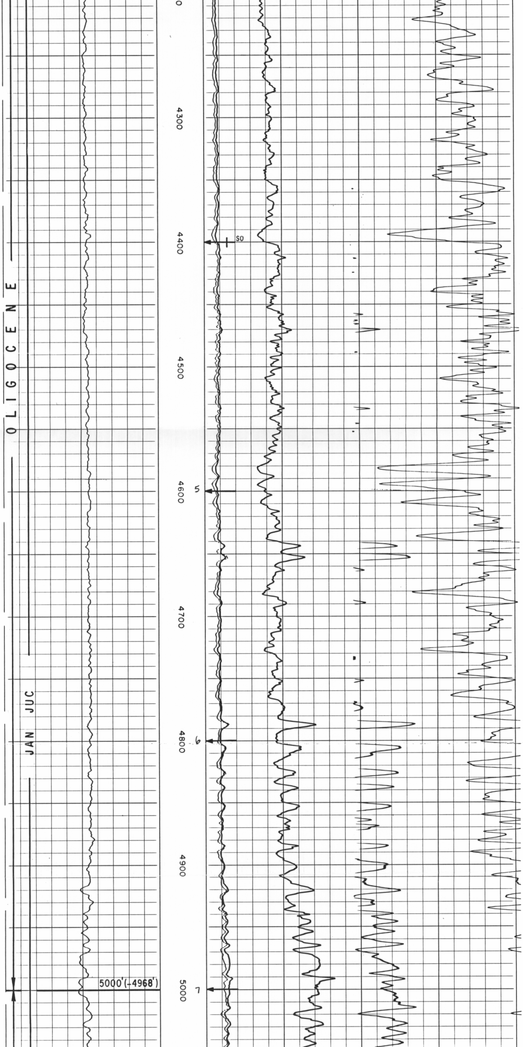

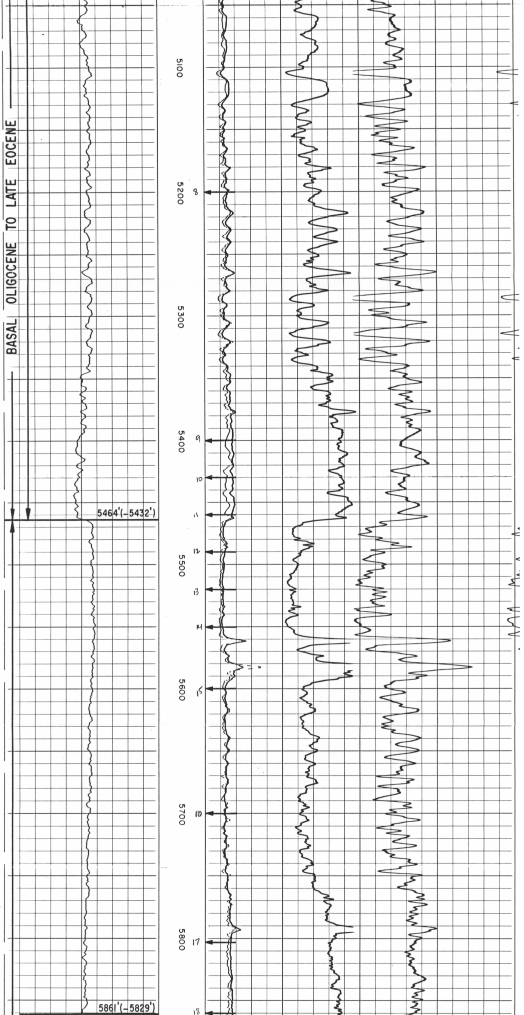

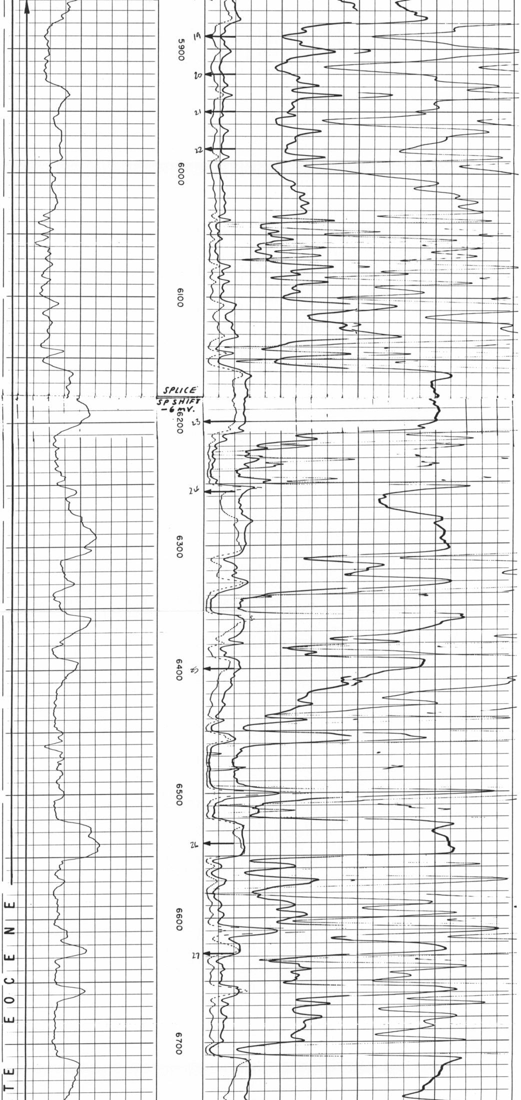

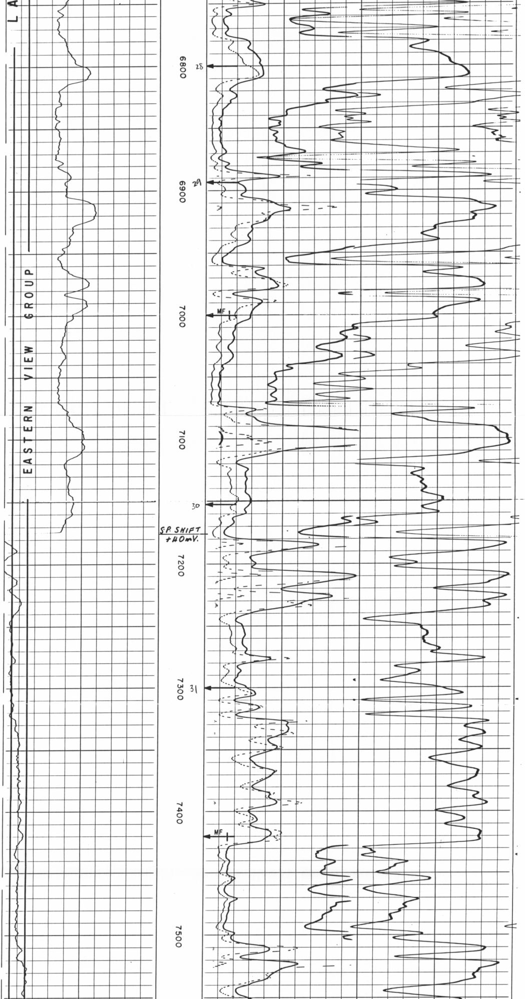

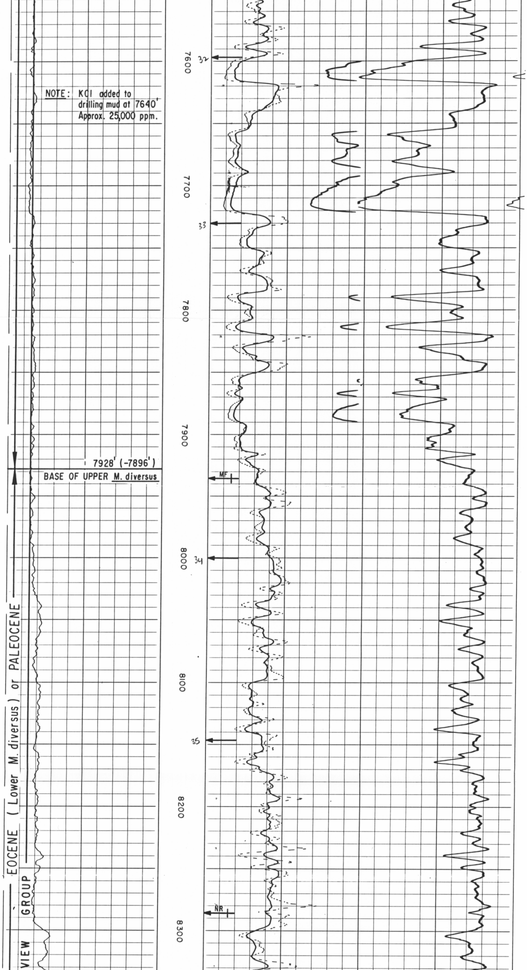

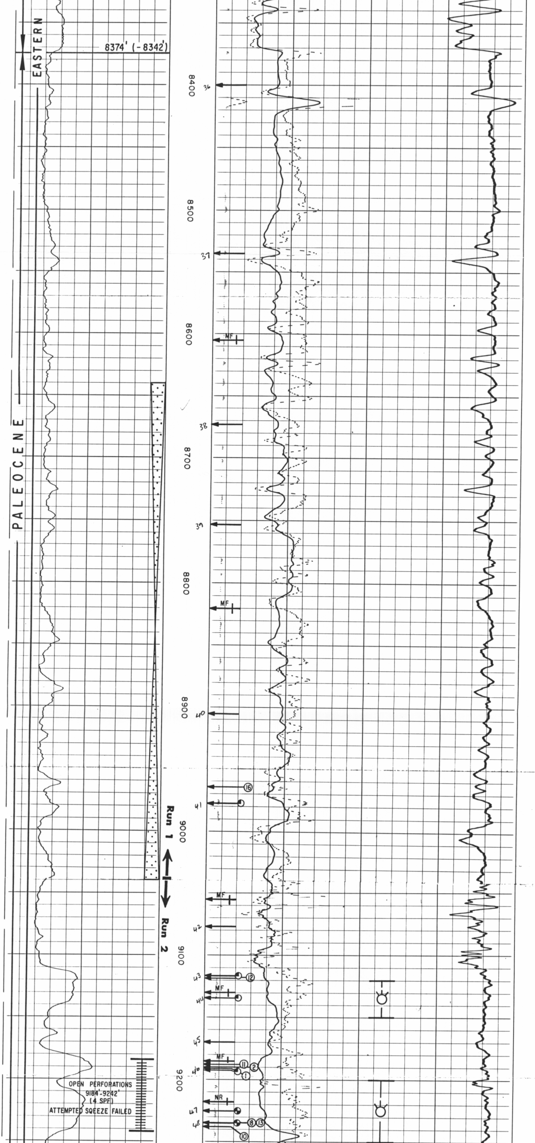

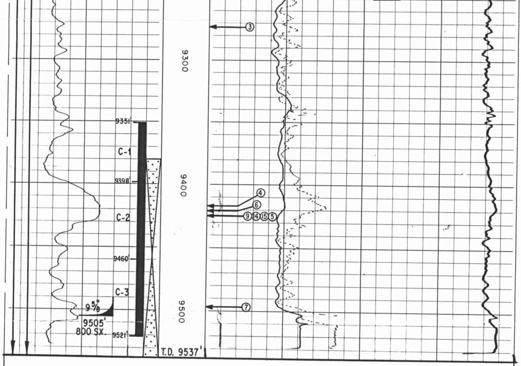

PRODUCTION TEST

The well was perforated on June 8th at 0003 hours, from 9184 to 9243 feet. (4 spf using 2-1/8" OD Schlumberger Uni-jet) Surface pressure, measured on an Amerada recorder increased from 50 to 840 psi immediately after perforating. Two Amerada pressure bombs and a temperature recording bomb were then run into the hole and hung below the perforations at 9279 and 9284 feet. No temperature data is available as formation water temperatures exceeded the 240°F range of the bomb used. The well was opened on an 18/64" choke to test at 0719 hours. Surface pressure dropped immediately from 940 to 300 psi, then to 60 psi, and levelled out to a low of 10 psi at about 0945 hours. The well flowed at 1.5 bbls/minute @ 55 psi, and declined to about 5 gallons/minute @ 10 psi. At approximately 1130 hours the surface pressure started to gradually increase, and was at about 25 psi when the well was shut in at 1345 hours. Water samples were collected periodically and checked for chloride content and gas. The chromatograph and chloride analysis of the sample taken at 1315 hours is as follows:

Cl^- 27,000 ppm, CO_2 none, H_2S none, C_1 330,000 ppm

C_2 18,000 ppm, C_3 6,000 ppm, C_4 1500 ppm

The pressure bombs were pulled at 1655 hours. At this time shut in surface pressure was 857 psi, and reservoir pressure 4920 psi. The test string was then pulled out of the packer and the fluid reversed out. The last 3 samples are considered representative formation water. Below is the laboratory report of the bottom sample, from approximately 6652 feet in the test string:

K^+ 228 mg/1, Na^+ 2700 mg/1, Ca^{++} 2,100 mg/1,
Mg^{++} 4 mg/1, Cl^- 7100 mg/1, $CO_3^=$ 0 mg/1,
HCO_3 - 1490 mg/1, $SO_4^=$ 47 mg/1, Conductivity (25°C)
20,330 micromho/cm, pH = 6.1, Suspended Solids
3318 mg/1, Dissolved Solids 14,836 mg/1.

SUMMARY OF FIT'S - PELICAN-3.

FIT No. 1 - 9191 feet

Recovered: (Main Chamber)	Unmeasured quantity of mud, seal failure
Temperatures: (Max. Thermometer)	198-202°F

FIT No. 2 - 9190 feet

Recovered: (Main Chamber)	No recovery, no pressure data Suspect packer was set on a shale streak Sampling Time 35 min.

FIT No. 3 - 9273.5 feet

Recovered: (Main Chamber)	100 cc. mud tight test. Sampling Time 36 min. 2000 pressure build-up.	

FIT No. 4 - 9418 feet

Recovered: (Main Chamber)	0.4 cft. gas 4000 cc. water Sampling Time 15 min., Initial Shut in Time - min.	
(Segregator)	0.4 cft. gas 2100 cc. water Sampling Time 6 min., Final Shut in Time 8 min.	
Properties: (Main Chamber)	Gas C1 C2 C3 C4 C5 H_2S (ppm) 120M 10M 1.6M 800 800 - Water Cl$^-$ 4500 ppm. (by titration) Rrf (filtered) 0.56 @ 72°F Cl- 6800 ppm.	
(Segregator)	Water Cl$^-$ 4000 ppm (by titration) Rrf (filtered) 0.66 @ 71°F, Equiv. Cl$^-$ 5500 ppm.	
Pressures:	Schlumberger	Agnew
(Main Chamber)	Sampling Pressure 850 psi	540 psi
(Segregator)	Sampling Pressure 500 psi	518 psi
	Final Shut-in Pressure 5475 psi	5197 psi
	Final Hydrostatic Pressure 5800 psi	

FIT No. 5 - 9425 feet

Recovered: (Main Chamber)	0.3 cft. gas 1200 cc. water Sampling Time 9.5 min., Initial Shut in Time - min.	
(Segregator)	0.1 cft. gas 1700 cc. water Sampling Time 2 min., Final Shut in Time 2.5 min.	
Properties:		
(Main Chamber)	Water Cl$^-$ 5000 ppm. (by titration)	
(Segregator)	Water Cl- 7000 ppm. (by titration)	
Pressures:	Schlumberger	Agnew
(Main Chamber)	Sampling Pressure 300 psi	206 psi
(Segregator)	Sampling Pressure 0 psi	
	Final Shut in Pressure 4900 psi (before seal was lost	
	Final Hydrostatic Pressure 5300 psi.	
Temperatures: (Max. Thermometer)	211-212°F	

FIT No. 6 - 9421 feet

Recovered: (Main Chamber)	22000 cc. mud (10.5 ppg) Flowline leak - chamber full of mud before tool set	
(Segregator)	0.3 cft. gas 1800 cc. water Sampling Time 6 min., Final Shut in Time 14.5 min.	
Properties: (Segregator)	Water Cl- 5350 mg/l (by titration) Conductivity (25°C) 22680 micromho/cm	
Pressures:	Schlumberger	Agnew
(Segregator)	Sampling Pressure 300 psi	459 psi
	Final Shut In Pressure 5330 psi	5252 psi
	Final Hydrostatic Pressure 5670 psi	5308 psi
Temperatures: (Max. Thermometer)	216-217°F	

FIT No. 7 - 9498 feet

Recovered:	No recovery Main chamber and segregator not opened - pressure test only. Very tight zone. Initial Shut in Time 27 min.	
Pressures:	Schlumberger	Agnew
(Flowline)	Initial Hydrostatic Pressure 6070 psi	5692 psi
	Final Shut in Pressure 5800 psi	5461 psi
	Final Hydrostatic Pressure 6200 psi	

FIT No. 8 - 9235 feet

Recovered:	Gas not measured 2200 cc. water Did not run main chamber. Sampling Time 4.5 min., Initial Shut in Time 5.5 min., Final Shut in Time 9.5 min.	
Properties: (Segregator)	Water Cl- 10,600 mg/l (by titration) Conductivity (25°c) 36,800 micromho/cm.	
Pressures:	Schlumberger	Agnew
(Segregator)	Initial Shut in Pressure 5300 psi	5067 psi
	Sampling Pressure 400 psi	-
	Final Shut in Pressure 5270 psi	4965 psi
	Final Hydrostatic Pressure 5930 psi	5534 psi

Temperatures:	214-216°F	

FIT No. 9 - 9425 feet

Recovered:	0.7 cft. Gas	
(Main Chamber)	6000 cc. water	
	Sampling Time 10 min., Initial Shut in Time - min.	
(Segregator)	0.4 cft. gas	
	2200 cc. water	
	Sampling Time 0.4 min., Final Shut in Time 9.6 min	
Properties:	Water Rrf (filtered) 0.55 @ 71°F	
(Main Chamber)	Equiv. Cl- 6800 ppm	
(Segregator)	Water Cl- 3600 mg/l (by titration)	
	Conductivity (25°C) 16,830 micromho/cm	
Pressures:	Schlumberger	Agnew
(Main Chamber)	Sampling Pressure 600 psi	- (stylus damaged)
	Shut in Pressure 4650 psi	-
(Segregator)	Sampling Pressure 250 psi	-
	Final Shut in Pressure 5250 psi	
	Final Hydrostatic Pressure 5750 psi	
Temperatures:	198-199°F	
(Max. thermometer)		

FIT No. 10 - 9237 feet

Recovered:	0.1 cft. gas	
(Main Chamber)	100 cc. water	
	Sampling Time 9 min., Initial Shut in Time - min.	
Properties:	Water Rrf (Filtered) 0.31 @ 70°F	
(Main Chamber)	Equivalent Cl- 13000 ppm	
Pressures:	Schlumberger	Agnew
(Main Chamber)	Sampling Pressure 0 psi	30 psi
	No build-up	
	Final Hydrostatic Pressure 5670 psi	5646 psi
(Segregator)	Open 15 min. and no build-up	
(Flowline)	Open 6 min. and no build-up. Tight test	
Temperatures:		
(Max. Thermometer)	206-209°F	

FIT No. 11 - 9187 feet

Recovered:	Unmeasured quantity of mud
(Main Chamber)	Did not obtain seal
Temperatures:	209-210°F
(Max. Thermometer)	

FIT No. 12 - 9119 feet

Recovered:	Unmeasured quantity of mud
(Main Chamber)	Did not obtain seal
Temperature:	
(Max. Thermometer)	209-210°F

FIT No. 13 - 9234 feet

Recovered:	0.4 cft. gas	
(Segregator)	2200 cc. Water and Trace of Sand	
	Sampling Time 7 min., Initial Shut in Time 6 min.,	
	Final Shut in Time 5.5 min	
Properties:	Not measured	
(Segregator)	Sample transferred into a pressure bomb	
Pressures:	Schlumberger	Agnew
(Segregator)	Initial Shut in Pressure 5000 psi	4961 psi
	Sampling Pressure 500 psi	115 psi
	Final Shut in Pressure 4900 psi	4841 psi
	Final Hydrostatic Pressure 5700 psi	5644 psi
	Agnew pressures obtained from field calibration and are only approximate.	
Temperatures:		
(Max. Thermometer)	218-220°F	

FIT No. 14 - 9424 feet

Obtained seal but flowline did not open

Temperatures:	224-226°F
(Max. Thermometer)	

FIT No. 15 - 9424 feet

Recovered:	0.2 cft. gas	
(Segregator)	2100 cc. water	
	Sampling Time 1 min., Final Shut in Time 4.7 min.	
Properties:	Water Cl- 5750 mg/l (by titration)	
(Segregator)	Conductivity (25°C) 23,540 micromho/cm	
Pressures:	Schlumberger	Agnew
(Segregator)	Sampling Pressure 800 psi	-
	Final Shut in Pressure 5270 psi	5248 psi
	Final Hydrostatic Pressure 5950 psi	5759 psi

FIT No. 16 - 8964 feet

Recovered:	No recovery	
(Main Chamber)	Tight test	
	Sampling Time 0.5 min, Initial Shut in Time 16 min.	
Pressures:	Schlumberger	Agnew
(Main Chamber)	Initial Shut in Pressure 4350 psi	4455 psi
	Sampling Pressure 0 psi	-
	Final Hydrostatic Pressure 5570 psi	5459 psi
Temperatures:	Not taken	
(Max. Thermometer)		

PREPARED BY : A.P. WHITTLE & D.R. EYLES

DATE .... : JULY, 1972

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