STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 9148

APPLICATION OF TEXACO PRODUCING INC. FOR A DRILLING PERMIT IN THE POTASH-OIL AREA, EDDY COUNTY, NEW MEXICO.

CASE NO. 9158

APPLICATION OF TEXACO PRODUCING INC. FOR A DRILLING PERMIT IN THE POTASH-OIL AREA, EDDY COUNTY, NEW MEXICO.

ORDER R-8491

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on June 18, 1987, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this <u>17th</u> day of August, 1987, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) Case 9148 involves application of Texaco Producing Inc. for a drilling permit to drill its proposed Forty Niner Ridge Unit Well No. 3 at a location 2310 feet from the North and East lines (Unit G) of Section 16, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico in the potash-oil area on which an arbitration meeting was held in January, 1986 without success, examiner hearing was set for June 3, 1987 and which was continued to this hearing before the Commission on June 18, 1987. -2-Cases Nos. 9148 and 9158 Order No. R-8491

(3) Case 9158 involves application of Texaco Producing Inc. for a drilling permit to drill its proposed Forty Niner Ridge Unit Well No. 3 at an alternate location 2310 feet from the North line and 1980 feet from the West line (Unit F) of said Section 16, upon which arbitration meeting was held May 29, 1987 without success and application for hearing thereupon was filed before the Commission together with Case 9148 on June 18, 1987.

(4) At the hearing, Cases 9148 and 9158 were consolidated for purposes of testimony.

(5) Applicant is operator of the Forty Niner Ridge Unit and desires to drill both wells at the described locations in compliance with plan of development approved by Bureau of Land Management and the Commissioner of Public Lands of New Mexico (Commissioner).

(6) The proposed drill sites are on lands administered by Commissioner.

(7) Failure to drill said wells places at risk the continued existence of the Forty Niner Ridge Unit as presently formed.

(8) Said applications were protested by International Minerals Corporation (IMC) and Western-AG Minerals Corp., both of which mine potash in the general area.

(9) IMC holds no lease or other authorization to mine potash in Section 16 and therefore is not an interested party in this proceeding, but Western AG, who does own potash lease rights under Section 16, joined in the protest.

(10) There is no active mining or plans to mine within three years in Section 16.

(11) Protestants contend that drilling at the proposed locations will cause waste of commercial potash reserves and endanger the lives of their employees.

(12) The evidence introduced at the hearing shows that the location in Case 9148 may be on the edge of commercial potash reserves and the location in Case 9158 is in a barren area which would cause a relatively small area of potash to be unmineable if said well is to be protected from subsidence caused by secondary mining of potash. -3-Cases Nos. 9148 and 9158 Order No. R-8491

(13) Protestants further contend that both the requested locations can be reached by directional drilling from locations adjacent to existing wells via the Forty Niner Ridge Unit Well No. 1 located 1980 feet from South and East lines of said Section 16.

(14) Applicant's estimated cost to drill a vertical well at either location is \$301,000 whereas the estimated cost to drill a directional well from the drilling pad of Forty Niner Ridge Unit Well No. 1 to the location in Unit G is \$361,000, a differential cost of \$60,000. The estimated cost to drill a directional well to the location in Unit F is economically marginal.

(15) The estimated operating costs of a directional well as opposed to a vertical well is approximately \$10,000 per year higher.

(16) The additional cost to drill, complete and operate a directional well as compared to a vertical well will raise the economic limit to the extent that waste will occur because the estimated recoverable reserves will be reduced by approximately 6,000 barrels of oil.

(17) The reservoir in the Cherry Canyon member of the Delaware Mountain group found at approximately 5500 feet from the surface is under relatively low pressure as compared to wells in other areas at similar depth or deeper.

(18) The provisions of Order R-111, as amended, and the terms of this order require drilling, completion and mining practices that prevent undue waste of the potash reserves and should protect the safety of potash miners.

(19) Protestants potash reserve map, confidential Exhibit "D", failed to honor a core hole drilled in the northwest quarter - northwest quarter of Section 16, the exclusion of which invalidates the interpretation shown on the exhibit.

(20) The location in Unit G can feasibly and economically be drilled by a directional well from the drilling pad at Forty Niner Ridge Unit No. 1 and therefore the application in Case 9148 should be <u>denied</u>.

(21) The location in Unit F cannot feasibly and economically be drilled by a directional well and therefore a vertical well should be permitted as requested in Case 9158. -4-Cases Nos. 9148 and 9158 Order No. R-8491

(22) The casing procedure in Order R-111-A for a deep well should be used, and in order to assure that the proper procedures are followed protestant may, if he so chooses, be permitted to have a representative present to observe drilling, casing and cementing procedures for the salt protection string of casing, required by Order R-111-A.

(23) If said well is completed as a producer, the potash lessee or his assignee, so long as said well has not been properly plugged and abandoned, should refrain from primary mining within 100 feet of said well and further refrain from secondary mining within 1200 feet of the well.

(24) Waste of potash caused by the drilling of the well in Unit F may be negligible if the well is dry or is plugged and abandoned prior to mining in the area and will be relatively small if the well is completed as a producer.

(25) The granting of permit to drill in Case 9158 and denial of permit in Case 9148 will permit development of oil and gas and thus prevent waste of the hydrocarbon resources without undue waste of potash resources as directed by the Oil and Gas Act, 70-2-12 (17) NMSA.

IT IS THEREFORE ORDERED THAT:

(1) The application of Texaco Producing Inc. in Case 9148 is hereby denied, inasmuch as this location can be feasibly and economically drilled by a directional well from an existing well site.

(2) The application of Texaco Producing Inc. in Case 9158 is hereby approved and the drilling of the Forty Niner Ridge Unit Well No. 3 to the Delaware formation at a location 2310 feet from the North line and 1980 feet from the West line of Section 16, Township 23 South, Range 30 East, NMPM Eddy County, New Mexico, is hereby authorized.

(3) The deep well provisions of Order R-111-A are to be complied with in all respects so as to protect potash reserves in the nearby area.

(4) Western-AG Potash Co is authorized to have a representative on location to observe all drilling, casing and cementing operations involved in setting the salt protection string of casing.

-5-Cases Nos. 9148 and 9158 Order No. R-8491

(5) After the well is drilled and until it is plugged and abandoned in conformance with a Division-approved plugging procedure, the potash lessee or other party having the right to mine potash in said Section 16 shall refrain from mining closer than 100 feet to said well and, further, shall refrain from secondary mining nearer than 1200 feet from said well.

(6) Oil and gas lessee and potash lessee shall each notify the other of any circumstances which comes to his attention which could conceivably endanger or have any adverse effect on the operations of the other.

(7) Failure to drill the well herein authorized within one year from the date of this order shall cause the order to become void and of no further effect unless said failure to drill is due to suspension of the permit hereby granted by legal authority other than this Commission.

(8) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION WILLIAM HUMPHRIES, Member 2 lie ERLING A. BROSTUEN, Member WILLIAM J. LEMA , Chairman and Secretary

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