COUNTY CROOK
FIELD LOGAN BUTTE
LOCATION 17-19S-20E
WELL LOGAN BUTTE UNIT 17 NO.1
COMPANY TEXACO INC.

Schlumberger

FOUR — ARM HIGH RESOLUTION
CONTINUOUS DIPMETER

COMPANY TEXACO, INC.
WELL *Well 17-01* LOGAN BUTTE UNIT 17 NO.1
FIELD LOGAN BUTTE
COUNTY CROOK STATE OREGON

LOCATION 1670'SOUTH & 251'EAST FROM THE NORTH QUARTER CORNER

API SERIAL NO	SEC	TWP	RANGE
	17	19S	20E

Other Services:
DIL
BHC
FDC/CNL/GR

Permanent Datum: GL ; Elev.: 5100
Log Measured From KB 12 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 5112
D.F. --
G.L. 5100

Date	12-2-80				
Run No.	ONE				
Depth—Driller	2000				
Depth—Logger (Schl.)	1993				
Btm. Log Interval	1992				
Top Log Interval	380				
Casing—Driller	13⅜"	@ 380	@	@	@
Casing—Logger	380				
Bit Size	12¼"				
Type Fluid in Hole	GEL CYPAN				
Dens. / Visc.	9.7	45			
pH / Fluid Loss	8.0	-- ml	ml	ml	ml
Source of Sample	FLOWLINE				
Rm @ Meas. Temp.	10.9	@ 44 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	11.5	@ 54 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	6.9	@ 56 °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	M	M			
Rm @ BHT	5.8	@ 87 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	1000	11/30			
TIME Logger on Bottom	0730				
Max. Rec. Temp.	87 °F		°F	°F	°F
Equip. / Location	8128	SAC			
Recorded By	LANGFORD				
Witnessed By	CONDRA				

RECEIVED
MAR 25 1981

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

REMARKS: Service Order No. 135687 Magnetic Declination 19°

Run No.		1	2	3	4
Tool Type		HDT-E			
HDP		962			
DDR	TTR	-			
DPI		-			
HDM		STAND			
HDE		36°			
HDS		STAND			
Adapter Head		-			
UG / CG	SAH	-			
5" Film / 10" Film	60" Record	X			
Analog	Digital	X			
TIME Circulation Stopped		1000			
TIME Schl. on Bottom		0730			

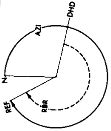
ROLL NO.	INTERVAL

TOOL AZIMUTH AND HOLE DIRECTION CALCULATION

(DHD) HIGH SIDE OF TOOL = Direction from center of tool to upper side of tool.
(N) NORTH = Direction from center of tool to Magnetic North.
(REF) REFERENCE ELECTRODE = Direction from center of tool to #1 electrode.

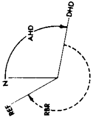
DEFINITIONS

(AZI) AZIMUTH OF REFERENCE ELECTRODE = Clockwise angle from N to REF.
(RBR) RELATIVE BEARING = Clockwise angle from DHD to REF.
(AHD) AZIMUTH OF HOLE DEV. (TOOL AXIS) = Clockwise angle from N to DHD.



LOW ANGLE UNIT ☒

EXAMPLE
HDM - Low Angle Unit (0-36°)
AZI (solid curve) = 330°
RBR (dotted curve) = 230°
AHD = AZI − RBR = 330° − 230° = 100°



HIGH ANGLE UNIT ☐

EXAMPLE
HDM - High Angle Unit (0-72°)
AHD (solid curve) = 100°
RBR (dotted curve) = 230°
AZI = AHD + RBR = 100° + 230° = 330°

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.

ORIENTATION	DEPTHS	CORRELATION CURVES ←CONDUCTIVITY

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE

STYP	STAN	MCT	DEG	36	BS	INCH	12.25	
DO	0.0	BHS		OPEN	FPHI		PHIX	

DEVI(DEG)		C2 (INCH)	
-1.000	9.000	26.00	6.000
RB (DEG)		C1 (INCH)	
-40.00	360.0	26.00	6.000
AZIM(DEG)			
-40.00	360.0		

FILE

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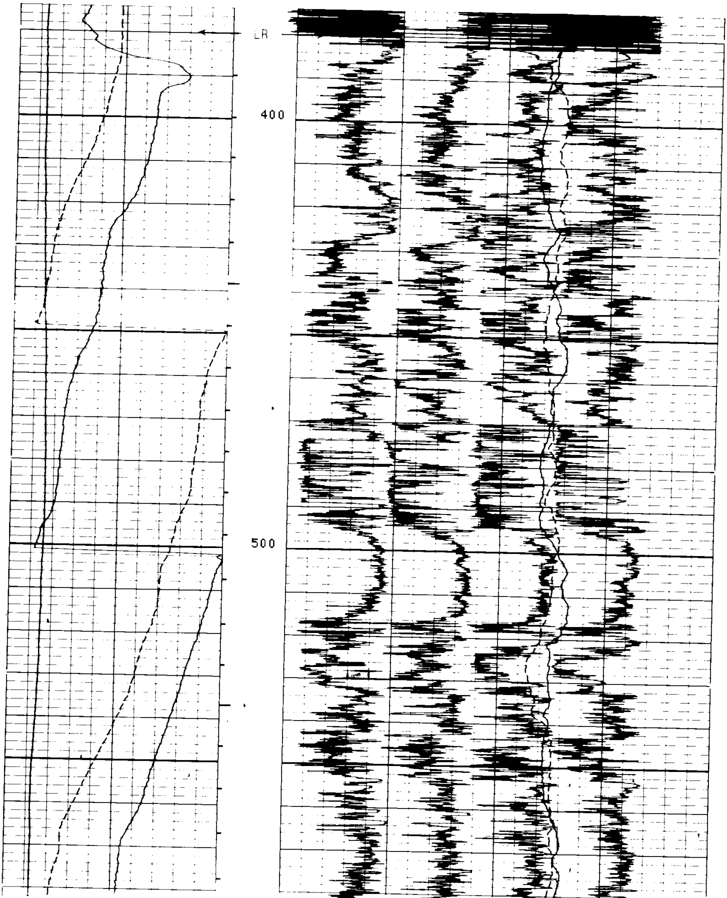

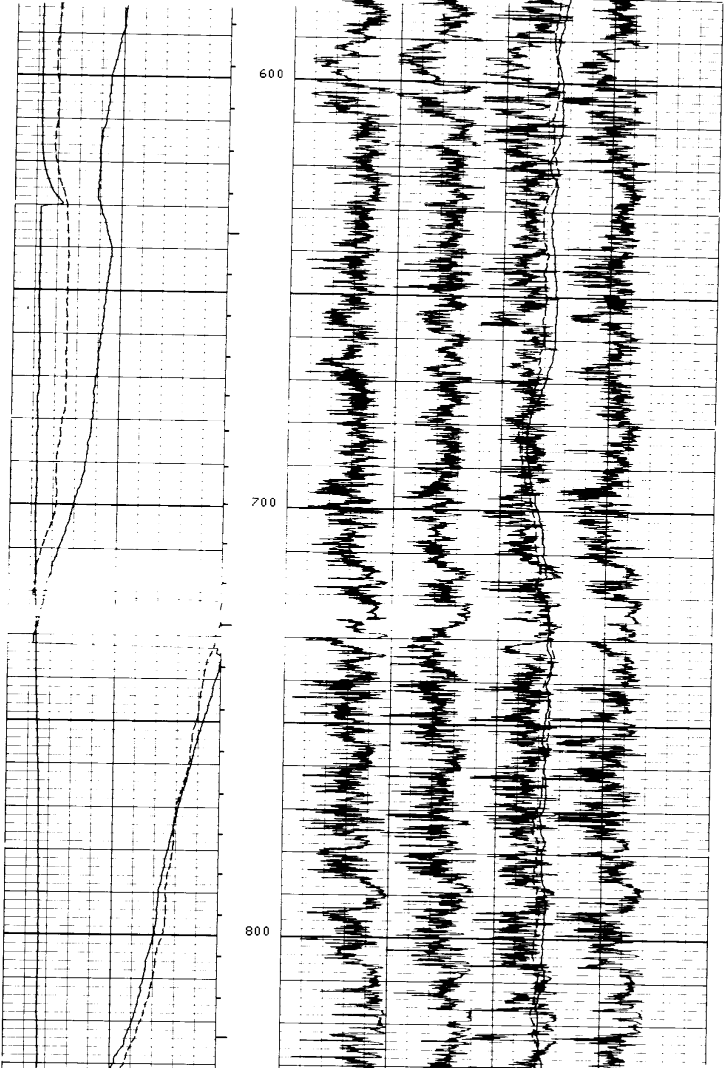

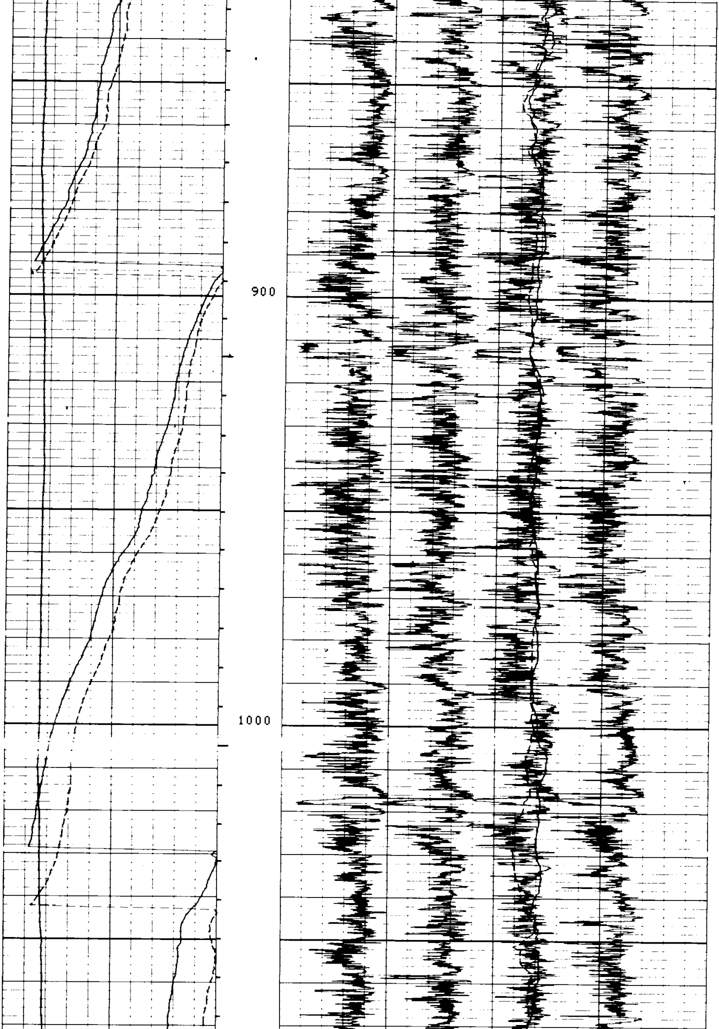

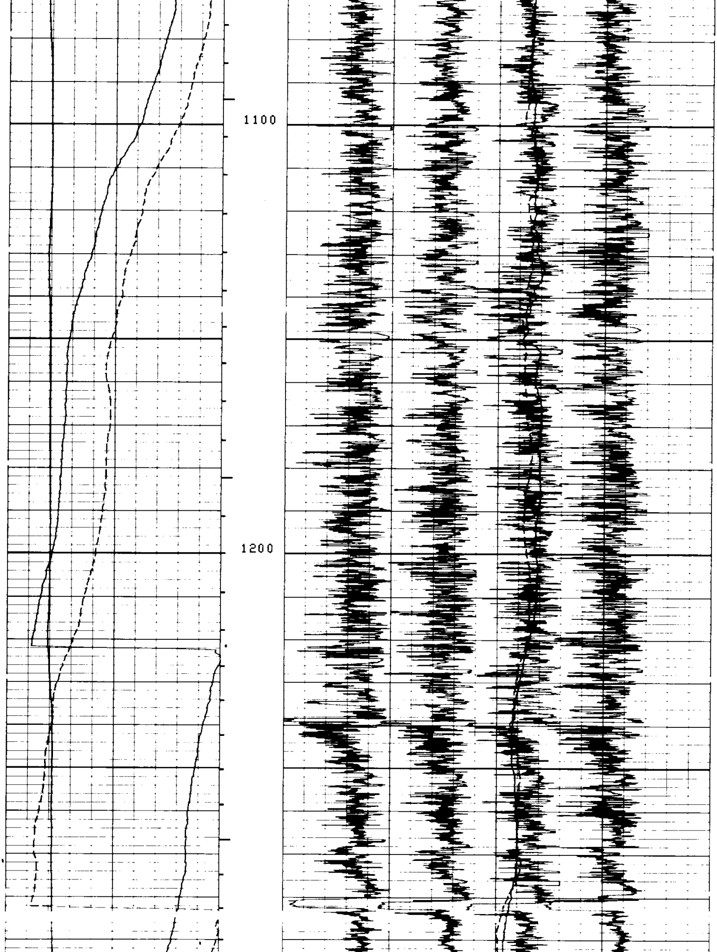

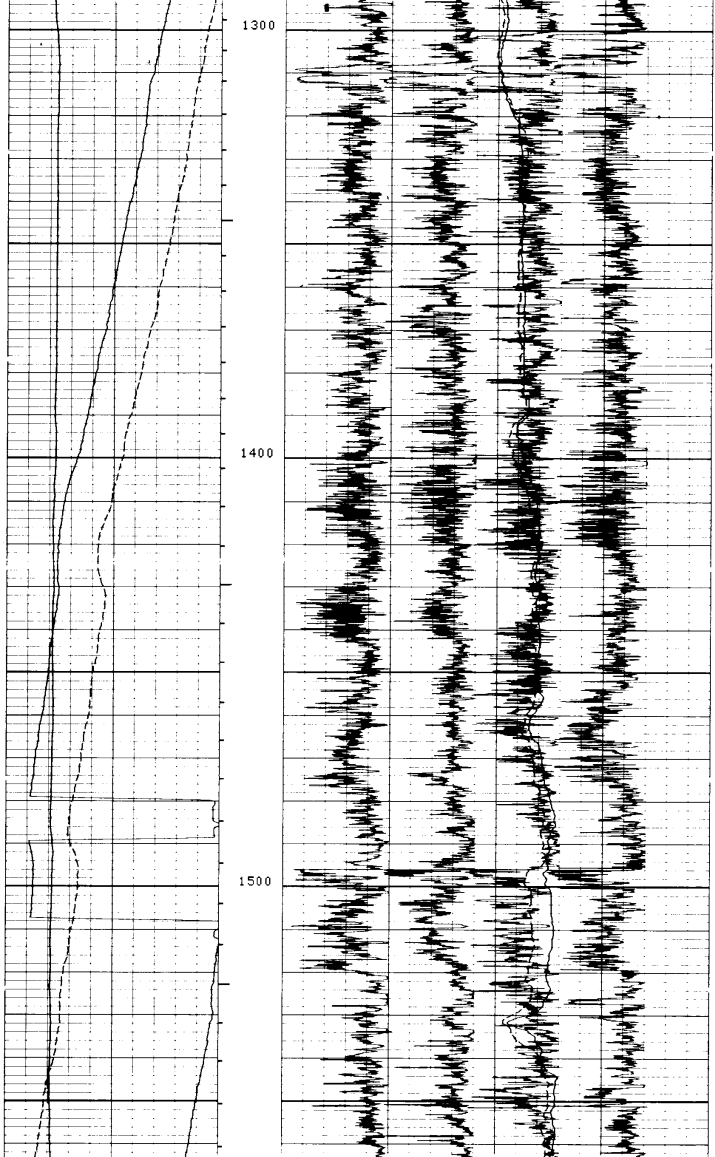

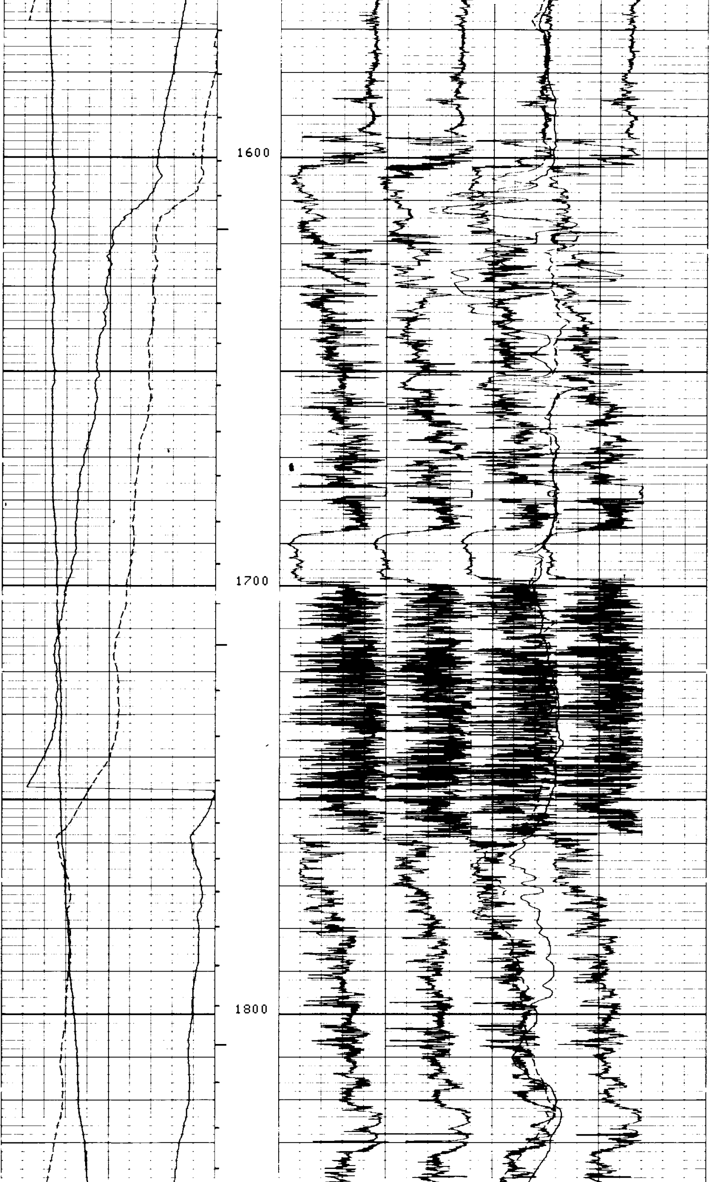

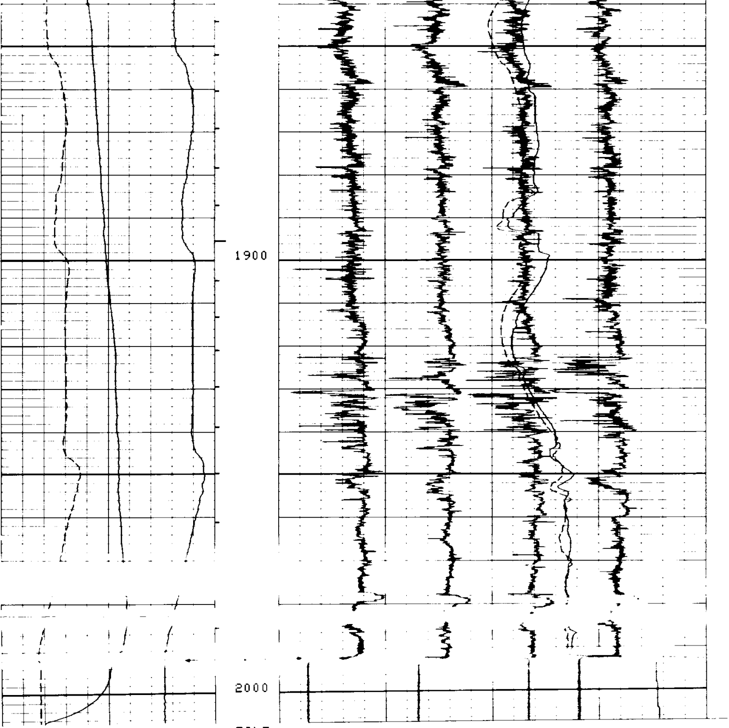

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Curve	Left	Right
DEVI(DEG)	-1.000	9.000
RB (DEG)	-40.00	360.0
AZIM(DEG)	-40.00	360.0
C2 (INCH)	26.00	6.000
C1 (INCH)	26.00	6.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	36	BS	INCH	12.25
DO		0.0	BHS		OPEN	FPHI		PHIX

REPEAT SECTION

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYF		STAN	MCT	DEG	36	BS	INCH	12.25
DO		0.0	BHS		OPEN	FPHI		PHIX

DEVI(DEG)
-1.000 9.000

RB (DEG)
-40.00 360.0

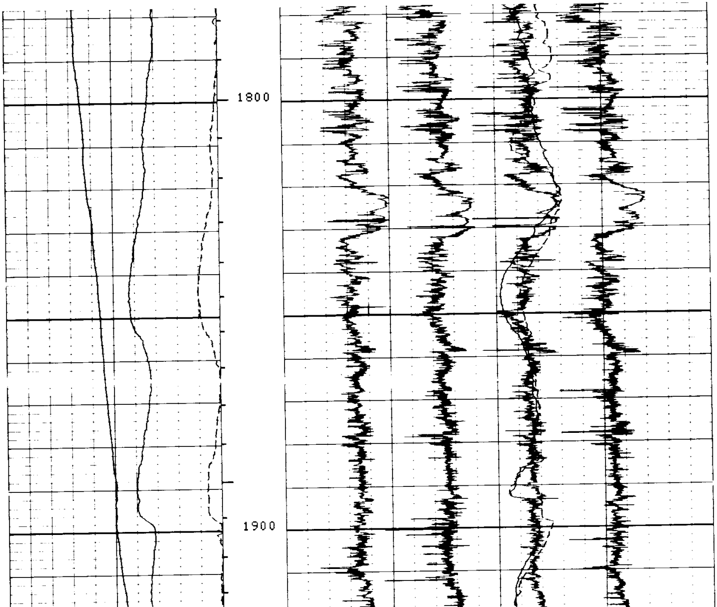
AZIM(DEG)
-40.00 360.0

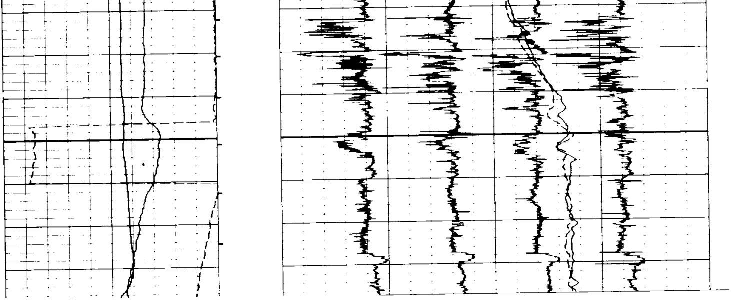
C2 (INCH)
26.00 6.000

C1 (INCH)
26.00 6.000

FILE

4





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[illegible]

RB (DEG

-40.00 360.0

AZIM(DEG)

-40.00 360.0

C2 (INCH)

26.00 6.000

C1 (INCH)

26.00 6.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	36	BS	INCH	12.25
DO		0.0	BHS		OPEN	FPHI		PHIX

CALIBRATION RECORD

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	36	BS	INCH	12.25
DO		0.0	BHS		OPEN	FPHI		PHIX

DEVI(DEG)

-1.000 9.000

RB (DEG)

-40.00 360.0

AZIM(DEG)

-40.00 360.0

C2 (INCH)

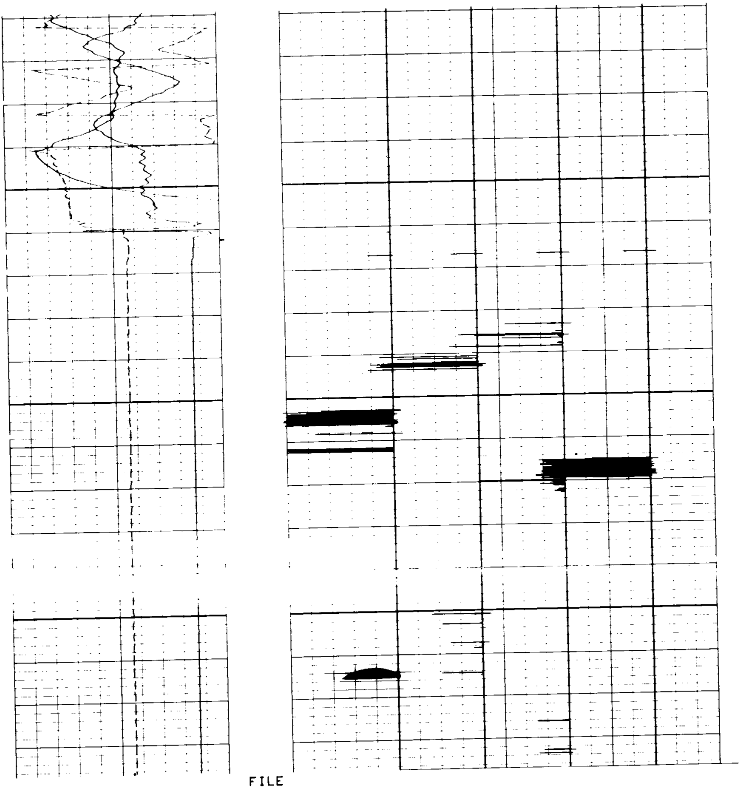
26.00 6.000

C1 (INCH)

26.00 6.000

FILE

3



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DEVI(DEG)	
-1.000	9.000
RB (DEG)	
-40.00	360.0
AZIM(DEG)	
-40.00	360.0

C2 (INCH)	
26.00	6.000
C1 (INCH)	
26.00	6.000

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
STYP		STAN	MCT	DEG	36	BS	INCH	12.25
DO		0.0	BHS		OPEN	FPHI		PHIX

BEFORE SURVEY CALIBRATION SUMMARY

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PERFORMED:     80/12/02
PROGRAM FILE: HDT    (VERSION    18.2    80/ 4/29)


HDT                    CALIPER CALIBRATION SUMMARY

                  MEASURED                         CALIBRATED
              SMALL     LARGE              SMALL       LARGE           UNITS
   C1          8.7      13.2                8.0         12.0            IN
   C2          8.5      13.2                8.0         12.0            IN
                           FILE
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ORIENTATION	DEPTHS	**CORRELATION CURVES** ← CONDUCTIVITY

COMPANY TEXACO, INC.

WELL LOGAN BUTTE UNIT 17 NO.1

FIELD LOGAN BUTTE

COUNTY CROOK STATE OREGON

HIGH RESOLUTION DIPMETER CALIBRATION CODING

1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. FULL SCALE ADJUST
4. CALIPER ADJUST AT 6" AND 16" CALIPER 1-3 IS CODED
5. CALIPER ADJUST AT 6" AND 16" CALIPER 2-4 IS SOLID
6. PAD =1 RESPONSE CHECK
7. PAD =2 RESPONSE CHECK
8. PAD =3 RESPONSE CHECK
9. PAD =4 RESPONSE CHECK
10. SONDE HANGING VERTICALLY
11. TOOL AND PAD =1 POINTED NORTH
12. TOOL ROTATING