Schlumberger

FLUID PROPERTIES LOG

COUNTY	DADE
FIELD	NORTHWEST L-31 CANAL
LOCATION	SOUTHEAST BANK OF L-31 CANAL
WELL	SFWMD DF No. 1
COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.

COMPANY SOUTH FLORIDA WATER MANAGEMENT DIST.

WELL SFWMD DF No. 2 DF-2 OR500000R

FIELD NORTHWEST L-31 CANAL

COUNTY DADE STATE FLORIDA

LOCATION SOUTHEAST BANK OF L-31 CANAL CHROME AVENUE

Other Services: LDT/CNL BHC SONIC CALIPER FLOWMETER TEMP AMS

API SERIAL NO.	SECT.	TWP.	RANGE
N/A	--	--	--

Permanent Datum GROUND LEVEL Elev. 15.0 F

Log Measured From KELLY BUSHING 9.5 F above Perm. Datum

Drilling Measured From KELLY BUSHING

Elev.: K.B. 24.5 F
D.F. 23.5 F
G.L. 15.0 F

Date	05-OCT-1993		
Run No.	ONE		
Depth Driller	2743.0 F		
Depth Logger (Schl.)	2743.0 F		
Btm. Log Interval	2737.0 F		
Top Log Interval	920.0 F		
Casing-Driller	12" @ 920.0 F	@	@
Casing-Logger	920.0 F		
Bit Size	8 3/4" @	@	@
Type Fluid in Hole	SALT H20 & MUD		
Dens. | Visc.	9.30 LB/G | 35.0 S		
pH | Fld. Loss			
Source of Sample	CIRC. TANK		
Rm @ Meas. Temp.	3.420 OHMM @ 82.0 DEGF	@	@
Rmf @ Meas. Temp.	.840 OHMM @ 85.0 DEGF	@	@
Rmc @ Meas. Temp.	@	@	@
Source: Rmf | Rmc	MEASURED | NONE		
Rm @ BHT	4.348 OHMM @ 63.0 DEGF	@	@
TIME Circulation Ended	11:00 10/05/93		
TIME Logger on Bottom	11:30 10/05/93		
Max. Rec. Temp.	63.0 DEGF		
Equip. | Location	8170 | NATCHEZ, MS.		
Recorded By	BLIZNIK/JONES		
Witnessed By	JOHN LUKASIEWICZ		

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

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 interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE	
Service Order No.	607441	
Drilling Fluid Level		
Salinity	20000.0 PPM	
Rmf @ BHT	1.104 OHMM @ 63.0 DEGF	@
Rmc @ BHT	@ 63.0 DEGF	@
Logging Speed	5000.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	DIS 484	
Tool Number 2	DIC 480	
Tool Number 3	SGT	
Tool Number 4	TCC	
Tool Number 5	AMS	
Tool Number 6	-	
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

THANK YOU FOR USING SCHLUMBERGER
YOUR SWS CREW: K.KIRBY & S.TROUTMAN

TD NOT FULLY REACHED ON MAIN PASS

5"/100'

CP 38.2 FILE 4 05-OCT-1993 11:29 (UP)

MRES(OHMM) 0.0 2.0000
GR(GAPI) 0.0 150.00
MTEM(DEGC) 0.0 50.000

SENSOR MEASURE POINT TO TOOL ZERO

DITE 10.3 FEET
AMS 45.2 FEET
SGTL 35.9 FEET
DTT -47.0 FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
WMUD	9.30000	LB/G	TD	2743.00	F
IFRS	40	KHZ	SBR	1.00000	OHMM
MXE4	45.7529	MM/M	DXE4	23.9101	MM/M
MRE4	-.599453	MM/M	DRE4	2.58380	MM/M
MPH4	-2.37585	DEG	DPH4	-1.08922	DEG
MGF4	1.02098		DGF4	1.01995	
DESP	DISA		SFLE	ALLO	
DCAS	1500.00	F	ITEN	ALLO	
DEVI	0.0	DEG	DSES	H48	
IPRO	PHAS		IPHA	NORM	
NCJT	GSRY		GTSE	TEMP	
SHT	80.0000	DEGF	BHT	100.000	DEGF
DTCI	0.0	F	SPAE	ALLO	
BS	8.75000	IN	BHS	OPEN	

REPEAT SECTION

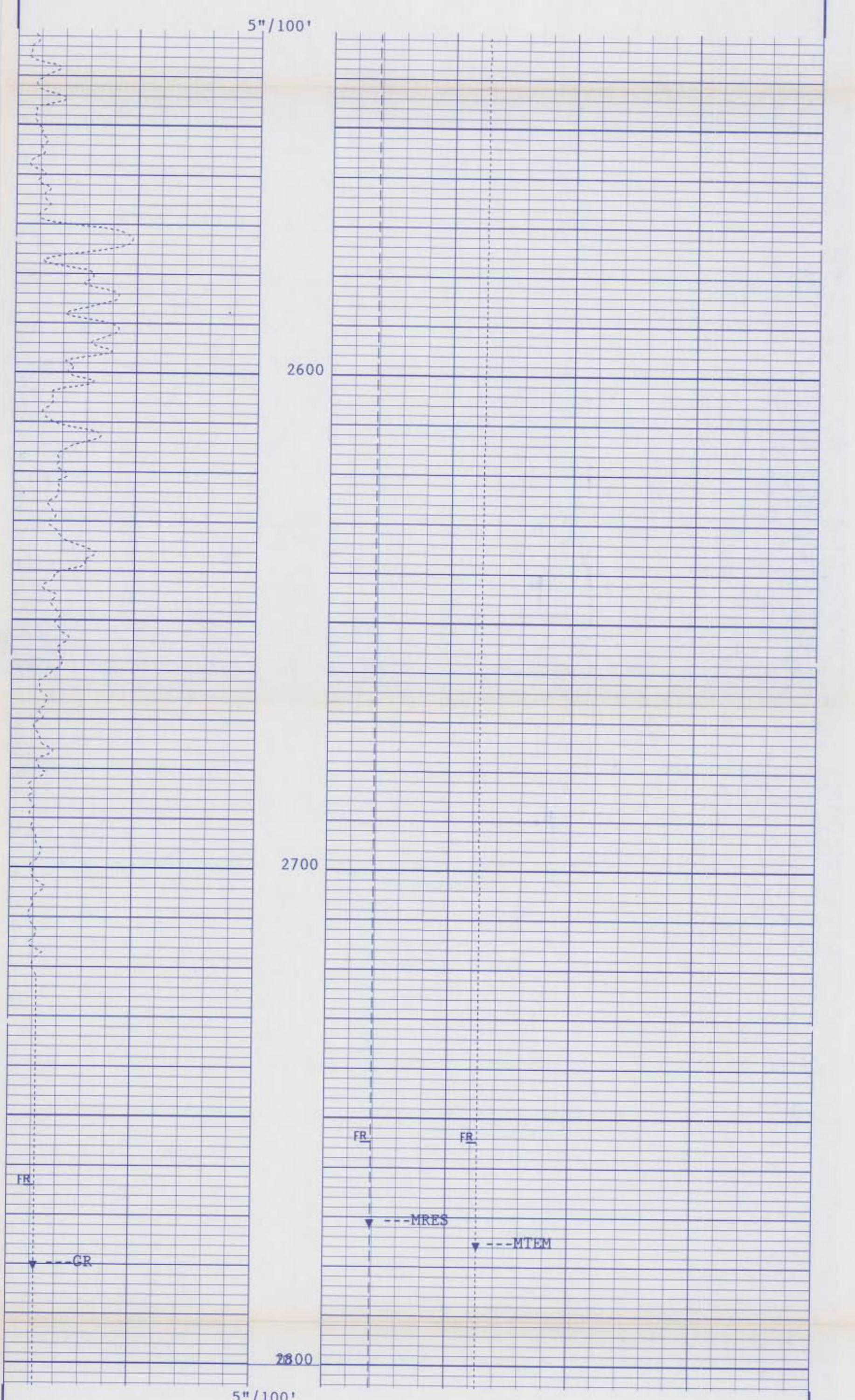
CHANGED PARAMETERS

NAME	VALUE	UNIT	DEPTH (F)	NAME	VALUE	UNIT	DEPTH (F)
TD	2743.00	F	2711.0				

MRES(OHMM) 0.0 2.0000
GR(GAPI) 0.0 150.00
MTEM(DEGC) 0.0 50.000

CP 38.2 FILE 3 05-OCT-1993 11:28 (UP)

5"/100'



5"/100'

CP 38.2 FILE 3 05-OCT-1993 11:25 (UP)

MRES(OHMM) 0.0 2.0000
GR(GAPI) 0.0 150.00
MTEM(DEGC) 0.0 50.000

SENSOR MEASURE POINT TO TOOL ZERO

DITE 10.3 FEET
AMS 45.2 FEET
SGTL 35.9 FEET
DTT -47.0 FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
WMUD	9.30000	LB/G	TD	2800.00	F
IFRS	40	KHZ	SBR	1.00000	OHMM
MXE4	45.7529	MM/M	DXE4	23.9101	MM/M
MRE4	-.599453	MM/M	DRE4	2.58380	MM/M
MPH4	-2.37585	DEG	DPH4	-1.08922	DEG
MGF4	1.02098		DGF4	1.01995	
DESP	DISA		SFLE	ALLO	
DCAS	1500.00	F	ITEN	ALLO	
DEVI	0.0	DEG	DSES	H48	
IPRO	PHAS		IPHA	NORM	
NCJT	GSRY		GTSE	TEMP	
SHT	80.0000	DEGF	BHT	100.000	DEGF
DTCI	0.0	F	SPAE	ALLO	
BS	8.75000	IN	BHS	OPEN	

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.	SCHL.	FR	2737.0 F
		SCHL.	TD	2743.0 F
WELL	SFWMD DF No. 1	DRLR.	TD	2743.0 F
FIELD	NORTHWEST L-31 CANAL	Elev:	KB	24.5 F
			DF	23.5 F
COUNTY	DADE STATE FLORIDA		GL	15.0 F

Schlumberger

FLUID PROPERTIES LOG

COUNTY DADE
FIELD NORTHWEST L-31 CANAL
LOCATION SOUTHEAST BANK OF L-31 CANAL
WELL SFWMD DF No. 1
COMPANY SOUTH FLORIDA WATER MANAGEMENT D

Schlumberger

PHASOR INDUCTION - SFL GAMMA RAY

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.
WELL	SFWMD DF No. ~~1~~ 2 OR500000R DF-2
FIELD	NORTHWEST L-31 CANAL
COUNTY	DADE STATE FLORIDA
LOCATION	SOUTHEAST BANK OF L-31 CANAL CHROME AVENUE
Other Services:	LDT/CNL BHC SONIC CALIPER FLOWMETER TEMP AMS
API SERIAL NO.	N/A
SECT.	--
TWP.	--
RANGE	--

Permanent Datum	GROUND LEVEL	Elev. 15.0 F	Elev.: K.B. 24.5 F D.F. 23.5 F G.L. 15.0 F
Log Measured From	KELLY BUSHING	9.5 F above Perm. Datum	
Drilling Measured From	KELLY BUSHING		

Date	05-OCT-1993		
Run No.	ONE		
Depth Driller	2743.0 F		
Depth Logger (Schl.)	2743.0 F		
Btm. Log Interval	2737.0 F		
Top Log Interval	920.0 F		
Casing-Driller	12" @ 920.0 F	@	@
Casing-Logger	920.0 F		
Bit Size	8 3/4" @	@	@
Type Fluid in Hole	SALT H20 & MUD		
Dens. / Visc.	9.30 LB/G / 35.0 S		
pH / Fld. Loss			
Source of Sample	CIRC. TANK		
Rm @ Meas. Temp.	3.420 OHMM @ 82.0 DEGF	@	@
Rmf @ Meas. Temp.	.840 OHMM @ 85.0 DEGF	@	@
Rmc @ Meas. Temp.	@	@	@
Source: Rmf / Rmc	MEASURED / NONE		
Rm @ BHT	4.348 OHMM @ 63.0 DEGF	@	@
TIME Circulation Ended	11:00 10/05/93		
TIME Logger on Bottom	11:30 10/05/93		
Max. Rec. Temp.	63.0 DEGF		
Equip. / Location	8170 / NATCHEZ, MS.		
Recorded By	BLIZNIK/JONES		
Witnessed By	JOHN LUKASIEWICZ		

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

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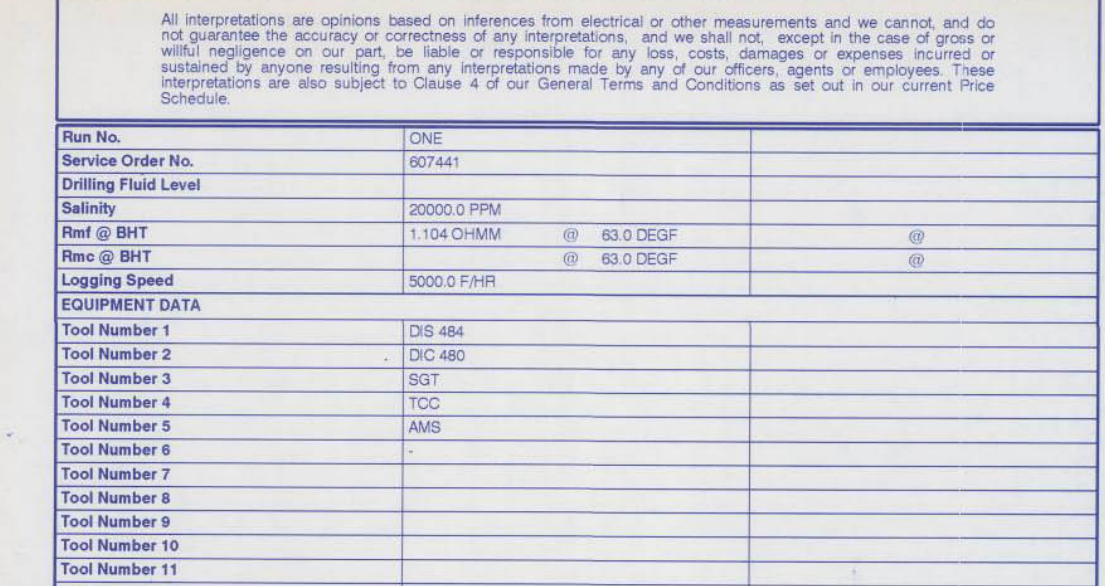
Run No.	ONE		
Service Order No.	607441		
Drilling Fluid Level			
Salinity	20000.0 PPM		
Rmf @ BHT	1.104 OHMM @ 63.0 DEGF		@
Rmc @ BHT	@ 63.0 DEGF		@
Logging Speed	5000.0 F/HR		
EQUIPMENT DATA			
Tool Number 1	DIS 484		
Tool Number 2	DIC 480		
Tool Number 3	SGT		
Tool Number 4	TCC		
Tool Number 5	AMS		
Tool Number 6	-		
Tool Number 7			
Tool Number 8			
Tool Number 9			
Tool Number 10			
Tool Number 11			
Tool Number 12			

REMARKS:

THANK YOU FOR USING SCHLUMBERGER
YOUR SWS CREW: K.KIRBY & S.TROUTMAN

TD NOT FULLY REACHED ON MAIN PASS

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 50.6 F.
TOTAL TOOL STRING WEIGHT IS 757. LB IN AIR.

TENS(LBF)	10000. 0.0
GR(GAPI)	0.0 150.00

CP 38.2 FILE 4 05-OCT-1993 12:03 (UP)

CP 38.2 FILE 4 05-OCT-1993 11:29 (UP)

TENS(LBF) 10000. 0.0		IDPH(OHMM) .20000 2000.0
GR(GAPI) 0.0 150.00		IMPH(OHMM) .20000 2000.0
SP(MV) -80.00 20.000		SFLU(OHMM) .20000 2000.0

SENSOR MEASURE POINT TO TOOL ZERO

```
DITE 10.3  FEET                    SGTL 35.9  FEET
AMS  45.2  FEET                    DTT  -47.0 FEET
```

PARAMETERS

```
NAME  VALUE        UNIT            NAME  VALUE       UNIT

WMUD 9.30000       LB/G            TD    2743.00     F
IFRS 40            KHZ             SBR   1.00000     OHMM
MXE4 45.7529       MM/M            DXE4  23.9101     MM/M
MRE4 -.599453      MM/M            DRE4  2.58380     MM/M
MPH4 -2.37585      DEG             DPH4  -1.08922    DEG
MGF4 1.02098                       DGF4  1.01995
DESP DISA                          SFLE  ALLO
DCAS 1500.00       F               ITEN  ALLO
DEVI 0.0           DEG             DSES  H48
IPRO PHAS                          IPHA  NORM
NCJT GSRY                          GTSE  TEMP
SHT  80.0000       DEGF            BHT   100.000     DEGF
DTCI 0.0           F               SPAE  ALLO
BS   8.75000       IN              BHS   OPEN
```

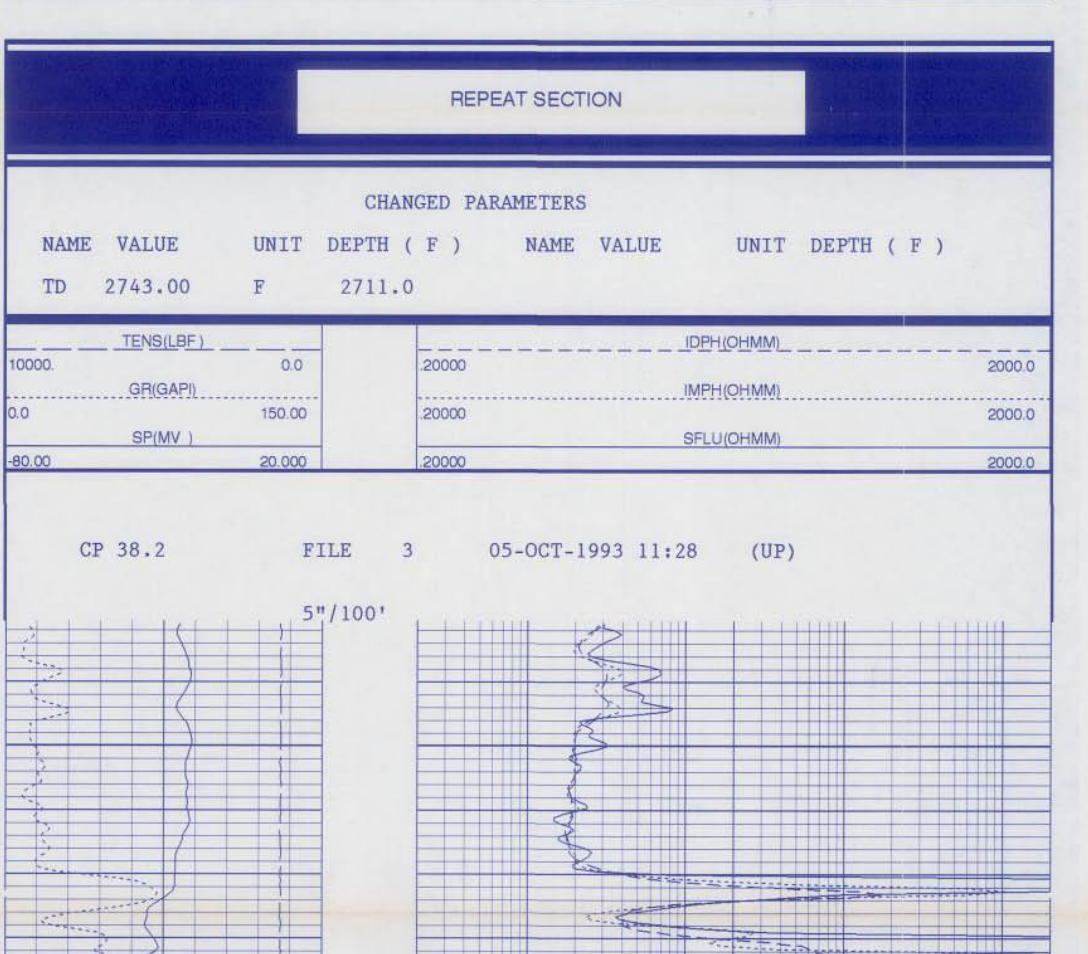
REPEAT SECTION

CHANGED PARAMETERS

```
NAME  VALUE      UNIT  DEPTH ( F )     NAME  VALUE      UNIT  DEPTH ( F )
TD    2743.00    F     2711.0
```

TENS(LBF) 10000. 0.0		IDPH(OHMM) .20000 2000.0
GR(GAPI) 0.0 150.00		IMPH(OHMM) .20000 2000.0
SP(MV) -80.00 20.000		SFLU(OHMM) .20000 2000.0

CP 38.2 FILE 3 05-OCT-1993 11:28 (UP)



CP 38.2 FILE 3 05-OCT-1993 11:25 (UP)

TENS(LBF) 10000. 0.0		IDPH(OHMM) .20000 2000.0
GR(GAPI) 0.0 150.00		IMPH(OHMM) .20000 2000.0
SP(MV) -80.00 20.000		SFLU(OHMM) .20000 2000.0

SENSOR MEASURE POINT TO TOOL ZERO

```
DITE 10.3  FEET                    SGTL 35.9  FEET
AMS  45.2  FEET                    DTT  -47.0 FEET
```

PARAMETERS

```
NAME  VALUE        UNIT            NAME  VALUE       UNIT

WMUD 9.30000       LB/G            TD    2800.00     F
IFRS 40            KHZ             SBR   1.00000     OHMM
MXE4 45.7529       MM/M            DXE4  23.9101     MM/M
MRE4 -.599453      MM/M            DRE4  2.58380     MM/M
MPH4 -2.37585      DEG             DPH4  -1.08922    DEG
MGF4 1.02098                       DGF4  1.01995
DESP DISA                          SFLE  ALLO
DCAS 1500.00       F               ITEN  ALLO
DEVI 0.0           DEG             DSES  H48
IPRO PHAS                          IPHA  NORM
NCJT GSRY                          GTSE  TEMP
SHT  80.0000       DEGF            BHT   100.000     DEGF
DTCI 0.0           F               SPAE  ALLO
BS   8.75000       IN              BHS   OPEN
```

```
                AFTER SURVEY TOOL CHECK SUMMARY

   PERFORMED:     05-OCT-1993 12:05
   PROGRAM FILE: TOH     (VERSION    38.2    92/10/12  92/10/12)

 DITE                      TOOL  CHECK

 SONDE SERIAL NUMBER: 484
 CARTRIDGE SERIAL NUMBER: 480
 FILE:     3         DEPTH INTERVAL:   2804.5 -   2530.5    F
           4                           2796.0 -    -12.5    F

                          MEAN CALIBRATION CHANGE

     ABSOLUTE CHANGE FOR      PERCENT CHANGE FOR      SFL ABS. CHANGE FOR
   RESISTIVITY > 27 OHM-M   RESISTIVITY < 27 OHM-M   RESISTIVITY < 1 OHM-M
   ----------------------   ----------------------   ---------------------

        CHANGE   TOLERANCE       CHANGE   TOLERANCE      CHANGE   TOLERANCE
        (MM/M)     (MM/M)          (%)       (%)          (OHMM)    (OHMM)

 DEEP      .03     < 0.75          .03      < 2.0                N/A

 MEDIUM    .02     < 0.75          .03      < 2.0                N/A

 SFL       .00     < 0.75          .05      < 2.0          0.0       < 0.02

 NOTE: Log quality flags in depth track indicate when electronic calibration
       is out of tolerance.  Flagged values ARE now included in this table.

    CP 38.2            FILE     6       05-OCT-1993 12:04


               BEFORE SURVEY CALIBRATION SUMMARY

   PERFORMED:     05-OCT-1993 11:21
   PROGRAM FILE: TOH     (VERSION    38.2    92/10/12  92/10/12)

 SGTL              DETECTOR CALIBRATION SUMMARY

                  MEASURED
               BKGD     JIG         CALIBRATED          UNITS
     GR         21      178            165               GAPI

 BACK: 25-SEP-1993 13:54   JIG: 25-SEP-1993 13:55   COMP: 25-SEP-1993 13:55

 DITE              ELECTRONICS CALIBRATION SUMMARY

 SONDE SERIAL NUMBER: 484
 CARTRIDGE SERIAL NUMBER: 480
 INDUCTION FREQUENCY: 40  KHZ

 INDUCTION ELECTRONICS:

         OFFSET   VALID RANGE     GAIN  VALID RANGE      PHASE   VALID RANGE
         (MM/M )    (MM/M )       (--)     (---)         (DEG.)    (DEG.)

    IRD     7.3  -77. =>  93.     .973   .84 => 1.18
    IXD     7.9  -77. =>  93.     .976   .84 => 1.18     22.54    3.85 => 43.85
    IRM    11.1 -119. => 141.     .968   .83 => 1.18
    IXM     3.3 -126. => 134.     .962   .83 => 1.17     23.96    5.44 => 45.44

 SFL ELECTRONICS:

         OFFSET  VALID RANGE     UNITS        GAIN   VALID RANGE

    SFV    -2.2  -17.2 => 12.8    MV           1.00   .85 => 1.20
    SFC      .0    -.6 =>   .6    MA           1.02   .87 => 1.23

    CP 38.2            FILE     0       05-OCT-1993 11:21


                  SHOP SUMMARY

   PERFORMED:     20-SEP-1993 09:30
   PROGRAM FILE: CCSHOP (VERSION    38.2    92/10/12  92/10/12)

 DITE              CALIBRATION SUMMARY

 SONDE SERIAL NUMBER: 484
 CARTRIDGE SERIAL NUMBER: 480

                            SHOP CONSTANTS

 TEST LOOP CALIBRATION:  CALIBRATION OF INTERNAL REFERENCE
                         TO TEST LOOP STANDARD

          CONS.    GAIN      VALID RANGE      CONS.    PHASE    VALID RANGE
                   (---)        (---)                  ( DEG )    ( DEG )

 10KHZ:
   ILD:  DGF1       .994    .900 => 1.100    DPH1       .10   -1.50 =>  1.50
   ILM:  MGF1      1.007    .900 => 1.100    MPH1      -.24   -1.50 =>  1.50

 20KHZ:
   ILD:  DGF2      1.004    .900 => 1.100    DPH2       .03   -2.00 =>  2.00
   ILM:  MGF2      1.009    .900 => 1.100    MPH2      -.96   -3.00 =>  1.00

 40KHZ:
   ILD:  DGF4      1.020    .900 => 1.100    DPH4     -1.09   -4.00 =>  2.00
   ILM:  MGF4      1.021    .900 => 1.100    MPH4     -2.38   -5.00 =>  1.00

 SONDE ERROR CORRECTIONS:  CORRECTION FOR SONDE RESPONSE IN ZERO
                           CONDUCTIVITY ENVIRONMENT

                CONS.  SONDE ERROR     VALID RANGE
                       CORRECTION
                        (MM/M )          (MM/M )

 10KHZ:
   IRD SEC:  DRE1        35.55        -50.0 => 125.0
   IXD SEC:  DXE1         5.27       -250.0 => 350.0
   IRM SEC:  MRE1        58.68        -50.0 => 140.0
   IXM SEC:  MXE1        45.14      -1300.0 =>1300.0

 20KHZ:
   IRD SEC:  DRE2        13.60        -30.0 =>  30.0
   IXD SEC:  DXE2        13.17       -125.0 => 200.0
   IRM SEC:  MRE2        11.31        -50.0 =>  50.0
   IXM SEC:  MXE2        33.17       -650.0 => 650.0

 40KHZ:
   IRD SEC:  DRE4         2.58        -15.0 =>  15.0
   IXD SEC:  DXE4        23.91        -75.0 => 125.0
   IRM SEC:  MRE4         -.60        -30.0 =>  30.0
   IXM SEC:  MXE4        45.75       -350.0 => 350.0

 NOTE: ALL SONDE ERROR CORRECTIONS HAVE BEEN NORMALIZED TO 25 DEGC.

                  SHOP ELECTRONIC CALIBRATION SUMMARY

 ELECTRONIC CALIBRATION:  CALIBRATION OF SYSTEM ELECTRONICS
                          USING THE INTERNAL REFERENCE

 INDUCTION ELECTRONICS:

        OFFSET   VALID RANGE     GAIN  VALID RANGE      PHASE   VALID RANGE
        (MM/M )    (MM/M )       (--)     (---)         (DEG.)    (DEG.)

 10 KHZ:
   IRD    28.9 -375. => 375.     .957   .75 => 1.25
   IXD    30.4 -375. => 375.     .960   .75 => 1.25     10.31   -5.00 => 20.00
   IRM    43.6 -900. => 900.     .937   .75 => 1.25
   IXM    15.0 -900. => 900.     .931   .75 => 1.25      9.12   -5.00 => 20.00

 20 KHZ:
   IRD    11.4 -150. => 150.     .987   .75 => 1.25
   IXD    12.3 -150. => 150.     .990   .75 => 1.25      8.30   -5.00 => 20.00
   IRM    17.6 -350. => 350.     .967   .75 => 1.25
   IXM     6.2 -350. => 350.     .962   .75 => 1.25      8.60   -5.00 => 20.00

 40 KHZ:
   IRD     7.5 -100. => 100.     .983   .75 => 1.25
   IXD     8.2 -100. => 100.     .986   .75 => 1.25     23.85  -10.00 => 35.00
   IRM    11.5 -200. => 200.     .981   .75 => 1.25
   IXM     4.1 -200. => 200.     .975   .75 => 1.25     25.44  -10.00 => 35.00

 SFL ELECTRONICS:

        OFFSET  VALID RANGE     UNITS        GAIN   VALID RANGE

   SFV    -2.2  -16.0 => 16.0    MV           .999   .75 => 1.25
   SFC      .0    -.7 =>   .7    MA          1.027   .75 => 1.25

    CP 38.2            FILE    11       20-SEP-1993 09:29
```

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.	SCHL. FR	2737.0 F
		SCHL. TD	2743.0 F
WELL	SFWMD DF No. 1	DRLR. TD	2743.0 F
		Elev: KB	24.5 F
FIELD	NORTHWEST L-31 CANAL	DF	23.5 F
COUNTY	DADE STATE FLORIDA	GL	15.0 F

Schlumberger

PHASOR INDUCTION - SFL
GAMMA RAY

COUNTY	DADE
FIELD	NORTHWEST L-31 CANAL
LOCATION	SOUTHEAST BANK OF L-31 CANAL
WELL	SFWMD DF-1
COMPANY	SOUTH FLORIDA WATER MANAGEMENT D

Schlumberger

FULLBORE SPINNER SURVEY

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.		
WELL	SFWMD DF-2 OR5000002		
FIELD	NORTHWEST L-31 CANAL		
COUNTY	DADE	STATE	FLORIDA
LOCATION	SOUTHEAST BANK OF L-31 CANAL CHROME AVENUE	Other Services:	LDT/CNL BHC SONIC CALIPER DIL
API SERIAL NO.	N/A	SECT. - TWP. - RANGE -	
Permanent Datum	GROUND LEVEL	Elev. 15.0 F	Elev.: K.B. 24.5 F D.F. 23.5 F G.L. 15.0 F
Log Measured From	KELLY BUSHING	9.5 F above Perm. Datum	
Drilling Measured From	KELLY BUSHING		
Date	07-OCT-1993		
Run No.	ONE		
Depth Driller	2743.0 F		
Depth Logger (Schl.)	2743.0 F		
Btm. Log Interval	2650.0 F		
Top Log Interval	920.0 F		
Casing-Driller	12" @ 920.0 F	@	@
Casing-Logger	920.0 F		
Bit Size	8 3/4"	@	
Type Fluid in Hole	SALT H2O & MUD		
Dens. / Visc.	9.30 LB/G	35.0 S	
pH / Fld. Loss			
Source of Sample	CIRC. TANK		
Rm @ Meas. Temp.	3.420 OHMM @ 82.0 DEGF	@	@
Rmf @ Meas. Temp.	840 OHMM @ 85.0 DEGF	@	@
Rmc @ Meas. Temp.	@	@	@
Source Rmf / Rmc	MEASURED / NONE		
Rm @ BHT	4.348 OHMM @ 63.0 DEGF	@	@
TIME Circulation Ended	11:00 10/5/93		
Logger on Bottom	22:00 10/7/93		
Max. Rec. Temp.	63.0 DEGF		
Equip. / Location	8170	NATCHEZ, MS	
Recorded By	BLIZNIK/JONES		
Witnessed By	JOHN LUKASIEWICZ		

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

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Run No.	ONE	
Service Order No.	607441	
Drilling Fluid Level		
Salinity	20000.0 PPM	
Rmf @ BHT	1.104 OHMM @ 63.0 DEGF	@
Rmc @ BHT	@ 63.0 DEGF	@
Logging Speed	5000.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	-	
Tool Number 2	-	
Tool Number 3	-	
Tool Number 4	-	
Tool Number 5	-	
Tool Number 6	-	
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

THANK YOU FOR USING SCHLUMBERGER
YOUR SWS CREW: K.KIRBY & S.TROUTMAN

TD NOT FULLY REACHED ON MAIN PASS

CLIENT DID NOT WANT A UPLOG

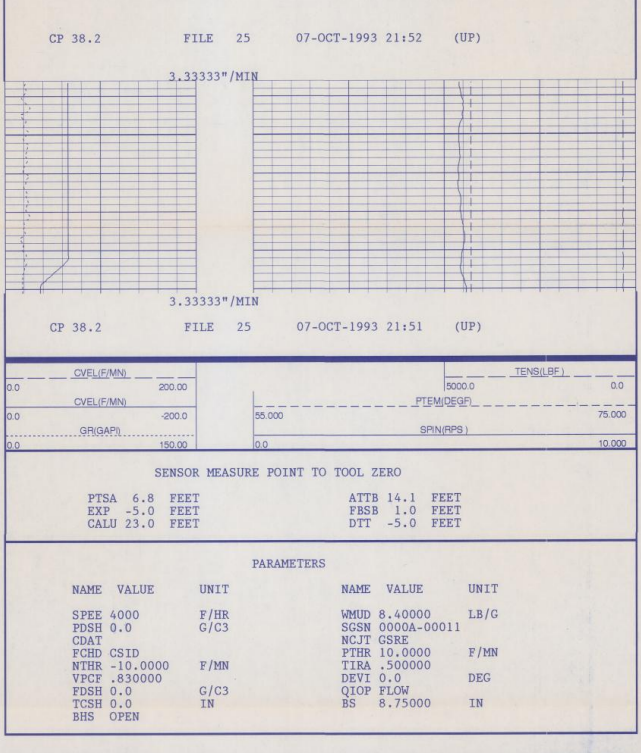
DEPTH = 900'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 899.900 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 25 07-OCT-1993 21:52 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 25 07-OCT-1993 21:51 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

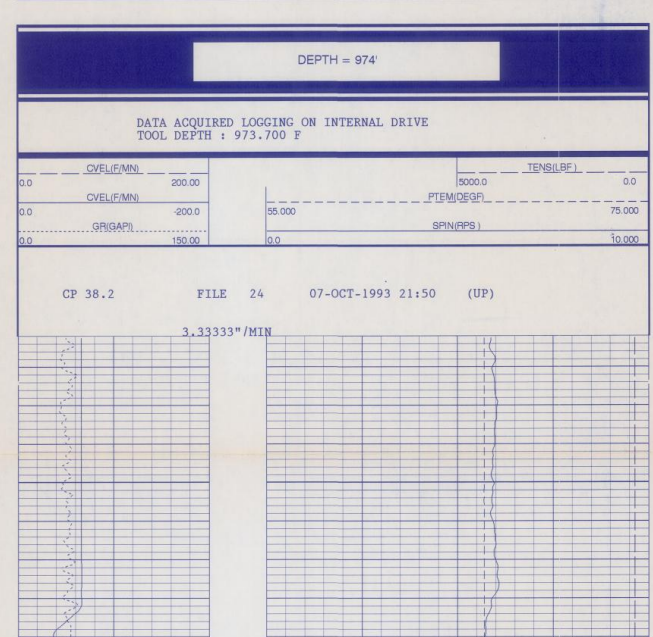
DEPTH = 974'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 973.700 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 24 07-OCT-1993 21:50 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 24 07-OCT-1993 21:48 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

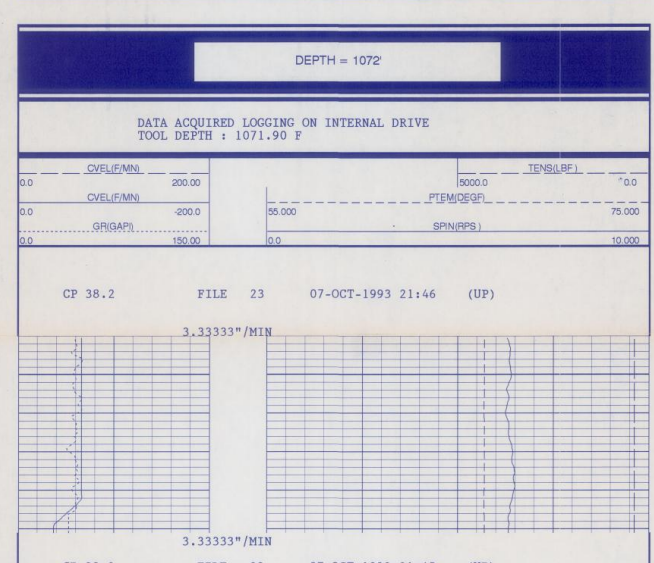
DEPTH = 1072'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1071.90 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 23 07-OCT-1993 21:46 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 23 07-OCT-1993 21:45 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

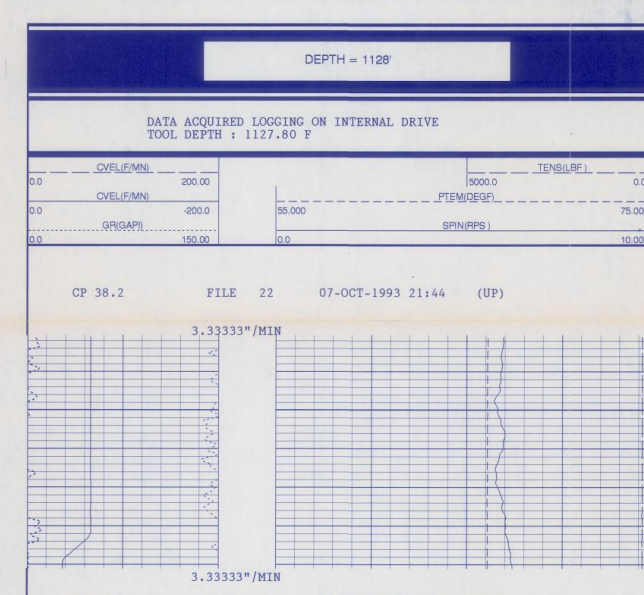
DEPTH = 1128'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1127.80 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 22 07-OCT-1993 21:44 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 22 07-OCT-1993 21:43 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

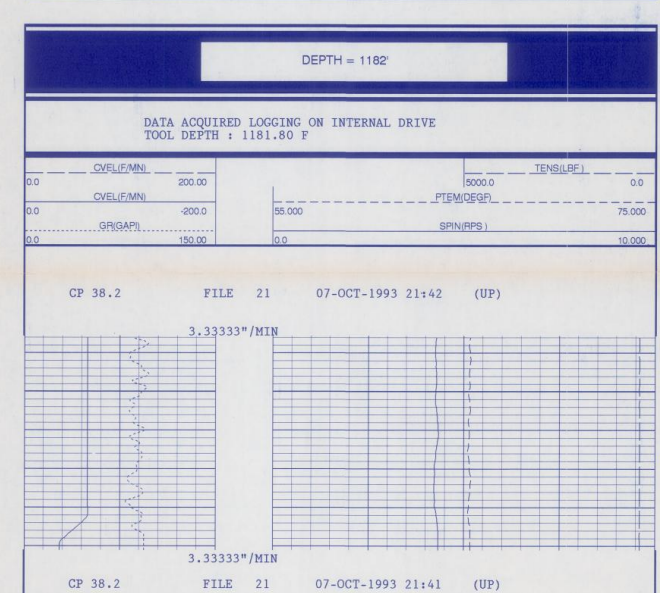
DEPTH = 1182'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1181.80 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 21 07-OCT-1993 21:42 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 21 07-OCT-1993 21:41 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

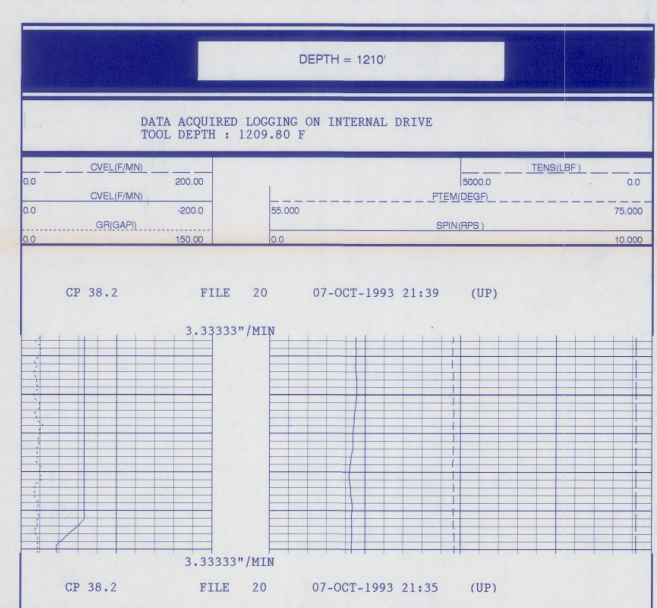
DEPTH = 1210'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1209.80 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 20 07-OCT-1993 21:39 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 20 07-OCT-1993 21:35 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

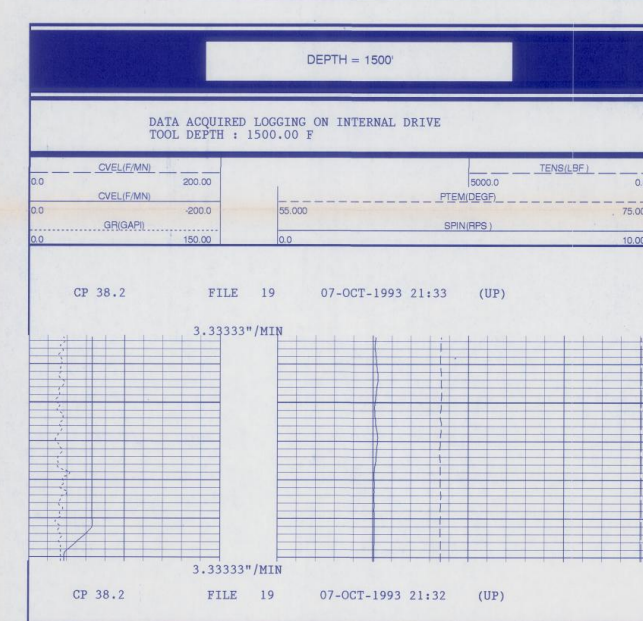
DEPTH = 1500'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1500.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 19 07-OCT-1993 21:33 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 19 07-OCT-1993 21:32 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

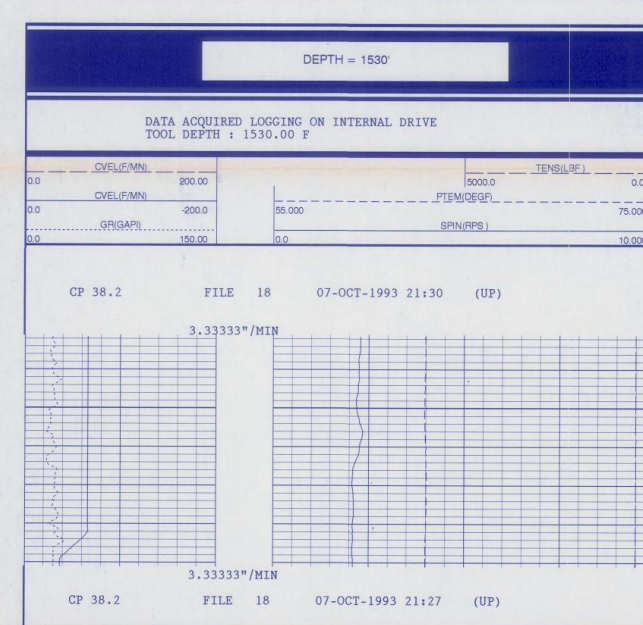
DEPTH = 1530'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1530.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 18 07-OCT-1993 21:30 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 18 07-OCT-1993 21:27 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

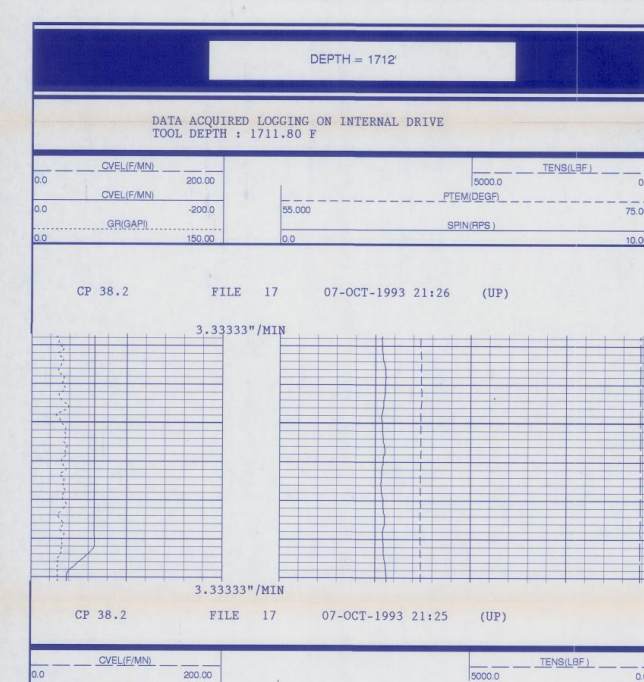
DEPTH = 1712'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1711.80 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 17 07-OCT-1993 21:26 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 17 07-OCT-1993 21:25 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

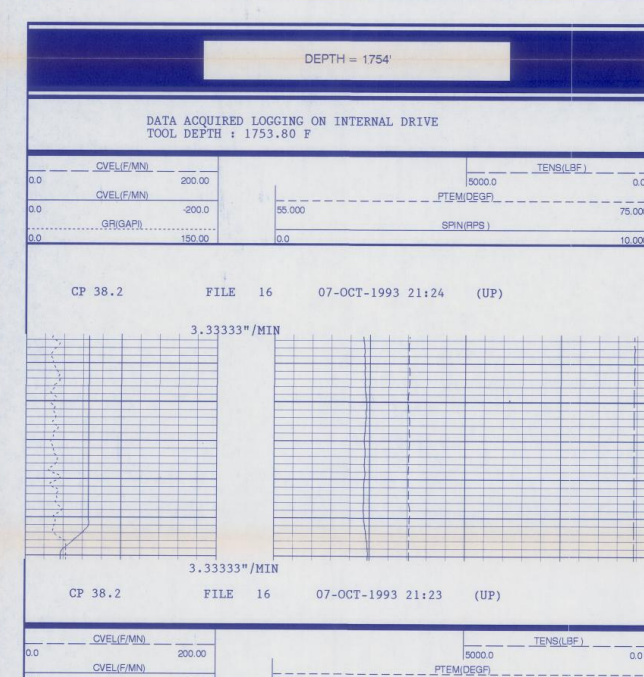
DEPTH = 1754'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1753.80 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 16 07-OCT-1993 21:24 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 16 07-OCT-1993 21:23 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

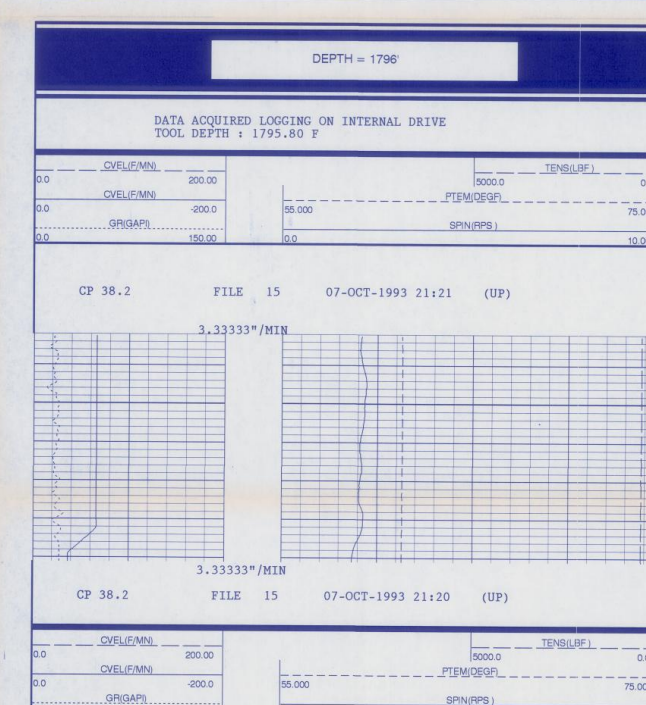
DEPTH = 1796'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1795.80 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 15 07-OCT-1993 21:21 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 15 07-OCT-1993 21:20 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

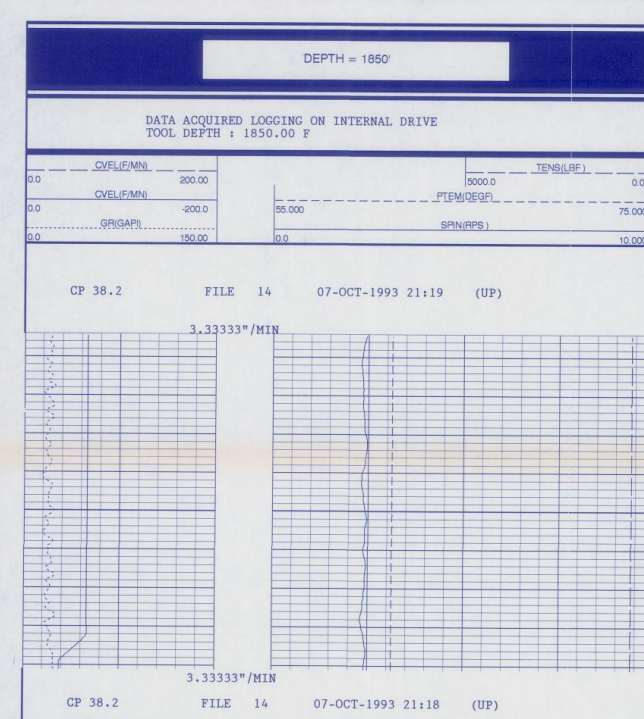
DEPTH = 1850'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1850.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 14 07-OCT-1993 21:19 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 14 07-OCT-1993 21:18 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

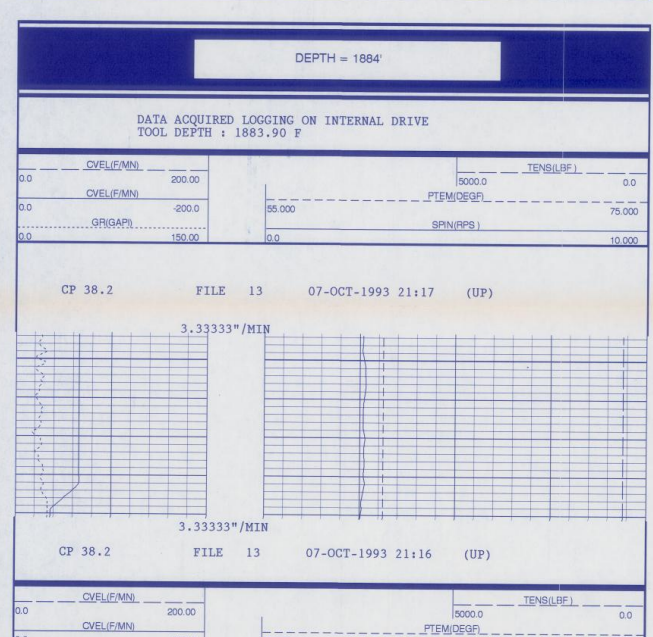
DEPTH = 1884'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1883.90 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 13 07-OCT-1993 21:17 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 13 07-OCT-1993 21:16 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

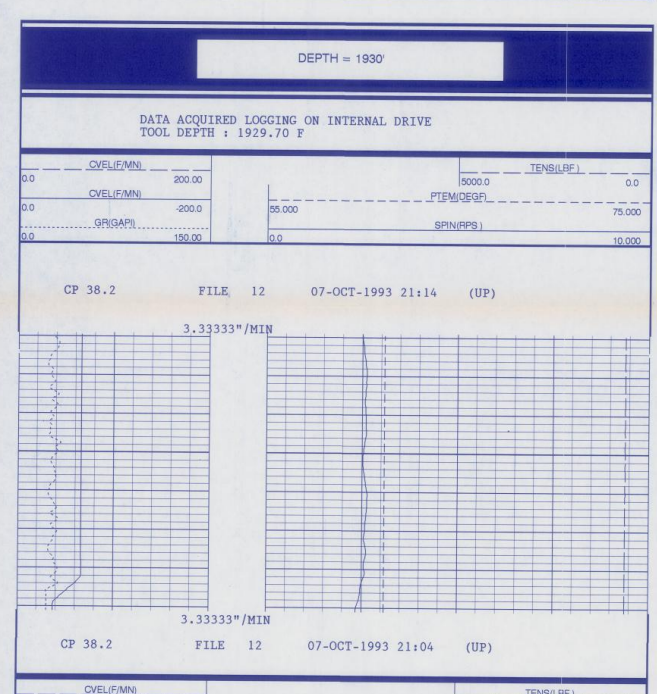
DEPTH = 1930'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 1929.70 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 12 07-OCT-1993 21:14 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 12 07-OCT-1993 21:04 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

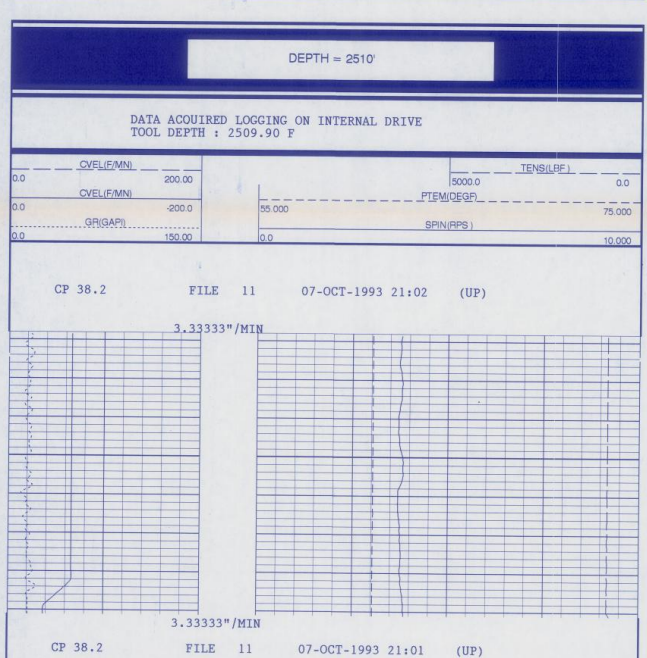
DEPTH = 2510'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 2509.90 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 11 07-OCT-1993 21:02 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 11 07-OCT-1993 21:01 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

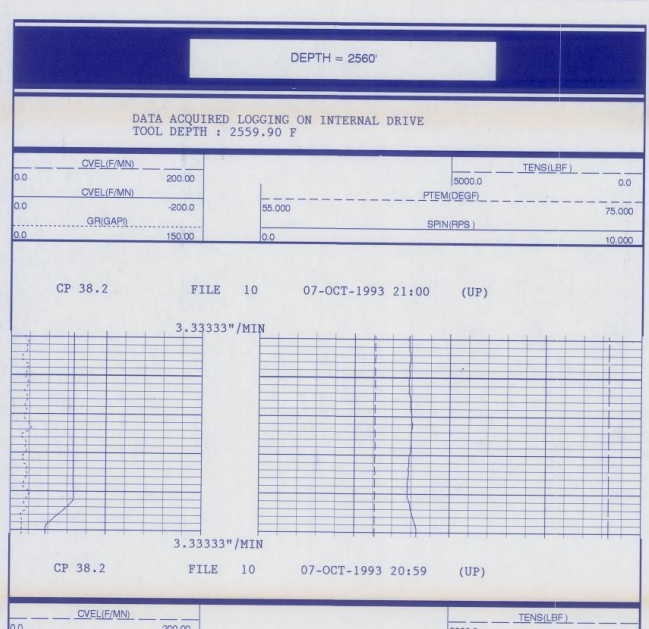
DEPTH = 2560'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 2559.90 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 10 07-OCT-1993 21:00 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 10 07-OCT-1993 20:59 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

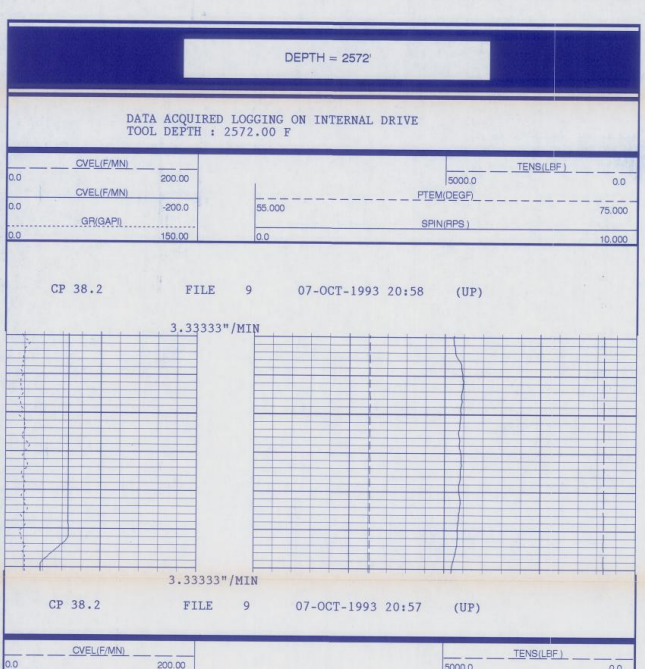
DEPTH = 2572'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 2572.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 9 07-OCT-1993 20:58 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 9 07-OCT-1993 20:57 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

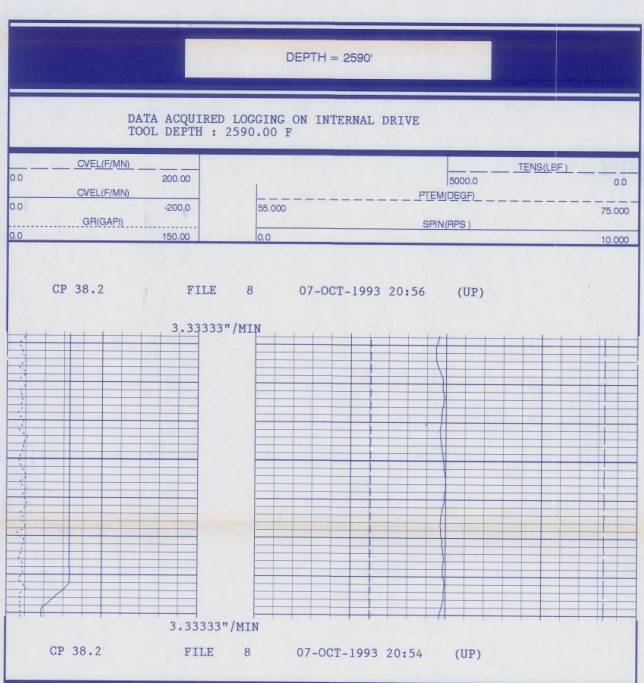
DEPTH = 2590'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 2590.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 8 07-OCT-1993 20:56 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 8 07-OCT-1993 20:54 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
PTSA  6.8  FEET          ATTB 14.1  FEET
EXP  -5.0  FEET          FBSB  1.0  FEET
CALU 23.0  FEET          DTT  -5.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

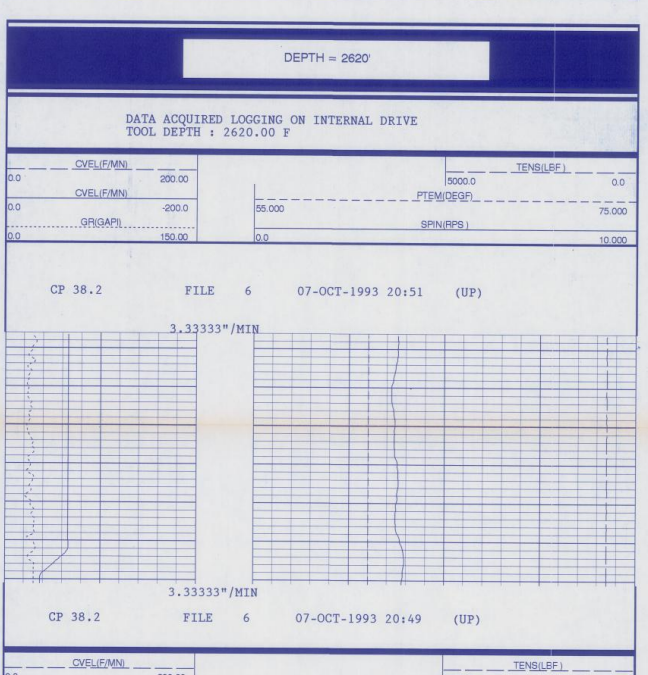
DEPTH = 2620'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 2620.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 6 07-OCT-1993 20:51 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 6 07-OCT-1993 20:49 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
GR   14.1  FEET          CVEL  1.0  FEET
PPVC  6.8  FEET          PTVC  5.8  FEET
SVFG  1.0  FEET          PRVC  4.8  FEET
EXT   0.0  FEET          SPIN  1.0  FEET
EXP2  0.0  FEET          EXP3  0.0  FEET
TENS -5.0  FEET          EXP1  0.0  FEET
CCL  23.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

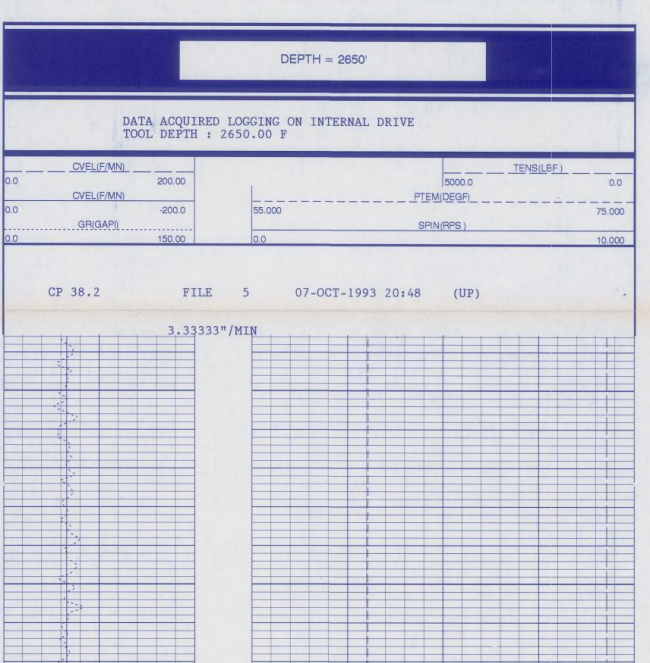
DEPTH = 2650'

DATA ACQUIRED LOGGING ON INTERNAL DRIVE
TOOL DEPTH : 2650.00 F

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

CP 38.2 FILE 5 07-OCT-1993 20:48 (UP)

3.33333"/MIN



3.33333"/MIN

CP 38.2 FILE 5 07-OCT-1993 20:45 (UP)

0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000

SENSOR MEASURE POINT TO TOOL ZERO

```
GR   14.1  FEET          CVEL  1.0  FEET
PPVC  6.8  FEET          PTVC  5.8  FEET
SVFG  1.0  FEET          PRVC  4.8  FEET
EXT   0.0  FEET          SPIN  1.0  FEET
EXP2  0.0  FEET          EXP3  0.0  FEET
TENS -5.0  FEET          EXP1  0.0  FEET
CCL  23.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

SPEE 4000        F/HR          WMUD 8.40000      LB/G
PDSH 0.0         G/C3          SGSN 0000A-00011
CDAT                           NCJT GSRE
FCHD CSID                      PTHR 10.0000      F/MN
NTHR -10.0000    F/MN          TIRA .500000
VPCF .830000                   DEVI 0.0          DEG
FDSH 0.0         G/C3          QIOP FLOW
TCSH 0.0         IN            BS   8.75000      IN
BHS  OPEN
```

DOWNLOG

PARAMETERS

```
NAME  VALUE      UNIT          NAME  VALUE       UNIT

WMUD 8.40000     LB/G          PDSH 0.0          G/C3
SGSN 0000A-00011               CDAT
NCJT GSRE                      FCHD CSID
PTHR 10.0000     F/MN          NTHR -10.0000     F/MN
TIRA .500000                   VPCF .830000
DEVI 0.0         DEG           FDSH 0.0          G/C3
QIOP FLOW                      TCSH 0.0          IN
BS   8.75000     IN            BHS  OPEN
```

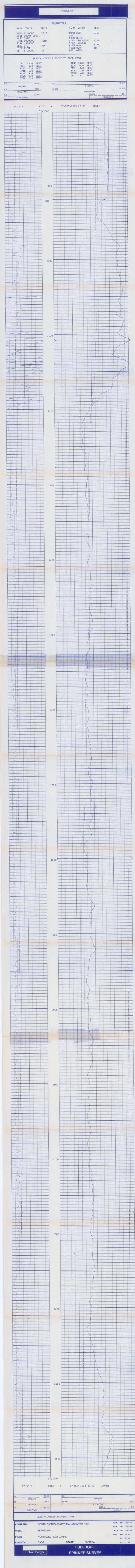
SENSOR MEASURE POINT TO TOOL ZERO

```
CCL  23.0  FEET          TENS 23.0  FEET
EXP1  0.0  FEET          EXP2  0.0  FEET
EXP3  0.0  FEET          EXT   0.0  FEET
SPIN  1.0  FEET          SVFG  1.0  FEET
PRVC  4.8  FEET          PPVC  6.8  FEET
PTVC  5.8  FEET          GR   14.1  FEET
CVEL  1.0  FEET
```

0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0

CP 38.2 FILE 4 07-OCT-1993 20:08 (DOWN)

5"/100'



5"/100'

CP 38.2 FILE 4 07-OCT-1993 20:43 (DOWN)

0.0 GR(GAPI) 150.00	0.0 SPIN(RPS) 10.000
0.0 CVEL(F/MN) -200.0	55.000 PTEM(DEGF) 75.000
0.0 CVEL(F/MN) 200.00	5000.0 TENS(LBF) 0.0

DATA ACQUIRED LOGGING DOWN

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.		SCHL. FR	2650.0 F
WELL	SFWMD DF-1		SCHL. TD	2743.0 F
FIELD	NORTHWEST L-31 CANAL		DRLR. TD	2743.0 F
COUNTY	DADE	STATE FLORIDA	Elev: KB	24.5 F
			DF	23.5 F
			GL	15.0 F

Schlumberger

FULLBORE
SPINNER SURVEY

COUNTY DADE
FIELD NORTHWEST L-31 CANAL
LOCATION SOUTHEAST BANK OF L-31 CANAL
WELL SFWMD DF-1
COMPANY SOUTH FLORIDA WATER MANAGEMENT D

Schlumberger

HIGH RESOLUTION TEMPERATURE LOG

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.		
WELL	SFWMD DF-2 OR500000R		
FIELD	NORTHWEST L-31 CANAL		
COUNTY	DADE	STATE	FLORIDA
LOCATION	SOUTHEAST BANK OF L-31 CANAL CHROME AVENUE		Other Services: LDT/CNL BHC SONIC CALIPER DIL AMS
API SERIAL NO.	SECT.	TWP.	RANGE
N/A	--	--	--

Permanent Datum	GROUND LEVEL	Elev. 15.0 F		Elev.: K.B.24.5 F
Log Measured From	KELLY BUSHING	9.5 F above Perm. Datum		D.F.23.5 F
Drilling Measured From	KELLY BUSHING			G.L.15.0 F
Date	07-OCT-1993			
Run No.	ONE			
Depth Driller	2743.0 F			
Depth Logger (Schl.)	2743.0 F			
Btm. Log Interval	2650.0 F			
Top Log Interval	920.0 F			
Casing-Driller	12" @ 920.0 F		@	@
Casing-Logger	920.0 F			
Bit Size	8 3/4"		@	@
Type Fluid in Hole	SALT H20 & MUD			
Dens. | Visc.	9.30 LB/G	35.0 S		
pH | Fld. Loss				
Source of Sample	CIRC. TANK			
Rm @ Meas. Temp.	3.420 OHMM	@ 82.0 DEGF		@
Rmf @ Meas. Temp.	.840 OHMM	@ 85.0 DEGF		@
Rmc @ Meas. Temp.		@		@
Source: Rmf | Rmc	MEASURED	NONE		
Rm @ BHT	4.348 OHMM	@ 63.0 DEGF		@
Circulation Ended	11:00 10/05/93			
Logger on Bottom	22:00 10/07/93			
Max. Rec. Temp.	63.0 DEGF			
Equip. | Location	8170	NATCHEZ, MS.		
Recorded By	BLIZNIK/JONES			
Witnessed By	JOHN LUKASIEWICZ			

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

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 interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE	
Service Order No.	607441	
Drilling Fluid Level		
Salinity	20000.0 PPM	
Rmf @ BHT	1.104 OHMM @ 63.0 DEGF	@
Rmc @ BHT	@ 63.0 DEGF	@
Logging Speed	5000.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	--	
Tool Number 2	--	
Tool Number 3	--	
Tool Number 4	--	
Tool Number 5	--	
Tool Number 6	-	
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

THANK YOU FOR USING SCHLUMBERGER
YOUR SWS CREW: K.KIRBY & S.TROUTMAN

TD NOT FULLY REACHED ON MAIN PASS

```
                        PARAMETERS

    NAME  VALUE        UNIT               NAME  VALUE        UNIT

    PP    NORM                            DO    0.0          F
    WMUD  8.40000      LB/G               PDSH  0.0          G/C3
    SGSN  0000A-00011                     CDAT
    NCJT  GSRE                            FCHD  CSID
    PTHR  10.0000      F/MN               NTHR  -10.0000     F/MN
    TIRA  .500000                         VPCF  .830000
    DEVI  0.0          DEG                FDSH  0.0          G/C3
    QIOP  FLOW                            TCSH  0.0          IN
    BS    8.75000      IN                 BHS   OPEN

              SENSOR MEASURE POINT TO TOOL ZERO

      CALU  23.0  FEET                    DTT   23.0  FEET
      EXP   23.0  FEET                    FBSB   1.0  FEET
      PTSA   6.8  FEET                    ATTB  14.1  FEET
```

0.0 GR(GAPI) 150.00
0.0 PTEM(DEGF) 150.00
-1.000 PDTE(DF/F) 1.0000
61.000 PTEM(DEGF) 65.000
5000.0 TENS(LBF) 0.0

```
                  INPUT FILE(S)  CREATION DATE
                        4        07-OCT-1993 20:06

      CP 38.2       FILE    31   07-OCT-1993 22:50
```

5"/100'

5"/100'

```
                  INPUT FILE(S)  CREATION DATE
                        4        07-OCT-1993 20:06

      CP 38.2       FILE    31   07-OCT-1993 22:53
```

0.0 GR(GAPI) 150.00
0.0 PTEM(DEGF) 150.00
-1.000 PDTE(DF/F) 1.0000
61.000 PTEM(DEGF) 65.000
5000.0 TENS(LBF) 0.0

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.		SCHL.	FR	2650.0 F
			SCHL.	TD	2743.0 F
WELL	SFWMD DF-1		DRLR.	TD	2743.0 F
FIELD	NORTHWEST L-31 CANAL		Elev:	KB	24.5 F
				DF	23.5 F
COUNTY	DADE	STATE FLORIDA		GL	15.0 F

Schlumberger

HIGH RESOLUTION
TEMPERATURE LOG

Schlumberger

DIGITAL BHC SONIC
CALIPER - GAMMA RAY

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.					
WELL	SFWMD DF No. 2 OR5000002					
FIELD	NORTHWEST L-31 CANAL					
COUNTY	DADE	STATE	FLORIDA			
LOCATION	SOUTHEAST BANK OF L-31 CANAL CHROME AVENUE					Other Services: LDT/CNL DIL CALIPER FLOWMETER TEMP AMS
API SERIAL NO.	SECT.	TWP.	RANGE			
N/A	--	--	--			

COUNTY	DADE				
FIELD	NORTHWEST L-31 CANAL				
LOCATION	SOUTHEAST BANK OF L-31 CANAL				
WELL	SFWMD DF No. 1				
COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.				

Permanent Datum	GROUND LEVEL	Elev.	15.0 F		Elev.: K.B.24.5 F
Log Measured From	KELLY BUSHING	9.5 F	above Perm. Datum		D.F.23.5 F
Drilling Measured From	KELLY BUSHING				G.L.15.0 F
Date	07-OCT-1993				
Run No.	ONE				
Depth Driller	2743.0 F				
Depth Logger (Schl.)	2743.0 F				
Btm. Log Interval	2630.0 F				
Top Log Interval	920.0 F				
Casing-Driller	12"	@ 920.0 F	@		@
Casing-Logger	920.0 F				
Bit Size	8 3/4"	@	@		@
Type Fluid in Hole	SALT H20 & MUD				
Dens. | Visc.	9.30 LB/G	35.0 S			
pH | Fld. Loss					
Source of Sample	CIRC. TANK				
Rm @ Meas. Temp.	3.420 OHMM	@ 82.0 DEGF	@		
Rmf @ Meas. Temp.	.840 OHMM	@ 85.0 DEGF	@		
Rmc @ Meas. Temp.		@	@		
Source: Rmf | Rmc	MEASURED	NONE			
Rm @ BHT	4.348 OHMM	@ 63.0 DEGF	@		
TIME Circulation Ended	11:00 10/05/93				
TIME Logger on Bottom	9:00 10/07/93				
Max. Rec. Temp.	63.0 DEGF				
Equip. | Location	8170	NATCHEZ, MS.			
Recorded By	BLIZNIK/JONES				
Witnessed By	JOHN LUKASIEWICZ				

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

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 interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE			
Service Order No.	607441			
Drilling Fluid Level				
Salinity	20000.0 PPM			
Rmf @ BHT	1.104 OHMM	@	63.0 DEGF	@
Rmc @ BHT		@	63.0 DEGF	@
Logging Speed	5000.0 F/HR			
EQUIPMENT DATA				
Tool Number 1	SLS 1684			
Tool Number 2	SDC 622			
Tool Number 3	MCDG 3807			
Tool Number 4	SGT			
Tool Number 5	TCC			
Tool Number 6	-			
Tool Number 7				
Tool Number 8				
Tool Number 9				
Tool Number 10				
Tool Number 11				
Tool Number 12				

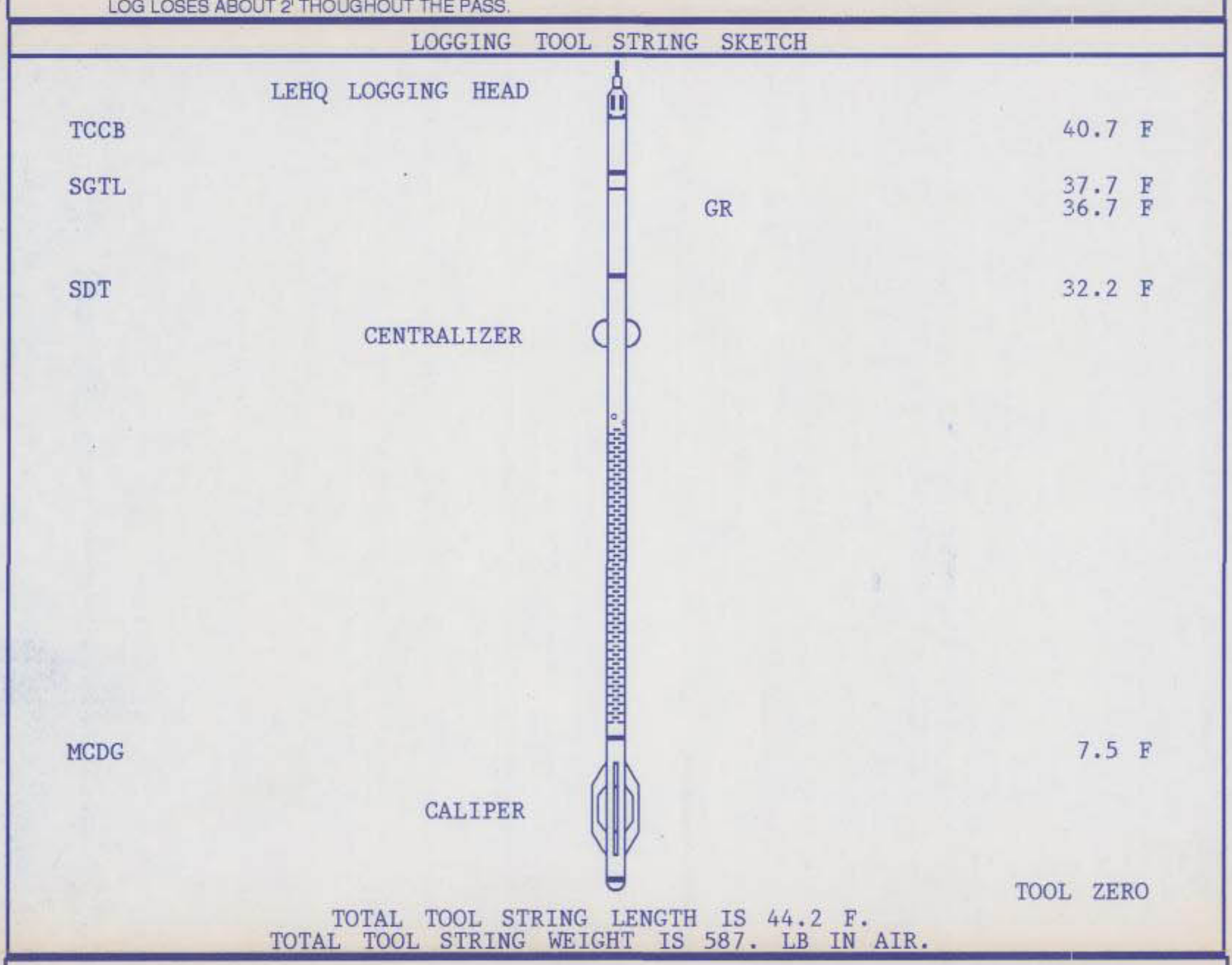
REMARKS:

THANK YOU FOR USING SCHLUMBERGER
YOUR SWS CREW: K.KIRBY & S.TROUTMAN

TD NOT FULLY REACHED GOT STUCK ON BOTTOM.

LOG WAS LOGGING TLC WITH DRILL PIPE AS WE CAME OUT OF
HOLE WITH THE FISHING TOOL ATTACHED TO OUR TOOL STRING
LOG LOSES ABOUT 2' THOUGHOUT THE PASS.

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 44.2 F.
TOTAL TOOL STRING WEIGHT IS 587. LB IN AIR.

PIPE CONNECTION SUMMARY

```
 #  DEPTH      TIME                     #  DEPTH      TIME

 1  2629.0 F   07-OCT-1993 09:23        2  1794.5 F   07-OCT-1993 10:46
 3  1733.0 F   07-OCT-1993 10:50        4  1610.0 F   07-OCT-1993 11:04
 5  1547.5 F   07-OCT-1993 11:07        6  1360.0 F   07-OCT-1993 11:19
 7   923.5 F   07-OCT-1993 12:06
```

```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   1402.85 F3    FROM 2629.50 F    TO 920.000 F
Integrated Transit Time:  .178650 S     FROM 2629.50 F    TO 920.000 F
USFC:                     6.00000       FROM 2629.50 F    TO 895.500 F
```

```
EVENT MARK SUMMARY:

OUTPUT                      INTERVAL        DEPTH TRACK
                            BETWEEN PIPS    EDGE

Integrated Hole Volume      10.0000 F3      LEFT EDGE
Integrated Transit Time     .00100000 S     RIGHT EDGE
USFC                        1.00000         LEFT EDGE
```

CHANGED PARAMETERS

```
NAME  VALUE      UNIT  DEPTH ( F )     NAME  VALUE      UNIT  DEPTH ( F )

DTM   47.6000    US/F  2568.0
```

BS(IN)			TENS(LBF)	
6.0000	16.000		10000.	0.0
HD(IN)		SPHI(V/V)		
6.0000	16.000	.45000		-.1500
GR(GAPI)		DT(US/F)		
0.0	150.00	140.00		40.000
WASHOUT				

```
CP 38.2        FILE   12       07-OCT-1993 12:58

               INPUT FILE(S)   CREATION DATE
                     3         07-OCT-1993 09:19
```

5"/100'

5"/100'

```
CP 38.2        FILE   12       07-OCT-1993 12:35

               INPUT FILE(S)   CREATION DATE
                     3         07-OCT-1993 09:19
```

WASHOUT				
BS(IN)			TENS(LBF)	
6.0000	16.000		10000.	0.0
HD(IN)		SPHI(V/V)		
6.0000	16.000	.45000		-.1500
GR(GAPI)		DT(US/F)		
0.0	150.00	140.00		40.000

SENSOR MEASURE POINT TO TOOL ZERO

```
GR    36.7  FEET               HD     3.0  FEET
TT3   11.9  FEET               TT4   10.9  FEET
TT1   14.7  FEET               TT2   15.7  FEET
TENS   3.0  FEET
```

PARAMETERS

```
NAME  VALUE      UNIT           NAME  VALUE      UNIT

SMB   DISA                      VDLR  2IN
PP    NORM                      DO    14.5000    F
FCD   4.00000    IN             FNUM  .620000
FEXP  2.15000                   FPHI  SPHI
TOCA  ALLO                      MODE  BHC
DETE  E2                        MGAI  4000.00
AGC   ALLO                      SLEV  5000.00    MV
GAI   40.0000                   SFAF  0.0        DB/F
SGAD  ALLO                      SGW   80         US
NMSG  180        US             SGDT  50         US/F
DTCM  NORM                      SLC   C
SLS   WA                        SPLE  0          IN
RATE  15         HZ             SOAD  AUTO
DDEL  0          US             DSIN  10         US
DWCO  500                       RMOD  B
WMOD  BHC                       WAGC  ALLO
WGDT  240.000    US/F           WGAI  20.0000
ITTS  DT                        SPSO  DT
SPFS  R-H                       DTM   38.4000    US/F
SVS   DT                        NCJT  GSRY
AOFF  0.0                       BS    8.75000    IN
BHS   OPEN
```

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.			SCHL. FR	2630.0 F
				SCHL. TD	2743.0 F
WELL	SFWMD DF No. 1			DRLR. TD	2743.0 F
FIELD	NORTHWEST L-31 CANAL			Elev: KB	24.5 F
				DF	23.5 F
COUNTY	DADE	STATE	FLORIDA	GL	15.0 F

Schlumberger

DIGITAL BHC SONIC
CALIPER - GAMMA RAY

COUNTY DADE
FIELD NORTHWEST L-31 CANAL
LOCATION SOUTHEAST BANK OF L-31 CANAL
WELL SFWMD DF No. 1
COMPANY SOUTH FLORIDA WATER MANAGEMENT DI

Schlumberger

LITHO DENSITY COMPENSATED NEUTRON

Compensated Density/Neutron

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.					
WELL	SFWMD DF No. 2 OR5000002					
FIELD	NORTHWEST L-31 CANAL					
COUNTY	DADE	STATE	FLORIDA			
LOCATION	SOUTHEAST BANK OF L-31 CANAL CHROME AVENUE				Other Services: SONIC DIL CALIPER FLOWMETER TEMP AMS	
API SERIAL NO. N/A	SECT. --	TWP. --	RANGE --			
Permanent Datum	GROUND LEVEL	Elev.	15.0 F		Elev.: K.B. 24.5 F	
Log Measured From	KELLY BUSHING	9.5 F	above Perm. Datum		D.F. 23.5 F	
Drilling Measured From	KELLY BUSHING				G.L. 15.0 F	
Date	08-OCT-1993					
Run No.	ONE					
Depth Driller	2743.0 F					
Depth Logger (Schl.)	2743.0 F					
Btm. Log Interval	1950.0 F					
Top Log Interval	920.0 F					
Casing-Driller	12"	@ 920.0 F	@		@	
Casing-Logger	920.0 F					
Bit Size	8 3/4"	@	@		@	
Type Fluid in Hole	SALT H2O & MUD					
Dens. / Visc.	9.30 LB/G	35.0 S				
pH / Fld. Loss						
Source of Sample	CIRC. TANK					
Rm @ Meas. Temp.	3.420 OHMM	@ 82.0 DEGF	@		@	
Rmf @ Meas. Temp.	.840 OHMM	@ 85.0 DEGF	@		@	
Rmc @ Meas. Temp.		@	@		@	
Source: Rmf / Rmc	MEASURED	NONE				
Rm @ BHT	4.348 OHMM	@ 63.0 DEGF	@		@	
Time: Circulation Ended	11:00 10/05/93					
Time: Logger on Bottom	9:00 10/07/93					
Max. Rec. Temp.	63.0 DEGF					
Equip. / Location	8170	NATCHEZ, MS				
Recorded By	BLIZNIK/JONES					
Witnessed By	JOHN LUKASIEWICZ					

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

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 interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE			
Service Order No.	607441			
Drilling Fluid Level				
Salinity	20000.0 PPM			
Rmf @ BHT	1.104 OHMM	@ 63.0 DEGF		@
Rmc @ BHT		@ 63.0 DEGF		@
Logging Speed	5000.0 F/HR			
EQUIPMENT DATA				
Tool Number 1	LDT			
Tool Number 2	CNTH			
Tool Number 3	SGTL			
Tool Number 4	TCCB			
Tool Number 5	-			
Tool Number 6	-			
Tool Number 7				
Tool Number 8				
Tool Number 9				
Tool Number 10				
Tool Number 11				
Tool Number 12				

REMARKS:

THANK YOU FOR USING SCHLUMBERGER
YOUR SWS CREW: K.KIRBY & S.TROUTMAN
POROSITY RUN ON LIMESTON MATRIX
TD NOT ATTEMPTED DUE TO HOLE CONDITIONS

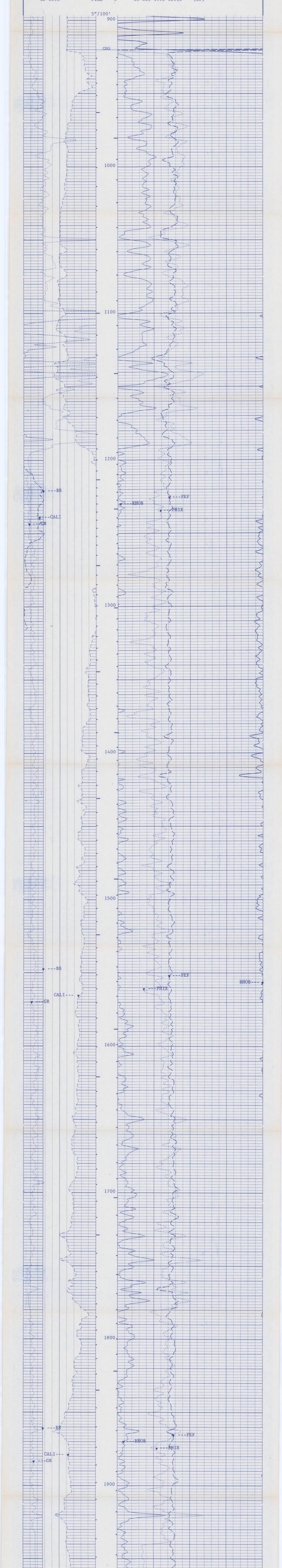
```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   1046.24 F3    FROM 1961.50 F    TO 920.000 F
Integrated Cement Volume: 955.399 F3    FROM 1961.50 F    TO 920.000 F
  (ASSUMING 4.00000 IN   O.D. CASING)
```

```
EVENT MARK SUMMARY:

OUTPUT                        INTERVAL       DEPTH TRACK
                              BETWEEN PIPS   EDGE

Integrated Hole Volume        10.0000 F3     LEFT EDGE
Integrated Cement Volume      10.0000 F3     RIGHT EDGE
```

BS(IN) 6.0000 16.000 — PEF 0.0 10.000
CALI(IN) 6.0000 16.000 — RHOB(G/C3) 2.0000 3.0000
GR(GAPI) 0.0 150.00 — PHIX(V/V) .60000 0.0

WASHOUT

CP 38.2 FILE 3 08-OCT-1993 02:15 (UP)



CP 38.2 FILE 3 08-OCT-1993 01:54 (UP)

WASHOUT

BS(IN) 6.0000 16.000 — PEF 0.0 10.000
CALI(IN) 6.0000 16.000 — RHOB(G/C3) 2.0000 3.0000
GR(GAPI) 0.0 150.00 — PHIX(V/V) .60000 0.0

```
SENSOR MEASURE POINT TO TOOL ZERO

LDTD  2.7  FEET                    SGTL 29.2  FEET
CNTH 20.7  FEET                    DTT   -.9  FEET
```

```
                          PARAMETERS

NAME  VALUE       UNIT              NAME  VALUE       UNIT

WMUD 8.40000      LB/G              TD   2743.00      F
FCD  4.00000      IN                DHC  BS
BFM  LIQU                           MDEN 2.71000      G/C3
FD   1.00000      G/C3              DPPM HISP
MATR LIME                           HC   CALI
NPDC 2                              HSCO YES
SOCO NO                             MCCO NO
BSCO NO                             FSCO NO
MWCO NO                             PTCO NO
CCCO NO                             SDAT SOCN
MCOR NATU                           SOCN .500000      IN
FSAL -50000.0     PPM               ANGL 0.0          DEG
GGRD .0100000     DF/F              BHFL WATE
FNUM .620000                        FEXP 2.15000
FPHI PHIX                           CDSE RHOB
CNPS NPHI                           NCJT GSRY
GTSE TEMP                           SHT  80.0000      DEGF
BHT  100.000      DEGF              STEM -50000.0     DEGF
DFD  -50000.0     LB/G              RMFS -50000.0     OHMM
RMS  -50000.0     OHMM              MST  -50000.0     DEGF
MFST -50000.0     DEGF              BS   8.75000      IN
BHS  OPEN
```

REPEAT SECTION

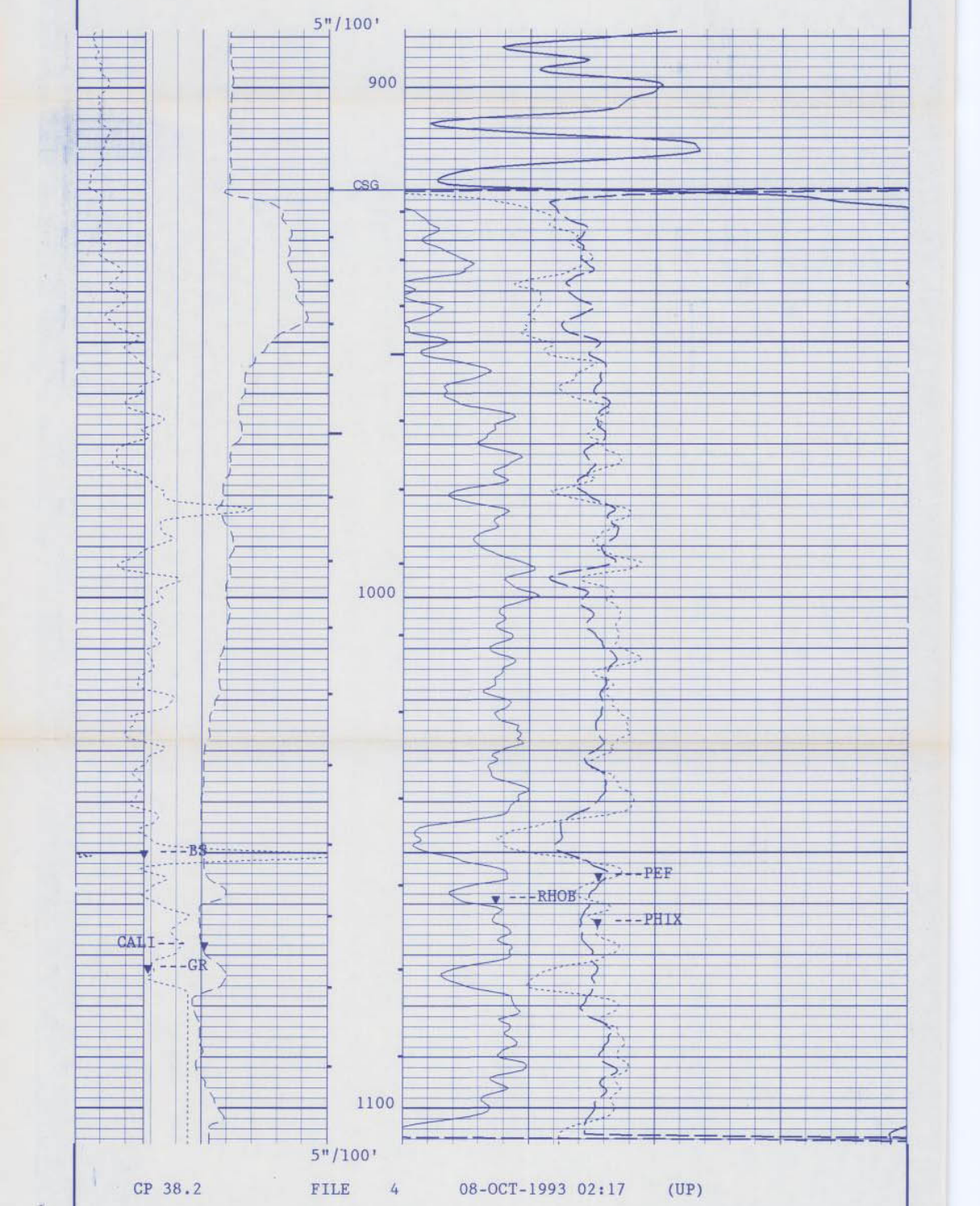
```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   150.129 F3    FROM 1107.00 F    TO 920.000 F
Integrated Cement Volume: 133.854 F3    FROM 1107.00 F    TO 920.000 F
  (ASSUMING 4.00000 IN   O.D. CASING)
```

```
EVENT MARK SUMMARY:

OUTPUT                        INTERVAL       DEPTH TRACK
                              BETWEEN PIPS   EDGE

Integrated Hole Volume        10.0000 F3     LEFT EDGE
Integrated Cement Volume      10.0000 F3     RIGHT EDGE
```

BS(IN) 6.0000 16.000 — PEF 0.0 10.000
CALI(IN) 6.0000 16.000 — RHOB(G/C3) 2.0000 3.0000
GR(GAPI) 0.0 150.00 — PHIX(V/V) .60000 0.0

WASHOUT

CP 38.2 FILE 4 08-OCT-1993 02:24 (UP)



CP 38.2 FILE 4 08-OCT-1993 02:17 (UP)

WASHOUT

BS(IN) 6.0000 16.000 — PEF 0.0 10.000
CALI(IN) 6.0000 16.000 — RHOB(G/C3) 2.0000 3.0000
GR(GAPI) 0.0 150.00 — PHIX(V/V) .60000 0.0

```
SENSOR MEASURE POINT TO TOOL ZERO

LDTD  2.7  FEET                    SGTL 29.2  FEET
CNTH 20.7  FEET                    DTT   -.9  FEET
```

```
                          PARAMETERS

NAME  VALUE       UNIT              NAME  VALUE       UNIT

WMUD 8.40000      LB/G              TD   2743.00      F
FCD  4.00000      IN                DHC  BS
BFM  LIQU                           MDEN 2.71000      G/C3
FD   1.00000      G/C3              DPPM HISP
MATR LIME                           HC   CALI
NPDC 2                              HSCO YES
SOCO NO                             MCCO NO
BSCO NO                             FSCO NO
MWCO NO                             PTCO NO
CCCO NO                             SDAT SOCN
MCOR NATU                           SOCN .500000      IN
FSAL -50000.0     PPM               ANGL 0.0          DEG
GGRD .0100000     DF/F              BHFL WATE
FNUM .620000                        FEXP 2.15000
FPHI PHIX                           CDSE RHOB
CNPS NPHI                           NCJT GSRY
GTSE TEMP                           SHT  80.0000      DEGF
BHT  100.000      DEGF              STEM -50000.0     DEGF
DFD  -50000.0     LB/G              RMFS -50000.0     OHMM
RMS  -50000.0     OHMM              MST  -50000.0     DEGF
MFST -50000.0     DEGF              BS   8.75000      IN
BHS  OPEN
```

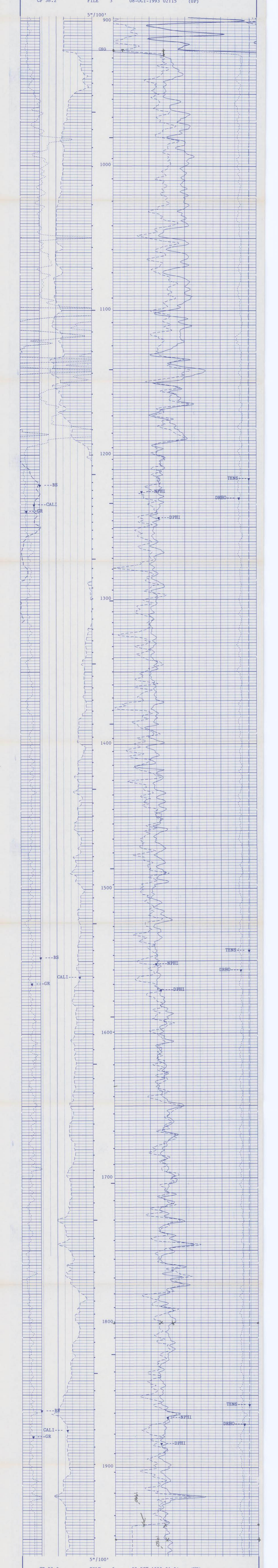
```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   1046.24 F3    FROM 1961.50 F    TO 920.000 F
Integrated Cement Volume: 955.399 F3    FROM 1961.50 F    TO 920.000 F
  (ASSUMING 4.00000 IN   O.D. CASING)
```

```
EVENT MARK SUMMARY:

OUTPUT                        INTERVAL       DEPTH TRACK
                              BETWEEN PIPS   EDGE

Integrated Hole Volume        10.0000 F3     LEFT EDGE
Integrated Cement Volume      10.0000 F3     RIGHT EDGE
```

TENS(LBF) 10000. 0.0
DRHO(G/C3) -.6000 .15000
BS(IN) 6.0000 16.000 — NPHI(V/V) .60000 0.0
CALI(IN) 6.0000 16.000
GR(GAPI) 0.0 150.00 — DPHI(V/V) .60000 0.0

WASHOUT

CP 38.2 FILE 3 08-OCT-1993 02:15 (UP)



CP 38.2 FILE 3 08-OCT-1993 01:54 (UP)

WASHOUT

TENS(LBF) 10000. 0.0
DRHO(G/C3) -.6000 .15000
BS(IN) 6.0000 16.000 — NPHI(V/V) .60000 0.0
CALI(IN) 6.0000 16.000
GR(GAPI) 0.0 150.00 — DPHI(V/V) .60000 0.0

```
SENSOR MEASURE POINT TO TOOL ZERO

LDTD  2.7  FEET                    SGTL 29.2  FEET
CNTH 20.7  FEET                    DTT   -.9  FEET
```

```
                          PARAMETERS

NAME  VALUE       UNIT              NAME  VALUE       UNIT

WMUD 8.40000      LB/G              TD   2743.00      F
FCD  4.00000      IN                DHC  BS
BFM  LIQU                           MDEN 2.71000      G/C3
FD   1.00000      G/C3              DPPM HISP
MATR LIME                           HC   CALI
NPDC 2                              HSCO YES
SOCO NO                             MCCO NO
BSCO NO                             FSCO NO
MWCO NO                             PTCO NO
CCCO NO                             SDAT SOCN
MCOR NATU                           SOCN .500000      IN
FSAL -50000.0     PPM               ANGL 0.0          DEG
GGRD .0100000     DF/F              BHFL WATE
FNUM .620000                        FEXP 2.15000
FPHI PHIX                           CDSE RHOB
CNPS NPHI                           NCJT GSRY
GTSE TEMP                           SHT  80.0000      DEGF
BHT  100.000      DEGF              STEM -50000.0     DEGF
DFD  -50000.0     LB/G              RMFS -50000.0     OHMM
RMS  -50000.0     OHMM              MST  -50000.0     DEGF
MFST -50000.0     DEGF              BS   8.75000      IN
BHS  OPEN
```

REPEAT SECTION

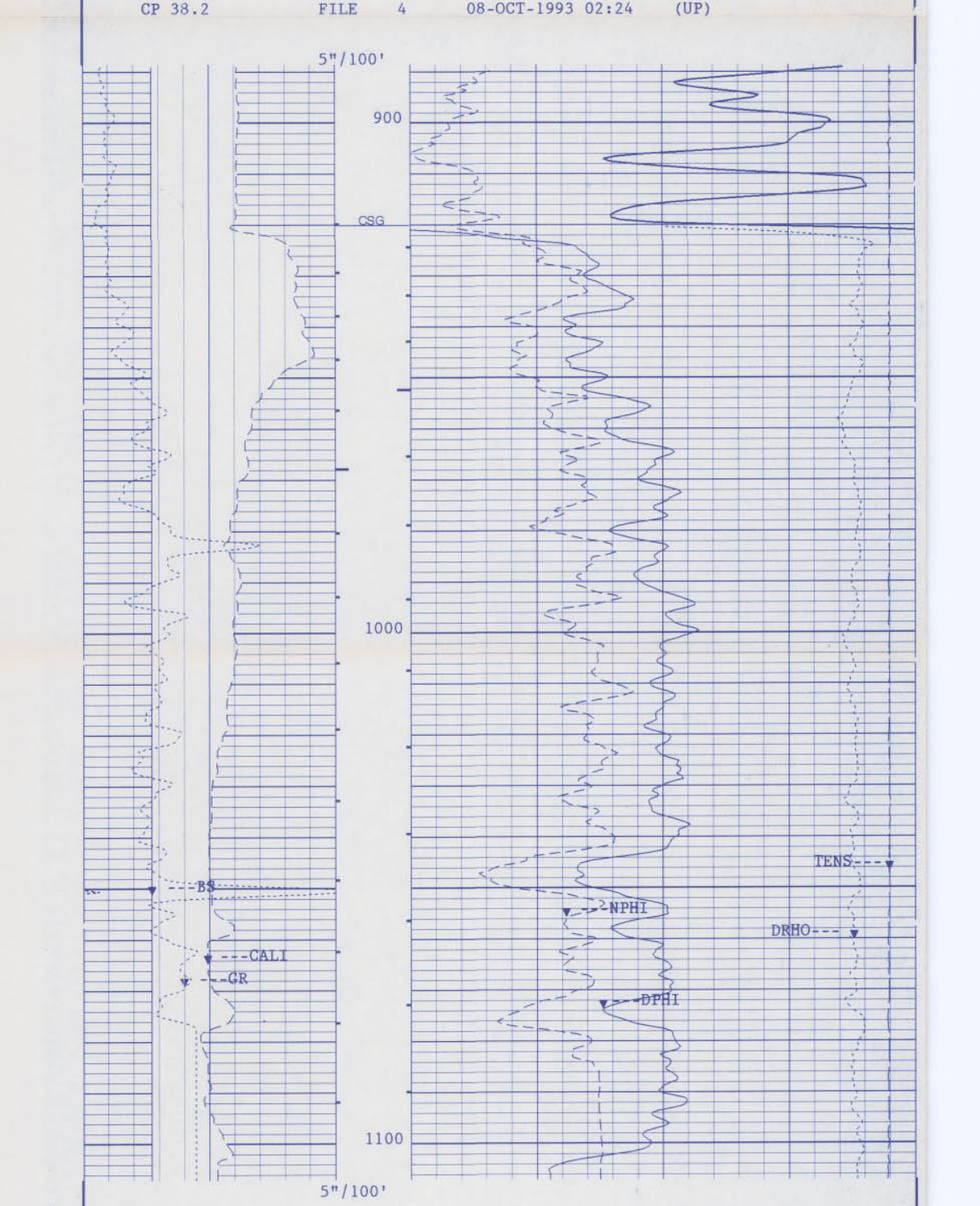
```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   150.129 F3    FROM 1107.00 F    TO 920.000 F
Integrated Cement Volume: 133.854 F3    FROM 1107.00 F    TO 920.000 F
  (ASSUMING 4.00000 IN   O.D. CASING)
```

```
EVENT MARK SUMMARY:

OUTPUT                        INTERVAL       DEPTH TRACK
                              BETWEEN PIPS   EDGE

Integrated Hole Volume        10.0000 F3     LEFT EDGE
Integrated Cement Volume      10.0000 F3     RIGHT EDGE
```

TENS(LBF) 10000. 0.0
DRHO(G/C3) -.6000 .15000
BS(IN) 6.0000 16.000 — NPHI(V/V) .60000 0.0
CALI(IN) 6.0000 16.000
GR(GAPI) 0.0 150.00 — DPHI(V/V) .60000 0.0

WASHOUT

CP 38.2 FILE 4 08-OCT-1993 02:24 (UP)



CP 38.2 FILE 4 08-OCT-1993 02:17 (UP)

WASHOUT

TENS(LBF) 10000. 0.0
DRHO(G/C3) -.6000 .15000
BS(IN) 6.0000 16.000 — NPHI(V/V) .60000 0.0
CALI(IN) 6.0000 16.000
GR(GAPI) 0.0 150.00 — DPHI(V/V) .60000 0.0

```
SENSOR MEASURE POINT TO TOOL ZERO

LDTD  2.7  FEET                    SGTL 29.2  FEET
CNTH 20.7  FEET                    DTT   -.9  FEET
```

```
                          PARAMETERS

NAME  VALUE       UNIT              NAME  VALUE       UNIT

WMUD 8.40000      LB/G              TD   2743.00      F
FCD  4.00000      IN                DHC  BS
BFM  LIQU                           MDEN 2.71000      G/C3
FD   1.00000      G/C3              DPPM HISP
MATR LIME                           HC   CALI
NPDC 2                              HSCO YES
SOCO NO                             MCCO NO
BSCO NO                             FSCO NO
MWCO NO                             PTCO NO
CCCO NO                             SDAT SOCN
MCOR NATU                           SOCN .500000      IN
FSAL -50000.0     PPM               ANGL 0.0          DEG
GGRD .0100000     DF/F              BHFL WATE
FNUM .620000                        FEXP 2.15000
FPHI PHIX                           CDSE RHOB
CNPS NPHI                           NCJT GSRY
GTSE TEMP                           SHT  80.0000      DEGF
BHT  100.000      DEGF              STEM -50000.0     DEGF
DFD  -50000.0     LB/G              RMFS -50000.0     OHMM
RMS  -50000.0     OHMM              MST  -50000.0     DEGF
MFST -50000.0     DEGF              BS   8.75000      IN
BHS  OPEN
```

```
              SHOP SUMMARY

  PERFORMED:    20-SEP-1993 12:08
  PROGRAM FILE: CCSHOP (VERSION    38.2    92/10/12  92/10/12)

CNTH            DETECTOR CALIBRATION SUMMARY

      NEUTRON COMPENSATED CARTRIDGE NUMBER: 181
      NEUTRON SOURCE SERIAL NUMBER        : 2526
      THERMAL HOUSING NUMBER              : 3113
      THERMAL CALIBRATED NEUTRON BOX      : 4410

         INPUT      PLUS       SHOP      SHOP      GAIN
                 REFERENCE    TANK       JIG
                   COUNTS    COUNTS    COUNTS

         CNTC    6031.00    6323.31   2946.68     .954
         CFTC    2793.00    2698.44   1299.81    1.035

         RATIO     2.159      2.343     2.267

         SHOP COUNTS TEMPERATURE AND HOUSING SIZE CORRECTED

BKGD: 20-SEP-1993 11:21 TANK: 20-SEP-1993 11:36  COMP: 20-SEP-1993 11:36

   CP 38.2            FILE    7       20-SEP-1993 12:08
```

```
              SHOP SUMMARY

  PERFORMED:    20-SEP-1993 11:06
  PROGRAM FILE: CCSHOP (VERSION    38.2    92/10/12  92/10/12)

LDTD            DETECTOR CALIBRATION SUMMARY

        DENSITY RESISTIVITY SONDE NUMBER      :    2993
        NUCLEAR SERVICE CARTRIDGE NUMBER      :    1761
        POWERED DETECTOR HOUSING NUMBER       :    3793
        POWERED GAMMA-GAMMA DETECTOR NUMBER   :    3794
        LDT LOGGING SOURCE NUMBER             :    1927
        LDT CALIBRATION MODE                  :    WATE

                  MASTER CALIBRATED
                  BKGD     AL+FE      AL   UNITS
            LL    17.4      88.8    100.5   CPS
            LU    66.0     132.7    151.2   CPS
            LS    50.5     155.2    176.1   CPS
          LITH     5.0      41.5     64.7   CPS
           SS1    12.7     167.4    189.4   CPS
           SS2     8.7     245.7    273.6   CPS

        HV SETTINGS               DETECTOR RESOLUTIONS
      HV LS:  1246.0 V                LS:  8.6 %
      HV SS:  1218.5 V                SS:  8.4 %

                 SPECTRUM QUALITY RATIOS
        COMPUTED VALUE           NOMINAL VALUE    TOLERANCE
   QRLS        .664                   0.65         +/- 0.05
   QRSS        .692                   0.72         +/- 0.10
   QRLI        .368                   0.39         +/- 0.06
   QLIR       1.373                   1.39         +/- 0.06
   QR         1.003                   1.00         +/- 0.02

BKGD: 20-SEP-1993 10:16   AL: 20-SEP-1993 10:42  AL+FE: 20-SEP-1993 11:03

   CP 38.2            FILE    7       20-SEP-1993 11:05
```

```
            BEFORE SURVEY CALIBRATION SUMMARY

  PERFORMED:    08-OCT-1993 02:51
  PROGRAM FILE: TOH    (VERSION    38.2    92/10/12  92/10/12)

SGTL            DETECTOR CALIBRATION SUMMARY

            MEASURED
         BKGD    JIG          CALIBRATED             UNITS
   GR     18     181             165                 GAPI

BACK: 25-SEP-1993 11:39   JIG: 25-SEP-1993 11:59   COMP: 25-SEP-1993 12:00

LDTD            DETECTOR CALIBRATION SUMMARY

        DENSITY RESISTIVITY SONDE NUMBER      :    2993
        NUCLEAR SERVICE CARTRIDGE NUMBER      :    1761
        POWERED DETECTOR HOUSING NUMBER       :    3793
        POWERED GAMMA-GAMMA DETECTOR NUMBER   :    3794
        LDT LOGGING SOURCE NUMBER             :    1927
        LDT CALIBRATION MODE                  :    WATE

                MEASURED        SHOP  VALUES
                  BKGD        AL+FE     AL      UNITS
          LL      17.2         88.8   100.5      CPS
          LU      66.3        132.7   151.2      CPS
          LS      50.4        155.2   176.1      CPS
        LITH       4.8         41.5    64.7      CPS
         SS1      12.8        167.4   189.4      CPS
         SS2       8.7        245.7   273.6      CPS

          HV SETTINGS              DETECTOR RESOLUTIONS
        HV LS:  1247.9 V               LS:  8.6 %
        HV SS:  1222.0 V               SS:  8.4 %

BKGD: 25-SEP-1993 11:39

CNTH            DETECTOR CALIBRATION SUMMARY

      NEUTRON COMPENSATED CARTRIDGE NUMBER: 181
      NEUTRON SOURCE SERIAL NUMBER        : 2526
      THERMAL HOUSING NUMBER              : 3113
      THERMAL CALIBRATED NEUTRON BOX      : 4410

         INPUT      PLUS       SHOP      SHOP      BEFORE     GAIN
                 REFERENCE    TANK       JIG        JIG
                   COUNTS    COUNTS    COUNTS     COUNTS

         CNTC    6031.00    6323.31   2946.68    2979.98     .954
         CFTC    2793.00    2698.44   1299.81    1298.69    1.035

         RATIO     2.159      2.343     2.267      2.295

BACK: 25-SEP-1993 11:39   JIG: 25-SEP-1993 11:59   COMP: 25-SEP-1993 11:35

LDTD            CALIPER CALIBRATION SUMMARY

           MEASURED                      CALIBRATED
         SMALL    LARGE                SMALL     LARGE        UNITS
  CALI    5.60     9.91                 8.00     12.00         IN

SMALL: 25-SEP-1993 12:01 LARGE: 25-SEP-1993 12:03 COMP: 25-SEP-1993 12:03

   CP 38.2            FILE    6       08-OCT-1993 02:50
```

```
            AFTER SURVEY TOOL CHECK SUMMARY

  PERFORMED:    08-OCT-1993 02:49
  PROGRAM FILE: TOH    (VERSION    38.2    92/10/12  92/10/12)

LDTD                    TOOL  CHECK

        DENSITY RESISTIVITY SONDE NUMBER      :    2993
        NUCLEAR SERVICE CARTRIDGE NUMBER      :    1761
        POWERED DETECTOR HOUSING NUMBER       :    3793
        POWERED GAMMA-GAMMA DETECTOR NUMBER   :    3794
        LDT LOGGING SOURCE NUMBER             :    1927
        LDT CALIBRATION MODE                  :    WATE

          MEASURED BACKGROUND                  TOLERANCE ON
           BEFORE          AFTER      UNITS    BEFORE-AFTER
     LL     17.2            16.9       CPS       +/- 1.0
     LU     66.3            64.2       CPS       +/- 1.0
     LS     50.4            48.9       CPS       +/- 1.0
   LITH      4.8             4.8       CPS       +/- 0.3
    SS1     12.8            12.3       CPS       +/- 0.5
    SS2      8.7             8.4       CPS       +/- 0.5

          HV SETTINGS              DETECTOR RESOLUTIONS
        HV LS:  1247.9 V               LS:  8.6 %
        HV SS:  1222.0 V               SS:  8.4 %

BKGD                              BKGD
  BEFORE SURVEY: 25-SEP-1993 11:39   AFTER SURVEY: 08-OCT-1993 02:44

CNTH                    TOOL  CHECK

         INPUT     BEFORE JIG   AFTER JIG

         CNTC       2979.98      3007.38

         CFTC       1298.69      1311.37

CHANGE IN THERMAL POROSITY AT 20 PU IS   -.019  PU

BEFORE SURVEY:           BACK: 25-SEP-1993 11:39    JIG: 25-SEP-1993 11:59
AFTER SURVEY CHECK:      BACK:                      JIG: 08-OCT-1993 02:47

   CP 38.2            FILE    6       08-OCT-1993 02:48
```

COMPANY	SOUTH FLORIDA WATER MANAGEMENT DIST.			**SCHL. FR**	1950.0 F
				SCHL. TD	2743.0 F
WELL	SFWMD DF No. 1			**DRLR. TD**	2743.0 F
				Elev: KB	24.5 F
FIELD	NORTHWEST L-31 CANAL			**DF**	23.5 F
COUNTY	DADE	**STATE**	FLORIDA	**GL**	15.0 F

Schlumberger

LITHO DENSITY
COMPENSATED NEUTRON

FLORIDA GEOPHYSICAL LOGGING, INC.

HIGH RESOLUTION TEMPERATURE LOG

FILE NO. PROJECT #6505-01

COMPANY CITY OF SUNRISE
WELL D.I.W. NO. 3
FIELD SUNRISE
COUNTY BROWARD STATE FLORIDA

LOCATION
LAT : 26 DEG. 07' 38"
LONG: 80 DEG. 20' 10"
SEC. 3 TWP 50S RGE 40E

OTHER SERVICES:
CBL
DIL
XYCALGR

PERMANENT DATUM PAD ELEV.
LOG MEASURED FROM PAD FT.ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD

ELEV.:K.B.
D.F.
G.L.

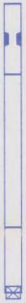
DATE	27-MAY-95	
RUN NO.	NINE	
TYPE LOG	HRT	
DEPTH-DRILLER	3350'	
DEPTH-LOGGER	3350'	
LOGGED INTERVAL	3350' TO 10'	TO
OPERATING RIG TIME	4 HOURS	
TYPE FLUID IN HOLE	WATER	
SALINITY, PPM CL	N/A	
DENSITY-VISCOSITY	N/A	
LEVEL	FULL	
MAX. REC. TEMP. DEG F.	82 DEGF.	
EQUIPMENT-LOCATION	102 - MIAMI	
RECORDED BY	WILLIAMS/LEE	
WITNESSED BY	D. FLORINDO	

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
NINE	22.5"	3350'	CASING	24"	.5" WT.	2988'	SURF

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 INTERPRETATION, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFULL NEGLEGENCE 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 SET OUT IN OUR CURRENT PRICE SCHEDULE.

REMARKS

XY CALIPER/GAMMA RAY/TEMPERATURE TOOL STRING CONFIGURATION



-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 7.5 FT. FROM BOT

-- TOTAL TOOL STRING LENGTH = 11.5 FT.--

-- XY CALIPER -- 6 FT. LONG

-- LONG ARM MEASURE POINT 4 FT. FROM BOT

-- TEMPERATURE -- 2.5 FT. LONG
MEASURE POINT AT BOT

-- BOT

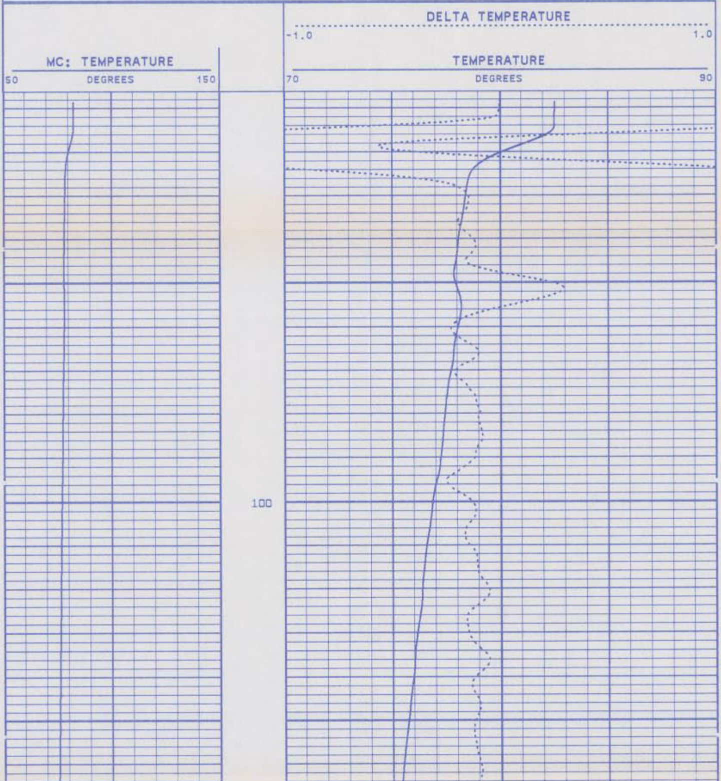
REMARKS

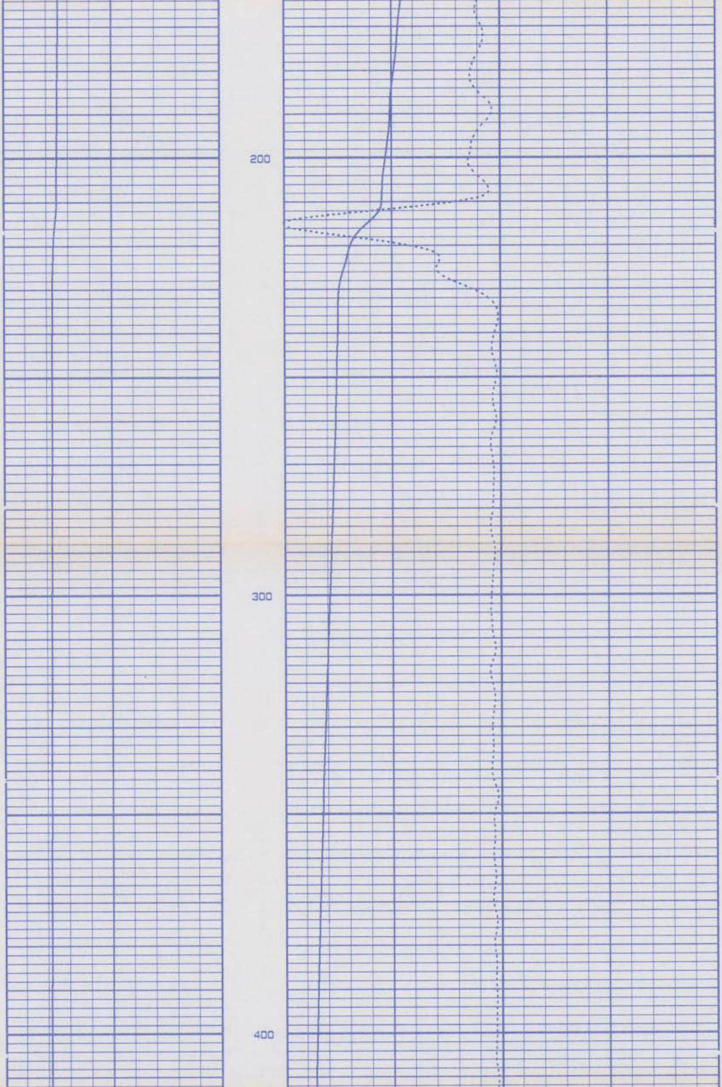
MAIN PASS
LOGGED GOING DOWN

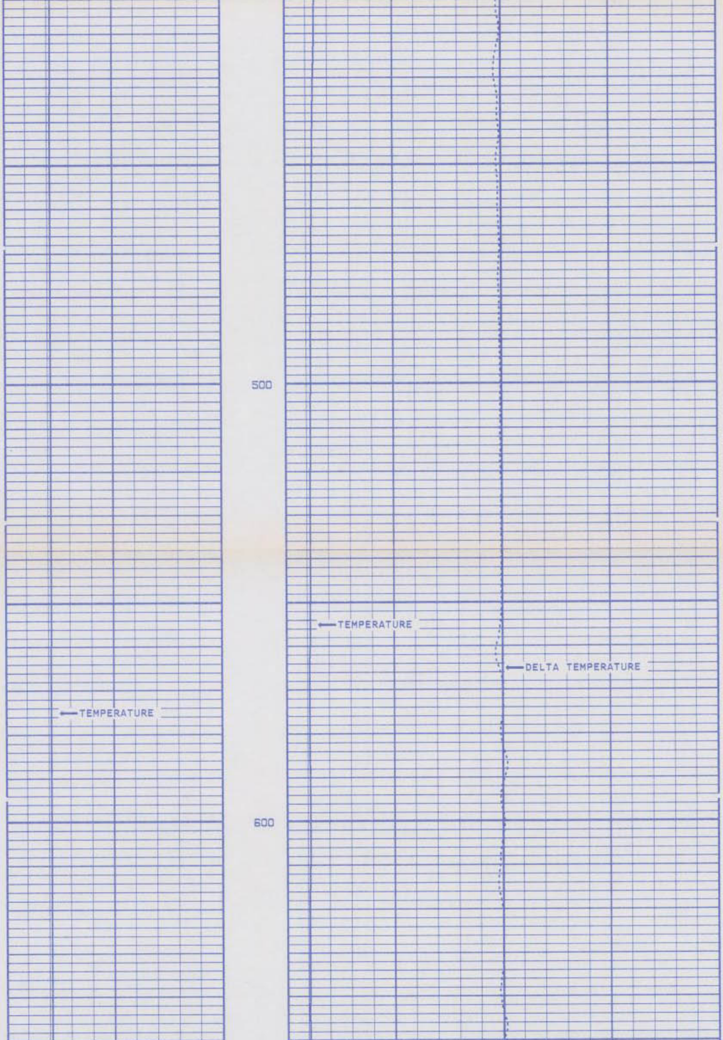
VERSION: 2.26

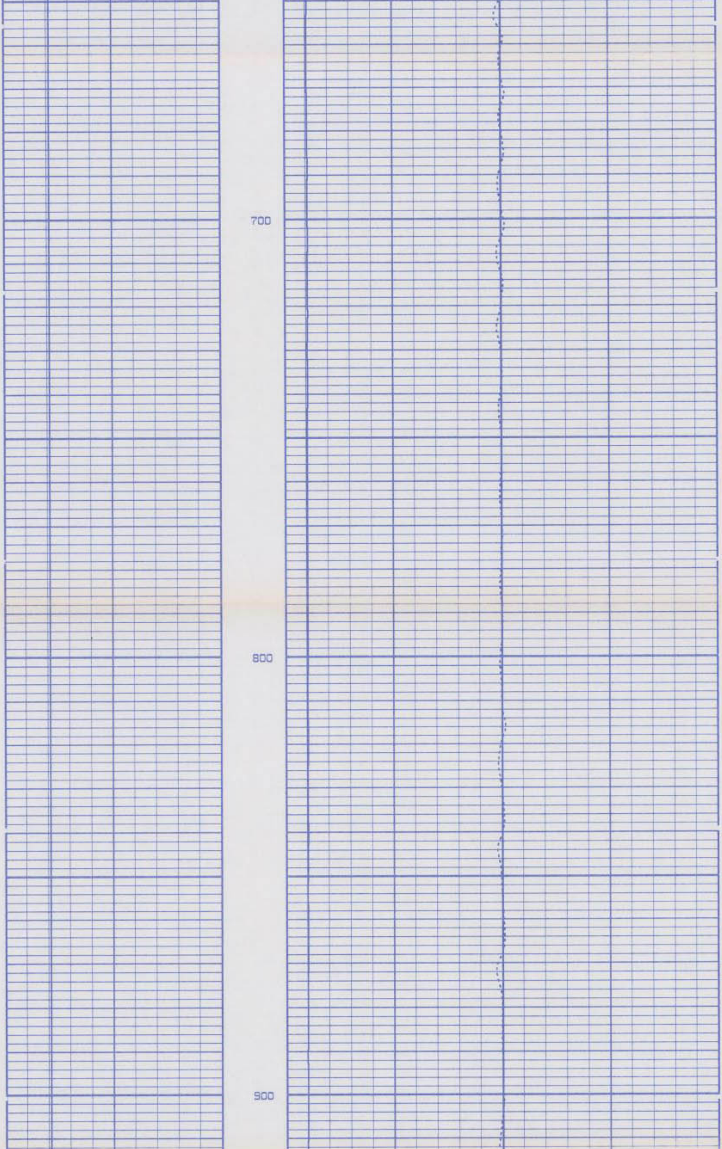
SDIW39HRT2

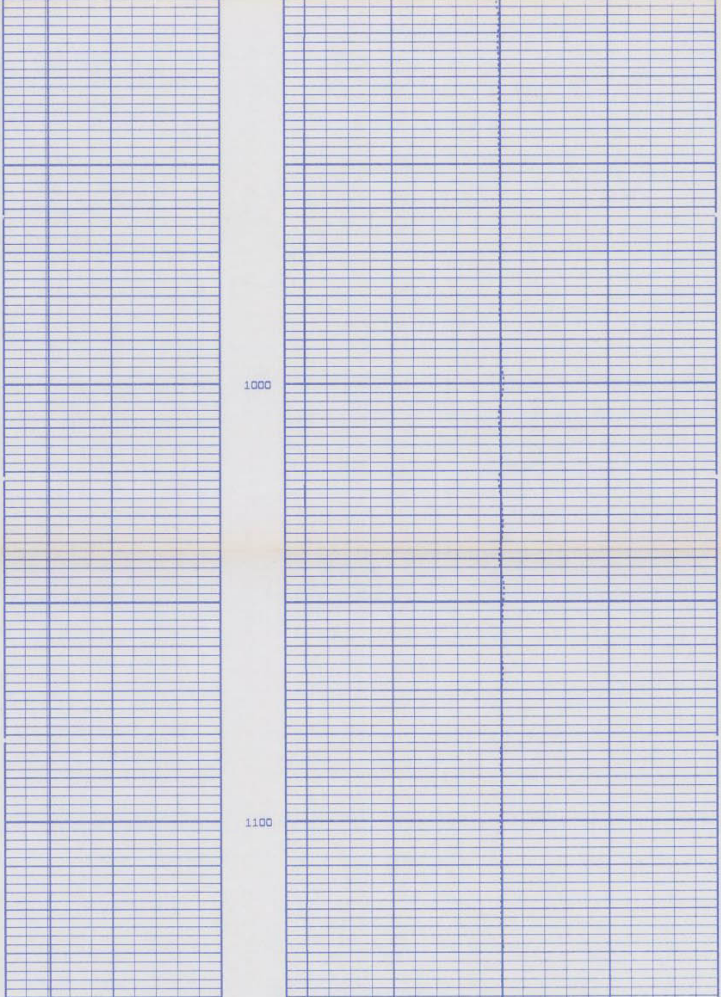
FINISH DEPTH: **3349.5** FEET DIRECTION: **DOWN** DATE: **05/27/95** TIME: **21:44:09** MODE: **TRACE PLAYBACK**











1200

1300

1400

1400

1500

1600

1700

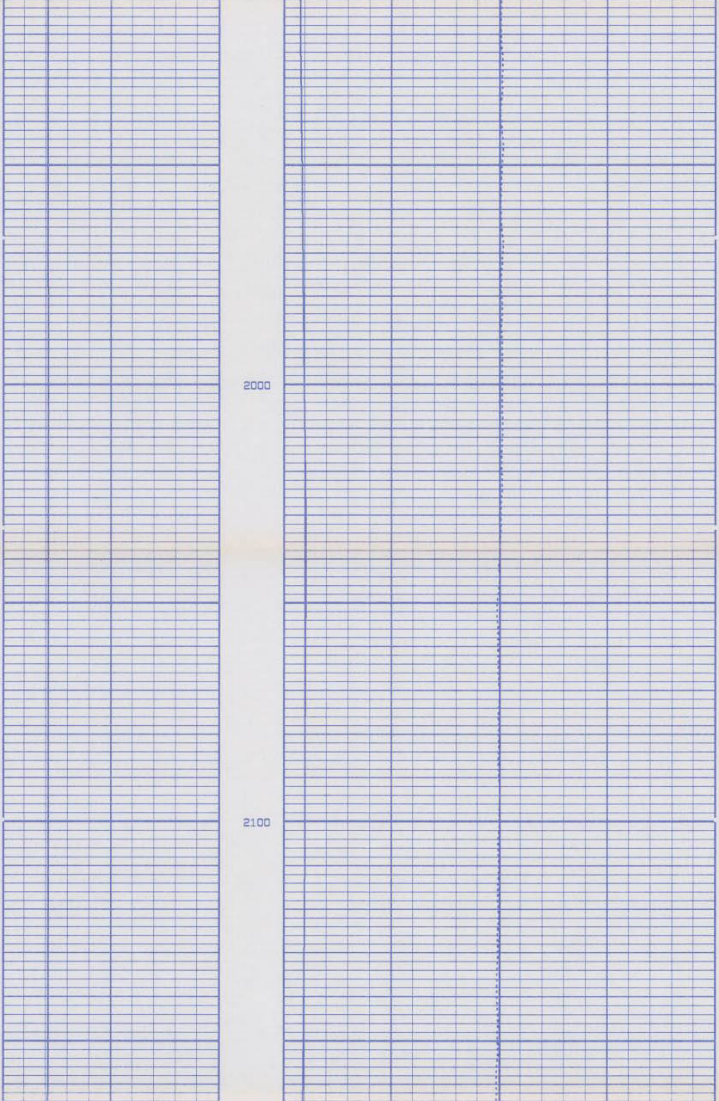
1800

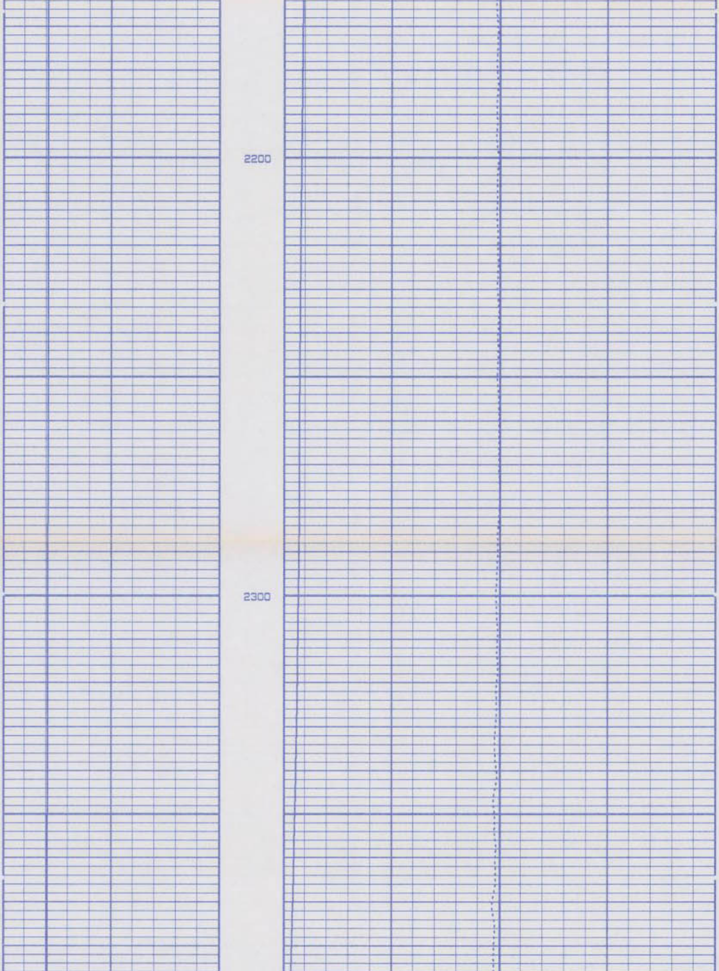
← TEMPERATURE

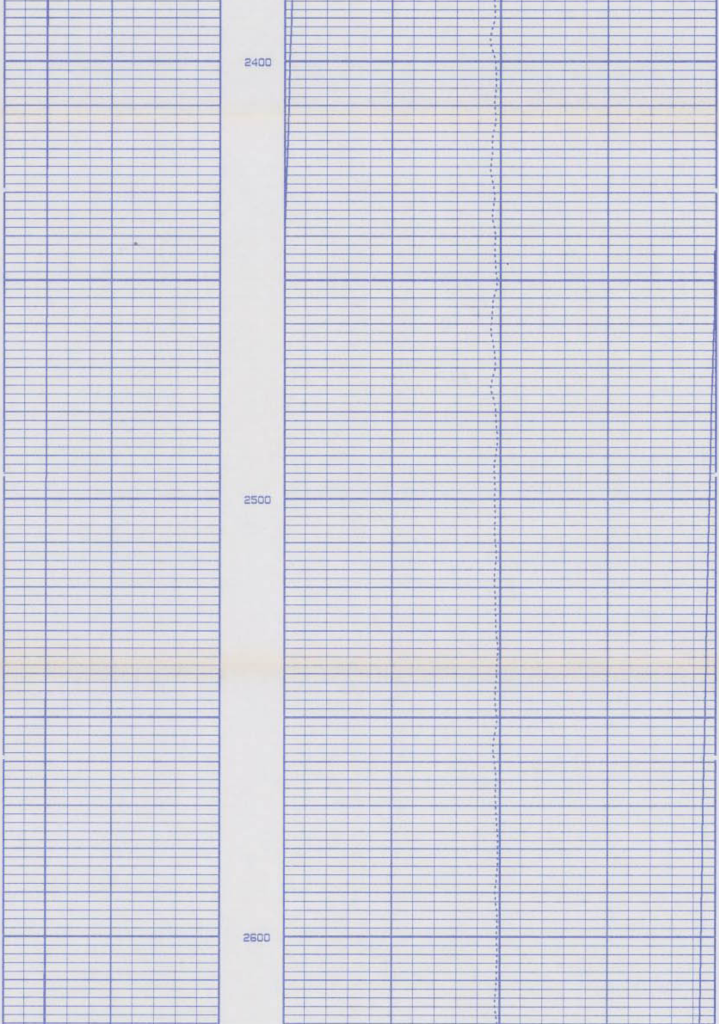
← DELTA TEMPERATURE

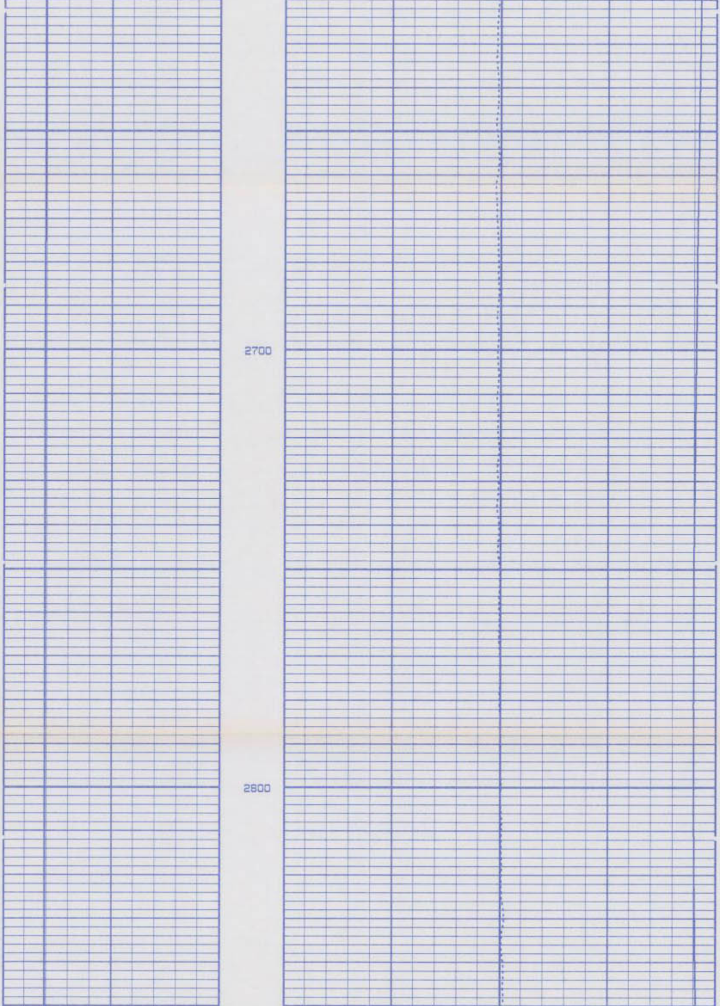
← TEMPERATURE

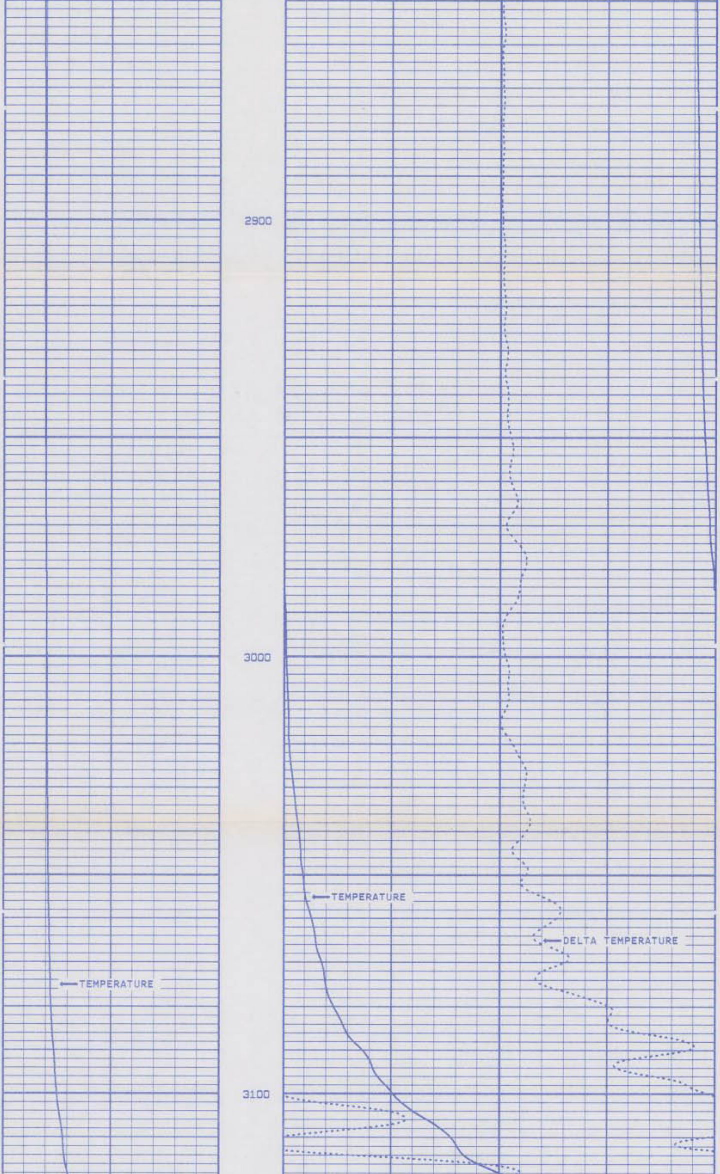
1900

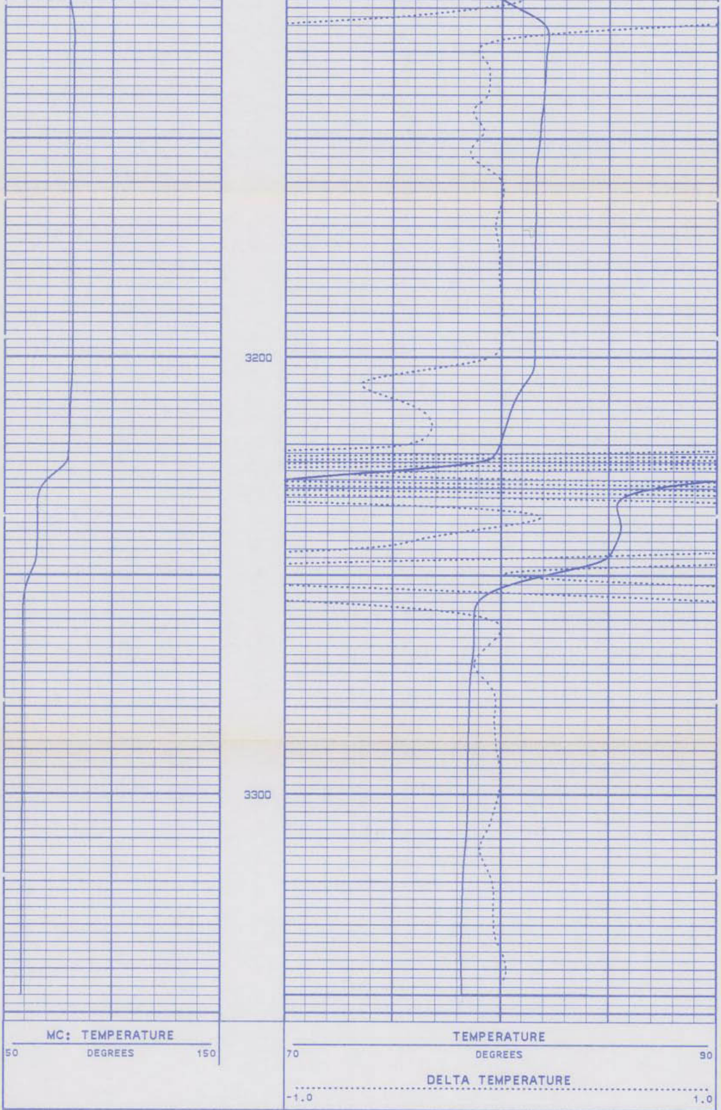












START DEPTH: **12.0** FEET DIRECTION: **DOWN** DATE: **05/27/95** TIME: **20:48:59** MODE: **TRACE PLAYBACK**

SDIW39HRT2

VERSION: **2.26**

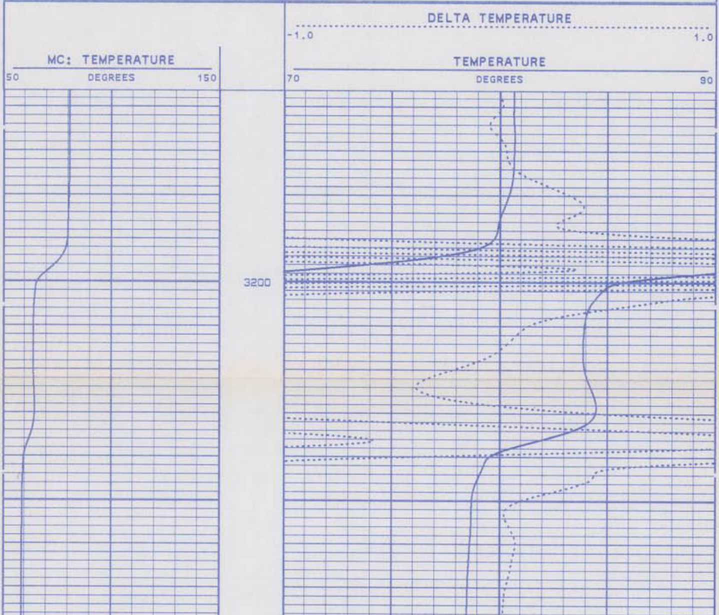
REMARKS

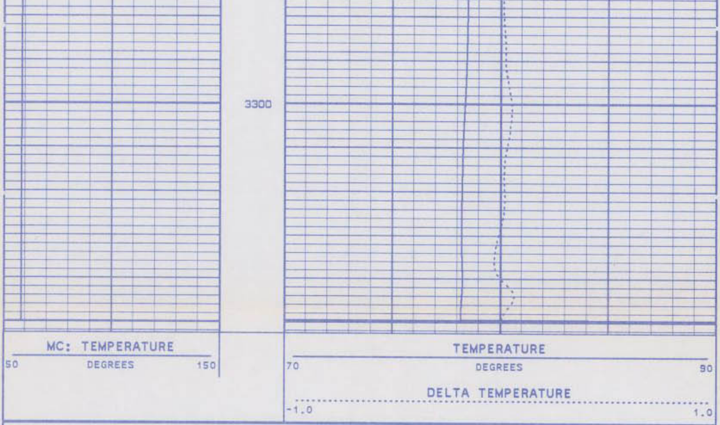
REPEAT SECTION
LOGGED GOING UP

VERSION: **2.26**

SDIW39HRT3

FINISH DEPTH: **3150.6** FEET DIRECTION: **UP** DATE: **05/27/95** TIME: **21:51:16** MODE: **TRACE PLAYBACK**





START DEPTH: **3346.7** FEET DIRECTION: **UP** DATE: **05/27/95** TIME: **21:45:39** MODE: **TRACE PLAYBACK**

SDIW39HRT3

VERSION: **2.26**

MASTER CALIBRATION SUMMARY

FILE: DATE: 05/28/95 TIME: 06:53 VERSION: 2.26

TEMPERATURE TOOL #31

DATE: 03/10/95 TIME: 15:29

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
ZERO	283.1	CPS	69.6	69.5	69.6	0.04	DEGF
PLUS	386.8	CPS	91.0	91.0	91.0	0.00	DEGF

COMPANY CITY OF SUNRISE

JAMES CALDWELL DIR. OF UTILITIES

WELL D.I.W. NO. 3

FIELD SUNRISE STATE FLORIDA

FLORIDA GEOPHYSICAL LOGGING, INC.

XY CALIPER
GAMMA RAY

FILE NO. PROJECT #6505-01

COMPANY CITY OF SUNRISE
WELL D.I.W. NO. 3
FIELD SUNRISE
COUNTY BROWARD STATE FLORIDA
LOCATION
LAT : 26 DEG. 07' 38"
LONG: 80 DEG. 20' 10"
OTHER SERVICES:
HRT
DIL
CBL
SEC. 3 TWP 50S RGE 40E

PERMANENT DATUM PAD ELEV.
LOG MEASURED FROM PAD FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM PAD
ELEV.:K.B.
D.F.
G.L.

DATE	27-MAY-95
RUN NO.	NINE
TYPE LOG	XYCALGR
DEPTH-DRILLER	3350'
DEPTH-LOGGER	3350'
LOGGED INTERVAL	3350' TO 48'
OPERATING RIG TIME	4 HOURS
TYPE FLUID IN HOLE	WATER
SALINITY, PPM CL	N/A
DENSITY-VISCOSITY	N/A
LEVEL	FULL
MAX. REC. TEMP. DEG F.	82 DEGF.
EQUIPMENT-LOCATION	102 - MIAMI
RECORDED BY	WILLIAMS/LEE
WITNESSED BY	D. FLORINDO

BOREHOLE RECORD				CASING RECORD			
RUN NO.	BIT	FROM	TO	SIZE	WGT.	FROM	TO
NINE	22.5"	3350'	CASING	24"	.5" WT.	2988'	SURF

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REMARKS

XY CALIPER/GAMMA RAY/TEMPERATURE TOOL STRING CONFIGURATION

-- GAMMA RAY -- 3 FT. LONG
MEASURE POINT 7.5 FT. FROM BOT

-- TOTAL TOOL STRING LENGTH = 11.5 FT.--

-- XY CALIPER -- 6 FT. LONG

-- LONG ARM MEASURE POINT 4 FT. FROM BOT

-- TEMPERATURE -- 2.5 FT. LONG
MEASURE POINT AT BOT

-- BOT

REMARKS

MAIN PASS
DRILL PIPE IN HOLE FOR 60 FEET

VERSION: 2.26

SDIW39XY2

FINISH DEPTH: 48.0 FEET DIRECTION: UP DATE: 05/27/95 TIME: 23:15:09 MODE: TRACE PLAYBACK

START DEPTH: 3347.1 FEET DIRECTION: UP DATE: 05/27/95 TIME: 22:15:27 MODE: TRACE PLAYBACK

SDIW39XY2

VERSION: 2.26

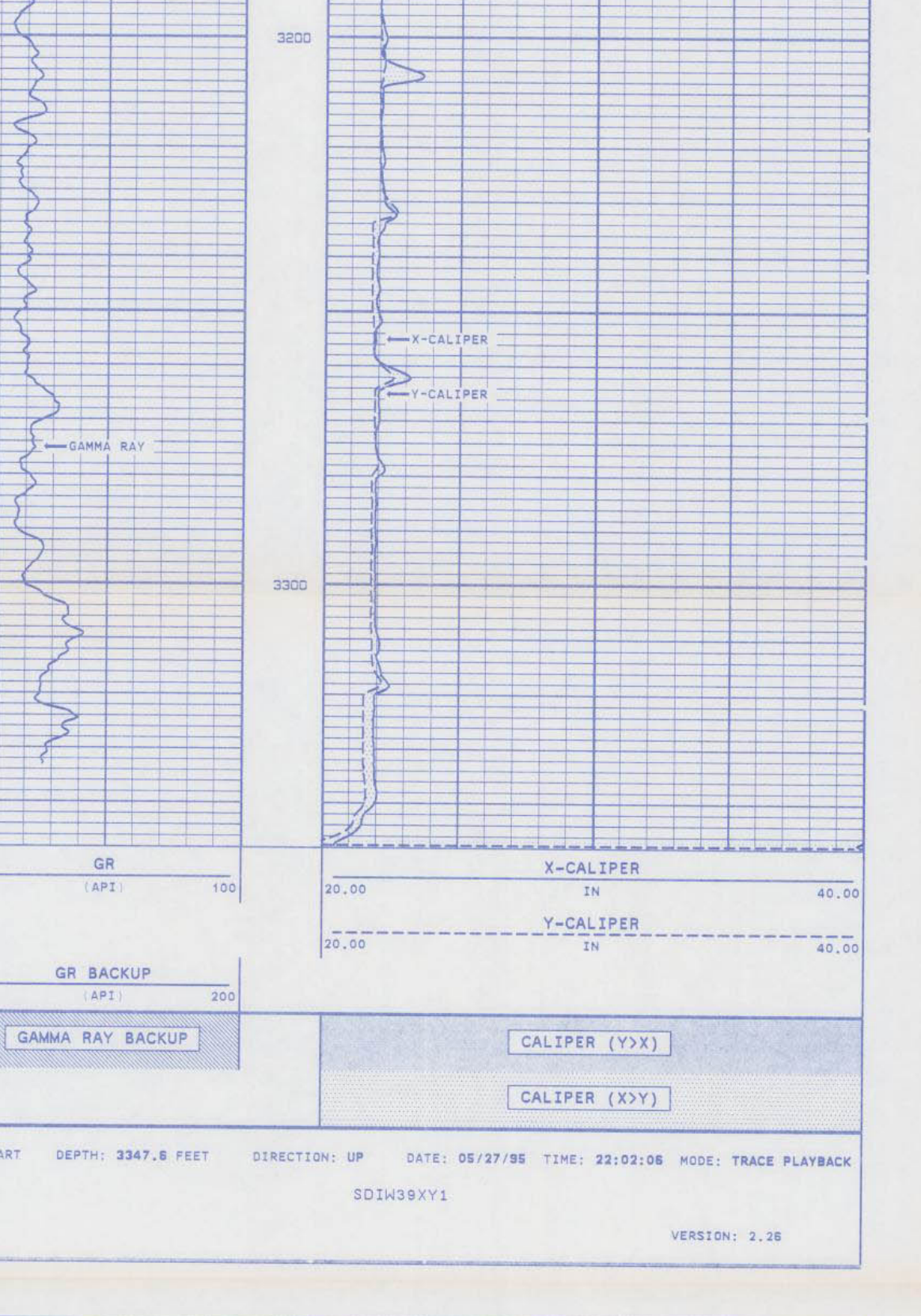
REMARKS

REPEAT SECTION

VERSION: 2.26

SDIW39XY1

FINISH DEPTH: 3156.4 FEET DIRECTION: UP DATE: 05/27/95 TIME: 22:09:36 MODE: TRACE PLAYBACK



START DEPTH: 3347.6 FEET DIRECTION: UP DATE: 05/27/95 TIME: 22:02:06 MODE: TRACE PLAYBACK

SDIW39XY1

VERSION: 2.26

MASTER CALIBRATION SUMMARY

FILE: DATE: 05/28/95 TIME: 06:30 VERSION: 2.26

X-CALIPER TOOL #14

DATE: 05/19/95 TIME: 08:58

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
6" RING	367.8	CPS	6.0	5.9	6.7	0.26	IN
10" RING	380.6	CPS	10.0	9.8	10.4	0.20	IN
20" RING	432.5	CPS	20.0	20.0	20.0	0.00	IN
30" RING	496.0	CPS	30.0	29.8	30.2	0.18	IN
40" RING	562.6	CPS	40.0	39.6	40.4	0.09	IN

Y-CALIPER TOOL #14

DATE: 05/19/95 TIME: 08:58

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
6" RING	364.6	CPS	6.0	5.4	6.1	0.25	IN
10" RING	379.1	CPS	10.0	9.6	10.2	0.22	IN
20" RING	433.7	CPS	20.0	19.8	20.2	0.19	IN
30" RING	499.1	CPS	30.0	29.8	30.1	0.18	IN
40" RING	563.2	CPS	40.0	39.9	40.3	0.17	IN

GR API CAL #12

DATE: 04/25/95 TIME: 23:03

	MEASURED	UNITS	STANDARD	MINIMUM	MAXIMUM	DEVIATION	UNITS
SHOP: BACKGROUND	14.1	CPS	0.0	6.8	41.6	5.70	API
SHOP: CALIBRATOR	102.7	CPS	120.0	108.1	174.6	12.39	API

COMPANY CITY OF SUNRISE
JAMES CALDWELL DIR. OF UTILITIES
WELL D.I.W. NO. 3
FIELD SUNRISE STATE FLORIDA

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Well Name: SEWARD OF NO 2
Date: Thursday, October 12, 2000, at 05:49:25 AM
Plot: Plot created from h.upd

FORMATION

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Date: Thursday, October 12, 2000, at 06:15:54 AM
Plot: Plot created from: hl.npd

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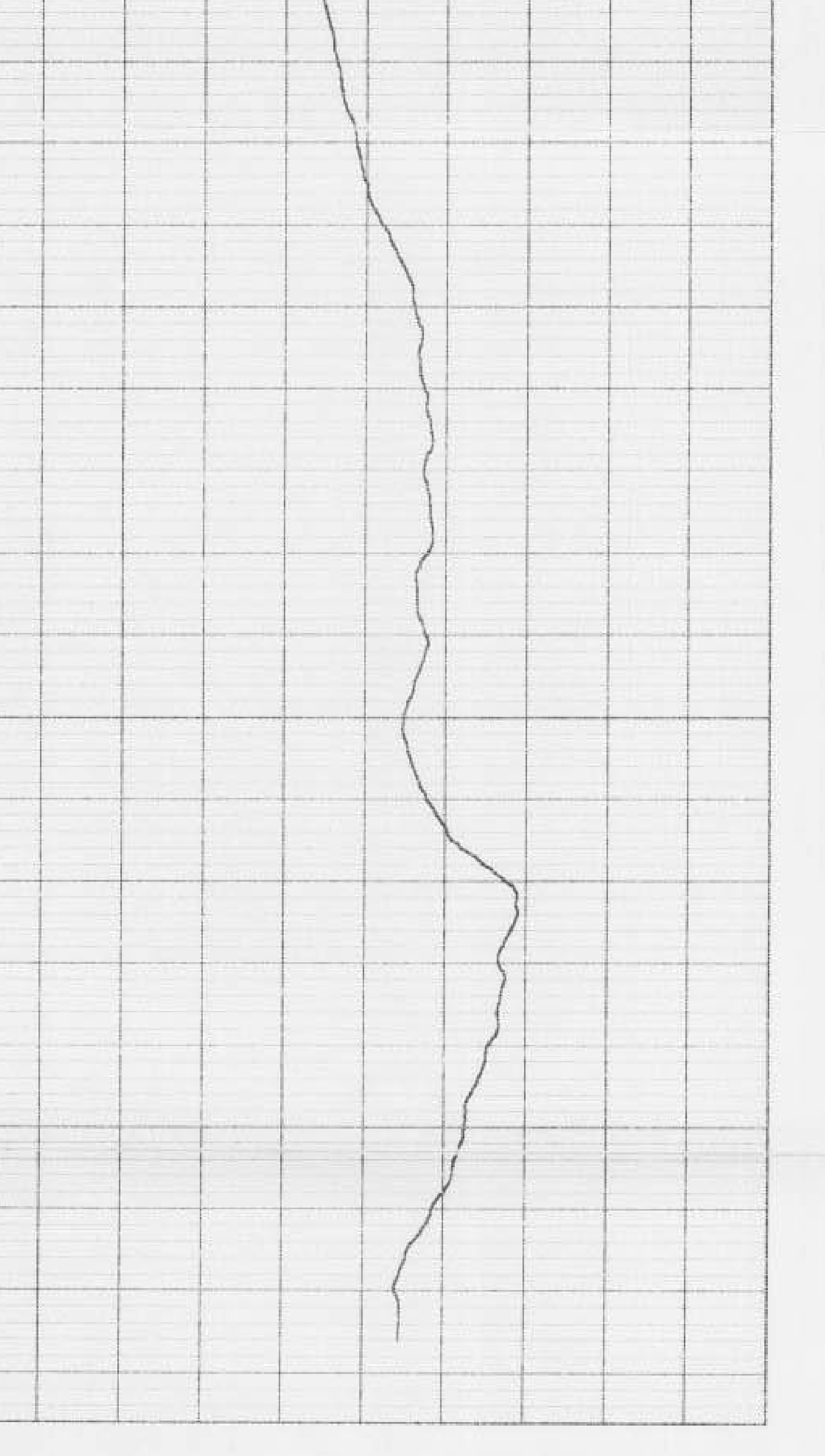

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KIS-View Version 2.5 SR3

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File Name D:\...dd\pdf\dd.upd
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Date Thursday, August 03, 2000 at 07:36:16 AM
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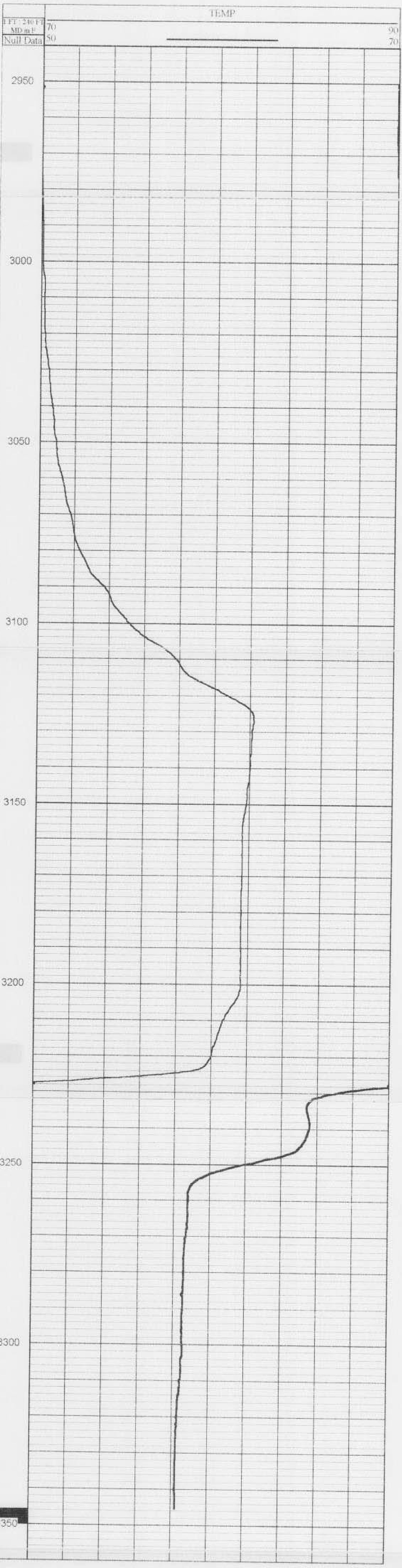

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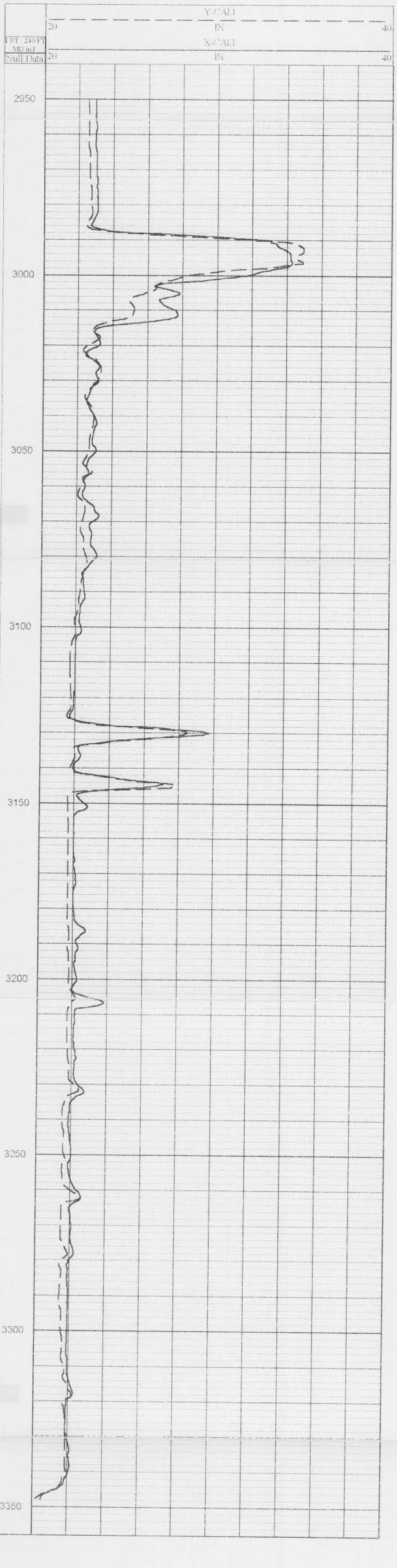[illegible]