COUNTY
FIELD
LOCATION
WELL BEOWAWE 85-18
COMPANY CHEVRON U.S.A., INC.

Schlumberger

FOUR — ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER

COMPANY CHEVRON U.S.A., INC. GL04388-17
WELL BEOWAWE 85-18
FIELD BEOWAWE GEYSERS
COUNTY LANDER STATE NEVADA

LOCATION 2460' SOUTH & 80' WEST FROM THE NORTHEAST 1/4 OF

API SERIAL NO.	SEC.	TWP	RANGE
	18	31N	48E

Other Services:
DI-SFL
FDC/CNL/GR
BHC
CBL

Permanent Datum: GL ; Elev.: 4920
Log Measured From KB 15 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 4935
D.F. - -
G.L. 4920

Date	5-28-80			
Run No.	THREE			
Depth—Driller	5927			
Depth—Logger (Schl.)	5932			
Btm. Log Interval	5932			
Top Log Interval	4600			
Casing—Driller	8 5/8" @ 2937	@	@	@
Casing—Logger	- -			
Bit Size	8 3/4"			
Type Fluid in Hole	GEL			
Dens. | Visc.	8.8 | 40	|	|	|
pH | Fluid Loss	9.8 | 7.8 ml	| ml	| ml	| ml
Source of Sample	CIRCULATED			
Rm @ Meas. Temp.	2.23 @ 96 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	3.69 @ 60 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	2.68 @ 67 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | M	|	|	|
Rm @ BHT	0.79 @ 284 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	0900			
TIME Logger on Bottom	1200			
Max. Rec. Temp.	284 °F	°F	°F	°F
Equip. | Location	8128 | SAC	|	|	|
Recorded By	LANGFORD			
Witnessed By Mr.	IOVENETTI			

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

REMARKS: Service Order No. 123980 Magnetic Declination

Run No.	1	2	3	4
Tool Type			LW	
HDP			962	
DDR | TTR	|	|	- | -	|
DPI			- -	
HDM			717	
HDE			- -	
HDS			707	
Adapter Head			- -	
UG | CG | SAH				
5" Film | 10" Film | 60"Record			X	
Analog | Digital	|	|	| X	|
TIME Circulation Stopped			0900 5-27	
TIME Schl. on Bottom			1200 5-28	

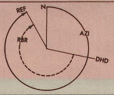
ROLL NO.	INTERVAL

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.

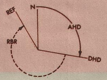
DEFINITIONS

(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°



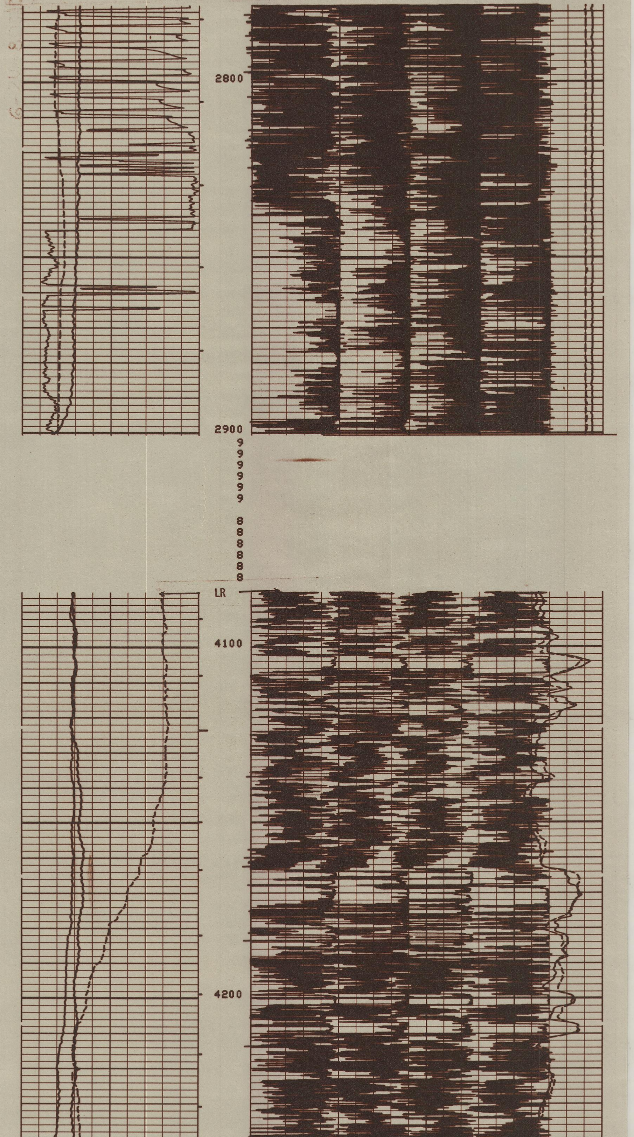
HIGH ANGLE UNIT ☐

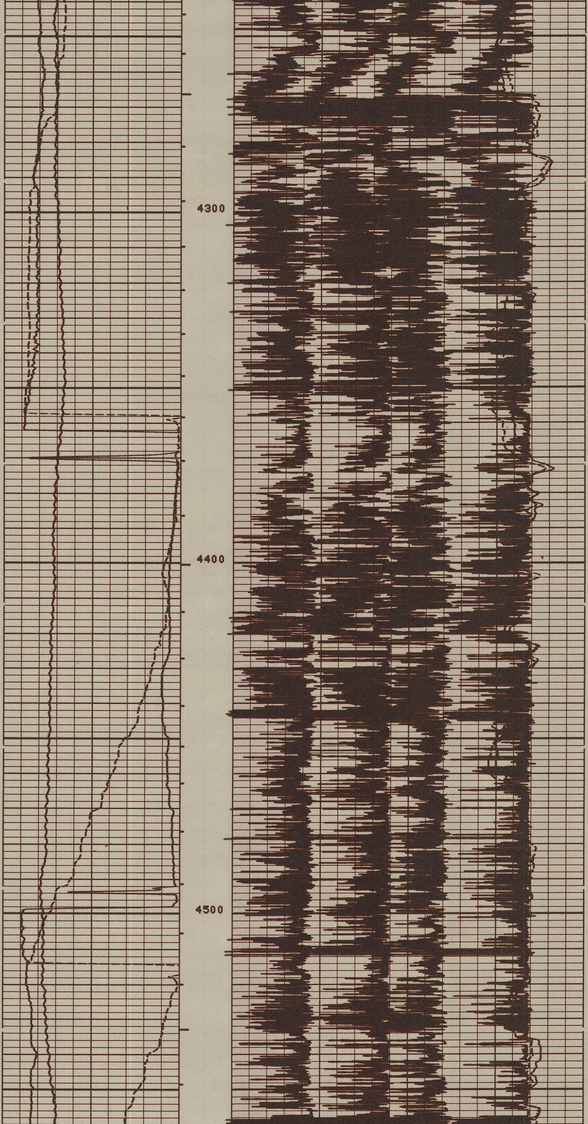
EXAMPLE
HDM - High Angle Unit (0-72°)
AHD (solid curve) = 100°
RBR (dotted curve) = 230°
AZI = AHD + RBR = 100° + 230° = 330°

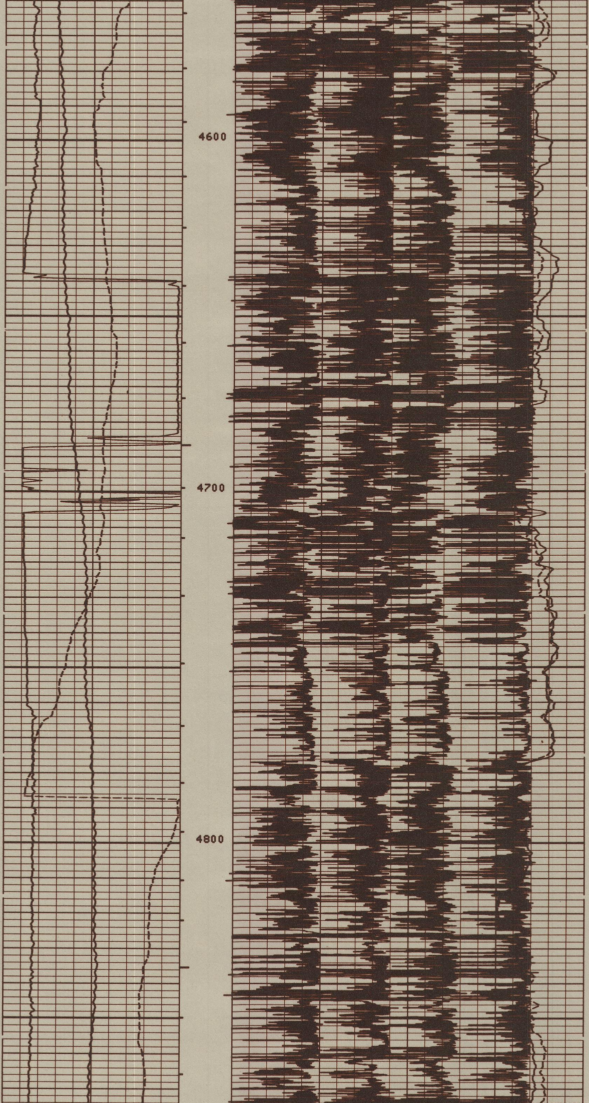
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

ORIENTATION	DEPTHS	CORRELATION CURVES ←CONDUCTIVITY
AZIMUTH 0° 120° 240° 360°		S. O. NO. 1
RELATIVE BEARING 0° 120° 240° 360°		S. O. NO. 2
DEVIATION 0° 9°		S. O. NO. 3
		S. O. NO. 4
		4 ARM CALIPER 1 - 3 CALIPER
		2 - 4 CALIPER
		18" 16" 14" 12" 10" 8" 6"

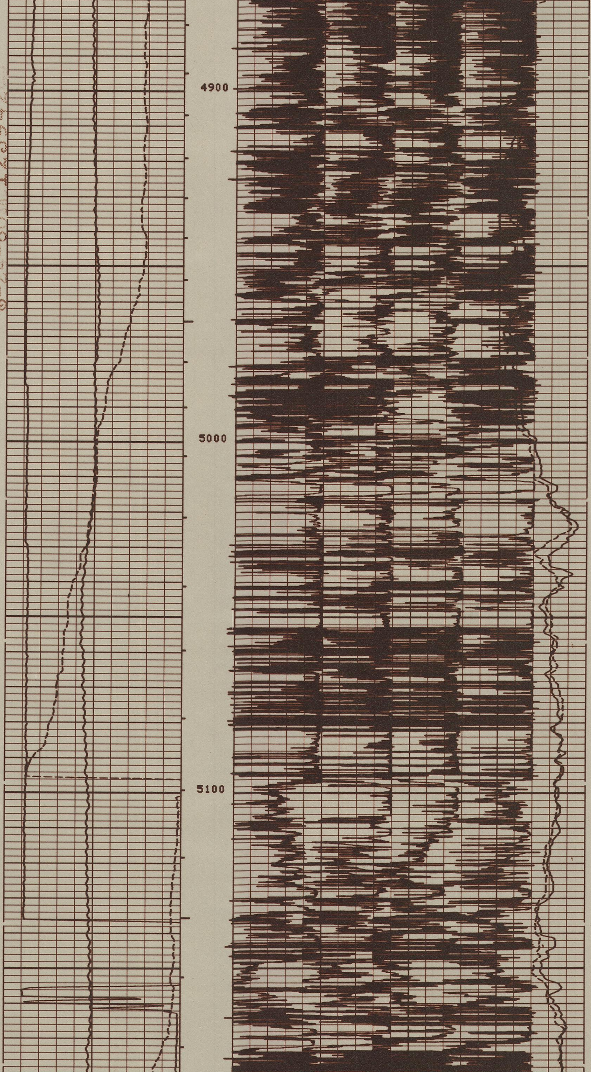
EARTH SCIENCE LABORATORY
University of Utah Research Institute
Salt Lake City, Utah

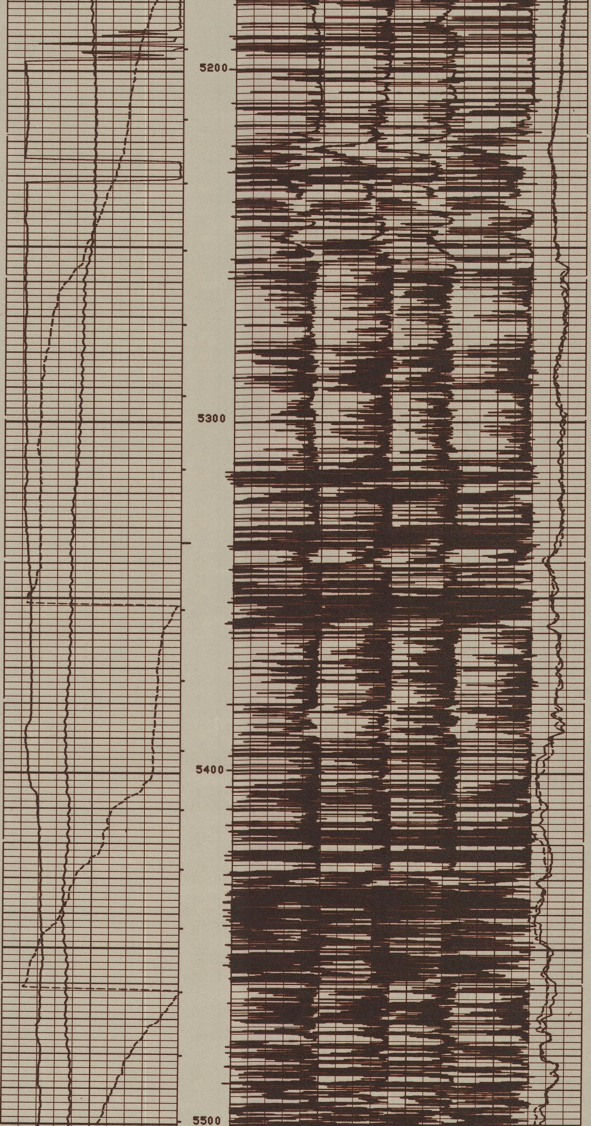


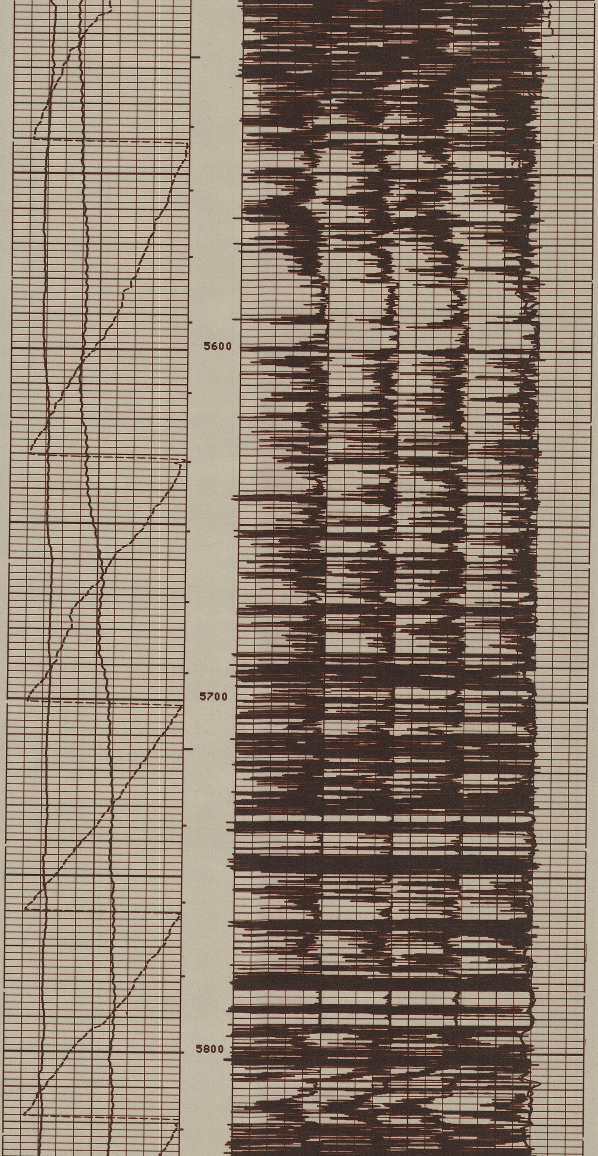


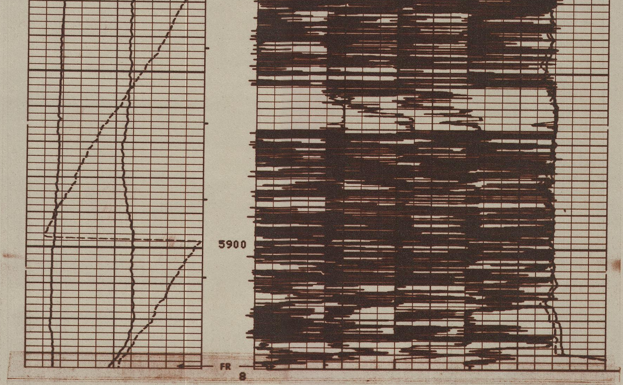


6-24-80 W 1239W2

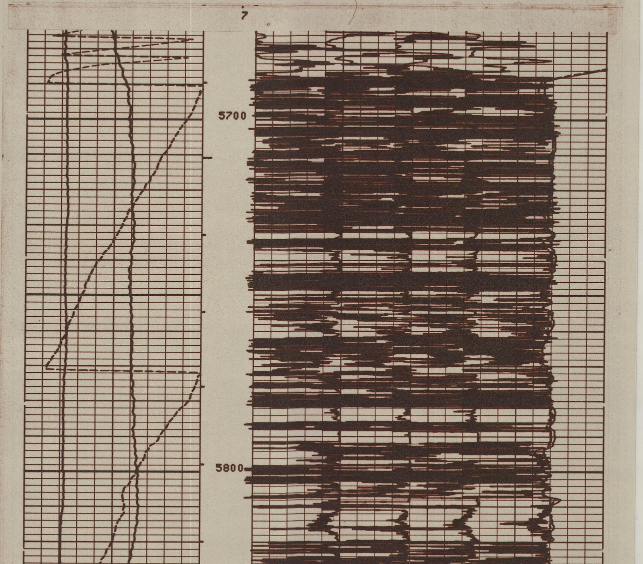


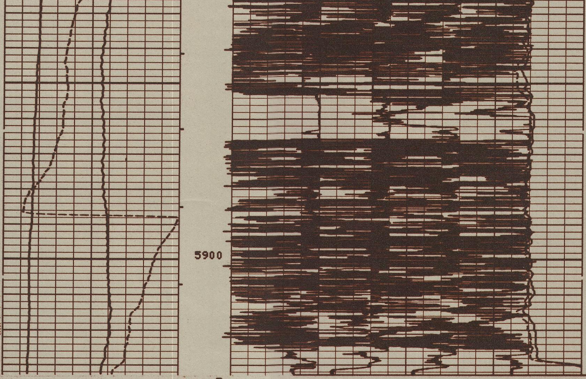






REPEAT SECTION





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6-24-80 1239452

AZIMUTH

0° 120° 240° 360°

RELATIVE BEARING

0° 120° 240° 360°

DEVIATION

9°

0°

S. O. NO. 1

S. O. NO. 2

S. O. NO. 3

S. O. NO. 4

4 ARM CALIPER
1 - 3 CALIPER

2 - 4 CALIPER

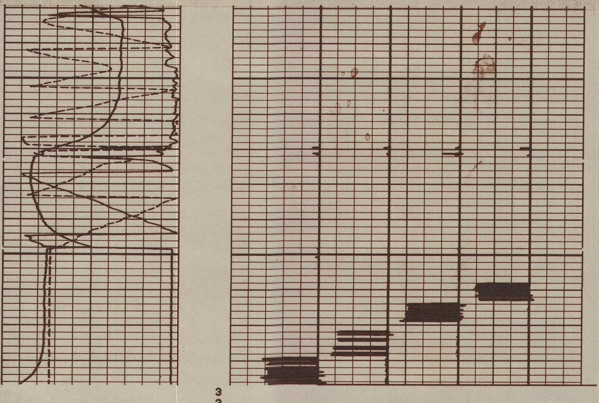
ORIENTATION

DEPTHS

CORRELATION CURVES
←CONDUCTIVITY

CALIBRATION RECORD

3



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3

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                                   3
                                   3
                                   3
                                   3



                     BEFORE SURVEY CALIBRATION SUMMARY


            PERFORMED:      80/05/27
            PROGRAM FILE:   HDT    (VERSION    16.4    00/00/00)


           HDT             CALIPER CALIBRATION SUMMARY

                     MEASURED                          CALIBRATED
                   SMALL    LARGE                    SMALL     LARGE          UNITS
            C1      6.9     14.1                      6.0      12.0            IN
            C2      7.0     14.3                      6.0      12.0            IN
                                   2
                                   2
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                     AFTER SURVEY TOOL CHECK SUMMARY


            PERFORMED:      80/05/27
            PROGRAM FILE:   HDT    (VERSION    16.4    00/00/00)


           HDT                          TOOL  CHECK

                              SMALL                        LARGE
                      BEFORE          AFTER         BEFORE       AFTER     UNITS
            C1          6.0             6.1          12.0         12.1      IN
            C2          6.0             6.0          12.0         12.0      IN
                                   11
                                   11
                                   11
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COMPANY CHEVRON U.S.A., INC.

WELL BEOWAWE 85-18

FIELD BEOWAWE GEYSERS

COUNTY LANDER STATE NEVADA

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