
```



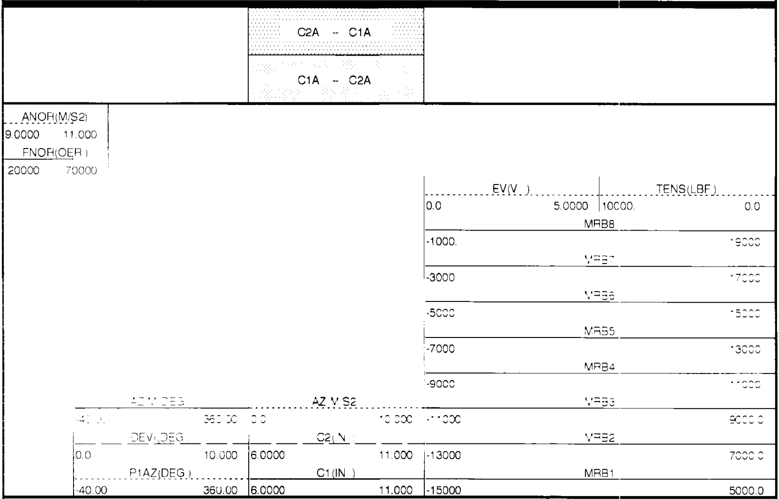
```
CP 38.2          FILE    18       09-JUN-1993 18:28     (UP)
```





5"/100'

CP 38.2 FILE 18 09-JUN-1993 18:19 (UP)



SENSOR MEASURE POINT TO TOOL ZERO

MESTC 1.1 FEET
GPIT 1.1 FEET
DTT -2.9 FEET

PARAMETERS

PARAMETER	VALUE	UNIT
PADT - Presentation Allow Disallow Threshold	.500000	DEG
FCSR - Fast Channel Sample Rate	0.1"	
AFMO - Accelerometer Filtering Mode	HAMM	
ICMO - Inclinometry Computation Mode	AUTO	
MDEC - Magnetic Field Declination	19.0000	DEG
GLM - GPIT Logging Mode	DIPM	
ICSD - Inclinometry Computation Stop Depth	-50000.0	F
RBS - Resistivity Button Selection	AUTO	
PTYP - Platform Type	MEC	
MLM - MEST Logging Mode	1800	
SOFF - Stand Off	-1.00000	IN
CSR - Curves Sampling Rate	.6"	
ODFO - Output Data Format	RAW	
XMOD - EMEX Voltage Regulation Mode	AUTO	
XGAI - Gain Setting	2	
XOFF - Offset Setting	0	
FCD - Future Casing Diameter	4.50000	IN
SPCR - Speed Correction Constant	DISA	
BS - Bit Size	7.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	
CSIZ - Casing Size	4.50000	IN

CALIBRATION SUMMARY

```
              BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:    09-JUN-1993 17:46
   PROGRAM FILE: TDIP   (VERSION    38.2    92/10/12  92/10/12)


 MEST            CALIPER CALIBRATION SUMMARY

            MEASURED                        CALIBRATED
          SMALL    LARGE                  SMALL      LARGE        UNITS
     C1   8.58    12.59                   8.00       12.00         IN
     C2   8.24    12.31                   8.00       12.00         IN

 SMALL: 09-JUN-1993 17:43 LARGE: 09-JUN-1993 17:45 COMP: 09-JUN-1993 17:45


 GPIC            CALIBRATION SUMMARY

  MAGNETOMETER MANUFACTURER CODE:               3
  MAGNETOMETER SERIAL NUMBER:                  87
  MAGNETOMETER REFERENCE TEMPERATURE :         20.0  DEGC


 GPIC            CALIBRATION SUMMARY

  ACCELEROMETER MANUFACTURER CODE:              3
  ACCELEROMETER SERIAL NUMBER:                336
  ACCELEROMETER REFERENCE TEMPERATURE :         20.0  DEGC

    CP 38.2          FILE   17       09-JUN-1993 17:46
```

COMPANY	Nahama & Weagant Energy Co.			SCHL.	FR	3724.0 F
				SCHL.	TD	3726.0 F
WELL	"Buzzard" #12-35-65			DRLR.	TD	3727.0 F
				Elev:	KB	810.0 F
FIELD	MIST				DF	809.0 F
COUNTY	COLUMBIA	**STATE**	OREGON		GL	800.0 F

Schlumberger

FORMATION MICROSCANNER