INTER-OFFICE CORRESPONDENCE

Texas Pacific Oil Company, Inc.

(o . Charles L. West

Date . December 9, 1969

From . Tom P. Frizzell

Subject . Possible Workover Zones in TPOC, Inc. #2 & #4 State "T" wells, Section 6, T-16-S, R-36-E. Lea County, New Mexico

RECOMMENDATION:

It is recommended the interval 10,350 to 10,370' be production tested in the TPOC. Inc. #4 State "T".

PURPOSE:

The purpose of this report is to make recommendations as to the disposition of two (2) wells that are shut in on the State "T" lease.

DISCUSSION:

The two shut in wells are located in the Townsend Wolfcamp Pool. This report will review drillstem tests, production tests, and completions that have been made in wells in zones or formations other than the "Main Townsend Pay".

San Andres

Shows of oil have been reported in the San Andres Formation in samples, There was an unsuccessful attempt to complete in this formation in the J. W. Brown #1 State (Section 4, T-16-S, R-35-E). Only slight shows of oil were reported after treating the well with acid. The Microlog indicates porosity in the TPOC, Inc. #2 State "T" through the interval tested in the Brown well.

Due to the poor results of the tests on the Brown well, a re-completion in the San Andres is not recommended.

During drilling of the #2 TPOC State "T" circulation was lost at 6210'. A recommendation was made to watch this zone in subsequent wells. The samples examined through this zone in the #3 State "T" did not have stain or fluorescence through this interval. On this basis, no recommendation can be made for an attempted re-completion in this zone.

A zone within the Abo Formation was perforated in two wells by Humble prior to abandonment. These were the #1 & #2 Townsend in Section 9, T-16-S, R-35-E. The validity of these tests is questionable due to a lack of cement behind the casing; however, no show of oil was reported after acidizing each well. From available information, this zone has not been tested in any other well. There is no data that indicates this zone would be productive.

Wolfcamp

The upper section of the Wolfcamp (9650-9900) on TPOC, Inc. #2 State "T" on cross-section was drillstem tested in Pan American #1 State "AG" (Section 10, T-16-S, R-35-E), and in the Cabot Carbon #1 State "F" (Section 4, T-16-S, R-35-E). In each of the wells drillstem tests recovered mud with final shut-in pressures of less than 300 psi, No test is recommended for this zone.

The only possible workover behind pipe in the shut-in wells is the interval marked "zone of interest" on the cross-section. Production from this zone and the production test in the #2 State "T" is shown on the cross-section. The production from the two wells on the cross-section is marginal to uneconomical. This is commonly found in "Wolfcamp Stringers" in this area. It will be noted, however, that in many instances these "Wolfcamp Stringers" have been prolific producers. Although the risk will be high (.3 to .4) it is recommended that the interval 10,350 to 10,370' be tested in the #4 State "T" prior to plugging this well.

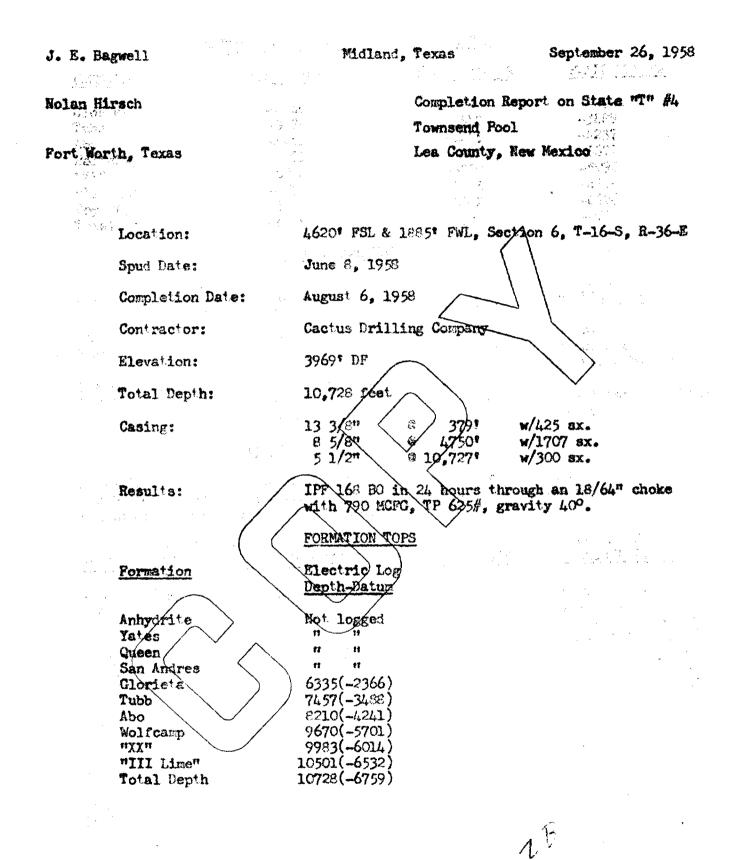
CONCLUSIONS AND RECOMMENDATIONS:

In the event that this zone proves to be good in the #4 State "T" a re-evaluation of the production test in the #2 State "T" can be made. It is believed this zone is the only zone that offers a possible workover. Hence, after this zone is depleted the only possibility left prior to plugging these wells would be a secondary recovery program within the depleted "Townsend Pay" interval.

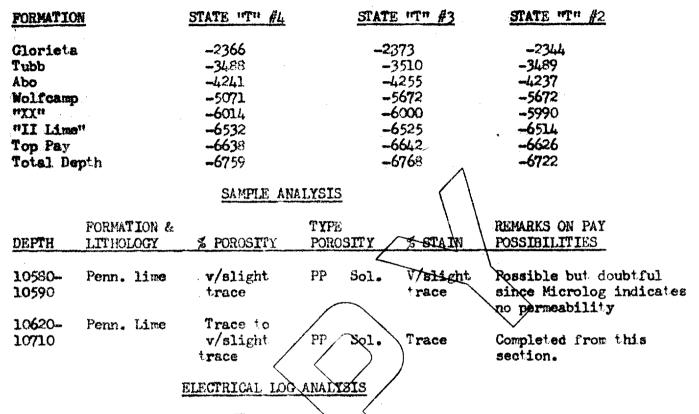
Tom P. Frizzel

TPF:flh

Abo



STRUCTURAL RELATIONSHIP TO NEARBY WELLS



A complete electrical log analysis was not made since no neutron curve was run by which per cent porosity may be calculated. The following are zones exhibiting permeability on the microlog.

DEPTH	FORMATION LITHOLOGY		DROSITY	WATE	R SATURATION		IS ON PAY
1060 7- 10628	Penne Lin	e Not	celculat	ed Not	calculated	portic interv	ted from ons of these rals. 37 ¹ net
10630- 10635	Ponn. Lim	e Viot	Calcula [*]	ed Net	calculated	pay(no	ot all perffd)
10646- 10650	N. N.	, y	ź]	\$ \$	24	ŦŦ	ŧŦ
10652- 10656	1, 11	11	ł ;	85	Ħ	**	86
10687- 10690	31 £î	ft.	₹¥	п	¥1	77	†

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Nolan Hirsch --January 6, 1958

Core	#2	10,599	-	10 ,6 49	recovered 50 fee	t
, 	- - -	10,599	-	608	fractured lime,	alline fossiliferous slightly good vuggy, solution and pin- good fluorescence and stain,
	- 	10,608	 -	613	vuggy from 10599 lithology same,	to 601 fair solution and pinpoint poro- scence to good fluorescence and
		10,613	-	615	lithology same,	fair-good solution and pinpoint
		10,615	-	629	tan-brown finely	luorescence and stain crystalline-dense fossiliferous actured, come fluorescence along
		10,629	-	63 0	tan finely cryst	alline fractured lime, trace pin- fluorescence and stain on fracture
		10,630	-	633	tan finely cryst	alline-dense fractured lime, no
· .		10,633	**	636	lime, fair-good	alline fossiliferous fractured solution porosity, fair-good
		10,636	-	641		crystalline-dense slightly
· · · · ·		10,641	-	642		lime, no show glline fossiliferous lime, fair y, trace-fair fluorescence and
1.2 1.2 1.		10,642	-	647	tan-brown finely	crystalline-dense fossiliferous
		10,647	- (649		ed lime, no show hology same as above, trace fluor-
Core	#3	10,649	- \	20,692	recovered 36 fee	t
	·	10,649 -	-10,6921			lime with few scattered vertical ry scattered solution porosity hows.
			\langle	ELECTRI	CAL LOG ANALYSIS	
DEPTH		ATION &	F PORO.)) WAT	ER SATURATION	REMARKS ON PAY POSSIBILITIES
6210-44		n Andres	NOT	CAL	CULATED	Zone should be closely investi- gated in next well.
10,599-62	2 Pen	n,lime	*1	72	14	Producing Zone
10,640-64	.6 "	***	11	¥7	rí	Producing Zone

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January 13, 1958

SAMPLE ANALYSIS

DEPTH	FORMATION & LITHOLOGY	% POROSITY	TYPE FOROSITY	% STAIN	REMARKS ON PAY POSSIBILITIES		
6200- 6250	L/San Andres dolomite	Spls. too fine to dete:	rmine	10%	Interesting zone. Lost circ. @ 6210* Drilled w/water.		
10553-599	Penn. Lime	SEE CO	RE #1		Poor		
105 99-6 49	Penn. Lime	SEE CO	ORE #2		Producing Zone		
		STRU	CTURAL COMPARISONS	\bigwedge			
The _TP_ N. M. State #2 "T" shows the following structural relationship to nearby wells:							
Formation		-TP- N. M. S	tate #1 "T"	Austral 011	State #3-"B"		
Anhydrite Yates Queen San Andres Glorieta Tubb Abo Wolfcamp "XX" Marker 3rd Penn lime		91 21 61 151 101 61 41 101 131	high low low high high high low low low low law		no logs """ """ 3" n """ 3" low 3" low 3" low 1" low 10" low		

A slight show was encountered between 6200-6250 feet. Circulation was lost at 6210' and samples were so fine that this zone could not be evaluated properly. The Microlog on this well shows 35 feet of good porosity and it is interesting to note that this zone did not occur in our #1 "T", one location south, or in the Austral #3-B State, one location to the west.

On future wells in this area it is recommended that mud of sufficient quality be used through this zone in order to evaluate it more closely.

The following Schlumberger logs wore run:

Gamma Ray Electric Log Microlog

surface to total depth. total depth. 4753 to 5300-5700, 6100-6500, 10,000 to total dept?

Net pay thickness is 29 feet in this well.

Wm. J. Smitherman

WJS/flh cc: J. R. Teague G. G. Pollard Don Teague