CC 32-32-65

Schlumberger

FORMATION DENSITY-COMPENSATED NEUTRON

CSU

COMPANY:	ARCO EXPLORATION AND TECHNOLOGY COMPANY
WELL:	COLUMBIA COUNTY #32-32
FIELD:	WILDCAT
COUNTY:	COLUMBIA
STATE:	OREGON
NATION:	USA
LOCATION:	1237'W & 1840'S OF THE NE CORNER OF

SEC: 32 TWP: 6N RGE: 5W

RECEIVED-PTLD
DEC 9 - 1985
DEPT. OF GEOLOGY & MINERAL INDUS

OTHER SERVICES-
DIL-BHC
VSP-WSR

HDT
SWS

PERMANENT DATUM:	GL	ELEVATIONS-	
ELEV. OF PERM. DATUM:	828.0 F.	KB:	842.5 F
LOG MEASURED FROM:	KB	DF:	
14.5 F	ABOVE PERM. DATUM	GL:	828.0 F
DRLG. MEASURED FROM:	KB		

PROGRAM
TAPE NO:
28.2A
SERVICE
ORDER NO:
418267

DATE:	7 NOV 85
RUN NO:	ONE

DEPTH-DRILLER:	2700.0 F
DEPTH-LOGGER:	2710.0 F
BTM. LOG INTERVAL:	2698.0 F
TOP LOG INTERVAL:	419.0 F
CASING-DRILLER:	418.0 F
CASING-LOGGER:	418.0 F
CASING:	9.625
WEIGHT:	
BIT SIZE:	8.5
DEPTH:	2700.0 F

TYPE FLUID IN HOLE:	LIGNOSULFONATE
DENSITY:	9.90 LB/G
VISCOSITY:	41.0 S
PH:	8.5
FLUID LOSS:	5.0 C3
SOURCE OF SAMPLE:	FLOWLINE
RM:	3.590 OHMM AT 56.0 DEGF
RMF:	2.930 OHMM AT 64.0 DEGF
RMC:	3.970 OHMM AT 64.0 DEGF
SOURCE RMF/RMC:	MEASURED/MEASURED
RM AT BHT:	1.726 OHMM AT 124. DEGF
RMF AT BHT:	1.588 OHMM AT 124. DEGF
RMC AT BHT:	2.152 OHMM AT 124. DEGF
TIME CIRC. STOPPED:	0000 11-7
TIME LOGGER ON BTM.:	1000 11-7
MAX. REC. TEMP:	124.0 DEGF
LOGGING UNIT NO:	8128
LOGGING UNIT LOC:	SACRAMENTO
RECORDED BY:	REINIG
WITNESSED BY:	JACKSON

REMARKS:

TOOLS NOT SENT TO BOTTOM DUE TO HOLE CONDITIONS

EQUIPMENT NUMBERS-

DRS-C 3756	NSC-D 1760	CNC-HA 1263	SGC-SA 551
CCC-B 1978	CCSM-AB 17		

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.

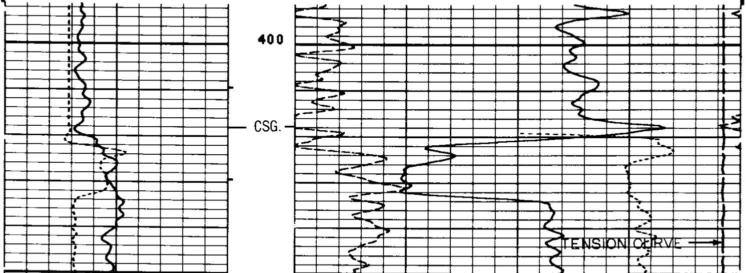
CP 28.2A FILE 3 07-NOV-85 12:53
DATA ACQUIRED 07-NOV-85 11:57

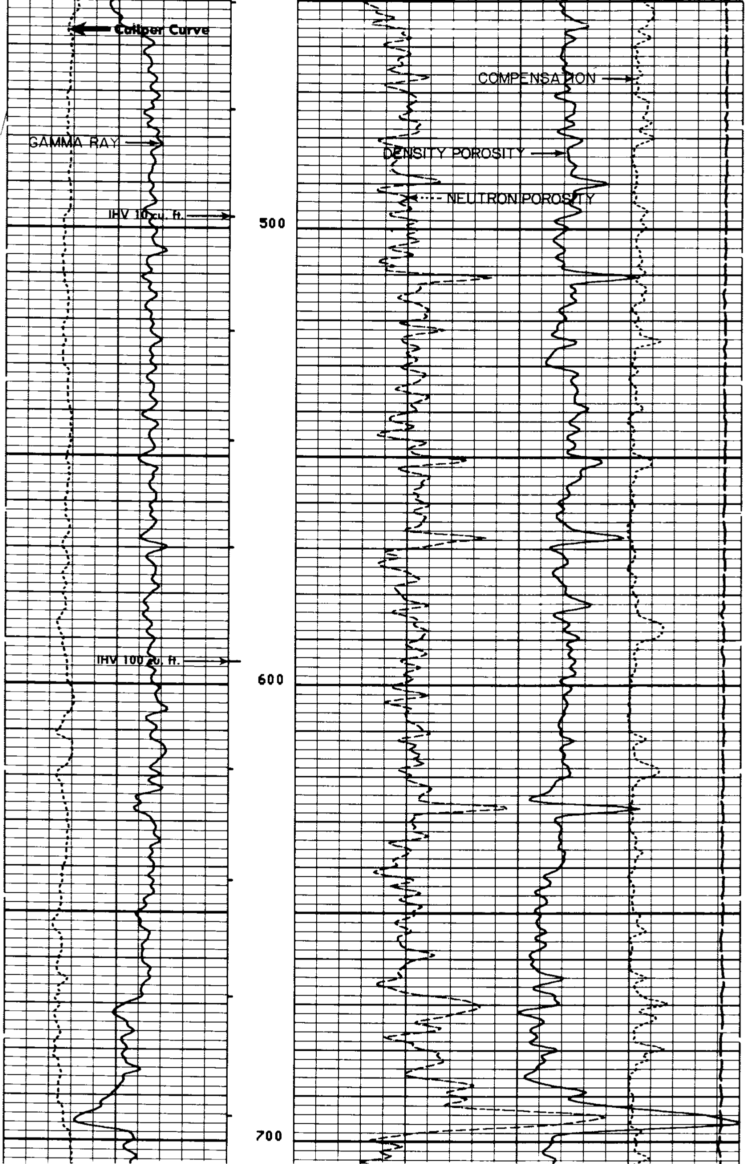
EVENT MARK SUMMARY:

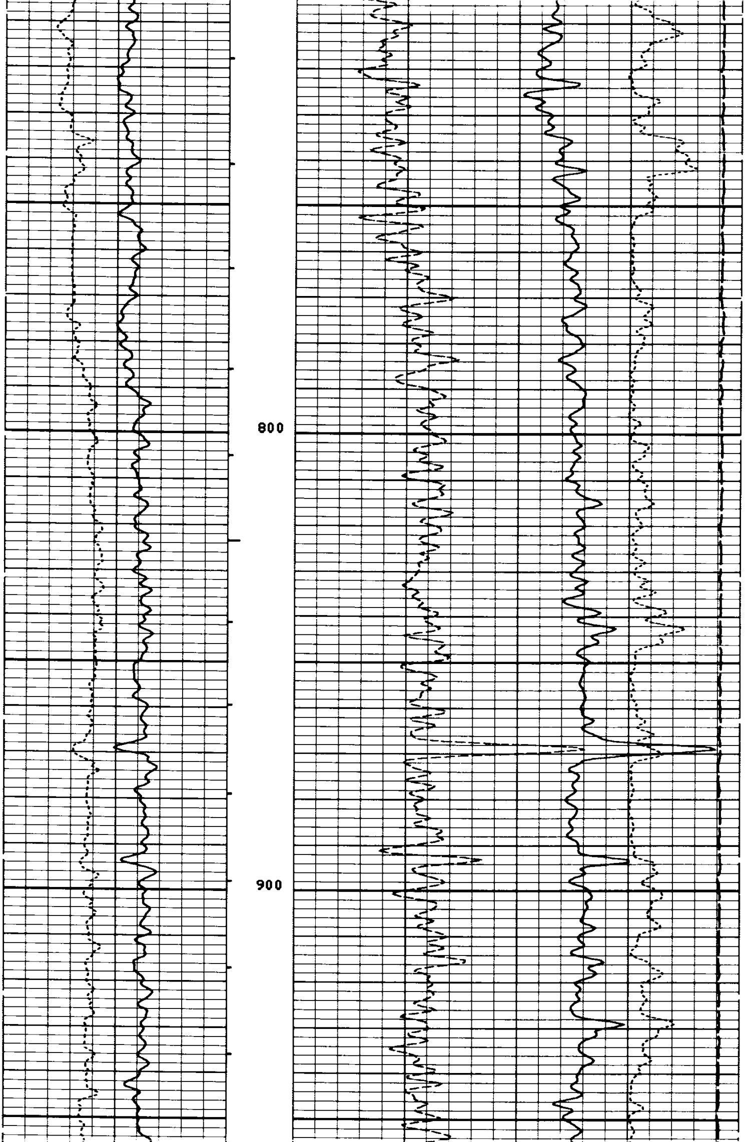
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

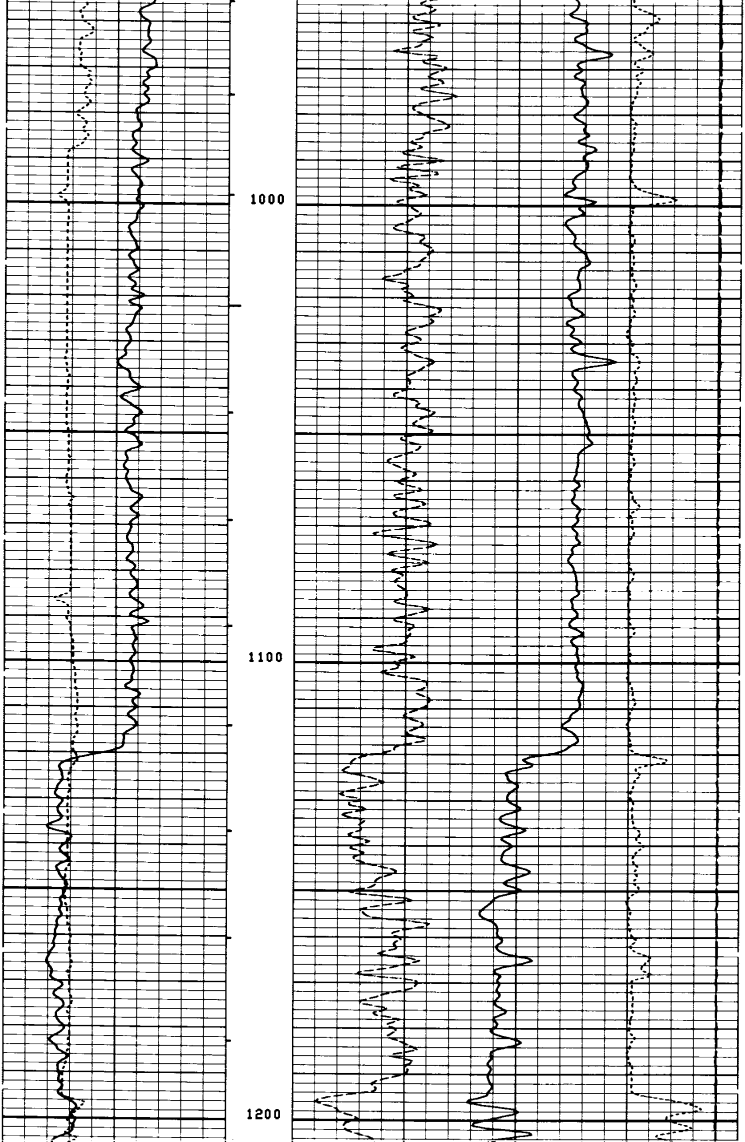
Curve	Left	Right
TENS(LB)	10000.	0.0
DRHO(G/C3)	-.2500	.25000
DPHI	1.2000	.60000
NPHI	1.2000	.60000
NPHI	.60000	0.0
DPHI	.60000	0.0
CALI(IN)	6.0000	16.000
GR (GAPI)	0.0	150.00

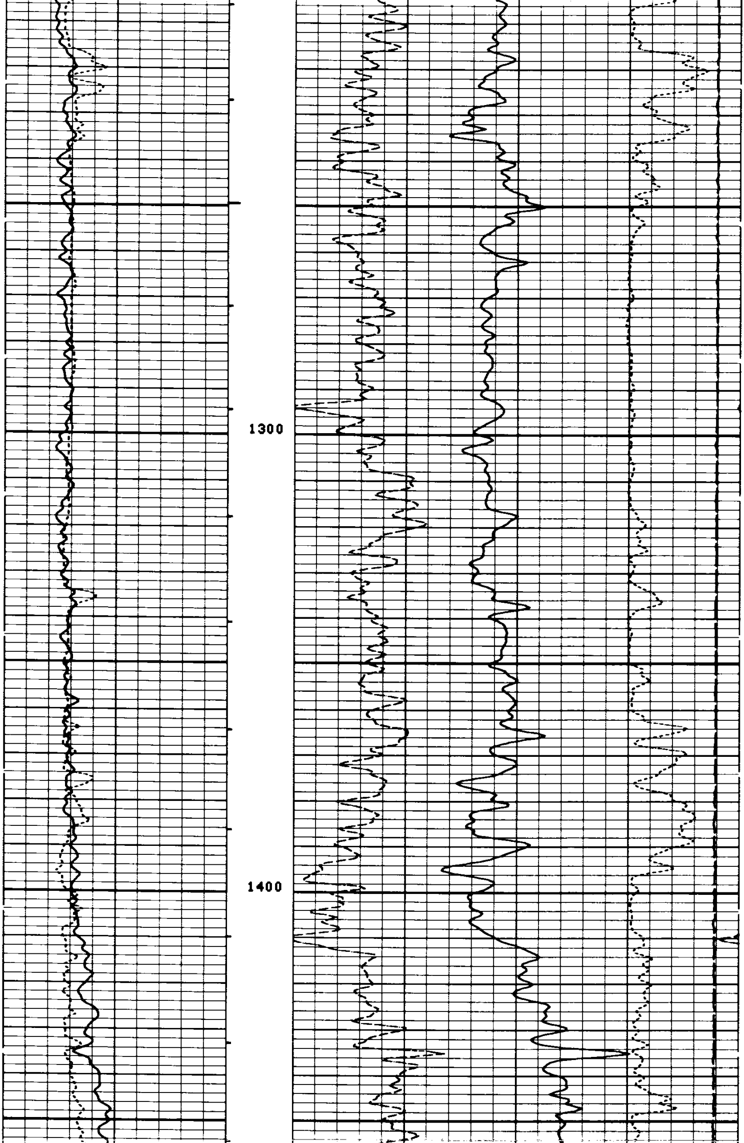
CP 28.2A FILE 3 07-NOV-85 11:57

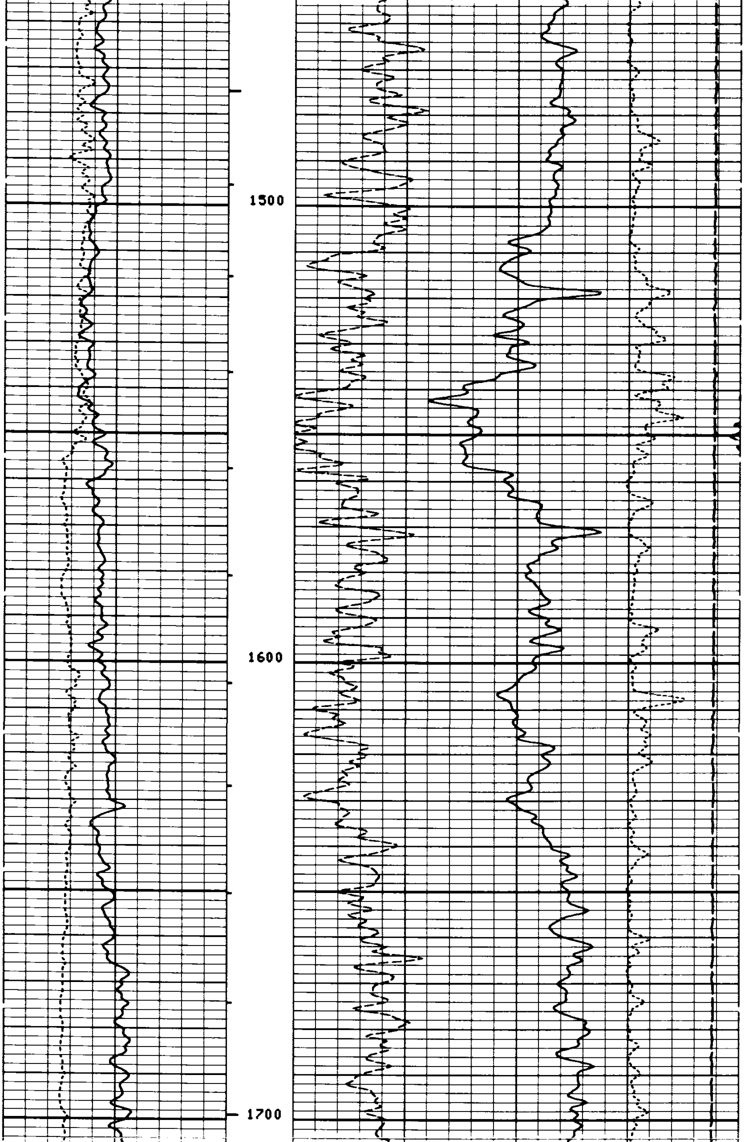


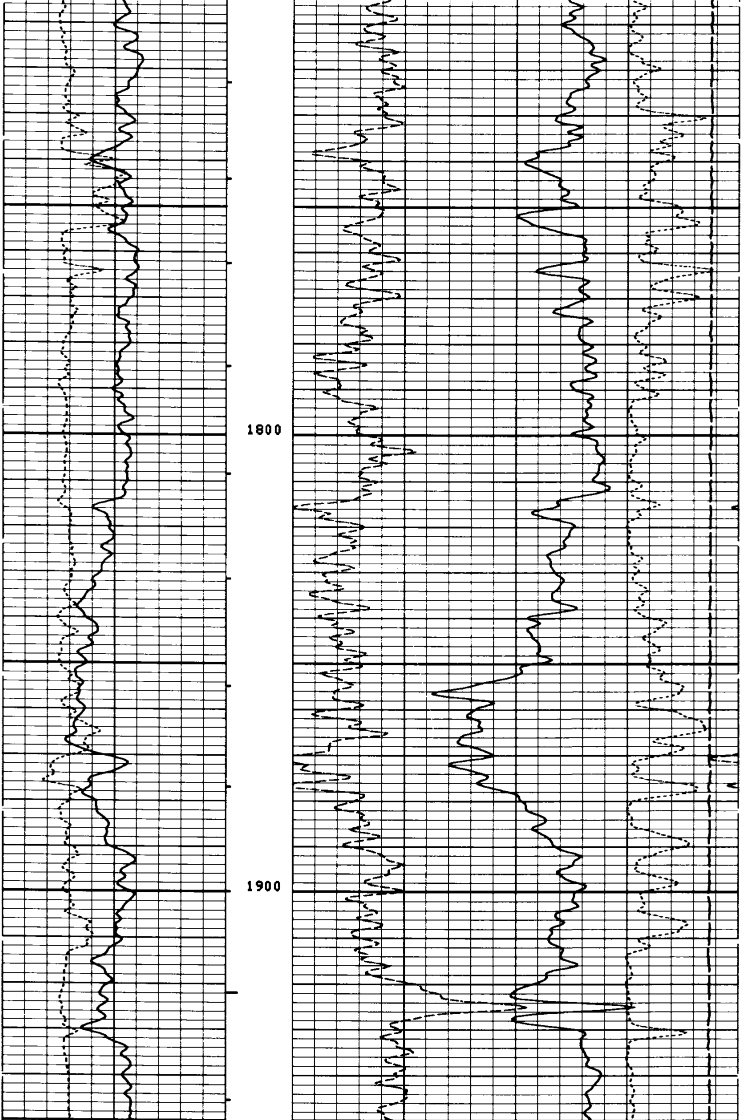


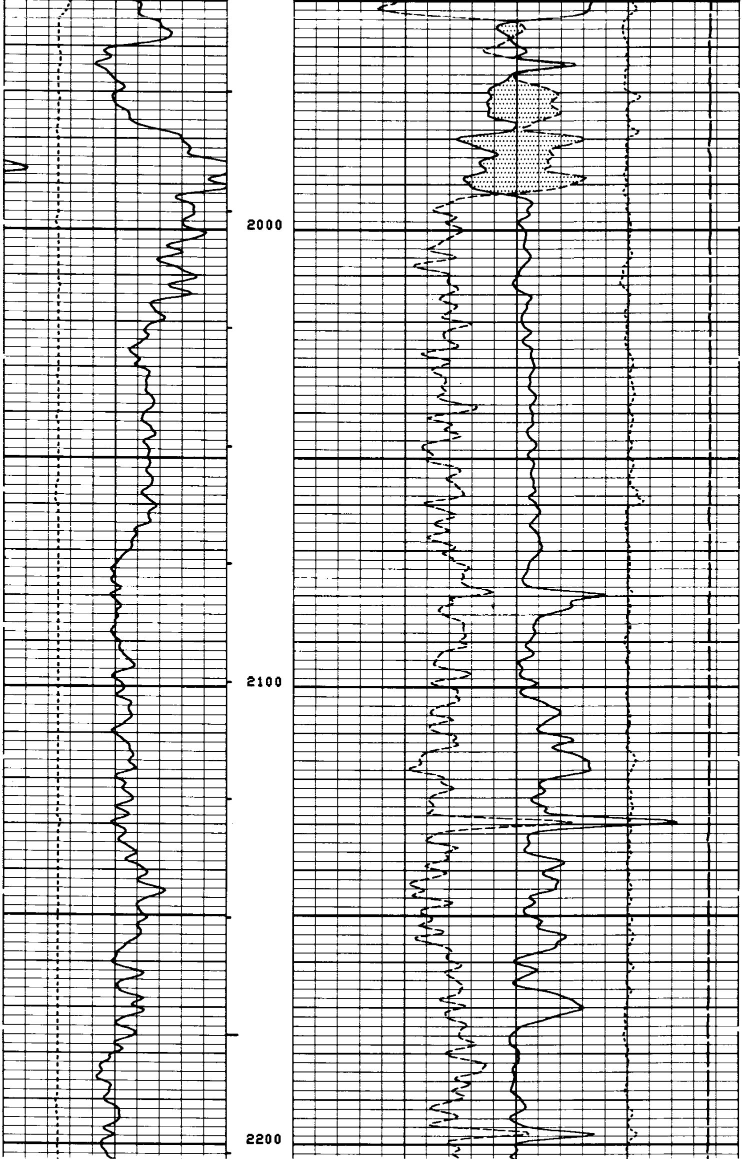


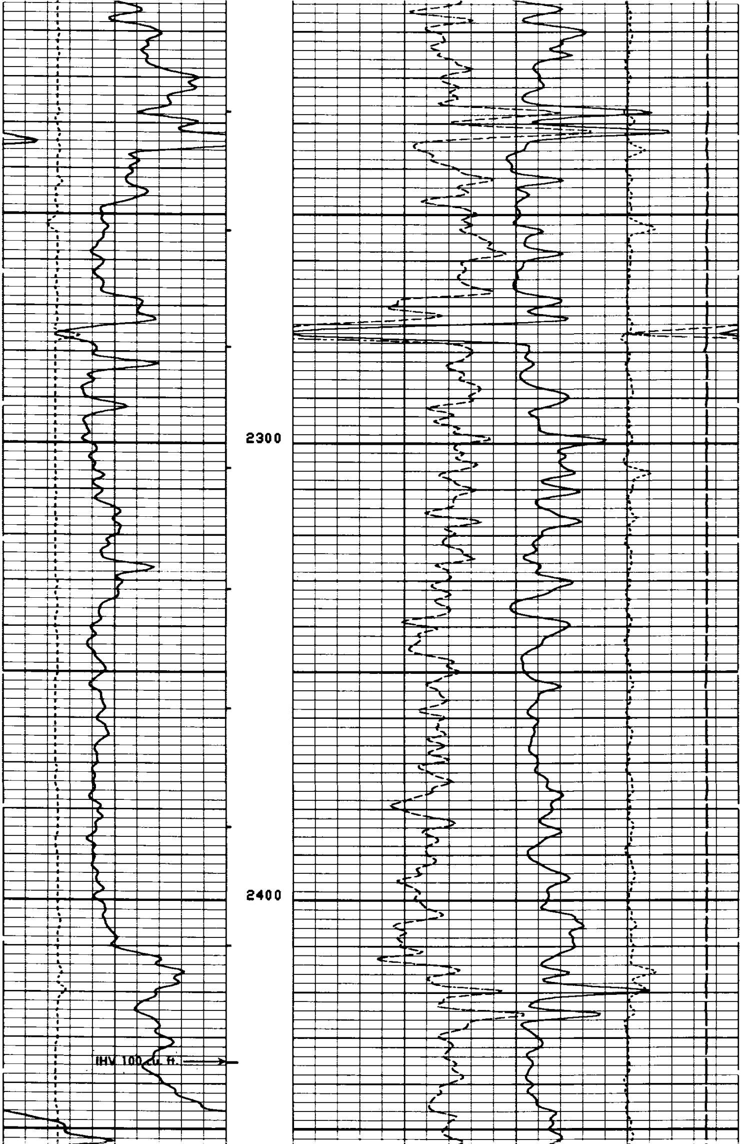


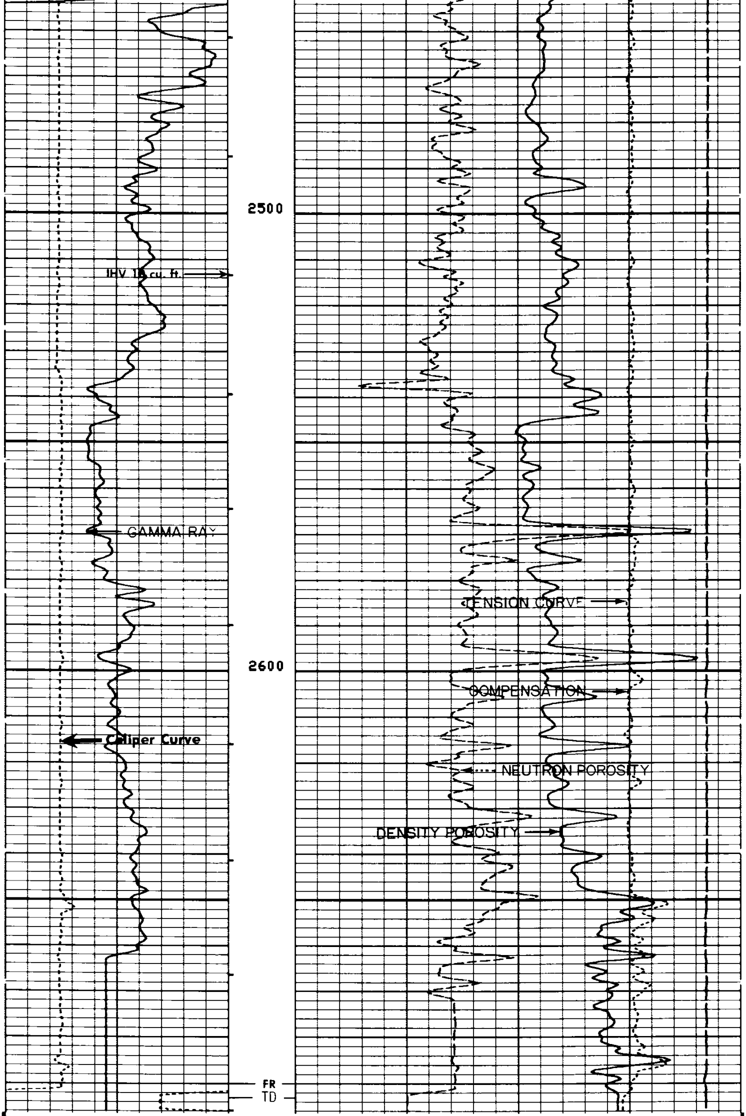












CP 28.2A FILE 3 07-NOV-85 10:37

```
                                                        TENS(LB  )
                                               10000.                 0.0
                                                        DRHO(G/C3)
                                               -.2500              .25000
                                        DPHI
                              1.2000                                .60000
                                        NPHI
                              1.2000                                .60000
        CALI(IN  )                      NPHI
6.0000           16.000       .60000                                   0.0
        GR  (GAPI)                      DPHI
0.0              150.00       .60000                                   0.0
```

SENSOR MEASURE POINT TO TOOL ZERO

STSG	-.9	FEET	GR	32.3	FEET
NCNL	23.7	FEET	FCNL	23.7	FEET
LITH	2.6	FEET	SCNL	-.9	FEET
LS	2.6	FEET	LL	2.6	FEET
SS1	2.1	FEET	LU	2.6	FEET
CALI	2.7	FEET	SS2	2.1	FEET
NRAT	23.7	FEET	TENS	-.9	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
BHT	120.000	DEGF	TD	2700.00	F
PSNR	2.20800		SHT	50.0000	DEGF
MATR	SAND		HC	CALI	
MDEN	2.65000	G/C3	FD	1.00000	G/C3
BFM	LIQU		WMUD	9.90000	LB/G
BHS	OPEN		DHC	NONE	
BS	8.50000	IN			

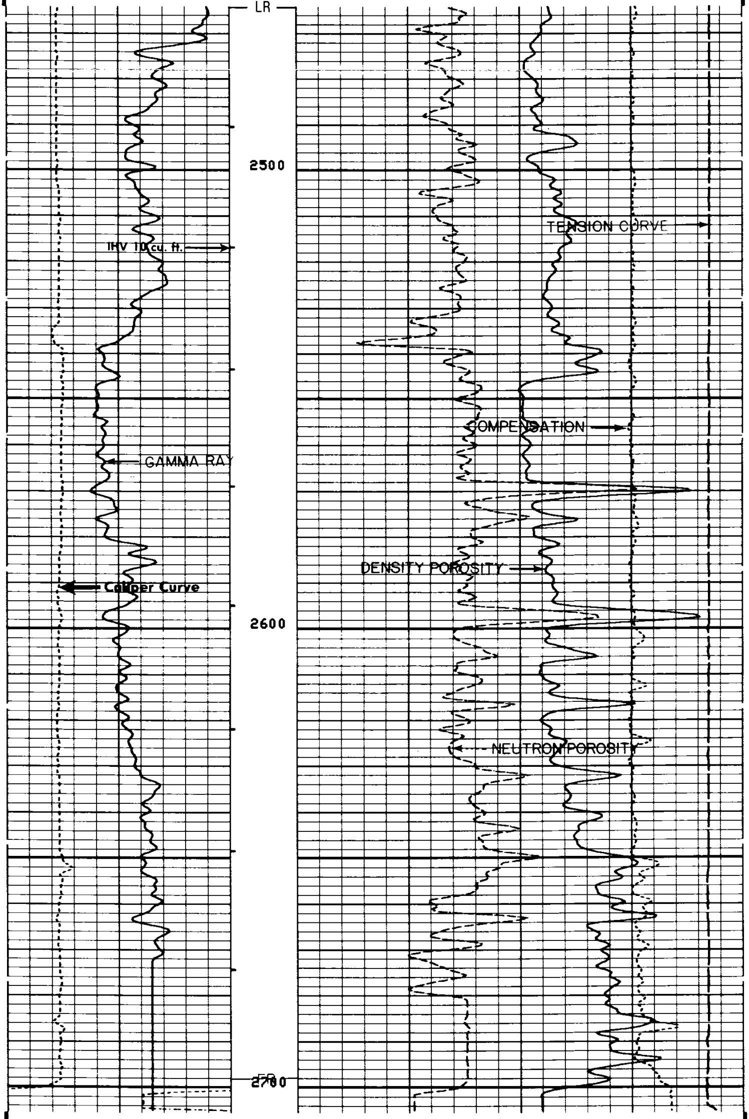
EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

```
                                                        TENS(LB  )
                                               10000.                 0.0
                                                        DRHO(G/C3)
                                               -.2500              .25000
                                        DPHI
                              1.2000                                .60000
                                        NPHI
                              1.2000                                .60000
        CALI(IN  )                      NPHI
6.0000           16.000       .60000                                   0.0
        GR  (GAPI)                      DPHI
0.0              150.00       .60000                                   0.0
```

REPEAT SECTION

CP 28.2A FILE 2 07-NOV-85 10:36



```
CP 28.2A            FILE    2        07-NOV-85 10:26 REPEAT SECTION
```

```
                                                              TENS(LB  )
                                                        10000.              0.0
                                                              DRHO(G/C3)
                                                        -.2500           .25000
                                                  DPHI
                                   1.2000                                .60000
                                                  NPHI
                                   1.2000                                .60000
       CALI(IN  )                                 NPHI
6.0000           16.000            .60000                                   0.0
       GR  (GAPI)                                 DPHI
0.0              150.00            .60000                                   0.0
```

```
                    SENSOR MEASURE POINT TO TOOL ZERO

        STSG  -.9  FEET                             GR    32.3  FEET
        NCNL 23.7  FEET                             FCNL  23.7  FEET
        LITH  2.6  FEET                             SCNL   -.9  FEET
        LS    2.6  FEET                             LL     2.6  FEET
        SS1   2.1  FEET                             LU     2.6  FEET
        CALI  2.7  FEET                             SS2    2.1  FEET
        NRAT 23.7  FEET                             TENS   -.9  FEET
```

```
                               PARAMETERS

      NAME  VALUE       UNIT                  NAME  VALUE       UNIT

      BHT   120.000     DEGF                  TD    2700.00     F
      PSNR  2.20800                           SHT   50.0000     DEGF
      MATR  SAND                              HC    CALI
      MDEN  2.65000     G/C3                  FD    1.00000     G/C3
      BFM   LIQU                              WMUD  9.90000     LB/G
      BHS   OPEN                              DHC   NONE
      BS    8.50000     IN
```

```
                 BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:     07-NOV-85 09:47
   PROGRAM FILE: MLDT   (VERSION    28.2A   85/10/26)


  SGTL                   DETECTOR CALIBRATION SUMMARY

                 MEASURED
               BKGD     JIG          CALIBRATED          UNITS
     GR         45      202             158              GAPI


  LDTC                   DETECTOR CALIBRATION SUMMARY

          DRS SONDE NUMBER                        :    3756
          NUCLEAR SERVICE CARTRIDGE NUMBER        :    1760
          POWERED DETECTOR HOUSING NUMBER         :    2706
          POWERED GAMMA-GAMMA DETECTOR NUMBER     :    2933
          LDT LOGGING SOURCE NUMBER               :    6929
          LDT CALIBRATION MODE                    :    WATE
          MUD DENSITY                             :    9.90000   LB/G

               M E A S U R E D
             BKGD   AL+FE    AL   UNITS
      LL     19.0    83.4   92.1   CPS
      LU     74.2   125.3  139.0   CPS
      LS     56.1   146.0  161.5   CPS
    LITH      5.7    35.7   51.3   CPS
     SS1     15.1   176.1  193.5   CPS
     SS2     10.4   247.5  269.5   CPS
```

```
CNTH              DETECTOR CALIBRATION SUMMARY

               TANK                        JIG
          INPUT  CALIBRATED        MEASURED   CALIBRATED
  NRAT    2.20800  2.158             2.171       2.123


LDTC              CALIPER CALIBRATION SUMMARY

             MEASURED                    CALIBRATED
           SMALL   LARGE                SMALL     LARGE       UNITS
  CALI     7.90    11.7                 8.00      12.0         IN

   CP 28.2A          FILE    1       07-NOV-85 09:47


               AFTER SURVEY TOOL CHECK SUMMARY


  PERFORMED:     07-NOV-85 12:33
  PROGRAM FILE: MLDT   (VERSION    28.2A   85/10/26)


LDTC                    TOOL  CHECK

        DRS SONDE NUMBER                     :   3756
        NUCLEAR SERVICE CARTRIDGE NUMBER     :   1760
        POWERED DETECTOR HOUSING NUMBER      :   2706
        POWERED GAMMA-GAMMA DETECTOR NUMBER :   2933
        LDT LOGGING SOURCE NUMBER            :   6929
        LDT CALIBRATION MODE                 :   WATE
        MUD DENSITY                          :   9.90000   LB/G

            BACKGROUND MEASURED
            BEFORE       AFTER        UNITS
    LL      18.96        19.06         CPS
    LU      74.18        74.43         CPS
    LS      56.06        56.28         CPS
  LITH       5.707        5.62         CPS
   SS1      15.07        14.94         CPS
   SS2      10.36        10.42         CPS

CNTH                    TOOL  CHECK

                      JIG
               BEFORE      AFTER
  NRAT         2.123       2.148

  POROSITY CHANGE  (LIME):    .004

   CP 28.2A          FILE    5       07-NOV-85 12:33

                SHOP SUMMARY


  PERFORMED:     08-OCT-85 10:35
  PROGRAM FILE: CCSHOP (VERSION    28.2A   85/07/10)


LDTC              DETECTOR CALIBRATION SUMMARY
```

```
        DRS SONDE NUMBER                        :   3756
        NUCLEAR SERVICE CARTRIDGE NUMBER        :   1760
        POWERED DETECTOR HOUSING NUMBER         :   2706
        POWERED GAMMA-GAMMA DETECTOR NUMBER :       2933
        LDT LOGGING SOURCE NUMBER               :   6929
        LDT CALIBRATION MODE                    :   WATE
        MUD DENSITY                             :   8.00000   LB/G

          MASTER  CALIBRATED
          BKGD  AL+FE    AL  UNITS
     LL   19.1   83.4   92.1   CPS
     LU   74.6  125.4  139.0   CPS
     LS   56.4  146.1  161.6   CPS
   LITH    5.7   35.7   51.3   CPS
    SS1   15.2  176.2  193.5   CPS
    SS2   10.4  247.5  269.7   CPS

          SPECTRUM QUALITY RATIOS
    QRLS       .6628
    QRSS       .7173
    QRLI       .3177
    QLIR      1.3019
    QR        1.0075

                 SHOP SUMMARY

  PERFORMED:     07-OCT-85 13:27
  PROGRAM FILE:  CCSHOP (VERSION    28.2A   85/07/10)


CNTH                  DETECTOR CALIBRATION SUMMARY

              TANK                          JIG
      MEASURED  CALIBRATED        MEASURED   CALIBRATED

  NRAT     2.208       2.158          2.218        2.169

                          (CNC:1263, CNB:2124)
```