FORM 925327 (5 80)

Western Atlas International
A Litton/Dresser Company
Atlas Wireline Services

BHC Acoustilog ®

FILE NO

API NO

5" = 100'

COMPANY OREGON NATURAL GAS CORPORATION
WELL IW 33D-3
FIELD MIST
COUNTY COLUMBIA STATE OREGON

LOCATION 1013' S. & 1653' W. OF THE E/4 CORNER OF:
SEC 3 TWP 6N RGE 5W

Other Services
DIFL
CDLC/CN/GR
PRODIP DIP

Permanent Datum GL Elev 1078.3'
Log Measured from KB 11.4 Ft Above Permanent Datum
Drilling Measured from KB

Elev KB 1089.7'
DF
GL 1078.3'

Date	6 2 88		6 6 88	
Run No	ONE		TWO	
Service Order	158835		158836	
Depth Driller	2773'		2962'	
Depth Logger	2764'		2954'	
Bottom Logged Interval	2762'		2952'	
Top Logged Interval	566'		2540'	
Casing Driller	13 3/8"@ 568'	@	13 3/8"@568'	@
Casing Logger	566'		-	
Bit Size	12 1/4"		8 1/2" X 12 1/4"	
Type Fluid in Hole	GEL/DRISPAC		GEL/DRISPAC	
Density and Viscosity	9.8 | 41		9.9 | 47	
pH and Fluid Loss	8.5 | 5.2 cc	cc	10.0 | 4.5 cc	cc
Source of Sample	FLOWLINE		FLOWLINE	
Rm @ Meas Temp	2.25 @ 62 °F	@ °F	1.32 @ 64 °F	@ °F
Rmf @ Meas Temp	1.06 @ 62 °F	@ °F	0.80 @ 64 °F	@ °F
Rmc @ Meas Temp	3.15 @ 62 °F	@ °F	1.91 @ 64 °F	@ °F
Source of Rmf and Rmc	M | M		M | M	
Rm @ BHT	1.33 @ 105°F	@ °F	0.78 @ 108 °F	@ °F
Time Since Circ	2.5 HRS.		2 HRS.	
Max Rec Temp Deg F	105 °F	°F	108 °F	°F
Equip No and Location	6406 | SAC.		6406 | SAC.	
Recorded By	B. WELCH		B. WELCH	
Witnessed By	MR. THOMAS		MR. THOMAS	

FOLD HERE

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT, BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASURMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

Western Atlas International
A Litton/Dresser Company

ATLAS WIRELINE SERVICES

REMARKS RUN (1)

BHV COMPUTED FOR TOTAL HOLE VOLUME

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIAL NO.	SERIES NO.	POSITION
1	1	DIFL	33304	1503	1.5 " SO
1	1	AC	79725	1603	CENT
1	1	GR			
1	1	CAL	79090	4209	VAR

PARAMETERS

NAME	DEPTH INTERVAL	VALUE	UNITS
A	2771 TO 502	0.620	
M	2771 TO 502	2.150	
T.C.	2771 TO 502	0.000	INCH
DEL-T F	2771 TO 502	185.000	MICS FT
DEL-T M	2771 TO 502	54.000	MICS FT
DEL-T S	2771 TO 502	110.000	MICS FT

DISPLAY SCALE CHANGES

*** NONE ***

COMPANY: [illegible] RUN: 1

WELL NAME: [illegible] TRIP: 1

REF ID: [illegible] FILE: 1 DATE: 4 2 [illegible] TIME: [illegible]

AC [illegible] VER 2 MODE: [illegible]

BIT (IN)

6 16

[illegible] (IN)

0 30 30 0

CAL (IN)

6 16

DEL-T MICS FT

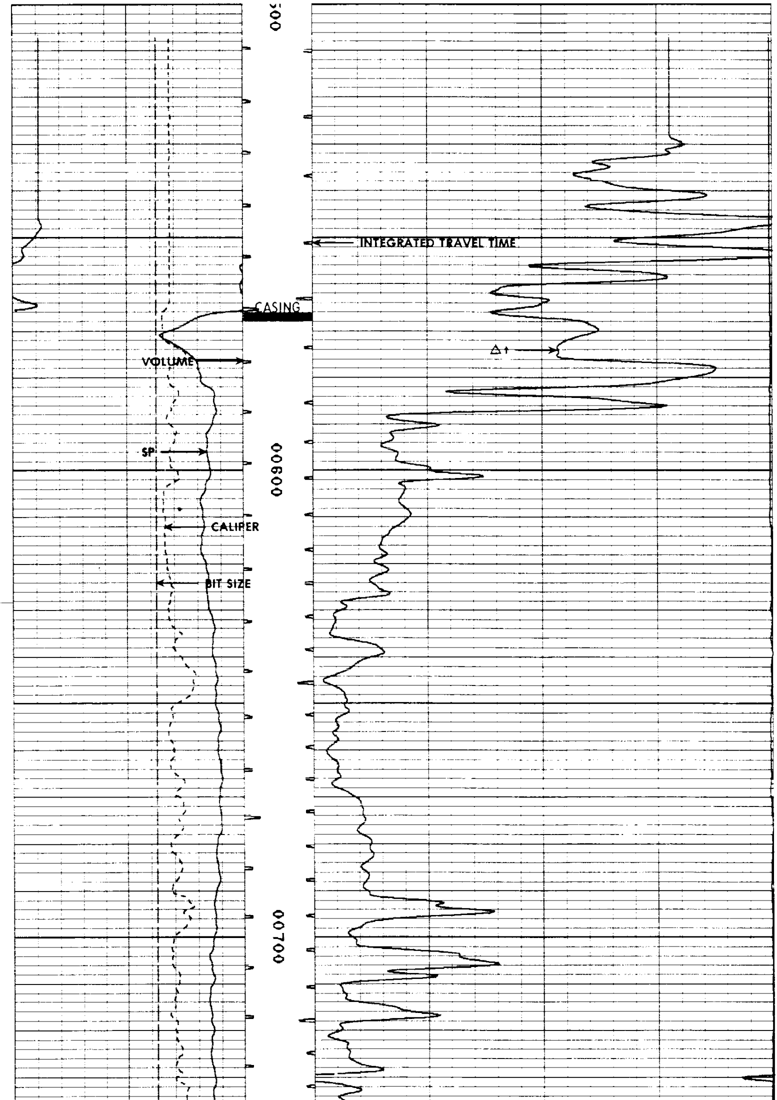
150 50

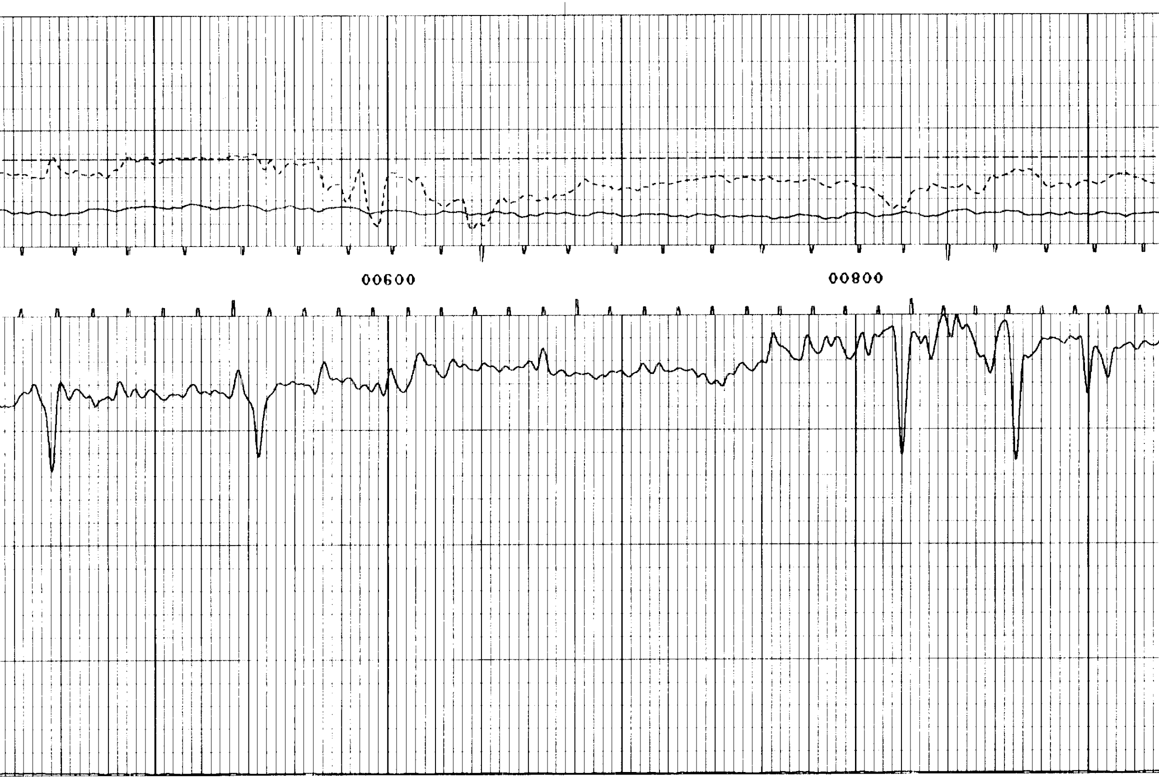
GR

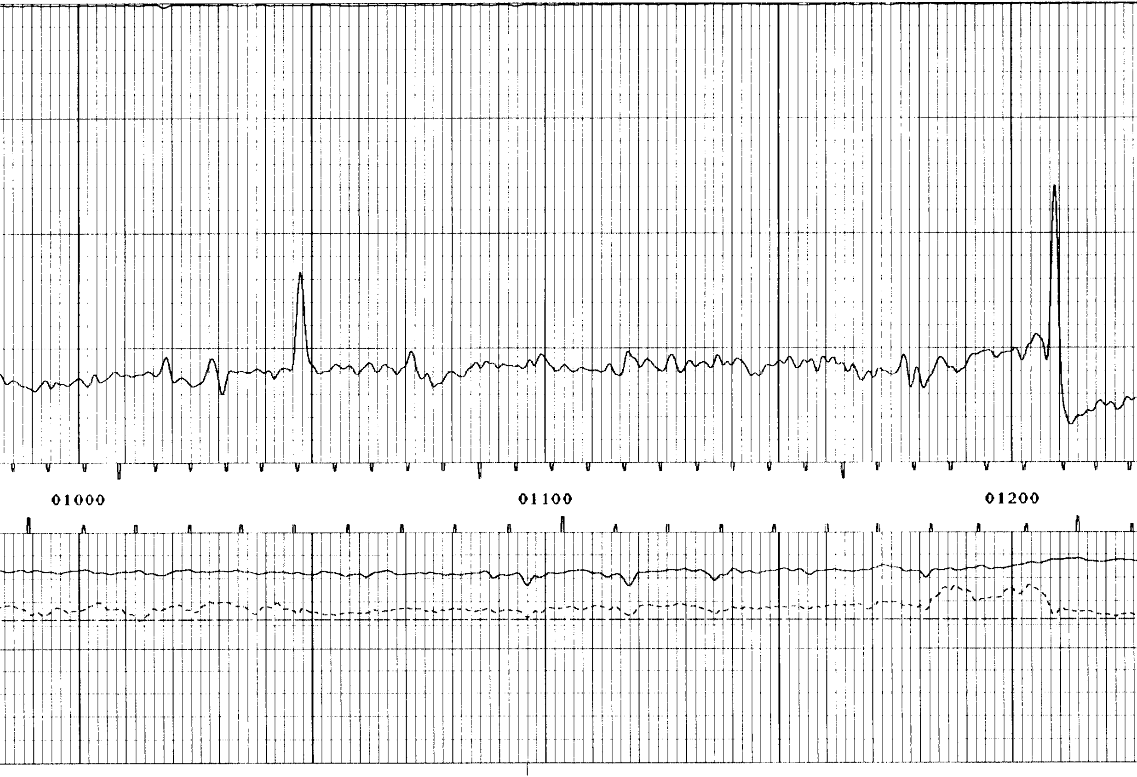
0 100

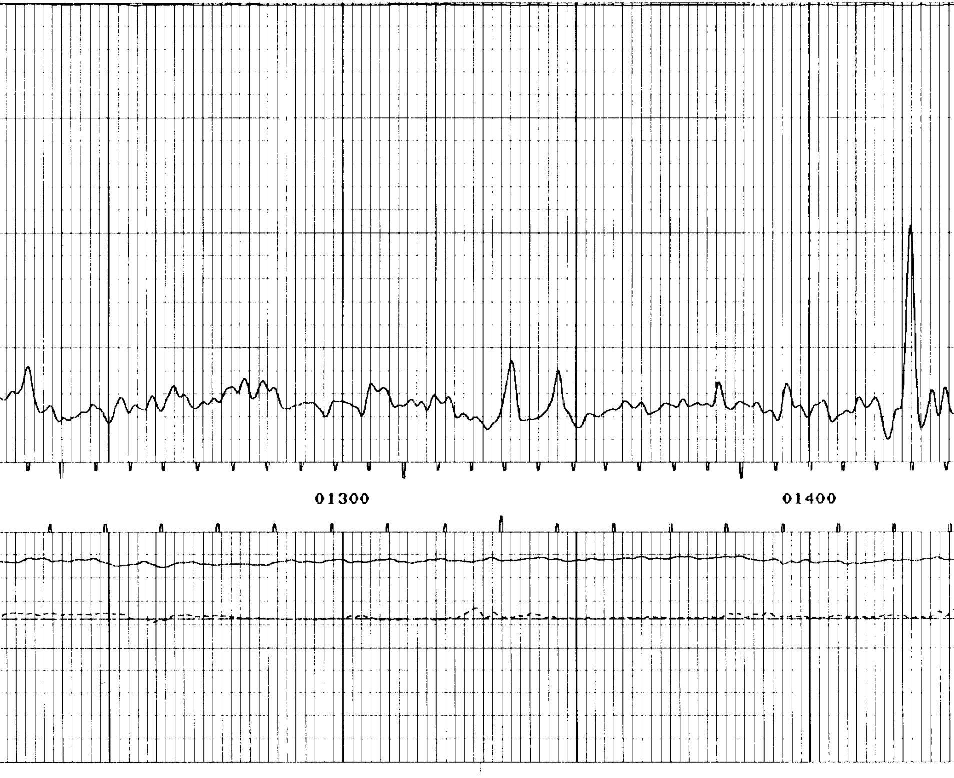
TENSION

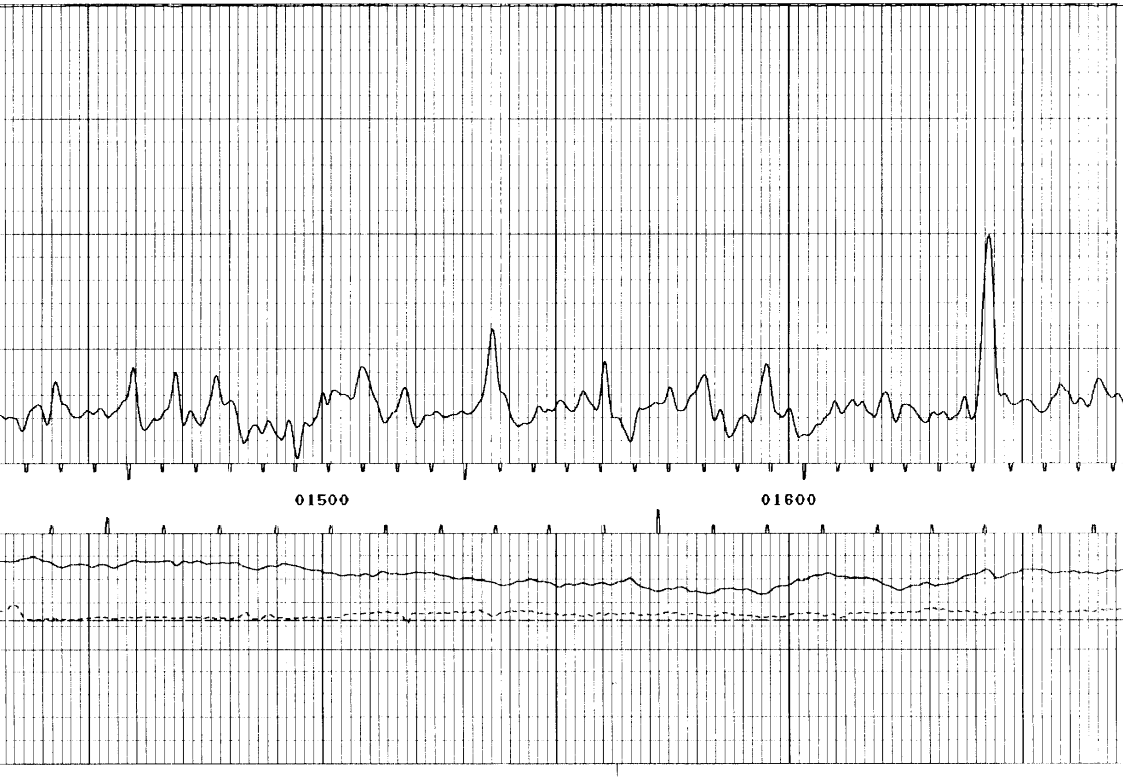
4000 [illegible]

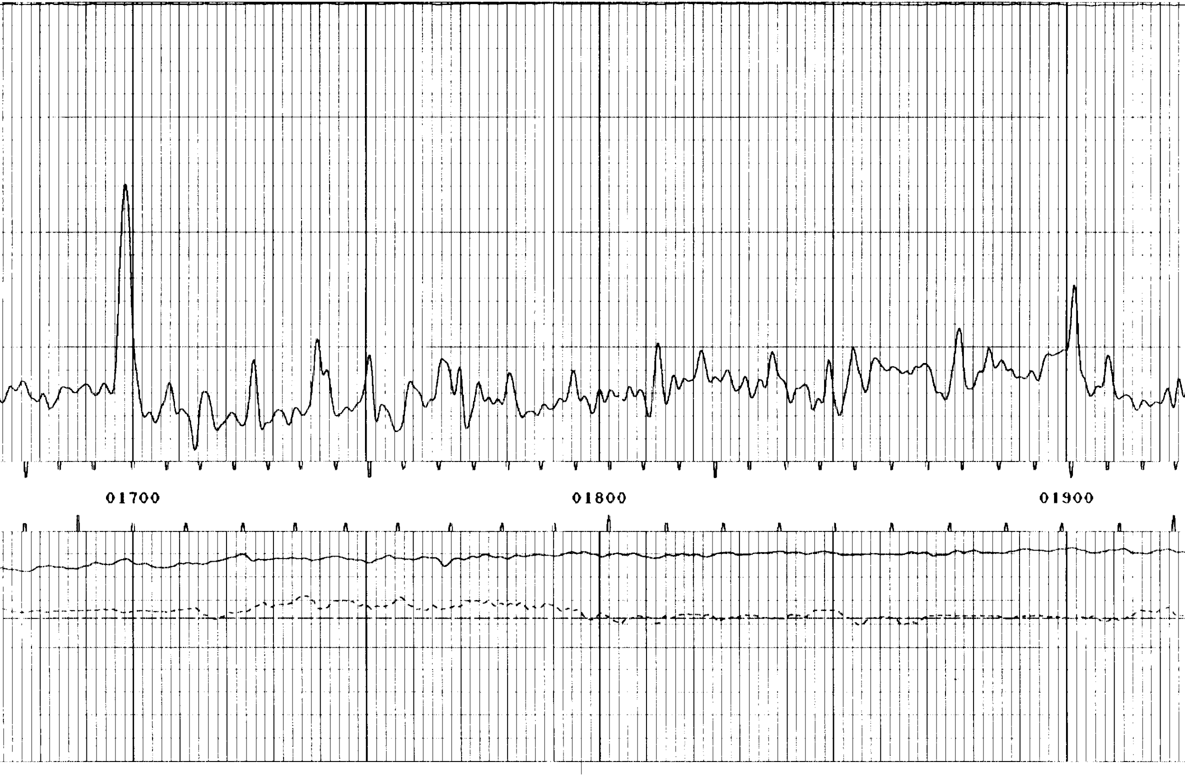


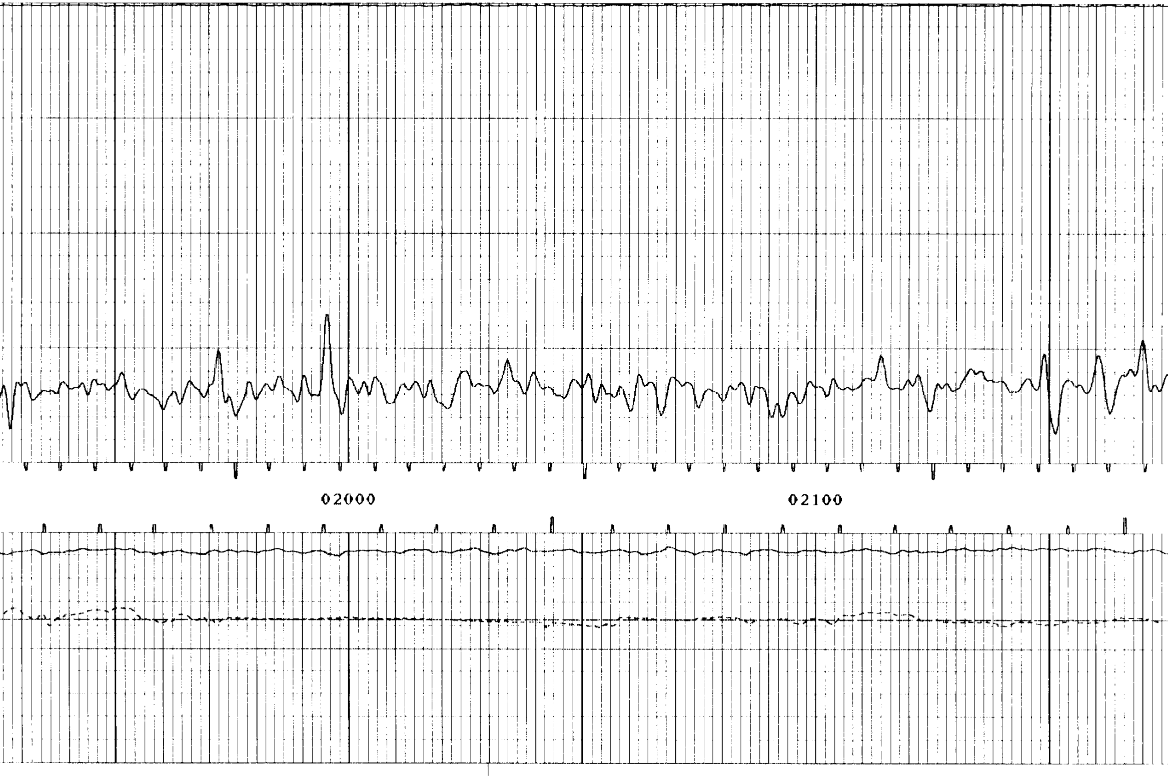


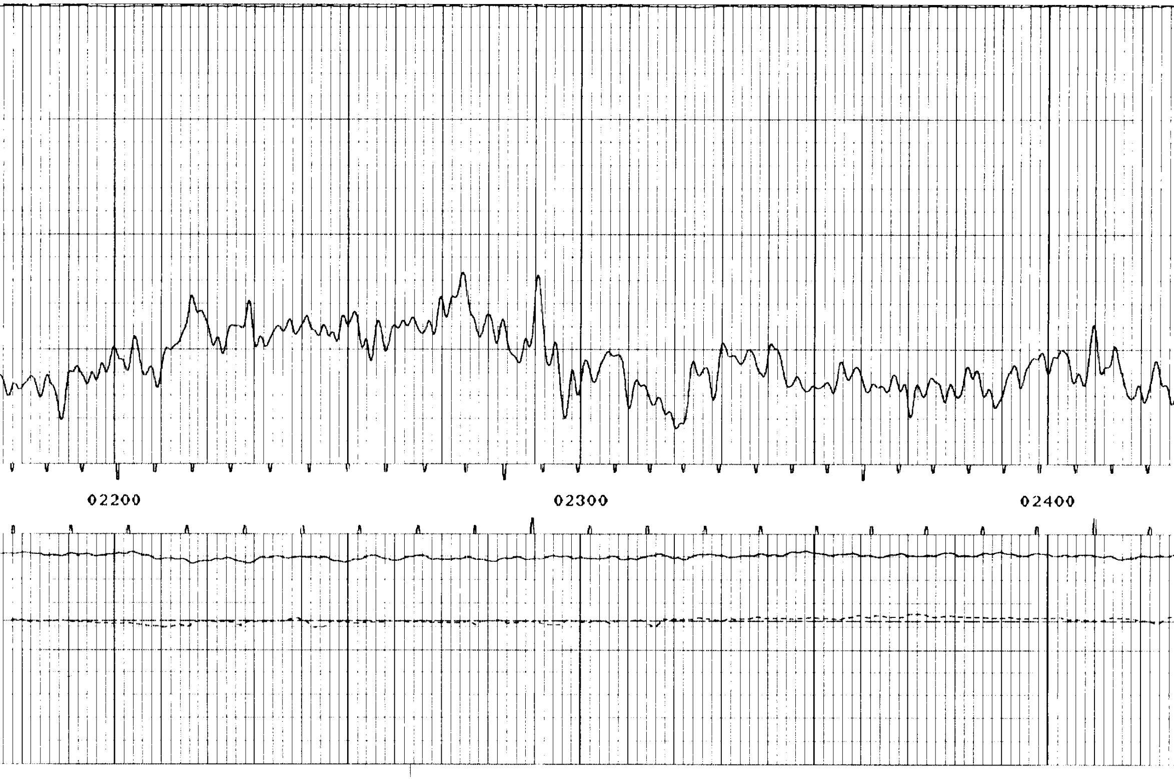


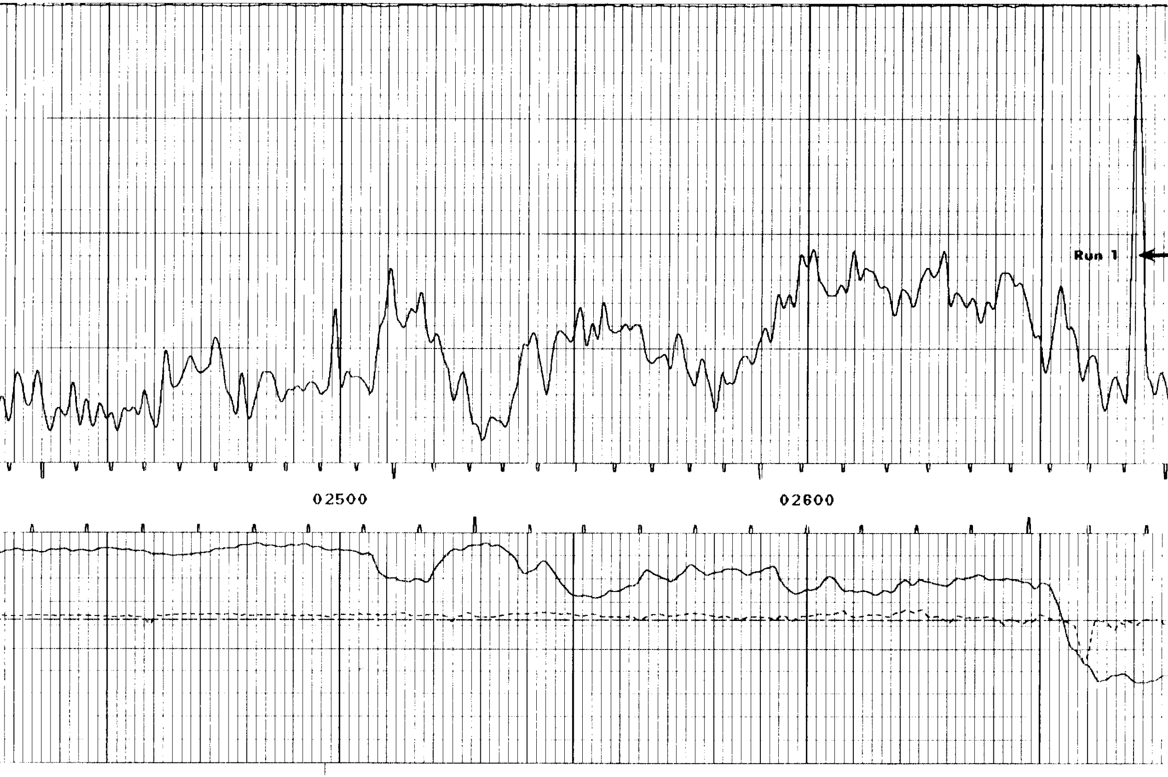


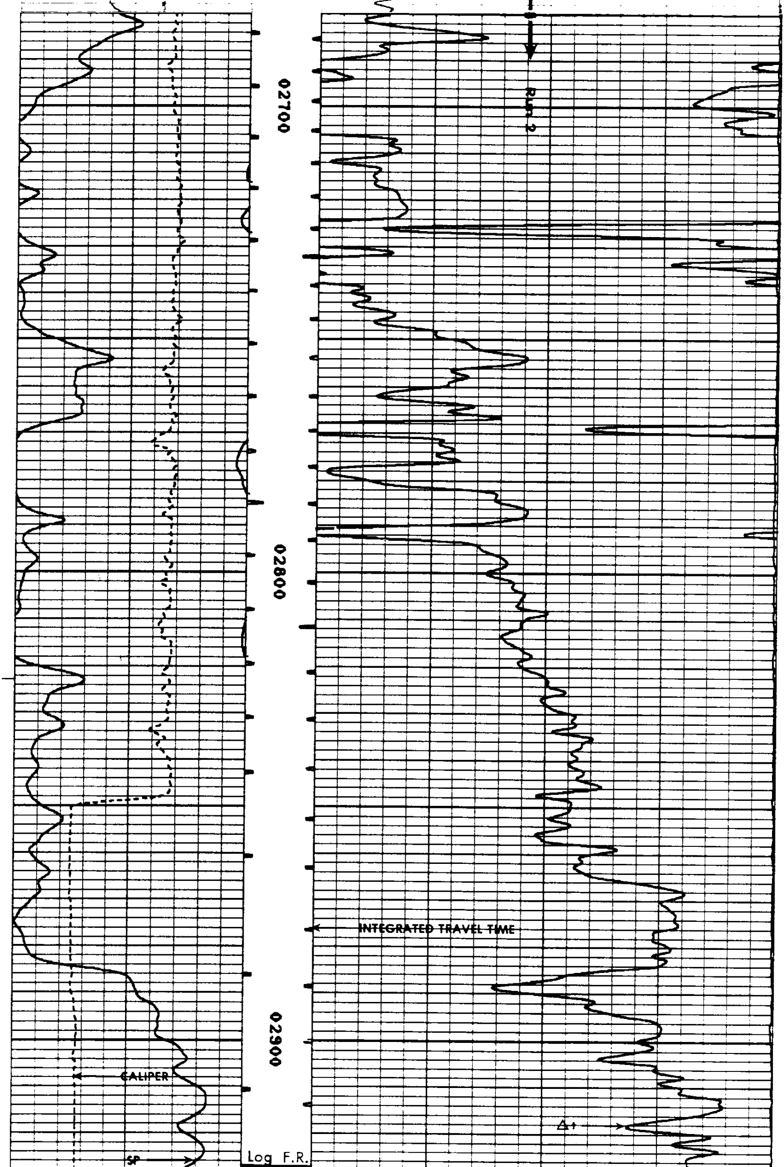


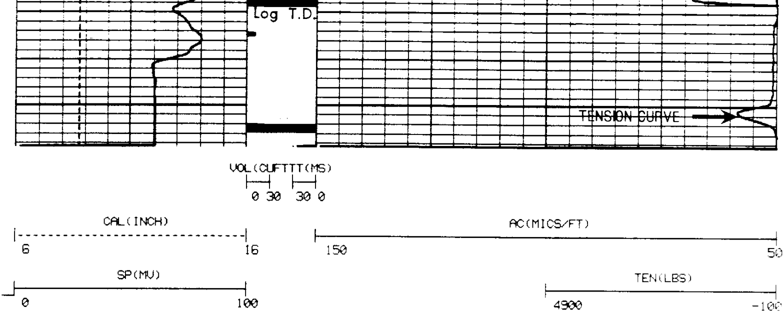












PARAMETERS

NAME	DEPTH INTERVAL	VALUE	UNITS
A	2770 TO 3488	0.620	
M	2770 TO 3488	2.150	
C.D.	2770 TO 3488	0.000	INCH
DEL-T F	2770 TO 3488	189.000	MICS FT
DEL-T M	2770 TO 3488	54.000	MICS FT
DEL-T S	2770 TO 3488	[illegible]	MICS F

DISPLAY SCALE CHANGES

*** NONE ***

COMPANY : OREGON NATURAL GAS CORP. RUN: 1

WELL NAME: 1W 33D-7 TRIP: 1

SERVICE: ACZ14N FILE: 1 DATE: 3 7 88 TIME: [illegible]

REVISION: FSYSAL REV 0508 VER 2 **REPEAT SECTION** MODE: PLAYBACK

BIT(INCH)

6 16

VOL(CUFT)TT(MS)

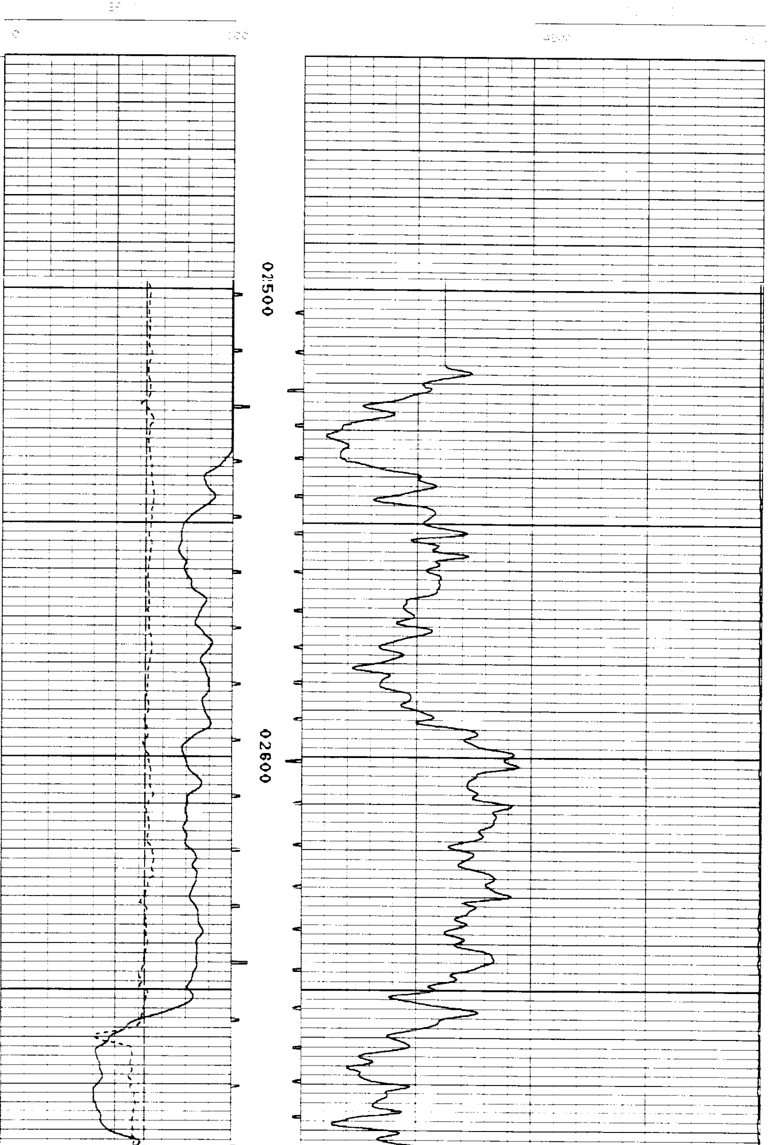
0 30 30 0

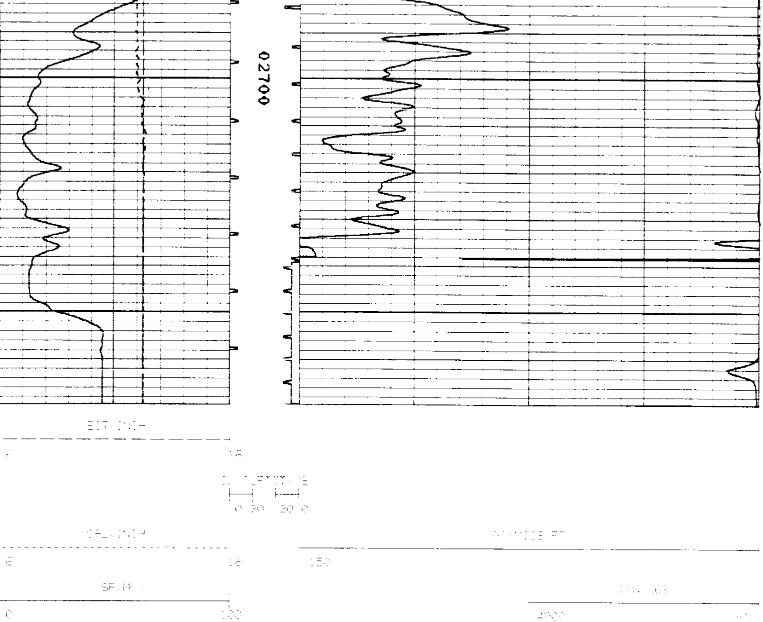
CAL(INCH)

6 16

AC(MICS/FT)

150





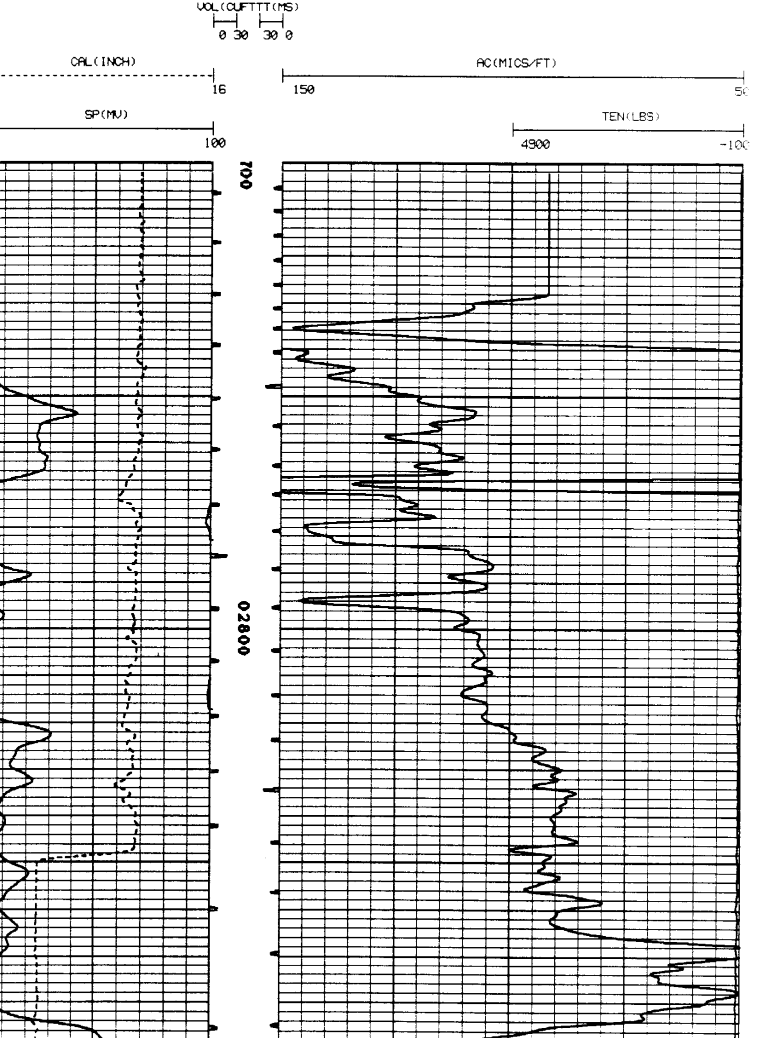
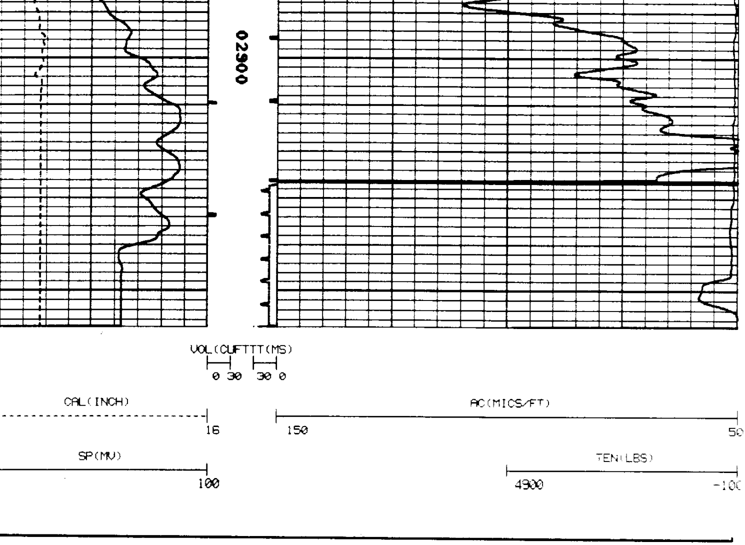
```
                 ++++++++++++++++++++++++++++++++++++++++
                 +                                      +
                 +  CALIBRATION VERIFICATION SUMMARY    +
                 +  DATE 06/03/88         TIME [illegible] +
                 +  RUN 1                 PAGE 1        +
                 +                                      +
                 ++++++++++++++++++++++++++++++++++++++++


         LOG NAME DIFL    ASSET NO. 33304    UNIT NO. HL 6405
     CALIBRATION ENTERED ON  06/02/88 AT 21:56:43

   CURVE   MILLIVOLTS      SCALING FACTORS    ENGINEERING VALUES   UNITS
            LOW    HIGH    ADD.     MULT.         LOW         HIGH
   ----   ----------------- -------------------- --------------------- ----

        DATE 05/12/88          CALIBRATION           TIME 11:04:37

   CILD      -1.8   490.4    2.511    1.9481      1.000    500.000 MMHO
   CILM       0.3   405.1    0.713    2.2124      1.000    500.000 MMHO
   CFOC       5.1   512.5   -3.380    2.3954      1.000    500.000 MMHO

        DATE 05/12/88    PRIMARY VERIFICATION       TIME 11:05:50

   CILD       0.0   487.7    2.511    1.9481      [illegible]  [illegible] MMHO
   CILM      [illegible]  [illegible]  0.713  2.2124  [illegible]  [illegible] MMHO
   CFOC       5.0   [illegible]  -3.380  2.3954   [illegible]  [illegible] MMHO

        DATE 06/02/88    BEFORE LOG VERIFICATION    TIME 21:57:38

   CILD      [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible] MMHO
   CILM      [illegible]  [illegible]  0.863  [illegible]  [illegible]  [illegible] MMHO
   CFOC      [illegible]  [illegible]  [illegible]  [illegible]  [illegible]  [illegible] MMHO

        DATE [illegible]    AFTER LOG VERIFICATION    TIME [illegible]:08:51
```

```
[illegible]
[illegible]
[illegible]      3.7   484.1   -3.722    2.4838      1.018    488.240 [illegible]

          *** GR   NOT CALIBRATED ***


        LOG NAME CAL     ASSET NO. 73080     UNIT NO. [illegible]
   CALIBRATION ENTERED ON 06/02/88 AT 21:52:[illegible]

 CURVE  MILLIVOLTS      SCALING FACTORS    ENGINEERING VALUES   UNITS
          LOW    HIGH    ADD.    MULT.        LOW        HIGH
 ----  --------------- ----------------- --------------------- ----

      DATE 06/02/88           CALIBRATION           TIME 21:52:25

 CAL    3576.8  [illegible]   1.343    0.0035       6.000      12.000 INCH

                      PRIMARY VERIFICATION            NOT DONE

      DATE 06/02/88   BEFORE LOG VERIFICATION     TIME [illegible]

 CAL      5     [illegible]   1.343    0.0035       5          [illegible] INCH

      DATE 06/07/88    AFTER LOG VERIFICATION     TIME [illegible]

 CAL      6     [illegible]   1.343    0.0034       7          [illegible] INCH
```

```
            PARAMETERS

  NAME      DEPTH INTERVAL     VALUE      UNITS
--------   ---------------  ----------  -------
A            2958 TO  2703       0.620
M            2958 TO  2703       2.150
O.D.         2958 TO  2703       0.000  INCH
DEL-T F      2958 TO  2703     185.000  MICS/FT
DEL-T M      2958 TO  2703      54.000  MICS/FT
DEL-T S      2958 TO  2703     110.000  MICS/FT



        DISPLAY SCALE CHANGES

             *** NONE ***
```

```
COMPANY:    OREGON NATURAL GAS CORP.                         RUN:  2
WELL NAME:  IW 33D-3                                         TRIP: 1
SERVICE:    KC214N        FILE:   4       DATE:   6/ 6/88      TIME:   7: 3:42
REVISION:   FSYSAL REV GS08 VER+2
```

REPEAT SECTION

```
MODE: PLAYBACK
```