5 INCH

Schlumberger

DUAL INDUCTION-SFL-SONIC

COMPANY NAHAMA AND WEAGANT ENERGY CO.

WELL "SOCKEYE" C.C. #31-15-65

FIELD MIST

COUNTY COLUMBIA **STATE** OREGON

LOCATION 832.6'S AND 1756.2'W
FROM NE CORNER

Other Services:
DIL BHC GR
SHDT

API SERIAL NO	SECT.	TWP.	RANGE
36-009-00294	15	6N	5W

ent Datum GL Elev 723.2 F
asured From KB 11.0 F above Perm. Datum
; Measured From KB

Elev.: K.B 734.2 F
D.F
G.L 723.2 F

	3 NOV 199		
	ONE		
Driller	2795.0 F		
ogger (Schl.)	2795.0 F		
og Interval	2789.0 F		
og Interval	502.0 F		
Driller	8 5/8"	@ 501.0 F	@
Logger	502.0 F		
	7 7/8"	@ 2795.0 F	@
uid in Hole	GEL DRISPAC		
Visc.	9.80 LB/G	43.0 S	
Fld. Loss	8.0	5.6 C3	
of Sample	FLOWLINE		
Meas. Temp.	3.100 OHMM	@ 64.0 DEGF	@
Meas. Temp.	3.740 OHMM	@ 62.0 DEGF	@
Meas. Temp.	3.000 OHMM	@ 62.0 DEGF	@
Rmf | Rmc	MEASURED	MEASURED	
BHT	2.096 OHMM	@ 98.0 DEGF	@
culation Ended	10:30 11-3		
ger on Bottom	13:01 11-3		
ec. Temp.	98.0 DEGF		
Location	8504	SACRAMENTO	
ded By	SCOTT PILCH		
sed By	LUCAS / PINOTTI		

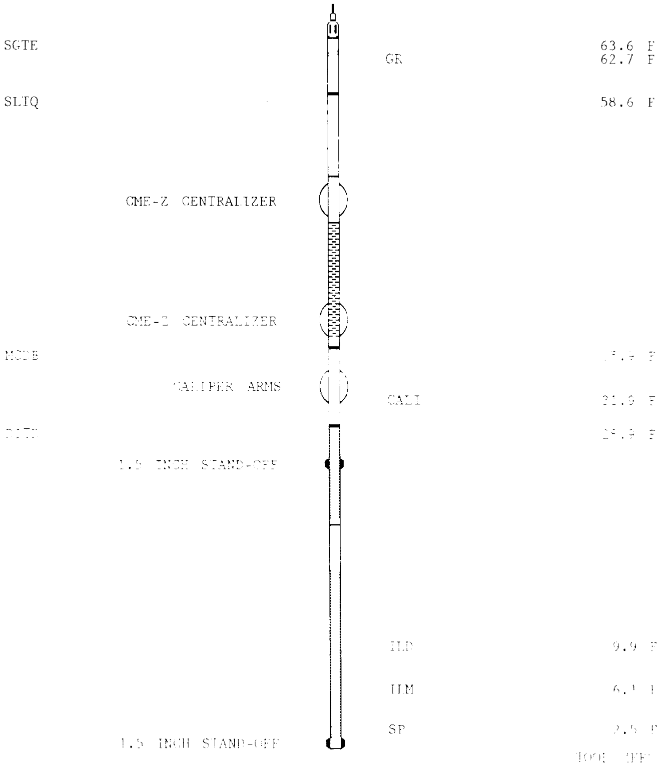
The well name, location and borehole reference data were furnished by the customer.

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 wilful 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.	624501			
Drilling Fluid Level	5.0 F			
Salinity	700.0 PPM			
Rmf @ BHT	2.458 OHMM	@ 98.0 DEGF		@
Rmc @ BHT	1.971 OHMM	@ 98.0 DEGF		@
Logging Speed	3600.0 F/HR			
EQUIPMENT DATA				
Tool Number 1	DIS-EC 298			
Tool Number 2	DIC-DA 1078			
Tool Number 3	MCD-DA 1237			
Tool Number 4	SLS-WA 1464			
Tool Number 5	SLC-VA 95			
Tool Number 6	SGC-JC 4148			
Tool Number 7	EM-BD 304			
Tool Number 8	SLM-DA 428			
Tool Number 9	NLM-BC 418			
Tool Number 10				
Tool Number 11				
Tool Number 12				

REMARKS:

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 66.6 F.

TOTAL TOOL STRING WEIGHT IS [illegible] IN AIR

MAIN LOG

ACCUMULATED INTEGRATION VALUES SUMMARY:

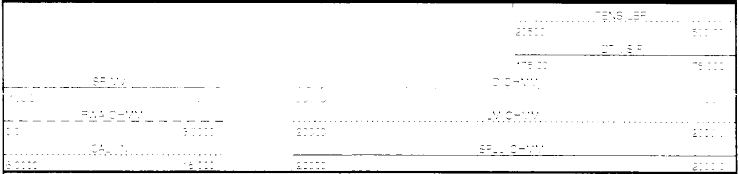
```
Integrated Hole Volume:    759.447 F3     FROM 2795.00 F     TO 502.000 F
Integrated Cement Volume: 506.191 F3     FROM 2795.00 F     TO 502.000 F
  (ASSUMING 4.50000 IN    O.D. CASING)
Integrated Transit Time:   .287999 S      FROM 2795.00 F     TO 502.000 F
```

EVENT MARK SUMMARY:

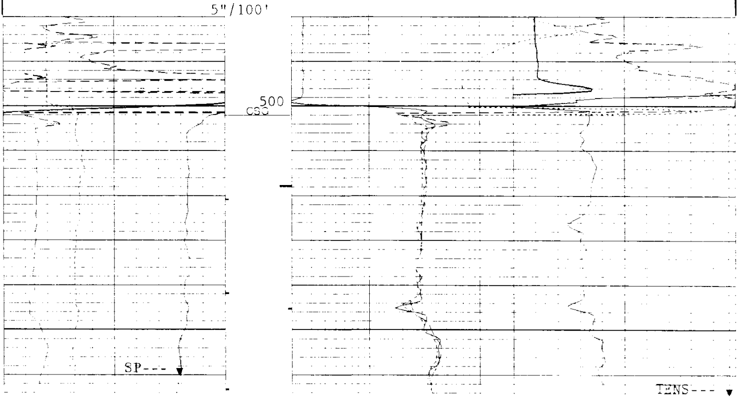
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
Integrated Hole Volume	10.0000 F3	LEFT EDGE
Integrated Cement Volume	10.0000 F3	RIGHT EDGE

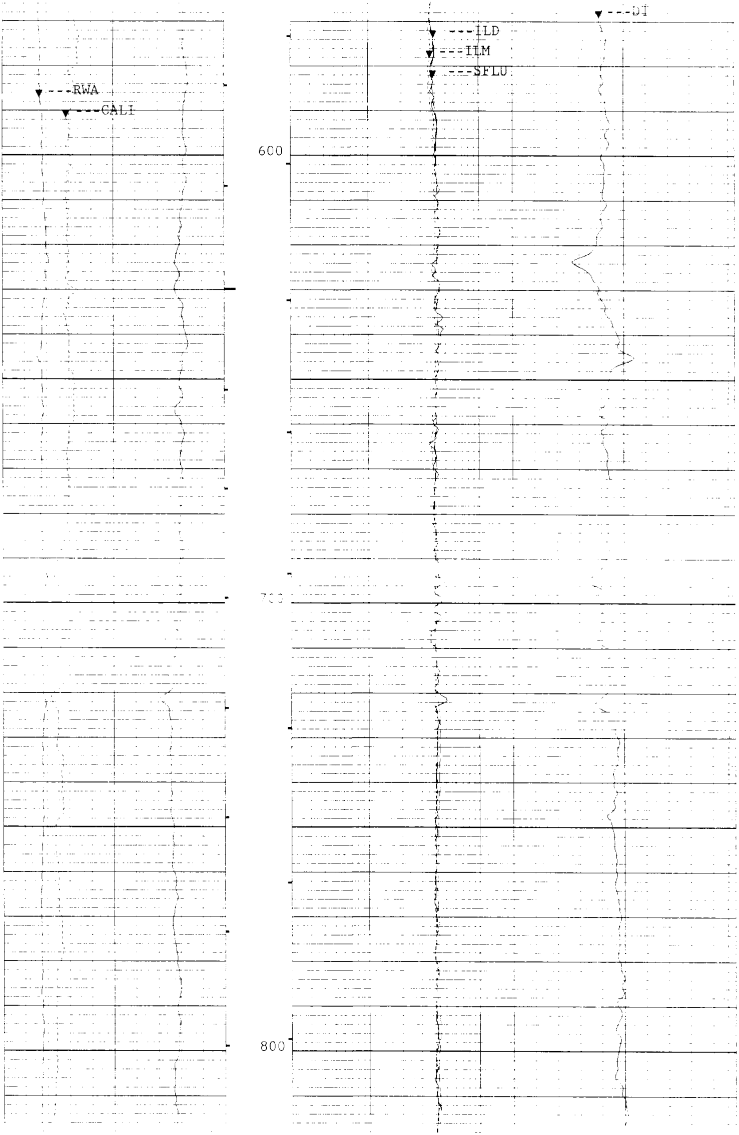
CHANGED PARAMETERS

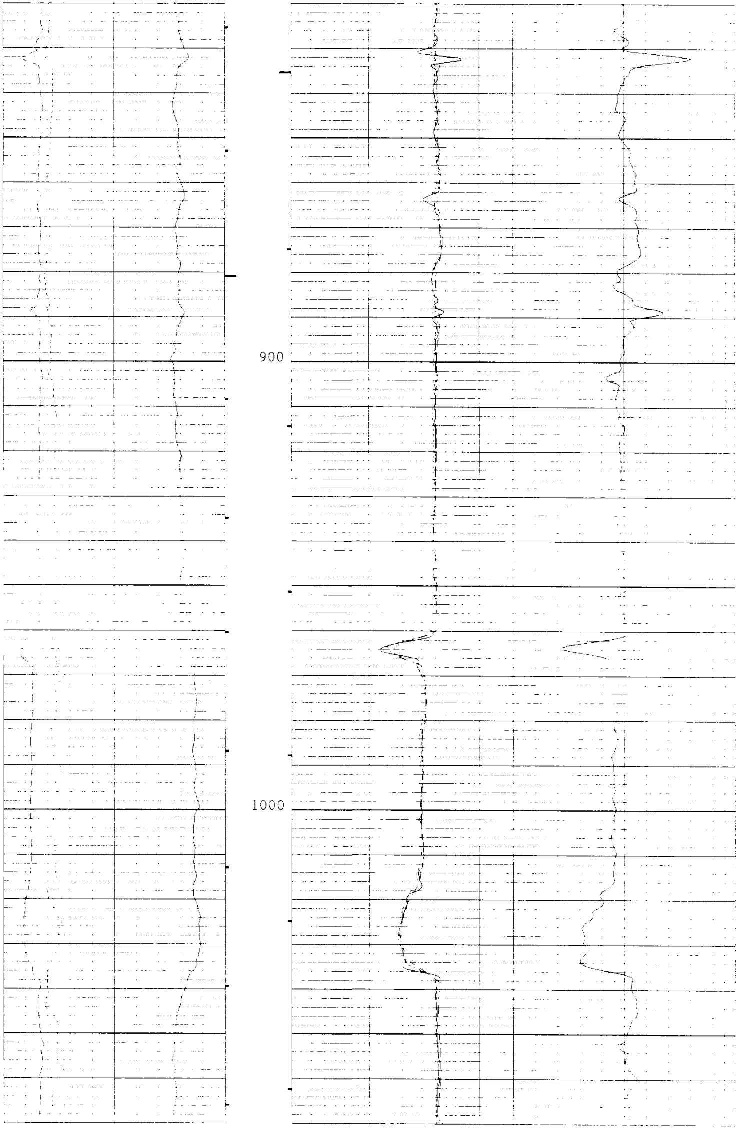
NAME	VALUE	UNIT	DEPTH (F)	NAME	VALUE	UNIT	DEPTH (F)
DG	/1		486.0				

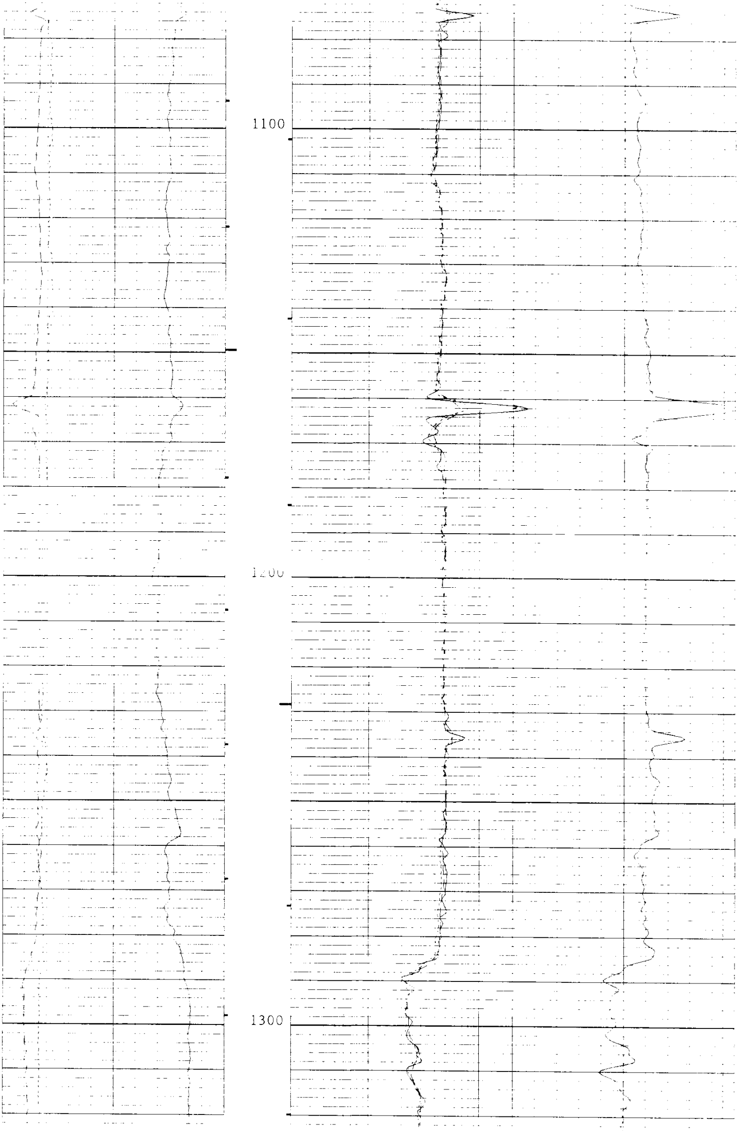


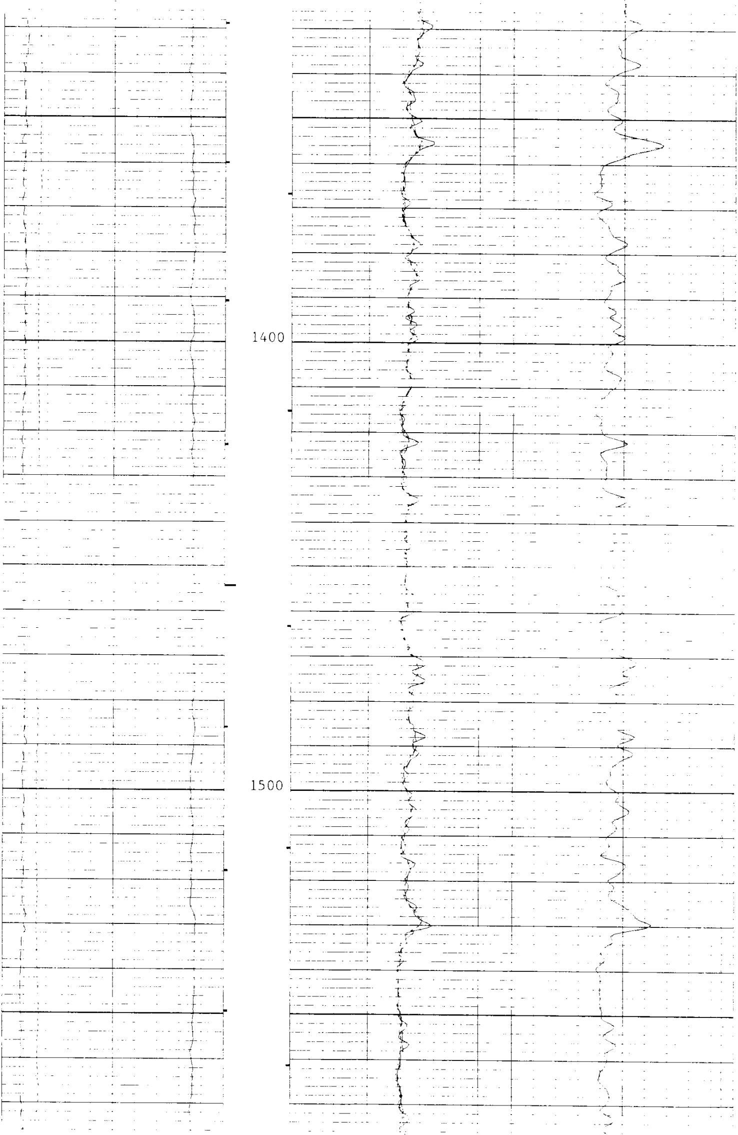
CP 32.6   FILE   18   03-NOV-1992 13:40   (UP)

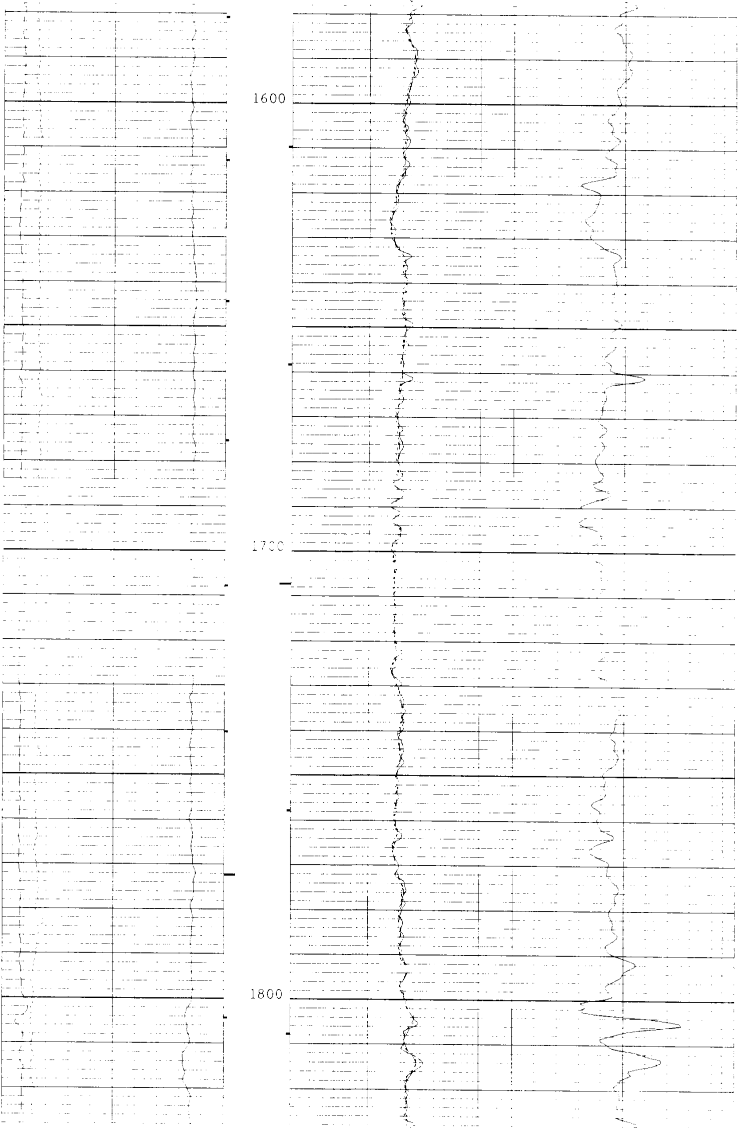


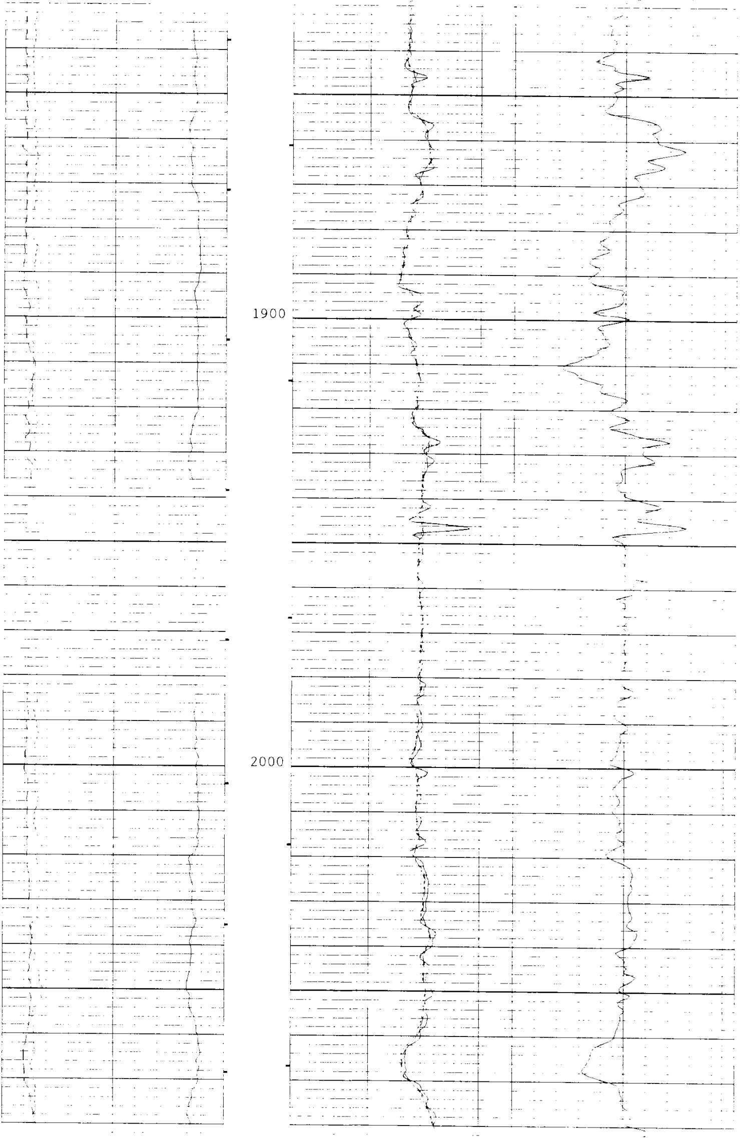


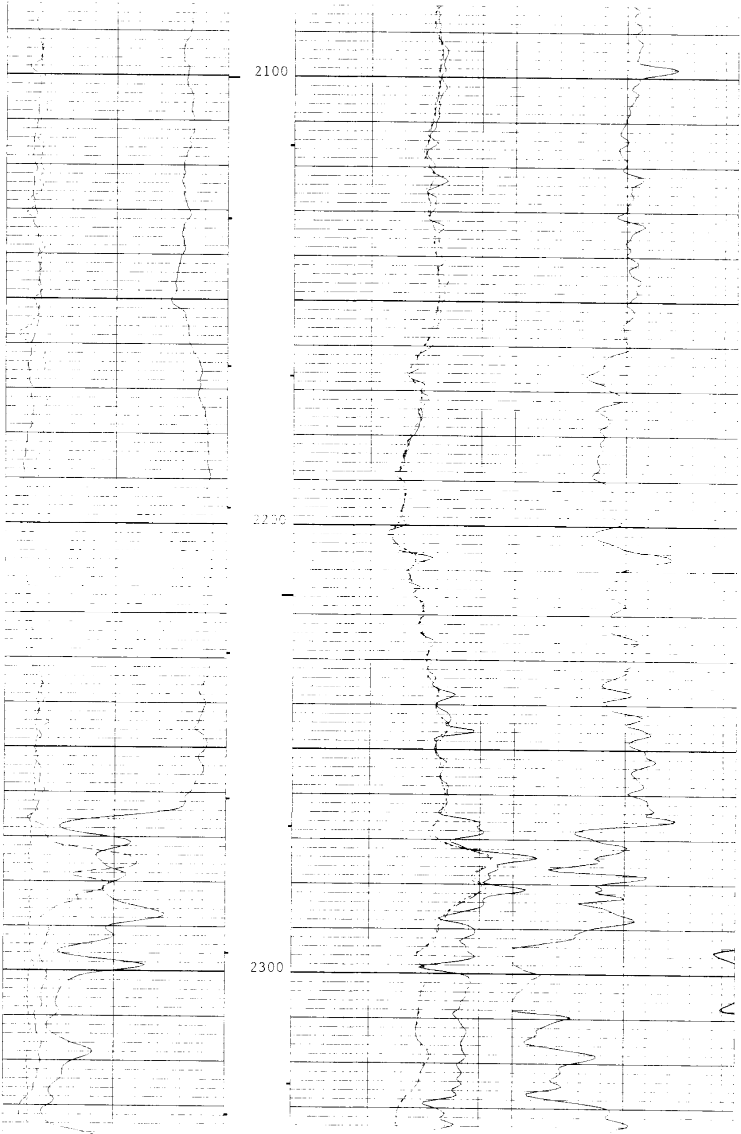


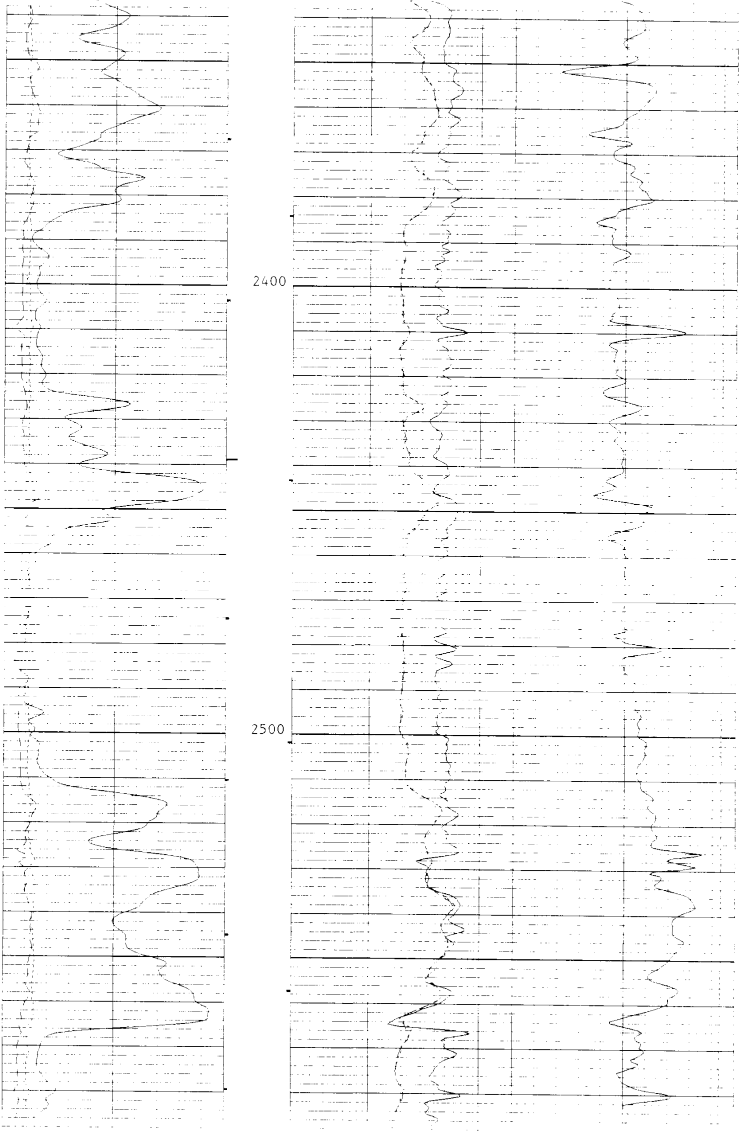


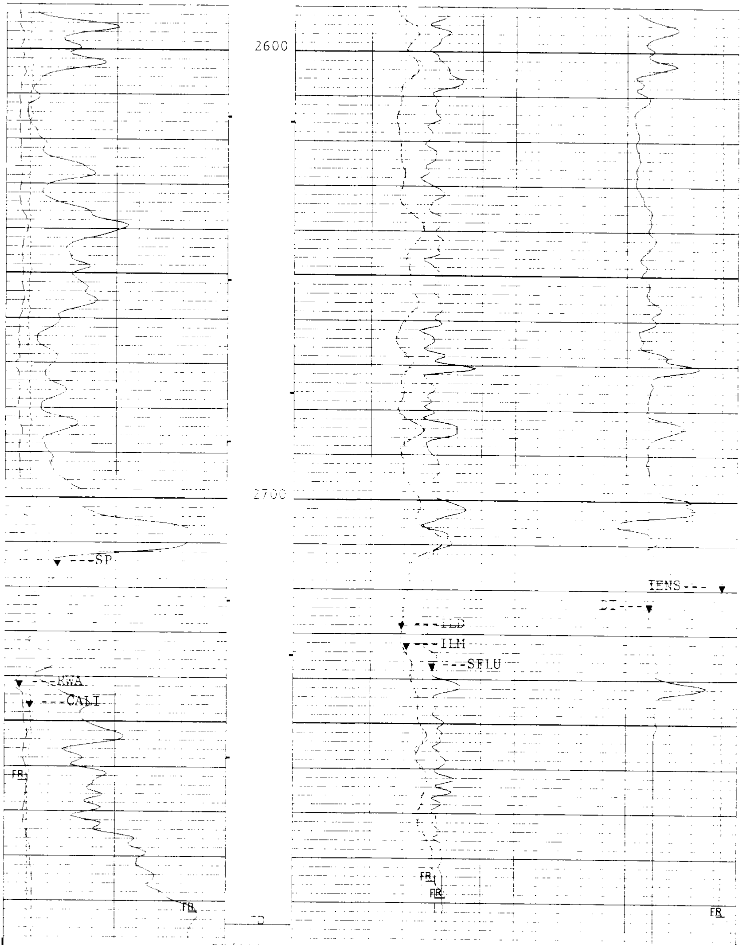












5"/100'

CP 32.6 FILE 18 03-NOV-1992 13:01 (UP)

TENS(LBF)	
20500	500.00

SP(MV)	-100.0	0.0
[illegible]	0.0	3.0000
CALI(IN)	6.0000	16.000
DT(US/F)	175.00	75.000
ILD(OHMM)	20000	2000.0
ILM(OHMM)	20000	2000.0
SFLU(OHMM)	20000	2000.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.7	FEET	AMPL	44.1	FEET
CBFS	43.1	FEET	CBL	44.1	FEET
TT2	44.1	FEET	TT1	43.1	FEET
TT4	39.3	FEET	TT3	40.3	FEET
TT	44.1	FEET	TO	44.1	FEET
CBSL	44.1	FEET	TTSL	44.1	FEET
CALI	31.9	FEET	GR	62.7	FEET
ILM	6.1	FEET	ILD	9.9	FEET
SP	2.5	FEET	SFL	6.8	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

PARAMETER	VALUE	UNIT
SMB - Sonic Memory Board	DISA	
TOCA - TO Correction Status	DISA	
RATE - Firing Rate	15	HZ
DG - Downhole Gain	/5	
DETE - Detection	E2	
AMPL - Sonic Amplitude	2	
CBL - Cement Bond Log Amplitude	UT	
WFM - Waveform Mode	1	
SS - Sweep Speed	FAST	
TOD - TO Delay	DISA	
DTF - Delta-T Fluid	189.000	US/F
DTM - Delta-T Matrix	56.0000	US/F
CDTS - Correction for Delta-T Shale, Empirical	100.000	
SPFS - Sonic Porosity Formula Select	R-H	
WMUD - Weight of Mud	9.80000	LB/G
MSEC - Medium Sonde Error Correction	5.90000	MM/M
SBR - Shoulder Bed Resistivity	1.00000	OHMM
DSEC - Deep Sonde Error Correction	6.60000	MM/M
FCD - Future Casing Diameter	4.50000	IN
NCJT - NGT Calibration Jig Type	GSRY	
FPHI - Formation Factor Formula Porosity	SPHI	
DWCO - Digitizer Word Count	512	
DSIN - Digitizer Sample Interval	5	US
DDEL - Digitizing Delay	200	US
BS - Bit Size	7.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	

REPEAT SECTION

TENS(LBF)	20500	500.00

DT(US/F)
175.00 75.000

SP(MV)
-120.0 -20.00

ILD(OHMM)
20000 2000.0

RWA(OHMM)
0.0 3.0000

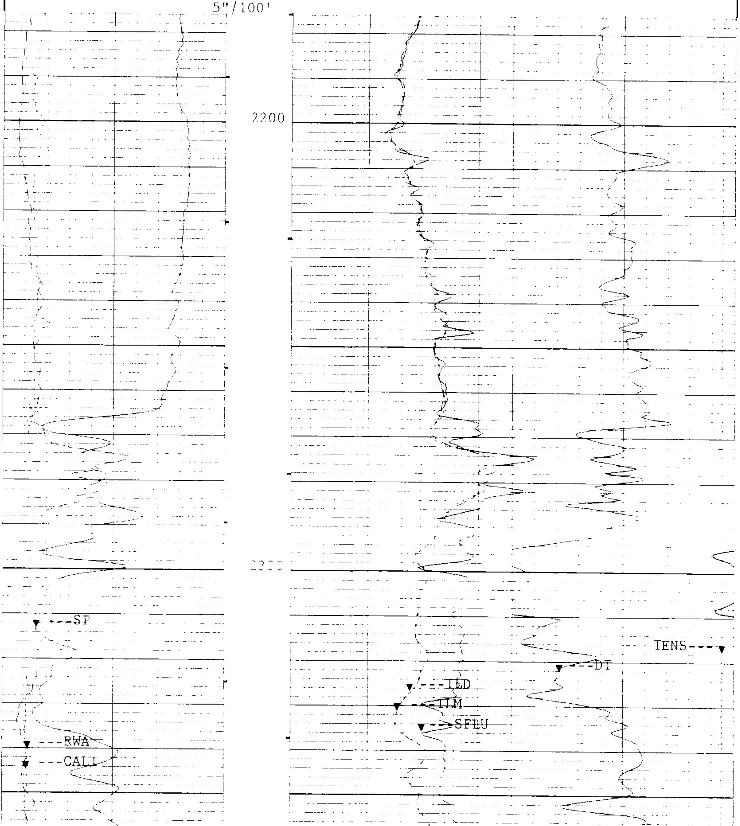
ILM(OHMM)
.20000 2000.0

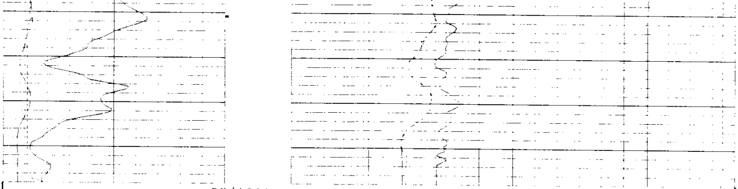
CALI(IN)
6.0000 16.000

SFLU(OHMM)
20000 2000.0

CP 32.6 FILE 17 03-NOV-1992 12:54

INPUT FILE(S) CREATION DATE
15 03-NOV-1992 12:45





5"/100'

CP 32.6 FILE 17 03-NOV-1992 12:53

INPUT FILE(S) CREATION DATE
15 03-NOV-1992 12:45

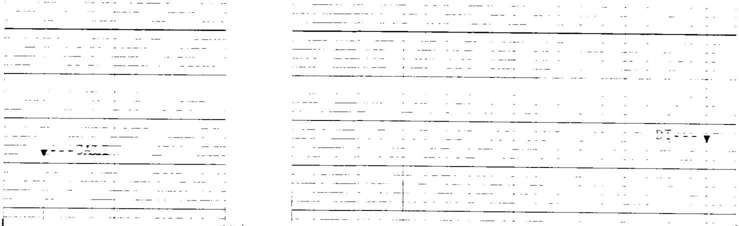
TENS(LBF)
20500 500.00
DT(US/F)
175.00 75.000
SP(MV)
-120.0 -20.00
RWA(OHMM)
0.0 3.0000
CALI(IN)
6.0000 16.000
ILD(OHMM)
20000 2000.0
ILM(OHMM)
20000 2000.0
SFLU(OHMM)
20000 2000.0

SONIC / CALIPER CHECK IN CASING

CALI(IN)
6.0000 16.000
DT(US/F)
150.00 50.000

CP 32.6 FILE 12 03-NOV-1992 12:37 (UP)

3"/MIN
*** LIS DATA NOT RECORDED ***



3"/MIN
*** LIS DATA NOT RECORDED ***

CP 32.6 FILE 12 03-NOV-1992 12:36 (UP)

CAL (IN)
6.0000 16.000
DT(US/F)
150.00 50.000

CALIBRATION SUMMARY

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              BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:     03-NOV-1992 12:43
   PROGRAM FILE:  ISN     (VERSION     32.6     92/10/22  91/08/23)


 DITD              ELECTRONICS CALIBRATION SUMMARY

            MEASURED                            CALIBRATED
          ZERO     PLUS                    ZERO        PLUS          UNITS
   ILD     .64     549.6                   0.0         497.0          MM/M
   ILM     .67     532.8                   0.0         503.2          MM/M
   SFL    1.40     536.1                   0.0         500.0          MM/M

 ILD SONDE ERROR CORRECTION :           6.6 MM/M
 ILM SONDE ERROR CORRECTION :           5.9 MM/M

 ZERO: 03-NOV-1992 12:42   PLUS: 03-NOV-1992 12:42   COMP: 03-NOV-1992 12:42


 SGTE              DETECTOR CALIBRATION SUMMARY

            MEASURED
          BKGD     JIG          CALIBRATED           UNITS
    GR     69      211             165               GAPI

 BACK: 03-NOV-1992 10:43   JIG: 03-NOV-1992 10:45   COMP: 03-NOV-1992 10:45


 MCDB              CALIPER CALIBRATION SUMMARY

            MEASURED                           CALIBRATED
          SMALL    LARGE                  SMALL       LARGE         UNITS
   CALI   6.71     10.12                  8.00        12.00          IN

 SMALL: 03-NOV-1992 10:39 LARGE: 03-NOV-1992 10:40 COMP: 03-NOV-1992 10:40

   CP 32.6            FILE    13       03-NOV-1992 12:43


              AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:     03-NOV-1992 13:44
   PROGRAM FILE:  ISN     (VERSION     32.6     92/10/22  91/08/23)


 DITD                      TOOL  CHECK

                    ZERO                           PLUS
          BEFORE          AFTER          BEFORE        AFTER       UNITS
   ILD     0.0              .1           497.0         493.5       MM/M
   ILM     0.0             -.0           503.2         500.0       MM/M
   SFL     0.0              .0           500.0         496.6       MM/M

 ILD SONDE ERROR CORRECTION :           6.6 MM/M
 ILM SONDE ERROR CORRECTION :           5.9 MM/M

 BEFORE SURVEY:             ZERO: 03-NOV-1992 12:42   PLUS: 03-NOV-1992 12:42
 AFTER SURVEY CHECK:        ZERO: 03-NOV-1992 13:43   PLUS: 03-NOV-1992 13:43
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     CP 32.6            FILE   20       03-NOV-1992 13:44


                    SHOP SUMMARY


   PERFORMED:       09-OCT-1992 10:04
   PROGRAM FILE: SHOP    (VERSION    32.6    91/08/23  91/08/23)


 DITD               ELECTRONICS CALIBRATION SUMMARY

                   TEST LOOP CALIBRATION            TOOL CHECK
                MEASURED          CALIBRATED        CALIBRATED
              ZERO     PLUS     ZERO      PLUS    ZERO      PLUS    UNITS
     ILD      -5.8     544.8     0.0      500.0    0.0      497.0   MM/M
     ILM      -4.7     521.9     0.0      500.0    0.0      503.2   MM/M
 ILD   SONDE ERROR CORRECTION :           6.6 MM/M
 ILM   SONDE ERROR CORRECTION :           5.9 MM/M

                        (IS:298 , IC:1078)

     CP 32.6            FILE    1       09-OCT-1992 10:04
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COMPANY	NAHAMA AND WEAGANT ENERGY CO.		
WELL	SOCKEYE" C.C. #31-15-65		
FIELD	MIST		
COUNTY	COLUMBIA	**STATE**	OREGON

SCHL.	FR	2789.0 F
SCHL.	TD	2795.0 F
DRLR.	TD	2795.0 F
Elev:	KB	734.2 F
	DF	
	GL	723.2 F

Schlumberger

DUAL INDUCTION-SFL-SONIC