Schlumberger

BOREHOLE COMPENSATED SONIC LOG

COUNTY COLUMBIA OREGON
FIELD MIST
LOCATION
WELL C.F.I. NO. 33-9
COMPANY ARCO OIL & GAS

COMPANY ARCO OIL AND GAS COMPANY

WELL C.F.I. NO. 33-9

FIELD MIST

COUNTY COLUMBIA STATE OREGON

RECEIVED
JAN 27 1987
DOGAMI
Portland

LOCATION 1695' NORTH AND 2525' WEST FROM SOUTHEAST CORNER

API SERIAL NO.	SEC.	TWP	RANGE
	9	5-N	4-W

Other Services:
DIL/SFL
CNL

Permanent Datum: G.L. ; Elev.: 1110.3
Log Measured From K.B. 12 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 1122.3
D.F. 1121.3
G.L. 1110.3

Date	9-2-86	9-6-86		
Run No.	ONE	TWO		
Depth—Driller	1783	3243		
Depth—Logger (Schl.)	1773	3234		
Btm. Log Interval	1733	3194		
Top Log Interval	448	1768		
Casing—Driller	9.625@449	7 @ 1773	@	@
Casing—Logger	448	1768		
Bit Size	8.5	6.25		
Type Fluid in Hole	⁑	LIGNO-SULFONATE		
Dens. | Visc.	9.10 | 36.0	10.20 | 39.0		
pH | Fluid Loss	9.0 | 6.0 ml	9.5 | 5.6 ml	ml	ml
Source of Sample	FLOWLINE	FLOWLINE		
Rm @ Meas. Temp.	4.500 @ 80 °F	2.310 @ 88 °F	@ °F	@ °F
Rmf @ Meas. Temp.	4.920 @ 78 °F	1.950 @ 72 °F	@ °F	@ °F
Rmc @ Meas. Temp.	3.120 @ 80 °F	2.760 @ 72 °F	@ °F	@ °F
Source: Rmf | Rmc	MEAS | MEAS	M | M		
Rm @ BHT	3.955 @ 92 °F	1.908 @ 108 °F	@ °F	@ °F
TIME Circulation Stopped	1630	1515		
TIME Logger on Bottom	1814	1811		
Max. Rec. Temp.	92 °F	108 °F	°F	°F
Equip. | Location	8128 | SAC	8128 | SACRAMENTO		
Recorded By	HARPER	HARPER/PILCH		
Witnessed By	STAFFORD	ANDERSON		

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

Run No.	ONE	TWO		
Service Order No.	524306	524307		
Fluid Level				

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

REMARKS: **Run 1**

DUAL RAN IN COMBINATION WITH SONIC
SP SHIFT IS DUE TO INTERFERENCE
ON RIG

EQUIPMENT NUMBERS-

DIS 567 DIC 552 SLC SLS RC

REMARKS: **Run 2**

DUAL RAN IN COMBINATION WITH SONIC

EQUIPMENT NUMBERS-

DIS 567 DIC 552 SLC SLS RC

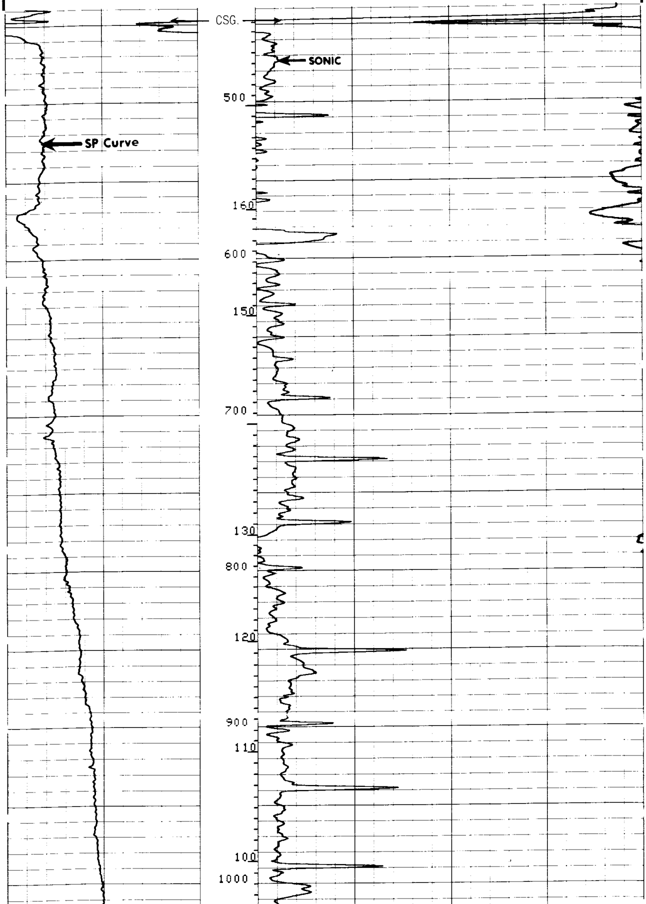
ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS AND WE CANNOT, AND DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, 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.

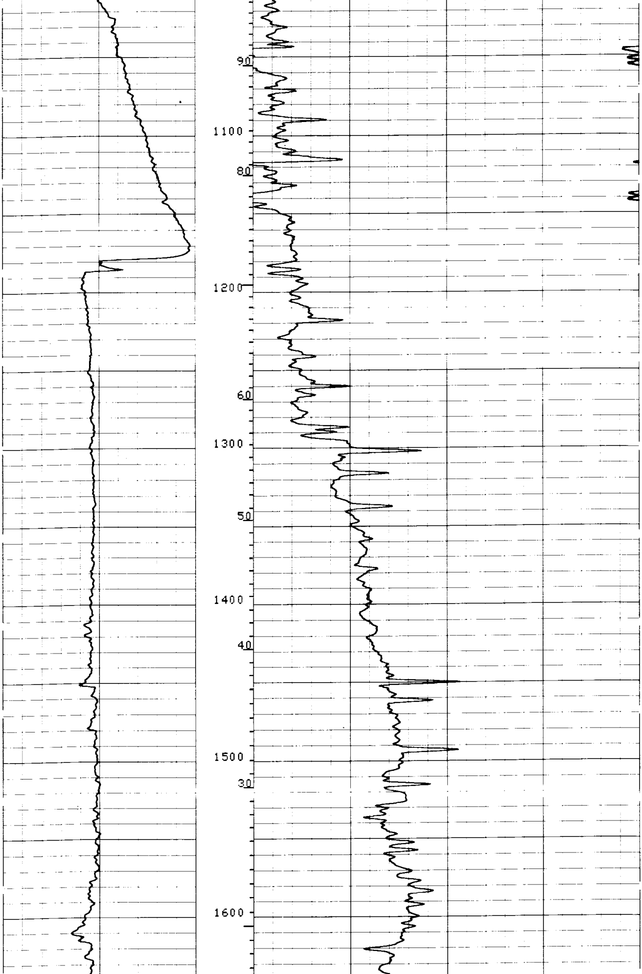
EVENT MARK SUMMARY:

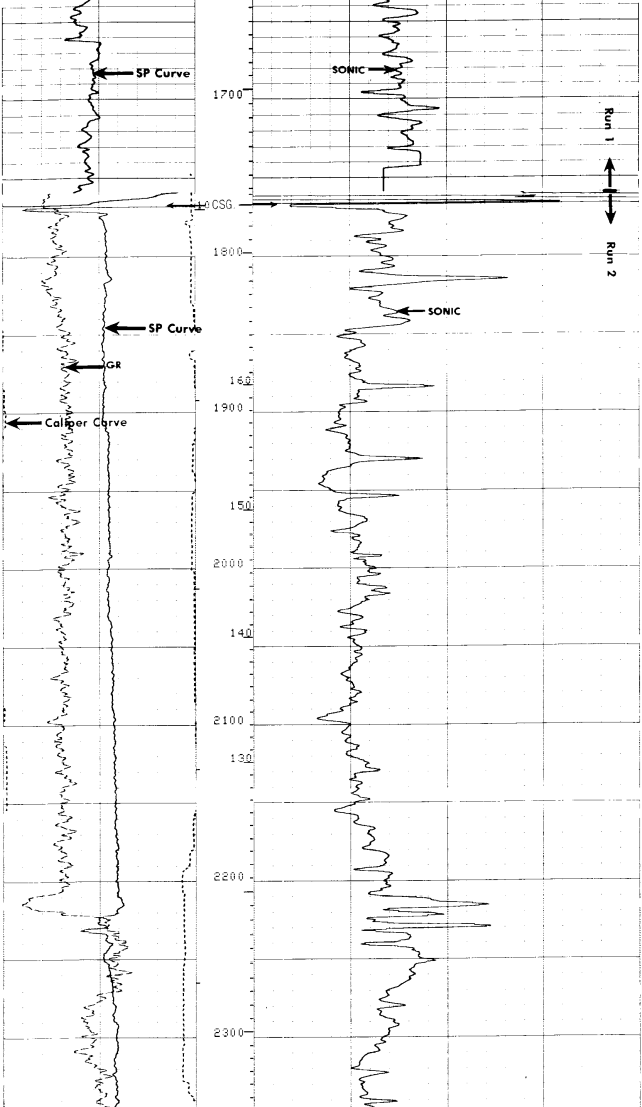
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
ITT	.00100000 S	RIGHT EDGE

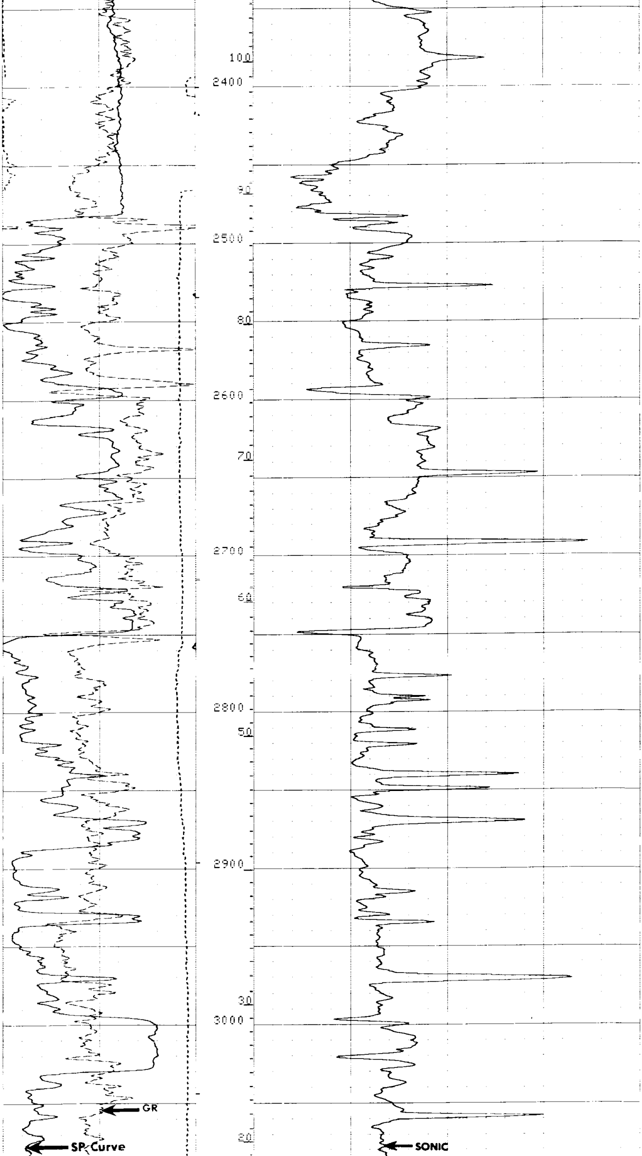
SP (MV)	Run 1	DT (US/F)
-80.00 20.000		150.00 50.000

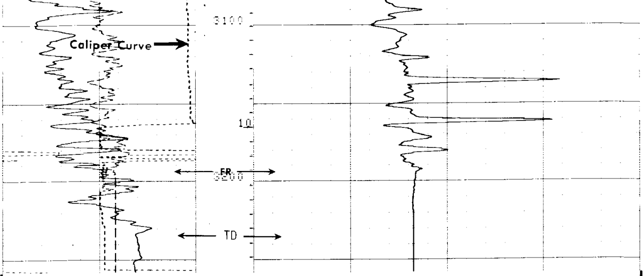
CP 28.2A FILE 4 02-SEP-86 19:01
DATA ACQUIRED 02-SEP-86 18:38











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CP 28.2A            FILE     8       06-SEP-86 18:48
                    DATA ACQUIRED    06-SEP-86 18:10
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CALI(IN) 4.0000 14.000 GR (GAPI) 0.0 150.00 SP (MV) -80.00 20.000	**Run 2**	DT (US/F) 150.00 50.000

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
TO	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
WMUD	10.2000	LB/G	DWCO	512	
SBR	1.00000	OHMM	DSEC	10.5000	MMHO
FPHI	SPHI		MSEC	6.60000	MMHO
BS	6.25000	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

TAPE NOT MADE

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
ITT	.00100000 S	RIGHT EDGE

SP (MV) -80.00 20.000	**Run 1**	DT (US/F) 175.00 75.000

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CP 28.2A            FILE     4       02-SEP-86 18:54
                    DATA ACQUIRED    02-SEP-86 18:38
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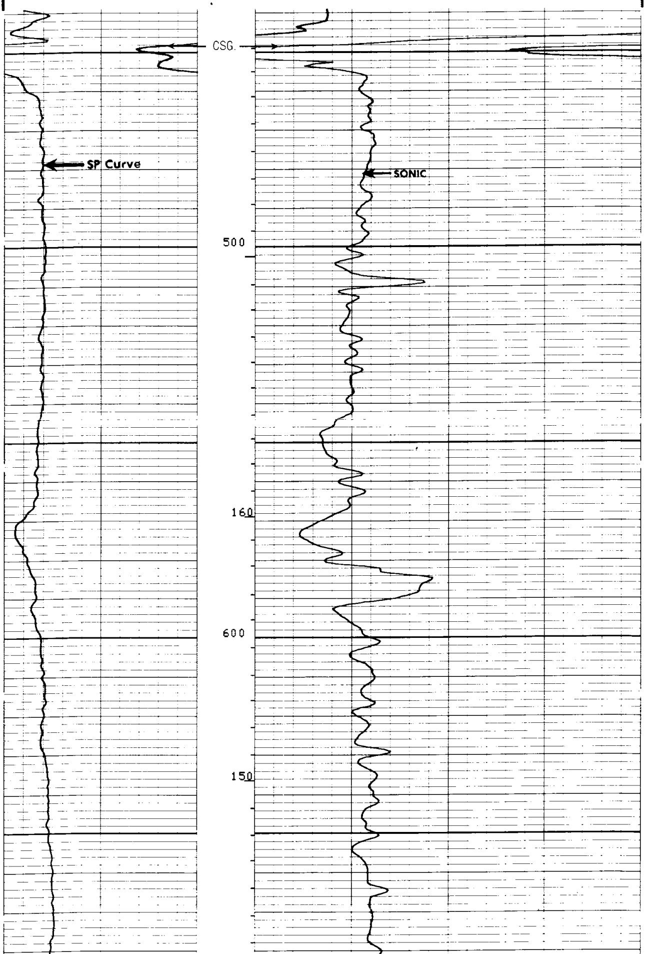
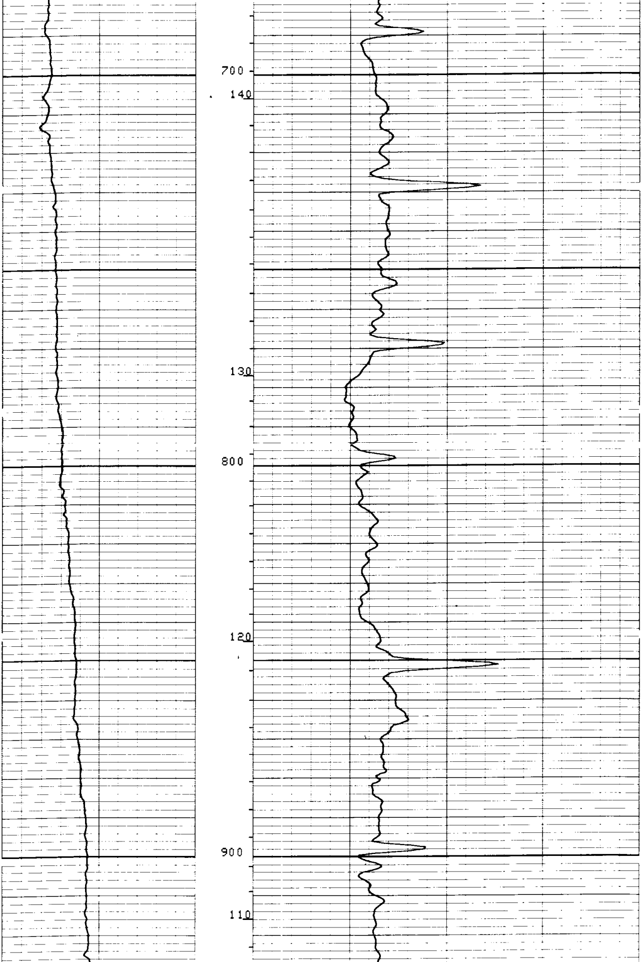
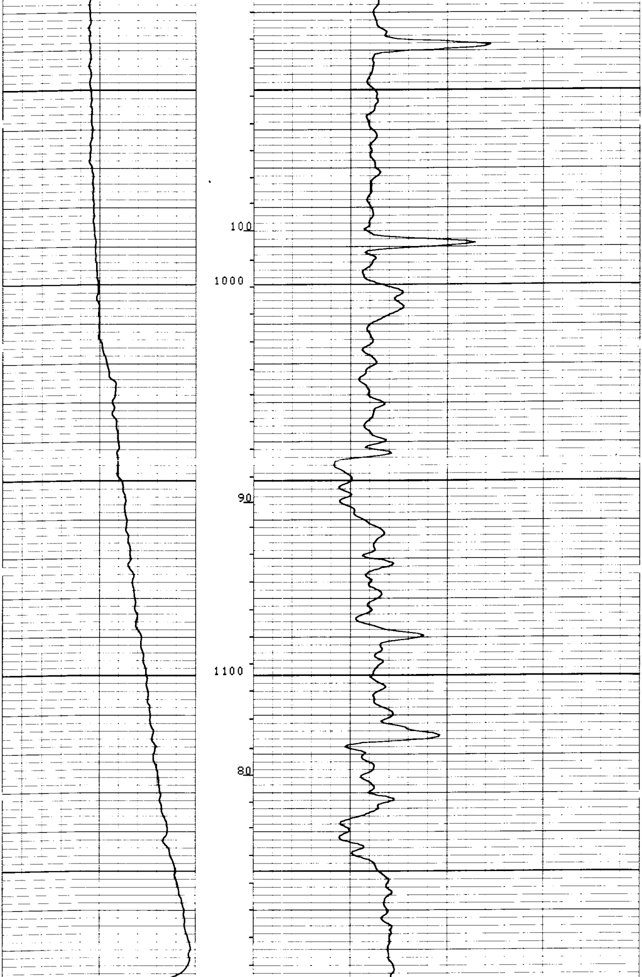
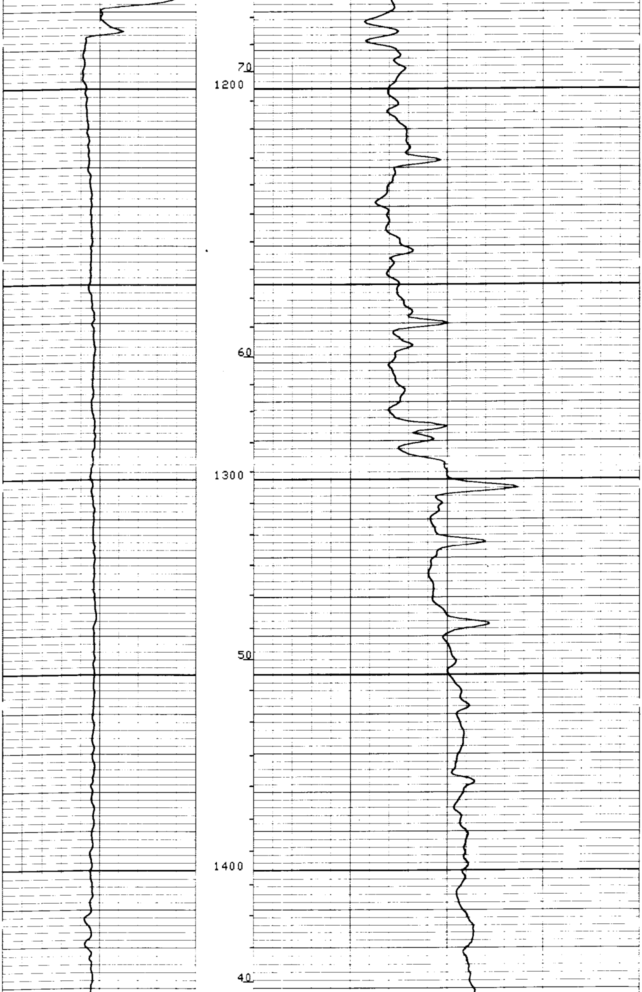
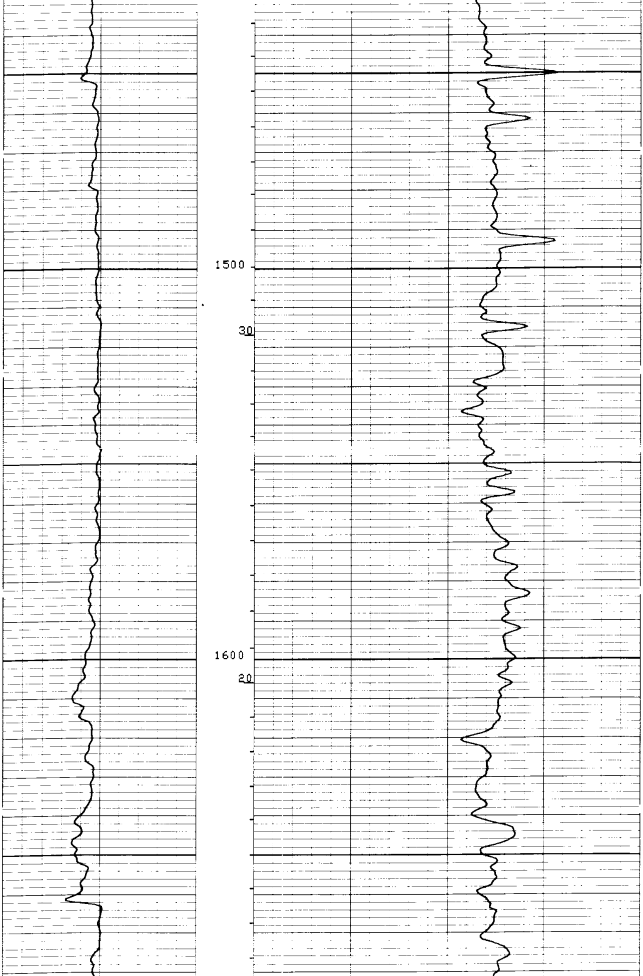
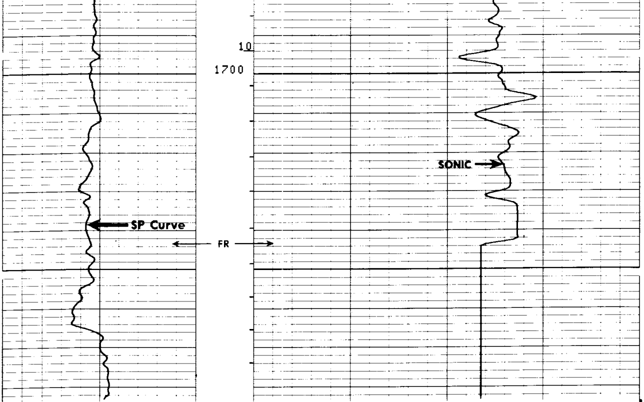












CP 28.2A FILE 4 02-SEP-86 18:50
DATA ACQUIRED 02-SEP-86 18:13

SP (MV)
-80.00 20.000

DT (US/F)
175.00 75.000

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
DSEC	10.5000	MMHO	DWCO	512	
MSEC	6.60000	MMHO	SBR	1.00000	OHMM
BHS	OPEN		FPHI	SPHI	
DO	5.60000	F	BS	8.50000	IN
PP	NORM				

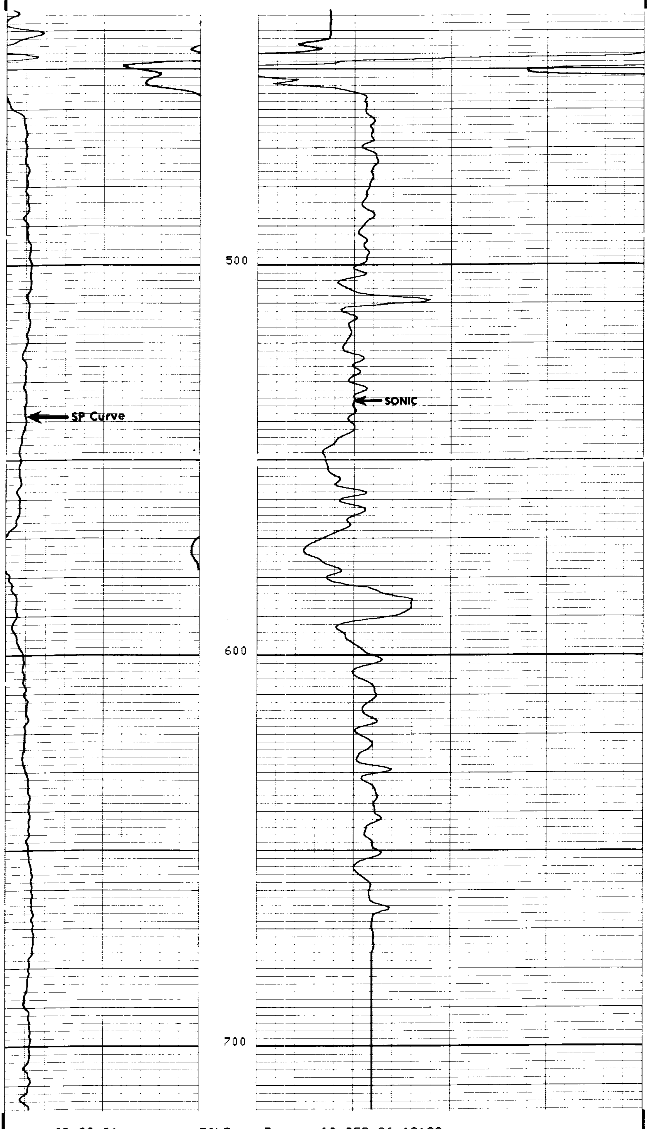
TAPE NOT MADE

SP (MV)
-80.00 20.000

DT (US/F)
175.00 75.000

REPEAT SECTION REPEAT SECTION REPEAT SECTION

CP 28.2A FILE 5 02-SEP-86 18:44



CP 28.2A FILE 5 02-SEP-86 18:39

SP (MV)			DT (US/F)	
-80.00	20.000		175.00	75.000

SENSOR MEASURE POINT TO TOOL ZERO

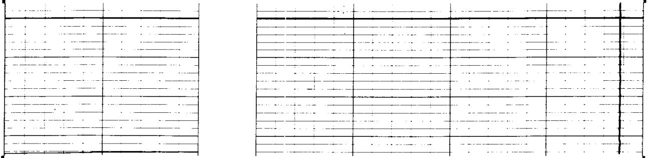
SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
DSEC	10.5000	MMHO	DWCO	512	
MSEC	6.60000	MMHO	SBR	1.00000	OHMM
BHS	OPEN		FPHI	SPHI	
BS	8.50000	IN			

SP (MV)			DT (US/F)	
-80.00	20.000		150.00	50.000

CP 28.2A FILE 0 02-SEP-86 18:05



CP 28.2A FILE 0 02-SEP-86 18:05

SP (MV)		Run 1	DT (US/F)	
-80.00	20.000		150.00	50.000

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT

```
CDTS 100.000                          SPFS R-H
DTF  189.000        US/F              DTM  56.0000       US/F
DSIN 5              US                DDEL 200           US
DSEC 10.5000        MMHO              DWCO 512
MSEC 6.60000        MMHO              SBR  1.00000       OHMM
BHS  OPEN                             FPHI SPHI
BS   8.50000        IN
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EVENT MARK SUMMARY:

OUTPUT  INTERVAL          DEPTH TRACK
        BETWEEN PIPS      EDGE

IHV     10.0000 F3        LEFT EDGE
ITT     .00100000 S       RIGHT EDGE
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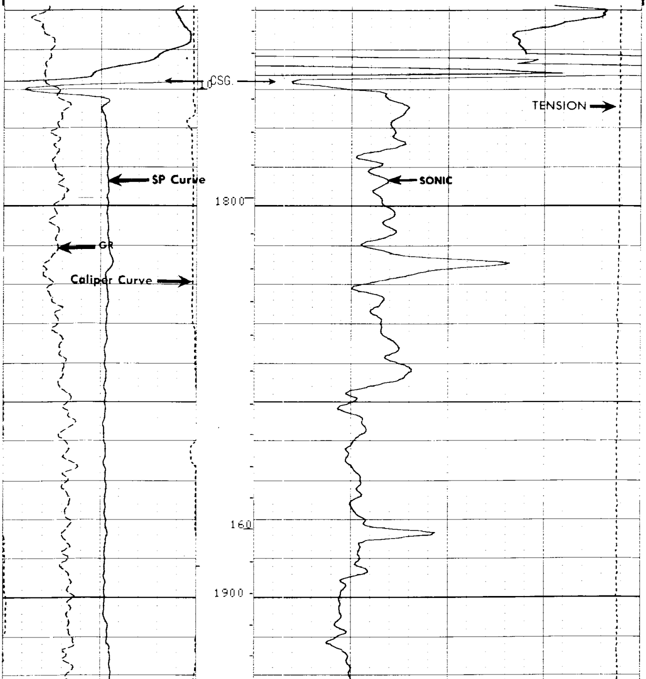
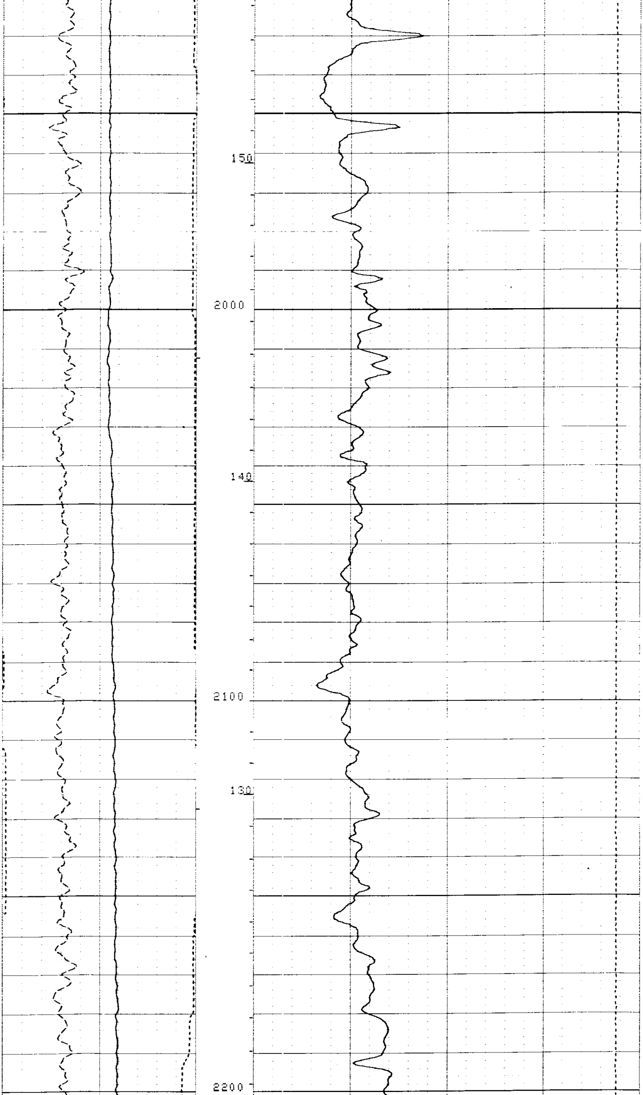
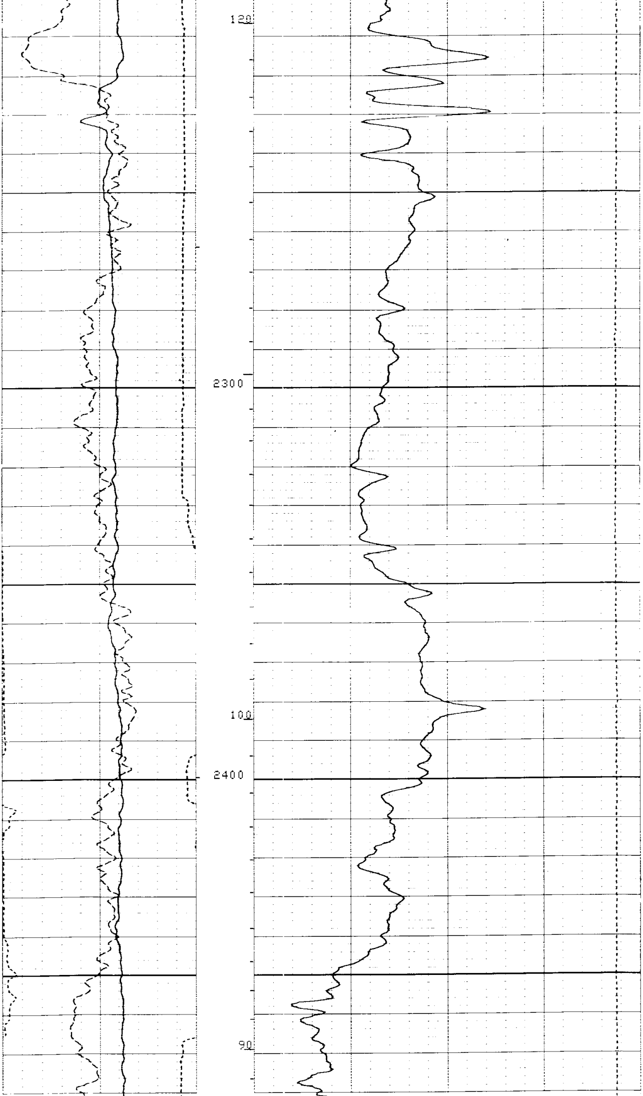
```
      GR  (GAPI)
0.0            150.00
      CALI(IN  )                                                       TENS(LB  )
4.0000         14.000                                          10000.               0.0
      SP   (MV  )                              DT  (US/F)
-80.00         20.000        150.00                                                 50.000
```

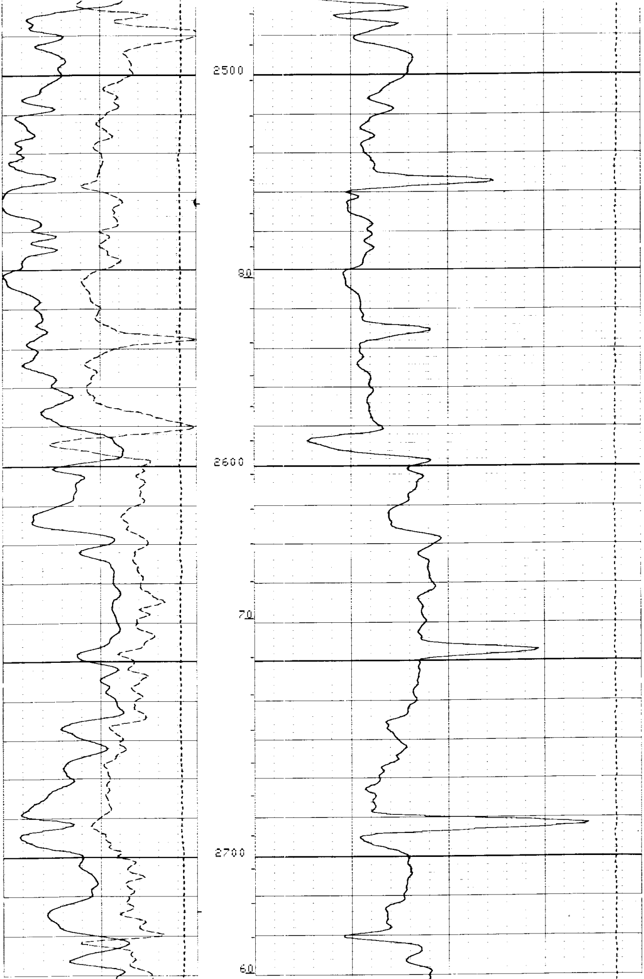
Run 2

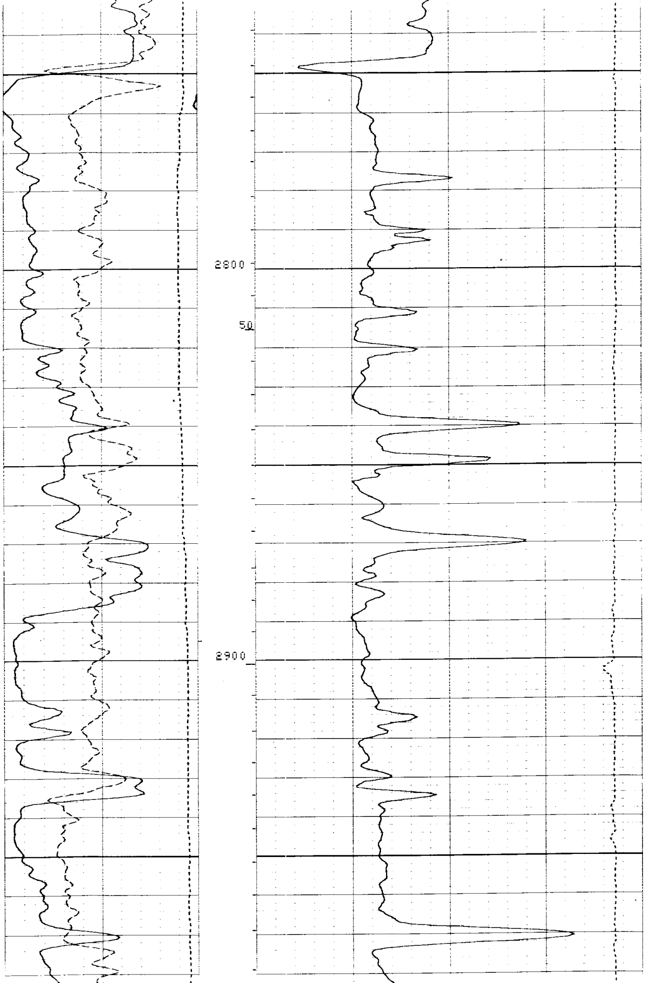
CP 28.2A   FILE   8   06-SEP-86 18:38

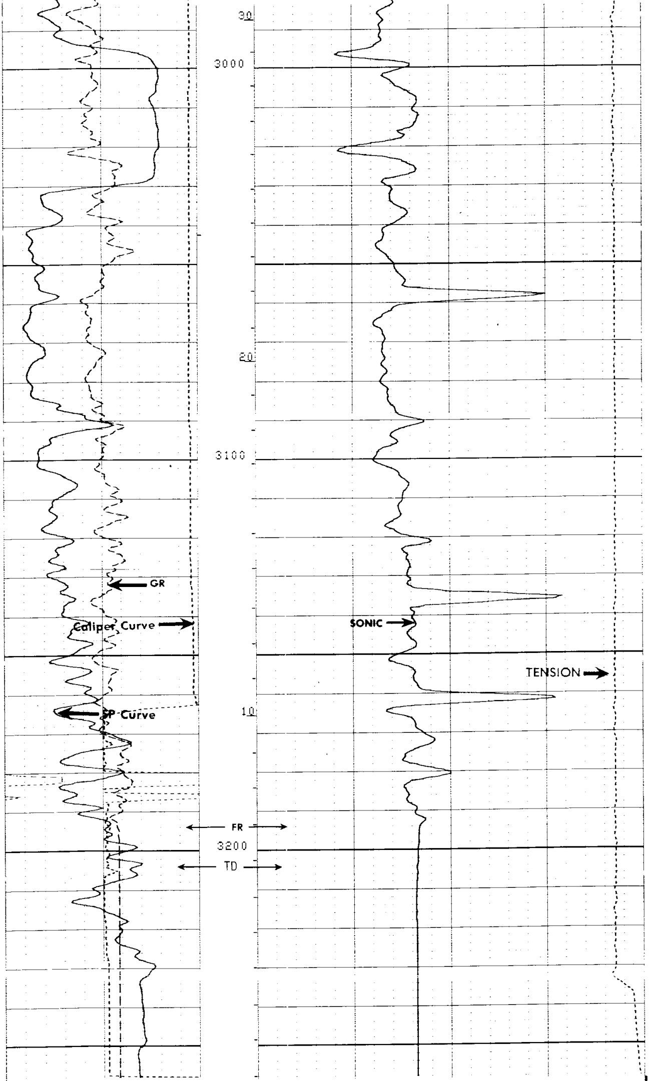












CP 28.2A FILE 8 06-SEP-86 18:10

GR (GAPI)
0.0 150.00
CALI(IN)
4.0000 14.000
SP (MV)
-80.00 20.000

TENS(LB)
10000. 0.0
DT (US/F)
150.00 50.000

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
TO	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DCIN	5	US	DDEL	200	US
WMUD	10.2000	LB/G	DWCO	512	
SBR	1.00000	OHMM	DSEC	10.5000	MMHO
FPHI	SPHI		MSEC	6.60000	MMHO
BS	6.25000	IN	BHS	OPEN	

EVENT MARK SUMMARY:

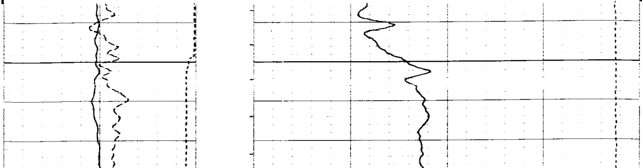
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE
ITT	.00100000 S	RIGHT EDGE

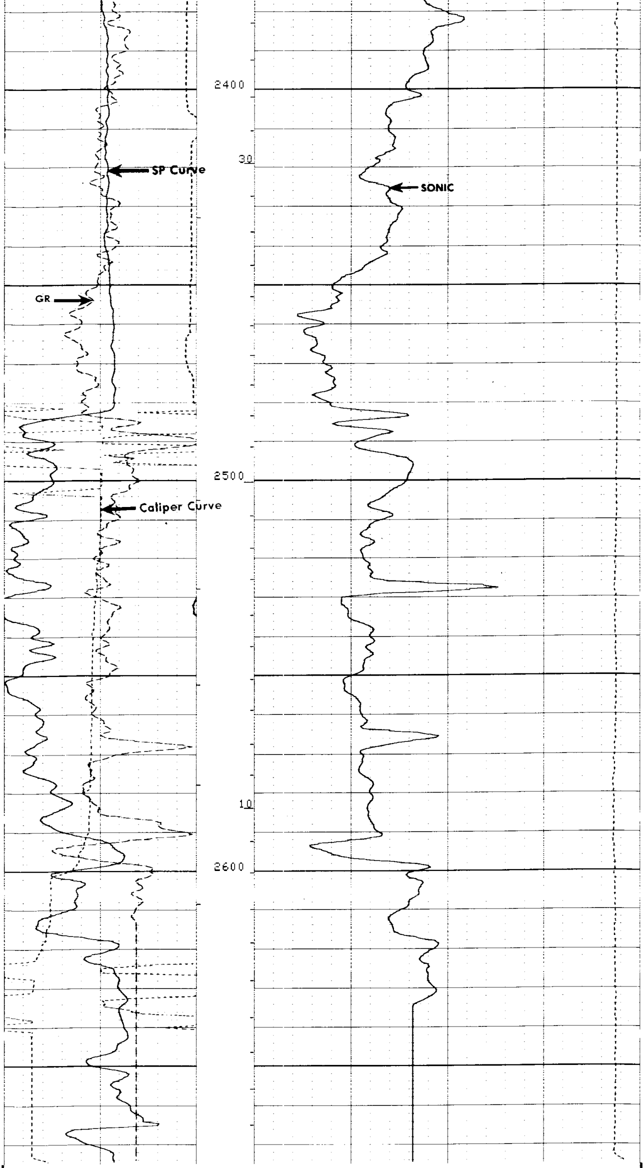
GR (GAPI)
0.0 150.00
CALI(IN)
4.0000 14.000
SP (MV)
-100.0 0.0

TENS(LB)
10000. 0.0
DT (US/F)
150.00 50.000

REPEAT SECTION REPEAT SECTION REPEAT SECTION

CP 28.2A FILE 7 06-SEP-86 18:57
DATA ACQUIRED 06-SEP-86 18:05





CP 28.2A FILE 7 06-SEP-86 18:56
DATA ACQUIRED 06-SEP-86 17:59

GR (GAPI)
0.0 150.00
CALI(IN)
4.0000 14.000
SP (MV)
-100.0 0.0

TENS(LB)
10000. 0.0
DT (US/F)
150.00 50.000

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
WMUD	10.2000	LB/G	DWCO	512	
SBR	1.00000	OHMM	DSEC	10.5000	MMHO
FPHI	SPHI		MSEC	6.60000	MMHO
BS	6.25000	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

TAPE NOT MADE

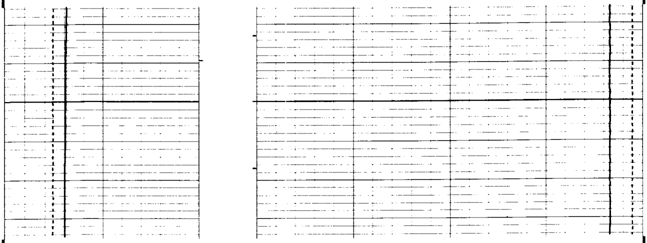
EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE
ITT	.00100000 S	RIGHT EDGE

CALI(IN)
4.0000 14.000
SP (MV)
-80.00 20.000

TENS(LB)
10000. 0.0
DT (US/F)
150.00 50.000

CP 28.2A FILE 4 06-SEP-86 17:46



CP 28.2A FILE 4 06-SEP-86 17:45

CALI(IN)
4.0000 14.000
SP (MV)
-80.00 20.000

Run 2

TENS(LB)
10000. 0.0
DT (US/F)
150.00 50.000

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
GR	64.1	FEET	SCBL	43.9	FEET
ILD	9.4	FEET	CALI	31.8	FEET
SFL	6.4	FEET	ILM	5.8	FEET
SPAR	2.5	FEET	SP	2.5	FEET
NOIS	2.5	FEET	TENS	2.5	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
WMUD	10.2000	LB/G	DWCO	512	
SBR	1.00000	OHMM	DSEC	10.5000	MMHO
FPHI	SPHI		MSEC	6.60000	MMHO
BS	6.25000	IN	BHS	OPEN	

COMPANY ARCO OIL AND GAS COMPANY

WELL C.F.I. NO. 33-9

FIELD MIST

COUNTY COLUMBIA STATE OREGON

SCHL. FR 3194
SCHL. TD 3234
DRLR. TD 3243

Elev: KB 1122.3
DF 1121.3
GL 1110.3