051-28

Schlumberger 1089

SIMULTANEOUS
COMPENSATED NEUTRON-FORMATION DENSITY

COMPANY NRM PETROLEUM CORP.

WELL DUDA 2-2

FIELD WILDCAT

COUNTY HENDRY STATE FLORIDA

API SERIAL NO.	SEC.	TWP.	RANGE
	2	45S	28E

LOCATION NA

Other Services: DITD

COUNTY
FIELD
LOCATION
WELL
COMPANY

Permanent Datum: GL ; Elev.: NA
Log Measured From RKB 22.0 Ft. Above Perm. Datum
Drilling Measured From RKB

Elev.: K.B. 30.03 NA
D.F. 51.67' NA
G.L. 53.17 NA

FLORIDA GEOLOGICAL SURVEY
2293 VICTORIA AVENUE, SUITE 179
FT. MYERS, FLORIDA 33901

Date	10-18-82			
Run No.	ONE			
Depth—Driller	1575			
Depth—Logger	1574			
Btm. Log Interval	1542			
Top Log Interval	240			
Casing—Driller	20 @ 242	@	@	@
Casing—Logger	240			
Bit Size	17½			
Type Fluid in Hole	GEL			
Dens. | Visc.	8.8 | 35	|	|	|
pH | Fluid Loss	— | — ml	| ml	| ml	| ml
Source of Sample	MUDPIT			
Rm @ Meas. Temp.	6.31 @ 83 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	— | —	|	|	|
Rm @ BHT	5.9 @ 86 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	0400			
TIME Logger on Bottom	0600			
Max. Rec. Temp.	86 °F	°F	°F	°F
Equip. | Location	8193 | FT MYERS	|	|	|
Recorded By	BUCHEL			
Witnessed By	ELDON			

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

RUN NO.	ONE			
Service Order No.	242405			
Fluid Level	FULL			
Salinity, PPM CL.	NA			
Speed - F.P.M.	30			
EQUIPMENT DATA				
Dens. Panel	1257			
Dens. Cart.	416			
Dens. Skid.	1201			
Dens. Sonde	83			
Dens. Source	3345			
Dens. Calibrator	GCBC			
Neut. Panel	1257			
Neut. Cart.	652			
Neut. Source	A0501			
Neut. Calibrator	301			
GR Cart.	2292			
Memorizer Panel	CSU			
Tape Recorder (TTR)	MTY			
Depth Encoder (DRE)	IDW			
Pressure Wheel (CPW)	IDW			
Centralizers: Enter Spring, Standoffs, In-line, or None — Type	SPRING			
Centralizers — No.	1			
Centralizers — S. O. — Inches	—			

Type Log	Depth		

REMARKS:

RAN IN COMBO WITH DIT

CALIBRATION DATA					
GR	BKG. CPS				
	Source CPS				
	Sens. - Cal	SEE			
	T. C. - Cal				
CNL	Short Spacing - Before Log	CSL			
	Long Spacing - Before Log				
	Short Spacing - After Log				
	Long Spacing - After Log				
FDC	P¹ — Before Log				
	P² — Before Log				
	P¹ — After Log				
	P² — After Log				

LOGGING DATA

DEPTH		CNP			FDC				GR			
Top	Bottom	Porosity Scale	Matrix	Auto Corr. or Hole Size Setting	Porosity Scale	Grain Density	Liquid Density	Hole Fluid	Sens. Logged	T. C.	Zero. Div. Left	Scale Per 100 Div.
240	1542	45-15	LIME	AUTO	45-15	2.71	1.00	WAT	165	DL=1	0	100

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.

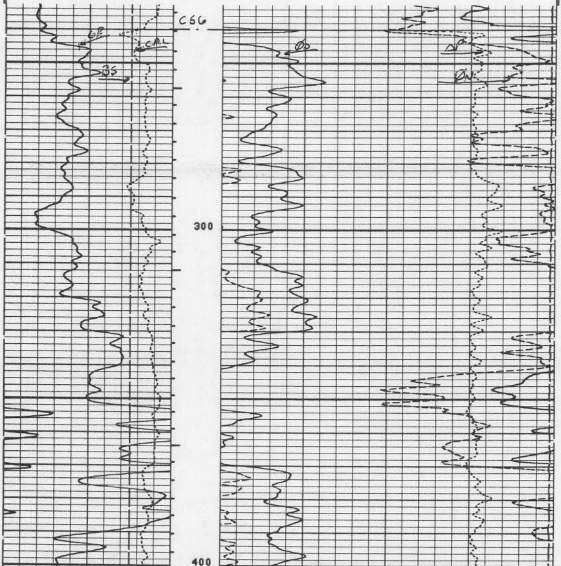
```
AFTER SURVEY TOOL CHECK SUMMARY


PERFORMED:     82/10/18
PROGRAM FILE: ISN   (VERSION    20.2    81/ 1/30)
```

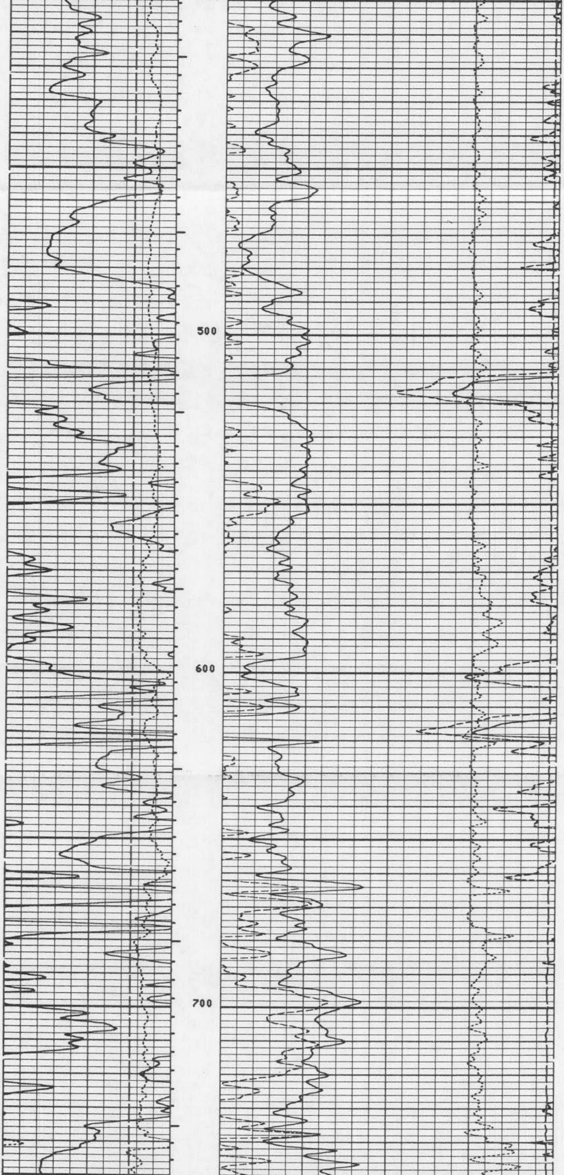
```
DITD                          TOOL  CHECK

                      ZERO                           PLUS
                BEFORE      AFTER         BEFORE    AFTER    UNITS
   ILD           0.0        -0.0          499.8     500.9    MMHO
   ILM           0.0        -0.0          500.0     499.7    MMHO
   SFL           0.0         0.0          500.0     500.0    MMHO

ILD  SONDE ERROR CORRECTION :           6.0    MMHO
ILM  SONDE ERROR CORRECTION :           6.2    MMHO

CNTA                          TOOL  CHECK

                         JIG
                   BEFORE       AFTER
  NRAT             2.229        2.222

  POROSITY CHANGE  (LIME): -0.000

PGTK                          TOOL  CHECK

                         JIG
                   BEFORE       AFTER       UNITS
  FFDC              324          323         CPS
  NFDC              515          516         CPS
                         FILE

                          9
```

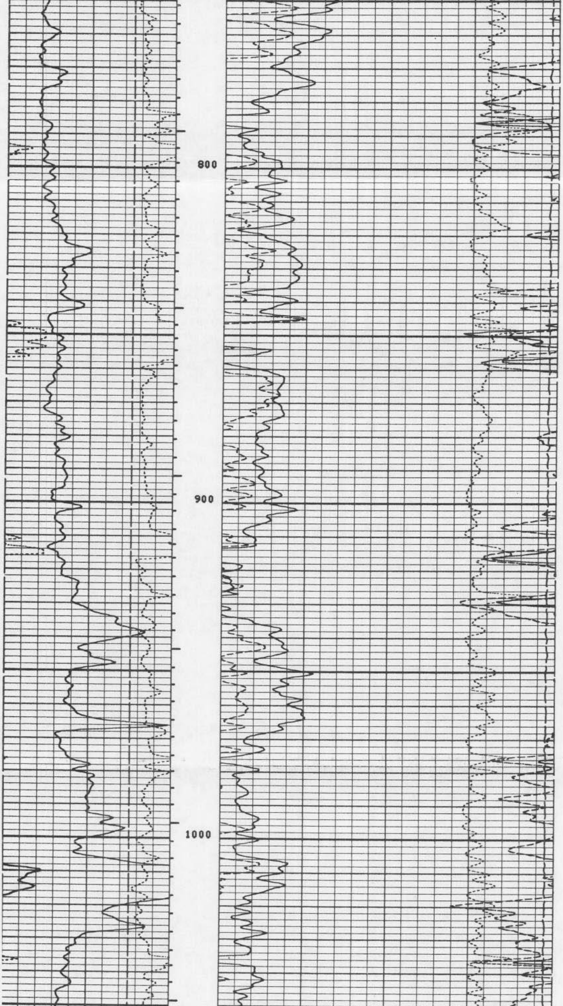
```
                                                        TENS(LB  )
                                               11000.                1000.
         BS   (IN  )                                    DRHO(G/C3)
10.00             20.00                        -0.250               0.2500
        CALI(IN  )                            DPHI(      )
10.00             20.00     0.4500                                  -0.150
        GR  (GAPI)                            NPHI(      )
0.0               100.0     0.4500                                  -0.150
```

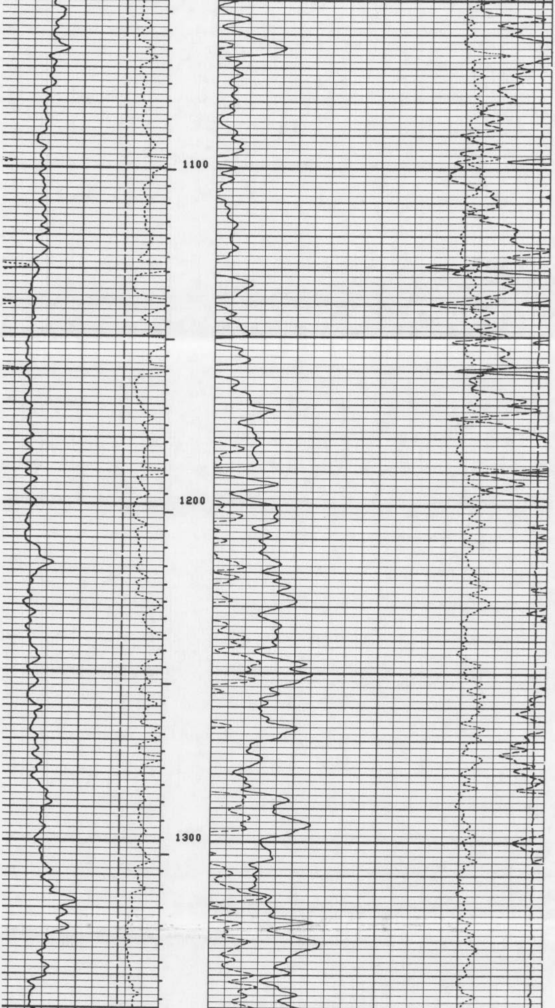
FILE

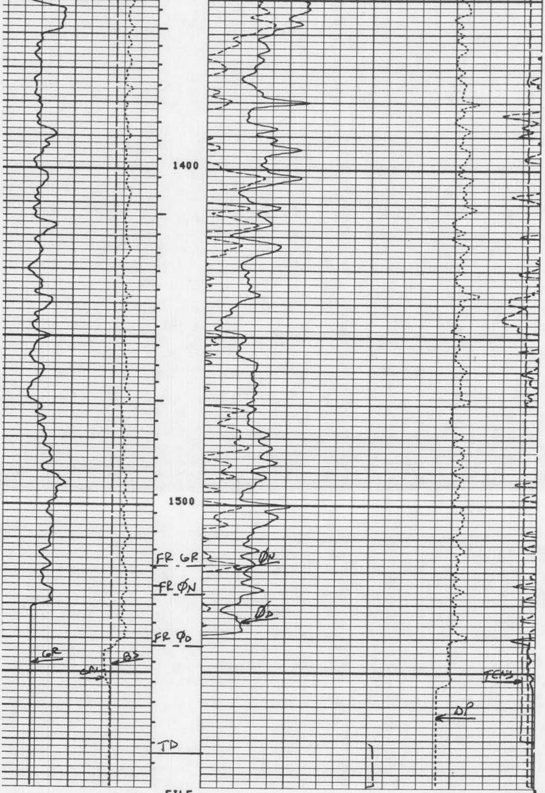
7











FILE

7

Curve	Left	Right
TENS(LB)	11000.	1000.
DRHO(G/C3)	-0.250	0.2500
BS (IN)	.00	20.00
CALI(IN)	.00	20.00
DPHI( )	0.4500	-0.150
GR (GAPI)	0	100.0
NPHI( )	0.4500	-0.150

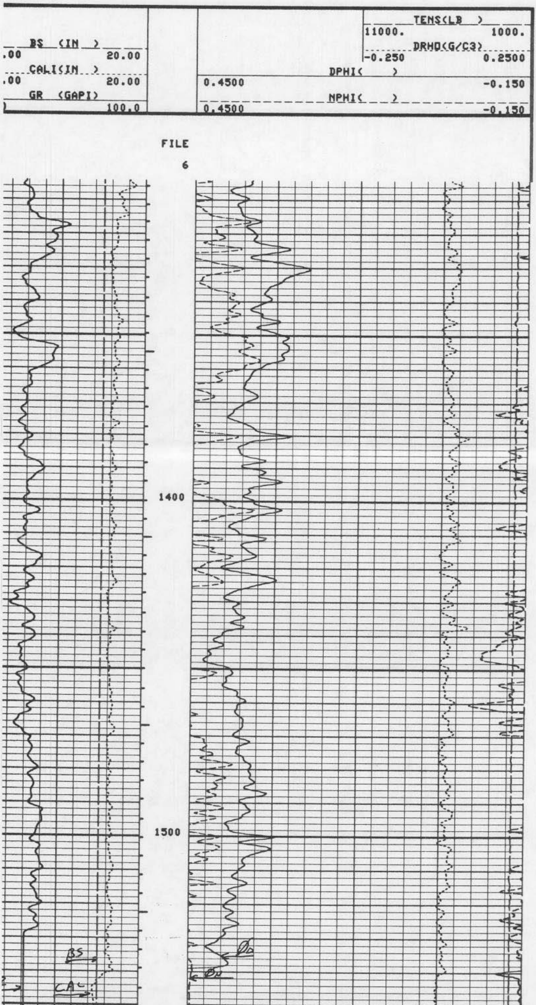
SENSOR MEASURE POINT TO TENSION REFERENCE POINT

NCNL	44.4	FEET	GR	52.9	FEET
FFDC	29.1	FEET	FCNL	44.4	FEET
CALI	29.1	FEET	NFDC	29.1	FEET
SFL	3.9	FEET	ILD	6.9	FEET
SP	.0	FEET	ILM	3.3	FEET
TENS	.0	FEET	SPAR	.0	FEET
NRAT	44.4	FEET			

PARAMETERS

NAME	VALUE	UNIT
PSNR	2.337	
MATR	LIME	
MDEN	2.710	G/C3
BHF	WATE	
SBR	1.000	OHMM
BHS	OPEN	
DO	0.0	

NAME	VALUE	UNIT
BS	17.50	IN
HC	CALI	
FD	1.000	G/C3
FDCC	ALLO	
DSEC	6.000	MMHO
MSEC	6.200	MMHO



```
                    FILE

                      6
```

REPEAT

```
                                                          TENS(LB  )
                                                   11000.              1000.
 BS  (IN  )                                               DRHO(G/C3)
0              20.00                               -0.250              0.2500
 CALI(IN  )                                 DPHI(      )
0              20.00              0.4500                               -0.150
 GR  (GAPI)                                 NPHI(      )
               100.0              0.4500                               -0.150
```

```
        SENSOR MEASURE POINT TO TENSION REFERENCE POINT

     NCNL  44.4  FEET                          GR    52.9  FEET
     FFDC  29.1  FEET                          FCNL  44.4  FEET
     CALI  29.1  FEET                          NFDC  29.1  FEET
     SFL    3.9  FEET                          ILD    6.9  FEET
     SP      .0  FEET                          ILM    3.3  FEET
     TENS    .0  FEET                          SPAR    .0  FEET
     NRAT  44.4  FEET
```

```
                           PARAMETERS

     NAME  VALUE     UNIT                      NAME  VALUE     UNIT

     PSNR  2.337                               BS    17.50     IN
     MATR  LIME                                HC    CALI
     MDEN  2.710     G/C3                      FD    1.000     G/C3
     BHF   WATE                                FDCC  ALLO
     SBR   1.000     OHMM                      DSEC  6.000     MMHO
     BHS   OPEN                                MSEC  6.200     MMHO
     DO    0.0
```

```
          BEFORE SURVEY CALIBRATION SUMMARY

 PERFORMED:      82/10/18
 PROGRAM FILE: ISN    (VERSION    20.2    81/ 1/30)

ITD                 ELECTRONICS CALIBRATION SUMMARY

        MEASURED                            CALIBRATED
       ZERO    PLUS                      ZERO       PLUS            UNITS
  ILD   1.6   511.9                       0.0      499.8             MMHO
  ILM   0.1   478.7                       0.0      500.0             MMHO
  SFL   0.1   531.5                       0.0      500.0             MMHO

.D  SONDE ERROR CORRECTION :         6.0   MMHO
.M  SONDE ERROR CORRECTION :         6.2   MMHO

TE                  DETECTOR CALIBRATION SUMMARY

        MEASURED
      BKGD     JIG         CALIBRATED          UNITS
  GR   63      219            165              GAPI

ITA                 DETECTOR CALIBRATION SUMMARY

           TANK                            JIG
      INPUT  CALIBRATED             MEASURED   CALIBRATED
NRAT  2.337    2.158                  2.414      2.229

TK                  DETECTOR CALIBRATION SUMMARY

          BLOCK                            JIG
      INPUT  CALIBRATED             MEASURED   CALIBRATED     UNITS
FFDC   456      337                   438         324          CPS
NFDC   813      528                   793         515          CPS

TK                  CALIPER CALIBRATION SUMMARY

        MEASURED                           CALIBRATED
      SMALL   LARGE                     SMALL      LARGE          UNITS
CALI   9.9    13.7                       8.0       12.0            IN
                   FILE

                     4
```

```
                SHOP SUMMARY

   PERFORMED:       82/10/09
   PROGRAM FILE: SHOP   (VERSION    20.2    81/ 1/30)

GTK                     DETECTOR CALIBRATION SUMMARY

             BLOCK                               JIG
     MEASURED   CALIBRATED     MEASURED   CALIBRATED     UNITS

 FFDC   456        337            441         326          CPS
 NFDC   813        528            791         513          CPS

          (PGS:83     , PDH:1201 , GSR:3345 , GCBC :0000 )
                SHOP SUMMARY

   PERFORMED:       82/10/09
   PROGRAM FILE: SHOP   (VERSION    20.2    81/ 1/30)

ITA                     DETECTOR CALIBRATION SUMMARY

             TANK                                JIG
     MEASURED   CALIBRATED     MEASURED   CALIBRATED

 NRAT   2.337      2.158          2.367       2.185

                    (CNC:652   , CNB:301   )
```

FLORIDA GEOLOGICAL SURVEY
2295 VICTORIA AVENUE, SUITE 179
FT. MYERS, FLORIDA 33901