GL 04469-8

SIMULTANEOUS

Schlumberger

COMPENSATED NEUTRON-FORMATION DENSITY

COUNTY
FIELD
LOCATION
WELL SODA LAKE
COMPANY CHEVRON U.S.A., INC

COMPANY CHEVRON U.S.A., INC.

WELL 44-5 SODA LAKE

FIELD FALLON

COUNTY CHURCHILL STATE NEVADA

LOCATION 2441.5' SOUTH & 2200' EAST FROM THE NORTHWEST CORNER OF NE-NE-SE

API SERIAL NO.	SEC.	TWP.	RANGE
	5	19N	26E

Other Services:
DIL
LSS
HRT
HDT

Permanent Datum GL , Elev. 3988.5
Log Measured From KB N/A Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. N/A
D.F. - -
G.L. 3988.5

Date	1-11-78			
Run No.	ONE			
Depth - Driller	4975			
Depth - Logger	4981			
Btm. Log Interval	4980			
Top Log Interval	535			
Casing - Driller	7" @ 535	@	@	@
Casing - Logger	535			
Bit Size	6¼"			
Type Fluid in Hole	LIGNITE			
Dens. | Visc.	70 | 45			
pH | Fluid Loss	9.0 | 10.6 ml	ml	ml	ml
Source of Sample	CIRCULATED			
Rm @ Meas. Temp.	1.32 @ 79°F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	2.10 @ 39°F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	1.98 @ 79°F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | C			
Rm @ BHT	0.59 @ 175°F	@ °F	@ °F	@ °F
TIME Circulation Stopped	0900			
TIME Logger on Bottom	0330			
Max. Rec. Temp.	175°F	°F	°F	°F
Equip. | Location	7763 | SAC			
Recorded By	BRASFIELD			
Witnessed By Mr.	LANE/HILL/SIKBA/LOVETTI			

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

FOLD HERE

Reproduced By
Electrical Log Services
MIDLAND, TEXAS 79701

REFERENCE K 2634W

P I

14 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:

Ⓡ REPRODUCTION FOR RESALE PROHIBITED

RUN NO.		ONE			
Service Order No.		27463			
Fluid Level		FULL			
Salinity, PPM CL		- -			
Speed - F.P.M.		1900			
EQUIPMENT DATA					
Dens. Panel		OC-365			
Dens. Cart.		G- 260			
Dens. Skid.		E- 277			
Dens. Sonde		FD-472			
Dens. Source		5199			
Dens. Calibrator		1241			
Neut. Panel		BA- 39			
Neut. Cart.		A- 409			
Neut. Source		495			
Neut. Calibrator		AB-594			
GR Cart.		199			
Memorizer Panel		CA-524			
Tape Recorder (TTR)		N-1940			
Depth Encoder (DRE)		C-1822			
Pressure Wheel (CPW)		H-2978			
Centralizers: Enter Spring, Standoffs, In-line, or None	Type	- -			
	No.	0			
	S. D. — Inches	- -			
CALIBRATION DATA					
GR	BKG. CPS	68			
	Source CPS	288			
	Sens. - Cal	150			
	T. C. - Cal	2			
CNL	Short Spacing - Before Log	350			
	Long Spacing - Before Log	155			
	Short Spacing - After Log	351			
	Long Spacing - After Log	156			
FDC	P¹ — Before Log	98.9			
	P² — Before Log	199			
	P¹ — After Log	99			
	P² — After Log	199			

Type log	Depth		

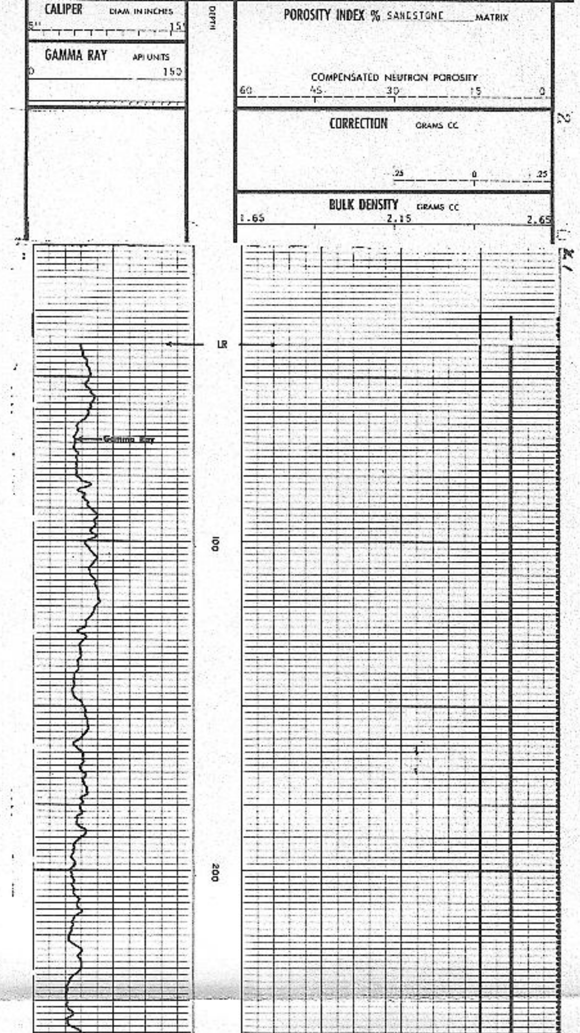
REMARKS:

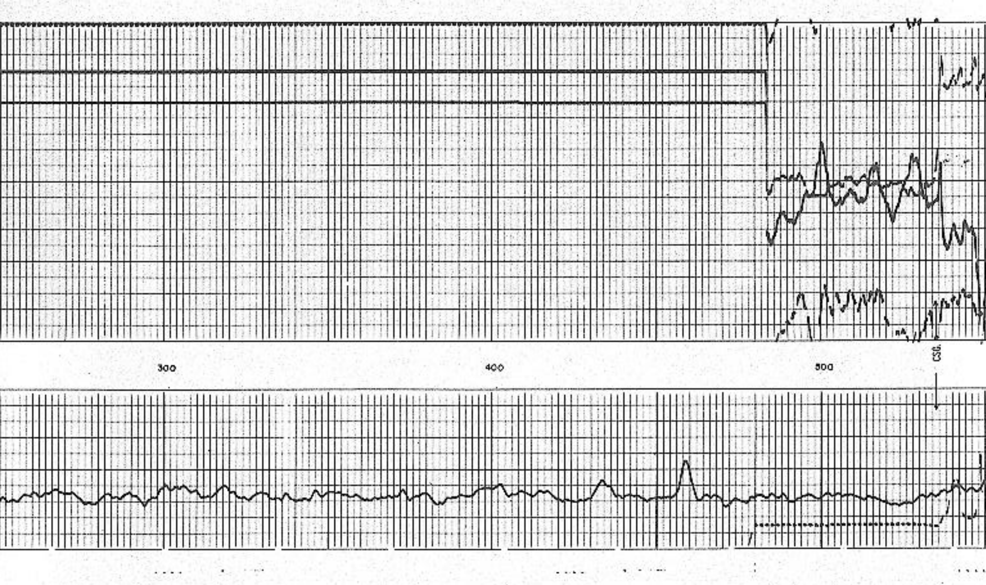
GR RECORDED INTO CASING

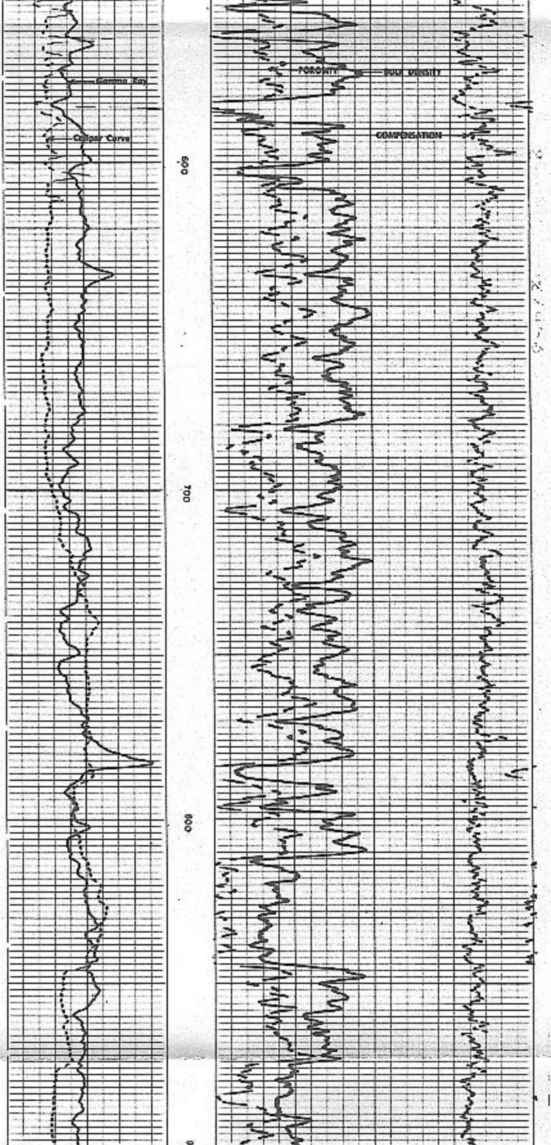
LOGGING DATA

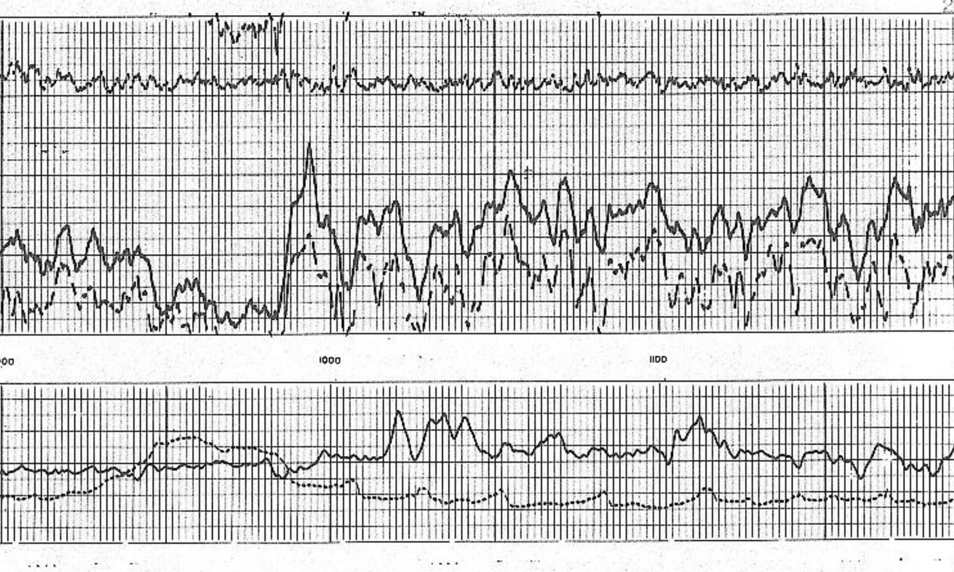
DEPTH		CNP			FDC				GR			
Top	Bottom	Porosity Scale	Matrix	Auto Corr. or Hole Size Setting	Porosity Scale	Grain Density	Liquid Density	Hole Fluid	Sens. Logged	T. C.	Zero Div. Left	Scale Per 100 Div.
40	4981	60-0	55	AUTO	60-0	2.65	1.00	LIQ	150	2	0	150

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 wilful 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.









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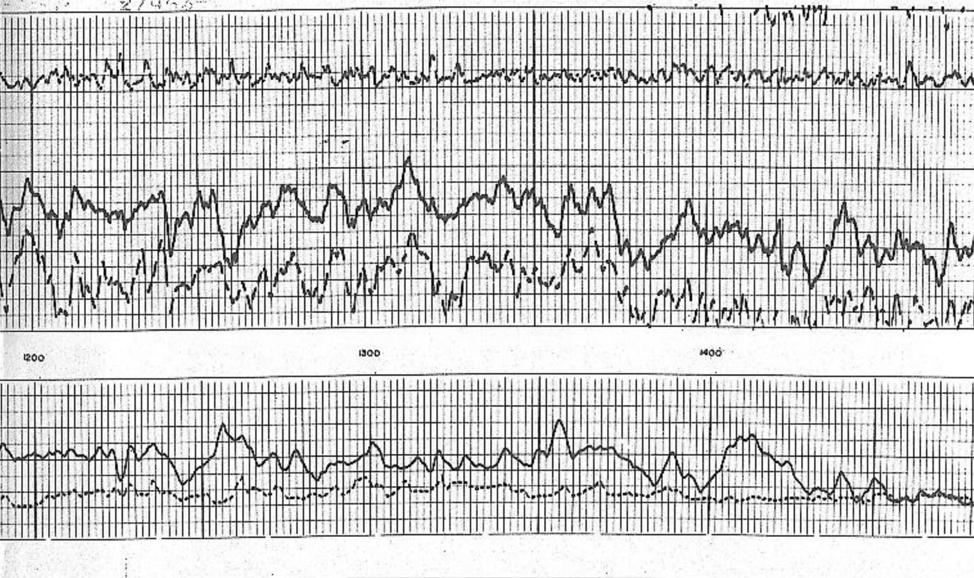
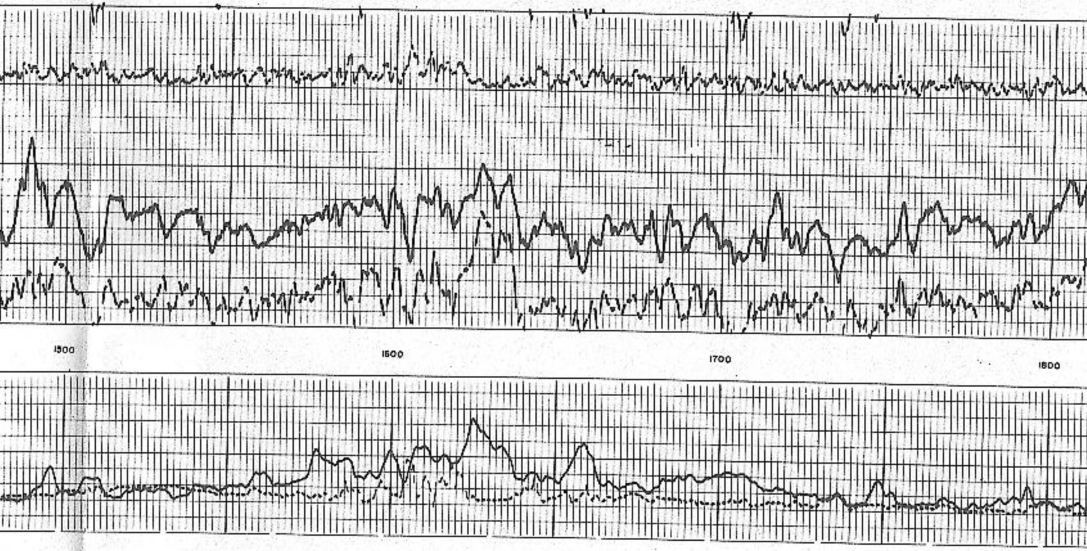
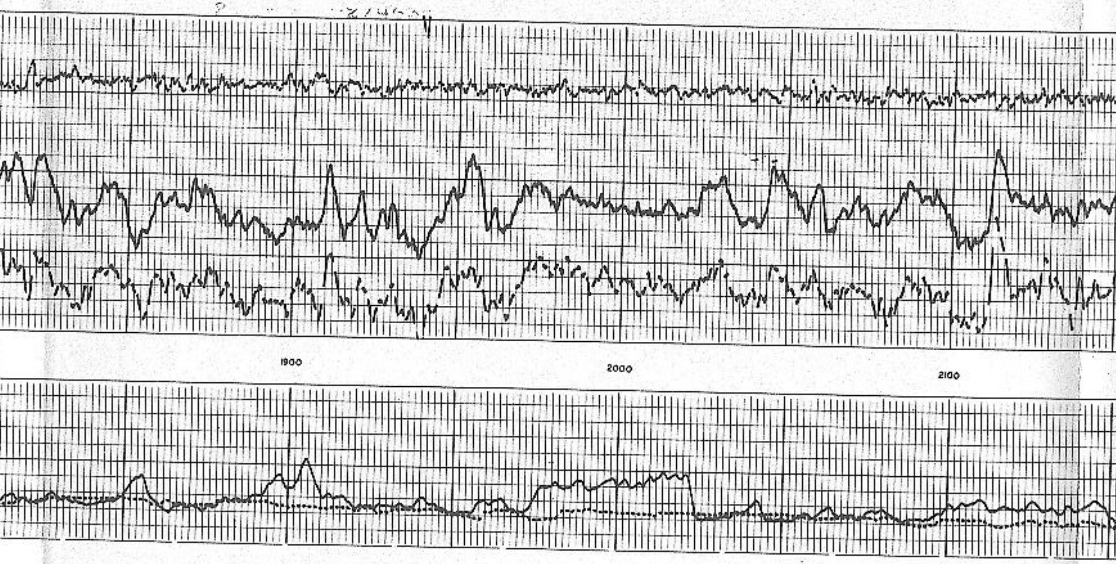
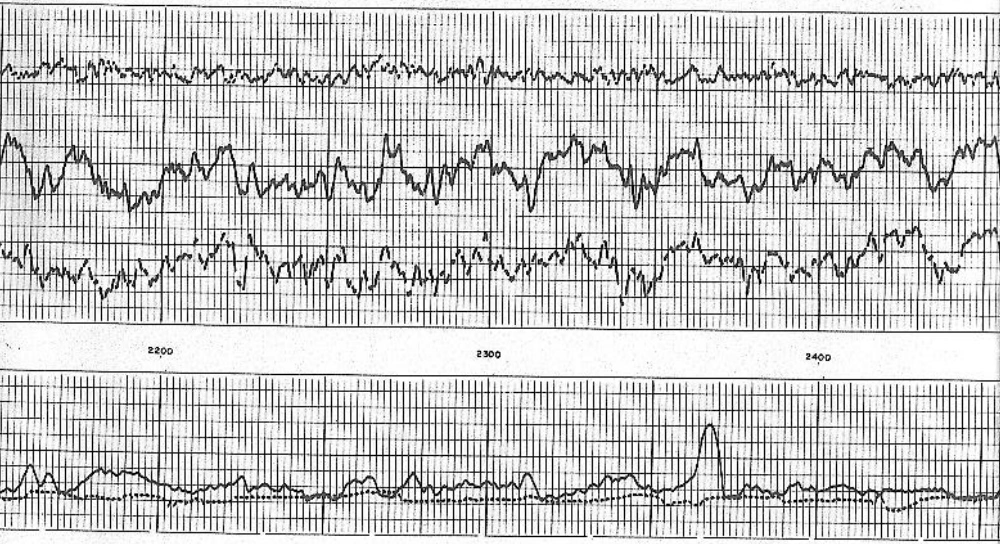
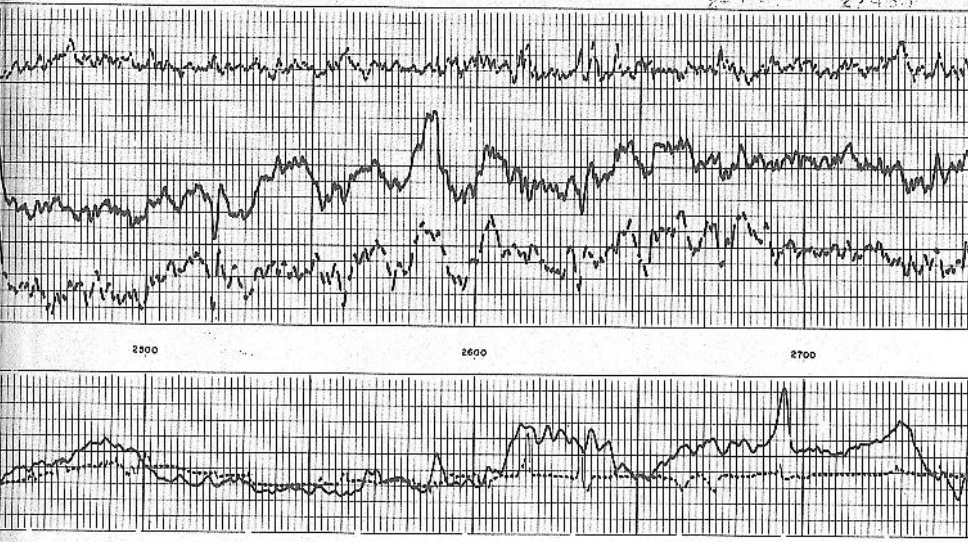
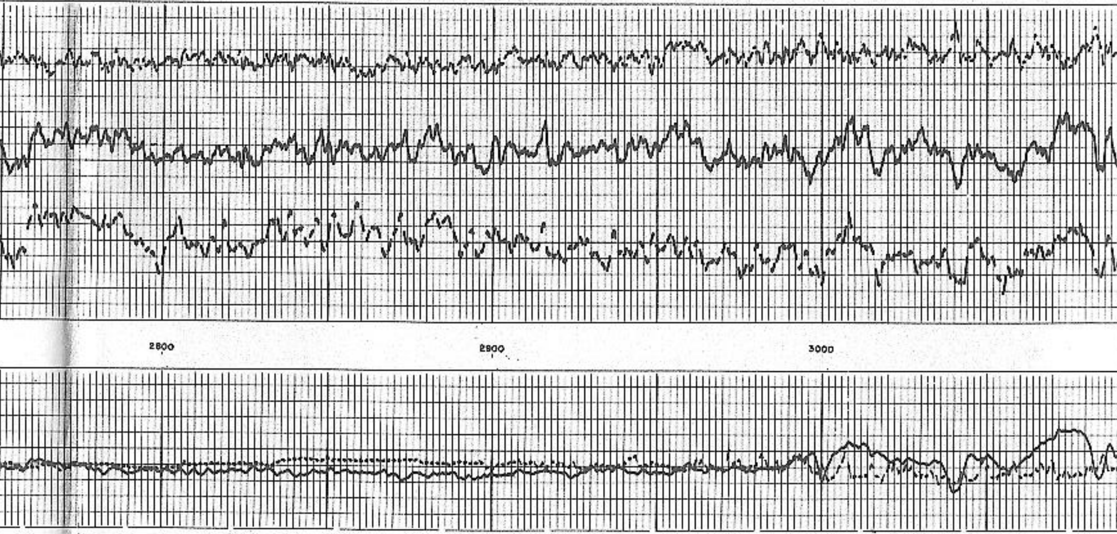


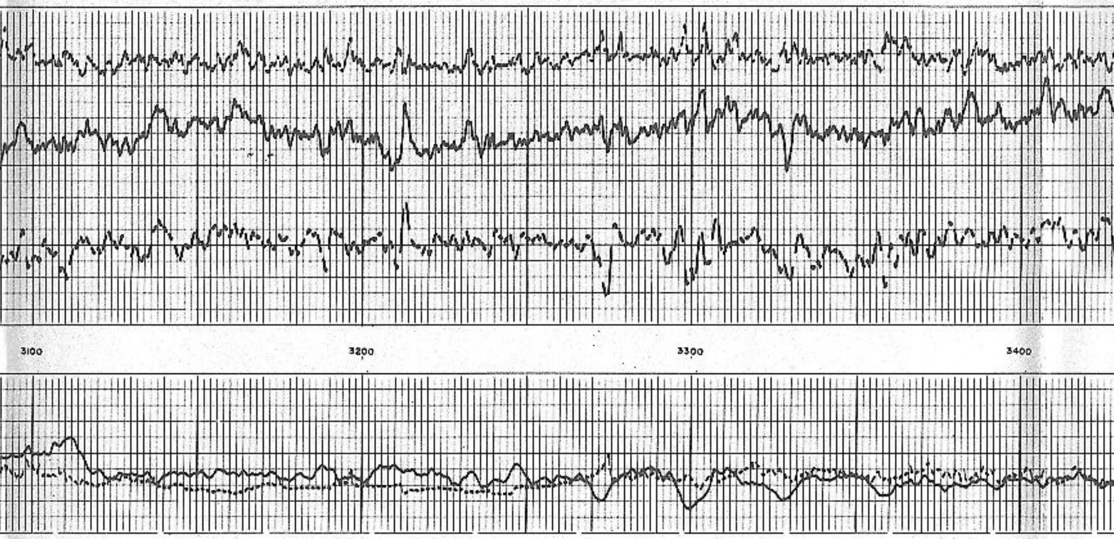


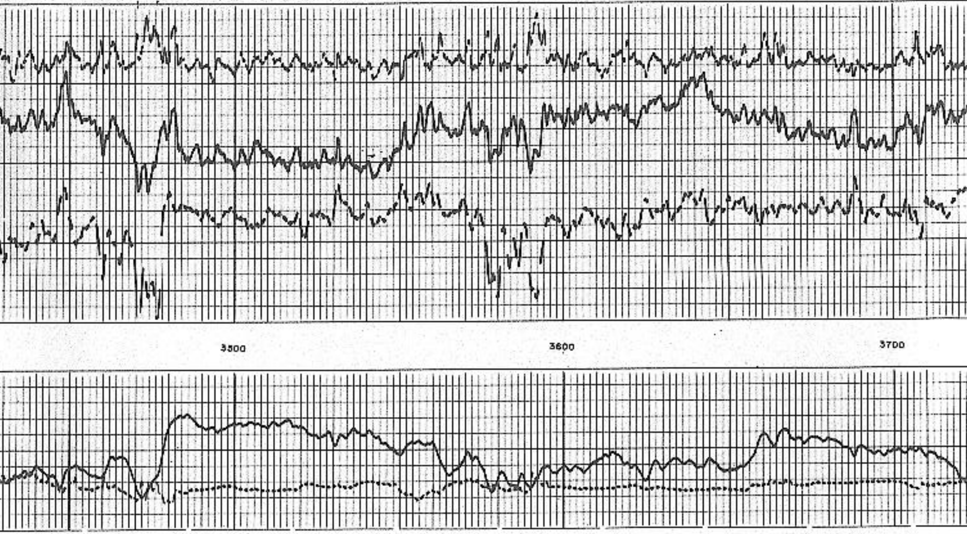


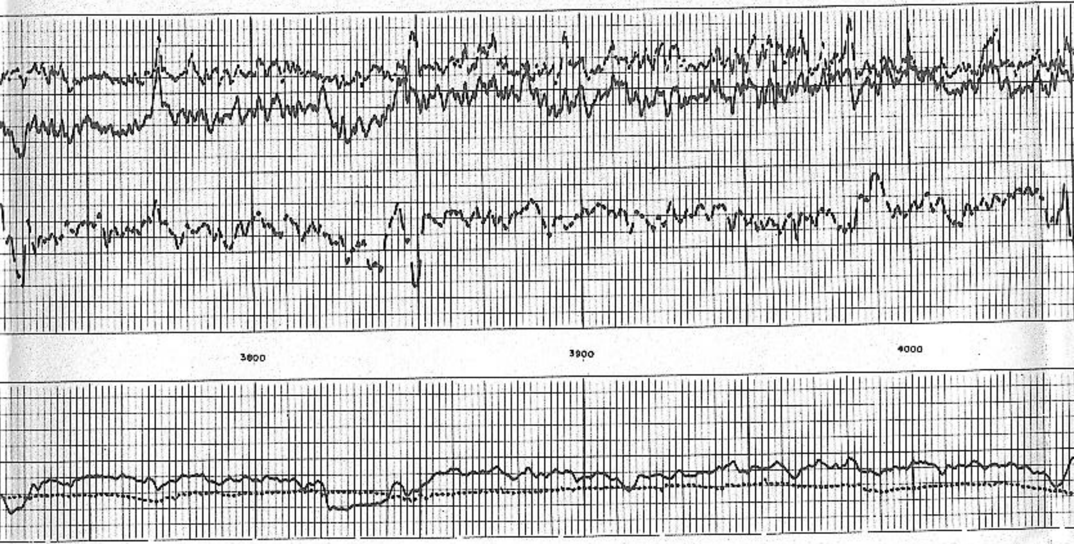


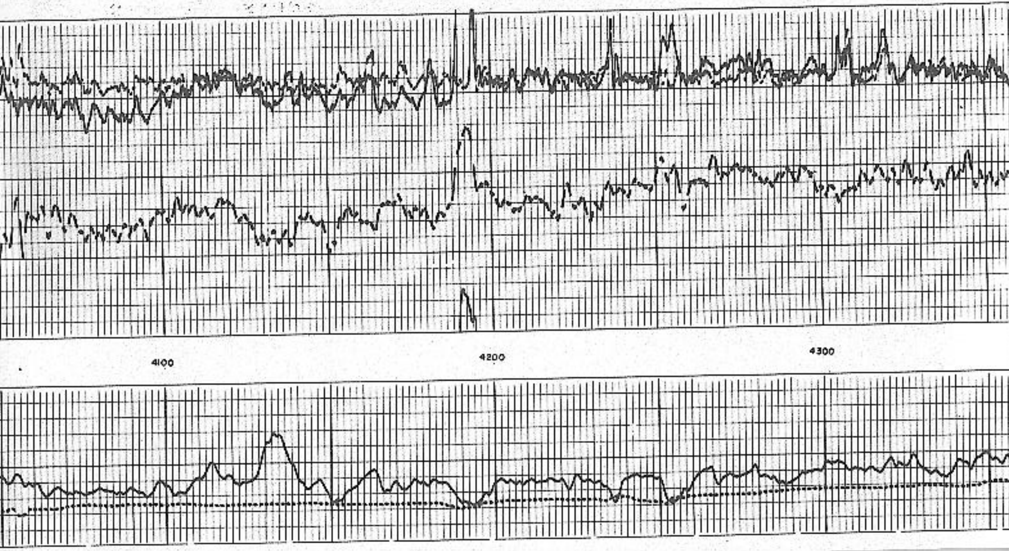


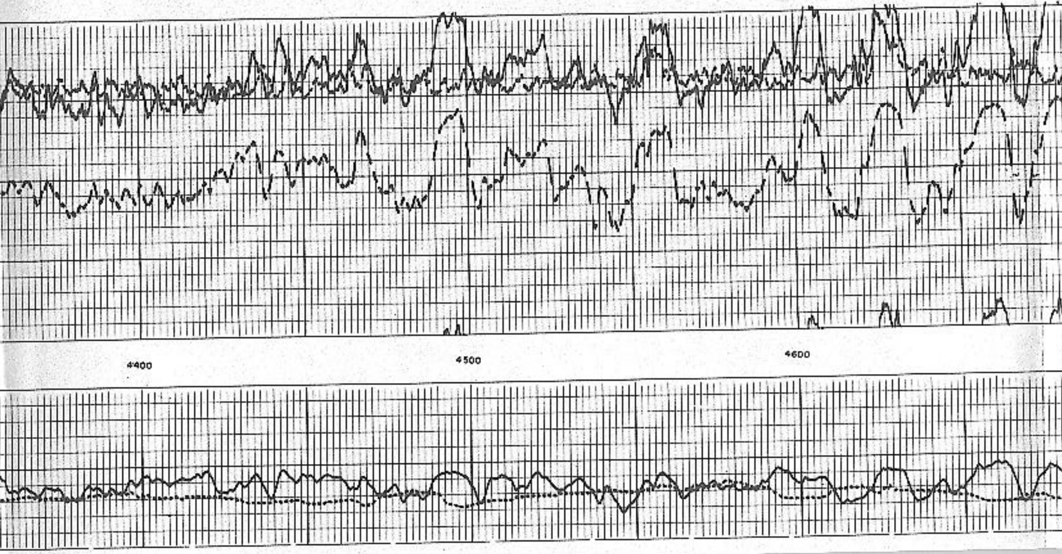


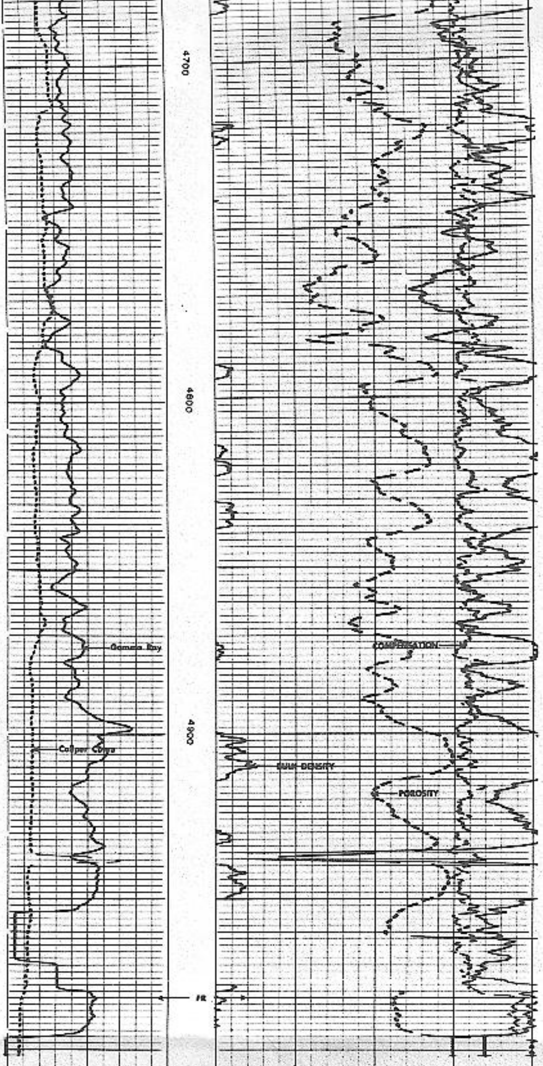




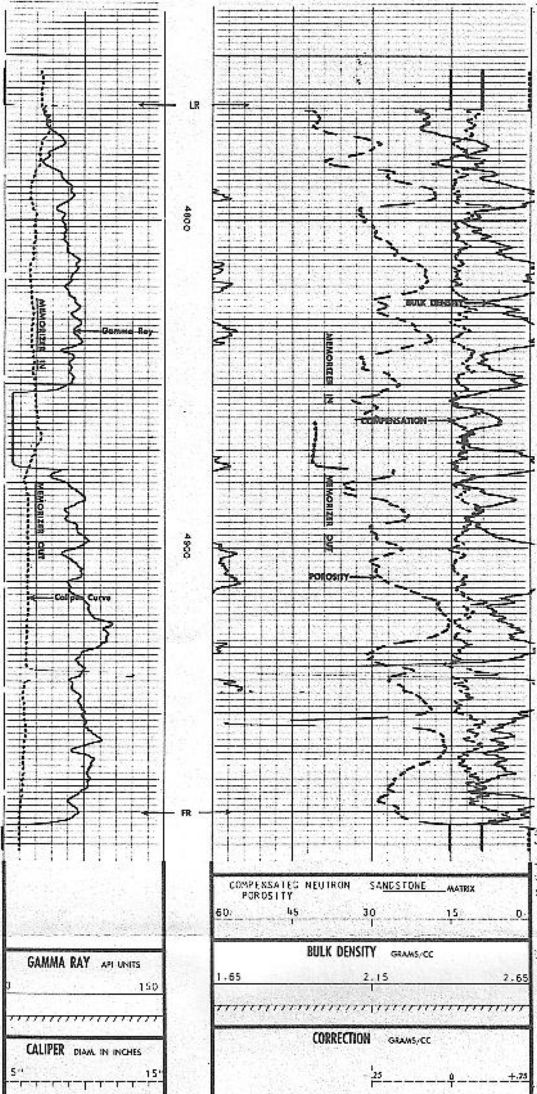






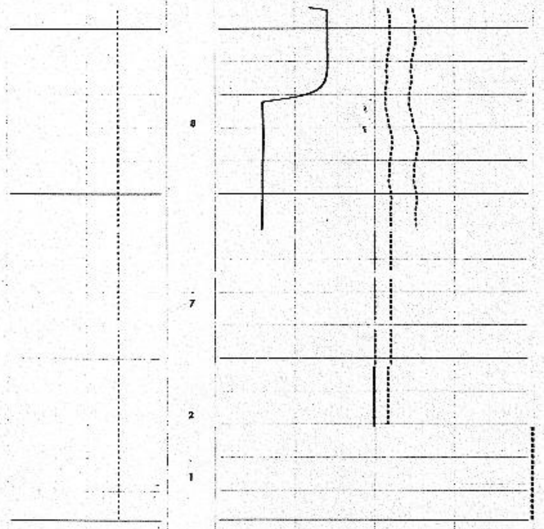


REPEAT SECTION

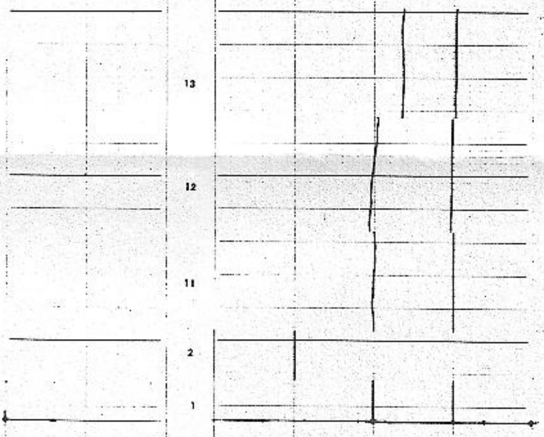


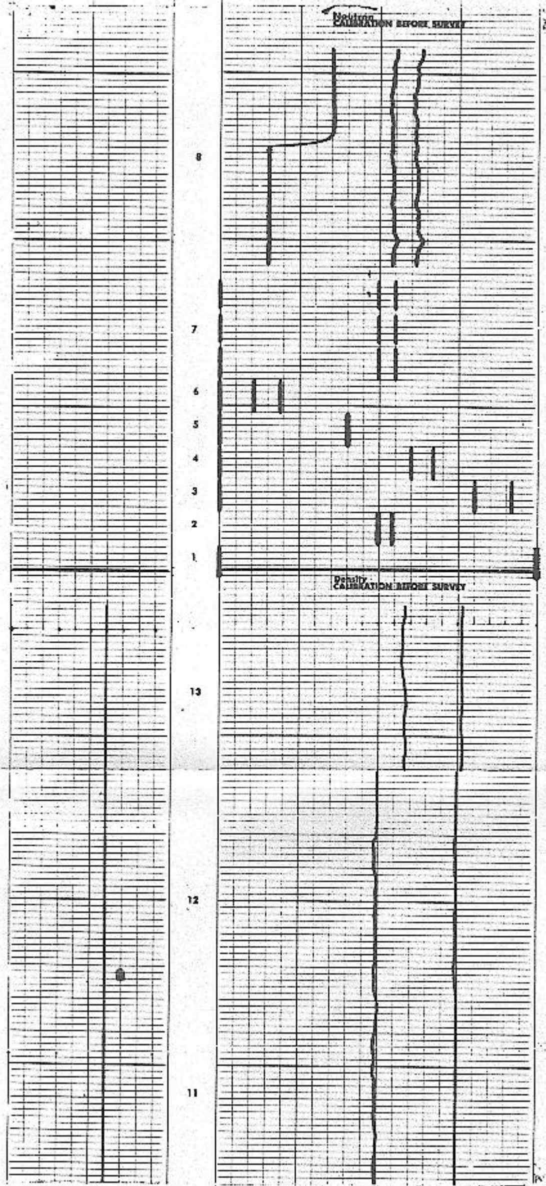
CALIBRATION RECORD

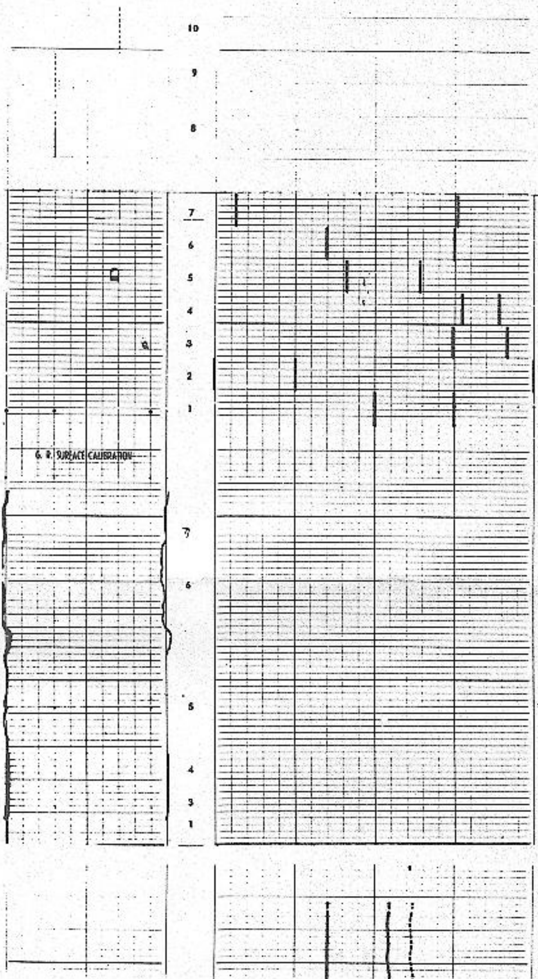
Neutron
CALIBRATION AFTER SURVEY

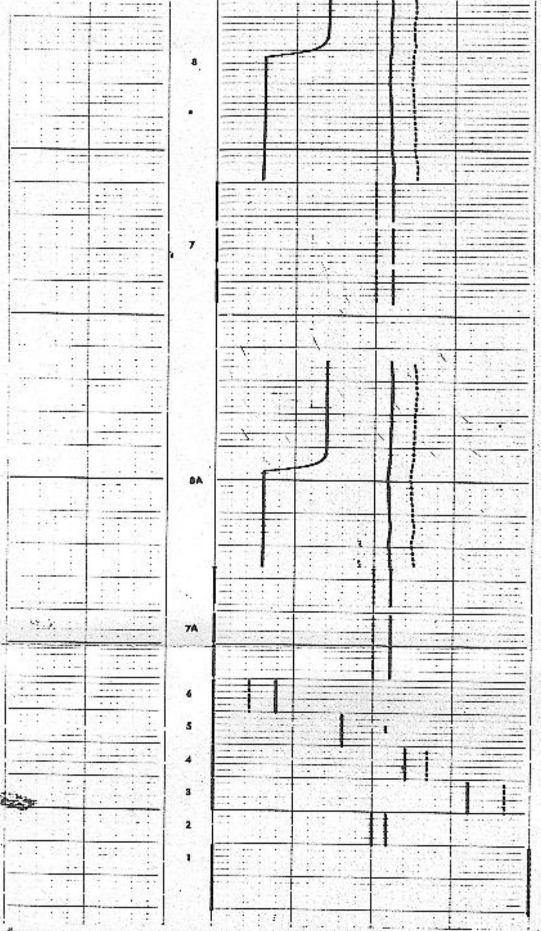


Density
CALIBRATION AFTER SURVEY









COMPENSATED NEUTRON CALIBRATION CODING

1. MECHANICAL ZERO

P A N E L T E S T

2. RECORDED SENSITIVITY (THRU MEMORIZER IF USED

	RATIO	OH POROSITY			CH POROSITY	
		LS ☐	SS ☐	DOL ☐	SS ☐	LS ☐
3.	1	1.6	4.9	−0.2	2.4	0.1
4.	2	15.6	19.7	8.1	13.0	9.0
5.	3	30.5	36.0	35.2	29.1	24.1
6.	4	45.4	53.1	47.5	47.4	43.2

7. POROSITY NORMALIZED WITH CNB-A IN PLACE
7A. TOOL IN NCT-B
8. LOG POSITION WITH CNB-A IN PLACE
8A. LOG POSITION WITH TOOL IN NCT-B

OH			CH	
LS	SS	DOL	SS	LS
18	22.2	10.4	15.3	11.2

RATIO (NORMALIZED) = $\frac{2.17}{\text{RATIO (NCT-B)}}$ RATIO LOG

BLUE SET
DEC. 29, 1977
CNC-A 409
CNB-AB 594
SOURCE 495
NEAR 709
FAR 314
RATIO 2.26

FORMATION DENSITY COMPENSATED CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDER SENSITIVITY

PANEL TEST

	[illegible]	FDC LIQUID ρ	$\Delta\rho$
3.	# 1	2.92	.00
[illegible]	[illegible]	2.78	.14
5.	# 3	2.42	.10
6.	# 4	2.35	.00
7.	# 5	2.08	.01

DECEMBER 15, 1977
PGS-ED 472
PGC-G 260
PDH-E 277
SFT-106 1241
SOURCE 5199
P_1 = 392.4 (98.1)
P_2 = 796.4 (199.1)

8. MECHANICAL ZERO CALIPER
9. 8" RING
10. 12" RING
11. TOOL CALIBRATE #1 SET ρ = 2.50
12. TOOL CALIBRATE #2 SET $\Delta\rho$ = .00
13. LOG POSITION ρ 2.59, $\Delta\rho$ = .015

GAMMA RAY CALIBRATION CODING

1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. RECORDER SENSITIVITY
4. MEMORIZER ADJUSTMENT
5. BACKGROUND
6. CALIBRATE - SOURCE IN PLACE

CALIBRATION RECORD

COMPANY CHEVRON U.S.A., INC.
WELL 44-5 SODA LAKE
FIELD FALLON
COUNTY CHURCHILL STATE CALIFORNIA

SCHL. FR 4980
SCHL. TD 4981
DRLR. TD 4975
Elev: KB N/A
DF - -
GL 3968.5