COU
FIEL
LOC
WELL [redacted]

COMPANY CHEVRON

Schlumberger

FOUR – ARM HIGH RESOLUTION CONTINUOUS DIPMETER (COMPUTED)

GL04390_4

COMPANY CHEVRON USA INC.

WELL BEOWAWE NO. 85-18

FIELD BEOWAWE GEYSERS

COUNTY LANDER **STATE** NEVADA

LOCATION: 2960'SOUTH & 80'WEST OF THE NORTHEAST 1/4 OF:

Sec. 18 Twp. 31N Rge. 48E

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

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	5-11-80			
Run No.	TWO			
Depth—Driller	4543			
Depth—Logger	4543			
Btm. Log Interval	4318			
Top Log Interval	2937			
Casing—Driller	9 5/8" @ 2937	@	@	@
Casing—Logger	2937			
Bit Size	8 3/4"			
Type Fluid in Hole	GEL			
Dens. | Visc.	8.9 | 43			
pH | Fluid Loss	9.4 | 8 ml	ml	ml	ml
Source of Sample	CIRCULATION			
R_m @ Meas. Temp.	4.50 @ 52 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	4.68 @ 48 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	3.16 @ 58 °F	@ °F	@ °F	@ °F
Source: R_{mf} | R_{mc}	C | C			
R_m @ BHT	1.07 @ 240 °F	@ °F	@ °F	@ °F
Time Since Circ.	43 1/2 HOURS			
Max. Rec. Temp.	240 °F	°F	°F	°F
Equip. | Location	7763 | SAC			
Recorded By	ANDERSEN/BORATKO			
Witnessed By	IOVENETTI			

SWS-1854-B

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

Changes in Mud Type or Additional Samples				
Date | Sample No.				
Depth—Driller				
Type Fluid in Hole				
Dens. | Visc.				
ph | Fluid Loss		ml		
Source of Sample				
R_m @ Meas. Temp.	@	°F	@	°F
R_{mf} @ Meas. Temp.	@	°F	@	°F
R_{mc} @ Meas. Temp.	@	°F	@	°F
Source: R_{mf} | R_{mc}				
R_m @ BHT	@	°F	@	°F
R_{mf} @ BHT	@	°F	@	°F
R_{mc} @ BHT	@	°F	@	°F

Run No.	1	2	3	4
Tool Type		HDT		
HDM No.		--		
Magnetic Declination		--		
Analog Panel No.		--		
Digital Panel No.		CSU		
Correlated By		--		
Computed By		PCDCC		
Plotted By		PCDCC		
Remarks —		SERVICE ORDER NO. 123994		

"Any directional computations made from the dipmeter log must be regarded as approximate only. This is because the dipmeter log indicates the orientation of the instrument itself, rather than the direction and amount of the wall drift. Therefore, we do not and cannot guarantee the accuracy of such directional computations, and we shall not, except in the case of willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained that may result from any such computations."

TABLE OF VERTICAL DISPLACEMENT IN FEET CORRESPONDING TO VARIOUS HORIZONTAL DISTANCES AND ANGLES OF DIP

DIP ANGLES (degrees)	VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF 100'	1000'	1 mile (5280')	DIP ANGLES (degrees)	VERTICAL DISPLACEMENT FOR HORIZONTAL DISTANCES OF 100'	1000'	1 mile (5280')
1	1.75	17.5	92.2	19	34.4	344.	1818.
2	3.5	35.	184.	20	36.4	364.	1922.
3	5.2	52.	277.	21	38.4	384.	2027.
4	7.0	70.	369.	22	40.4	404.	2133.
5	8.8	88.	462.	23	42.5	425.	2241.
6	10.5	105.	555.	24	44.5	445.	2351.
7	12.3	123.	648.	25	46.6	466.	2462.
8	14.1	141.	742.	30	57.7	577.	3048.
9	15.8	158.	836.	35	70.0	700.	3697.
10	17.6	176.	931.	40	83.9	839.	4430.
11	19.4	194.	1026.	45	100.0	1000.	5280.
12	21.3	213.	1122.	50	119.2	1192.	6293.
13	23.1	231.	1219.	55	142.8	1428.	7540.
14	24.9	249.	1316.	60	173.2	1732.	9145.
15	26.8	268.	1415.	65	214.4	2144.	11323.
16	28.7	287.	1514.	70	274.8	2748.	14507.
17	30.6	306.	1614.	75	373.2	3732.	19705.
18	32.5	325.	1716.	80	567.1	5671.	29945.

To obtain vertical displacements corresponding to multiples of hundreds feet, thousands of feet or miles, multiply the number found in the table by the number of hundreds, thousands or miles.

Example: The formation dip is 16 degrees. The vertical displacement occurring at a spot 660 feet away from the well is desired. The table shows 28.7 feet per 100 feet for 16° dip. Therefore 28.7 x 6.60 = 189.42, or 189. feet.

N

GRAPHIC PRESENTATION

CORRELATION CURVE	DEPTHS	TRUE DIP ANGLE AND DIRECTION	DRIFT & DIRECTION OF SONDE
		0° 10° 20° 30° 40° 50° 60° 70° 80° 90°	0° 10°

HLUMBERGER DIPMETER ARROW PLOT

5-20-80SEC1 23945

CHEVRON U.S.A., INC.
BEOWAWE 85-18
BEOWAWE GEYSERS FIELD
LANDER COUNTY,NEVADA
RUN NO. TWO 11-MAY-80
P.C.D.C. SEC.18/31N/48E
ARROW PLOT FROM CLUSTER PROGRAM

CORRELATION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 30 DEGREES X2
HDT-G CSU PDP/11

JOB 4371.00

FOOT DUO-DECIMAL .500 IN. GRID

CORRELATION CURVE	DEPTHS	DIP ANGLE AND DIRECTION	BOREHOLE DRIFT
		0 10 20 30 40 50 60 70 80 90	0 10

POOLED ARROW PLOT

2 LEVELS POOLED WHEN WITHIN

3.5 DEGREES SOLID ANGLE

BLACK ARROWS ARE POOLED RESULTS

CORRELATION LENGTH 4 FT.

STEP LENGTH 2 FT.

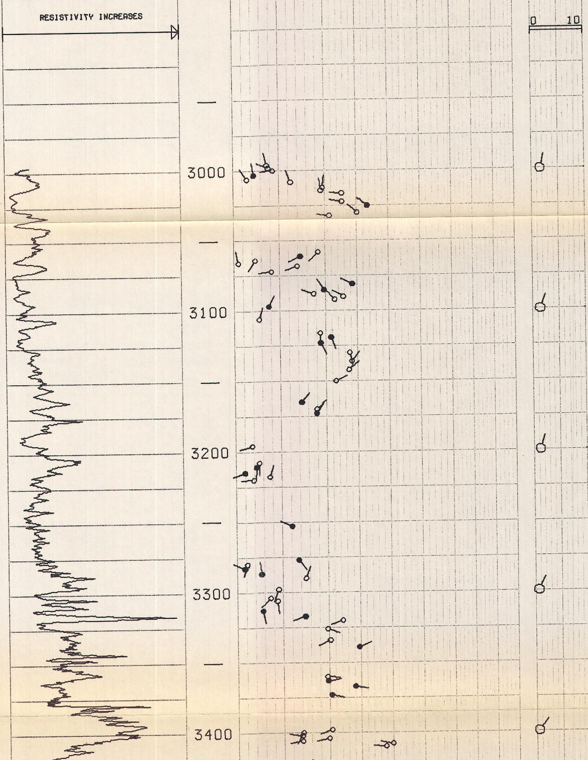
SCHLUMBERGER DIPMETER ARROW PLOT

SEARCH ANGLE 30 DEGREES X2

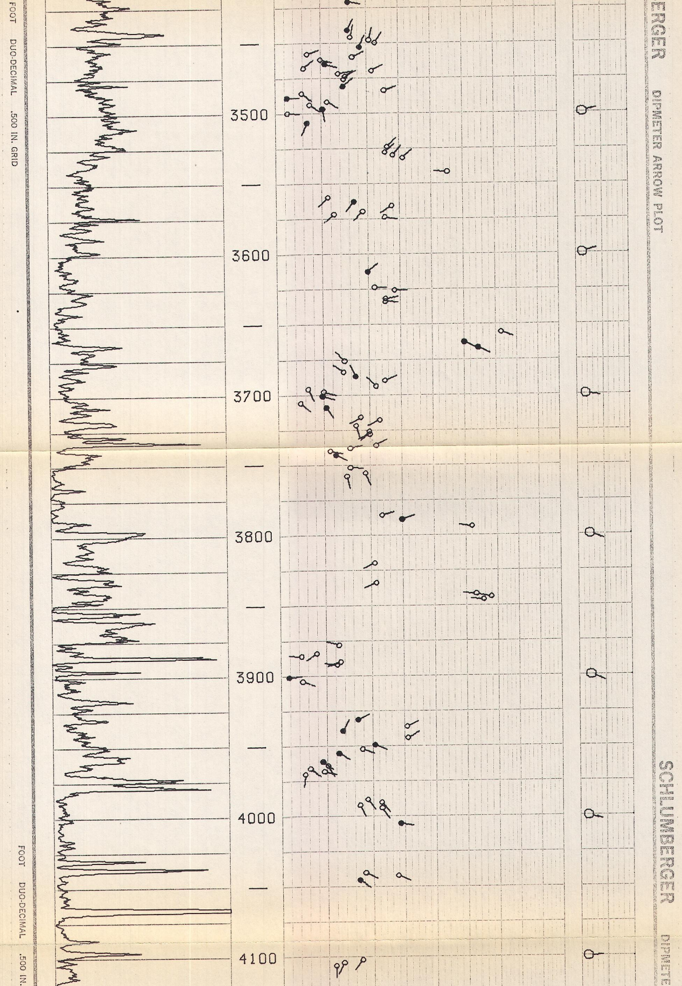
PC0130023518307001020420

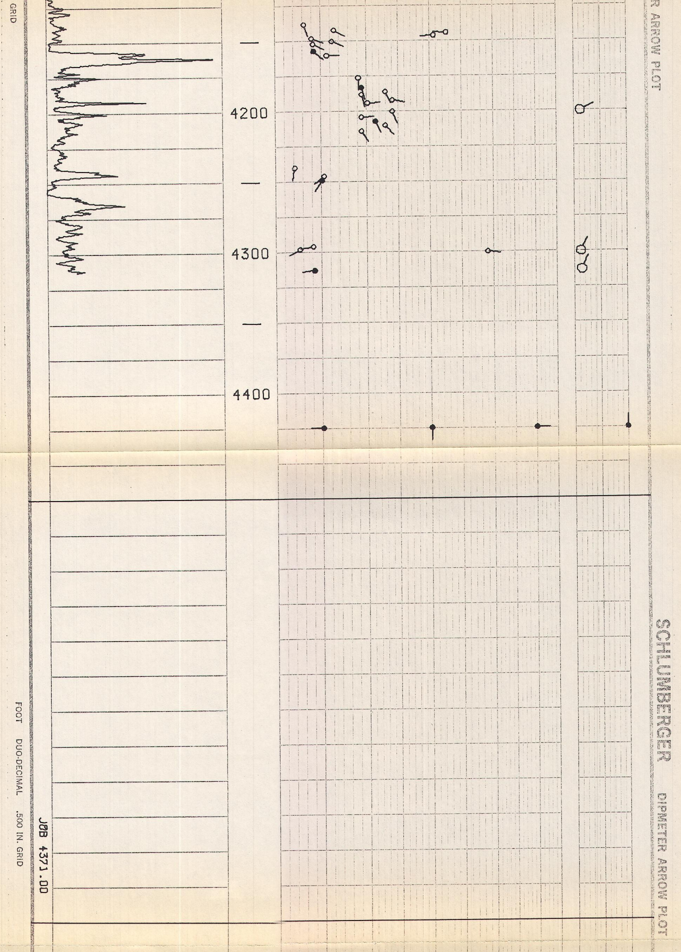
ZONE FROM 2996 TO 4313

FOOT DUO-DECIMAL .500 IN. GRID



SCHLUMB





CORRELATION CURVE | DEPTHS | DIP ANGLE AND DIRECTION | BOREHOLE DRIFT

0 10 20 30 40 50 60 70 80 90 | 0 10

ALL QUALITY ARROW PLOT 4371

FROM THE CLUSTER PROGRAM

BLACK ARROWS ARE HIGHEST QUALITY

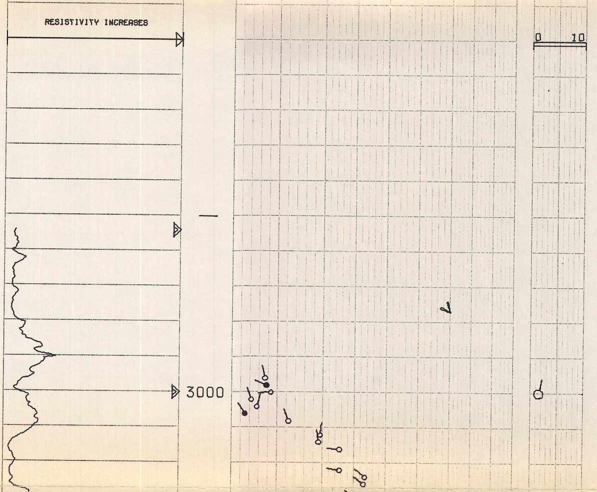
CORRELATION LENGTH 4 FT.

STEP LENGTH 2 FT.

SEARCH ANGLE 30 DEGREES X2

PC0130023518307001020420

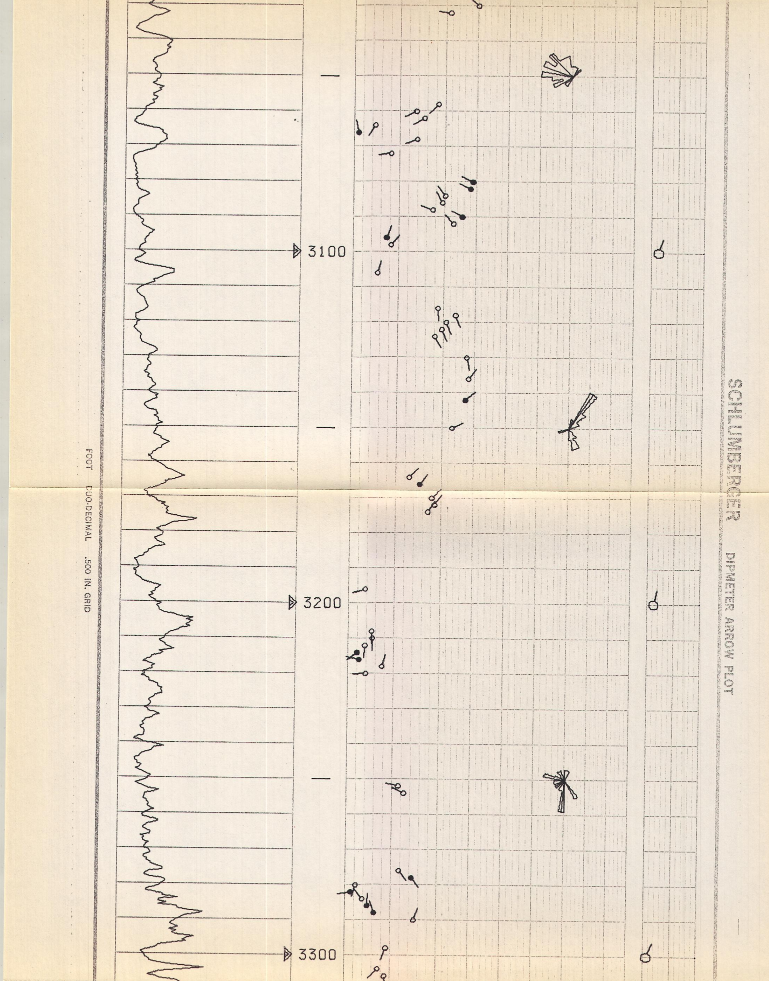
ZONE FROM 2954 TO 4314



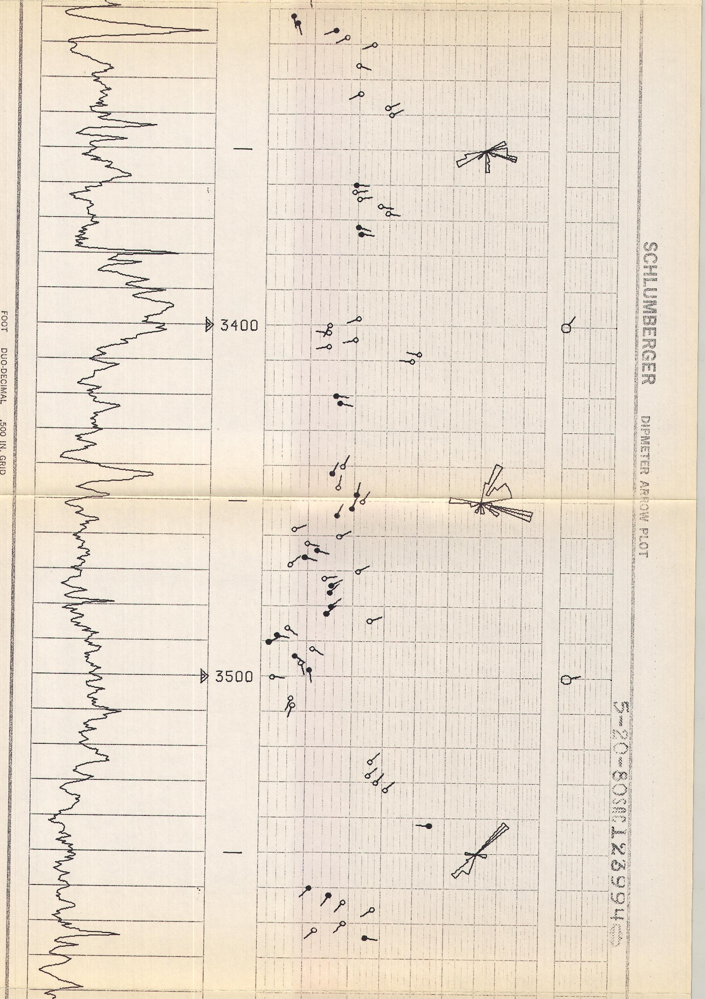
FOOT DUO-DECIMAL .500 IN. GRID

SCHLUMBERGER

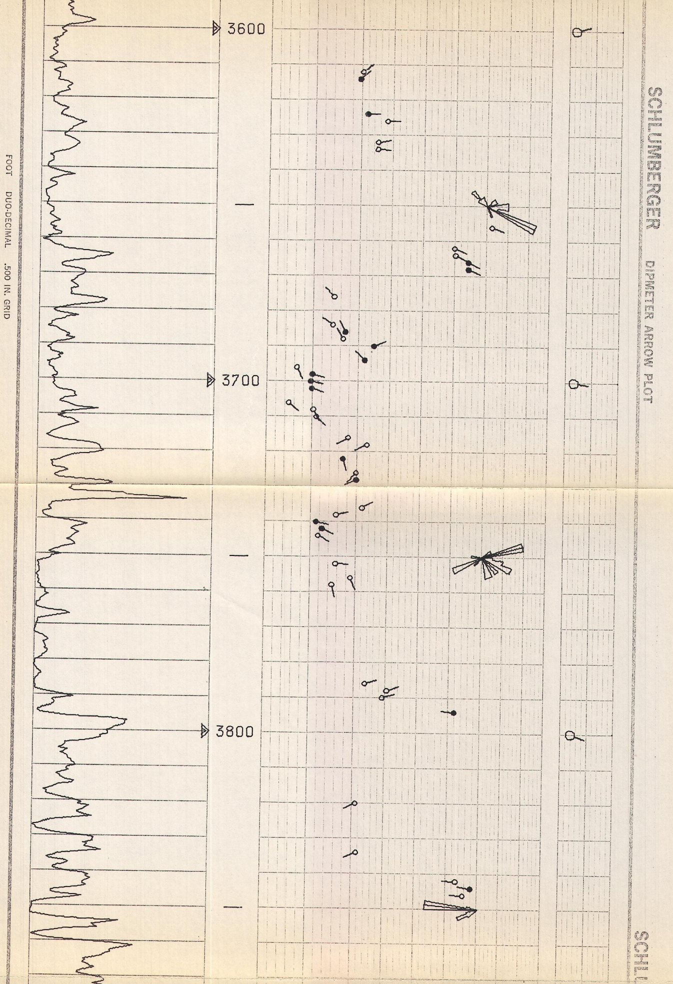
DIPMETER ARROW PLOT

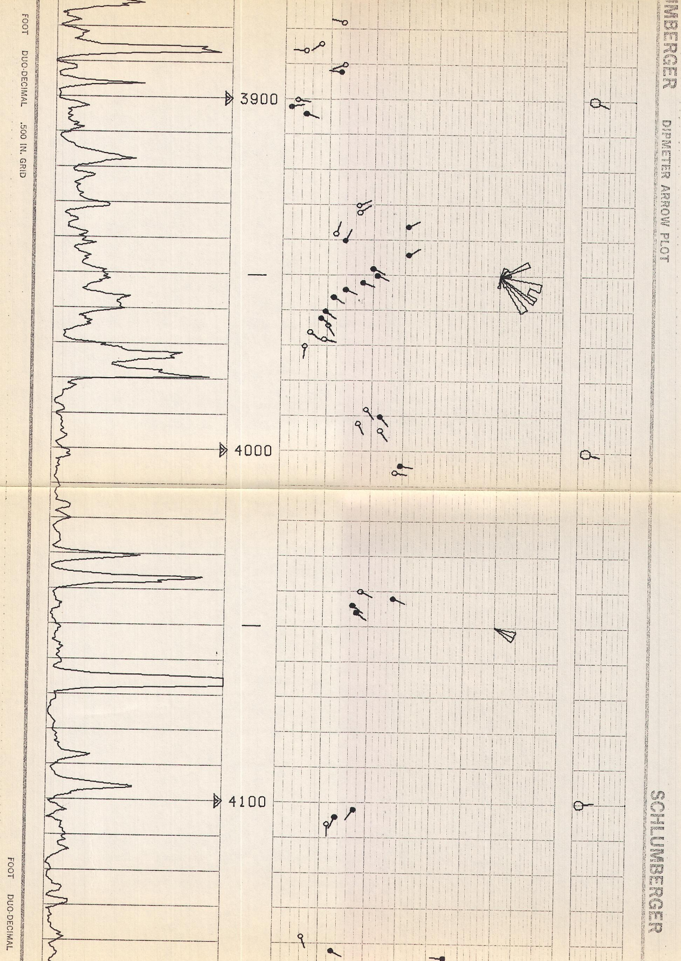


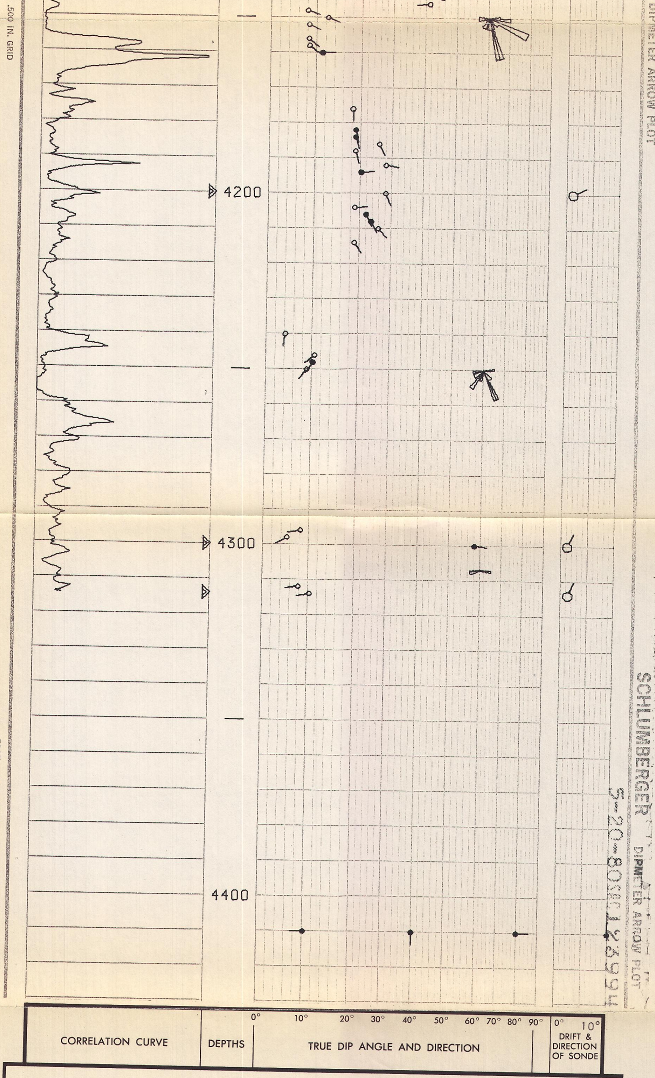
SCHLUMBERGER DIPMETER ARROW PLOT



5-20-80SEC123994







COMPANY CHEVRON USA INC
WELL BEOWAWE NO. 85-18
FIELD BEOWAWE GEYSERS
COUNTY LANDER STATE NEVADA

Rm 4.50 @ 52 °F
Rmf 4.68 @ 48 °F
Rmc 3.16 @ 58 °F
BHT 240 °F

SCHL. FR 4318
SCHL. TD 4543
DRLR TD 4543
Elev:
KB 4935
DF --
GL 4920