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Replication, Transcript, Small Exhibits, Etc.

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BEFORE THE		
Gil Conservation Commission		
SANTA FE, NEW MEXICO		
November 16, 1955		
· · · · · · · · · · · · · · · · · · ·		
IN THE MATTER OF:		
CASE NO. 889,890,891,926,927,		
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TRANSCRIPT OF PROCEEDINGS	÷.)	
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ADA DEARNLEY AND ASSOCIATE		
COURT REPORTERS		

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BEFORE THE OIL CONSERVATION COMMISSION Santa Fe, New Mexico	
November 16, 1955)
IN THE MATTER OF:))
Application of Southwest Potash Corporation for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.) Case No. 889)
IN THE MATTER OF:)
Application of International Minerals and Chemical Corporation for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.)) Case No. 890
IN THE MATTER OF:	
Application of Duval Sulphur and Potash Company for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 891
IN THE MATTER OF:	
Application of National Farmers Union) Service Corporation for extension of) Area "B" and creation of a new Area "A") in the potash-oil area in Eddy and Lea) Counties, New Mexico, as defined by Order) R-111 issued in Case 278.)	Case No. 926
IN THE MATTER OF:	
Application of U. S. Pctash Company for) extension of Area "A" of the potash-oil) area in Eddy County, as defined by Order) R-111 issued in Case 278.	Case No. 927

IN THE MATTER OF:

Application of National Potash Company for extension of Area "A" of the potash-oil area in Eddy and Lea Counties, New Mexico, as defined by Order R-111 issued in Case 278.

Case No. 935

BEFORE:

Honorable John F. Simms, Jr. Mr. E. S. (Johnny) Walker Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The hearing will come to order, please. The next cases on the docket are Cases 889, 890, 927 and 935. In each of these cases we have a letter or telegram, as the case may be, from the applicant requesting dismissal of the cases. Without objection we will dismiss Cases 889, 890, 927 and 935.

In Cases 891 and 926, inasmuch as Order R-111 is no longer in effect, those cases likewise will be dismissed, without objection.

STATE OF NEW MEXICO) : SS. COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

PUBLIC-COURT REPORTER

My commission expires:

June 19, 1959.

ADA DEARNLEY & ASSOCIATES STENOTYPE REPORTERS ALBUQUERQUE, NEW MEXICO TELEPHONE 3-6691

	BEFORE THE	
	Oil Conservation Commission	
	SANTA FE, NEW MEXICO	
	June 2°, 1955	
IN THE MATTER OF:		
	}	
CASE NOS 889	2. 890 & 891	
	TRANSCRIPT OF PROCEEDINGS	
	ADA DEARNLEY AND ASSOCIATES	
•	COURT REPORTERS 605 SIMMS BUILDING	
	TELEPHONE 3-6691	

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	BEFORE THE OIL CONSERVATION COMMISSION Santa Pe, New Mexico June 28, 1955						
	IN THE MATTER OF:)					
	Application of Southwest Potash Corporation for extension of Area "A" of the potash-cil area in Eddy County, as defined by Order R-111 issued in Case 278.						
	Application of International Minerals Chemical Corporation for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 390					
	Application of Duval Sulphur and Potash Company for extension of Area "A" of the potash-oil area in Eddy County, as defined by Order R-111 issued in Case 278.	Case No. 891 (Consolidated)					
	BEFORE: Honorable John F. Simms Mr. E. S. (Johnny) Walker Mr. William B. Macey						
	TRANSCRIPT OF HEARING		{				
-	MR. MACEY: Gentlemen, before we bring up the	next case on					
	the docket, I want to take up Cases 889, 890 and 891	. Those three					
	cases are known as the potash-oil cases. The Commit	tee which has					
	been appointed in those cases has had a meeting and in each instance						
	of Cases 889, 890 and 891, the operators have asked for a continu-						
	ance in the cases until the August 17th hearing. Therefore, with-						
	out objection, we will continue those three cases until the August						
	17th hearing.						

ADA DEARNLEY & ASSOCIATES stenotype reporters Albuquerque, New Mexico Telephone 3-6691

STATE OF NEW MEXICO) COUNTY OF BERNALILLO)

I, ADA DEARNLEY , Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this _30th day of _____, 1955.

ss.

Notary Public, Court Reporter

My Commission Expires:

me 17, 1959

ORDER R-111 PAGE -10-

IX FILING OF WELL AND MINE SURVEYS

Each oil and gas lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to the potash lessees involved certified directional surveys from the surface to a point below the lowest known potash-bearing horizon for each oil or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas leases.

X

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

XI ADOPTION

The foregoing Rules and Regulations are hereby adopted by the Oil Conservation Commission and adopted, ratified and confirmed by the Commissioner of Public Lands of the State of New Mexico this _____ Day of November, 1951.

DONE at Santa Fe, New Mexico this 9th day of November, 1951.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

GUY SHEPARD, Member

R. R. SPURRIER, Secretary

GUY SHEPARD Commissioner of Public Lands ORDER R-111 PAGE -9-

(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be cemented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that is, no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Commenting procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (c), (f) and (g) for the salt protection string.

DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section shall consist of water, to which has been added sufficient salts of a character common to the zone penetrated to completely saturate the mixture. Other admixtures may be added to the fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI

PLUGGING AND ABANDONMENT OF WELLS

All wells heretofor and hereafter drilled within Areas "A" and "B" shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section.

VII

LOCATIONS FOR TEST WELLS

Before drilling for oil or gas on lands in Areas "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent by registered mail to the potash lessee involved, if any. Upon proper showing of such notice and if no objection to the location of the proposed well is made by the potash lessee within ten days, a drilling permit may be issued and the work may proceed. If, however, the location of the proposed well is objected to by the potash lessee on the grounds that the location of the well is not in accordance with the foregoing regulations, the potash lessee may file a written objection within ten days for consideration and decision by the Oil Conservation Commission.

VIII

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations. ORDER R-111

PAGE -8-

(b) The salt protection string shall be cemented, as follows:

(i) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(11) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) percent of calcium chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(f) Cement shall be allowed to stand a minumum of twelve (12) hours under pressure and a total of twenty-four hours (24) before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) If cable tools are used, the mud shall be bailed from the hole and if the hole does not remain dry for a period of one hour, corrective measures shall be applied.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas e ploratory test wells to the deep zone, an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (f) and (g) for the salt protection string.

ORDER NO. R-111 PAGE -7-

(2) Area "P"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

(3) Upon the discovery hereafter of oil and gas in Areas "A" or "B", the Oil Conservation Commission shall promulgate field or pool rules for the affected area after due notice and hearing.

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B", or both.

IV DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5,000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5,000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A Surface casing string of new, second-hand, or reconditioned pipe shall be set in the "Red Bed" section of the Basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) If cable tools are used, the mud shall be bailed from the hole, and if the hole does not remain dry for a period of one hour, corrective measures shall be applied.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand, or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section. ORDER NO. R-111 PAGE -6-

> <u>T. 22S. R. 29E</u> Sec. 1 - E/2 NW/4, SW/4 NW/4, SW/4, E/2Sec. 2 - SE/4 NE/4, E/2 SE/4 Sec. 11 - E/2 NE/4, NE/4 SE/4 Sec. 12 N/2, N/2 SW/4, N/2 SE/4

<u>T. 21S, R. 30E</u> Sec. 6 - SW/4 NW/4, W/2 SW/4 Sec. 7 - NW/4 NW/4, S/2 NW/4, SW/4 NE/4, SW/4, W/2 SE/4 Sec. 18 - NW/4, W/2 NE/4, N/2 SW/4, SW/4, NW/4 SE/4 Sec. 19 - NW/4 NW/4

<u>T, 21S. R, 30E</u> Sec. 29 - SW/4 SW/4 Sec. 30 - S/2 SW/4, S/2 SE/4 Sec. 31 - all Sec. 32 - W/2 NW/4, W/2 SW/4

<u>T. 22S. R. 30E</u> Sec. 5 - W/2 NW/4, NW/4 SW/4 Sec. 6 - N/2, SW/4, N/2 SE/4, SW/4 SE/4 Sec. 7 - N/2 NW/4, SW/4 NW/4, NW/4 NE/4, NW/4 SW/4

(c) Area "B" is defined as that area in which core tests indicate potential potash reserves and includes the entire potash-oil area as described under "The Potash-Oil Areas" Sec. (1) (a), of this order, except and excluding lands defined and described as area "A" in "The Potash-Oil Areas, "Sec. (1) (b) of this order.

(2) Area "A" and "B" as hereinabove defined may be contracted or expanded by the Commission from time to time as circumstances or conditions may warrant, after due notice and hearing.

III EXPLORATION OF AREAS

(1) Area "A"

(a) Drilling of oil and gas exploratory test wells shall not be permitted in Area "A" except upon leases outstanding as of the effective date of these regulations, provided, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 1,320 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations.

(c) All future drilling of oil and gas exploratory test wells in Area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both wells and mine can be afforded.

(e) Proposals to unitize with respect to land within Area "A", as herein defined and described, will be considered on their merits.

ORDER NO. R-111 PAGE -5-

> <u>T. 22S. R. 33E</u> Sec. 4 to 6_s inclusive

T. 20S, R. 34E Sec. 31 - all

(b) Area "A" represents the area in various parts of which potash mining operations are now in progress and is described, as follows:

<u>T. 195. R. 30E</u> Sec. 9 - SE/4 NW/4, E/2 SW/4, S/2 NE/4, SE/4 Sec. 10 - SW/4 NW/4, W/2 SW/4 Sec. 15 - NW/4 NW/4 Sec. 16 - N/2 NE/4, NE/4 NW/4 Sec. 26 - S/2 NW/4, SW/4 NE/4, W/2 SE/4, SW/4 Sec. 27 - S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4, SE/4 Sec. 28 - SE/4 SE/4 Sec. 33 - SE/4 NW/4, NE/4 NE/4, S/2 NE/4, E/2 SW/4, SE/4 Sec. 34 - all Sec. 35 - NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4, SW/4 SW/4 <u>T. 20S. R-30E</u> Sec. 2 - W/2 NW/4, NW/4 SW/4 Sec. 3 - N/2, SW/4, N/2 SE/4, SW/4 SE/4 Sec. 4 - E/2, SW/4, E/2 NW/4, SW/4 NW/4 Sec. 5 - SE/4 NE/4, E/2 SE/4, SW/4 SE/4, SE/4 SW/4 Sec. 7 - SE/4 SE/4 Sec. 5 - SE/4 NE/4, E/2 SE/4, SW/4 SE/4, SE/4 SW/4 Sec. 7 - SE/4 SE/4 Sec. 8 - E/2, E/2 NW/4, E/2 SW/4, SW/4 SW/4 Sec. 9 - N/2, SW/4, N/2 SE/4, SW/4, SE/4 Sec. 10 - NW/4, W/2 NE/4, NW/4, SE/4, N/2 SW/4 Sec. 16 - N/2 NW/4, NW/4 NE/4 Sec. 17 - W/2, N/2 NE/4, SW/4 NE/4, W/2 SE/4 Sec. 18 - E/2 NE/4, E/2 SE/4 Sec. 19 - NE/4 NE/4 Sec. 19 - NE/4 NE/4 Sec. 20 - N/2 NW/4, NW/4 NE/4 Sec. 25 - SW/4 SW/4 Sec. 26 - SE/4 SW/4, S/2 SE/4 Sec. 35 - E/2 NW/4, NE/4, N/2 SE/4, NE/4 SW/4 Sec. 36 - W/2 NW/4, NW/4 SW/4 <u>T. 21S. R. 29E</u> Sec. 1 - SE/4, S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4 Sec. 2 - SE/4 SE/4 Sec. 11 - NE/4 NE/4, S/2 NE/4, SE/4 NW/4, E/2 SW/4, SE/4 Sec. 12 - all Sec. 12 - 311Sec. 13 - N/2, SE/4, N/2 SW/4, SE/4 SW/4 Sec. 14 - E/2 NW/4, NE/4, NE/4 SW/4, N/2 SE/4 Sec. 24 - NE/4 NW/4, N/2 NE/4 Sec. 25 - SE/4 SW/4, S/2 SE/4 Sec. 36 - E/2 NW/4, E/2 SW/4, E/2

ORDER NO. R-111 PACE -4-

> T, 21S, R, 31E Sec. 1 - N/2 Sec. 2 - N/2 Sec. 4 - W/2 Sec. 5 and 6 - all Sec. 18 - S/2Sec. 19 - N/2 T, 22S, R, 31E

Sec. 4 to 9, inclusive Sec. 17 and 18 - all Sec. 19 - N/2

T. 23S. R. 31E Sec. 7 - all Sec. 8 - S/2 Sec. 16 - SW/4 Sec. 17 to 20, inclusive Sec. 21 - W/2 Sec. 28 to 33, jaclusive

<u>T. 24S. R. 31E</u> Sec. 4 to 6, inclusive

T. 195. R. 32E Sec. 23, S/2 Sec. 24 to 27, inclusive Sec. 28 - S/2 Sec. 31 - S/2 Sec. 32 - S/2 Sec. 33 to 36, inclusive

 $\frac{T_{\circ} 20S_{\circ} R_{\circ} 32E}{Sec. 1 to 36, inclusive}$

T, 21S, R, 32E Sec. 1 to 17, inclusive Sec. 21 to 27, inclusive Sec. 35 and 36 - all

<u>T. 195. R. 33E</u> Sec. 19 - all Sec. 30 and 31 - all

<u>T. 20S. R. 33E</u> Sec. 5 to 9, inclusive Sec. 15 to 23, inclusive Sec. 25 to 36, inclusive

T. 21S. R. 33E Sec. 4 to 9, inclusive Sec. 16 to 21, inclusive Sec. 28 to 33, inclusive ORDER NO. R-111 PAGE -3-

> T. 18S. R. 30E Sec. 32 - SW/4 and E/2 Sec. 33 and 34 - all Sec. 35 - W/2

T. 195. R. 30E Sec. 2 to 5, inclusive Sec. 6 - SE/4 Sec. 7 - NE/4 and S/2 Sec. 8 to 30, inclusive Sec. 32 to 36, inclusive

 $\frac{T. 20S. R 30E}{Sec. 1 to 36, inclusive}$

<u>T. 21S. R. 30E</u> Sec. 1 to 11, inclusive Sec. 12 - S/2Sec. 13 to 22, inclusive Sec. 23, - N/2Sec. 24 - N/2Sec. 27 to 34, inclusive Sec. 35 - S/2

<u>T. 22S. R. 30E</u> Sec. 1 to 24, inclusive Sec. 25 - W/2 Sec. 26 to 35, inclusive Sec. 36 - W/2

<u>T. 23S. R. 30E</u> Sec. 1 - S/2 Sec. 2 to 36, inclusive

 $\frac{T_{, 24S_{, R_{, 30E}}}{Sec. 1 - N/2}$ Sec. 2 - N/2 Sec. 3 - N/2

 $\frac{T_{\circ} 18S_{\circ} R_{\circ} 31E}{Sec_{\circ} 18 - W/2}$

T. 19S. R. 31E Sec. 9 and 10 - all Sec. 11 - W/2Sec. 14 - W/2Sec. 15 to 17, inclusive Sec. 19 to 22, inclusive Sec. 23 - W/2Sec. 25 - S/2Sec. 26 to 36, inclusive

T. 20S. R. 31E Sec. 1 to 36, inclusive ORDER NO. R-113 PAGE -2-

(a) The potash-oil area represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate ... potential potash reserves are located and is described, as follows:

T. 195, R. 29E Sec. 11 - SE/4 Sec. 12 - S/2 Sec. 13 and 14 - all Sec. 23 - N/2 Sec. 24 - N/2

T. 20S, R. 29E Sec. 12 - NE/4 SE/4 and S/2 SE/4 Sec. 13 - NE/4 and S/2 Sec. 22 to 27, inclusive Sec. 34 to 36, inclusive

T. 21 S. R. 29E Sec. 1 and 2, all Sec. 3 - E/2Sec. 10 - E/2Sec. 11 to 14, inclusive Sec. 15 - E/2Sec. 23 - N/2Sec. 24 and 25 - all Sec. 35 - E/2Sec. 36 - all

T. 22S, R. 29E Sec. 1 and 2 - all Sec. 3 - S/2 Sec. 9 - E/2 Sec. 10 to 16, inclusive Sec. 17 - E/2 Sec. 20 - E/2 Sec. 21 to 28, inclusive Sec. 33 to 36, inclusive

T. 23S. R. 29E Sec. 1 to 3, inclusive Sec. 4 - E/2Sec. 9 - E/2Sec. 10 to 15, inclusive Sec. 22 to 27, inclusive Sec. 34 to 36, inclusive

 $\frac{T_{2} 18S_{0} R_{0} 30E}{Sec. 12-S/2}$ Sec. 13 and 14 - all Sec. 15 - SE/4 Sec. 21 - SE/4 Sec. 22 to 24, inclusive Sec. 25 - W/2 Sec. 26 to 28, inclusive Sec. 29 - SE/4

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF DEFINING BOUNDARIES OF POTENTIAL OIL PRODUCING AREAS IN EDDY AND LEA COUNTIES, NEW MEXICO, WITHIN WHICH POTASH MINERALS ARE BEING PRODUCED OR POTENTIAL POTASH PRODUCING LANDS ARE LOCATED,

> CASE NO. 278 ORDER NO. R-111

ORDER OF THE COMMISSION

BY THE COMMISSION:

;

This cause came on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission", on June 21, 1951, and for further hearing on July 10, 1951, and the Commission, a quorum being present, having considered the testimony adduced and the exhibits introduced in evidence and arguments presented and being fully advised in the premises,

FINDS:

(1) That due notice having been given, according to law, and all interested parties having appeared, the Commission has jurisdiction of this cause, and the subject matter thereof.

(2) That an area defining potential oil and gas reserves within which are proved and potential potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as THE RULES AND REGULATIONS GOVERNING THE EXPLORATION AND PRODUCTION OF OIL AND GAS IN CERTAIN AREAS AND SUB-AREAS HEREIN DEFINED AND KNOWN TO CONTAIN PROVED AND SEMI-PROVED POTASH MINERALS IN THE AREA AND SUB-AREAS HEREINAFTER SET OUT.

I OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of Oil and Gas resources of New Mexico and permit the simultaneous economic recovery of potash minerals in the area hereinafter defined.

II THE POTASH-OIL AREAS

(1) These Rules and Regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential Potash-Oil areas herein as "Area A" and "Area B".

INTERNATIONAL MINEBALS & CHEMICAL CORPORATION

POTASH DIVISION CARLSBAD, NEW MEXICO

March 25, 1955

Mr. W. B. Macey, Secretary-Director Oil Conservation Comission Santa Fe, New Mexico

Dear Stri

International Minerals and Chemical Corporation requests the expansion of "Area A" of the provisions of Commission Order No. Rlll to include the following described lands.

 T21S, R29E

 Sec. $35 - SE_3^2$

 Sec. $36 - W_3^2 SW_3^2$

 T22S, R29E

 Sec. $1 - NW_3^2 NW_3^2$

 Sec. $2 - W_3^2$, $N_3^2 NE_3^2$, $SW_3^2 NE_3^2$, $W_3^2 SE_3^2$

 Sec. 10 - All

 Sec. $11 - W_3^2$, $W_3^2 NE_3^2$, $W_3^2 SE_3^2$

 Sec. $11 - W_3^2$, $W_3^2 NE_3^2$, $W_3^2 SE_3^2$, $SE_3^2 SE_3^2$

 Sec. $13 - W_3^2 SW_3^2$

 Sec. $13 - W_3^2 SW_3^2$

 Sec. 15 - All

 Sec. 23 - All

 Sec. 23 - All

 Sec. 25 - All

 Sec. 25 - All

 Sec. 25 - All

 Sec. $27 - N_3^2$

 Sec. 36 - All

In support of this request International Minerals and Chemical Corporation submits the followings

1 - International Minerals and Chemical Corporation is the owner of Federal and State Potassium Leases covering the above described lands, except those State Leases which are held by the United States Potash Company, but are being mined by "International" under a Sub-Lease agreement. Mr. W. B. Macey

-- 2 --

3/25/55

The sub-lease agreement covers the following:

T215, R29E

Sec. 36 - 12 SW

T225, R29E

Sec. 2 - Why NEA, SWA NEA, Why SEA Soc. 11 - Sh Nia, Na SWA

2 - Exhibit No. 1 shous:

- (a) Extent of mining operations as of November 9, 1951. (b) Extent of "Area A" effecting "International" as
- - described in Commission Order No. R111.

3 - Exhibit No. 2 shows:

- (a) Extent of mining operations as of March 1, 1955
 (b) Area requested to be placed in "Area A"
- (c) Extent of "Area A" as of original Order No. Rill (d) Projected mine development for period 1955 to 196
- Projected mine development for period 1955 to 1960.

International Minerals and Chemical Corporation hopes the above request will be granted, as provided for in Section II (2) of Commission Order No. R111.

Yours very truly,

leller C. A. Arend, Jr Manager

CAAIVE

cc: Mr. N. C. White w/attachment Mr. Caswell S. Neal w/attachment File

CASE 890

March 25, 1955

Mr. W. B. Macey, Secrétary-Director Oil Conservation Commission Santa Fe, Yew Mexico

Dear Sir:

International Minerals and Chemical Corporation requests the expansion of "Area A" of the provisions of Commission Order No. Rlll to include the following described lands.

T215, R29E

Sec. 35 - SEA Sec. 36 - Wa SWA

T225. R29E

Sec. 1 - NW_{2}^{1} NW_{4}^{1} Sec. 1 - NW_{2}^{1} NW_{4}^{1} Sec. 2 - W_{2}^{1} NW_{4}^{1} NE_{4}^{1} SW_{4}^{1} NE_{4}^{1} W_{2}^{1} SE_{4}^{1} Sec. 10 - All Sec. 11 - W_{2}^{1} W_{4}^{1} NE_{4}^{1} W_{2}^{1} SE_{4}^{1} SE_{4}^{1} SE_{4}^{1} Sec. 13 - W_{2}^{1} SW_{4}^{1} Sec. 13 - W_{2}^{1} SW_{4}^{1} Sec. 14 - All Sec. 15 - All Sec. 22 - All Sec. 23 - All Sec. 24 - W_{2}^{1} Sec. 25 - All Sec. 26 - All Sec. 27 - N_{2}^{1} Sec. 36 - All

In support of this request International Minerals and Chemical Corporation submits the following:

1 - International Minerals and Chemical Corporation is the owner of Federal and State Potassium Leases covering the above described lands, except those State Leases which are held by the United States Potash company, but are being mined by "International" under a Sub-Lease agreement. The sub-lease agreement covers the following:

2 - Exhibit No. 1 shows:

(a) Extent of mining operations as of November 9, 1951

(b) Extent of "Area A" effecting "International" as described in Commission order No. R111

3 - Exhibit No. 2 shows:

(a) Extent of mining operations as of March 1, 1955

(b) Area requested to be placed in "Area A"

(c) Extent of "Area A" as of original Order No. R111

(d) Projected mine development for period 1955 to 1960

International Minerals and Chemical Corporation hopes the above request will be granted, as provided for in Section II (2) of Commission Order No. Rlll.

Yours very truly,

C. A. Arend, Jr. Manager



INTERNATIONAL MINERALS & CHEMICAL CORPORATION

POTASH DIVISION CARLSBAD, NEW MEXICO

March 25, 1955

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Mr. W. B. Macey, Secretary-Director 011 Conservation Commission Santa Fe, New Mexico

Dear Sir:

International Minerals and Chemical Corporation requests the expansion of "Area A" of the provisions of Commission Order No. Rlll to include the following described lands.

<u>T215, R29E</u> Sec. 35 - SE¹

Sec. 35 - 384 Sec. 36 - 1倍 Suz

T228, R29E

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Sec.	1	-	NWZ	NW:				-	
Sec.	2		验,	Nà	NEZ,	SW	· NE	, 财营	SEZ
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Sec.	14	-	111						
Sec.	15	٠	A11	-	-				
Sec.	22	۲	A11						
Sec.	23	•••	A11						
Sec.	24	*	财						
Sec.	25	-	AII.						
Sec.	25	-	A11						
Sec.	27	-	N						
Sec.									

In support of this request International Minerals and Chemical Corporation submits the following:

1 - International Minerals and Chemical Corporation is the owner of Federal and State Potassium Leases covering the above described lands, except those State Leases which are held by the United States Potash Company, but are being mined by "International" under a Sub-Lease agreement.

3/25/55

The sub-lease agreement covers the following:

- 2 -

$$\frac{T215, R29E}{Sec. 36 - W_2^2 SW_2^2}$$

T228, R29E Sec. 2 - Wa, Na NEA, SWA NEA, Wa SEA Sec. 11 - Sá NWA, Na SWA

2 - Exhibit No. 1 shows:

- (a) Extent of mining operations as of November 9, 1951.
 (b) Extent of "Area A" effecting "International" as
 - described in Commission Order No. Rlll.

3 - Exhibit No. 2 shows:

- Extent of mining operations as of March 1, 1955 Area requested to be placed in "Area A" Extent of "Area A" as of original Order No. Rill
- (a) (b) (c) (d) Projected mine development for period 1955 to 1960.

International Minerals and Chemical Corporation hopes the above request will be granted, as provided for in Section II (2) of Commission Order No. R111.

Yours very truly,

C. A. Arend, Jr. p. Manager

CAAIVE

cc: Mr. N. C. White w/attachment Mr. Caswell S. Neal w/attachment File

OIL CONSERVATION COMMISSION P. O. 80X 871 SANTA FE, NEW MEXICO

MEMORANDUM

June 16, 1955

The meeting scheduled for Hobbs at 1:30 p.m. on June 21st of the potash-oil committee has been changed to Mabry Hall, State Capitol, Sants Pe, New Mexico, at 2:00 p.m. Mountain Daylight Time, June 21st.

Br. P. O. Davis Vice President & Treasurer Potash Company of America Carlsbad, New Mexico

Mr. C. A. Arend, Jr., Manager International Minerals & Chemical Corp. Potash Division Carlsbad, New Mexico

Hr. Howard Jennings P.O. Box 450 Roswell, New Mexico Mr. Harvey B. Yates P.O. Box 397 Artesia, Nev Mexico

Kr. Ernest A. Hanson P.O. Box 852 Roswell, New Mexico (Alternate)

Yours very truly,

W. B. Macey Secretary - Director

WBH: brp

CG-Mr. Fred Maxey N.H. OIL & Gas Assoc. P.O. Box 1291 Hoswell, New Maxico

> Mr. Charles F. Brannan National Farmers Union 1575 Sherman Street Denver 3, Colorado

U.S.G.S. P.O. Box 6721 Reswell, New Mexico Mr. A. L. Porter 0.0.0.

Hobbs, New Mexico

Kr. Anderson

Box 2045

Nr. Robert S. Fulton U.S.0.8. P.O. Box 829

321 Carper Bldg. Artesia, New Maxico

Carlsbad, New Mexico Nr. L. A. Hanson

0.0.0.



INTERNATIONAL

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RODUCTS

MINERALS & CHEMICAL CORPORATION

GENERAL OFFICES · 20 NORTH WACKER DRIVE · CHICAGO 6 P.O.BOX 71 CARLSBAD, NEW MEXICO

June 3, 1955

Mr. W. B. Macey, Secretary-Director Oil Conservation Commission Santa Fe, New Mexico

Dear Sir:

WHERALS COMMENTION

Reference is made to our conversation of June 3.

CHEMI

CALS

It is requested that International's case be continued indefinitely until such time as the committee which you are appointing has had the opportunity to study Commission Order Rlll, with the hope that a satisfactory conclusion can be reached which may result in the final analysis that no hearings will be necessary.

Very sincerely yours,

A. Arend, Manager

CAA:mbs

cc: Mr. A. Norman Into Mr. N. C. White Mr. E. K. Neumann Mr. R. H. Lane

OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

August 22, 1955

Mr. C. A. Arend, Jr. International Minerals & Chemical Corp. P.O. Box 71 Carlsbad, New Mexico

Dear Sir:

Enclosed are six copies of the proposed rules for the Potash - Oil Area as set forth in Case 278. The case will be heard at the regular September 15th hearing of this Commission.

Very truly yours,

W. B. Macey Secretary - Director

WBM:brp Enclosures.



OIL CONSERVATION COMMISSION F. O. BOX 871 SANTA FE, NEW MEXICO

January 9, 1956

Mr. C. A. Arend, Jr. International Minerals & Chemical Corp. P.O. Box 71 Carlsbad, New Mexico

Dear Sir:

D

We enclose a copy of Order R-729 issued December 14, 1955, by the Oil Conservation Commission in Case 890.

Very truly yours,

W. B. Macey Secretary - Director

WBM:brp Encl.

OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

November 1, 1955

Mr. C. A. Arend, Jr. International Minerals & Chemical Corp. P.O. Box 71 Carlsbad, New Mexico

Dear Sir:

Enclosed please find a copy of Order R-111-A which has been written by the Commission in Case 278. If you desire any further copies of this order, please contact this office or the Artesia Office of the Commission.

Very truly yours,

W. B. Macey Secretary - Director

WEM: brp Enclosure REFORE THE OIL CONNERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> CACE NO. 890 ORDER NO. 8-729

and the second state of th

THE APPLICATION OF INTERNATIONAL MINERALS AND CHEMICAL CORPORATION FOR EXTENSION OF ANNA "A" OF THE POTASH - OIL AREA IN EDDY COUNTY, NEW MEXICO, AS DEFINED BY ORDER R-111 ISSUED IN CASE 278.

ORDER OF DISMIS. AL

BY THE COMMISSION:

This cause came on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission", on May 18, 1955, and was continued successively to the following dates: June 28, 1955; August 17, 1955; September 15, 1955; October 13, 1955, and November 16, 1955.

NOW, on this day of <u>December</u>, 1955, the Commission, a quorum being present, having considered the records and testimony adduced and being fully advised in the premises;

FINDS:

(1) That due notice having been given according to law and all interested parties having appeared, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the subject matter of the application herein is now fully covered by Order R-111-A and that no further action is deemed necessary on subject application.

IT IS THEREFORE ORDERED:

That the application of the International Minerals and Chemical Corporation for extension of Area "A" of the potash - oil area in Eddy County, as presently defined by Order R-111 issued in Case 278, be and the same is hereby dismissed.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

.7L JOHN F. SIMMS, Chairman

. S. WALKER, Member

W 33 Macey W. B. MACEY, Member Jose Socratary



OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

April 5, 1955

Hr. C. A. Arend, jr., Hanager International Minerals & Chemical Corp. P. O. Box 71 CARLSBAD, NEW NEXICO

Dear Sir:

Reference is made to your letter of Karch 25 in which you request expansion of "Area A" as described in Oil Conservation Commission Order R-111 to include certain areas in Township 21 South, Range 29 Kast.

It will be necessary for this request to come before the Commission in public hearing, and we therefore will set the matter up as a case and set it for hearing at the regular Kay 18 hearing, unless you advise otherwise. We would greatly appreciate having two more copies of your application (with attached exhibits) for our case records.

Very truly yours,

WBMINT

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W. B. Macey Secretary - Director

co: Oil Conservation Commission: Artesia Hobbs

> U. S. Geological Survey, Artesia Attn: Er. John Frost

State Land Office, Santa Fe: Attn: Mr. E. S. Walker

INTERNATIONAL

MINERALSA & CHEMICAL CORPORATION

GENERAL OFFICES . 20 NORTH WACKER DRIVE . CHICAGO 6

March 25, 1955

P. O. BOX 71 CARLSBAD, NEW MEXICO

MINERALS + AMINO PRODUCTS

Mr. W. B. Macey, Secretary-Director Oil Conservation Commission Santa Fe, New Mexico

Dear Sir:

EMIL'S

International Minerals and Chemical Corporation requests the expansion of "Area A" on the provisions of Commission Order No. Rlll to include the following described lands.

T21S, R29E

Sec. $35 - SE_{\frac{1}{2}}^{\frac{1}{2}}$ Sec. $36 - W_{\frac{1}{2}}^{\frac{1}{2}} SW_{\frac{1}{4}}^{\frac{1}{2}}$

T22S, R29E

Sec. 1 - NW_{4}^{1} NW_{4}^{1} Sec. 2 - W_{2}^{1} , N_{2}^{1} NE_{4}^{1} , SW_{4}^{1} NE_{4}^{1} , W_{2}^{1} SE_{4}^{1} Sec. 10 - All Sec. 11 - W_{2}^{1} , W_{2}^{1} NE_{4}^{1} , W_{2}^{1} SE_{4}^{1} , SE_{4}^{1} SE_{4}^{1} Sec. 13 - W_{2}^{1} , SW_{4}^{1} Sec. 13 - W_{2}^{1} SW_{4}^{1} Sec. 15 - All Sec. 15 - All Sec. 22 - All Sec. 23 - All Sec. 24 - W_{2}^{1} Sec. 26 - All Sec. 27 - N_{2}^{1} Sec. 36 - All

In support of this request International Minerals and Chemical Corporation submits the following:

1 - International Minerals and Chemical Corporation is the owner of Federal and State Potassium Leases covering the above described lands, except those State Leases which are held by the United States Potash Company, but are being mined by "International" under a Sub-Lease agreement.

CHEMICALS + INDUSTRE

Mr. W. B. Macey

- 2 -

3/25/55

The sub-lease agreement covers the following:

T21S, R29E

Sec. 36 - W2 SW2

T22S, R29E

Sec. 2 - W_2^1 , N_2^1 NE $\frac{1}{4}$, SW_4^1 NE $\frac{1}{4}$, W_2^1 SE $\frac{1}{4}$ Sec. 11 - S_2^1 NW $\frac{1}{4}$, N_2^1 SW $\frac{1}{4}$

2 - Exhibit No. / shows:

- (a) Extent of mining operations as of November 9, 1951
- (b) Extent of "Area A" effecting "International" as described in Commission Order No. R111.

3 - Exhibit No. 2 shows:

- Extent of mining operations as of March 1, 1955 (a)
- Area requested to be placed in "Area A" (b)
- Extent of "Area A" as of original Order No. R111 (c)
- (d)Projected mine development for period 1955 to 1960.

International Minerals and Chemical Corporation hopes the above request will be granted, as provided for in Section II (2) of Commission Order No. Rlll.

Yours very truly,

C. A. Arend, Jr.

Manager

CAA:vs

cc: Mr. N. C. White w/attachment Mr. Caswell S. Neal w/attachment File

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF DEFINING BOUNDARIES OF POTENTIAL OIL PRODUCING AREAS IN EDDY AND LEA COUNTIES, NEW MEXICO, WITHIN WHICH POTASH MINERALS ARE BEING PRODUCED OR POTENTIAL POTASH PRODUCING LANDS ARE LOCATED,

> CASE NO. 278 ORDER NO. R-111

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission", on June 21, 1951, and for further hearing on July 10, 1951, and the Commission, a quorum being present, having considered the testimony adduced and the exhibits introduced in evidence and arguments presented and being fully advised in the premises,

FINDS:

(1) That due notice having been given, according to law, and all interested parties having appeared, the Commission has jurisdiction of this cause, and the subject matter thereof.

(2) That an area defining potential oil and gas reserves within which are proved and potential potash deposits, and the promulgation of rules and regulations for the orderly development of oil and gas resources in such an area known to be productive of potash is within the authority of the Commission for the protection of correlative rights, the promotion of conservation, and the prevention of waste.

IT IS THEREFORE ORDERED:

That this order shall be known as THE RULES AND REGULATIONS GOVERNING THE EXPLORATION AND PRODUCTION OF OIL AND GAS IN CERTAIN AREAS AND SUB-AREAS HEREIN DEFINED AND KNOWN TO CONTAIN PROVED AND SEMI-PROVED POTASH MINERALS IN THE AREA AND SUB-AREAS HEREINAFTER SET OUT.

I OBJECTIVE

The objective of these Rules and Regulations is to prevent waste, protect correlative rights, assure maximum conservation of Oil and Gas resources of New Mexico and permit the simultaneous economic recovery of potash minerals in the area hereinafter defined.

II THE POTASH-OIL AREAS

(1) These Rules and Regulations are applicable to oil and gas operations and to exploration for and production of oil and gas in proven or potential Potash-Oil areas herein as "Area A" and "Area B".

ORDER NO. R-111 PAGE -2-

(a) The potash-oil area represents the area in various parts of which potash mining operations are now in progress, or in which core tests indicate potential potash reserves are located and is described, as follows:

T. 195, R. 29E Sec. 11 - SE/4Sec. 12 - S/2Sec. 13 and 14 - all Sec. 23 - N/2Sec. 24 - N/2T. 20S. R. 29E Sec. 12 - NE/4 SE/4 and S/2 SE/4 Sec. 13 - NE/4 and S/2 Sec. 22 to 27, inclusive Sec. 34 to 36, inclusive T. 21 S, R. 29E Sec. 1 and 2, all Sec. 3 - E/2Sec. 10 - E/2Sec. 11 to 14, inclusive Sec. 15 - E/2Sec. 23 - N/2Sec. 24 and 25 - all Sec. 35 - E/2 Sec. 36 - all <u>T. 225, R, 29E</u> Sec. 1 and 2 - all Sec. $3 \sim S/2$ Sec. 9 - E/2Sec. 10 to 16, inclusive Sec. 17 - E/2Sec. 20 - E/2Sec. 21 to 28, inclusive Sec. 33 to 36, inclusive T. 23S. R. 29E Sec. 1 to 3, inclusive Sec. 4 - E/2Sec. 9 - E/2Sec. 10 to 15, inclusive Sec. 22 to 27, inclusive Sec. 34 to 36, inclusive Sec. 34 to 36, inclusive <u>T. 185. R. 30E</u> Sec. 12-S/2 Sec. 13 and 14 - all Sec. 15 \sim SE/4 Sec. 21 \sim SE/4 Sec. 22 to 24, inclusive Sec. 25 - W/2Sec. 26 to 28, inclusive

Sec. 29 - SE/4

ORDER NO. R-111 PAGE -3-

> <u>T. 18S. R. 30E</u> Sec. 32 - SW/4 and E/2 Sec. 33 and 34 - all Sec. 35 - W/2

T. 19S. R. 30E Sec. 2 to 5, inclusive Sec. 6 - SE/4 Sec. 7 - NE/4 and S/2 Sec. 8 to 30, inclusive Sec. 32 to 36, inclusive

T. 20S. R 30E Sec. 1 to 36, inclusive

<u>T. 21S. R. 30E</u> Sec. 1 to 11, inclusive Sec. 12 - S/2Sec. 13 to 22, inclusive Sec. 23, - N/2Sec. 24 - N/2Sec. 27 to 34, inclusive Sec. 35 - S/2

T. 22S, R. 30E Sec. 1 to 24, inclusive Sec. 25 - W/2Sec. 26 to 35, inclusive Sec. 36 - W/2

<u>T. 23S. R. 30E</u> Sec. 1 - S/2 Sec. 2 to 36, inclusive

 $\frac{T. 18S. R. 31E}{Sec. 18 - W/2}$

<u>T. 19S. R. 31E</u> Sec. 9 and 10 - all Sec. 11 - W/2Sec. 14 - W/2Sec. 15 to 17, inclusive Sec. 19 to 22, inclusive Sec. 23 - W/2Sec. 25 - S/2 Sec. 26 to 36, inclusive

<u>T. 20S. R. 31E</u> Sec. 1 to 36, inclusive ORDER NO. R-111 PAGE -4-

> T, 21S, R, 31E Sec. 1 - N/2 Sec. 2 - N/2 Sec. 4 - W/2 Sec. 5 and 6 - all Sec. 18 - S/2 Sec. 19 - N/2 T, 22S, R, 31E Sec. 4 to 9, inclusive Sec. 17 and 18 - all Sec. 19 - N/2 T, 23S, R, 31E Sec. 7 - all Sec. 8 - S/2 Sec. 16 - SW/4 Sec. 17 to 20, inclusive Sec. 21 - W/2 Sec. 28 to 33, inclusive T, 24S, R, 31E Sec. 4 to 6, inclusive T, 19S, R, 32E Sec. 24 to 27, inclusive Sec. 31 - S/2 Sec. 31 - S/2 Sec. 32 - S/2 Sec. 33 to 36, inclusive

<u>T. 20S. R. 32E</u> Sec. 1 to 36, inclusive

T. 215. R. 32E Sec. 1 to 17, inclusive Sec. 21 to 27, inclusive Sec. 35 and 36 - all

<u>T. 195. R. 33E</u> Sec. 19 - all Sec. 30 and 31 - all

T. 20S. R. 33E Sec. 5 to 9, inclusive Sec. 15 to 23, inclusive Sec. 25 to 36, inclusive

T. 21S. R. 33E Sec. 4 to 9, inclusive Sec. 16 to 21, inclusive Sec. 28 to 33, inclusive

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ORDER NO. R-111 PAGE -5-

> T. 22S. R. 33E Sec. 4 to 6_{\circ} inclusive

T. 20S. R. 34E Sec. 31 - all

(b) Area "A" represents the area in various parts of which potash mining operations are now in progress and is described, as follows:

<u>T. 19S. R. 30E</u> Sec. 9 - SE/4 NW/4, E/2 SW/4, S/2 NE/4, SE/4 Sec. 10 - SW/4 NW/4, W/2 SW/4 Sec. 15 - NW/4 NW/4 Sec. 15 - N/2 NE/4, NE/4 NW/4 Sec. 26 - S/2 NW/4, SW/4 NE/4, W/2 SE/4, SW/4 Sec. 27 - S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4, SE/4 Sec. 28 - SE/4 SE/4 Sec. 33 - SE/4 NW/4, NE/4 NE/4, S/2 NE/4, E/2 SW/4, SE/4 Sec. 34 - all Sec. 35 - NW/4, W/2 NE/4, NW/4 SE/4, N/2 SW/4, SW/4 SW/4 $\frac{T_{\circ} 20S_{\circ} R-30E}{Sec. 2 - W/2 NW/4, NW/4 SW/4} SW/4 Sec. 3 - N/2, SW/4, N/2 SE/4, SW/4 SE/4$ Sec. 4 - E/2, SW/4, E/2 SE/4, SW/4 NW/4Sec. 5 - SE/4 NE/4, E/2 SE/4, SW/4 SE/4, SE/4 SW/4Sec. 7 - SE/4 SE/4Sec. 8 - E/2, E/2 NW/4, E/2 SW/4, SW/4 SW/4Sec. 9 - N/2, SW/4, N/2 SE/4, SW/4, SE/4Sec. 10 - NW/4, W/2 NE/4, NW/4, SE/4Sec. 16 - N/2 NW/4, NW/4 NE/4Sec. 17 - W/2, N/2 NE/4, SW/4 NE/4, W/2 SE/4Sec. 18 - E/2 NE/4, E/2 SE/4Sec. 19 - NE/4 NE/4Sec. 20 - N/2 NW/4, NW/4 NE/4Sec. 20 - N/2 NW/4, NW/4 NE/4Sec. 25 - SW/4 SW/4Sec. 26 - SE/4 SW/4, S/2 SE/4Sec. 26 - SE/4 SW/4, S/2 SE/4 Sec. 35 - E/2 NW/4, NE/4, N/2 SE/4, NE/4 SW/4 Sec. 36 - W/2 NW/4, NW/4 SW/4 <u>T. 21S. R. 29E</u> Sec. 1 - SE/4, S/2 NE/4, SE/4 NW/4, NE/4 SW/4, S/2 SW/4 Sec. 2 - SE/4 SE/4 Sec. 2 - SE/4 SE/4 Sec. 11 - NE/4 NE/4, S/2 NE/4, SE/4 NW/4, E/2 SW/4, SE/4 Sec. 12 - all Sec. 13 - N/2, SE/4, N/2 SW/4, SE/4 SW/4 Sec. 14 - E/2 NW/4, NE/4, NE/4 SW/4, N/2 SE/4 Sec. 24 - NE/4 NW/4, N/2 NE/4 Sec. 25 - SE/4 SW/4, S/2 SE/4 Sec. 36 - E/2 NW/4, E/2 SN/4, E/2

ORDER NO. R-111 PAGE -6-

> <u>T. 22S. R. 29E</u> Sec. 1 - E/2 NW/4, SW/4 NW/4, SW/4, E/2Sec. 2 - SE/4 NE/4, E/2 SE/4 Sec. 11 - E/2 NE/4, NE/4 SE/4 Sec. 12 N/2, N/2 SW/4, N/2 SE/4

<u>T. 21S. R. 30E</u> Sec. 6 - SW/4 NW/4, W/2 SW/4 Sec. 7 - NW/4 NW/4, S/2 NW/4, SW/4 NE/4, SW/4, W/2 SE/4 Sec. 18 - NW/4, W/2 NE/4, N/2 SW/4, SW/4 SW/4, NW/4 SE/4 Sec. 19 - NW/4 NW/4

T. 21S. R. 30E Sec. 29 - SW/4 SW/4 Sec. 30 - S/2 SW/4, S/2 SE/4 Sec. 31 - all Sec. 32 - W/2 NW/4, W/2 SW/4

(c) Area "B" is defined as that area in which core tests indicate potential potash reserves and includes the entire potash-oil area as described under "The Potash-Oil Areas" Sec. (1) (a), of this order, except and excluding lands defined and described as area "A" in "The Potash-Oil Areas, "Sec. (1) (b) of this order.

(2) Area "A" and "B" as hereinabove defined may be contracted or expanded by the Commission from time to time as circumstances or conditions may warrant, after due notice and hearing.

III EXPLORATION OF AREAS

(1) Area "A"

(a) Drilling of oil and gas exploratory test wells shall not be permitted in Area "A" except upon leases outstanding as of the effective date of these regulations, provided, that oil and gas exploratory test wells shall not be drilled through any open potash mines or within 1,320 feet thereof unless agreed to in writing by the potash lessee involved.

(b) Any oil or gas leases hereafter issued for lands within Area "A" shall be subject to these regulations.

(c) All future drilling of oil and gas exploratory test wells in Area "A" shall be further subject to these rules and regulations.

(d) Where oil and gas wells are in production in Area "A", no potash mine opening shall be driven to within less than 100 feet of such wells so that protection of both wells and mine can be afforded.

(e) Proposals to unitize with respect to land within Area "A", as herein defined and described, will be considered on their merits.

ORDER NO. R-111 PAGE -7-

(2) Area "B"

(a) Oil and gas exploratory test wells may be drilled in Area "B" in accordance with these rules and regulations.

(3) Upon the discovery hereafter of oil and gas in Areas "A" or "B", the Oil Conservation Commission shall promulgate field or pool rules for the affected area after due notice and hearing.

(4) Nothing herein shall be construed to prevent unitization agreements involving lands in Areas "A" or "B", or both.

IV DRILLING AND CASING PROGRAM

(1) For the purpose of the regulations and the drilling of oil and gas exploratory test wells, shallow and deep zones are defined, as follows:

(a) The shallow zone shall include all formations above the base of the Delaware sand or above a depth of 5,000 feet, whichever is the lesser.

(b) The deep zone shall include all formations below the base of the Delaware sand or below a depth of 5,000 feet, whichever is the lesser.

(2) Surface Casing String:

(a) A Surface casing string of new, second-hand, or reconditioned pipe shall be set in the "Red Bed" section of the Basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section, as determined necessary by the regulatory representative approving the drilling operations and shall be cemented with not less than one hundred and fifty percent (150) percent of calculated volume necessary to circulate cement to the ground surface.

(b) Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(c) Casing and water-shut-off tests shall be made both before and after drilling the plug and below the casing seat as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of six hundred (600) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) If cable tools are used, the mud shall be bailed from the hole, and if the hole does not remain dry for a period of one hour, corrective measures shall be applied.

(d) The above requirements for the surface casing string shall be applicable to both the shallow and deep zones.

(3) Salt Protection String:

(a) A salt protection string of new, second-hand, or reconditioned pipe shall be set not less than one hundred (100) feet nor more than two hundred (200) feet below the base of the salt section. ORDER R-J11

PAGE -8-

(b) The salt protection string shall be cemented, as follows:

(1) For wells drilled to the shallow zone, the string may be cemented with a nominal volume of cement for testing purposes only. If the exploratory test well is completed as a productive well, the string shall be recemented with sufficient cement to fill the annular space back of the pipe from the top of the first cementing to the surface or to the bottom of the cellar, or may be cut and pulled if the production string is cemented to the surface as provided in sub-section IV (5), (a), (i) below.

(ii) For wells drilled to the deep zone, the string must be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(c) If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or gamma ray survey and additional cementing shall be done until the cement is brought to the point required.

(d) The fluid used to mix with the cement shall be saturated with the salts common to the zones penetrated and with three (3 percent) percent of calcium chloride by weight of cement.

(e) Centralizers shall be spaced on at least every one hundred fifty (150) feet of the salt protection string below the surface casing string.

(f) Cement shall be allowed to stand a minumum of twelve (12) hours under pressure and a total of twenty-four hours (24) before drilling the plug or initiating tests.

(g) Casing tests shall be made both before and after drilling the plug and below the casing seat, as follows:

(i) If rotary tools are used, the mud shall be displaced with water and a hydraulic pressure of one thousand (1000) pounds per square inch shall be applied. If a drop of one hundred (100) pounds per square inch or more should occur within thirty (30) minutes, corrective measures shall be applied.

(ii) If cable tools are used, the mud shall be bailed from the hole and if the hole does not remain dry for a period of one hour, corrective measures shall be applied.

(h) The above requirements for the salt protection string shall be applicable to both the shallow and deep zones except for sub-section IV (3), (b), (i) and (ii) above.

(4) Intermediate String:

(a) In the drilling of oil and gas exploratory test wells to the deep zone, an intermediate string shall be set at sufficient depth to case-off all formations in the shallow zone and shall be cemented with sufficient cement to fill the annular space back of the pipe from the casing seat to the surface or to the bottom of the cellar.

(b) Cementing procedures and casing tests for the intermediate string shall be the same as provided under sub-sections IV (3), (c), (f) and (g) for the salt protection string.

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(5) Production String:

(a) A production string shall be set on top or through the oil or gas pay zone and shall be commented as follows:

(i) For wells drilled to the shallow zone the production string shall be cemented to the surface if the salt protection string was cemented only with a nominal volume for testing purposes, in which case the salt protection string can be cut and pulled before the production string is cemented; provided, that if the salt protection string was cemented to the surface, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone.

(ii) For wells drilled to the deep zone, the production string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided, that is no intermediate string shall have been run and cemented to the surface, the production string shall be cemented to the surface.

(b) Commenting procedures and casing tests for the production string shall be the same as provided under sub-sections IV (3) (c), (f) and (g) for the salt protection string.

V DRILLING FLUID FOR SALT SECTION

The fluid used while drilling the salt section shall consist of water, to which has been added sufficient salts of a character common to the zone penetrated to completely saturate the mixture. Other admixtures may be added to the fluid by the operator in overcoming any specific problem. This requirement is specifically intended to prevent enlarged drill holes.

VI PLUGGING AND ABANDONMENT OF WELLS

All wells heretofor and hereafter drilled within Areas "A" and "B" shall be plugged in a manner that will provide a solid cement plug through the salt section and prevent liquids or gases from entering the hole above or below the salt section.

VII LOCATIONS FOR TEST WELLS

Before drilling for oil or gas on lands in Areas "A" or "B", a map or plat showing the location of the proposed well shall be prepared by the well operator and copy sent by registered mail to the potash lessee involved, if any. Upon proper showing of such notice and if no objection to the location of the proposed well is made by the potash lessee within ten days, a drilling permit may be issued and the work may proceed. If, however, the location of the proposed well is objected to by the potash lessee on the grounds that the location of the well is not in accordance with the foregoing regulations, the potash lessee may file a written objection within ten days for consideration and decision by the Oil Conservation Commission.

VIII

INSPECTION OF DRILLING AND MINING OPERATIONS

A representative of the potash lessee may be present during drilling, cementing, casing, and plugging of all oil or gas wells on his lease to observe conformance with these regulations. Likewise, a representative of the oil and gas lessee may inspect mine workings on his lease to observe conformance with these regulations.

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IX

FILING OF WELL AND MINE SURVEYS

Each oil and gas lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to the potash lessees involved certified directional surveys from the surface to a point below the lowest known potash-bearing horizon for each oil or gas well drilled in Area "A" during the preceding calendar year. Each potash lessee shall furnish not later than January 31st of each year to the Oil Conservation Commission and to each oil and gas lessee involved, certified plat of survey of the location of open mine workings underlying outstanding oil and gas lesses.

X

APPLICABILITY OF STATEWIDE RULES AND REGULATIONS

All general statewide rules and regulations of the Oil Conservation Commission governing the development, operation, and production of oil and gas in the State of New Mexico not inconsistent or in conflict herewith, are hereby adopted and made applicable to the areas described herein.

XI

ADOPTION

The foregoing Rules and Regulations are hereby adopted by the Oil Conservation Commission and adopted, ratified and confirmed by the Commissioner of Public Lands of the State of New Mexico this _____ Day of November, 1951.

DONE at Santa Fe, New Mexico this 9th day of November, 1951.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

GUY SHEPARD, Member

R. R. SPURRIER, Secretary

GUY SHEPARD Commissioner of Public Lands