Schlumberger

DUAL INDUCTION-SFL
WITH LINEAR CORRELATION LOG

COUNTY COLUMBIA
FIELD MIST NEHALEM BASIN
LOCATION 3-6N-5W
WELL COLUMBIA COUNTY NO. 33-3
COMPANY REICHHOLD ENERGY

COMPANY REICHHOLD ENERGY CORPORATION

WELL COLUMBIA COUNTY NO. 33-3

FIELD MIST-NEHALEM BASIN

COUNTY COLUMBIA **STATE** OREGON

LOCATION 1669'NORTH & 380'EAST OF THE SOUTH ¼ CORNER OF:

API SERIAL NO	SEC.	TWP	RANGE
	3	6N	5W

Other Services:
BHC
HDT

Permanent Datum: GL ; Elev.: 1028.8
Log Measured From KB 10.5 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 1039.3
D.F. --
G.L. 1028.8

Date	6-1-80			
Run No.	ONE			
Depth—Driller	2777			
Depth—Logger (Schl.)	2777			
Btm. Log Interval	2771			
Top Log Interval	406			
Casing—Driller	7" @407	@	@	@
Casing—Logger	406			
Bit Size	6¼"			
Type Fluid in Hole	LIGNOSULFONATE			
Dens. | Visc.	78 | 43			
pH | Fluid Loss	10.5 | 7 ml	ml	ml	ml
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	1.4 @ 63 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	1.8 @ 52 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	2.01 @ 52 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | M			
Rm @ BHT	0.99 @ 92 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	1600			
TIME Logger on Bottom	1900			
Max. Rec. Temp.	92 °F	°F	°F	°F
Equip. | Location	8126 | SAC			
Recorded By	KAISER/CLAGUE			
Witnessed By	WES BRUER			

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

Run No.	ONE			
Service Order No.	123967			
Fluid Level	FULL			
Salinity ppm. cl	--			
Speed F.P.M.	--			

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Panel No.	282			
Cartridge No.	217			
Sonde No.	195			
Mem. Panel No.	--			
G.R. Panel No.	--			
G.R. Cart No.	--			
Tape Recorder - (TTR)	--			
Depth Encoder - (DRE)	--			
Pressure Wheel - (CPM)	--			
Type Centralizers	--			
Stand Off - Inches	--			

REMARKS

CALIBRATION DATA

SBR	1.0			
Sonde Error - ILM	4.09			
Sonde Error - ILD	5.25			
G.R. BKG. - CPS.	--			
G.R. Source - CPS.	--			
S.E. Set In Hole - Depth	2777			
S.E. Corr. - Hole Size	6¼			

LOGGING DATA				
SBR	1.0			
Sonde Error Log - ILM	4.09			
Sonde Error Log - ILD	5.25			
G.R. Scale per 100 Div.	--			
G.R. - T.C. Log	--			
	°F	°F	°F	°F
	°F	°F	°F	°F
	°F	°F	°F	°F

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.

SPONTANEOUS POTENTIAL

— 10 + MILLIVOLTS

DEPTH

RESISTIVITY OHMS. M²/M

DEEP INDUCTION

R_{ILD}

0 30

0 300

SPHERICALLY FOCUSED LOG

R_{SFL}

0 30

0 300

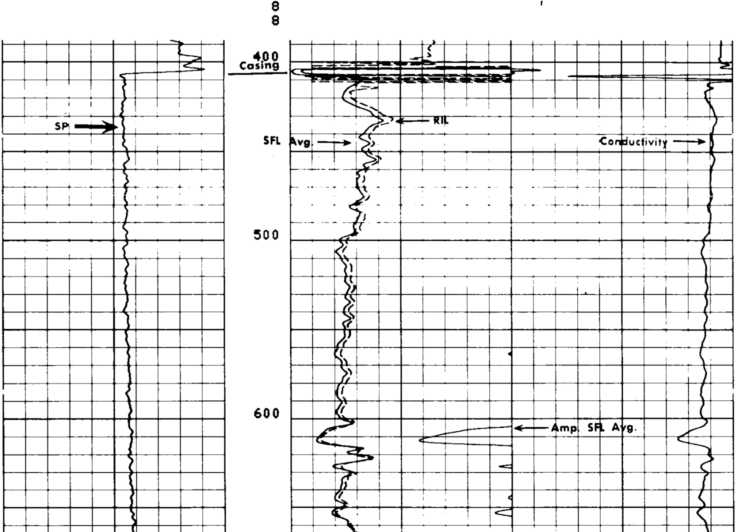
AMP. SPHERICALLY FOCUSED LOG

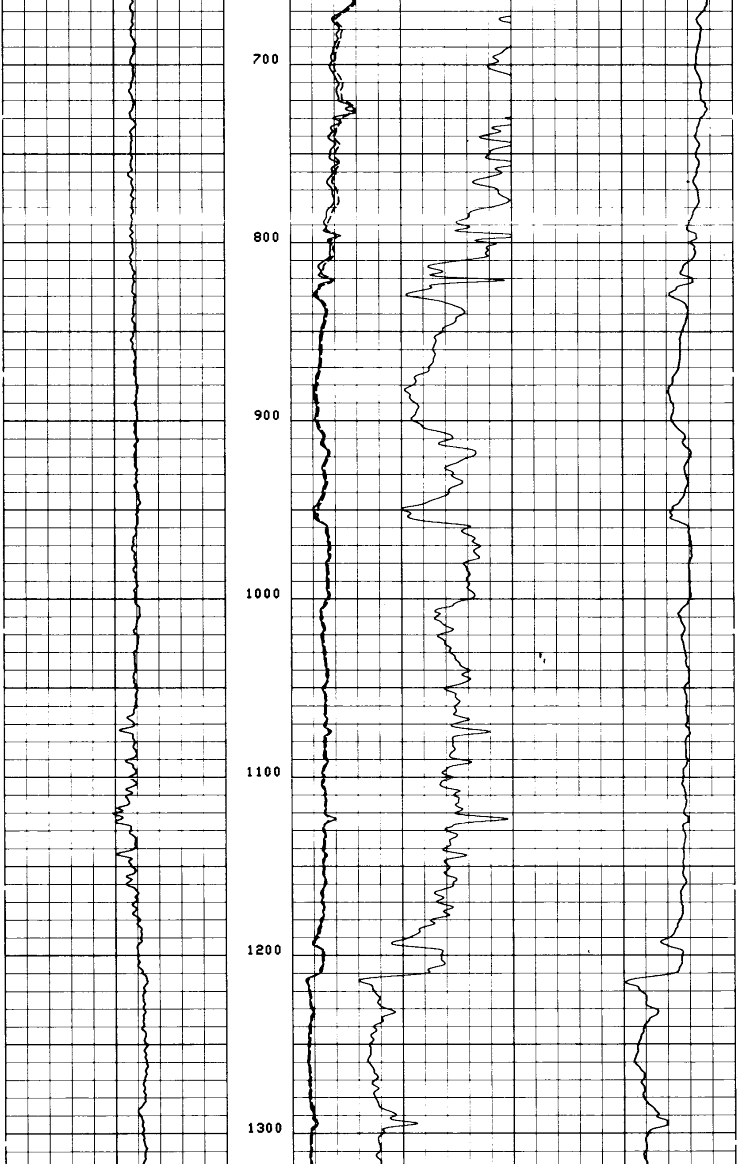
0 6

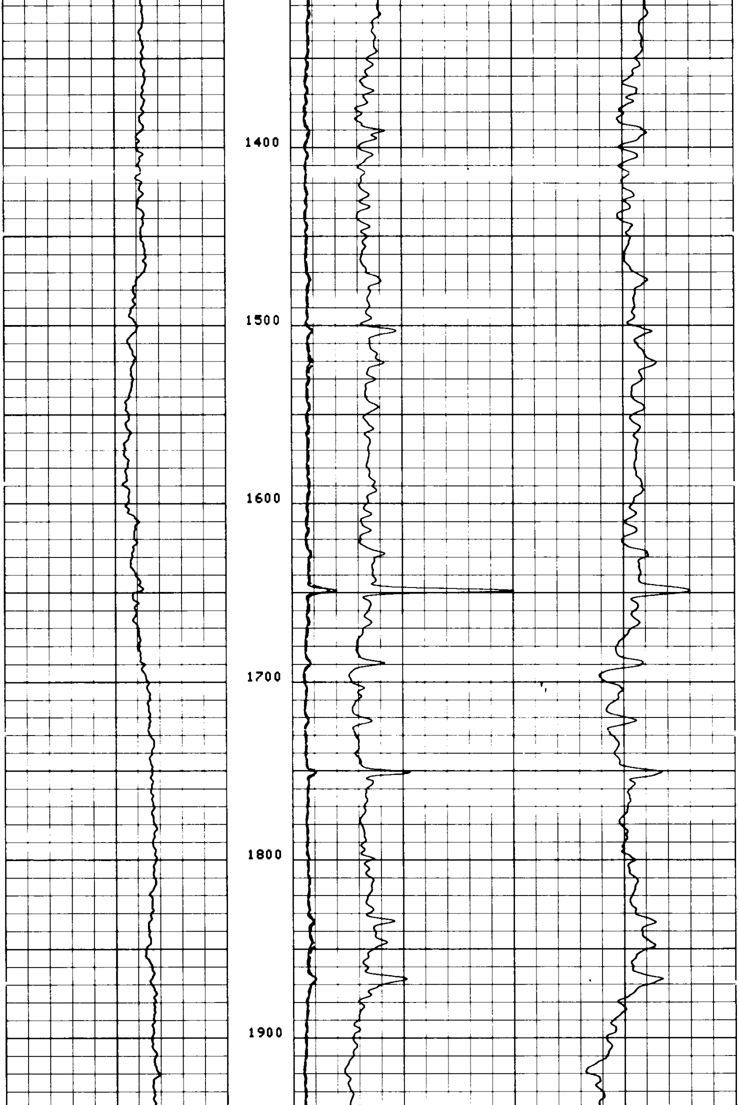
CONDUCTIVITY MILLIMHOS/M

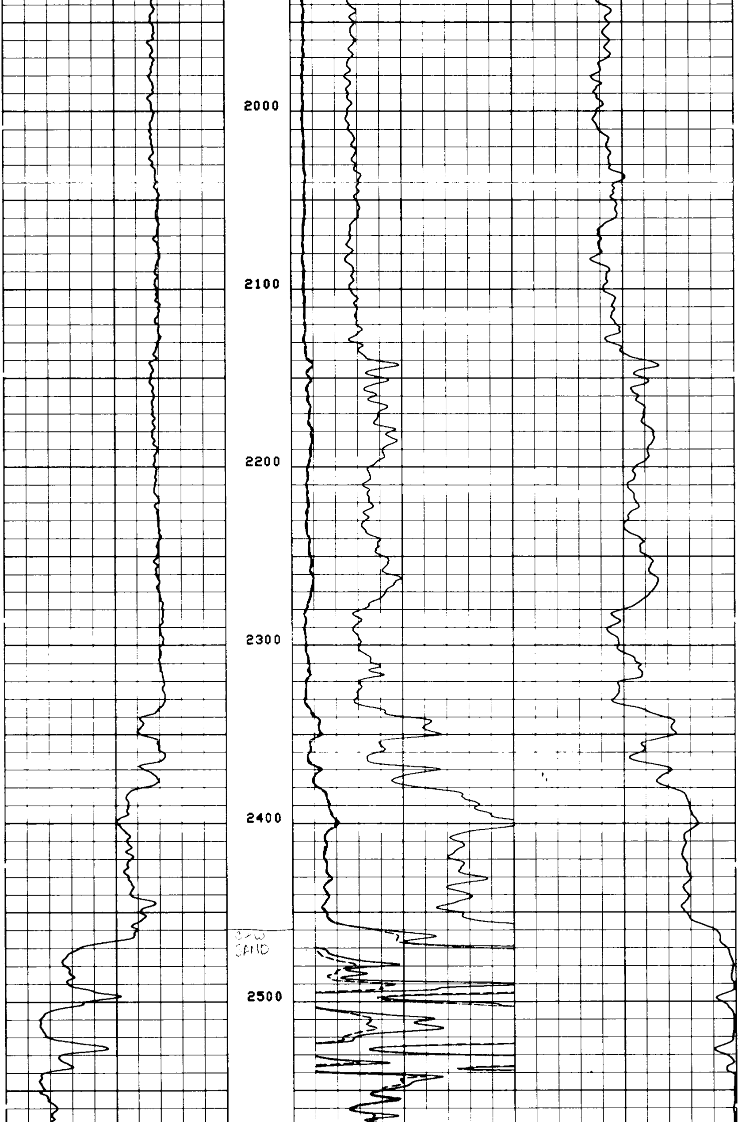
DEEP INDUCTION

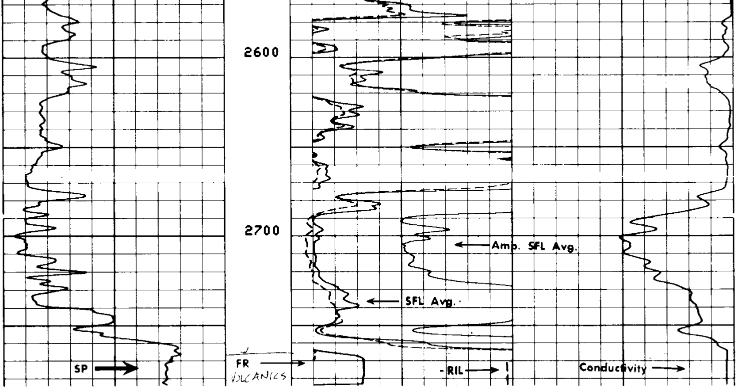
1000 0











8
8

SPONTANEOUS-POTENTIAL

— 10 +

MILLIVOLTS

DEPTH

RESISTIVITY OHMS. M^2/M

DEEP INDUCTION

R_{ILD}

0 30

0 300

SPHERICALLY FOCUSED LOG

R_{SFL}

0 30

0 300

AMP. SPHERICALLY FOCUSED LOG

0 6

CONDUCTIVITY MILLIMHOS/M

DEEP INDUCTION

1000 0

COMPANY REICHHOLD ENERGY CORPORATION
WELL COLUMBIA COUNTY NO. 33-3
FIELD MIST NEHALEM BASIN
COUNTY COLUMBIA
STATE OREGON

SCHL. FR 2771
SCHL. TD 2777
DRLR. TD 2777
Elev: KB 1039.3
DF - -
GL 1028.8

DETAIL LOG

5" — 100'

SPONTANEOUS-POTENTIAL

— 10 +

MILLIVOLTS

DEPTH

RESISTIVITY OHMS. M^2/M

SPHERICALLY FOCUSED LOG

0.2 1.0 10 100 1000 2000

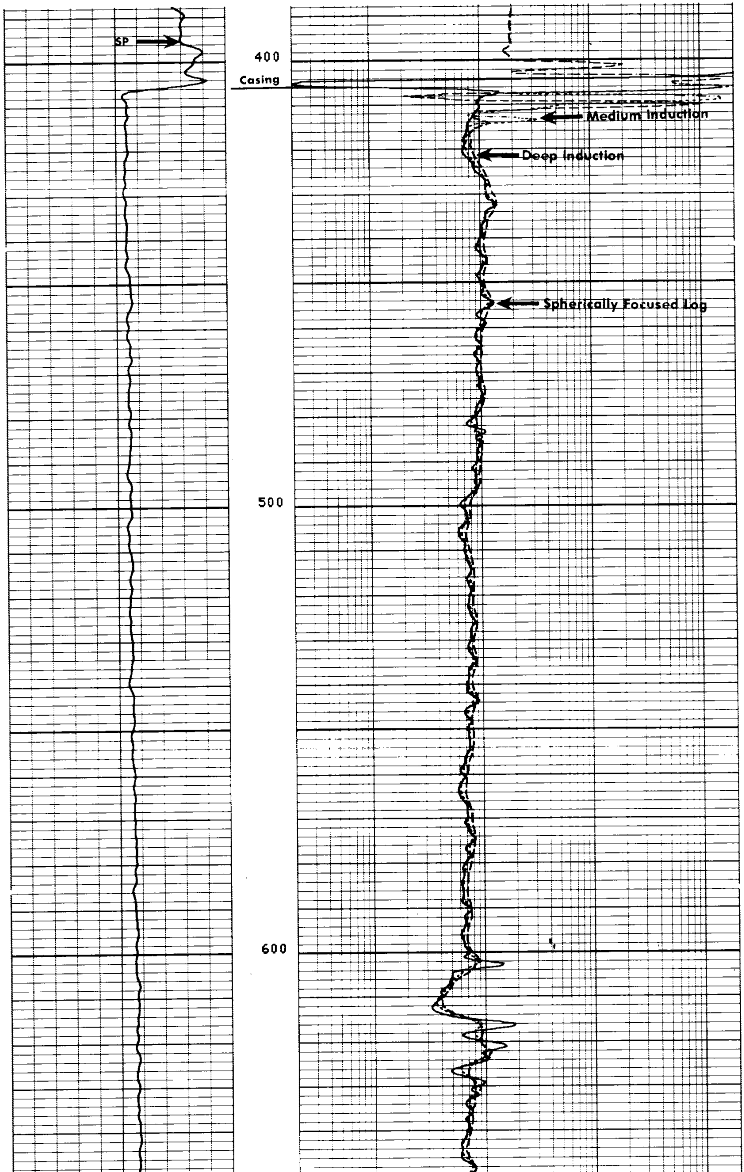
MEDIUM INDUCTION

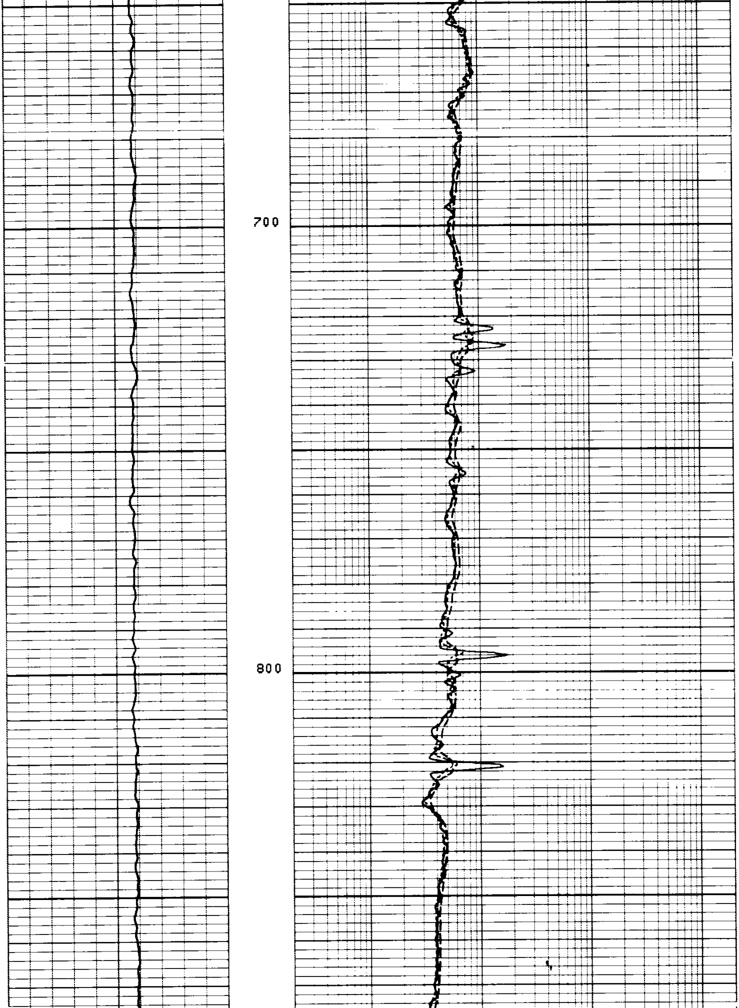
0.2 1.0 10 100 1000 2000

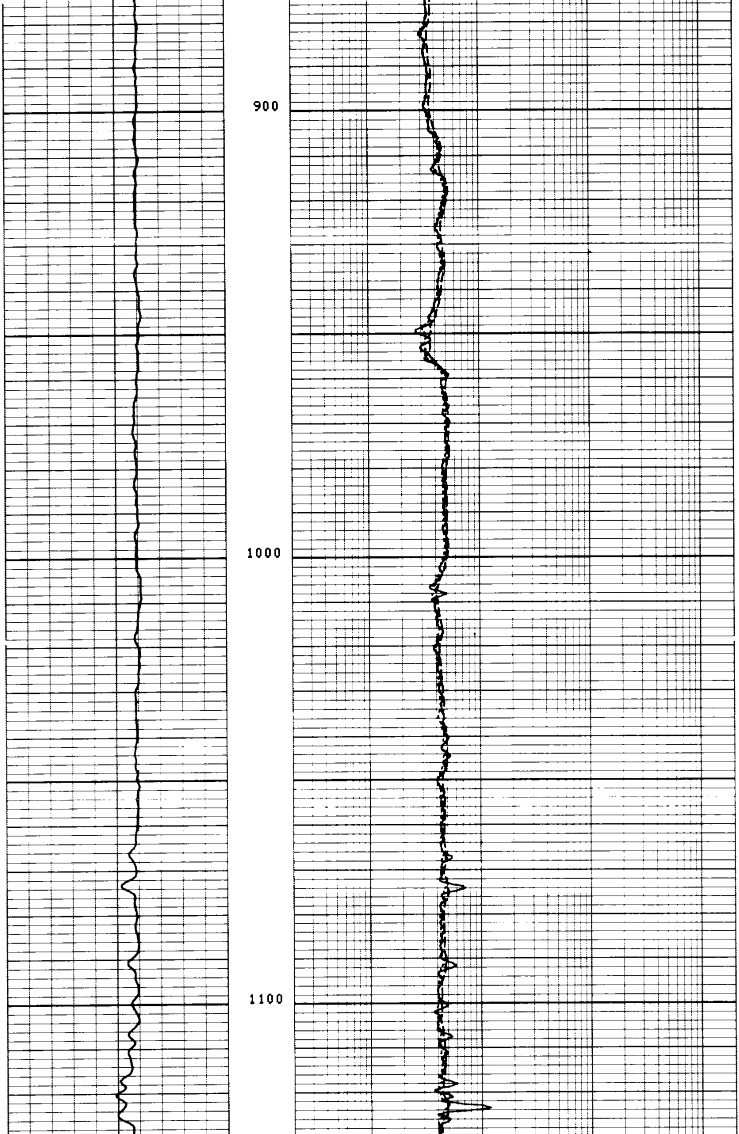
DEEP INDUCTION

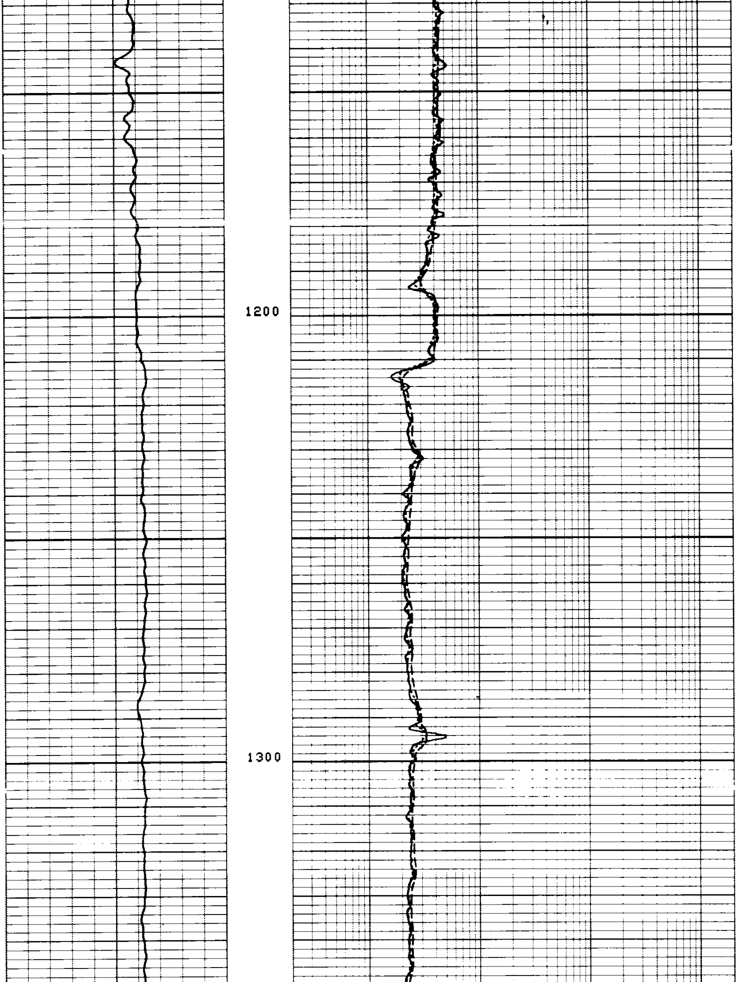
0.2 1.0 10 100 1000 2000

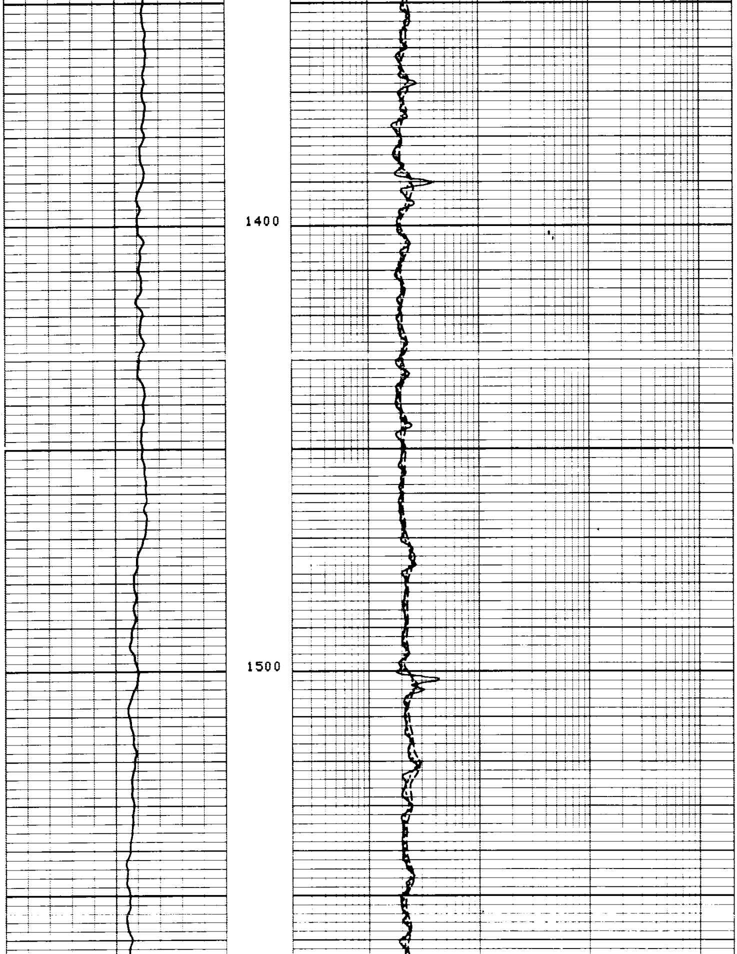
8

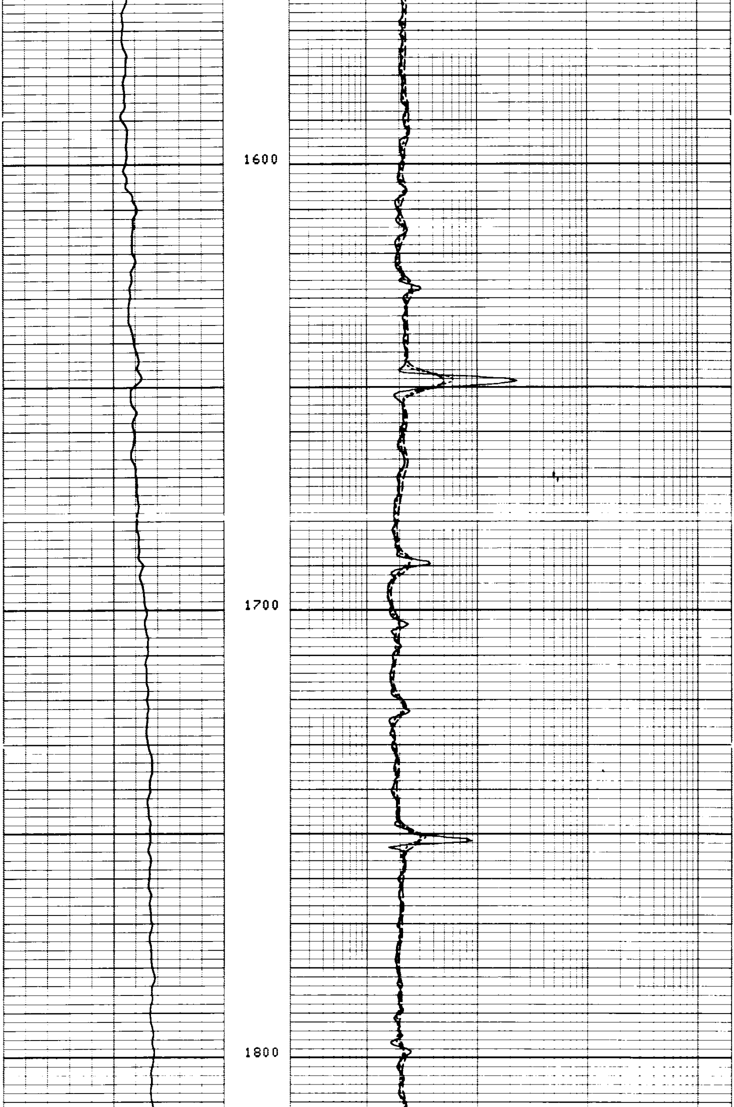


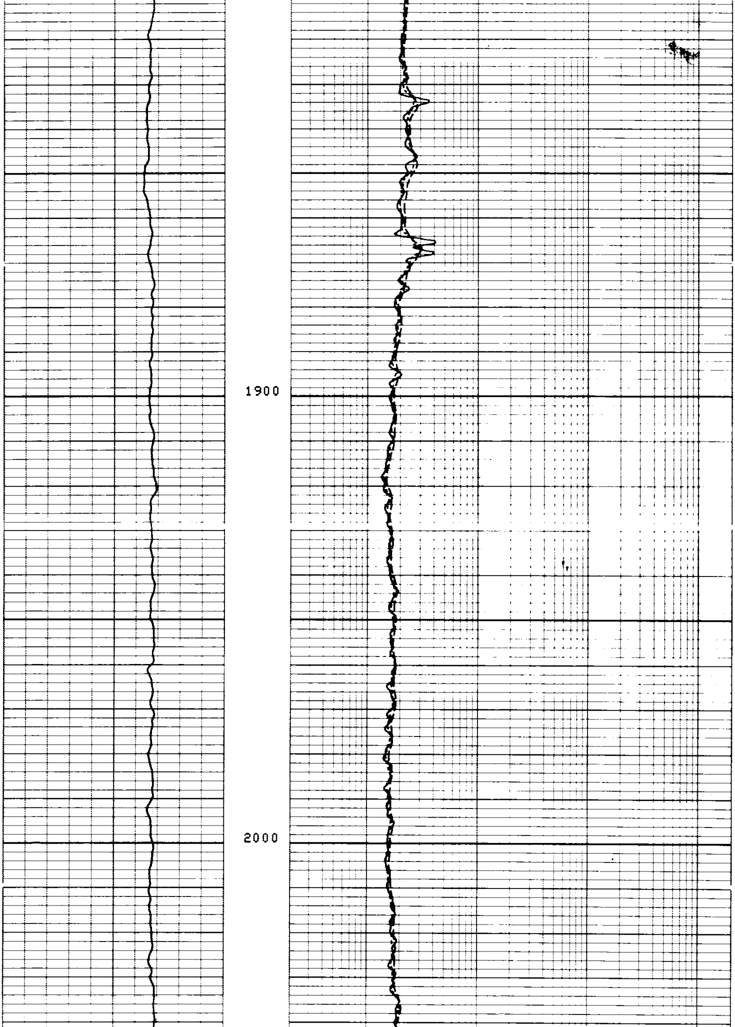


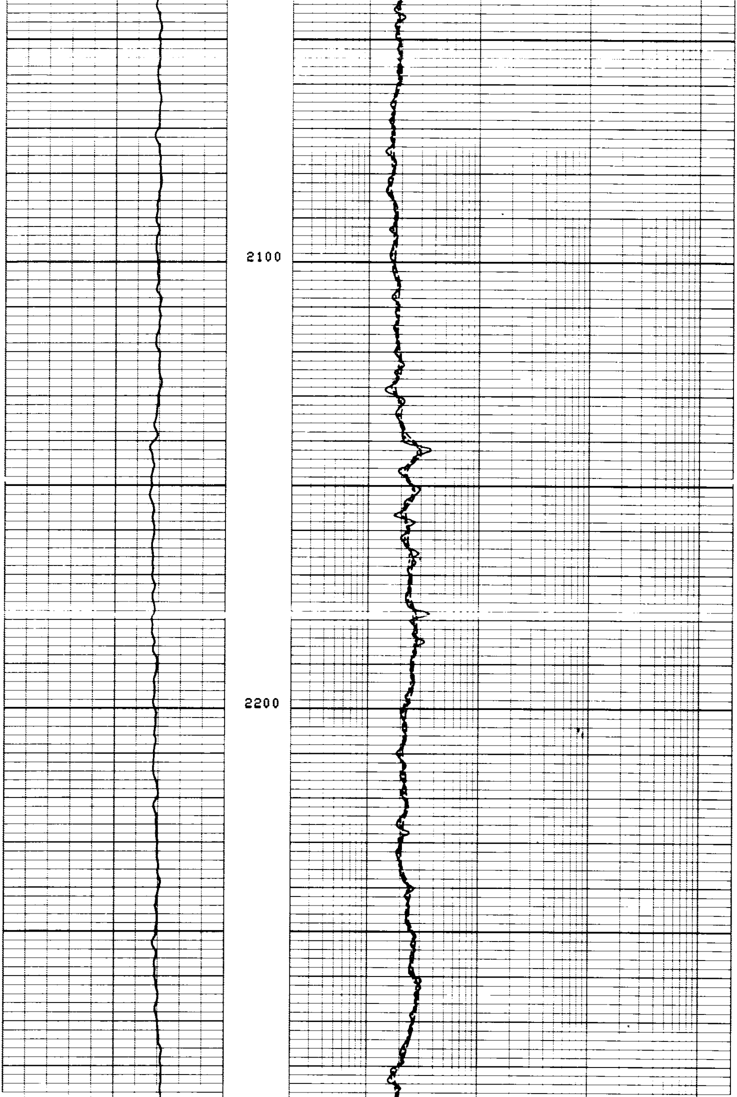


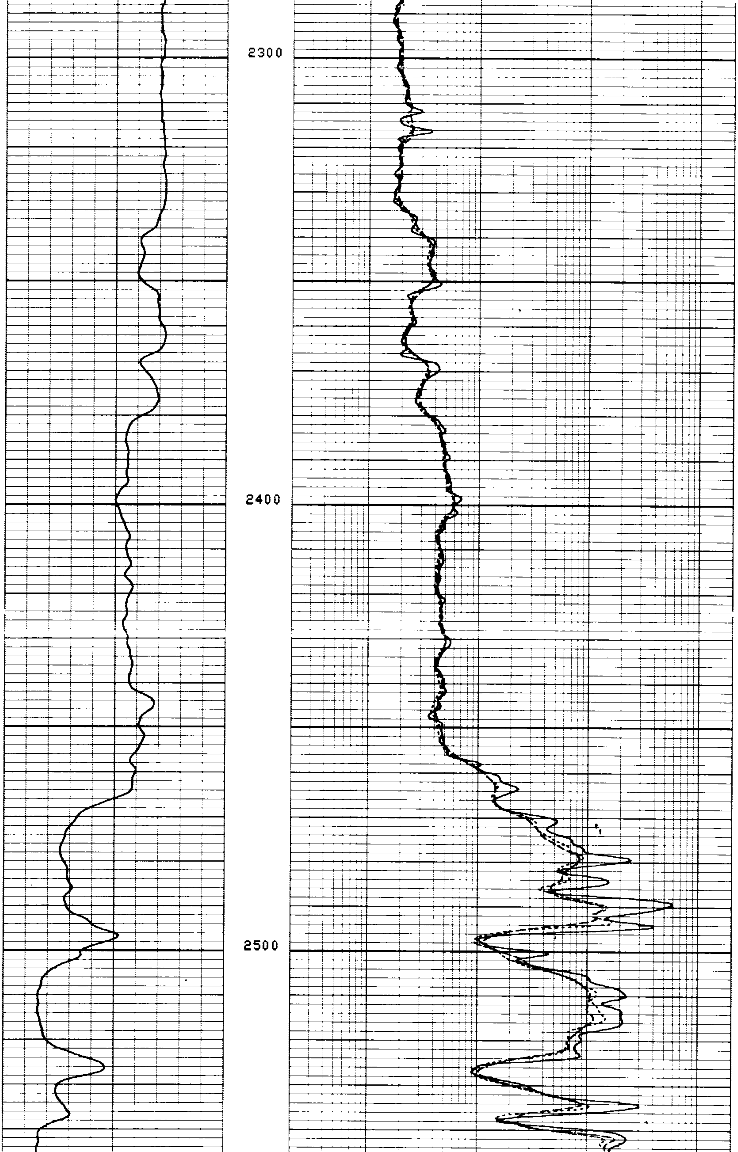


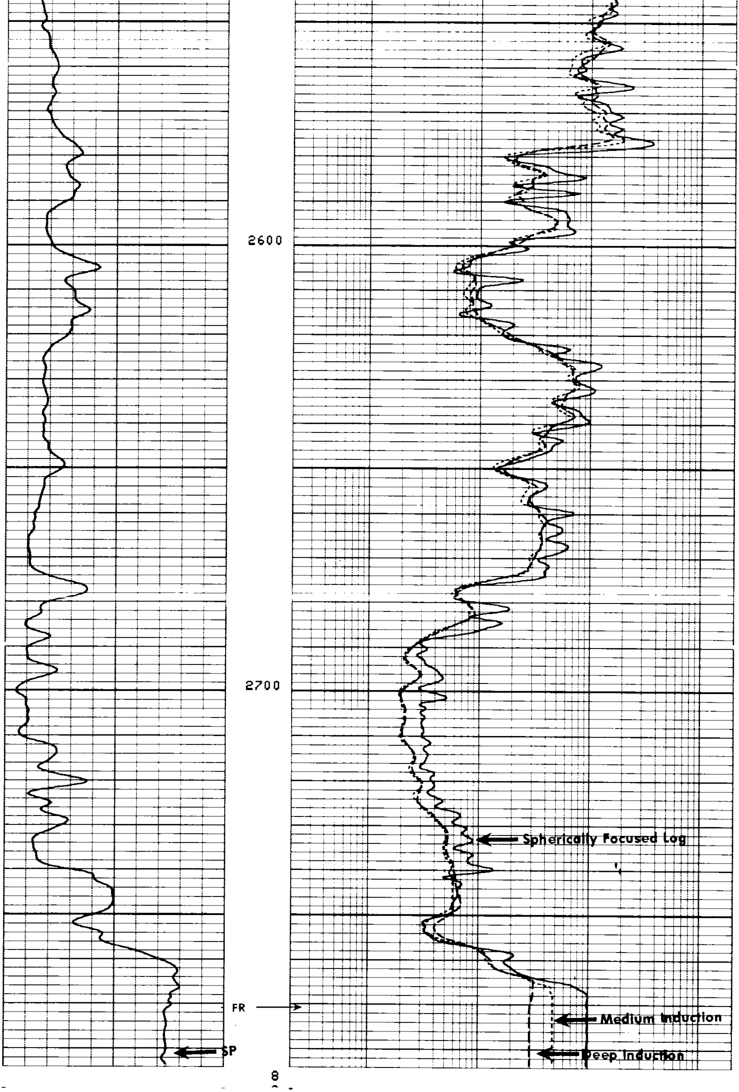




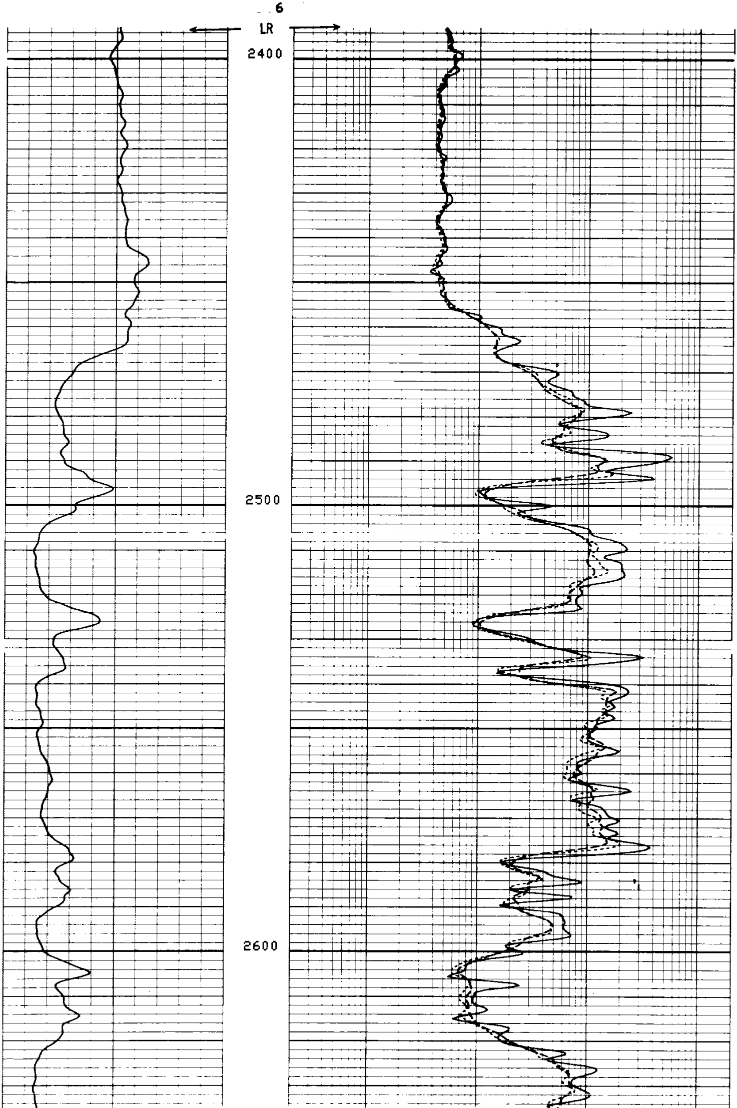


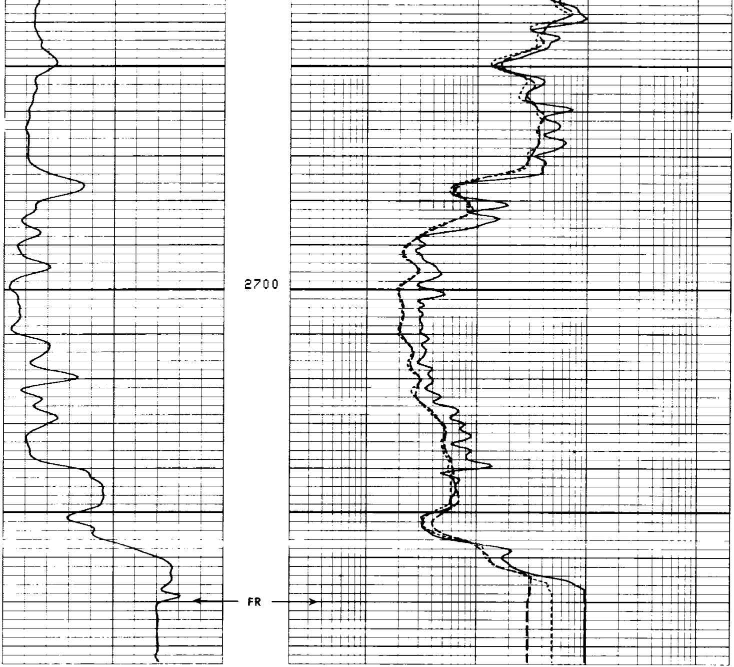






REPEAT SECTION





6
6

RESISTIVITY OHMS. M^2/M
SPHERICALLY FOCUSED LOG
0.2 1.0 10 100 1000 2000
MEDIUM INDUCTION
0.2 1.0 10 100 1000 2000
DEEP INDUCTION
0.2 1.0 10 100 1000 2000

SPONTANEOUS-POTENTIAL
10
— |↔| + MILLIVOLTS

DEPTH

CALIBRATION RECORD

4
4
4
4
4

```
                 BEFORE SURVEY CALIBRATION SUMMARY


    PERFORMED:       80/06/01
    PROGRAM FILE:    IS      (VERSION     16.4     79/11/20)

   DITD                   ELECTRONICS CALIBRATION SUMMARY
```

```
            MEASURED                          CALIBRATED
          ZERO    PLUS                    ZERO      PLUS          UNITS
    ILD    5.7   574.0                     0.0     499.8          MM/M
    ILM    5.7   601.5                     0.0     500.0          MM/M
    SFL    2.5   544.0                     0.0     500.0          MM/M

  ILM  SONDE ERROR CORRECTION :        4.0    MM/M
  ILD  SONDE ERROR CORRECTION :        5.2    MM/M
                            4
                            4
                            4
                            4
                            4
                            4

                  SHOP SUMMARY


   PERFORMED:     80/05/05
   PROGRAM FILE:  SHOP   (VERSION    14.4    79/09/05)

  DITD              ELECTRONICS CALIBRATION SUMMARY

              ELECTRONICS CALIBRATION          SONDE
            MEASURED         CALIBRATED        ERROR     TEST
          ZERO     PLUS     ZERO     PLUS      CORR.     LOOP      UNITS
    ILD    3.9    568.1      0.0    499.8      5.25      554.7     MM/M
    ILM    2.8    542.4      0.0    499.9      4.09      521.5     MM/M

                     (IS:195   , IC:217   )




              AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:     80/06/01
   PROGRAM FILE:  IS     (VERSION    16.4    79/11/20)

  DITD                     TOOL  CHECK

                     ZERO                     PLUS
             BEFORE       AFTER        BEFORE      AFTER     UNITS
    ILD        0.0         -0.0        499.8       495.6     MM/M
    ILM        0.0         -0.0        500.0       495.2     MM/M
    SFL        0.0         -0.1        500.0       500.9     MM/M

  ILM  SONDE ERROR CORRECTION :       15.0    MM/M
  ILD  SONDE ERROR CORRECTION :        5.2    MM/M
                           10
                           10
                           10
                           10
```

CALIBRATION RECORD

COMPANY REICHHOLD ENERGY CORPORATION

WELL COLUMBIA COUNTY NO. 33-3

FIELD MIST NEHALEM BASIN

COUNTY COLUMBIA STATE OREGON

SCHL. FR 2771

SCHL. TD 2777

DRLR. TD 2777

Elev: KB 1039.3

DF - -

GL 1028.8