CC 12-19-65

**ATLAS WIRELINE SERVICES**

# COMPENSATED DENSILOG®
# COMPENSATED NEUTRON
# GAMMA RAY

FILE NO. 10'
API NO.

5" = 100'

COMPANY ARCO OIL & GAS COMPANY
WELL CC 12-19-65
FIELD MIST
COUNTY COLUMBIA STATE OR.

LOCATION:
1844.34' S & 1209.68' E OF
THE NW CORNER OF

SEC 19 TWP 6N RGE 5W

OTHER SERVICES
DIFL/BHC/GR

PERMANENT DATUM GL ELEV.
LOGGING MEASURED FROM KB 10' FT. ABOVE P.D.
DRILLING MEASURED FROM KB

| ELEVATIONS | |
|---|---|
| KB | 947' |
| DF | - |
| GL | 937' |

| | | | | | |
|---|---|---|---|---|---|
| DATE | 9/25/88 | | | | |
| RUN | 1 | | | | |
| SERVICE ORDER | 159109 | | | | |
| DEPTH-DRILLER | 3211' | | | | |
| DEPTH-LOGGER | 3192' | | | | |
| BOTTOM LOGGED INTERVAL | 3190' | | | | |
| TOP LOGGED INTERVAL | 788' | | | | |
| CASING - DRILLER | 9 5/8" | @ 789' | @ | @ | @ |
| CASING - LOGGER | 788' | | | | |
| BIT SIZE | 6.25" | | | | |
| TYPE FLUID IN HOLE | E Z MUD | | | | |
| DENSITY / VISCOSITY | 9.9+ | 45 | | | |
| PH / FLUID LOSS | 8.0 | 5.6 | | | |
| SOURCE OF SAMPLE | FLOWLINE | | | | |
| RM AT MEAS. TEMP. | 2.47 | @ 72 F | @ | @ | @ |
| RMF AT MEAS. TEMP. | 2.38 | @ 72 F | @ | @ | @ |
| RMC AT MEAS. TEMP. | 2.58 | @ 72 F | @ | @ | @ |
| SOURCE OF RMF / RMC | MEAS | MEAS | | | |
| RM AT BHT | 1.71 | @ 104 F | @ | @ | @ |
| TIME SINCE CIRCULATION | 5 HRS | | | | |
| MAX. REC. TEMP. DEG. F | 104 F | | | | |
| EQUIP. NO. / LOC. | HL 6406 | SAC | | | |
| RECORDED BY | B. WELCH | | | | |
| WITNESSED BY | MR. MOOREFIELD | | | | |

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 3.5" CSC

## EQUIPMENT DATA

| RUN | TRIP | TOOL | SERIAL NO. | SERIES NO. | POSITION |
|---|---|---|---|---|---|
| 1 | 1 | CDL | 72541 | 2212 | DECENT |
| 1 | 1 | CAL | 72541 | 2212 | DECENT |
| 1 | 1 | CN | 53264 | 2435 | DECENT |
| 1 | 1 | GR | 73467 | 1309 | DECENT |

CURVE DELAYS

| CURVE | DELAY | UNITS |
|---|---|---|
| SSD | 0,3 | FT,IN |
| LSD | 0 | FT,IN |
| CAL | 0,0 | FT,IN |
| SSN | 9,9 | FT,IN |
| LSN | 10,3 | FT,IN |
| GR | 16,6 | FT,IN |
| TTEN | 0,0 | FT,IN |
| TEN | 0,0 | FT,IN |
| SPD | 0,0 | FT,IN |

PARAMETERS

| NAME | DEPTH INTERVAL | VALUE | UNITS |
|---|---|---|---|
| A | 3212 TO 784 | 0.000 | |
| CAL CORR | 3212 TO 784 | 6.250 | INCH |
| CHI SMTH | 3212 TO 784 | ACTIVE | |
| M | 3212 TO 784 | 0.000 | |
| MATRIX | 3212 TO 784 | SANDSTONE | |
| O.D. | 3212 TO 784 | 3.500 | INCH |
| RHO F | 3212 TO 784 | 0.980 | G/CC |
| RHO M | 3212 TO 784 | 2.650 | G/CC |
| SALINITY | 3212 TO 784 | 0.000 | PPK |

DISPLAY SCALE CHANGES

*** NONE ***

COMPANY: ARCO OIL & GAS COMPANY

RUN: 1

WELL NAME: CC 12-19-65

TRIP: 1

SERVICE: KC2878 FILE: 2 DATE: 09/24/88 TIME: 15:15:42

REVISION: FSYSAL REV GS08 VER+2

MODE: RECORD

PORD(%) 60 0

BIT(INCH) 5 15

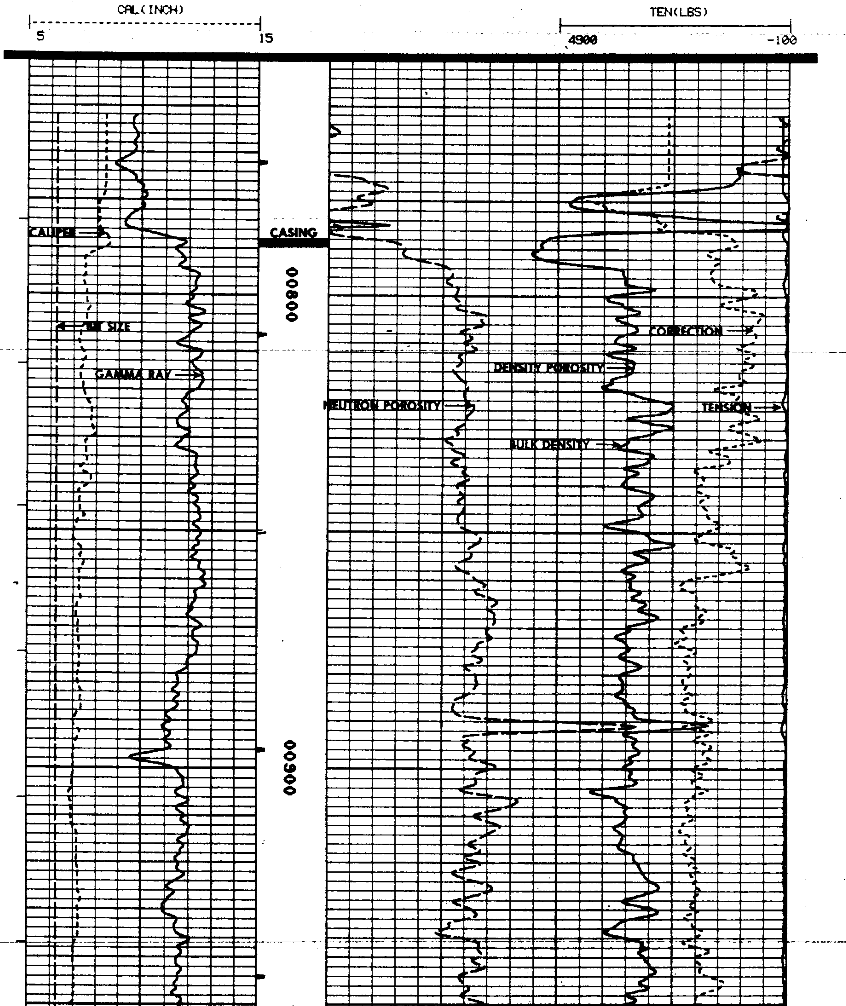
CNC(%) 60 0

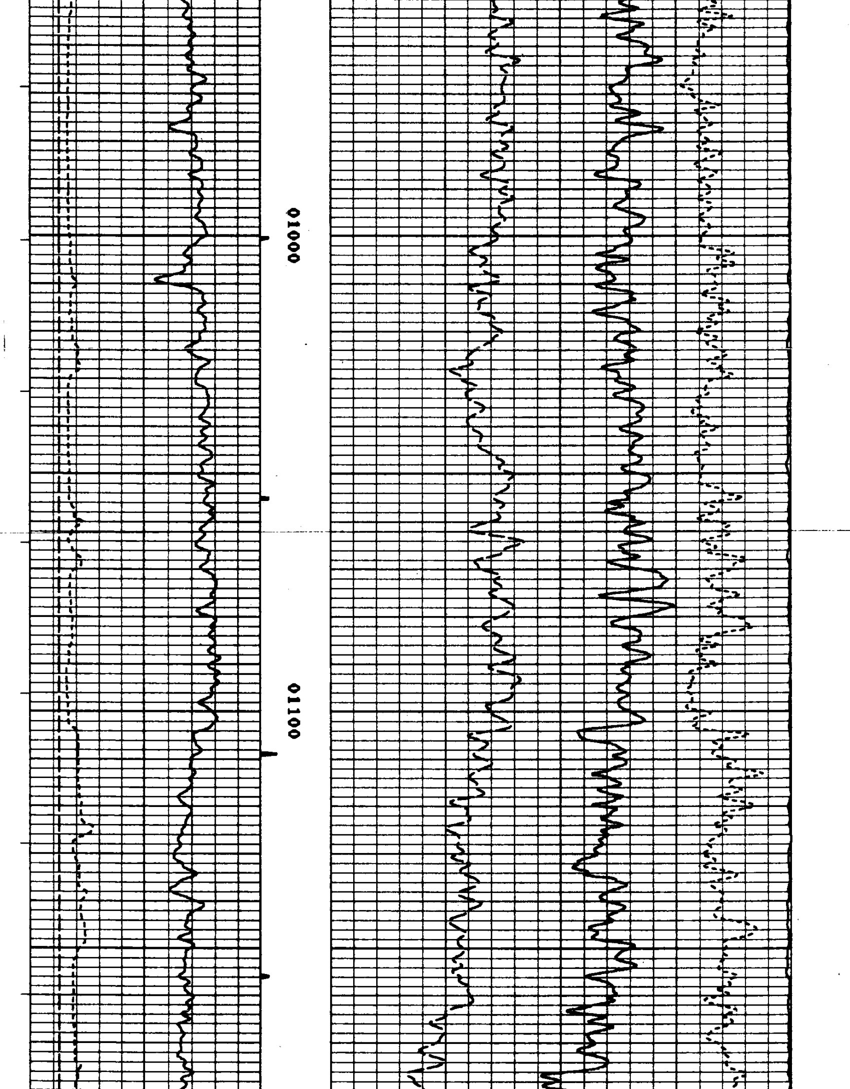
VOL(CUFT) 0 30

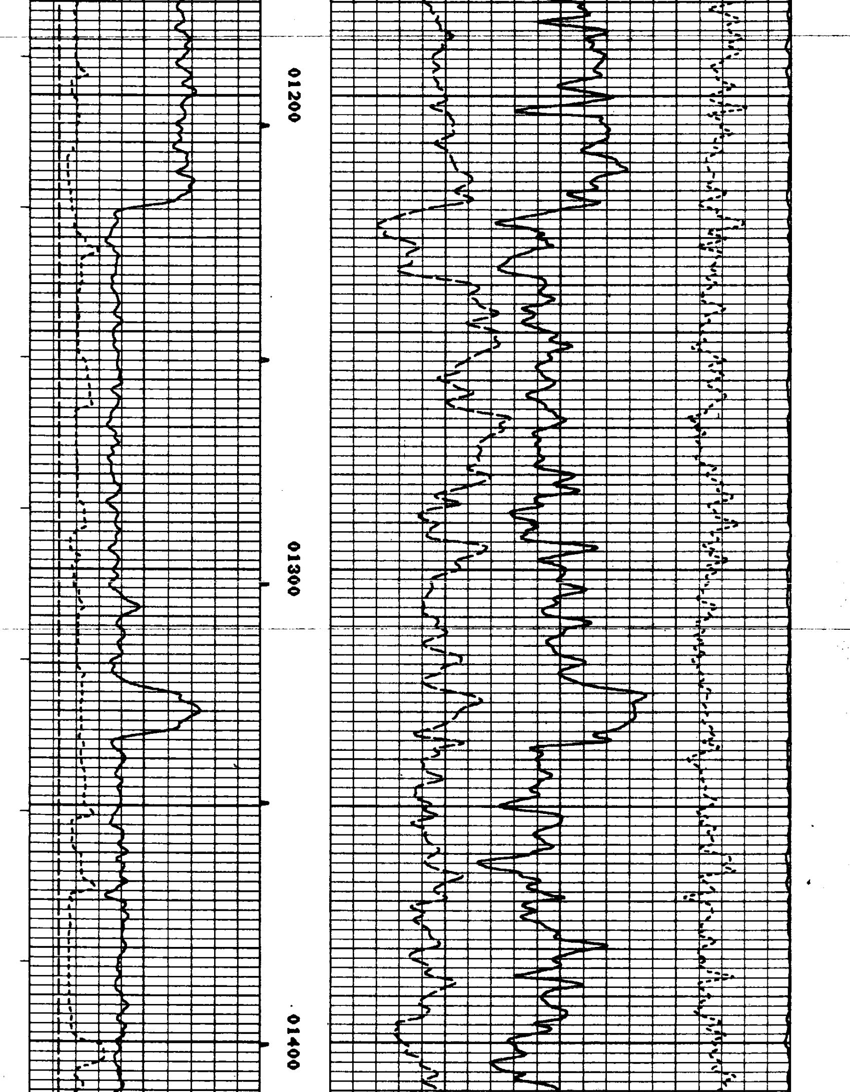
CORR(G/CC) -0.5 0.5

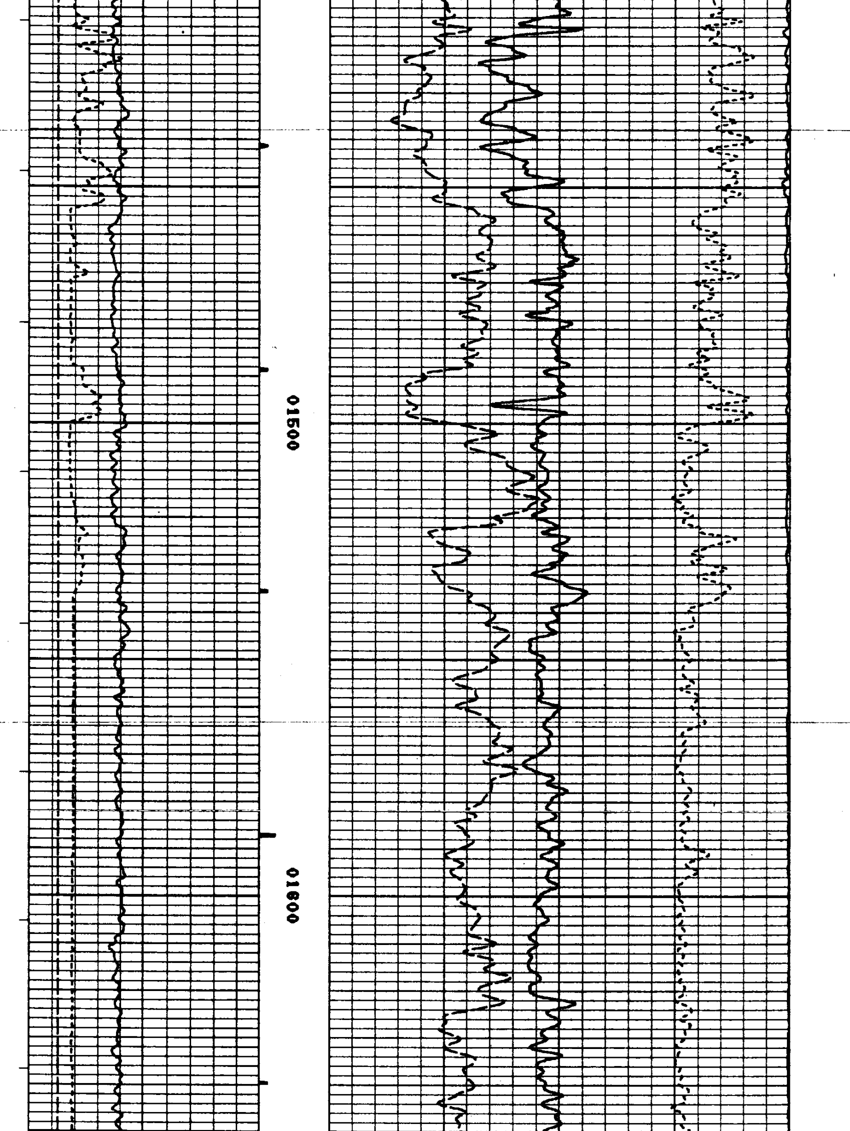
GR(API) 0 150

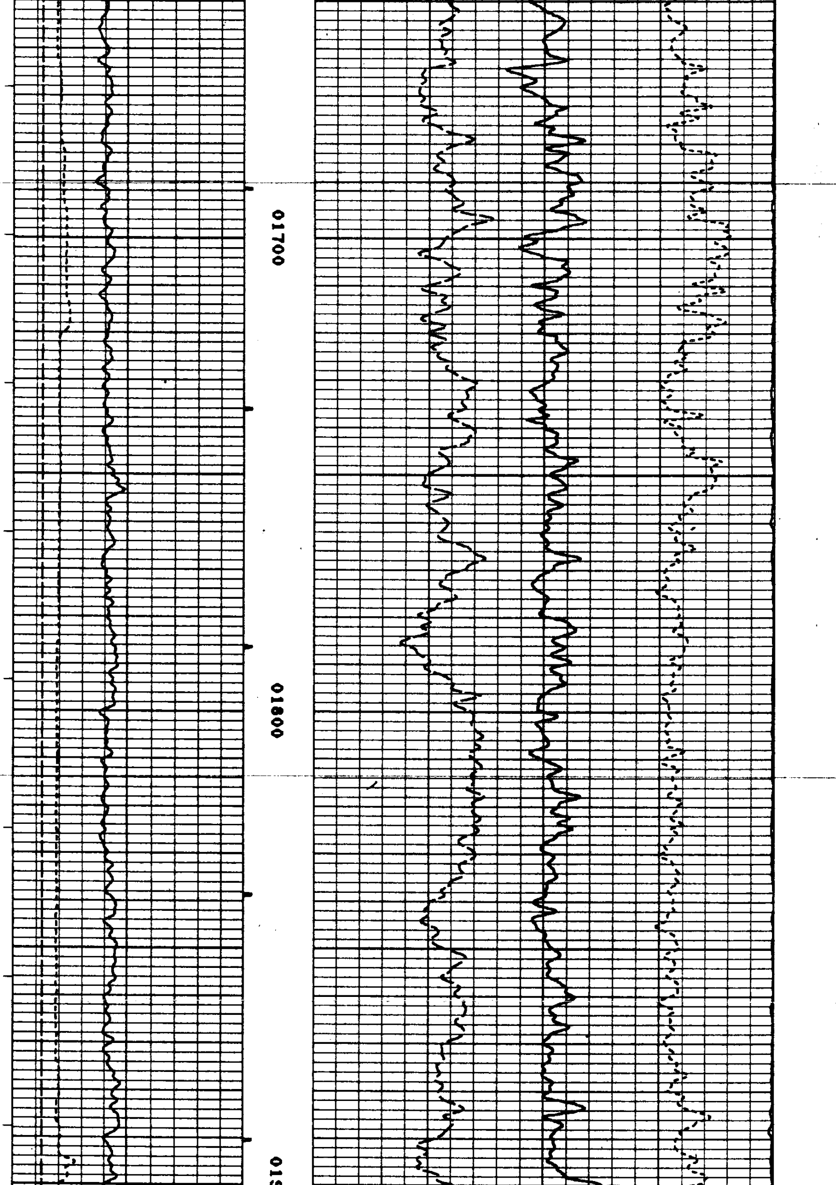
DEN(G/CC) 1.65 2.65

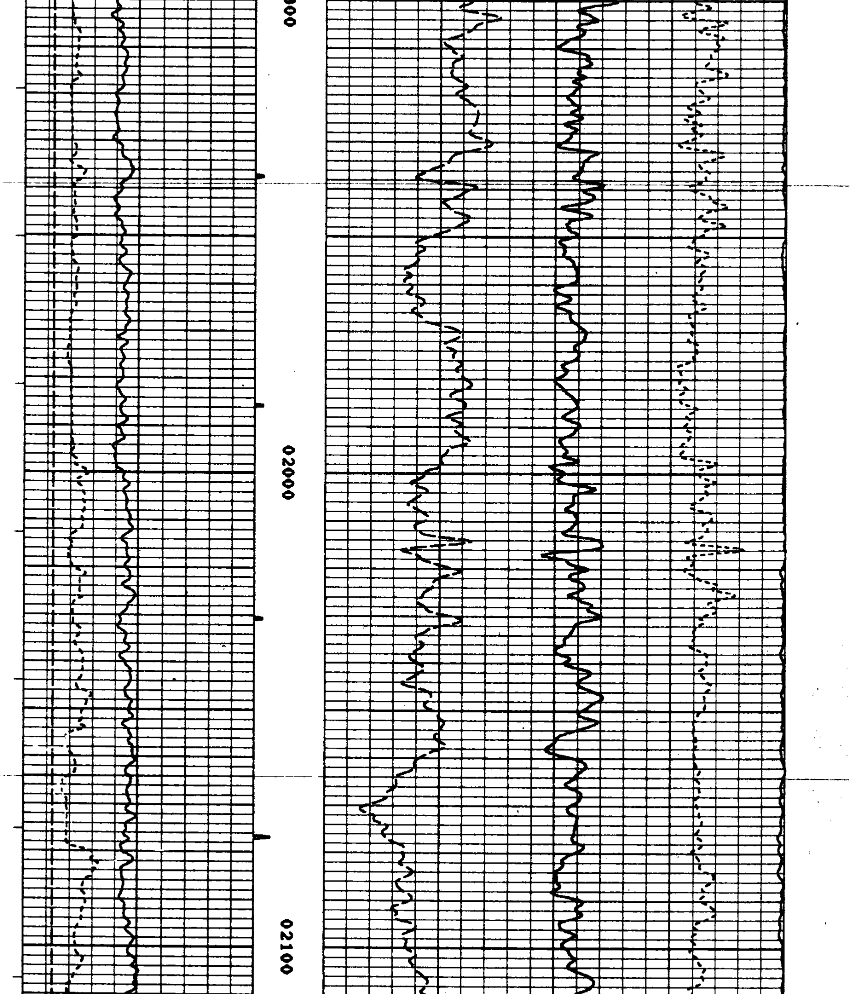


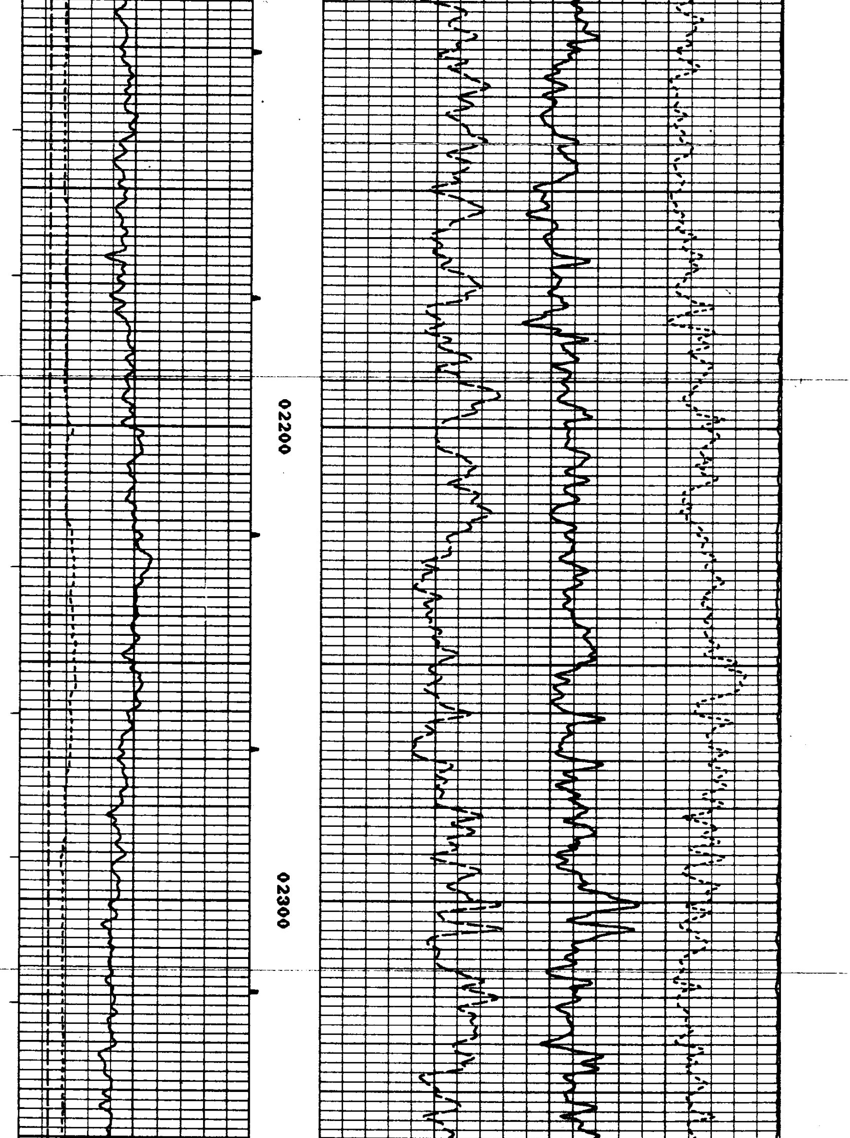


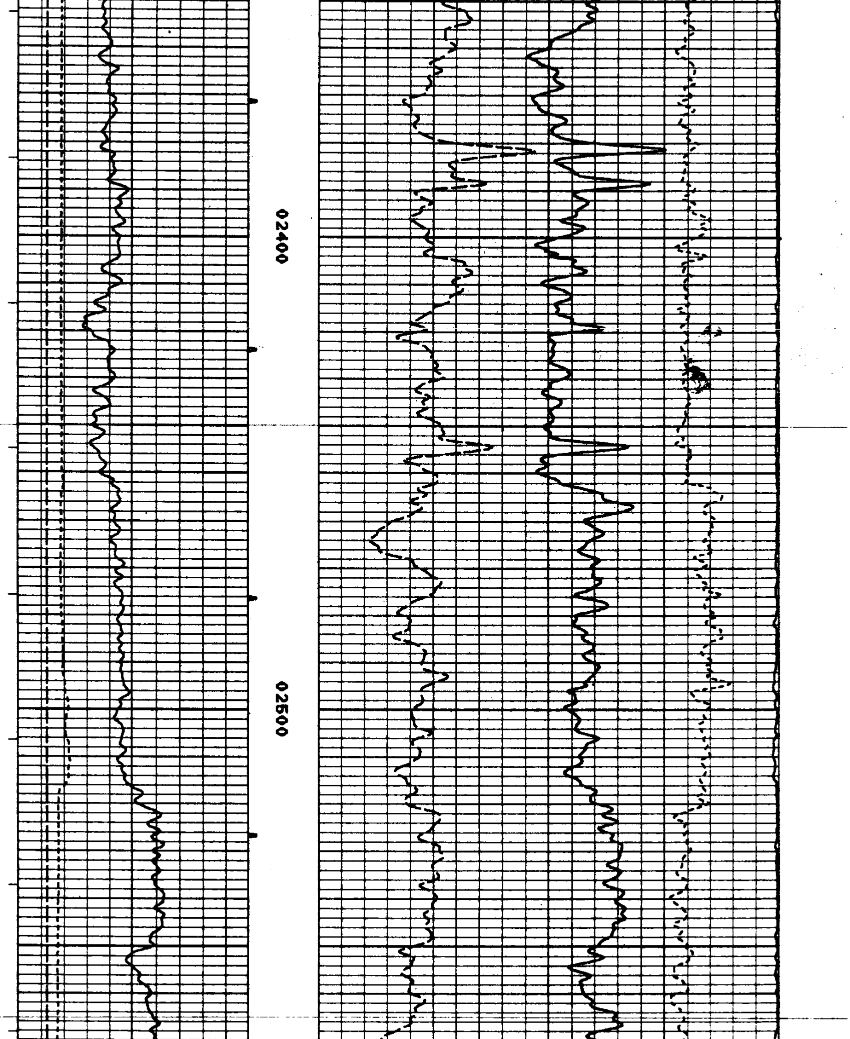


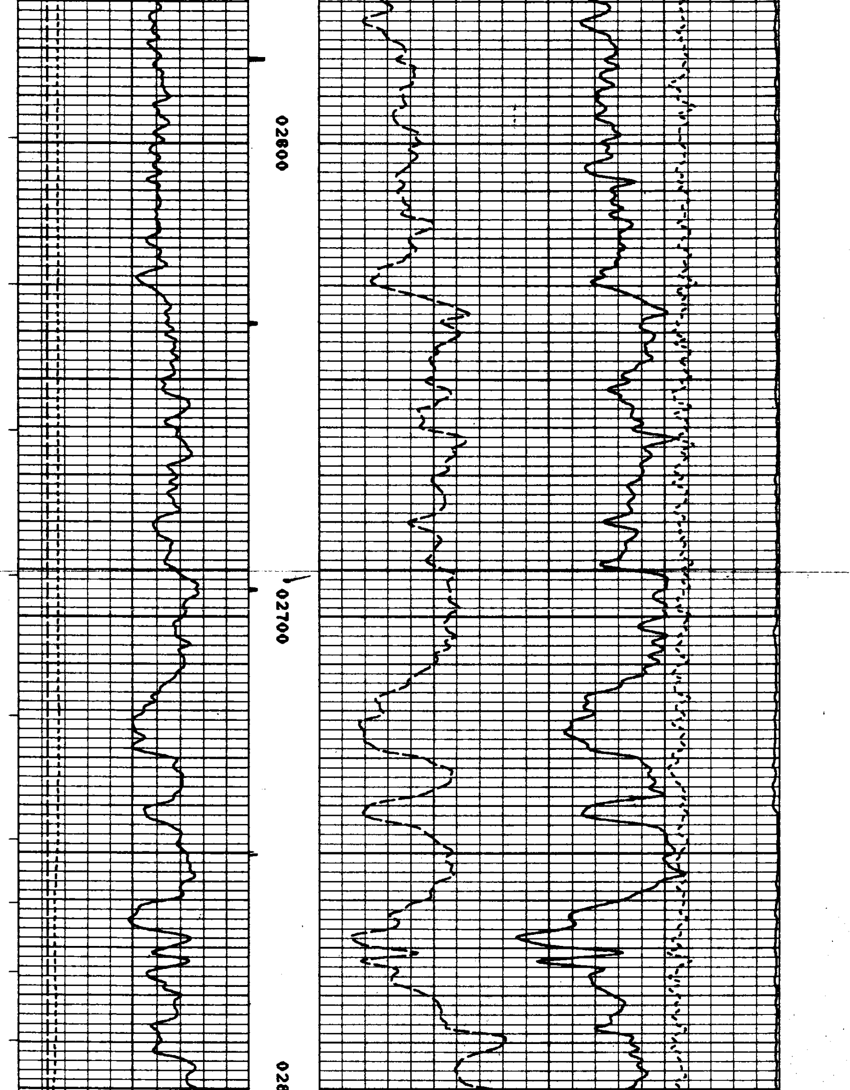


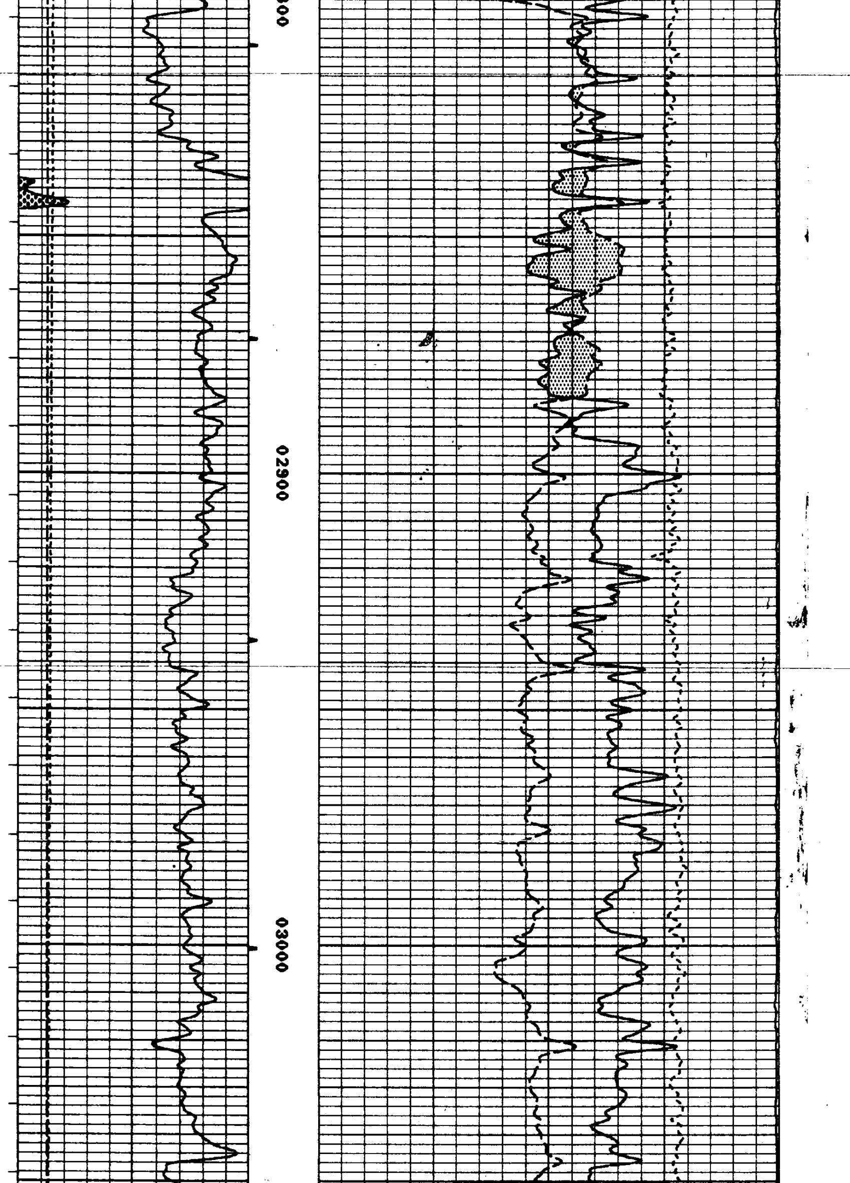


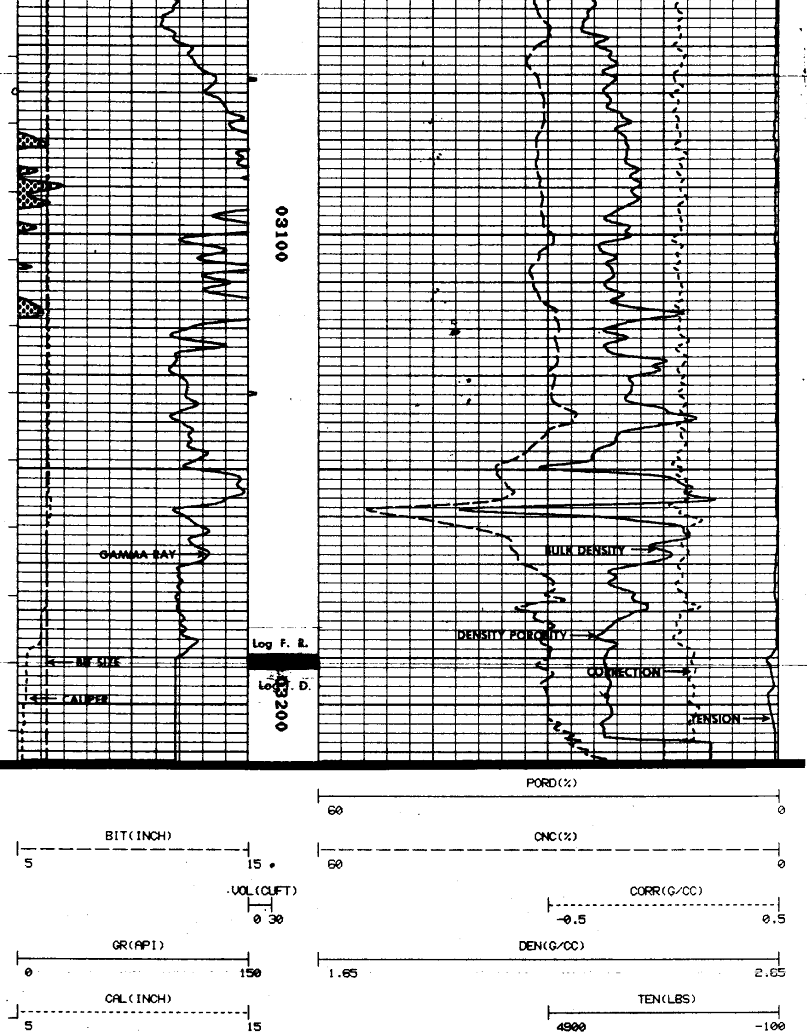












PARAMETERS

| NAME | DEPTH INTERVAL | VALUE | UNITS |
|---|---|---|---|
| A | 3203 TO 2732 | 0.000 | |
| CAL CORR | 3203 TO 2732 | 6.250 | INCH |
| CHI SMTH | 3203 TO 2732 | ACTIVE | |

| | | | | | |
|---|---|---|---|---|---|
| M | 3203 | TO | 2732 | 0.000 | |
| MATRIX | 3203 | TO | 2732 | SANDSTONE | |
| O.D. | 3203 | TO | 2732 | 3.500 | INCH |
| RHO F | 3203 | TO | 2732 | 0.980 | G/CC |
| RHO M | 3203 | TO | 2732 | 2.650 | G/CC |
| SALINITY | 3203 | TO | 2732 | 0.000 | PPK |

DISPLAY SCALE CHANGES

*** NONE ***

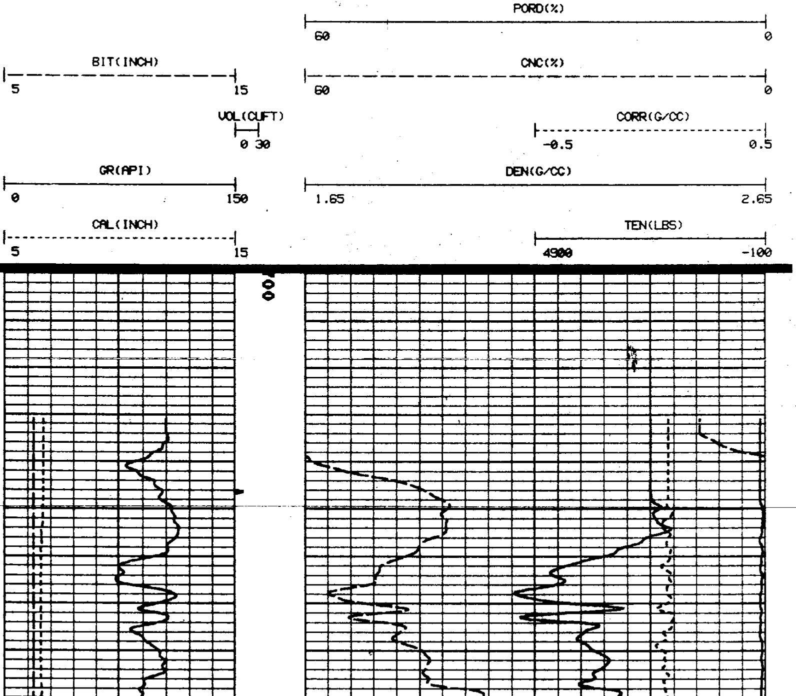
COMPANY: ARCO OIL & GAS COMPANY RUN: 1

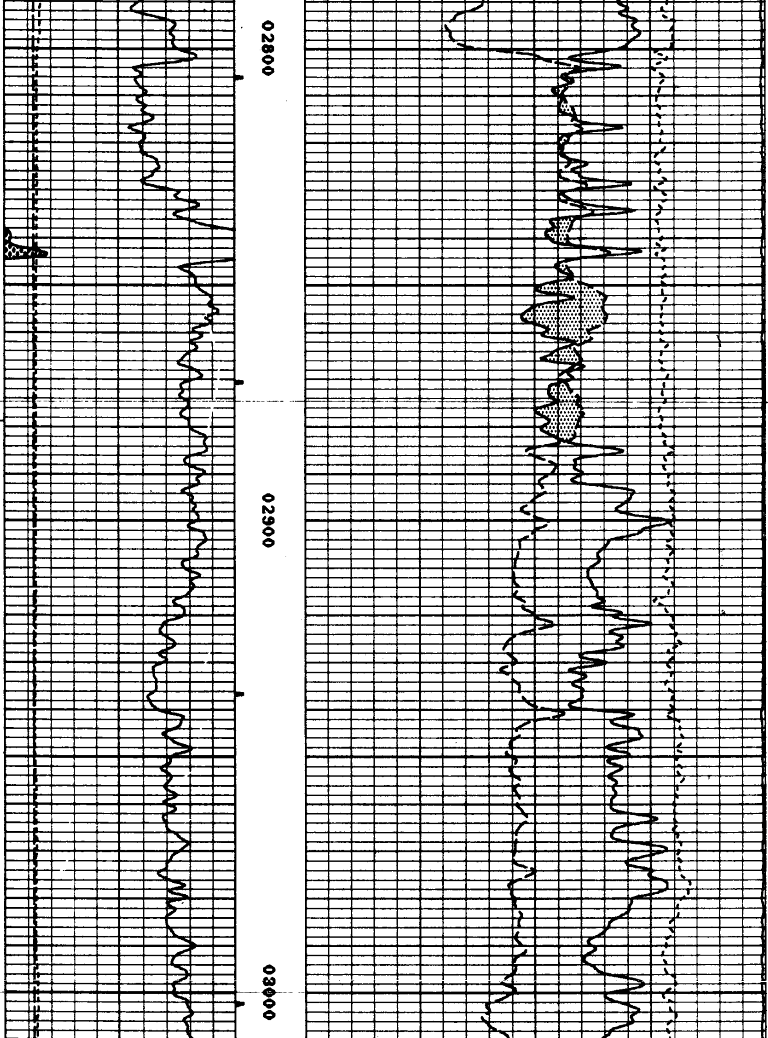
WELL NAME: CC 12-19-65 TRIP: 1

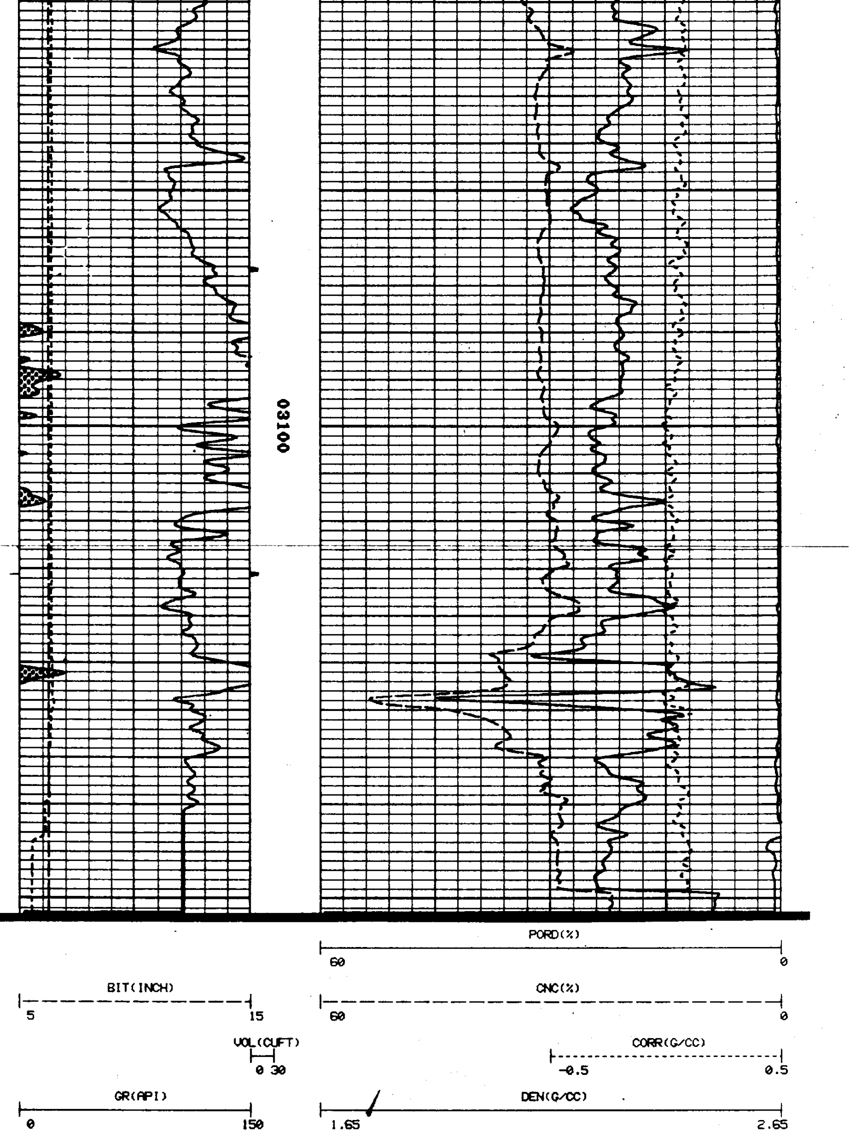
SERVICE: KC287B FILE: 1 DATE: 9/24/88 TIME: 14:32: 5

~~REVISION: FSYSAL REV 6S08 VER+2~~ ~~MODE: PLAYBACK~~

## REPEAT SECTION







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          CAL(INCH)                                                                        TEN(LBS)
 5                              15                                          4900                            -100

                 ****************************************
                 *                                      *
                 *  CALIBRATION/VERIFICATION SUMMARIES  *
                 *  DATE 09/24/88        TIME 17:22:15  *
                 *  RUN  1               TRIP 1         *
                 *                                      *
                 ****************************************


           LOG NAME CDL      ASSET NO. 72541     UNIT NO. HL 6406
       CALIBRATION ENTERED ON  09/24/88 AT 08:29:40          LARGE TOOL
                              SOURCE NUMBER 845

      CURVE   COUNTS/SEC.    SCALING FACTORS     RATIO     ENG. VALUE  UNITS
             BLOCK  VALUE    ADD.     MULT.      MG/AL
      -----   ----------    -----------------   -------    ----------  -----

           DATE 09/24/88         CALIBRATION            TIME 08:29:40

      LSD      MG     346.6
      SSD             463.6
      DEN                                                       2.200  G/CC
      CORR                                                      0.000  G/CC
      LSD      AL     118.2    0.000     1.0000    2.9319
      SSD             298.1    0.000     1.0000    1.5550
      DEN                                                       2.800  G/CC
      CORR                                                      0.000  G/CC
      LSD      MGRV   320.4
      SSD             503.2
      DEN                                                       2.480  G/CC
      CORR                                                      0.235  G/CC

           DATE 09/24/88    PRIMARY VERIFICATION        TIME 08:43:51

      LSD      JIG    167.6    0.000     1.0000
      SSD             328.5    0.000     1.0000
      DEN                                                       2.517  G/CC
      CORR                                                     -0.092  G/CC

           DATE 09/24/88   BEFORE LOG VERIFICATION      TIME 08:49:03

      LSD      JIG    164.7    0.000     1.0000
      SSD             326.9    0.000     1.0000
      DEN                                                       2.532  G/CC
      CORR                                                     -0.087  G/CC

           DATE 09/24/88    AFTER LOG VERIFICATION      TIME 17:05:06

      LSD      JIG    164.5    0.000     1.0000
      SSD             328.1    0.000     1.0000
      DEN                                                       2.541  G/CC
      CORR                                                     -0.079  G/CC


           LOG NAME CAL      ASSET NO. 72541     UNIT NO. HL 6406
       CALIBRATION ENTERED ON  09/24/88 AT 06:14:50

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

           DATE 09/24/88         CALIBRATION            TIME 06:14:50

      CAL     2419.8  4220.5  -2.063    0.0244      6.000     12.000  INCH

           DATE 07/23/88    PRIMARY VERIFICATION        TIME 17:22:46

      CAL        E    4214.6  -1.392    0.0233      E         11.998  INCH

           DATE 09/24/88   BEFORE LOG VERIFICATION      TIME 14:06:59

      CAL     3340.7  3339.2  -2.063    0.0244      9.068      9.063  INCH

           DATE 09/24/88    AFTER LOG VERIFICATION      TIME 16:54:59

      CAL        E    3225.6  -2.063    0.0244      E          8.685  INCH
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        LOG NAME CN       ASSET NO. 53264A   UNIT NO. 6406
     CALIBRATION ENTERED ON  09/24/88 AT 05:52:47             2435
                               SOURCE NUMBER S17S20

   CURVE   COUNTS/SEC.     SCALING FACTORS     RATIO     ENG. VALUE  UNITS
                            ADD.      MULT.  LSN/(SSN*4)
   ----    --------        ----------------  ---------   ----------  -----

        DATE 08/28/88          CALIBRATION            TIME 19:27:34

   LSN          85.0        0.000     1.0000
   SSN         165.4        0.000     1.0000
   CN                                          0.1285        24.558  %

        DATE 08/28/88     PRIMARY VERIFICATION        TIME 19:38:49

   LSN          82.1        0.000     1.0000
   SSN         122.7        0.000     1.0000
   CN                                          0.1674        15.374  %

        DATE 09/24/88    BEFORE LOG VERIFICATION      TIME 06:02:40

   LSN          82.1        0.000     1.0000
   SSN         123.0        0.000     1.0000
   CN                                          0.1669        15.457  %

        DATE 09/24/88     AFTER LOG VERIFICATION      TIME 16:58:10

   LSN          83.0        0.000     1.0000
   SSN         124.4        0.000     1.0000
   CN                                          0.1669        15.463  %


        LOG NAME GR       ASSET NO. 73467D   UNIT NO. 6406
     CALIBRATION ENTERED ON  09/24/88 AT 05:42:56

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

        DATE 08/28/88          CALIBRATION            TIME 19:46:18

   GR      3197.6  6939.2   0.000    0.0978      0.000    150.000 API

                          PRIMARY VERIFICATION              NOT DONE

        DATE 09/24/88    BEFORE LOG VERIFICATION      TIME 05:44:34

   GR      1164.1  5230.9   0.000    0.0978     46.667    209.707 API

        DATE 09/24/88     AFTER LOG VERIFICATION      TIME 17:18:08

   GR      1299.5  5141.1   0.000    0.0978     52.095    206.107 API
```