HALLIBURTON
LOGGING SERVICES, INC.

FINAL PRINT

ACOUSTIC VELOCITY
GAMMA RAY
LOG

5" = 100'

COMPANY ______________
WELL ______________
FIELD ______________
COUNTY __________ ST __

COMPANY ARCO OIL AND GAS CO.

WELL HAMLIN 33-17-65

FIELD MIST

COUNTY COLUMBIA

STATE OR OTHER SERVICES

NONE

API NO.
LOCATION :
1637.77 FEET NORTH AND
1583.61 FEET WEST FROM THE
SOUTHEAST CORNER OF:
SEC. 17 TWP 6N RGE 5W

PERMANENT DATUM G.L. ELEV. 535.65
LOG MEASURED FROM K.B. 11.5FT.ABOVE PERM.DATUM
DRILLING MEASURED FROM KELLY BUSHING

ELEV.:K.B. 547.15
D.F. ------
G.L. 535.65

DATE	10/08/89			
RUN NO.	ONE			
DEPTH-DRILLER	3150.			
DEPTH- LOGGER	3157.			
BTM. LOG INTER.	3154.			
TOP LOG INTER.	450.			
CASING-DRILLER	9 5/8@450.	@	@	@
CASING- LOGGER	450.			
BIT SIZE	6 1/4			
TYPE FLUID IN HOLE	LS,ND POLY.			
DENS. : VISC	10.3 :46.	:	:	:
PH : FLUID LOSS	9.0 :5.0	:	:	:
SOURCE OF SAMPLE	CIRCULATED			
RM @ MEAS. TEMP.	2.20 @75.	@	@	@
RMF @ MEAS. TEMP.	2.38 @75.	@	@	@
RMC @ MEAS. TEMP.	2.42 @75.	@	@	@
SOURCE RMF : RMC	MEAS. :MEAS.	:	:	:
RM @ BHT	1.53 @111.	@	@	@
TIME SINCE CIRC.	4.50 HOURS			
TIME ON BOTTOM	11:30 PM			
MAX. REC. TEMP.	111. @BHT	@	@	@
EQUIP. : LOCATION	2890 :WDLND	:	:	:
RECORDED BY	D.MCDANIEL			
WITNESSED BY	J.EASTES			

Service Ticket No.: 12330 API Serial No.: PGM Version: 1.31 PC

Change in Mud Type or Additional Samples		
Date/Sample No.	10/08/89:ONE	/ / :
Depth-Driller		
Type Fluid in Hole		
Dens. : Visc.	:	:
pH. : Fluid Loss	:	:
Source of Sample		
Rm @ Meas.Temp.	@	@
Rmf @ Meas.Temp.	@	@
Rmc @ Meas.Temp.	@	@
Source: Rmf:Rmc	:	:
Rm @ BHT	1.53 @111.	@
Rmf @ BHT	1.65 @111.	@
Rmc @ BHT	1.68 @111.	@

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No	Tool Type & No	Pad Type	Tool Pos.	Other
N/A	DUAL W109437	N/A	1.5"S.O.	M412
N/A	SGRD W108946	N/A	1.5"S.O.	M416

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.	ONE	Run No.	N/A	Run No.	N/A
Serial No.	W108581	Serial No.	W112458	Serial No.	W109740	Serial No.	W108749
Model No.	432	Model No.	305	Model No.	465	Model No.	434
Diameter	3 5/8	No.of Cent.	FOUR	Diameter	4 1/2	Diameter	3 3/8
Detector Model No.	N/A	Spacing	1 FOOT	Log Type	SDL	Log Type	DSN
Type	SCINT.			Source Type	CS 137	Source Type	AM241BE
Length	4 IN.	LSA	YES	Serial No.	129	Serial No.	66
Distance To Source	N/A	FWDA	NO	Strength	1.5 CU	Strength	19. CU

LOGGING DATA

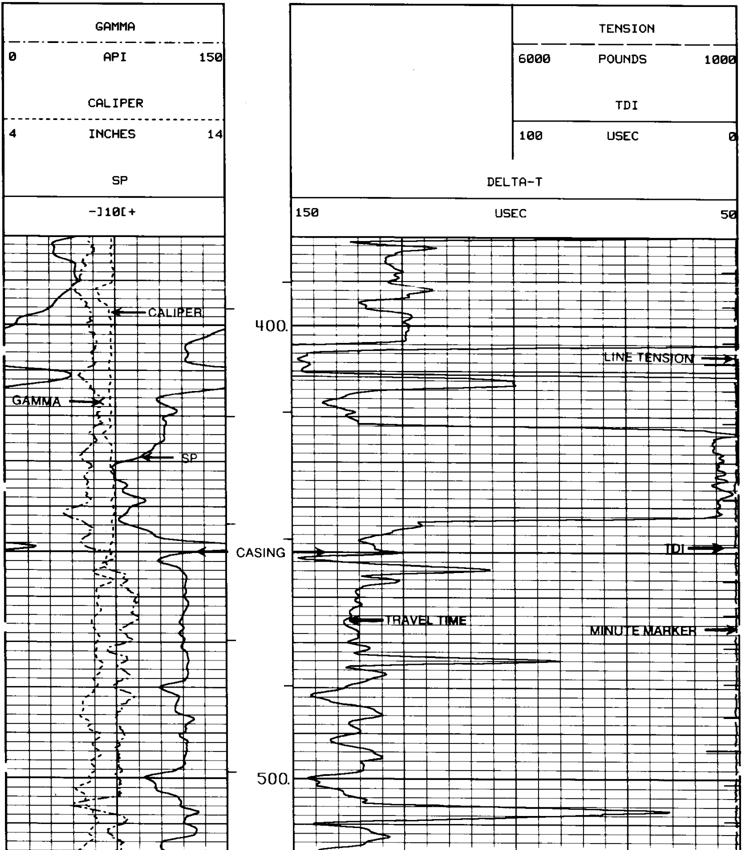
GENERAL				GAMMA		ACOUSTIC			DENSITY			NEUTRON		
Run	Depth		Speed	Scale		Scale			Scale			Scale		
No.	From	To	Ft/Min	L	R	L	R	Matrix	L	R	Matrix	L	R	Matrix
ONE	3154.	450.	30.	0.	150.	150.	50.	57.						
					API			US/FT						

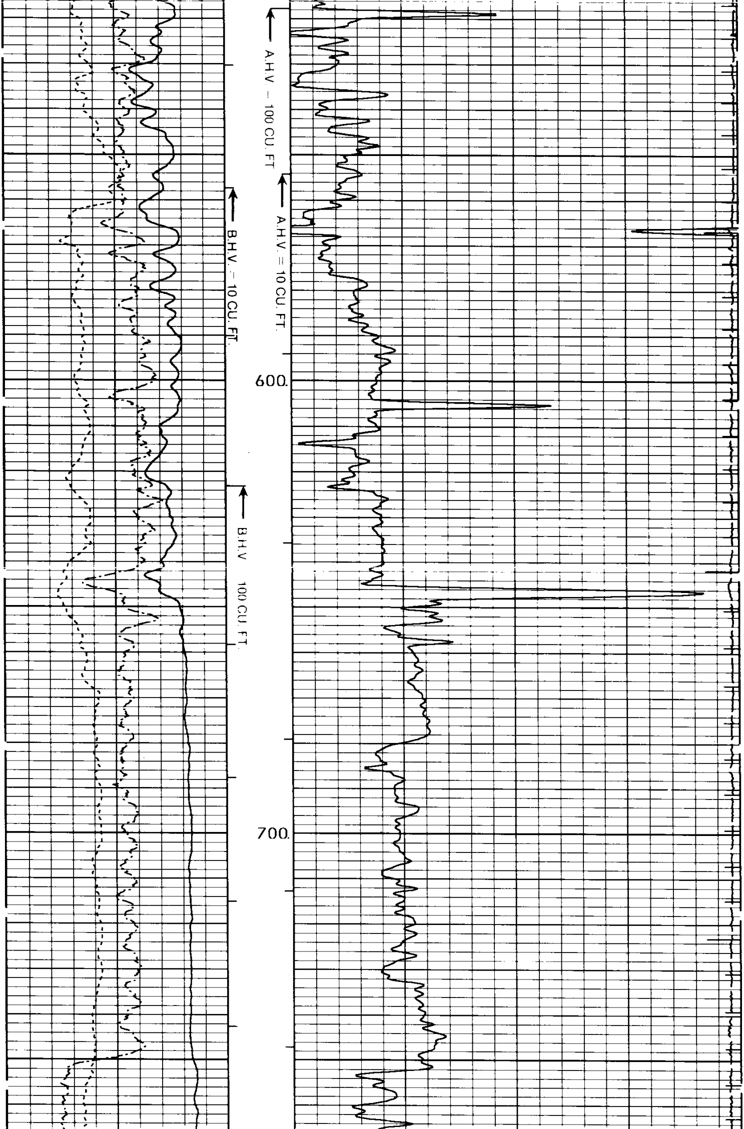
Remarks: REPEAT RUN OVER ZONE OF INTEREST AT CUSTOMER REQUEST.
ANNULAR HOLE VOLUME CALCULATED FOR 3 1/2 INCH CASING.

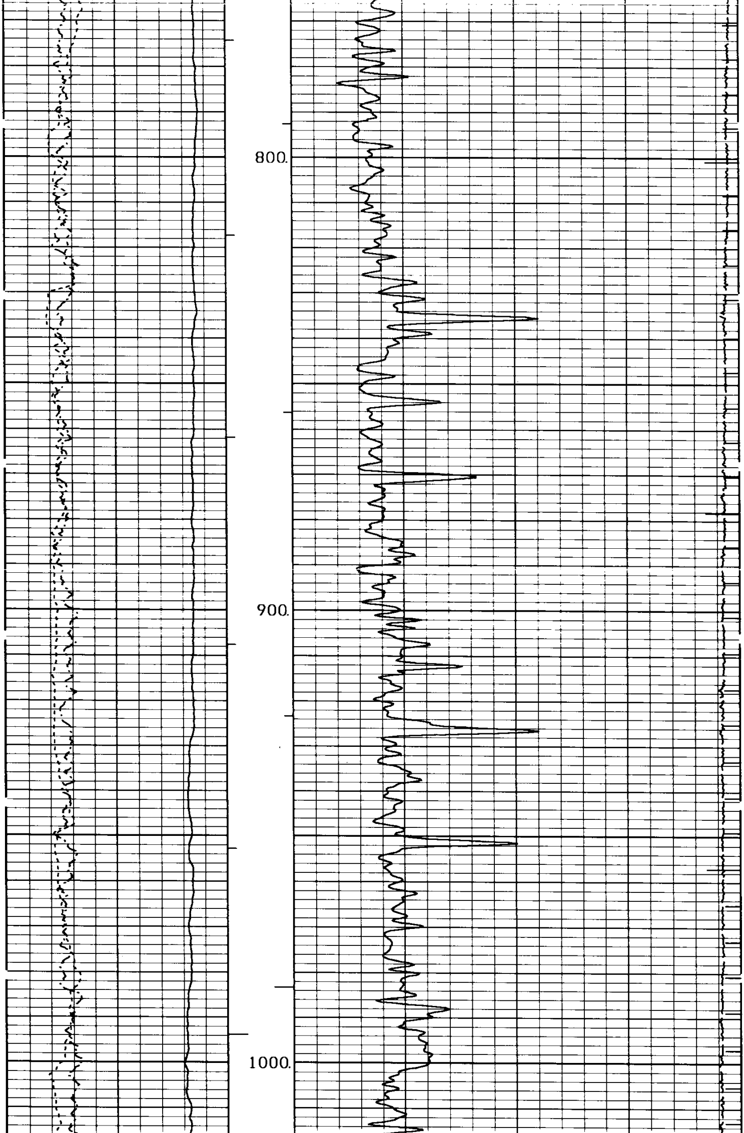
CREW ON LOCATION: EMERSON AND JEFFREY

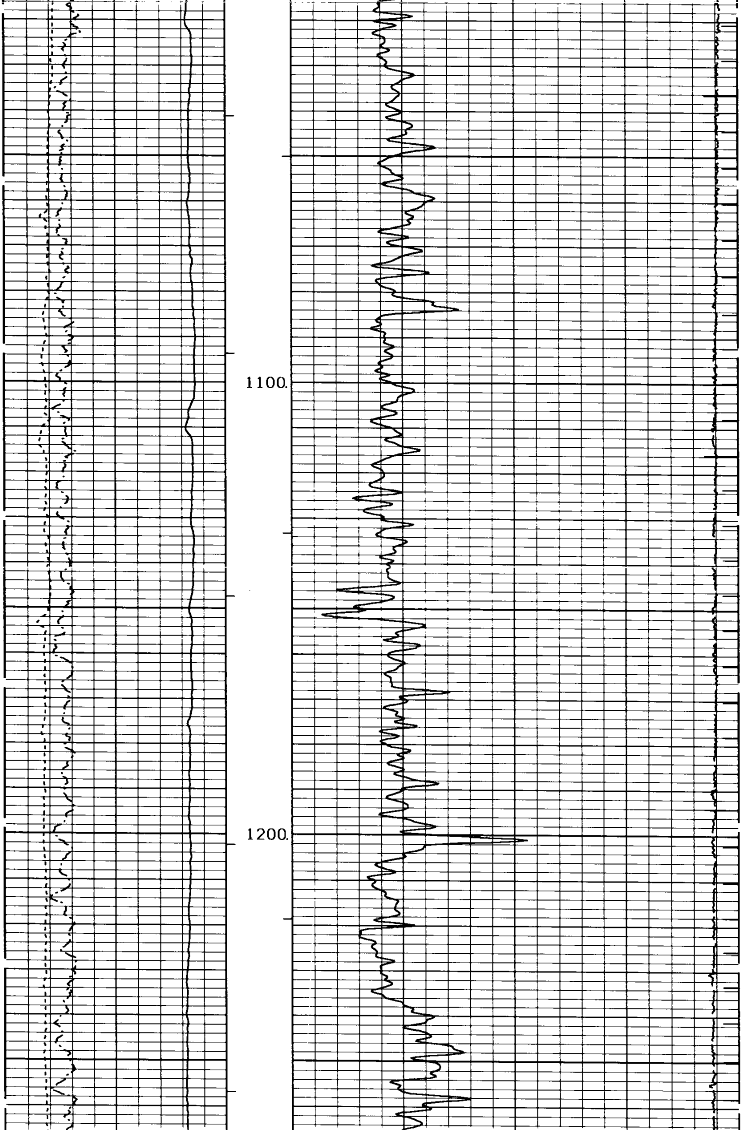
THANK YOU FOR USING HALLIBURTON LOGGING SERVICES!!

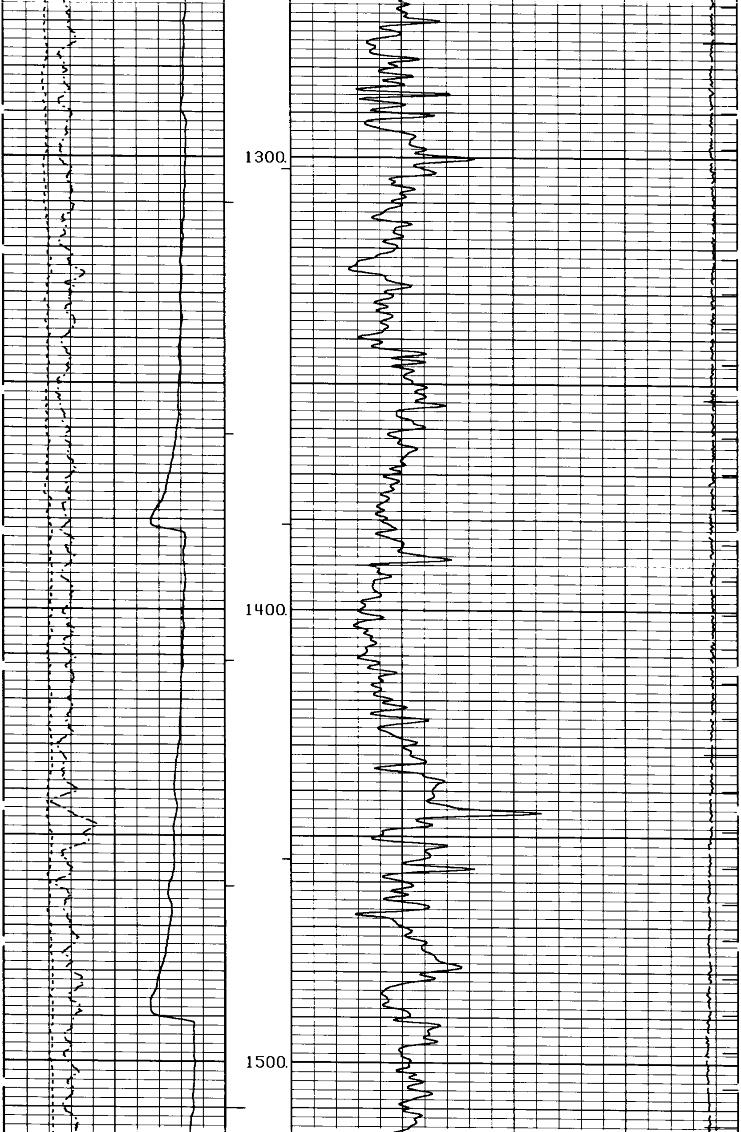
Halliburton Logging Services, Inc. does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by HLS personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions or recommendations agrees that HLS is not responsible except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof.

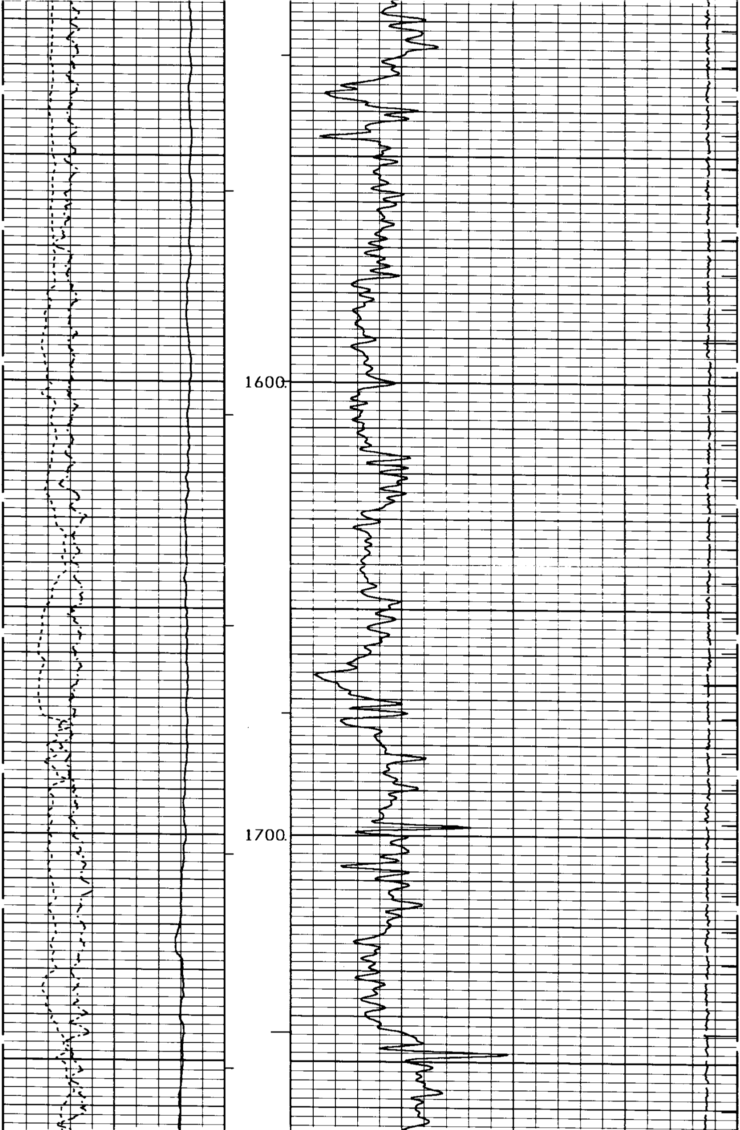


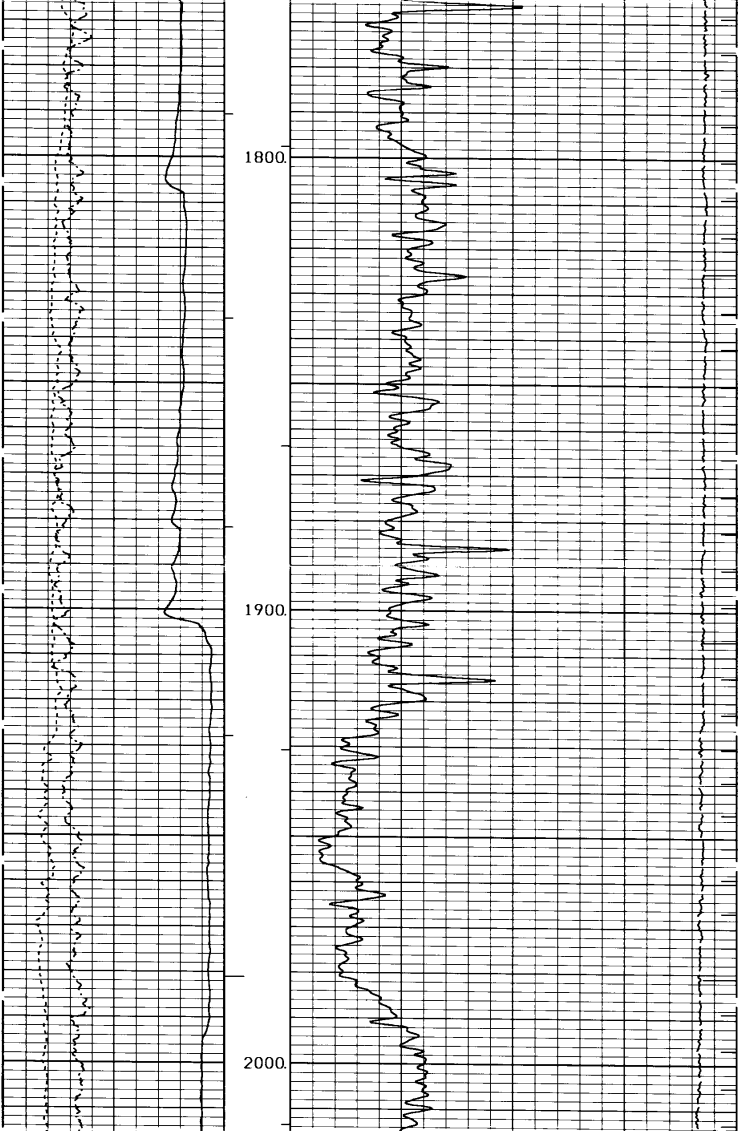


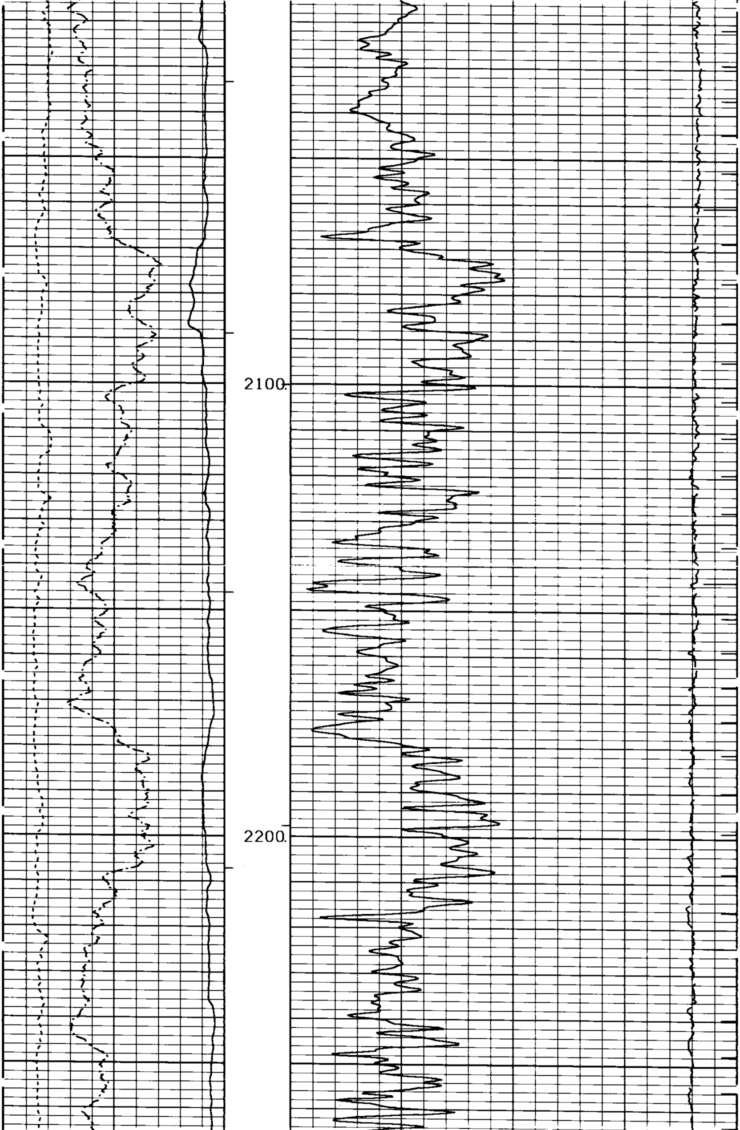


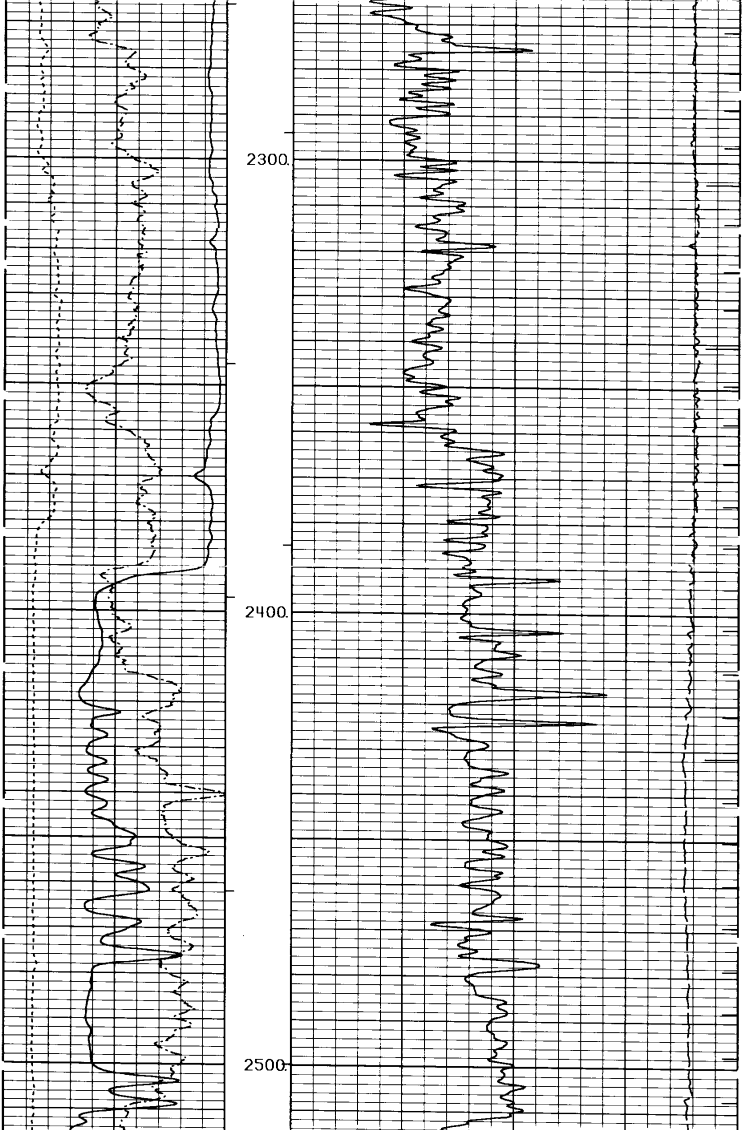


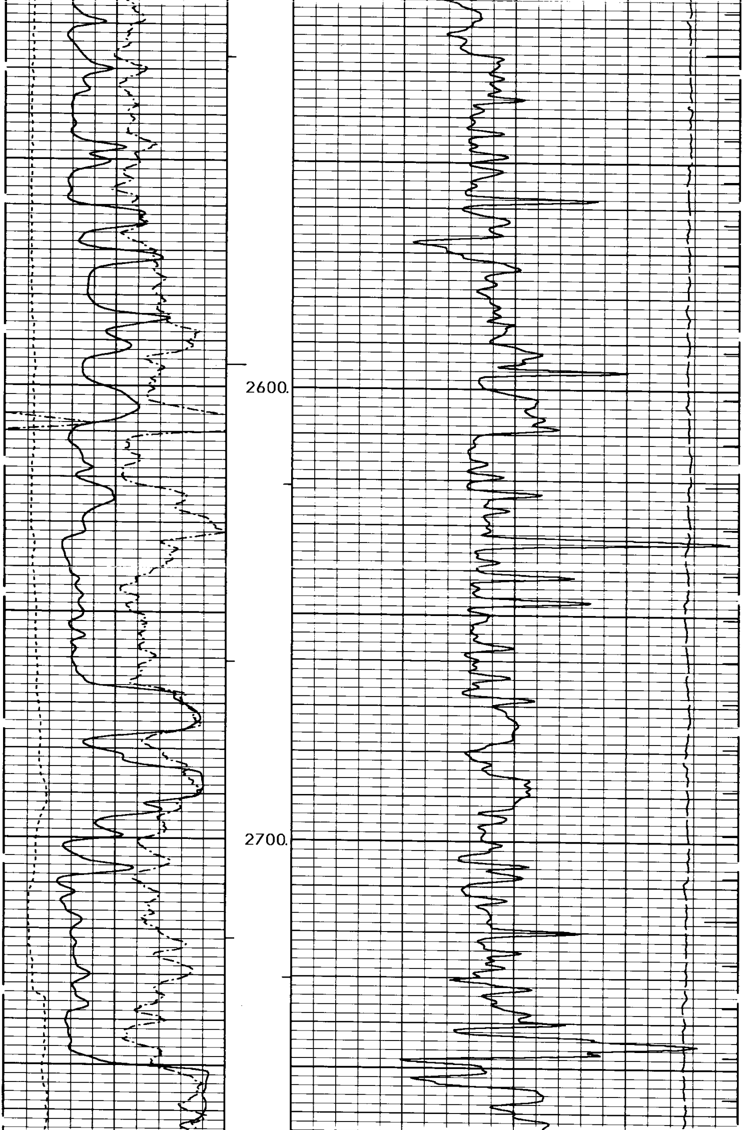


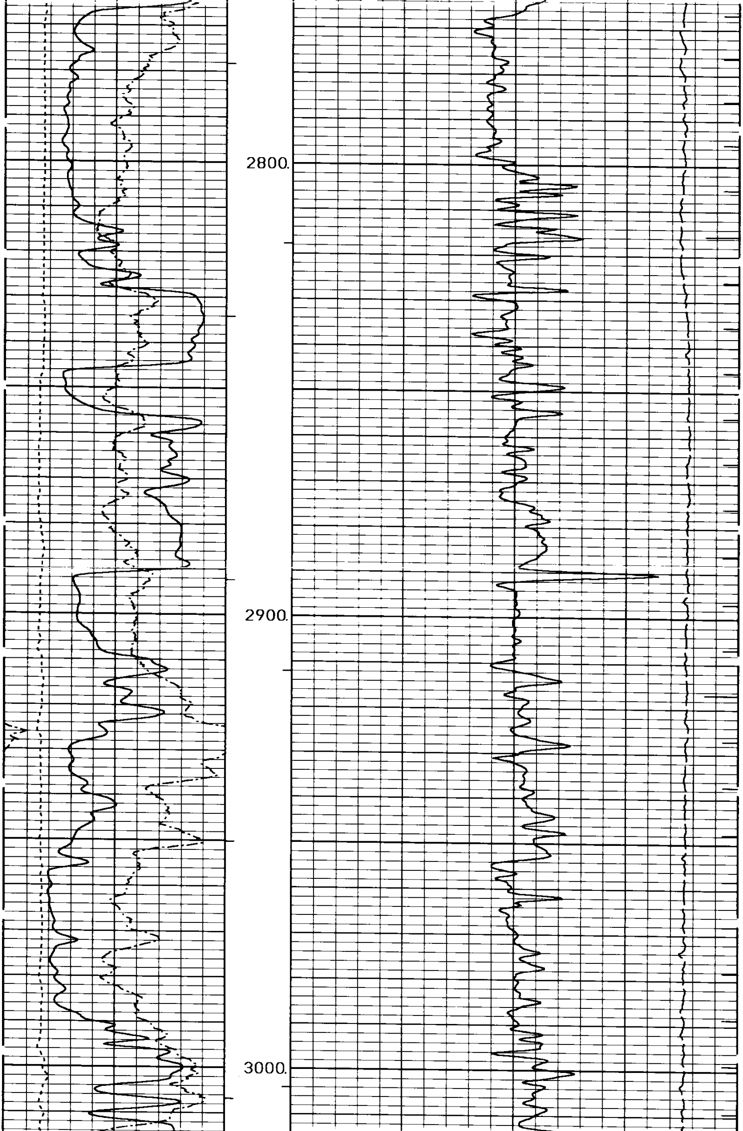


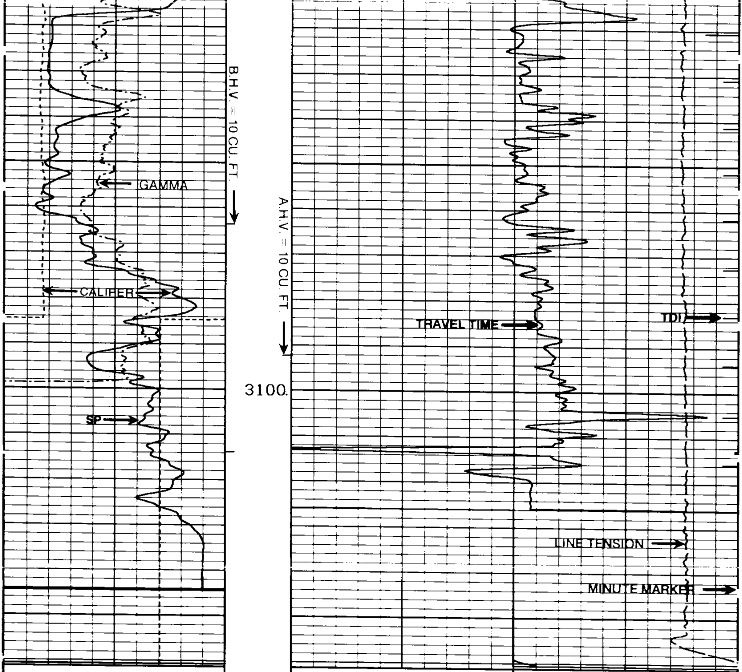












GAMMA

0 API 150

CALIPER

4 INCHES 14

SP

-]10[+

TENSION

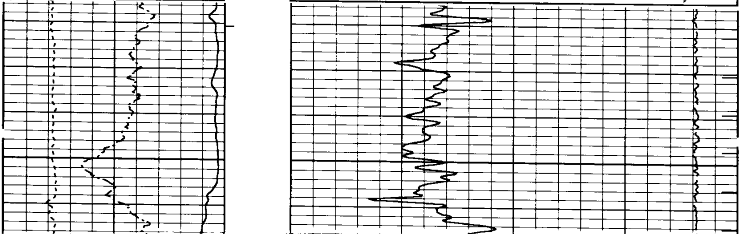
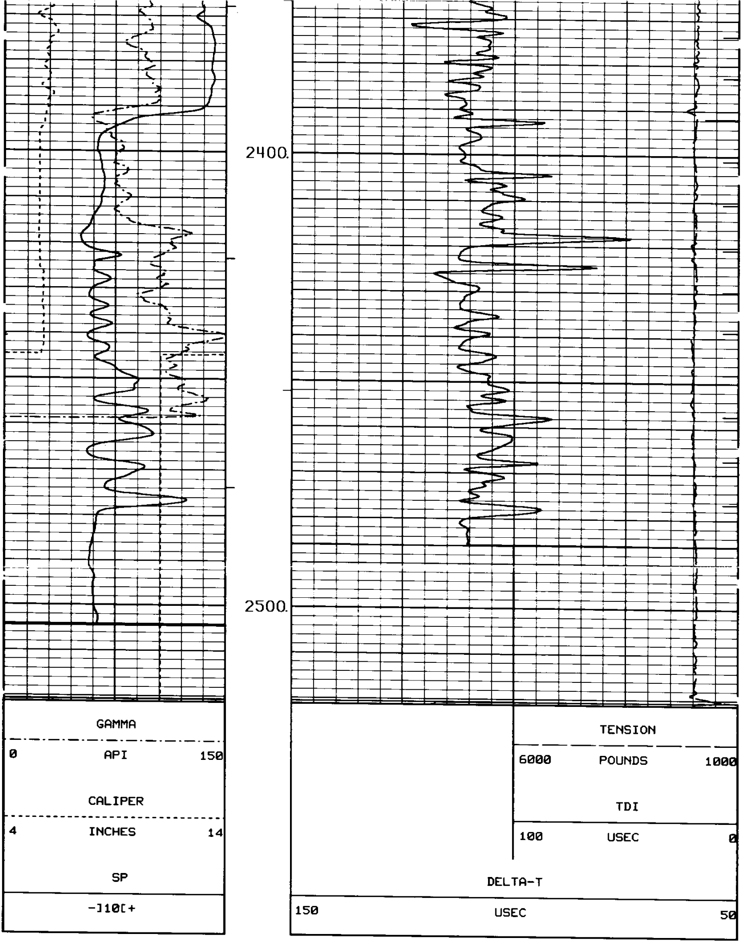
6000 POUNDS 1000

TDI

100 USEC 0

DELTA-T

150 USEC 50

REPEAT SECTION