Schlumberger

FOUR – ARM HIGH RESOLUTION CONTINUOUS DIPMETER

(COMPUTED)

COUNTY COLUMBIA
FIELD or LOCATION MIST 34-7N-5W
WELL COLUMBIA COUNTY 13-34
COMPANY REICHHOLD ENERGY

COMPANY REICHHOLD ENERGY CORP.

WELL COLUMBIA COUNTY 13-34

FIELD MIST

COUNTY COLUMBIA **STATE** OREGON

LOCATION 2386.36' NORTH & 502.92' EAST OF SOUTHWEST CORNER

Other Services: DIL BHC

Sec. 34 **Twp.** 7N **Rge.** 5W

Permanent Datum: GL, Elev. 1254.4'
Log Measured From KB, 11.4 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 1265.8'
D.F. N/A
G.L. 1254.4'

RECEIVED-PTLP
JAN 5 1983
DEPT OF GEOLOGY

Date	17 DEC 82		
Run No.	1		
Depth—Driller	2822.0'		
Depth—Logger	2823.0'		
Btm. Log Interval	2814.0'		
Top Log Interval	489.0'		
Casing—Driller	8 5/8" @ 492'	@	@	@
Casing—Logger	489'		
Bit Size	7 7/8"		
Type Fluid in Hole	LIGNOSULFONATE		
Dens. | Visc.	8.9 | 52.0		
pH | Fluid Loss	9.0 | 7.5 ml	ml	ml
Source of Sample	FLOWLINE		
R_m @ Meas. Temp.	3.530 @ 56 °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	4.250 @ 50 °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	4.090 @ 54 °F	@ °F	@ °F
Source: R_{mf} | R_{mc}	M | M		
R_m @ BHT	2.246 @ 92 °F	@ °F	@ °F
Time Since Circ.	1715 12/16		
Max. Rec. Temp.	92 °F	°F	°F
Equip. | Location	8076 | SAC		
Recorded By	MAYER		
Witnessed By	ALGER/BRUER		

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

Changes in Mud Type or Additional Samples N/A				
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	HDS-D			
HDM No.	1726			
Magnetic Declination	20° E			
Analog Panel No.	-			
Digital Panel No.	1891			
Correlated By	PCDCC			
Computed By	PCDCC			
Plotted By	PCDCC			

Remarks — LOW ANGLE MECHANICAL UNIT.

SERVICE ORDER NO. 303920

"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°

12-29-82 303920

REICHHOLD ENERGY CORP.
COLUMBIA COUNTY 13-34
MIST FIELD
COLUMBIA COUNTY,OREGON
RUN NO. ONE 17-DEC-82
PCCC
ARROW PLOT FROM CLUSTER PROGRAM

CORRELATION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 30 DEGREES X2

JOB 7174.00

POOLED ARROW PLOT

2 LEVELS POOLED WHEN WITHIN

3.5 DEGREES SOLID ANGLE

BLACK ARROWS ARE POOLED RESULTS

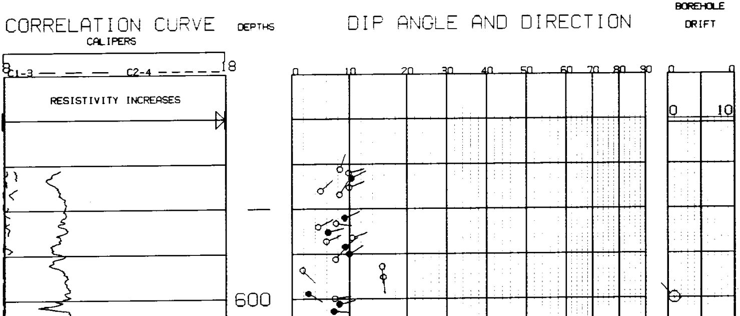
CORRELATION LENGTH 4 FT.

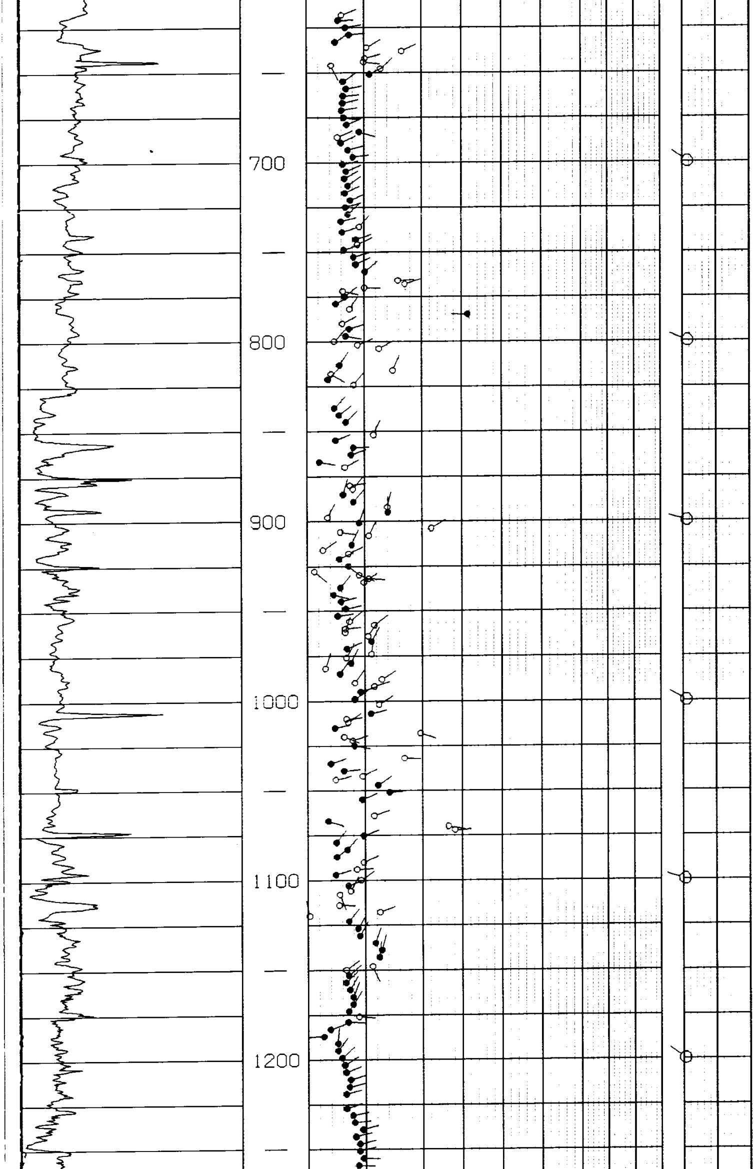
STEP LENGTH 2 FT.

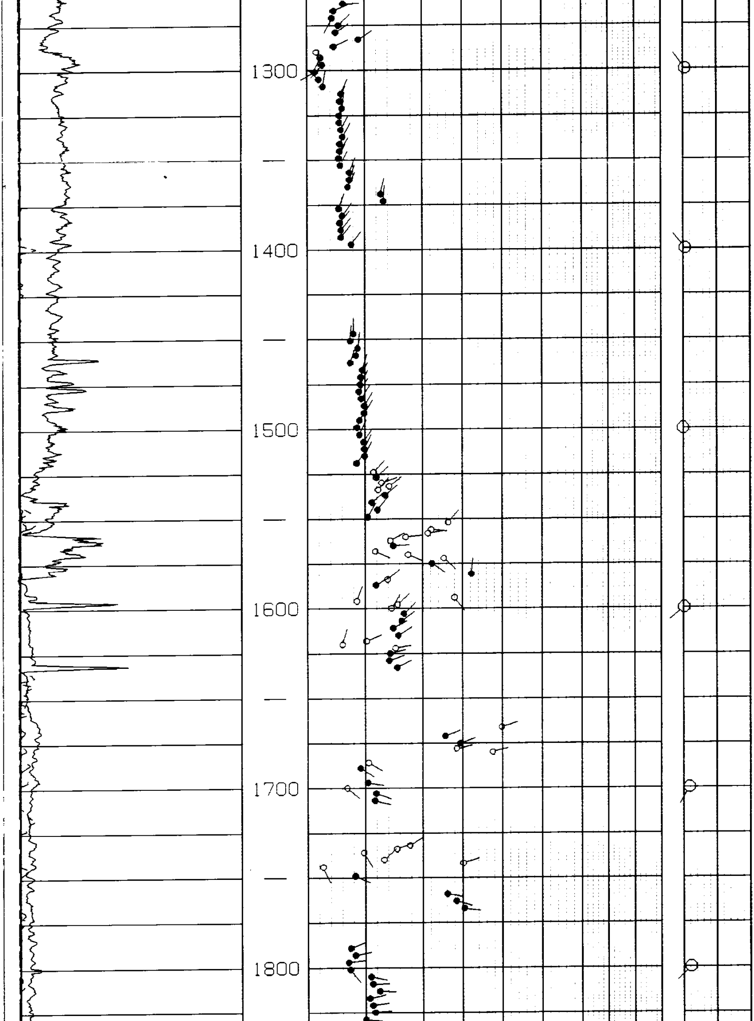
SEARCH ANGLE 30 DEGREES X2

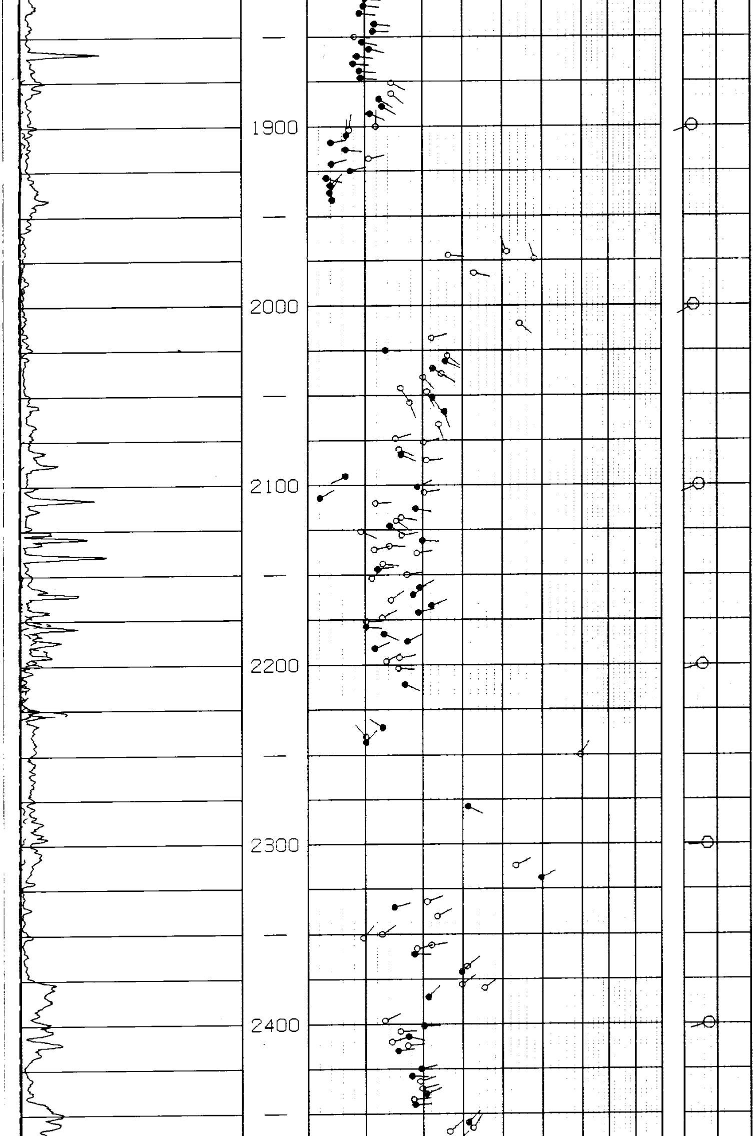
PC01300235183070010 20420

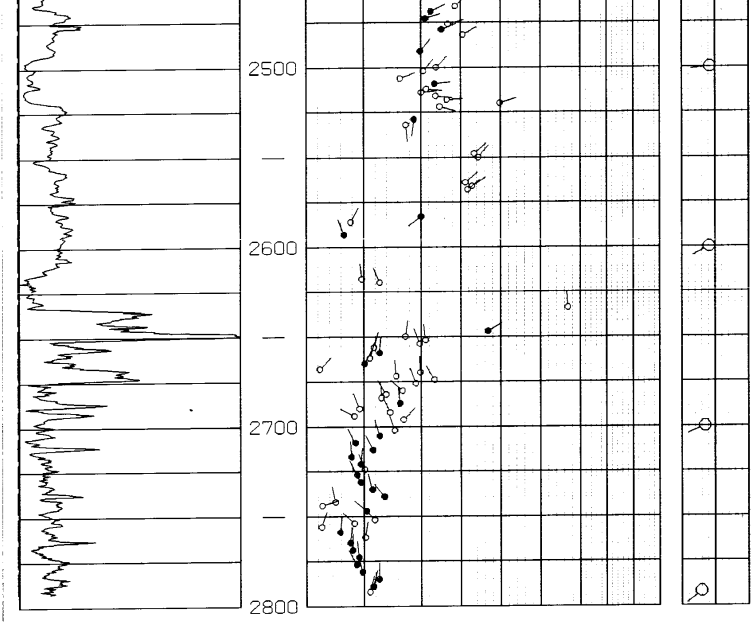
ZONE FROM 528 TO 2792





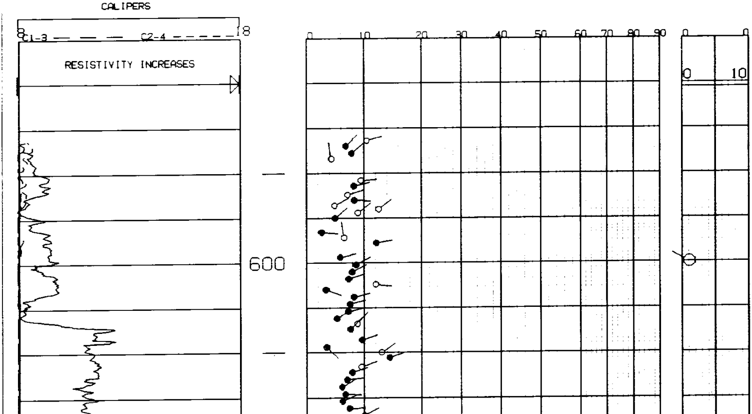






ZONE FROM 532 TO 728

CORRELATION CURVE DEPTHS DIP ANGLE AND DIRECTION BOREHOLE DRIFT



12-29-82 3 3920

JOB 7174.00

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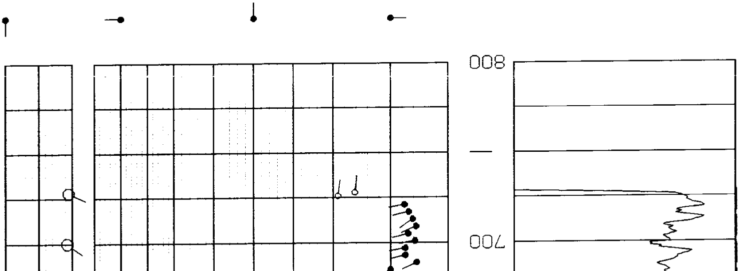
USER: 7174 26-DEC-1982 17:23:46.19



ALL QUALITY ARROW PLOT 7174

FROM THE CLUSTER PROGRAM

BLACK ARROWS ARE HIGHEST QUALITY

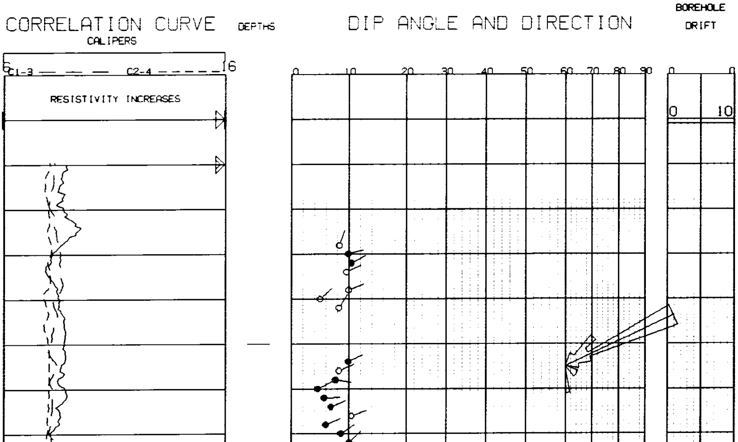
CORRELATION LENGTH 4 FT.

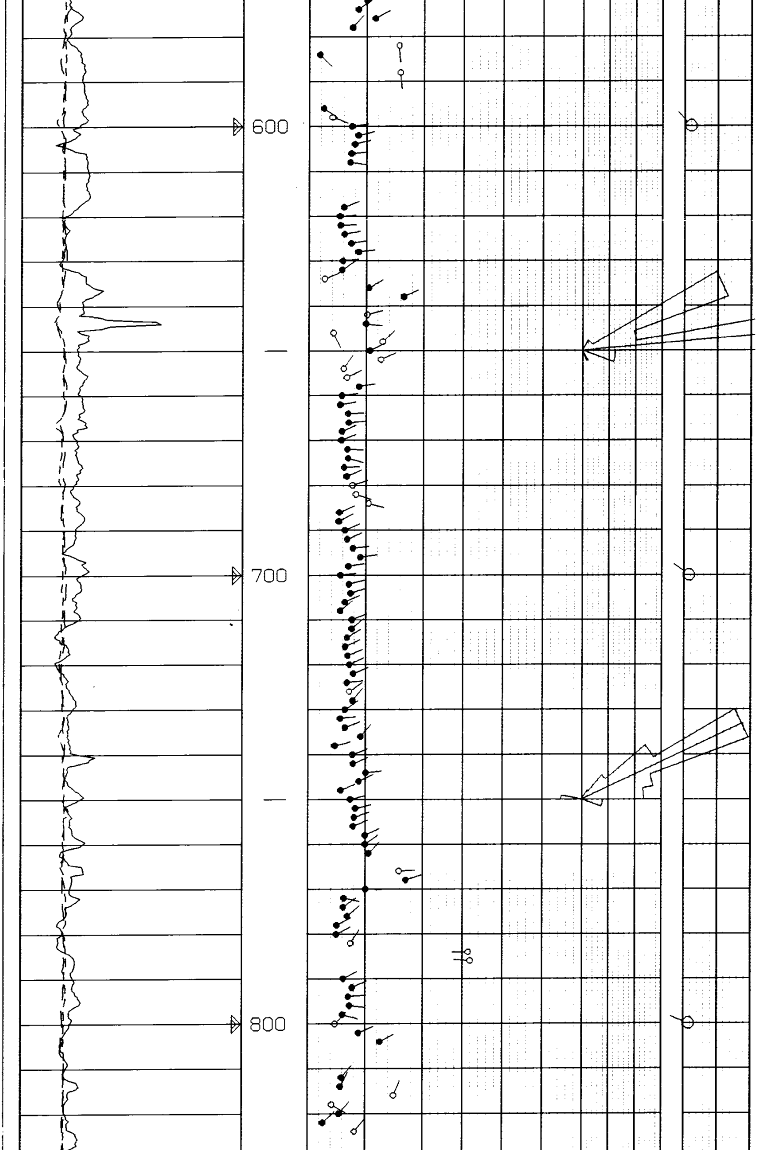
STEP LENGTH 2 FT.

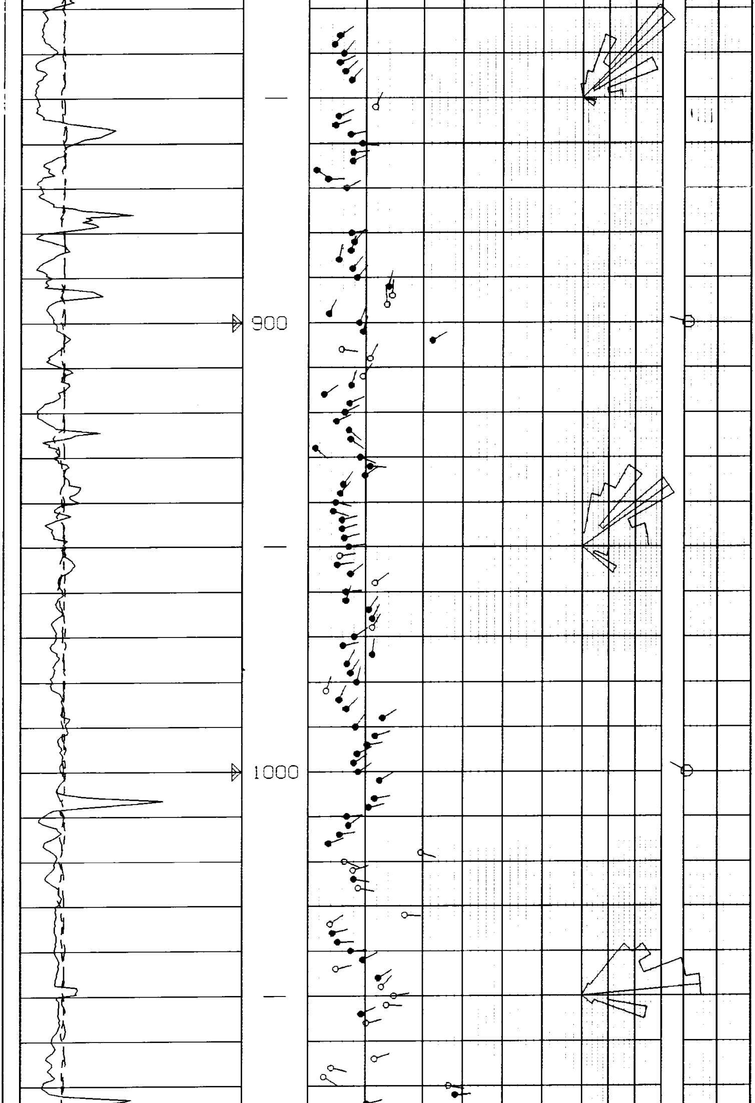
SEARCH ANGLE 30 DEGREES X2

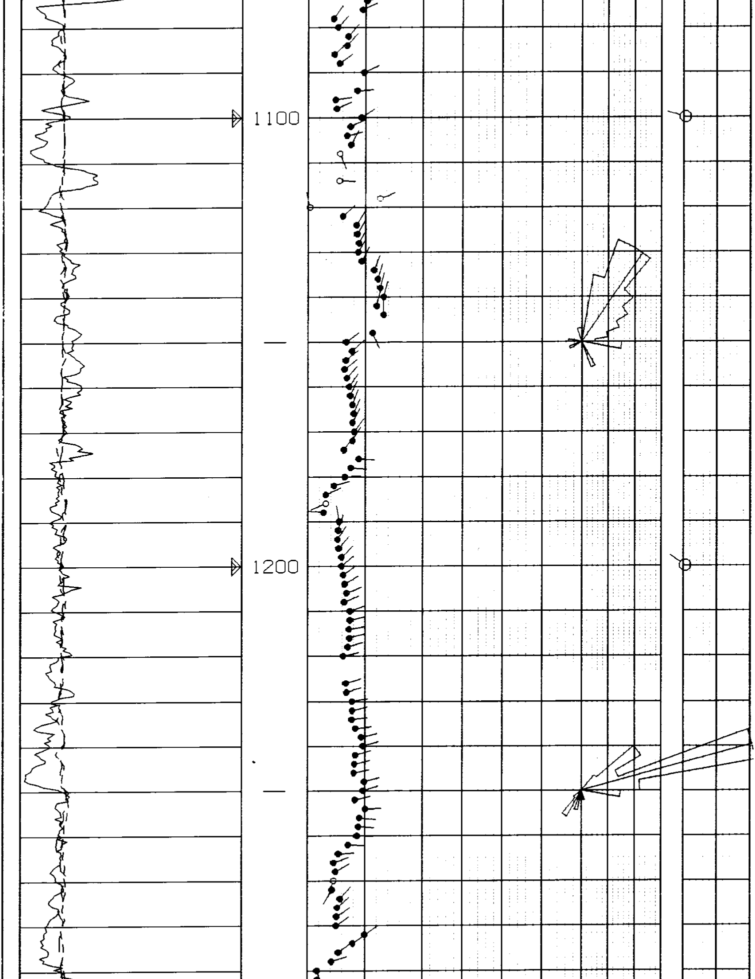
PC0130023518307001020420

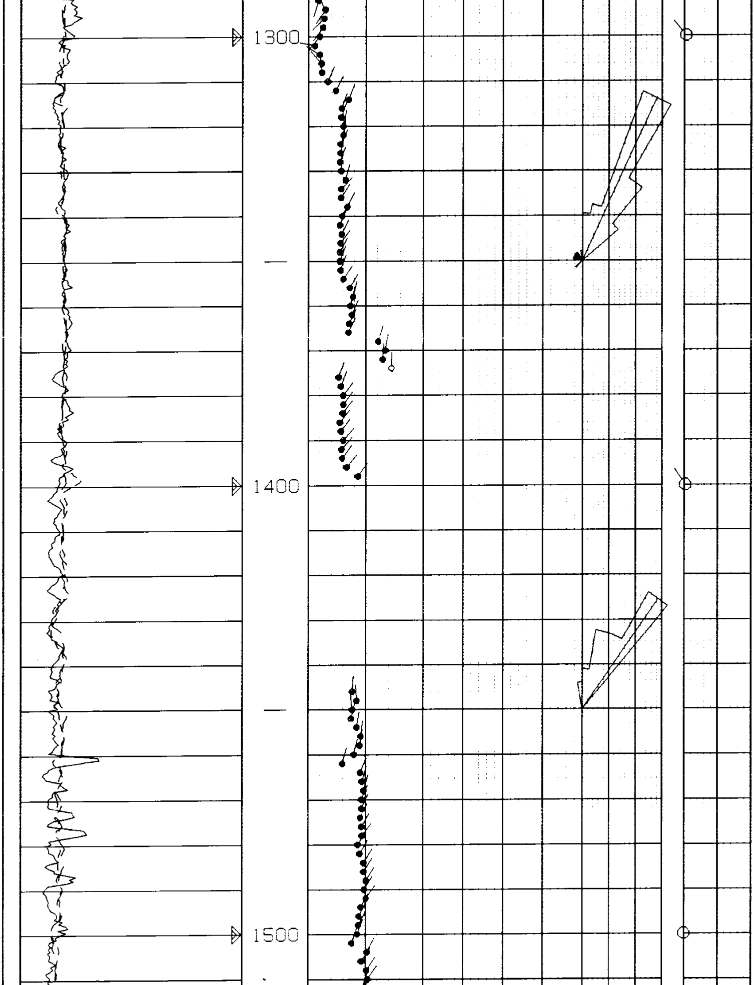
ZONE FROM 510 TO 2808

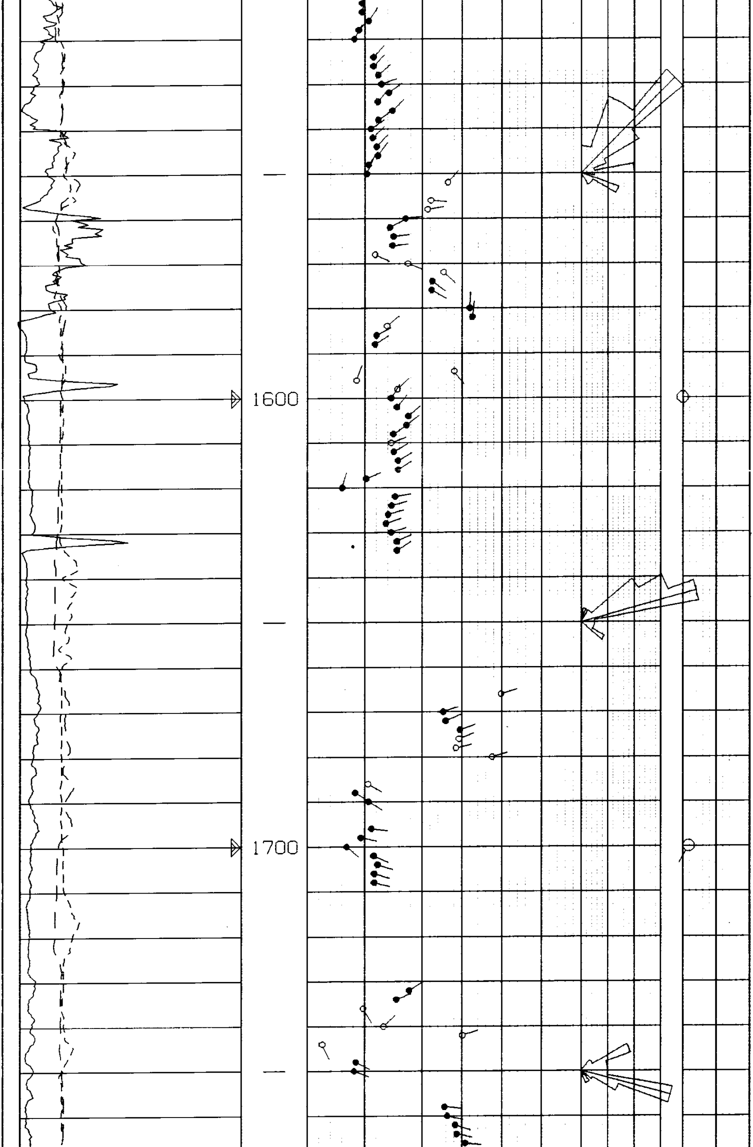












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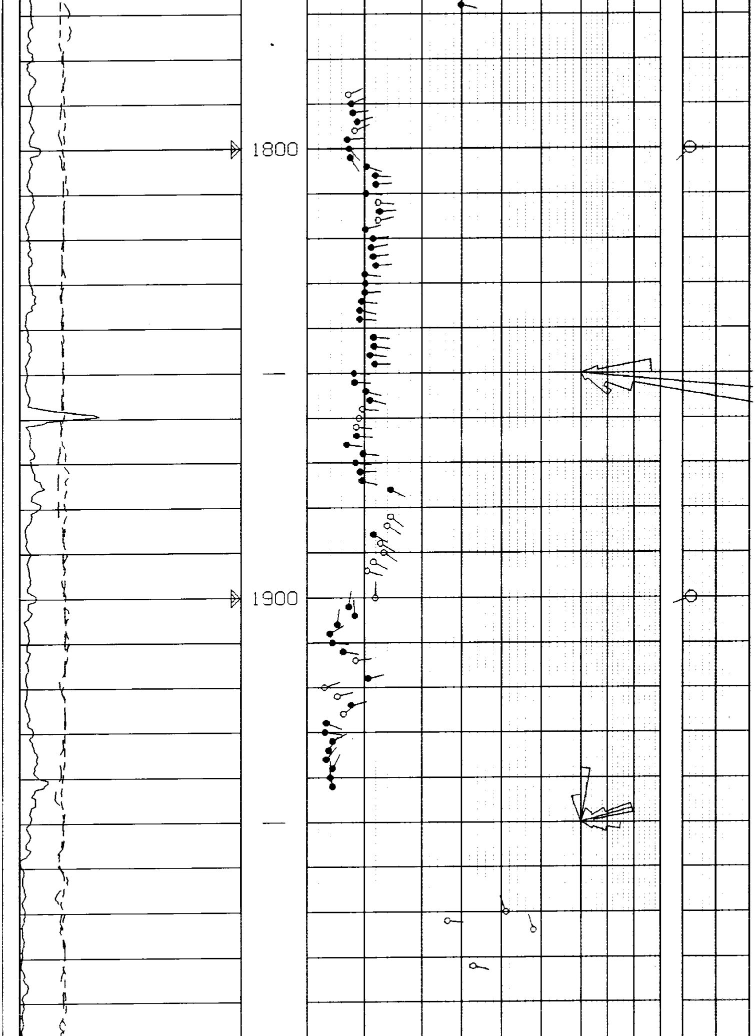

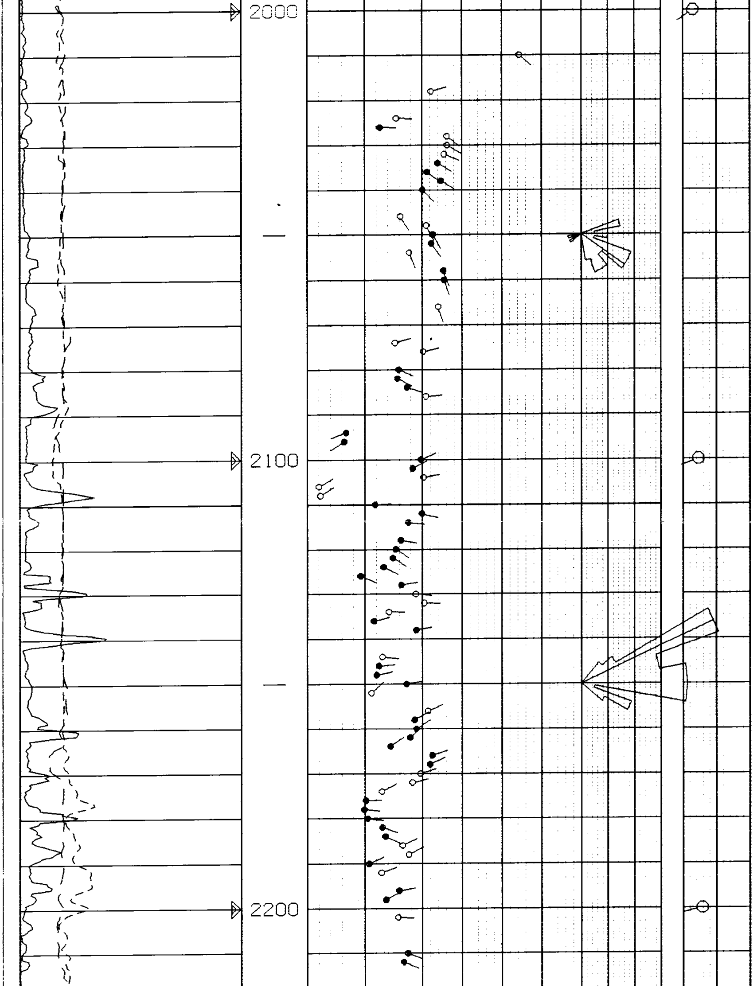

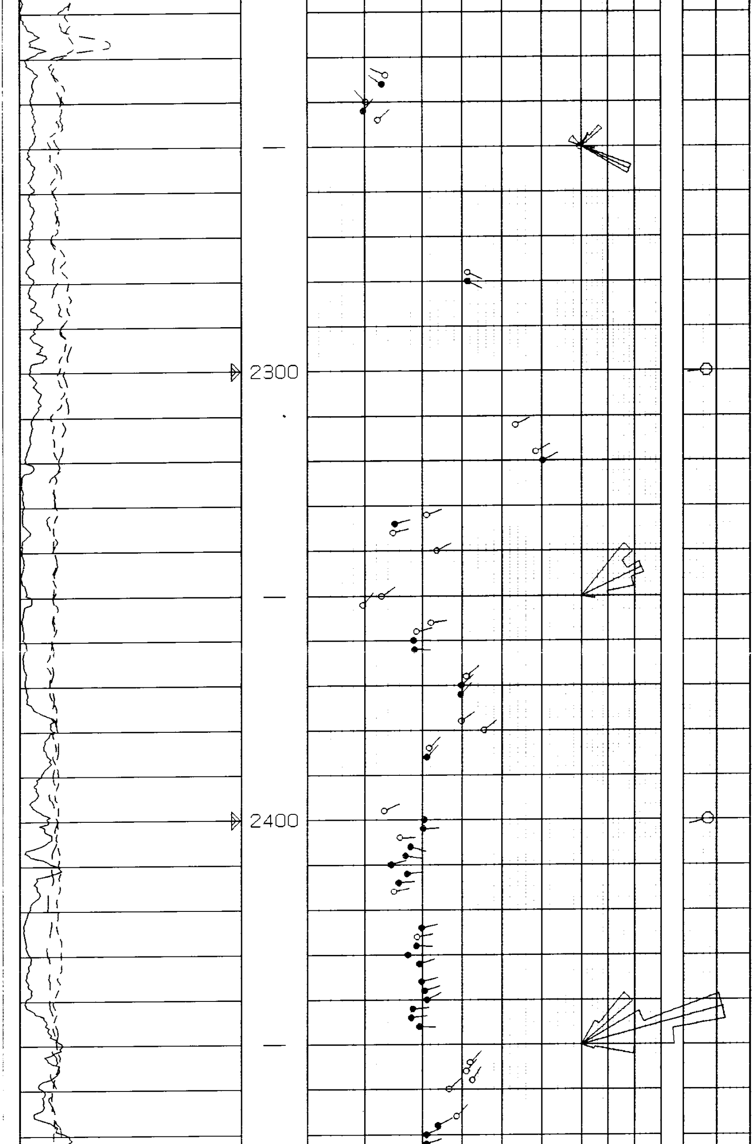

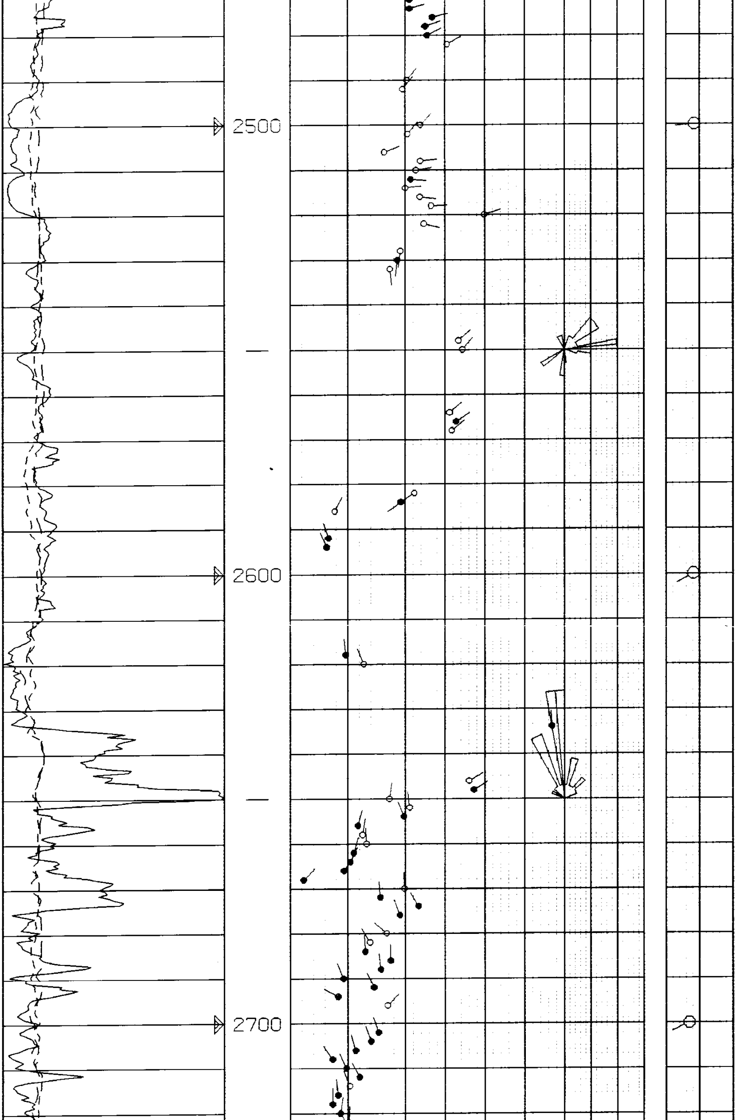

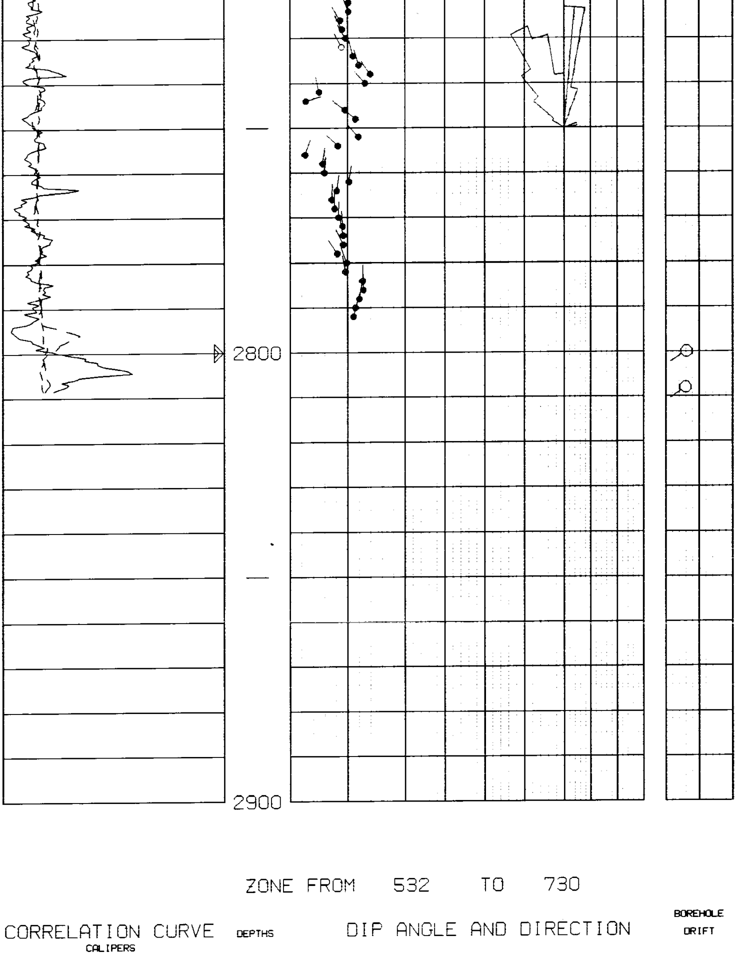

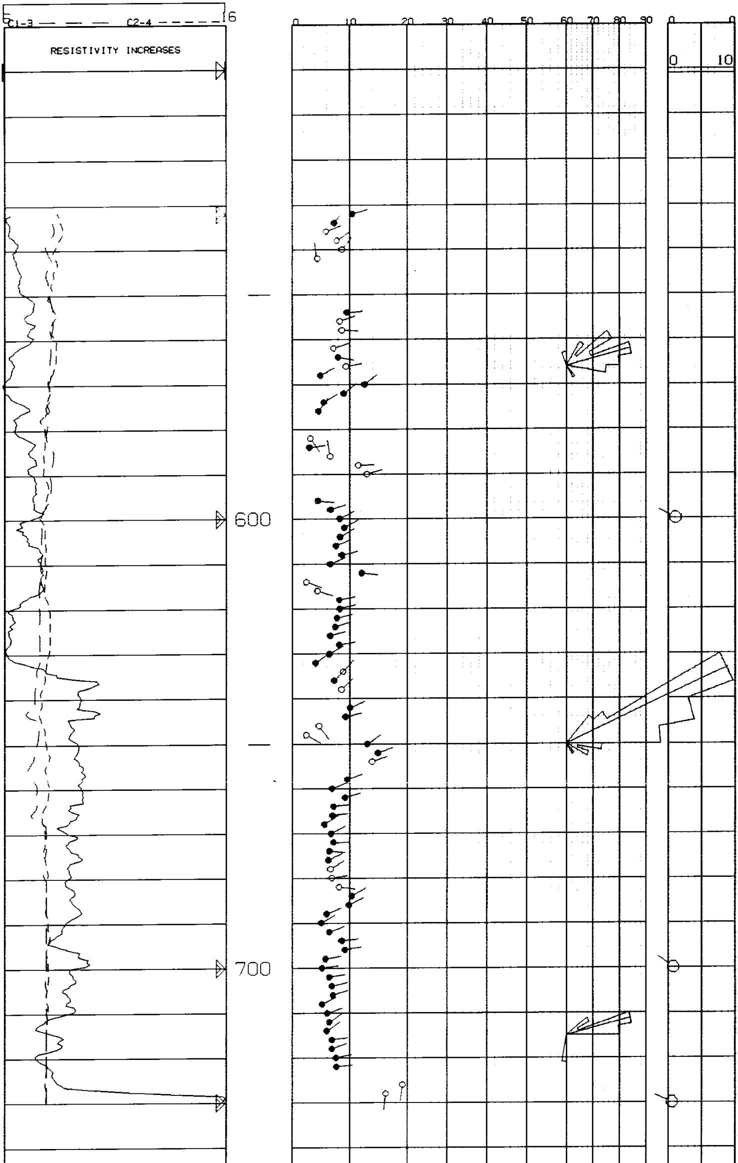

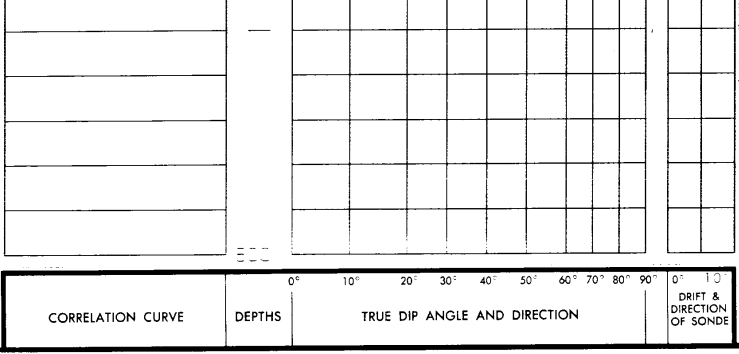

COMPANY REICHHOLD ENERGY CORP.	**Rm** 3.530 @ 56 °F	**SCHL. FR** 2814.0'	
WELL COLUMBIA COUNTY 13-34	**Rmf** 4.250 @ 50 °F	**SCHL. TD** 2823.0'	
FIELD MIST	**Rmc** 4.090 @ 54 °F	**DRLR TD** 2822.0'	
COUNTY COLUMBIA **STATE** OREGON	**BHT** 92 °F	**Elev:**	
		KB 1265.8'	
		DF N/A	
		GL 1254.4'	