

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 5403  
Order No. R-5003

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION ON ITS OWN MOTION TO  
FURTHER CONSIDER THE SUBJECT  
MATTER OF CASE NO. 5377.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 22, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 29th day of April, 1975, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That on December 3, 1974, the Commission heard Case No. 5377, and thereafter entered Order No. R-4936 on December 5, 1974.

(3) That by said Order No. R-4936, the Commission found that all water being injected into the Queen and/or San Andres formations in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, and in Sections 1 through 12, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, is not being contained in the formation in which it is placed, and that injected water has appeared in formations above the top of the salt section found at a depth of approximately 1300 feet in the subject area, in the salt section from approximately 1300 feet to 2400 feet, and in formations from the base of the salt section at approximately 2400 feet to the top of the Queen formation at approximately 3400 feet.

(4) That by said Order No. R-4936, the Commission ordered that the operator of each secondary recovery injection project in Sections 14, 21, 22, 23, 26, 27, 28, 33, and 34, Township 22 South, Range 37 East, NMPM, and in Sections 3, 4, 9, and 10, Township 23 South, Range 37 East, NMPM, reduce the total injection of water into the Queen formation to an amount equalling the reservoir voidage of the Queen formation by wells in said area; further, that the operator of each secondary recovery injection project in Sections 19, 20, 29, 30, 31, and 32, Township 22 South, Range 37 East, NMPM, and in Sections 5, 6, and 8, Township 23 South, Range 37 East, NMPM, reduce the total injection of water into the Queen formation to an amount equalling 150 percent of the reservoir voidage of the Queen formation by wells in said area.

(5) That by said Order No. R-4936, the Commission further ordered that the Skelly Oil Company LPG Well No. 3, located in Unit F of Section 27, Township 22 South, Range 37 East, NMPM, be produced at the capacity of the well to flow water; further that Skelly Oil Company not dispose of any waters other than normal gasoline plant water effluent into its Eunice GP Well No. 1, located in Unit L of Section 27, Township 22 South, Range 37 East, NMPM, but that disposal into said well into the San Andres formation would be continued to be permitted; and further that continued disposal of water into the San Andres formation by Agua, Inc., and Armer Oil Company into their disposal wells located in Unit H of Section 35, Township 22 South, Range 37 East, NMPM, and Unit M of Section 2, Township 23 South, Range 37 East, NMPM, respectively, be permitted.

(6) That by said Order No. R-4936, the Commission further ordered that the operator of any well in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, or Sections 1 through 12, Township 23 South, Range 37 East, NMPM, when planning to cement or recement casing in the Queen and/or San Andres formations, notify the Hobbs district office of the Commission at least 24 hours prior to commencement of cementing operations; that the District Supervisor of the Commission notify the operator of any injection or disposal well within a radius of 1320 feet of the well to be cemented of the date and hour of commencement of cementing operations; and that the operator of such injection or disposal well cease injection into said well at least 12 hours prior to commencement of cementing operations and not resume injection for at least 36 hours after completion thereof.

(7) That by said Order No. R-4936 the Commission directed the Secretary-Director of the Commission to appoint a study committee to further investigate the condition of all wells in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, and in Sections 1 through 12, Township 23 South, Range 37 East, NMPM, and that said committee report its findings and also make recommendations as to the proper remedial action or actions which should be taken or required.

(8) That the Secretary-Director of the Commission did appoint a study committee and that said committee, chaired by the Supervisor of the Hobbs District Office of the Commission, hereinafter referred to as the Supervisor, divided itself into two sub-committees, one to study and investigate the north area of the lands under consideration, being all of Sections 13 through 30, the N/2 of Section 31, the E/2 NE/4 of Section 32, the N/2 of Section 33, the N/2 and SE/4 of Section 34, and all of Sections 35 and 36, Township 22 South, Range 37 East, NMPM, and the other sub-committee to study and investigate the south area of the lands under consideration, being the S/2 of Section 31, the NW/4, W/2 NE/4 and S/2 of Section 32, the S/2 of Section 33, and the SW/4 of Section 34, Township 22 South, Range 37 East, NMPM, and all of Sections 1 through 12, Township 23 South, Range 37 East, NMPM.

(9) That in the hearing of the instant case, testimony, evidence and recommendations were presented concerning each of the aforesaid areas.

(10) That casing cement throughout the Queen formation and with a cement top of no more than 3100 feet beneath the surface of the ground has been established by the study committee as being necessary to ensure that fluids in the Queen formation and other formations beneath the Queen formation are contained in their respective formations and cannot migrate into formations above the top of the Queen formation; that the Commission concurs with said determination and hereby finds that all wells in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, and in Sections 1 through 12, Township 23 South, Range 37 East, NMPM, completed in the Queen formation, or deeper, should be cemented, or recemented, to provide that there is casing cement throughout the Queen formation and immediately above, to a depth of 3100 feet beneath the surface of the ground, or less.

(11) That there exist in the "north" area some 37 deep wells which have been drilled through the Queen formation which either do not have intermediate casing strings or in which the intermediate casing string is set above 3100 feet, and in which cement around the production casing string is calculated to be insufficient to come back to at least 3100 feet beneath the surface of the ground.

(12) That the aforesaid 37 wells should be recemented with a sufficient amount of cement to ensure that there is cement around the production casing string throughout the Queen formation and immediately above to a depth of 3100 feet beneath the surface of the ground, or less; and that the aforesaid 37 wells are identified as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Armer Oil Company	Keohane	1	I	26
Atlantic Richfield Co.	Boyd	2	D	23
Amerada-Hess Corp.	Walden	1	K	15
" " "	"	2	K	15
" " "	"	3	N	15
" " "	"	6	M	15
" " "	Wood	5	B	22
" " "	"	9	G	22
" " "	"	10	H	22
Cleary	Parks	7	K	14
"	"	8	J	14
"	"	9	N	14
Coquina Oil Corp.	Baker	1	B	26
Exxon Company, USA	Paddock Unit	98	H	15
Gulf Oil Corporation	Cole	5	O	16
John H. Hendrix	Cossatot F	1	C	23
Samedan Oil Corp.	Parks	3	P	14
" " "	"	4	I	14
" " "	"	5	O	14
Skelly Oil Co.	Baker A	5	E	26
" " "	Baker	9	N	22
" " "	"	10	A	27
" " "	"	11	B	27
" " "	Baker C	1	A	26
Sohio Petroleum Co.	Walden	3	F	15
" " "	"	4	E	15
" " "	"	5	E	15
Texas Pacific Oil Co., Inc.	Danglade	1	L	13
Texas Pacific Oil Co., Inc.	Walden	3	C	15
Texas Pacific Oil Co., Inc.	"	4	C	15
Texas Pacific Oil Co., Inc.	Boyd	1	G	23
Texas Pacific Oil Co., Inc.	"	2Y	H	23
Texas Pacific Oil Co., Inc.	"	3	A	23
Texas Pacific Oil Co., Inc.	"	5	B	23
Texas Pacific Oil Co., Inc.	Cary	7	F	22
Texas Pacific Oil Co., Inc.	"	8	L	22
Bruce A. Wilbanks	Baker	2	A	26

(13) That there exist in the "north" area two deep wells which have been drilled through the Queen formation which have intermediate casing strings set below 3100 feet and cemented, but in which cement around the production casing string is calculated to be insufficient to come back to the intermediate casing shoe.

(14) That the aforesaid two wells should be recemented with a sufficient amount of cement to ensure that there is cement around the production casing string throughout the Queen formation and coming up into the intermediate casing string to a depth of 3100 feet beneath the surface of the ground, or less; and that the aforesaid two wells are identified as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE NAME</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Samedan Oil Corp.	Boyd	1	J	23
Skelly Oil Co.	Baker A	1	D	26

(15) That there are two plugged and abandoned wells in the "north" area which, according to the original casing and cementing programs and the plugging programs as reported, may provide passage for waters injected into the Queen and/or San Andres formations to migrate upward to the salt section.

(16) That the aforesaid two wells should be re-entered and re-plugged in such a manner as to prevent the migration of fluids from one formation to another; and that the aforesaid two wells are identified as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE NAME</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Samedan Oil Corp.	Boyd	2	J	23
Wolfson Oil Co.	Boyd	1	L	23

(17) That there are five wells in the "south" area which indicate either a casing leak or waterflow on the bradenhead.

(18) That the aforesaid five wells should be entered and remedial work performed to eliminate the aforesaid conditions satisfactorily; and that the aforesaid five wells are identified as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE NAME</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	Penrose "A" Unit	3	I	33

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	Penrose "A" Unit	14	C	3
" " "	" " "	23	F	3
" " "	" " "	46	B	9
" " "	" " "	48	H	9

(19) That there are two plugged and abandoned wells in the "south" area which, according to the original casing and cementing programs and the plugging programs as reported may provide passage for waters injected into the Queen formation to migrate into other formations.

(20) That the aforesaid two wells should be re-entered and re-plugged in such a manner as to prevent the migration of fluids from one formation to another; and that the aforesaid two wells are identified as follows:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	H. O. Sims	16	M	34

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	Sims "C"	1	N	3

(21) That there is one well in the south area which was originally drilled as a Queen sand well, but which was plugged back to an undetermined depth and converted to a fresh water well, said well being identified as the Intercoast Petroleum Corporation J. C. Clower State Well No. 1 (also known as the R. D. Sims Water Well) located in Unit E, Section 2, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico.

(22) That the plug-back procedures used on said well cannot be ascertained, but there is evidence that said procedures were inadequate to properly confine fluids in their respective strata; that said well should be re-entered and cleaned out to total depth, and re-plugged in such a manner as to prevent the migration of fluids from one formation to another.

(23) That a number of wells in the subject area, being Sections 13 through 36, Township 22 South, Range 37 East, NMPM, and Sections 1 through 12, Township 23 South, Range 37 East, NMPM, other than those wells cited in Findings Nos. (11) through (22) above, are known to have abnormal pressures on the surface

casing or intermediate casing; that some of these wells, when the aforesaid surface- or intermediate-casing pressure was blown down, exhibited a waterflow from either the surface casing or the intermediate casing or both.

(24) That any such well which has heretofore shown a waterflow on the surface casing or intermediate casing or on which an abnormal surface casing or intermediate casing pressure has been encountered which indicates a likelihood of water movement behind the casing, should have conducted thereon a temperature survey, and remedial work performed on the well, if such work is deemed necessary by the Supervisor.

(25) That all wells in the subject area should be so equipped that periodic pressure tests can be conducted on the surface and intermediate casing strings; that such tests should be witnessed by a representative of the Commission; and that such tests should be conducted on a quarterly basis, provided that the Secretary-Director of the Commission should have the authority to change the pressure survey frequency from quarterly to semi-annually in any portion of the subject area where four such quarterly tests have been conducted and, in his opinion, the results thereof indicate that an accurate and continuous analysis of subsurface conditions may be made on the basis of such semi-annual tests.

(26) That the Supervisor should have authority to require temperature surveys (and water injection profile surveys on injection wells) on wells which exhibit abnormal surface casing or intermediate casing pressures during scheduled pressure tests or at any other time, and to require such remedial work to be performed as is necessary on such wells.

(27) That, pending additional information concerning the subject area, continued disposal of water into the San Andres formation through three wells should be permitted provided that injection not exceed certain amounts.

(28) That continued disposal into Skelly Oil Company's Eunice GP Well No. 1, located in Unit L, Section 27, Township 22 South, Range 37 East, NMPM, should be permitted provided that such disposal should be limited to gasoline plant water effluent only, and in no event should average more than 1500 barrels per day during any one-month period.

(29) That continued disposal into Agua, Inc.'s SWD Well No. H-35, located in Unit H, Section 35, Township 22 South, Range 37 East, NMPM, should be permitted provided that in no event should such disposal average more than 5500 barrels per day during any one-month period.

(30) That continued disposal into Armer Oil Company's Gulf State SWD Well No. 1, located in Unit M, Section 2, Township 23 South, Range 37 East, NMPM, should be permitted provided that in no event should such disposal average more than 350 barrels per day during any one-month period.

(31) That Skelly Oil Company should continue to produce, at its maximum capacity to flow, water currently being produced from its LPG Well No. 3, located in Unit F, Section 27, Township 22 South, Range 37 East, NMPM.

(32) That water injection volumes into the Queen formation in Sections 19, 20, 29, 30, 31, and 32, Township 22 South, Range 37 East, NMPM, and in Sections 5, 6, and 8, Township 23 South, Range 37 East, NMPM, should be limited to 150 percent of the reservoir voidage from the secondary recovery wells in said area, including oil, water, and gas produced.

(33) That water injection volumes into the Queen formation in Sections 14, 21, 22, 23, 26, 27, 28, 33, and 34, Township 22 South, Range 37 East, NMPM, and in Sections 3, 4, 9, and 10, Township 23 South, Range 37 East, NMPM, should be limited to 100 percent of the reservoir voidage from the secondary recovery wells in said area, including oil, water, and gas produced.

(34) That upon satisfactory completion of the remedial and other work described in Findings Nos. (12), (14), (16), (18), (20), (22), and (24) above, water injection volumes into the Queen formation in the area described in Finding No. (33) above should be permitted to increase to 150 percent of the reservoir voidage from the secondary recovery wells in said area, including oil, water, and gas produced.

(35) That in the event all of the remedial and other work prescribed for all wells in the "100 percent voidage" portion (Finding No. (33) above) of either the "north" area or the "south" area, as described in Finding No. (8) above, has been satisfactorily completed, the Supervisor should be authorized to permit injection volumes in that portion of said area to be increased to 150 percent of reservoir voidage, notwithstanding the fact that the prescribed remedial and other work for the other area of the 100 percent voidage portion is incomplete.

(36) That a reasonable period of time in which to accomplish the remedial and other work described in Findings Nos. (12), (14), (16), (18), (20), (22), and (24) above should be afforded, and six months from the date of entry of this order is a reasonable period of time.



(37) That workover operations are being and will continue to be conducted on certain wells in the subject area, said workover operations including the cementing or recementing of casing through the Queen and San Andres formations.

(38) That to enable the cement to properly set on said wells, water injection into any well within a radius of 1320 feet of the well being cemented or recemented should not occur for a minimum of 12 hours prior to commencement of actual cementing operations or 36 hours after completion thereof.

(39) That this case should be reopened in November, 1975, to reconsider all aspects of the case, including the possible curtailment or prohibition of underground water disposal in any or all of the three disposal wells described in Findings Nos. (28), (29), and (30).

(40) That approval of an order embodying the above findings will prevent waste of oil and gas, will protect correlative rights, and will alleviate the contamination of fresh water supplies.

IT IS THEREFORE ORDERED:

(1) That each of the following wells shall be recemented with a sufficient amount of cement to ensure that there is cement around the production casing string throughout the Queen formation and immediately above to a depth of 3100 feet beneath the surface of the ground, or less:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Armer Oil Company	Keohane	1	I	26
Atlantic Richfield Co.	Boyd	2	D	23
Amerada-Hess Corp.	Walden	1	K	15
" " "	"	2	K	15
" " "	"	3	N	15
" " "	"	6	M	15
" " "	Wood	5	B	22
" " "	"	9	G	22
" " "	"	10	H	22
Cleary	Parks	7	K	14
"	"	8	J	14
"	"	9	N	14
Coquina Oil Corp.	Baker	1	B	26
Exxon Company, USA	Paddock Unit	98	H	15
Gulf Oil Corporation	Cole	5	O	16
John H. Hendrix	Cossatot F	1	C	23

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY con'd

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Samedan Oil Corp.	Parks	3	P	14
" " "	"	4	I	14
" " "	"	5	O	14
Skelly Oil Co.	Baker A	5	E	26
" " "	Baker	9	N	22
" " "	"	10	A	27
" " "	"	11	B	27
" " "	Baker C	1	A	26
Sohio Petroleum Co.	Walden	3	F	15
" " "	"	4	E	15
" " "	"	5	E	15
Texas Pacific Oil Co., Inc.	Danglade	1	L	13
Texas Pacific Oil Co., Inc.	Walden	3	C	15
Texas Pacific Oil Co., Inc.	"	4	C	15
Texas Pacific Oil Co., Inc.	Boyd	1	G	23
Texas Pacific Oil Co., Inc.	"	2Y	H	23
Texas Pacific Oil Co., Inc.	"	3	A	23
Texas Pacific Oil Co., Inc.	"	5	B	23
Texas Pacific Oil Co., Inc.	Cary	7	F	22
Texas Pacific Oil Co., Inc.	"	8	L	22
Bruce A. Wilbanks	Baker	2	A	26

(2) That each of the following wells shall be recemented with a sufficient amount of cement to ensure that there is cement around the production casing string throughout the Queen formation and coming up into the intermediate casing string to a depth of 3100 feet beneath the surface of the ground, or less:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Samedan Oil Corp.	Boyd	1	J	23
Skelly Oil Co.	Baker A	1	D	26

3

(3) That each of the following wells shall be entered and remedial work performed to eliminate the existing casing leak or bradenhead water flow:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	Penrose "A" Unit	3	I	33

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	Penrose "A" Unit	14	C	3
" " "	Penrose "A" Unit	23	F	3
" " "	Penrose "A" Unit	46	B	9
" " "	Penrose "A"	48	H	9

4

(4) That each of the following plugged and abandoned wells shall be re-entered, cleaned out into the Queen formation, and re-plugged in such a manner as to prevent the migration of fluids from one formation to another:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Samedan Oil Corp.	Boyd	2	J	23
Skelly Oil Co.	H. O. Sims	16	M	34
Wolfson Oil Co.	Boyd	1	L	23

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM, LEA COUNTY

<u>COMPANY</u>	<u>LEASE</u>	<u>WELL NO.</u>	<u>UNIT</u>	<u>SECTION</u>
Skelly Oil Co.	Sims "C"	1	N	3

PROVIDED HOWEVER, that in the event mechanical difficulties prevent clean-out of any of the aforesaid four wells to the prescribed depth or otherwise prevent compliance with the provisions of this order, the operator thereof shall consult with the Supervisor and arrive at a suitable plan for the satisfactory plugging of the well.

5 (5) That the Intercoast Petroleum Corporation-J. C. Clower State Well No. 1 (also known as the R. D. Sims Water Well) located in Unit E, Section 2, Township 23 South, Range 37 East, NMPM, shall be re-entered, cleaned out to total depth, and re-plugged in such a manner as to prevent migration of fluids from one formation to another.

PROVIDED HOWEVER, that in the event mechanical difficulties prevent clean-out of said well to total depth or otherwise prevent compliance with the provisions of this order, the operator thereof shall consult with the Supervisor and work out a plan for the satisfactory plugging of the well.

6 (6) That the operator of any well in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, and Sections 1 through 12, Township 23 South, Range 37 East, NMPM, which well has shown a waterflow on the surface casing or intermediate casing or on which an abnormal surface casing or intermediate casing pressure has been encountered, shall notify the Supervisor of such fact, whereupon the operator and the Supervisor shall make arrangements for a temperature survey on said well; the Supervisor, upon receipt of the results of said temperature survey, shall prescribe such remedial action as in his opinion is deemed necessary on the well, which the operator of the well shall perform.

(7) That the Supervisor shall prepare and promulgate a schedule and rules for conducting quarterly pressure tests on the surface and intermediate casing strings of all wells in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, and Sections 1 through 12, Township 23 South, Range 37 East, NMPM, and he shall assign a Commission representative to witness all such tests.

(8) That the operator of each well in the area defined in Order No. (7) above shall equip each such well in such a manner that periodic pressure tests can be conducted on the surface and intermediate casing strings, and shall conduct such tests in accordance with the schedule promulgated by the Commission.

(9) That the Supervisor shall require temperature surveys (also, in the case of water injection wells, injection profile surveys) on wells which exhibit abnormal surface casing or intermediate casing pressures during the aforesaid scheduled pressure tests or at any other time. Further, he shall prescribe such remedial action to eliminate such conditions as in his opinion is deemed necessary on the well, which the operator of the well shall perform.

(10) That the Secretary-Director of the Commission shall have authority to change the frequency for the pressure tests required by Order No. (7) above from a quarterly basis to a semi-annual basis in any portion of the subject area where four such quarterly tests have been conducted and, in his opinion, the results thereof indicate that an accurate and continuous analysis of subsurface conditions may be made on the basis of such semi-annual tests.

(11) That the continued disposal of water into the Skelly Oil Company Eunice GP Well No. 1, located in Unit L, Section 27, Township 22 South, Range 37 East, NMPM, shall be permitted until further order of the Commission, provided however, that waters disposed of into said well shall be limited to normal gasoline plant water effluent, and said disposal shall not exceed an average of 1500 barrels of water per day during any one-month period.

(12) That the continued disposal of water into the Agua, Inc. SWD Well No. H-35, located in Unit H, Section 35, Township 22 South, Range 37 East, NMPM, shall be permitted until further order of the Commission, provided however, that said disposal shall not exceed an average of 5500 barrels of water per day during any one-month period.

(13) That the continued disposal of water into the Armer Oil Company Gulf State SWD Well No. 1, located in Unit M, Section 2, Township 23 South, Range 37 East, NMPM, shall be permitted until further order of the Commission, provided however, that said disposal shall not exceed an average of 350 barrels of water per day during any one-month period.

(14) That Skelly Oil Company, until further order of the Commission, shall continue to produce its LPG Well No. 3, located in Unit F, Section 27, Township 22 South, Range 37 East, NMPM, at the capacity of the well to flow water.

(15) That the operator of each secondary recovery injection well in Sections 14, 21, 22, 23, 26, 27, 28, 33, and 34, Township 22 South, Range 37 East, NMPM, and in Sections 3, 4, 9, and 10, Township 23 South, Range 37 East, NMPM, Langlie-Mattix Pool, Lea County, New Mexico, shall limit the total injection of water into the Queen formation in said sections to an amount equalling the reservoir voidage of the Queen formation by wells under his operation in said sections.

(16) That the operator of each secondary recovery injection well in Sections 19, 20, 29, 30, 31, and 32, Township 22 South, Range 37 East, NMPM, and in Sections 5, 6, and 8,

Township 23 South, Range 37 East, NMPM, Langlie-Mattix Pool, Lea County, New Mexico, shall limit the total injection of water into the Queen formation in said sections to an amount equalling 150 percent of the reservoir voidage of the Queen formation by wells under his operation in said sections.

(17) That the aforesaid limitations in water injection volumes shall take place and continue to take place on as near a current basis as possible, i.e., daily injection rates shall be in the required proportion of daily production rates as nearly as can be reasonably ascertained. In no event shall total injected volume for a given month exceed the permitted volume.

(18) That to calculate the permitted volume of water which may be injected into the Queen formation, produced oil, water, and gas shall be converted to reservoir barrels at the calculated reservoir pressure. Surface barrels of injection water shall be in the permitted proportion to reservoir barrels of voidage. The operator's Monthly Injection Report, Form C-120, shall be accompanied by the operator's calculations of reservoir voidage.

(19) That the Supervisor is hereby authorized to permit water injection into the Queen formation in wells located in Sections 14, 21, 22, 23, 26, 27, 28, the N/2 of Section 33, and the N/2 and SE/4 of Section 34, Township 22 South, Range 37 East, NMPM, to be increased to 150 percent of the reservoir voidage from the secondary recovery wells in said area, including oil, gas, and water produced, if he determines that the remedial and other work described in Findings Nos. (12), (14), and (16) above and on the applicable wells referred to in Findings Nos. (23) and (24) above has been satisfactorily completed.

(20) That the Supervisor is hereby authorized to permit water injection into the Queen formation in wells located in the S/2 of Section 33 and the SW/4 of Section 34, Township 22 South, Range 37 East, NMPM, and in Sections 3, 4, 9, and 10, Township 23 South, Range 37 East, NMPM, to be increased to 150 percent of the reservoir voidage from the secondary recovery wells in said area, including oil, gas, and water produced, if he determines that the remedial and other work described in Findings Nos. (18), (20), and (22) above and on the applicable wells referred to in Findings Nos. (23) and (24) above has been satisfactorily completed.

(21) That all work prescribed by Orders Nos. (1), (2), (3), (4), (5), and (6) above shall be completed within six months after date of entry of this order.

(22) That the operator of any well in Sections 13 through 36, Township 22 South, Range 37 East, NMPM, or Sections 1 through 12, Township 23 South, Range 37 East, NMPM, who is planning to cement or recement casing in the Queen and/or San Andres formations, shall notify the Supervisor at least 24 hours prior to commencement of cementing operations, whereupon the Supervisor shall notify the operator of any injection or disposal well within a radius of 1320 feet of said well of the date and hour the cementing operations are to be commenced. The operator of such injection well or wells shall cease injection into said wells at least 12 hours prior to commencement of cementing operations and shall not resume injection for at least 36 hours after completion thereof.

(23) That this case shall be reopened at public hearing in November, 1975, at which time all aspects of the case will be reconsidered, including the possible curtailment or prohibition of underground water disposal in any or all of the three disposal wells described in Orders Nos. (11), (12), and (13) above.

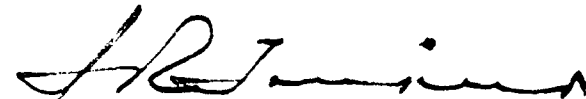
(24) That this order shall remain in full force and effect until further order of the Commission.

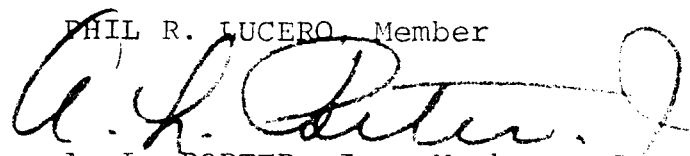
(25) That Commission Order No. R-4936, dated December 5, 1974, is hereby superseded.

(26) That jurisdiction of this cause is retained by the Commission 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

  
I. R. TRUJILLO, Chairman

PHIL R. LUCERO, Member  
  
A. L. PORTER, Jr., Member & Secretary

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