GL03106-2 of 10

Schlumberger

FOUR – ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER

COUNTY IMPERIAL
FIELD or LOCATION MESA ANOMALY
WELL MESA 31-1
COMPANY U.S. BUREAU OF RECLAMATION

COMPANY U.S. BUREAU OF RECLAMATION

WELL MESA 31-1

FIELD MESA ANOMALY

COUNTY IMPERIAL STATE CALIFORNIA

LOCATION: NORTHWEST QUARTER OF NORTHWEST QUARTER OF NORTHWEST QUARTER. SBB&M
Sec. 31 Twp. 15 S Rge. 17 E

Other Services:
DIL-LIN, BHC,
FDC-CNL-GR,
SARABAND

Permanent Datum: GL ; Elev.: 35
Log Measured From KB , 17 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 52
D.F.
G.L. 35

Date	6-20-74			
Run No.	ONE			
Depth—Driller	6230			
Depth—Logger	6220			
Btm. Log Interval	6220			
Top Log Interval	1666			
Casing—Driller	13 3/8" @1013	@	@	@
Casing—Logger	----			
Bit Size	10 5/8"			
Type Fluid in Hole	FGM			
Fluid Level	SURFACE			
Dens. | Visc.	68 | 43	|	|	|
pH | Fluid Loss	-- | -- ml	ml	ml	ml
Source of Sample	PIT			
R_m @ Meas. Temp.	2.88 @ 120°F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	2.88 @ 100°F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	1.0 @ 240°F	@ °F	@ °F	@ °F
Source: R_{mf} | R_{mc}	M | C	|	|	|
R_m @ BHT	1.44 @ 240°F	@ °F	@ °F	@ °F
Time Since Circ.	6 HOURS			
Max. Rec. Temp.	240 °F	°F	°F	°F
Equip. | Location	5614 | LB	|	|	|
Recorded By	AGUILAR			
Witnessed By	BRANSTETTER			

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

FOLD HERE

Reproduced By
Electrical Log Services
MIDLAND, TEXAS 79701

ELSI®

REFERENCE K 3525F

13

COMPLETION RECORD

SPUD DATE

COMP DATE

DST RECORD

API NO.

CASING RECORD

PERFORATING RECORD

ACID. FRAC SHOT

I P

GOR GR

T P C P

REMARKS:

REMARKS: Service Order No. Magnetic Declination 16°E

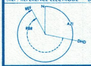
Run No.	1	2	3	4	ROLL NO.	INTERVAL
Tool Type	C				ONE	6220-1800
HDP	----					
DDR / TTR	-- / --					
DPI	F-36					
HDM	750					
HDE	714					
HDS	743					
Adapter Head						
UG / CG. / SAH						
5" Film / 10" Film / 60"Record						
Analog / Digital						
TIME Circulation Stopped						
TIME Schl. on Bottom						

(ELSI) REPRODUCTION FOR RESALE PROHIBITED

TOOL AZIMUTH AND HOLE DIRECTION CALCULATION

DEFINITIONS

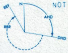
(DHD) HIGH SIDE OF TOOL	Direction from center of tool to upper side of tool.
(N) NORTH	Direction from center of tool to Magnetic North.
(REF) REFERENCE ELECTRODE	Direction from center of tool to #1 electrode.
(AZI) AZIMUTH OF REFERENCE ELECTRODE	Clockwise angle from N to REF.
(RBR) RELATIVE BEARING	Clockwise 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°



NOT USED

HIGH ANGLE UNIT ☐

EXAMPLE

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

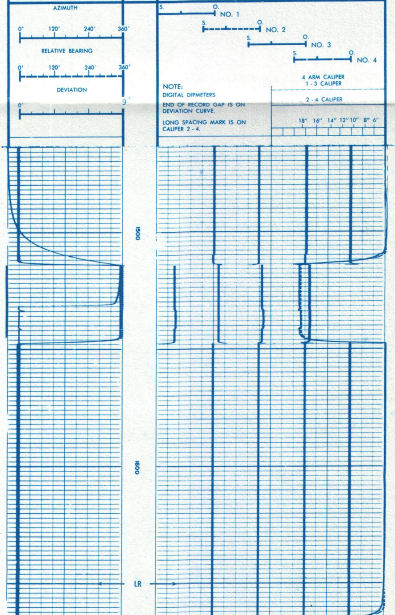
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 7 of our General Terms and Conditions as set out in our current Price Schedule.

ORIENTATION

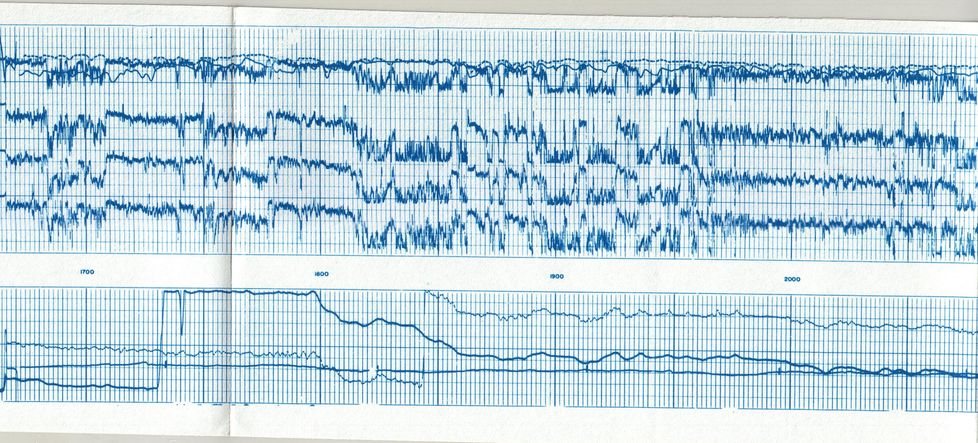
DEPTHS

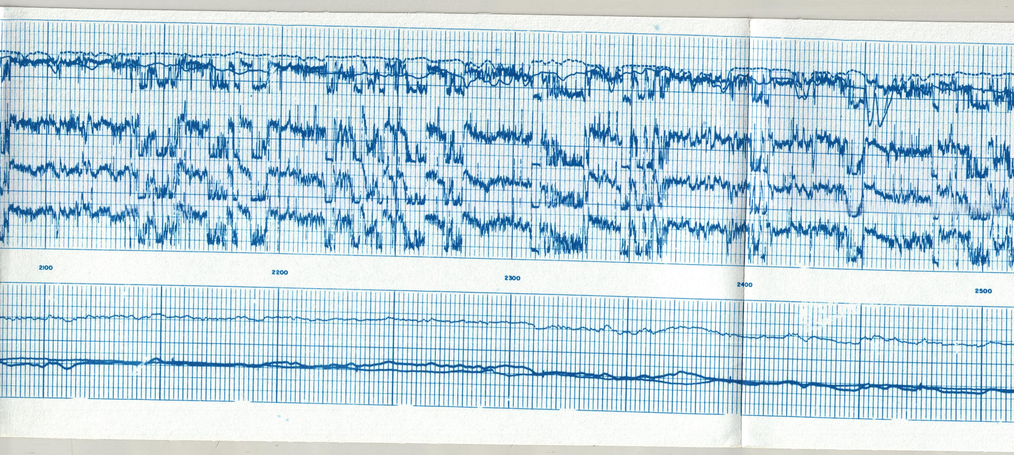
CORRELATION CURVES

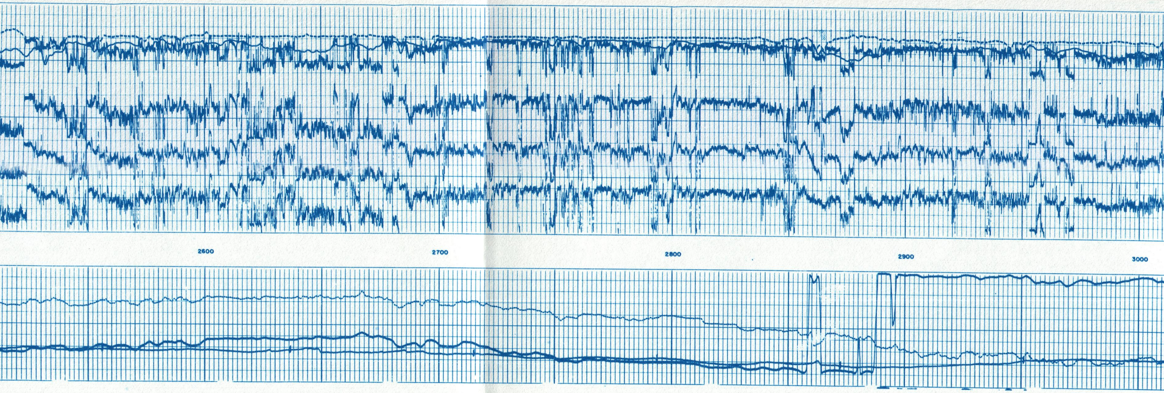
←CONDUCTIVITY

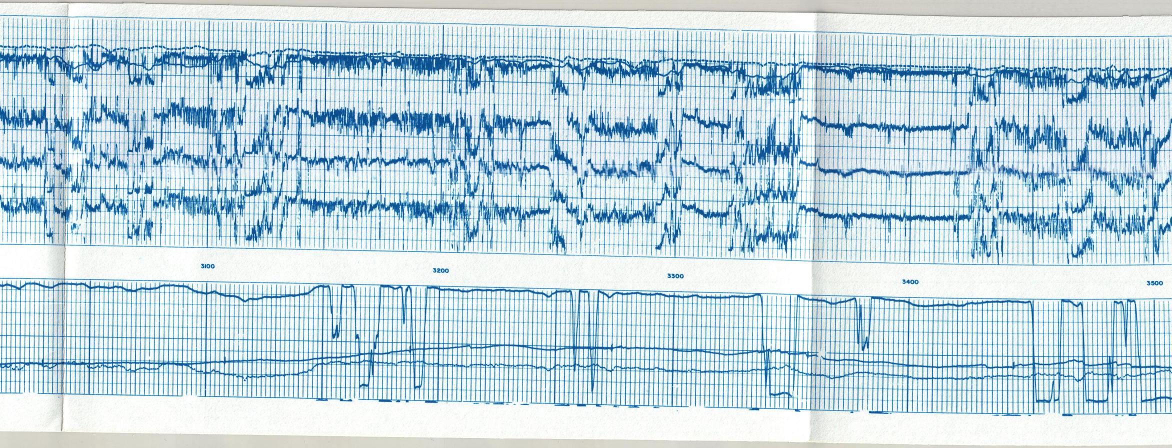


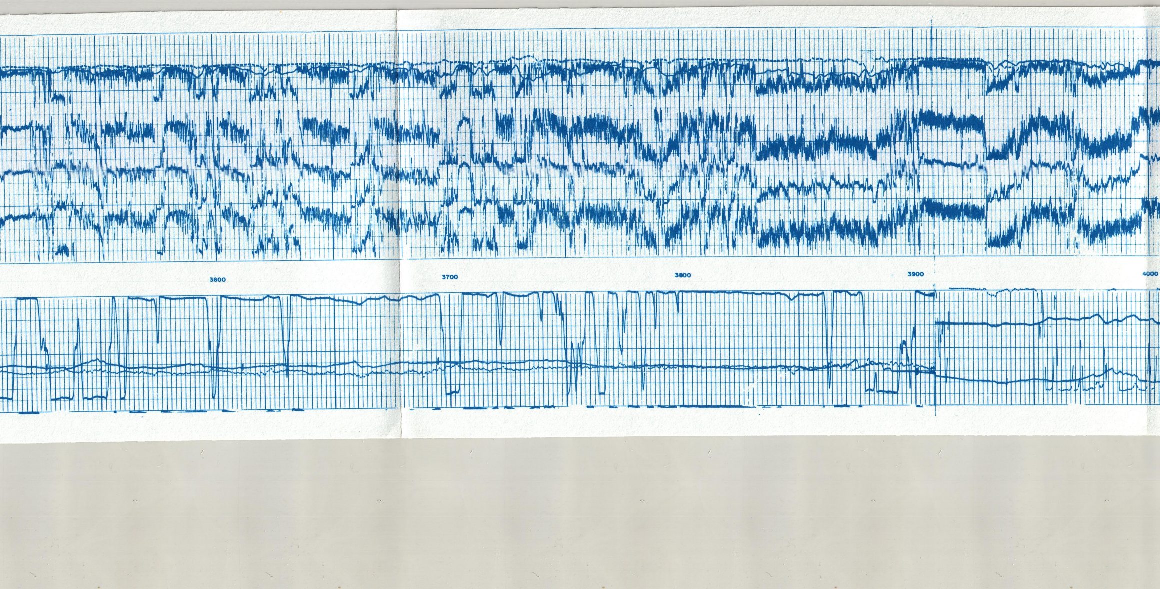
NOTE:
DIGITAL DIPMETERS
END OF RECORD GAP IS ON DEVIATION CURVE.
LONG SPACING MARK IS ON CALIPER 2 - 4.

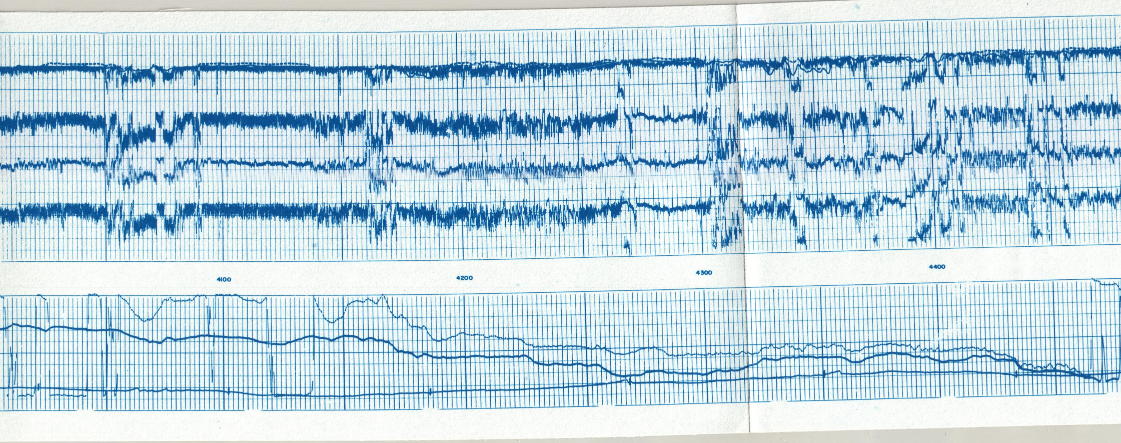


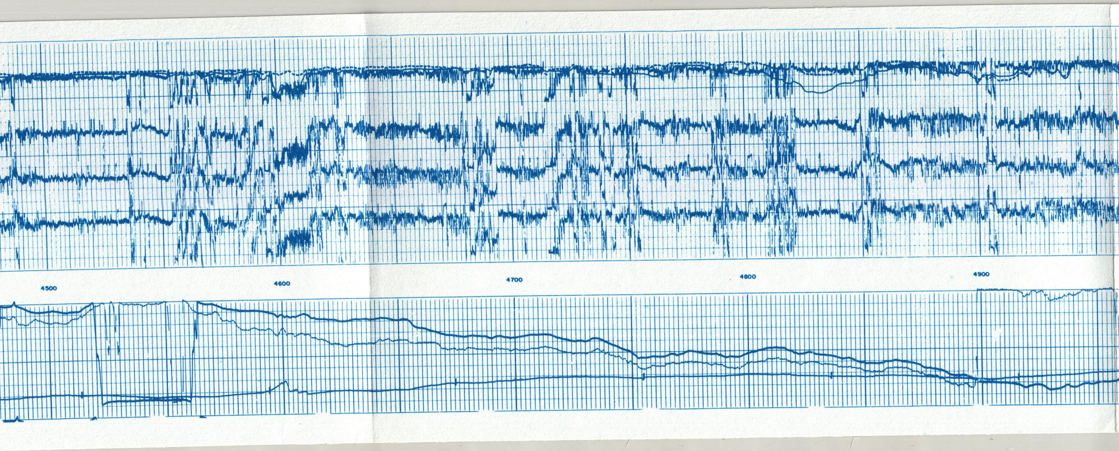


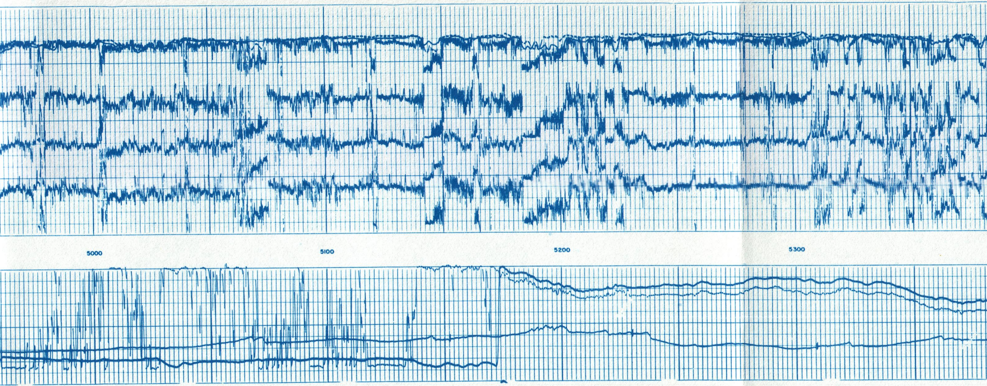


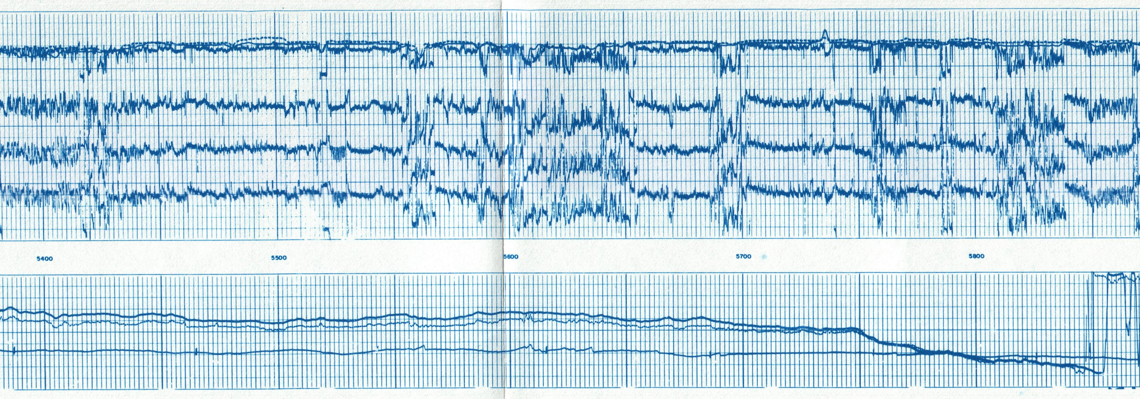


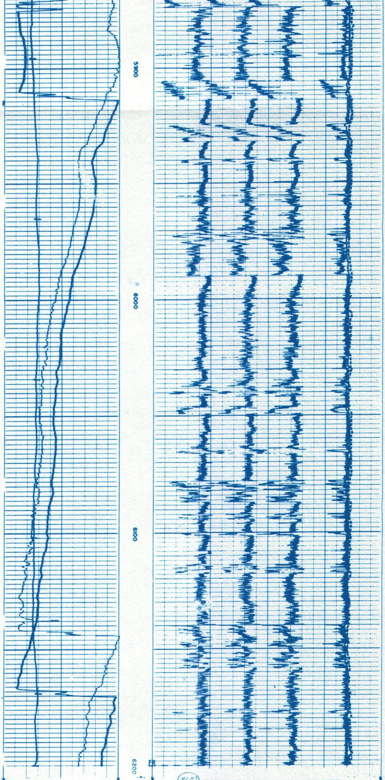












ELS REPRODUCTION FOR RESALE PROHIBITED

AZIMUTH

0° 120° 240° 360°

RELATIVE BEARING

0° 120° 240° 360°

DEVIATION

0° 9

S. O. NO. 1

S. O. NO. 2

S. O. NO. 3

S. O. NO. 4

NOTE:
DIGITAL DIPMETERS

END OF RECORD GAP IS ON DEVIATION CURVE.

LONG SPACING MARK IS ON CALIPER 2 - 4.

4 ARM CALIPER
1 - 3 CALIPER

2 - 4 CALIPER

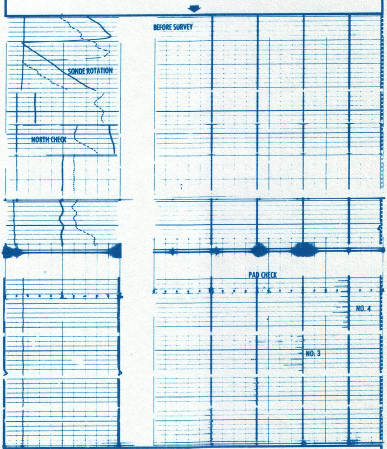
18″ 16″ 14″ 12″ 10″ 8″ 6″

ORIENTATION

DEPTHS

CORRELATION CURVES
← CONDUCTIVITY

CALIBRATION RECORD



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

CALIBRATION RECORD

COMPANY U.S. BUREAU OF RECLAMATION

WELL MESA 31-1 ROLL NO. ONE

FIELD MESA ANOMALY DEPTH INTERVAL THIS ROLL

COUNTY IMPERIAL STATE CALIFORNIA From 6220 To 1800