FORM 470 2-57

PAN AMERICAN PETROLEUM CORPORATION

Case 2979

P. O. Box 268
Lubbock, Texas 79401
January 9, 1964

File: JET-4011-986.510.1

Subject: Application of Pan American Petroleum Corporation For Authority To Dispose of Produced Water in the Empire Abo Field Into the U.S.A. Malco Refineries 'G' Well No. 13, Eddy County, New Mexico

Mr. A. L. Porter, Jr. (3)
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Pan American Petroleum Corporation respectfully requests that a hearing be docketed to consider its application for disposal of produced water into the Abo Formation in the subject well, located 2302' FSL and 1650' FWL, Section 10, T-18-S, R-27-E, Eddy County, New Mexico, in accordance with Rule 701 of the New Mexico Oil Conservation Commission. The proposed well is presently temporarily abandoned after unsuccessful attempts to establish commercial Abo oil production at this location.

Attached hereto are the following exhibits in support of this application, as required by Rule 701:

Exhibit No. 1 - A plat showing the location of the proposed disposal well, USA Malco Refineries 'G' No. 13, and the location of all other wells located within a radius of two miles from the proposed injection well. Exhibit 1 also shows the formation from which these wells are producing, or have produced from, and the names of the lessees, if any, within the two-mile radius.

Exhibit No. 2 - A laterolog-Gammaray-Neutron log of the proposed injection well showing the proposed injection interval.

Exhibit No. 3 - A diagrammatic sketch of the proposed injection well showing all casing strings, including diameters and setting depths, quantities used and tops of cement, and the proposed injection interval to be perforated. Also shown is the size

DOCKET MAILED
Date 2-10-64

DOCKET MAILED
Date 1-24-64

of the proposed tubing string and the location of a packer to be set above the proposed injection interval.

Exhibit No. 4 - The lease names and well numbers and estimated daily water production of those wells which will be connected to the proposed disposal well.

Approximately 365 barrels per day of Abo produced water will be injected into the Abo interval 6001-18'. This same interval was previously perforated, acidized with 15,000 gallons of 15% acid, fraced with 65,000 lbs. of sand and 71,000 gallons of water, and cement squeezed with 150 sacks of cement after testing 30 BWPD. Unsuccessful completion attempts were also made in the intervals 5938-70' and 5910-15', both of which were also found to be water bearing, with no commercial oil shows.

Yours very truly,

Neil S. Whitmore
District Superintendent

CFH: jb

Attachments

cc: State Engineer Office
Box 1079
Santa Fe, New Mexico

DISCUSSION

Pan American Petroleum Corporation respectfully requests that the New Mexico Oil Conservation Commission grant permission to dispose of produced salt water from the Abo Formation into its U.S.A. Malco Refineries "G" Well No. 13 located 2302' FSL and 1650' FWL of Section 10, T-18-S, R-27-E, Eddy County, New Mexico. Produced water will be disposed of into the Abo Formation perforated interval 6001-6093'.

The U.S.A. Malco Refineries "G" Well No. 13 was originally completed on September 23, 1960 as a temporarily abandoned well in the Empire Abo Field. The well was temporarily abandoned after unsuccessful attempts were made to obtain commercial oil production from the perforated intervals 5910-15', 5938-70', and 6001-18'. These three completion intervals all failed to produce commercial quantities of oil.

Exhibit No. 1 of this application is a plat showing all wells within a two mile radius of the proposed disposal well. Exhibit No. 1 also shows the formation from which these wells are producing or have produced from and the names of lessees, if any, within a two mile radius.

Exhibit No. 2 is a log of the proposed disposal well showing the proposed injection interval.

Exhibit No. 3 is a diagrammatic sketch showing the manner in which Pan American Petroleum Corporation proposes to complete the U.S.A. Malco Refineries "G" Well No. 13 for disposal purposes. The 4½" casing is adequately cemented to prevent communication with other formations and the use of internally coated tubing, a packer, and an inhibited annulus load fluid will adequately protect the 4½" casing from internal corrosion.

Exhibit No. 4 is a tabulation showing the lease names and well numbers of the 46 wells which will be initially connected to the proposed disposal well. Exhibit No. 4 also shows the current daily water production from each of these wells.

Exhibit Nos. 5 and 6 are log cross sections through the proposed disposal well. Traces of these cross sections are shown on Exhibit No. 1. These cross sections show pertinent completion data for the proposed disposal well and for other wells offsetting this well.

Approximately 365 barrels per day of Abo produced water will be initially injected into the Abo interval 6001-93'. The upper portion of this proposed injection interval was previously perforated in the interval 6001-18', acidized with 20,000 gallons of 15% hydrochloric acid and fraced with 71,000 gallons brine water and 65,000 lbs. of sand. The

interval 6001-18' was pump tested for 66 days and produced a total of 751 barrels of formation water and 11 barrels of oil and last tested 25 barrels of water and 0 barrels of oil. The interval 5938-70' was perforated, treated with 15,000 gallons of 15% hydrochloric acid and produced 470 barrels of formation water and no oil in 13 days. The interval 5910-15' was perforated, treated with 5000 gallons of 15% hydrochloric acid and produced 498 barrels of formation water and no oil in 28 days.