

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico

April 16, 1959

File: JWM-131-986.510.1

Subject: Request for Exemption to
Rule 111 Deviation Tests,
USA Malco Refineries "F"
No. 1, Empire Abo Field

New Mexico Oil Conservation Commission (2)
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. D. S. Nutter, Chief Engineer

Gentlemen:

This has reference to your conversation with Mr. N. S. Whitmore of Pan American on April 14, 1959, concerning the deviation test requirements of Rule 111. It is our understanding that the Commission may grant exceptions to the requirement for running a directional survey where computation of the deviation surveys periodically run in conjunction with drilling operations indicates the bottom of hole could not conceivably be off the lease.

Currently, Pan American Petroleum Corporation is drilling their joint interest USA Malco Refineries "F" No. 1 in the Empire Abo Field. This well was staked 1980 feet from the south line and 660 feet from the west line of Section 1, T-18-S, R-27-E, Eddy County, New Mexico. The projected total depth is approximately 6150 feet. At a depth of 4805 feet a deviation test registered $6-1/2^{\circ}$ which was the first deviation recorded above 5° . Since that depth the deviation has varied between $6-1/4^{\circ}$ and $6-1/2^{\circ}$ with the well currently drilling at approximately 5530 feet.

The attached tabulation furnishes the deviation surveys run on the well to date along with a computation of the drift in a continuous direction. The assumption that the drift would remain in a continuous direction was made to analyze the drift under the least desirable condition to determine if the bottom of the hole were possibly approaching a lease line. That drift would be maintained in a continuous straight line is also considered very unlikely to occur under actual drilling conditions.

These data indicate the horizontal drift from the surface to 5500 feet to be approximately 270 feet. Considering the deviation would remain relatively constant for the remaining 650 feet to be drilled, the maximum anticipated horizontal drift would approach 343 feet. Thus it is indicated that deviations to total depth of the magnitude currently encountered would not place the bottom of the well past a lease line for this 660 foot location.

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It is therefore respectfully requested that Pan American Petroleum Corporation be granted an exception to Rule III for running a directional survey on their USA Maseo Refineries "F" No. 1. Your early consideration of this request will be sincerely appreciated as it is anticipated that drilling operations will be completed by April 18, 1959.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

J. W. Brown
Field Superintendent

By:

J. W. Mack

cc: Mr. M. L. Armstrong
New Mexico Oil Conservation Commission
Artesia, New Mexico

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Very truly yours,

WILLIAM W. WILSON, JR.

Special Agent in Charge

WILLIAM W. WILSON, JR.

WILLIAM W. WILSON, JR.
Special Agent in Charge
Federal Bureau of Investigation
Washington, D.C.

DEVIATION SURVEYS
USA MALCO REFINERIES "F" NO. 1

<u>Depth Toteo Run</u>	<u>Interval Between Toteos</u>	<u>Drift Indicated By Toteo</u>	<u>Horizontal Drift Over Interval</u>	<u>Cumulative Horizontal Drift</u>
500'	500'	3/4°	6.55'	6.55'
970'	470'	3/4°	6.15'	12.70'
1350'	380'	3/4°	4.97'	17.67'
1850'	500'	1-3/4°	15.27'	32.94'
2050'	200'	2°	6.98'	39.92'
2380'	330'	1-1/2°	8.64'	48.56'
2970'	590'	1-3/4°	18.02'	66.58'
3410'	440'	2-3/4°	21.11'	87.69'
3745'	335'	3-1/2°	20.45'	108.14'
4050'	305'	3-1/2°	18.62'	126.76'
4350'	300'	4-1/2°	23.45'	150.21'
4555'	205'	4-3/4°	16.98'	167.19'
4650'	95'	4-3/4°	7.87'	175.06'
4805'	155'	6-1/2°	17.55'	192.61'
4990'	185'	6-1/2°	20.94'	213.55'
5115'	125'	6-1/4°	13.61'	227.16'
5245'	130'	6-1/4°	14.15'	241.31'
5380'	135'	6-1/2°	15.28'	256.59'
5500'	120'	6-1/2°	13.58'	270.17'

