Western Atlas International

ATLAS WIRELINE SERVICES

COMPUTED DIPLOG

FILE NO. BLAC 802.0
API NO. 36-009-00269

2" = 100'

COMPANY NORTHWEST NATURAL GAS CO.
WELL I.W. 23d - 3
FIELD MIST
COUNTY COLUMBIA STATE OREGON

LOCATION:
2475.11 ft East & 299.39 ft South
from the West 1/4 corner of
SEC 3 TWP 6-N RGE 5-W

Other Services
DIFL, BHC-AC
CDL CN-GR

Permanent Datum GL Elev. 1187.85
Log Measured from KB , 11.40 Ft Above Permanent Datum
Drilling Measured from KB

Elev.
KB 1199.25
DF ----
GL 1187.85

Date	10/15/91	10/21/91		
Run No.	1	2		
Service Order	66915	66917		
Depth - Driller	2730.0	3079.0		
Depth - Logger	2717.0	3071.0		
Bottom Logged Interval	2714.0	3068.0		
Top Logged Interval	686.0	2710.0		
Casing - Driller	13.38 @ 684.0	8.63 @ 2715.0	@	@
Casing - Logger	NOT LOGGED	NOT LOGGED		
Bit Size	12.250	7.875		
Type Fluid in Hole	GEL/POLYMER	GEL/HEC 10		
Density and Viscosity	9.6 | 40.0	8.6 | 38.0		
pH and Fluid Loss	8.7 | 5.6cc	11.5 | 15.0cc	cc	cc
Source of Sample	FLOW	FLOW		
Rm @ Meas. Temp.	2.720 @ 79 F	0.297 @ 72 F	@ F	@ F
Rmf @ Meas. Temp.	2.970 @ 79 F	0.286 @ 72 F	@ F	@ F
Rmc @ Meas. Temp.	2.290 @ 79 F	0.315 @ 72 F	@ F	@ F
Source of Rmf and Rmc	MEAS | MEAS	MEAS | MEAS		
Rm @ BHT	2.130 @ 103 F	0.212 @ 101 F	@ F	@ F
Time Since Circ.	10.00	9.00		
Max. Rec. Temperature	103 F	101 F	F	F
Equip. No.and Location	6399 | BAK	6399 | BAK		
Recorded By:	TORGERSON	TORGERSON		
Witnessed By:	MR. ROTH	MR. ROTH		

FOLD HERE

In making interpretations of logs our employees will give Customer the benefit of their best judgment, but since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or the correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the Customer resulting from any interpretation made by any of our employees.

Remarks:
SL = 8", 18" & 36" from 688-3068'
2 ft STEP, 8 ft WINDOW

From 2700-2720 no data is available....RUN 1 & RUN 2 do not overlap

EQUIPMENT DATA

	RUN NO. 1	RUN NO. 2	RUN NO.	RUN NO.
Tool Series No.	78387	78387		
Tool Serial No.	1016	1016		
Orientation Type				
OR. Serial No.				
Panel Series No.				
Panel Serial No.				
Electronics No.	72657	72657		
Tape Unit Series No.				
Tape Unit Serial No.				
Analyst	JOHNSON	JOHNSON		

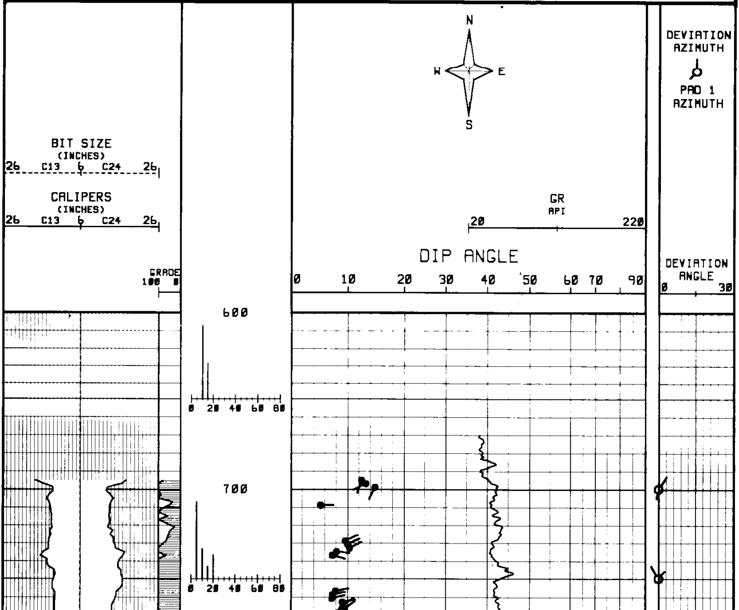
MAGNETIC DECLINATION 20 EAST

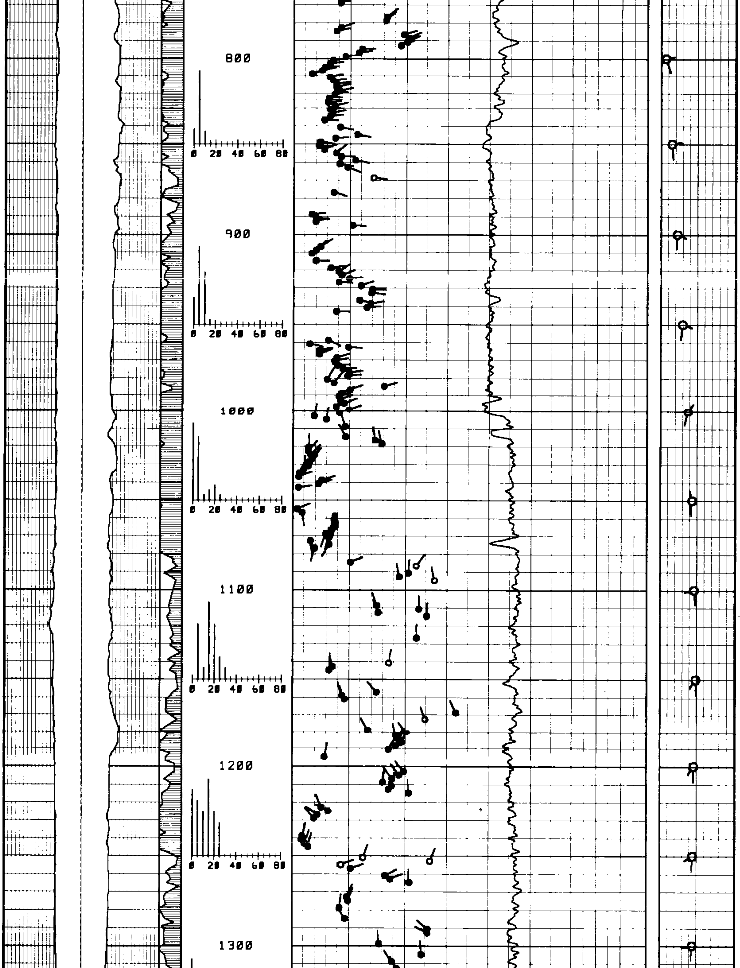
VERTICAL DISPLACEMENT FOR VARIOUS HORIZONTAL DISTANCES AND ANGLES OF DIP

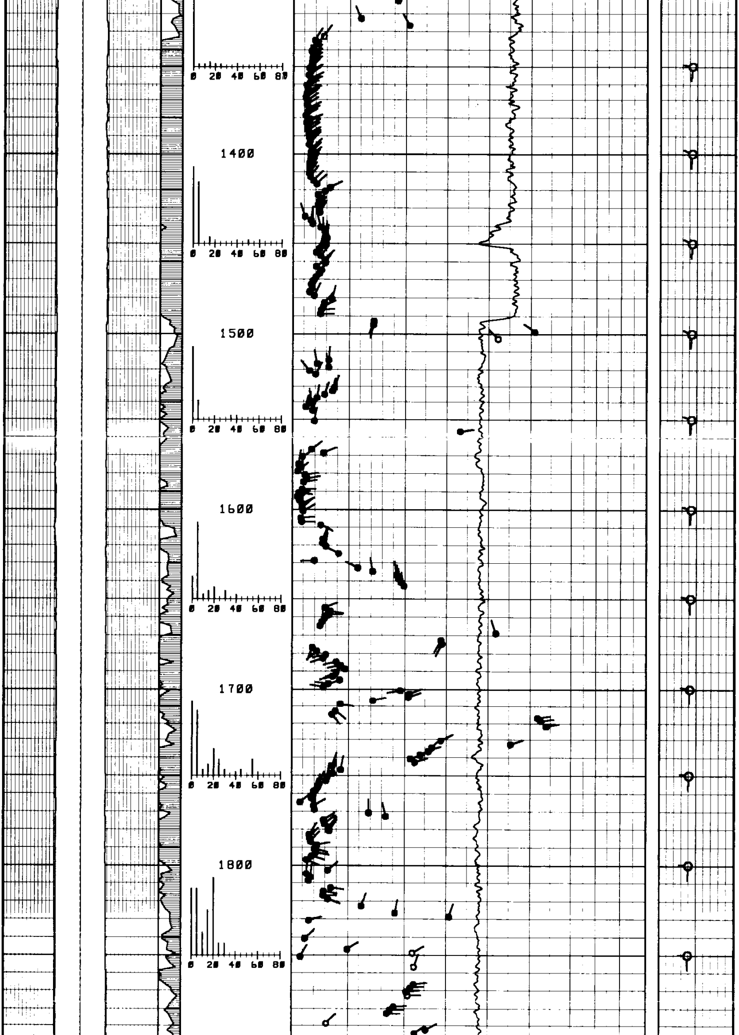
DIP In degrees	100	1000	5280	DIP In degrees	100	1000	5280
1	1.75	17.5	92.2	19	34.4	344	1818
2	3.50	35.0	184.0	20	36.4	364	1922
3	5.20	52.0	277.0	21	38.4	384	2022
4	7.00	70.0	369.0	22	40.4	404	2133
5	8.80	88.0	462.0	23	42.5	425	2241
6	10.50	105.0	555.0	24	44.5	445	2351
7	12.30	123.0	648.0	25	46.6	466	2462
8	14.10	141.0	742.0	30	57.7	577	3048
9	15.80	158.0	836.0	35	70.0	700	3697
10	17.60	176.0	931.0	40	83.9	839	4430
11	19.40	194.0	1026.0	45	100.0	1000	5280
12	21.30	213.0	1112.0	50	119.2	1192	6291
13	23.10	231.0	1219.0	55	142.8	1428	7500
14	24.90	249.0	1316.0	60	173.2	1732	9145
15	26.80	268.0	1415.0	65	214.4	2144	11323
16	28.70	287.0	1514.0	70	274.8	2748	14507
17	30.60	306.0	1614.0	75	373.2	3732	19705
18	32.50	325.0	1716.0	80	567.1	5671	29945

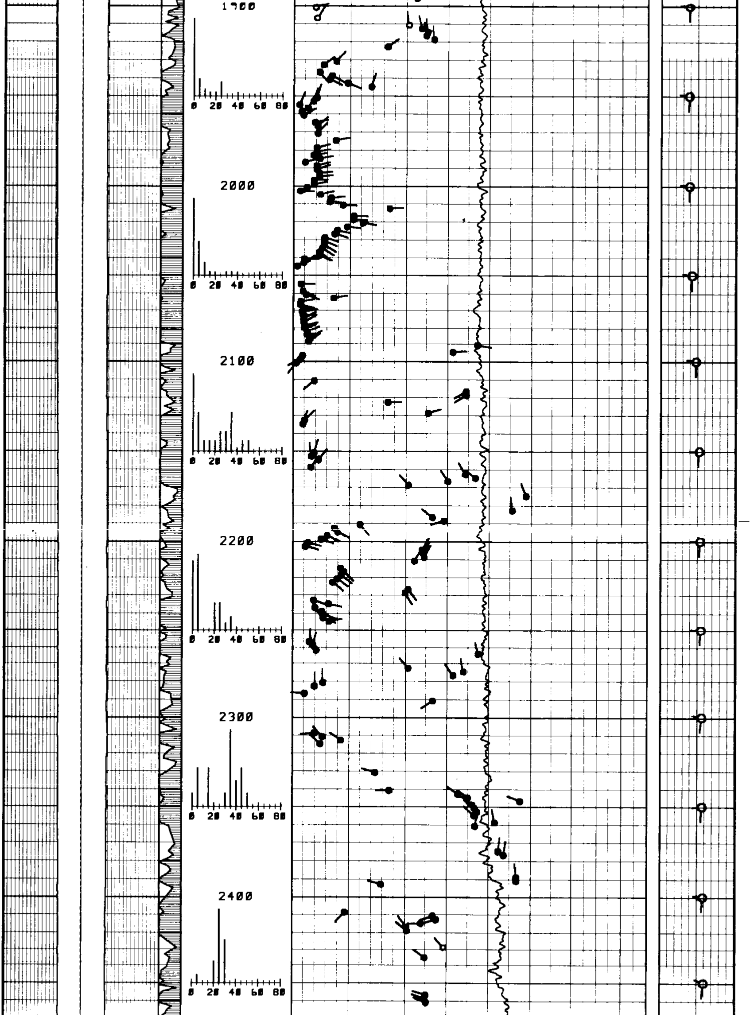
GRAPHIC PRESENTATION

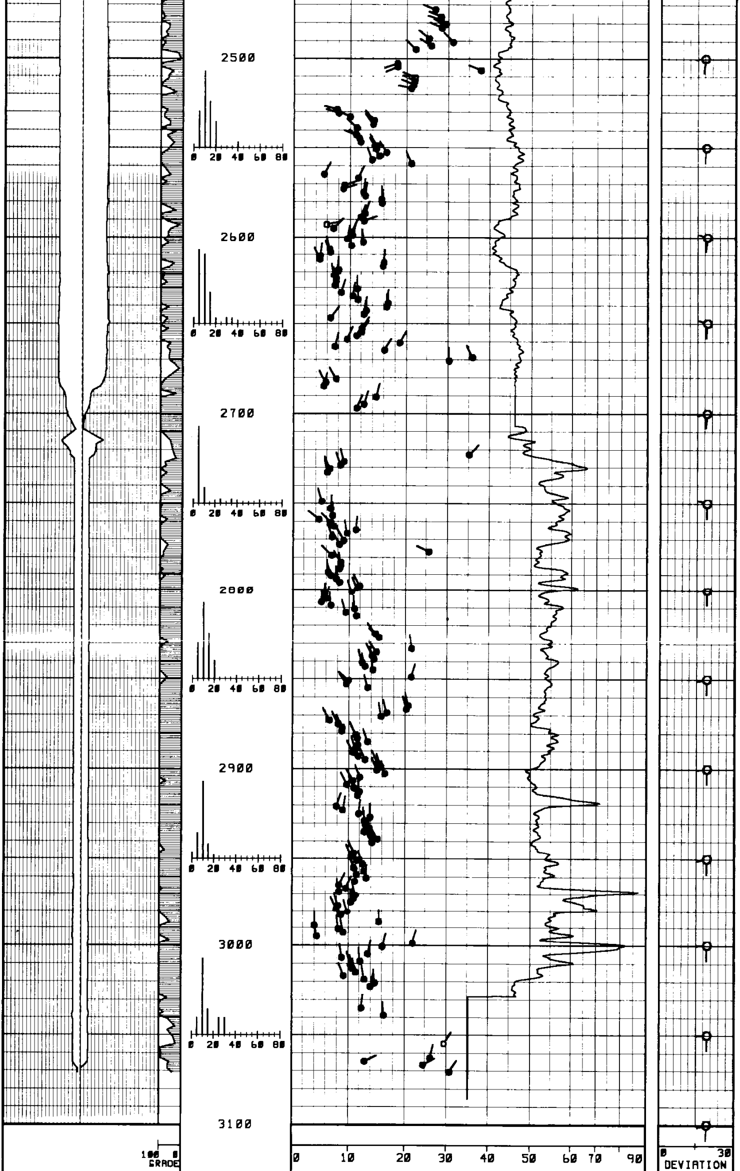
FAIR ○— EXCELLENT ●—











DIP ANGLE

ANGLE

26 C13 6 C24 26
(INCHES)
CALIPERS

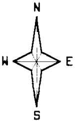
26 C13 6 C24 26
(INCHES)
BIT SIZE

20 220
API
GR

DEVIATION
AZIMUTH

PAD 1
AZIMUTH

Company	NORTHWEST NATURAL GAS CO.	**Drillers T.D.**	3079.0
Well	I.W. 23d - 3	**Log T.D.**	3071.0
Field	MIST	**Log F.R.**	3068.0
County	COLUMBIA	**Elevations**	
State	OREGON	K.B. 1199.25 DF. ----	G.L. 1187.85



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PAD 1
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BIT SIZE
(INCHES)
26 C13 6 C24 26

CALIPERS
(INCHES)
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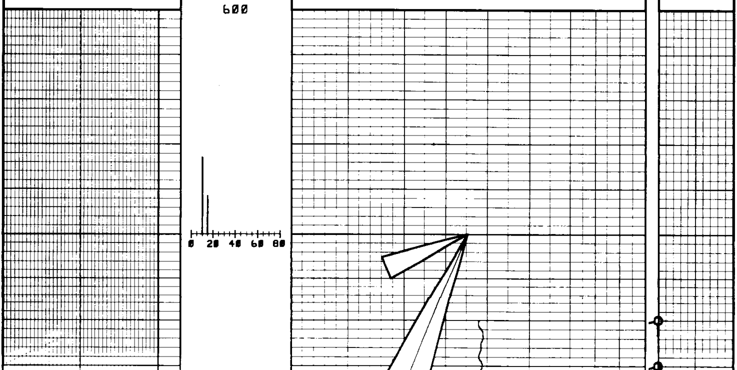
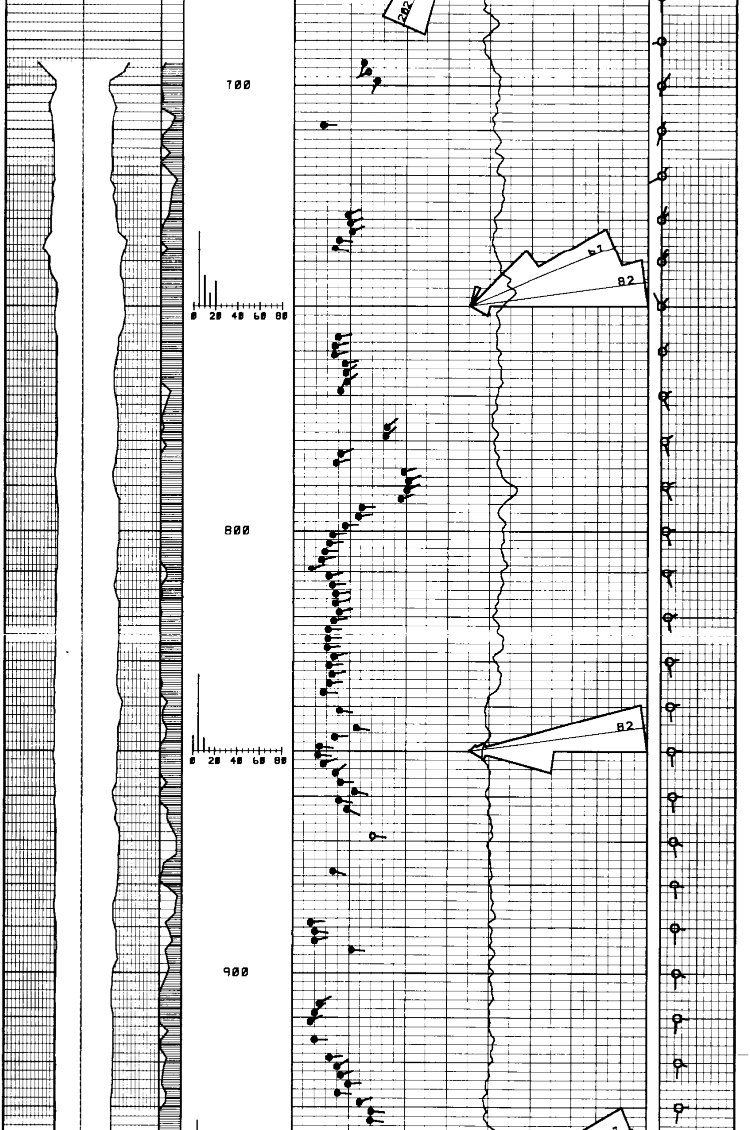
GR
API
20 220

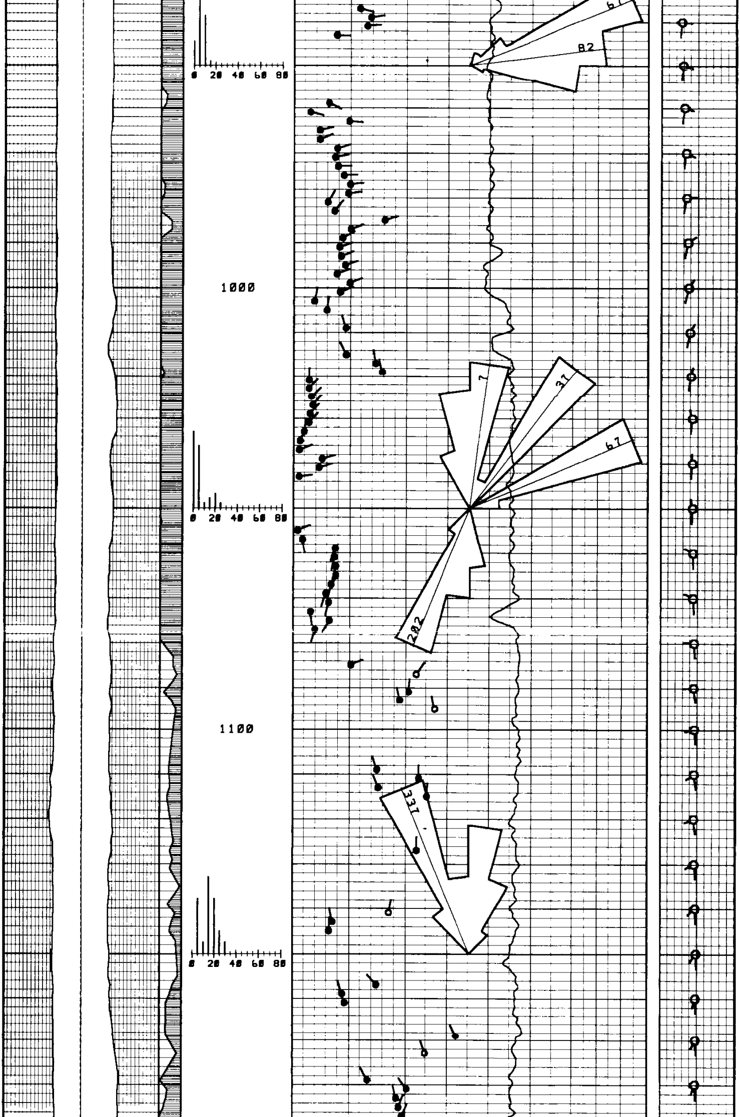
DIP ANGLE
0 10 20 30 40 50 60 70 90

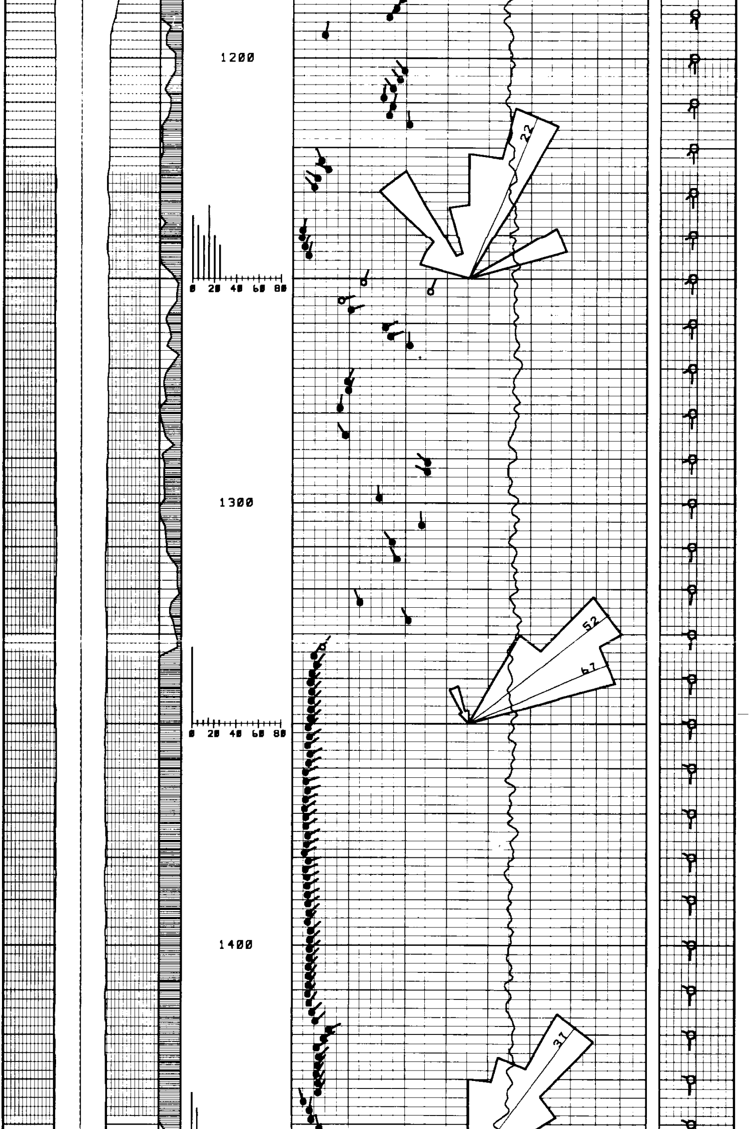
DEVIATION
ANGLE
0 30

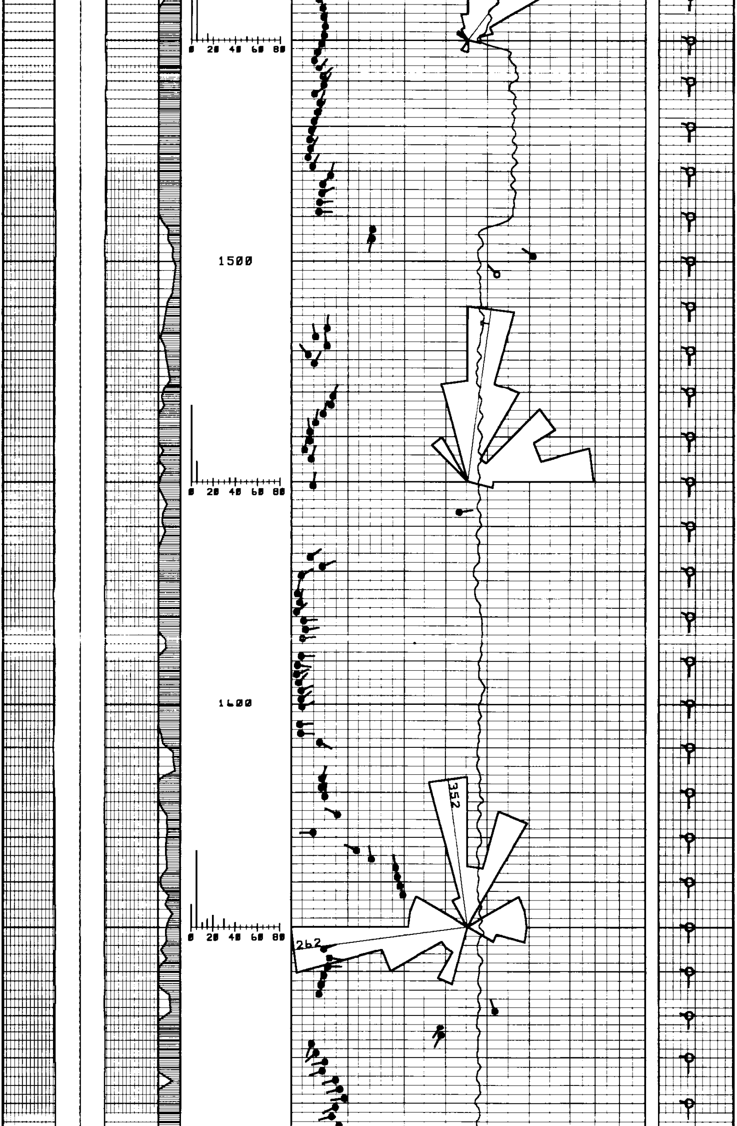
GRADE
100 0

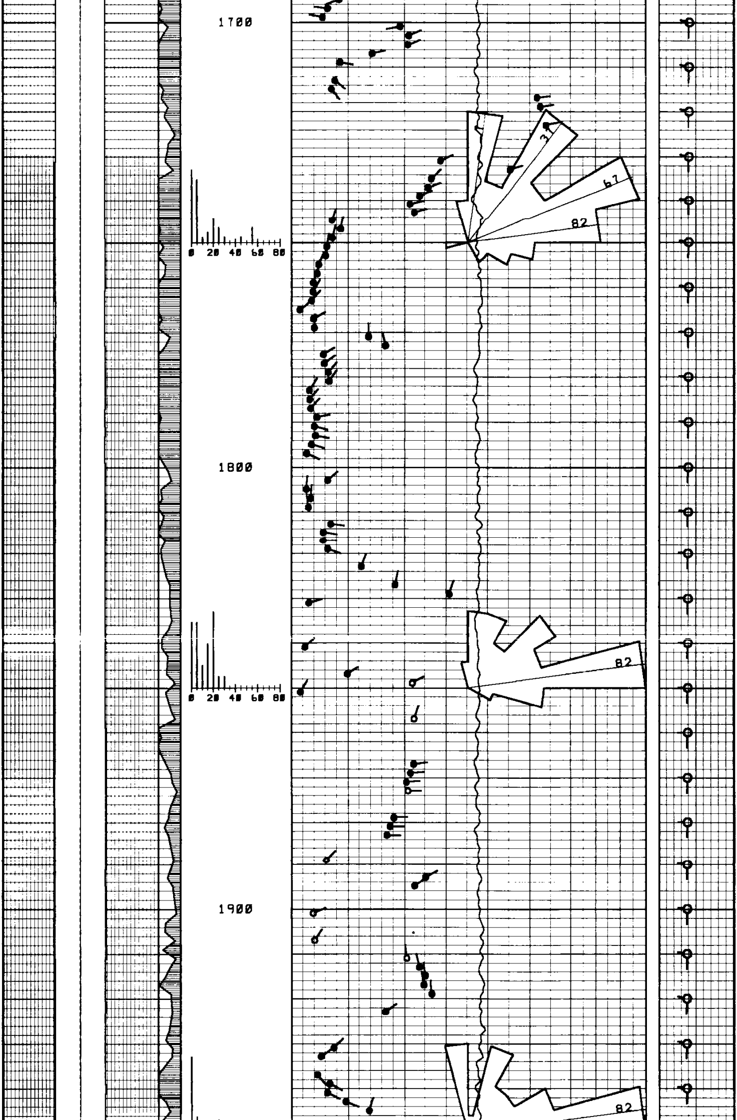


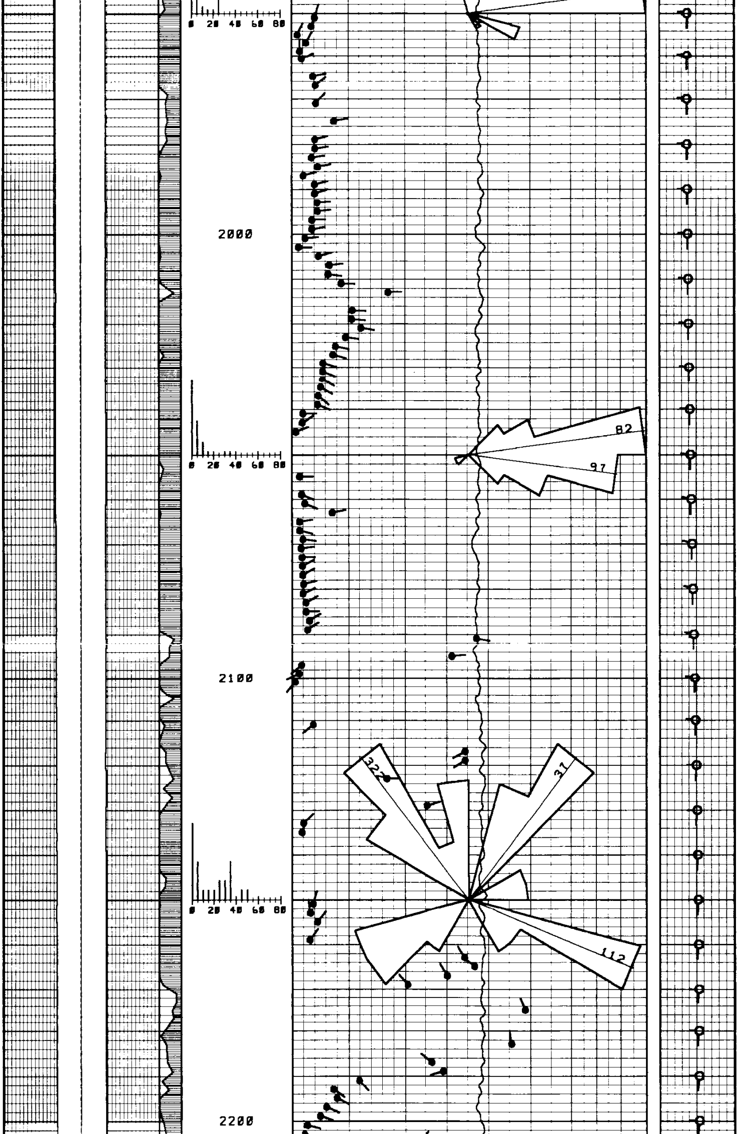


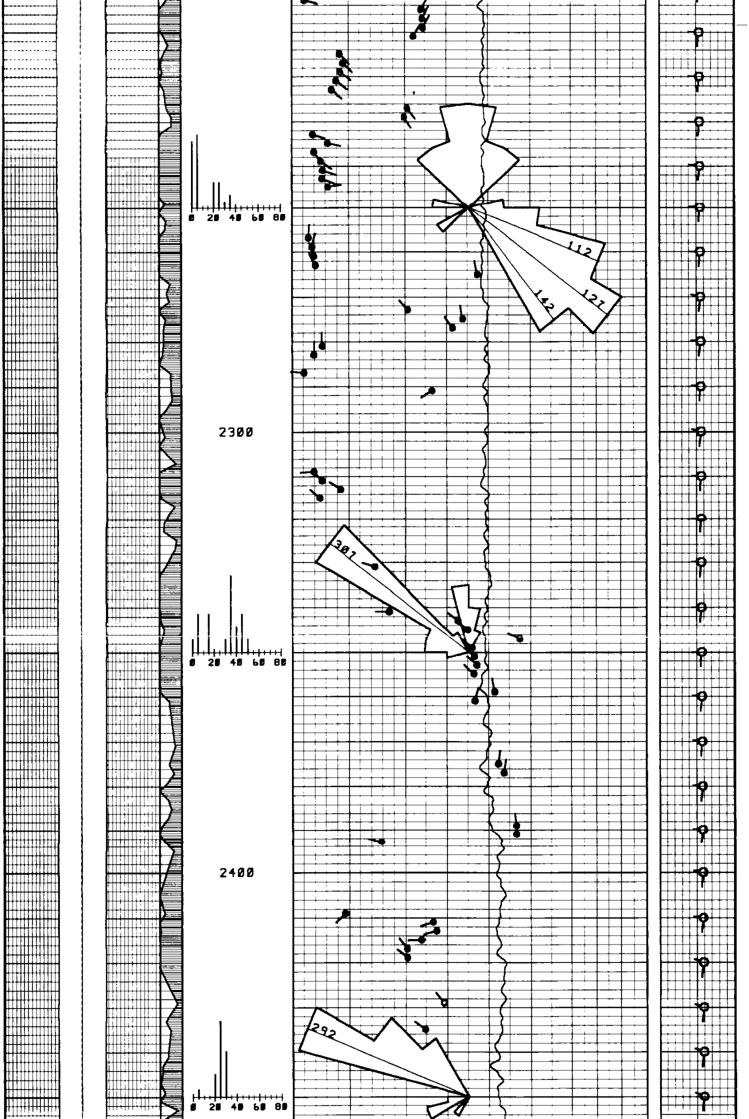


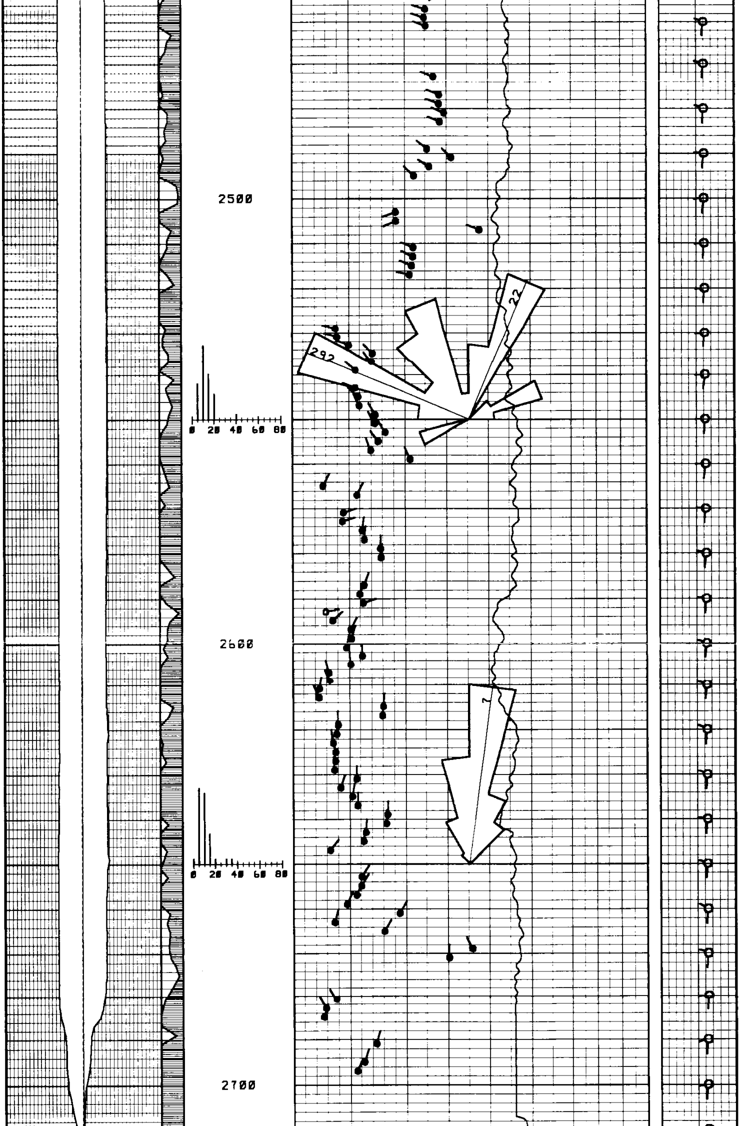


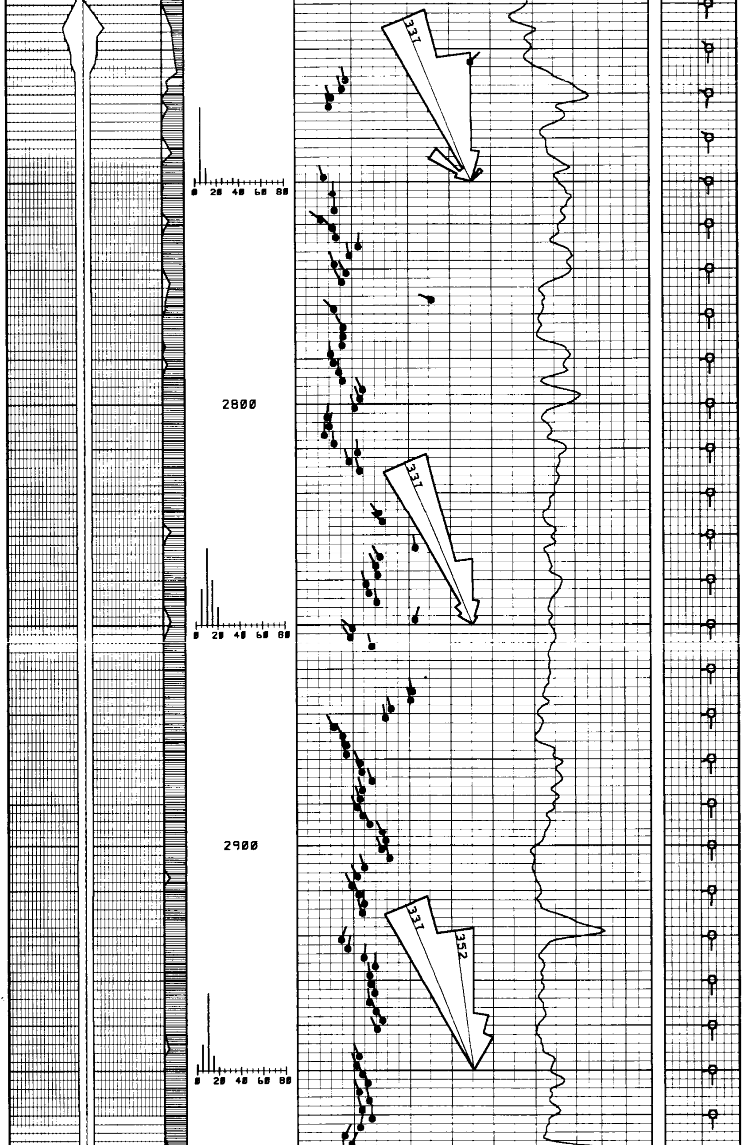


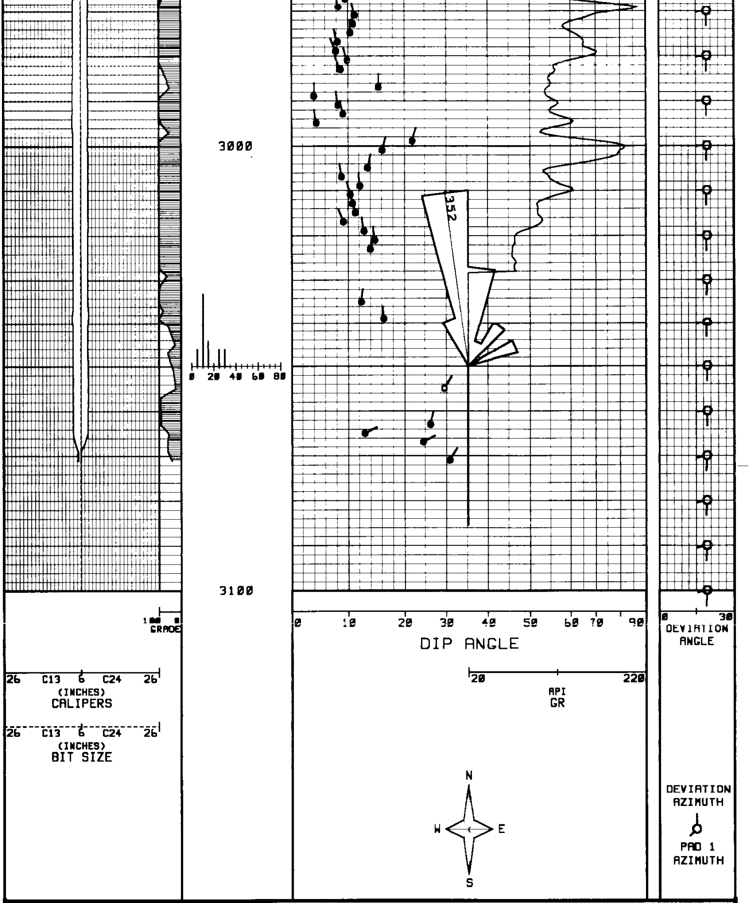












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