

CASE 5674: AGUA, INC. FOR AN
EXTENSION OF TIME AND AMENDMENT OF
ORDERS NOS. R-4415-A AND -B, LEA
COUNTY, NEW MEXICO

CASE NO.

56 74

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

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:

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Case No. 5403

Order No. R-5003

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 |

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Case No. 5403
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(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 |

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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.

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(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 TC 2906 |
| " | " | 2 | K | 15 TC 2475 |
| " | " | 3 | N | 15 TC 1940 |
| " | " | 6 | M | 15 TC 2919 |
| " | Wood | 5 | B | 22 TC 2430 |
| " | " | 9 | G | 22 TC 2550 |
| " | " | 10 | H | 22 TC 1810 |
| Cleary | Parks | 7 | K | 14 TC 1395 |
| " | " | 8 | J | 14 TC 2400 |
| " | " | 9 | N | 14 TC 2280 |
| Coquina Oil Corp. | Baker | 1 | B | 26 TC 2526 |
| Exxon Company, USA | Paddock Unit | 98 | H | 15 P2A |
| Gulf Oil Corporation | Cole | 5 | O | 16 TC 1001 |
| John H. Hendrix | Cossatot F | 1 | C | 23 TC 1001 |

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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 TC 2800 |
| " " " | " | 4 | I | 14 TC 1500 |
| " " " | " | 5 | O | 14 TC 2200 |
| Skelly Oil Co. | Baker A | 5 | E | 26 TC 1655 |
| " " " | Baker | 9 | N | 22 Cmt circ |
| " " " | " | 10 | A | 27 TC 2710 |
| " " " | " | 11 | B | 27 Cmt circ |
| " " " | Baker C | 1 | A | 26 Cmt circ |
| Sohio Petroleum Co. | Walden | 3 | F | 15 TC 1940 |
| " " " | " | 4 | E | 15 TC 2740 |
| " " " | " | 5 | E | 15 TC 2955 |
| Texas Pacific Oil Co., Inc. | Danglade | 1 | L | 13 TC 2940 |
| Texas Pacific Oil Co., Inc. | Walden | 3 | C | 15 TC 2325 |
| Texas Pacific Oil Co., Inc. | " | 4 | C | 15 TC 2140 |
| Texas Pacific Oil Co., Inc. | Boyd | 1 | G | 23 PTA |
| Texas Pacific Oil Co., Inc. | " | 2Y | H | 23 TC 3040 |
| Texas Pacific Oil Co., Inc. | " | 3 | A | 23 TC 2940 |
| Texas Pacific Oil Co., Inc. | " | 5 | B | 23 TC 3040 |
| Texas Pacific Oil Co., Inc. | Cary | 7 | F | 22 TC 2505 |
| Texas Pacific Oil Co., Inc. | " | 8 | L | 22 Cmt circ |
| 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 TC 2100 |
| Skelly Oil Co. | Baker A | 1 | D | 26 TC 2850 |

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(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" Unit | 48 | H | 9 |

(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) 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) 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.

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(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,

-14-

Case No. 5403

Order No. R-5003

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.

-15-
Case No. 5403
Order No. R-5003

(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.

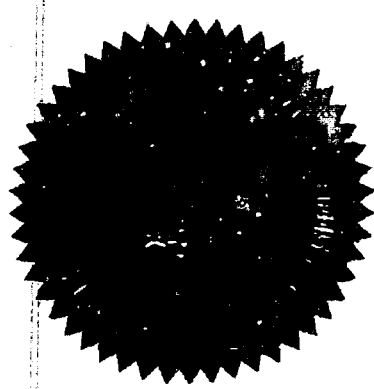
(24) That this order shall remain in full force and effect until further order of the Commission.

(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
I. R. TRUJILLO, Chairman

PHIL R. LUCERO, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

S E A L

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF AN EXTENSION OF
TIME FOR THE DISPOSAL OF PRODUCED
WATERS IN THE AGUA INC. SWD WELL
NO. C-2.

EMERGENCY ORDER NO. E-28

NOW, on this 7th day of May, 1976, the New Mexico Oil Conservation Commission, a quorum being present, having considered the necessity for the disposal of produced water from the wells using the Agua disposal system, and being fully advised in the premises,

FINDS:

(1) That Agua, Inc., pursuant to authority contained in Order No. R-4495, dated March 14, 1973, is disposing of produced salt water into the San Andres formation through the open-hole interval from 4,400 feet to 5,000 feet in its SWD Well No. C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico.

(2) That Agua, Inc., pursuant to authority contained in Administrative Order No. SWD-82, dated October 26, 1968, disposed of produced salt water into the San Andres formation through its SWD Well No. H-35, located in Unit H of Section 35, Township 22 South, Range 37 East, Lea County, New Mexico.

(3) That by directive dated August 22, 1975, applicant was ordered to cease injection into the aforesaid SWD Well No. H-35 at 8:00 a.m., Mountain Daylight Time, September 26, 1975, because of certain conditions existent in said well.

(4) That to enable Agua, Inc. to continue to dispose of the produced salt water which was being disposed of into said SWD Well No. H-35, the Commission entered Emergency Order No. E-27, dated September 26, 1975, authorizing the disposal of produced water in the Agua SWD Well No. C-2 through the perforated interval from 4,230 feet to 4,320 feet in addition to the previously authorized injection through the open-hole interval from 4,400 feet to 5,000 feet.

(5) That on October 7, 1975, the Commission entered Order No. R-4495-A authorizing the continued injection of produced waters in the Agua SWD Well No. C-2 through the perforated interval from 4,230 feet to 4,320 feet and through the open-hole interval from 4,400 feet to 5,000 feet for a period not to exceed four months from the date of the order.

(6) That on February 3, 1976, the Commission entered Order No. R-4495-B which authorized Agua, Inc. to continue injection in its SWD Well No. C-2 through the perforations and the open-hole for an additional 90 days.

(7) That on October 21, 1975, Agua, Inc. filed an application for authority to dispose of produced salt water into the San Andres formation in its Well No. A-22 located in Unit A of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

(8) That on December 16, 1975, the Commission entered Order No. R-5137 authorizing the disposal of produced salt water in said Well No. A-22 but limiting the wellhead injection pressure to no more than 100 psi.

(9) That Agua, Inc. made application for Amendment of Order No. R-5137 to allow it to increase the injection pressure in its Well No. A-22.

(10) That Case No. 5644 was heard by the Commission on March 10, 1976, on said Application for Amendment of Order No. R-5137, but no order has yet been issued in said case.

(11) That on March 29, 1976, the Commission received an application from Agua, Inc. for Amendment of Orders Nos. R-4495-A and R-4495-B to allow injection of produced waters through the perforated and open-hole intervals in its SWD Well No. C-2 for an additional 90 days or more due to the fact that it could not complete its Well No. A-22 for salt water disposal until it received a decision from the Commission on its March 10, 1976, hearing for Amendment of Order No. R-5137.

(12) That on April 28, 1976, a hearing was held before a Commission examiner on said application of Agua, Inc. for an extension of time to inject produced salt water in its Well No. C-2 (Case 5674).

(13) That the Commission is prohibited by its Rule 1218 from entering an order in Case 5674 until it has a record of the hearing before it for review, certified by the examiner.

(14) That it is impossible for the Commission to obtain a transcript of the hearing prior to May 7, 1976.

(15) That on May 7, 1976, the authorization to inject produced salt water in the Agua, Inc., SWD Well No. C-2 expires pursuant to the terms of Order No. R-4495-B.

(16) That the water produced from approximately 430 producing oil wells in Lea County, New Mexico, is being disposed of in the Agua, Inc. SWD Well No. C-2.

(17) That should the authority to inject into the perforated interval in said SWD Well No. C-2 expire, many if not all of the above-mentioned 430 producing wells would be required to be shut-in.

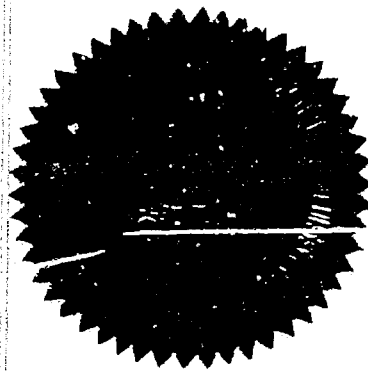
(18) That an emergency exists whereby authorization should be granted to Agua, Inc. to continue to dispose of produced salt water in its SWD Well No. C-2 into both the perforated interval from 4,230 feet to 4,320 feet and the open-hole interval from 4,400 feet to 5,000 feet, in order to avoid the shutting-in of the above-mentioned 430 producing wells.

IT IS THEREFORE ORDERED:

(1) That Agua, Inc., is hereby authorized to dispose of produced salt water into the San Andres formation through the perforated interval from 4,230 feet to 4,320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That this order shall become effective at 12:01 a.m. Mountain Daylight Savings Time, May 8, 1976, and shall remain in effect for either 15 days or until the effective date of an order entered in Case 5674, whichever comes first.

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



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Phil R. Lucero
PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

jr/

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. 5674
Order No. R-4495-C

APPLICATION OF AGUA INC. FOR AN
EXTENSION OF TIME AND AMENDMENT
OF ORDER NOS. R-4495-A AND R-4495-B.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 28, 1976, at Santa Fe, New Mexico, before Examiner, Richard L. Stamets.

NOW, on this 18th day of May, 1976, 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 the applicant, Agua, Inc., is the operator of the SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That by Order No. R-4495, dated March 21, 1973, the Commission authorized the use of said well for salt water disposal purposes, provided that disposal would be into the San Andres formation through the open-hole interval from 4,400 feet to 5,000 feet.

(4) That by Order No. R-4495-A, dated October 7, 1975, said Order No. R-4495 was amended to also permit, until February 7, 1976, the disposal of produced salt water into perforations between 4,230 feet and 4,320 feet.

(5) That in Case No. 5619 held on January 20, 1976 before Commission Examiner, Daniel S. Nutter, the applicant sought an additional 90-day period for disposal into the aforesaid perforated interval while applicant completed an additional disposal well for its salt water disposal system in the subject area.

Case No. 5674
Order No. R-4495-C

(6) That at said January 20th hearing, the applicant assured the Commission that the additional disposal well and related facilities could be put into operation prior to the expiration of the requested 90-day extension of time and that upon placing such well and related facilities in operation, applicant would be able to reduce disposal volumes in said SWD Well No. C-2 to a level which the open-hole interval from 4,400 feet to 5,000 feet would accept, and would then be able to discontinue disposal into the perforated interval from 4,230 feet to 4,320 feet.

(7) That on February 3, 1976, the Commission entered Order No. R-4495-B amending Order No. R-4495-A to permit the continued disposal of produced salt water into perforations between 4,230 feet and 4,320 feet in said SWD Well No. C-2 until May 7, 1976.

(8) That the applicant has now completed such additional disposal well being its SWD Well No. A-22 located in Unit A of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

(9) That said SWD Well No. A-22 will not accept sufficient water at pressure limitations imposed by Commission Order No. R-5137 (100 psi surface pressure) to permit the applicant to discontinue use of the perforated interval in said SWD Well No. C-2 for disposal purposes.

(10) That in Case No. 5644 heard by the Commission on March 10, 1976, applicant requested an amendment of said Order No. R-5137 to permit surface injection pressures of up to 1200 psi for said SWD Well No. A-22 to cause said well to accept volumes of water sufficient to offset those being disposed in said perforated interval in said SWD Well No. C-2.

(11) That as of the date of the subject hearing, no order had been issued in Case No. 5644.

(12) That applicant now seeks the amendment of Commission Order Nos. R-4495-A and R-4495-B to permit continued disposal into said perforated interval in its SWD Well No. C-2 for an additional 90-day period after May 7, 1976, and thereafter until 30 days after the entry of an order favorable to the applicant in Case No. 5644.

(13) That the possibility exists that the Commission will not act favorably upon applicant's request in Case No. 5644.

(14) That the applicant anticipates the connection of additional wells to the subject salt water disposal system in the immediate future and a concomitant increase in the volume of salt water requiring disposal.

Case No. 5674
Order No. R-4495-C

(15) That the applicant has made no contingency plans for water disposal in the event its application in Case No. 5644 is denied nor for the anticipated additional expected volumes of produced waters.

(16) That in order for the applicant to cease disposal of water into the perforated interval in said SWD Well No. C-2 and to dispose of the aforementioned present and anticipated volumes of salt water, additional disposal facilities will be required.

(17) That if the Commission should deny applicant's request in Case No. 5644, approval of the subject application would result in permanent authorization to inject into said perforated interval in SWD Well No. C-2.

(18) That continued temporary extensions of applicant's authority to inject into said perforated interval in SWD Well No. C-2 would have the same effect as permanent or unrestricted authority to inject.

(19) That evidence previously presented indicates that unrestricted disposal of salt water into said perforated interval in the subject well for an extended period of time could have an adverse effect on oil production and oil reserves in the vicinity of said well.

(20) That to avoid said adverse effects no order should be issued at this time which authorizes or may authorize permanent or unrestricted injection into said perforated interval in SWD Well No. C-2.

(21) That if the subject application for extension of temporary authority to inject into said perforated interval in applicant's SWD Well No. C-2 should be denied approximately 430 producing wells would be shut-in.

(22) That to avoid the immediate shut-in of said 430 producing wells a 90-day extension of the temporary authority to inject into said perforated interval in applicant's SWD Well No. C-2 should be granted.

(23) That an offset operator has objected to continued disposal of salt water into said perforated interval in applicant's SWD Well No. C-2.

(24) That such objection is based upon assertions that there is oil under said objecting operator's lease which will be swept off such lease by the water being injected within said perforated interval in SWD Well No. C-2.

(25) That if such assertions are correct, said operator's correlative rights would be violated by unlimited injection into said perforated interval in SWD Well No. C-2.

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Case No. 5674
Order No. R-4495-C

(26) That the evidence presented to date is sufficient to indicate that correlative rights will be violated if any order or series of orders should be issued by the Commission which would grant or would have the affect of granting permanent authority for injection of water into said perforated interval in said SWD Well No. C-2.

(27) That the application for amendment of Commission Order Nos. R-4495-A and R-4495-B for an additional 90-day period of temporary authority after May 7, 1976, to inject into said perforated interval in SWD Well No. C-2 should be granted.

(28) That the application for authority to inject into said perforated interval in said well until 30 days after the entry of an order favorable to the applicant in Case No. 5644 should be denied.

(29) That on or before August 7, 1976, the applicant should discontinue injection into the perforated interval from 4,230 feet to 4,320 feet in said SWD Well No. C-2, should have developed additional disposal facilities with sufficient capacity to provide for immediate discontinuance of water injection into the subject perforated interval, or should have obtained from the Commission permanent authority to inject into said perforated interval.

IT IS THEREFORE ORDERED:

(1) That the "PROVIDED FURTHER" Section of Order No. 1 of Commission Order No. R-4495-A is hereby amended to read in its entirety as follows:

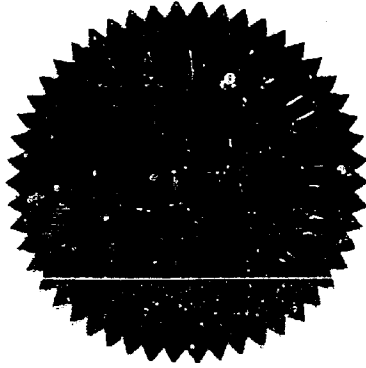
"PROVIDED FURTHER, that disposal into the aforesaid perforated interval from 4,230 feet to 4,320 feet shall not occur after August 7, 1976, and proper action shall be taken by the applicant to the satisfaction of the Supervisor of the Hobbs District Office of the Commission to prevent such disposal."

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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Case No. 5674
Order No. R-4495-C

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



S E A L

PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

jr/

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

May 10, 1976

Mr. James Jennings
Jennings, Christy & Copple
Attorneys at Law
Post Office Box 1180
Roswell, New Mexico 88201

Re: Emergency Order No. E-28

Applicant:

Agua, Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC X
Artesia OCC X
Aztec OCC X

Other Mr. James Sperling

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF AN EXTENSION
OF TIME FOR THE DISPOSAL OF PRODUCED
WATERS IN THE AGUA INC. SWD WELL
NO. C-2.

JAR
WKE *ASU*
EMERGENCY ORDER NO. E-28

GRN
NOW, on this 6th day of May, 1976, the New Mexico Oil Conservation Commission, a quorum being present, having considered the necessity for the disposal of produced water from the wells using the ~~Agua~~ disposal system, and being fully ~~adixx~~ advised in the premises,

FINDS:

(1) That Agua, Inc., pursuant to authority contained in Order No. R-4495, dated March 14, 1973, is disposing of produced salt water into the San Andres formation through the open-hole interval from 4400 feet to 5000 feet in its SWD Well No. C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico.

(2) That Agua, Inc., pursuant to authority contained in Administrative Order No. SWD-82, dated October 26, 1968, disposed of produced salt water into the San Andres formation through its SWD Well No. H-35, located in Unit H of Section 35, Township 22 South, Range 37 East, Lea County, New Mexico.

(3) That by directive dated August 22, 1975, applicant was ordered to cease injection into the aforesaid SWD Well No. H-35 at 8:00 a.m., Mountain Daylight Time, September 26, 1975, because of certain conditions existent in said well.

(4) That to enable Agua, Inc. to continue to dispose of the produced salt water which was being disposed of into said SWD Well No. H-35, the Commission entered Emergency Order No. E-27, dated September 26, 1975, authorizing the disposal of

produced water in the Agua SWD Well No. C-2 through the perforated interval from 4,230 feet to 4,320 feet in addition to the previously authorized ^{injection through the} open-hole interval from 4,400 feet to 5,000 feet.

(5) That on October 7, 1975, the Commission entered Order No. R-4495-A authorizing the continued injection of produced waters in the Agua SWD Well No. C-2 through the perforated interval from 4,230 feet to 4,320 feet and through the open-hole interval from 4,400 feet to 5,000 feet for a period not to exceed four months from the date of the order.

(6) That on February 3, 1976, the Commission entered Order No. R-4495-B which authorized Agua to continue injection in its SWD Well No. C-2 through the perforations and the ~~open-hole~~ open-hole for an additional 90 days.

(7) That on October 21, 1975, Agua, Inc. filed an application for authority to dispose of produced salt water into the San Andres formation in its Well No. A-22 located in ^{unit A of} Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

(8) That on December 16, 1975, the Commission entered Order No. R-5137 authorizing the disposal of produced salt water in said Well No. A-22 but limiting the wellhead injection pressure to no more than 100 psi.

(9) That Agua, Inc. made application for Amendment of Order No. R-5137 to allow it to increase the injection pressure in its Well #A-22.

^{That Case No. 5644 was heard by}
(10) ^{said} ~~A hearing was held before the Commission on March 10, 1976, on this Application for Amendment of Order No. R-5137, but no order has been issued due to intervening circumstances concerning the effects of the injection of produced salt water in other wells in close proximity to the Agua Well #A-22.~~

(11) That on March 29, 1976, the Commission received an application from Agua, Inc. (~~Case 5674~~) for Amendment of Orders Nos. R-4495-A and R-4495-B to allow injection of produced waters through the perforated and open-hole intervals in its SWD Well No. C-2 for an additional 90 days or more due to the fact that it could not complete its Well #A-22 ^{for salt water disposal} until it received a decision from the Commission on its March 10, 1976, hearing for Amendment of Order No. R-5137.

(12) That on April 28, 1976, a hearing was held before a Commission ^{examiner} on ~~said~~ application of Agua, Inc. for an extension of time to inject produced salt water in its Well No. C-2 (Case 5674).

(13) That the Commission is prohibited by its Rule 1218 from entering an order in Case 5674 until it has a record of the hearing before it for review, certified by the examiner.

(14) That it is impossible for the Commission to obtain a transcript of the hearing prior to May 7, 1976.

(15) That on May 7, 1976, the authorization to inject produced salt water in the Agua, Inc., SWD Well No. C-2 expires pursuant to the terms of Order No. R-4495-B.

(16) That the water produced from approximately 430 producing oil wells in Lea County, New Mexico, is being disposed of in the Agua, Inc. SWD Well No. C-2.

(17) That should the authority to inject into the ~~perforated~~ perforated interval in ~~SWD~~ ~~Well~~ ^{said} SWD Well No. C-2 expire, ^{many} ~~if not all of the~~ ^{above-mentioned} 430 producing wells would be required to be shut in.

IT IS THEREFORE ORDERED:

(1) That Agua, Inc., is hereby authorized to dispose of produced salt water into the San Andres formation through the perforated interval from 4,230 feet to 4,320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico.

⁴Emergency Order No. E-28

(2) That this order shall become effective at 12:00 ^{Savings} ~~am~~ ¹ ~~midnight~~ Mountain Daylight Time, ~~on~~ May 8, 1976, and shall remain in effect for either 15 days or until the effective date of an order entered in Case 5674, whichever comes first.

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

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 28, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Agua, Inc. for an extension of time and amendment of Orders R-4495-A and R-4495-B, Lea County, New Mexico. CASE 5674

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

| | |
|---|---|
| For the New Mexico Oil Conservation Commission: | William F. Carr, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico |
| For the Applicant: | James T. Jennings, Esq. JENNINGS, CHRISTY & COPPLE Attorneys at Law Security National Bank Bldg. Roswell, New Mexico |
| For Exxon Company U.S.A.: | James E. Sperling, Esq. MODRALL, SPERLING, ROEHL, HARRIS & SISK Attorneys at Law Public Service Building Albuquerque, New Mexico |

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 932-9212

I N D E X

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 Phone (505) 982-9212

1 MR. STAMETS: The hearing will come to order,
2 please. We will call the next Case 5674.

3 MR. CARR: Case 5674, application of Agua, Inc.
4 for an extension of time and amendment of Orders Nos. R-4495-A
5 and R-4495-B, Lea County, New Mexico.

6 MR. JENNINGS: James T. Jennings of Jennings, Christy
7 and Copple and I have one witness, Mr. Abbott.

8 MR. STAMETS: If you will stand and be sworn,
9 please.

10 (THEREUPON, the witness was duly sworn.)

11 MR. STAMETS: Call for other appearances in this
12 case.

13 MR. SPERLING: James E. Sperling of Modrall,
14 Sperling, Roehl, Harris and Sisk, Albuquerque, appearing on
15 behalf of Exxon Company U.S.A.

16 MR. STAMETS: Mr. Jennings, you may proceed.

17
18 W. G. ABBOTT

19 called as a witness, having been first duly sworn, was
20 examined and testified as follows:

21
22 DIRECT EXAMINATION

23 BY MR. JENNINGS:

24 Q Would you state your name, occupation and place of
25 residence, please, sir?

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Phone (505) 982-9212

1 A. My name is W. G. Abbott, I'm manager of Agua,
2 Incorporated, Hobbs, New Mexico.

3 Q. Mr. Abbott, have you appeared before this Commission
4 on many occasions in the past in connection with this case and
5 other cases and testified?

6 A. Yes, sir.

7 Q. And had your qualifications accepted?

8 A. Yes, sir.

9 MR. JENNINGS: Is the witness considered qualified?

10 MR. STAMETS: The witness is considered qualified.

11 Q. (Mr. Jennings continuing.) Mr. Abbott, are you
12 familiar with the application that has been filed in this
13 matter?

14 A. Yes, sir.

15 Q. Just relate briefly what you are asking by the
16 application and the reason for it?

17 A. Yes, if you remember correctly previous hearings and
18 orders, Agua, Incorporated was instructed to shut in our
19 SWD H-35, September 26th of last year. When this well was
20 shut in we had to have a disposal well to put this water in
21 that had been going into the H-35, so we got an emergency order
22 to perforate some additional sections in the San Andres in our
23 SWD C-2 Well. Then we layed a temporary line from H-35 to
24 SWD C-2 to pump the water to the C-2 Well. Then we drilled
25 another disposal well, the SWD A-22, and the order on that well

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1 from the Commission put a limitation of a hundred pounds per
2 square inch on the surface. We then came back to the Commission
3 and had another hearing before the full Commission to secure
4 approval to raise the surface pressure on this SWD A-22 to
5 twelve hundred pounds so that we could dispose of the water
6 in this area that is now being pumped up to the SWD C-2.

7 Q. Mr. Abbott, was that in Case Number 5644?

8 A. I believe it was, yes.

9 Q. And I believe that hearing was on March 10th, 1976?

10 A. Yes, sir.

11 Q. To your knowledge has the Commission taken any
12 action?

13 A. No, sir.

14 Q. I hand you what has been marked as Exhibit One and
15 ask if you will review that and identify it?

16 A. Yes, sir, this exhibit is a diagrammatic sketch of
17 our salt water disposal well C-2. On this sketch it shows our
18 nine-and-five-eighths inch surface pipe set at three hundred
19 and twelve feet and cemented with a hundred and seventy-five
20 sacks and the cement was circulated to the surface. It also
21 shows the seven inch casing set at forty-four hundred with
22 a hundred and seventy-five sacks. The calculated top of the
23 cement was at thirty-four hundred. It shows the open-hole
24 section from forty-four hundred to the total depth of forty-
25 nine, fifty and then it shows the perforated interval from

1 forty-two, thirty to forty-three, twenty.

2 Q That perforated area, was it perforated pursuant to
3 an order of this Commission?

4 A Yes, sir.

5 Q And I believe that the first hearing which is in
6 Case 5562, you were allowed to continue to inject water
7 through the perforated interval until October 7th?

8 A Yes.

9 Q And you had another hearing on January 26th and you
10 got an extension?

11 A Yes, sir, a ninety-day extension.

12 Q Was that in Order No. 4495-B?

13 A Right.

14 Q When does that extension expire?

15 A May 7th, 1976.

16 Q How are you putting this water into the A-22 Well
17 now, Mr. Abbott?

18 A You mean the C-2?

19 Q The C-2, yes.

20 A It is being gravity injection with a vacuum on the
21 tubing.

22 Q What volumes are you injecting?

23 A The last twenty-four hours we put in four hundred
24 and sixty-five barrels per hour in the C-2 Well by gravity.

25 Q How much are you putting in a month?

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1 A. Our figure for March, which was last month, we put
2 two hundred and eighty-eight thousand, five hundred and
3 seventy-eight barrels in the C-2 Well.

4 MR. STAMETS: Two hundred and eighty-eight thousand
5 and how much?

6 A. Five hundred and seventy-eight.

7 MR. STAMETS: Thank you.

8 MR. SPERLING: In one month?

9 A. Yes, sir.

10 Q. (Mr. Jennings continuing.) You are putting
11 approximately that much in each month, are you not?

12 A. Yes, sir.

13 Q. Mr. Abbott, what is the status of your new well which
14 is the A-22?

15 A. That well has been completed and at the present
16 time we are running some tests on the well. We have set up a
17 test tank and we are gravitying water into the SWD A-22 and
18 the well will take five hundred to seven hundred barrels
19 per day by gravity. We plan to go ahead and install our
20 permanent tankage at that well site and gravity the water
21 into the well and we may, after we get our permanent tankage
22 installed, we will come back and re-acidize the well. We may
23 be able to get it up to a thousand barrels a day by gravity.

24 Q. What is the status of the C-35 Well?

25 A. The H-35?

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1 Q The H-35.

2 A The H-35 Well at the present time is being flowed
3 back and the water being disposed of in the SWD C-2. We are
4 flowing it back at the estimated rate of fifty barrels an
5 hour.

6 Q Mr. Abbott, do you have some place to dispose of the
7 water if you are not allowed to put it into the perforated
8 interval?

9 A Not a practical method of disposing of it, no, sir.

10 Q What would you have to do?

11 A We would probably have to shut in the producing
12 wells that are connected to this disposal system.

13 Q How many wells are on the system?

14 A There are about four hundred and thirty wells.

15 Q Is the number increasing?

16 A Yes.

17 Q Mr. Abbott, in your opinion would continued injection
18 of water into this zone affect the correlative rights of any
19 of the operators in the area?

20 A No, sir.

21 Q Do you think that it is in the interest of conserva-
22 tion and the prevention of waste?

23 A Yes, sir.

24 Q Do you have anything else that you wish to add at
25 this time?

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1 A. No, not that I can think of at this time.
 2 MR. JENNINGS: I believe that's all.
 3 MR. STAMETS: Are there any questions of the witness?
 4 MR. SPERLING: Yes.
 5 MR. STAMETS: Mr. Sperling.
 6

7 CROSS EXAMINATION

8 BY MR. SPERLING:
 9 Q Mr. Abbott, your application which is before the
 10 Commission at this time and this case, seeks an extension
 11 from May 7th, 1976 for an additional thirty days.
 12 MR. STAMETS: I believe it is ninety days.
 13 MR. SPERLING: Excuse me, it says thirty days.
 14 MR. STAMETS: I believe it is an additional ninety
 15 day after May 7th and thereafter until thirty days after the
 16 entry of an order favorable to the applicant.
 17 Q (Mr. Sperling continuing.) All right, ninety days
 18 from May 7th, 1976 and thereafter until thirty days after the
 19 entry of an order favorable to the applicant in this case,
 20 that is in 5644?
 21 A. Yes, sir.
 22 Q Is that right?
 23 A. Right.
 24 Q On a scale of one to ten, how do you appraise your
 25 chances insofar as favorable action in 5644 is concerned?

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1 A. I think there will be favorable action. The delay,
2 I believe, in issuing any order is that at the present time
3 the Conservation Commission and the oil industry is working
4 under a committee to seek solutions to the water problem in
5 that area that is affecting the surface pipe on some of the
6 producing wells.

7 Q. You expect favorable action in view of the history
8 of the position of the Commission beginning in December of
9 1974 to the effect that they are concerned with the injection
10 of water under pressure in the problem area?

11 A. Yes, sir, there is a history of previous disposal
12 wells that are still under operation in this area and using
13 pressure injection and I believe it would be unfair to Agua,
14 Incorporated not to issue an order to allow us to pump water
15 into the A-22 well.

16 Q. Well, you are asking the Commission to change its
17 position from that of limiting injection under pressure from
18 a hundred up to twelve hundred pounds?

19 A. Yes, sir.

20 Q. And it has had that position, that is of limitation
21 to one hundred psi, since December of 1974 when the problem
22 first came under consideration?

23 A. No, not that I know of.

24 Q. You don't think that has been the Commission's
25 position?

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- 1 A. No, sir.
- 2 Q. You don't?
- 3 Q. Do you remember the hearing in December of 1974?
- 4 A. Which hearing was that?
- 5 Q. The hearing before this Commission which considered
- 6 the question of the thirty-six section area in Lea County and
- 7 the concern at that time with water migrating from the
- 8 formation into which it had been injected, into shallower
- 9 formations and in some cases reaching the surface.
- 10 A. Yes, sir.
- 11 Q. Does that order specify a limitation of injection
- 12 pressure of one hundred psi?
- 13 A. No, sir.
- 14 Q. I take it from your testimony that only three wells
- 15 have ever been used by your company for salt water disposal?
- 16 A. In this area, yes, sir.
- 17 Q. All right, and that there remains only one well
- 18 which is capable of salt water disposal at this time?
- 19 A. That's right.
- 20 Q. And that is the well which you obtained temporary
- 21 permission to inject into in the perforated interval on two
- 22 different occasions?
- 23 A. That's correct.
- 24 Q. The last order which was issued, which is
- 25 R-4495-B, contains the finding by the Commission to the

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1 effect that applicant has assured the Commission that the
2 additional disposal well, speaking of the A-22, and related
3 facilities can be put into operation prior to the expiration
4 of the requested ninety day extension of time?

5 A. Yes, sir.

6 Q. Do you have any quarrel with that finding?

7 A. No, that was their finding.

8 Q. And that was your assurance?

9 A. Right.

10 Q. In the event that the Commission does not take
11 favorable action, that is action favorable to the applicant
12 in Case 5644, the effect of your request in this case is to
13 continue injection into the perforated interval in perpetuity,
14 right?

15 A. Possibly.

16 Q. And that in the light of your previous assurances
17 that that would not be the case?

18 A. Right.

19 Q. Did you take any alternative steps or make any
20 contingent plan of any kind which would have taken care of
21 the situation which has developed apparently with the A-22
22 well?

23 A. No, we think it would be in the best interests of
24 conservation to use this well for injection.

25 Q. Well, isn't it true, actually, Mr. Abbott, that

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1 your efforts, your company's efforts, have largely been based
2 upon the assumption that the Commission under no circumstance
3 would undertake to shut in four hundred and thirty wells and
4 that you have gone along based upon that and your plans have
5 been conducted accordingly without regard to the effect on the
6 C-2 Well?

7 A. We operate under an operating committee made up of
8 thirty-six parties that are parties to the Blinebry-Drinkard
9 Salt Water Disposal System and it was their recommendation
10 that we did that. Exxon is a party to the system.

11 Q. Do you have any current plans to take any action
12 other than that which you have already taken?

13 A. No. The only current plans, as I stated, was to
14 set the permanent tankage at the SWD A-22 and probably
15 re-acidize the well which may increase the injectivity of
16 this disposal well.

17 Q. Your estimate was you might be able to get, under
18 the best of circumstances, a thousand barrels a day?

19 A. Yes, sir.

20 Q. And that's against two hundred and eighty-eight
21 thousand, two hundred and eighty-nine thousand barrels a
22 month going into the C-2. Do you plan to drill any other
23 wells?

24 A. Yes, we plan to drill more wells in the future. As
25 the water increases we will undoubtedly have to have more

1 disposal wells.

2 Q In other words, when the C-2 can't take anymore
3 then you will make some plans, is that it?

4 A Well, we have already contacted a party in the area
5 that wants to sell another well to us.

6 Q I take it from your previous testimony that it is your
7 opinion, and I'm not sure of your qualifications to express
8 it, that there is no injury to correlative rights as a result
9 of the injection program which you have currently going,
10 which you expect to follow indefinitely?

11 A No, sir.

12 Q What do you base that on?

13 A The structure that we are putting the water in, the
14 San Andres, and the fact that the oil is produced on top of
15 the San Andres. Any water put in down dip in the San Andres
16 will not cause injury to any parties to producing that oil,
17 it will probably help them produce that oil.

18 Q Is that the same kind of geologic information and
19 knowledge that you used in connection with the selection of
20 the site of the A-22 Well?

21 A Yes, sir.

22 Q And that same knowledge and information has resulted
23 in your inability to inject into that well, that is the porosity
24 and permeability conditions were not such at that location
25 that would permit injection without pressure?

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1 A. Yes, probably the permeability.

2 Q. Well, what were the factors that you used in the
3 selection of the site?

4 A. For which well?

5 Q. The A-22.

6 A. We wanted a well in the area that our surface
7 water collected in our gathering system would gravity to and
8 also we wanted a well located in the San Andres down structure
9 of any producing wells and also in an area where there was
10 a history of lost circulation when the parties drilled through
11 the San Andres.

12 Q. Is this location in the so-called problem area?

13 A. It is within the thirty-six section area, yes, sir.

14 Q. Well, I take it that a good portion of your site
15 location or selection was based on the economy of gravity flow
16 of salt water disposal, thereby eliminating the necessity
17 for pumping?

18 A. Yes, sir, we always watch the economy.

19 MR. STAMETS: Excuse me, for the Examiner's
20 information what is the location of the A-22 Well?

21 A. It is located in the Unit letter "A" of Section 22,
22 Township 22 South, Range 37 East.

23 MR. STAMETS: So, that is going to be to the south
24 and west of the well in question, what, about four miles
25 south?

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1 A. It is about three miles due south.

2 MR. STAMETS: What is the footage location, do you
3 recall?

4 A. No, I don't remember the footage on the A-22.

5 MR. STAMETS: That will be fine, thank you.

6 Q. (Mr. Sperling continuing.) I understood that you
7 expected the connection of additional wells to the salt water
8 disposal system in the immediate future and that the volume of
9 the salt water to be disposed of will increase?

10 A. Yes, sir.

11 Q. What is your outside limit projected?

12 A. Well, the limit would be, the present system would
13 be the limit on this SWD C-2.

14 Q. What would you do if the volume to be disposed of
15 exceeded that which was the capacity of the C-2?

16 A. We would have to secure another disposal well at that
17 time or drill another well.

18 Q. Well, that was your plan in August of 1975?

19 A. Yes, sir.

20 Q. You drilled a well and it is unsuccessful?

21 A. Yeah, in the eyes of the Commission it is unsuccessful.

22 Q. You mean unsuccessful so long as the limit of a
23 hundred pounds pressure remains on it?

24 A. Yes, sir.

25 Q. Do you have any idea what the volumes would be if

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1 pressure was increased to twelve hundred psi?

2 A. Well, approximately two hundred barrels an hour at
3 the present time.

4 Q. Which would nowhere near accommodate the reduction
5 in volume in the C-2 to that which you indicated several
6 months ago?

7 A. Well, it would reduce the volume in the C-2 by
8 two hundred barrels an hour.

9 Q. Well, you indicated at previous hearings on this
10 matter that the relief which you expected by virtue of
11 drilling the A-22 well would eliminate the necessity for
12 injecting in the perforated area in the C-2 Well?

13 A. Yes.

14 Q. Now, you are telling me, I believe, that even with
15 the A-22 under pressure that it will still be necessary for
16 you to utilize the C-2 Well in the perforated area?

17 A. At this point we don't know if we would have to
18 apply pressure to the open-hole section in the C-2 if we
19 blanked off the perforations.

20 Q. You don't even know what the capacity of the A-22
21 is except by speculation even at twelve hundred pounds?

22 A. I think I testified that we could pump nine barrels
23 a minute in at twelve hundred pounds.

24 Q. That equates to five hundred and forty barrels
25 an hour?

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1 A. Yes, sir.

2 Q. Well, do I understand then that if the application
3 in 5644 is not granted permitting the injection under twelve
4 hundred pounds that you will then have to request at some
5 point in time, request permission to inject under pressure
6 in the C-2?

7 A. We may if we blank off those perforations, we don't
8 know how much the well will take if we blank off the
9 perforations. We hope that we could get it all in by gravity
10 in the open-hole section.

11 Q. Are you willing, Mr. Abbott, to undertake the
12 squeezing of the perforations in the C-2?

13 A. Well, we're not going to squeeze the perforations.

14 Q. Well, blank them off?

15 A. If that is the present order, yes, sir, of the
16 Commission.

17 Q. Well, the present order is that you are supposed to
18 stop injecting on May 7th, 1976 into the perforations?

19 A. Yes, sir.

20 Q. And you are prepared to do that?

21 A. No, that's why we are having this hearing to extend
22 that deadline.

23 Q. Well, this hearing is for the purpose of extending
24 it indefinitely, as I understand it, assuming unfavorable
25 action in the other case, 5644?

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1 A. Uh-huh.

2 MR. SPERLING: Mr. Examiner, since this is a new
3 case may we expect that the testimony which was the basis for
4 the issuance of Orders R-4495-A and B be a part of the record
5 in this case?

6 MR. STAMETS: I think you should ask that the
7 record do so.

8 MR. SPERLING: I do make that request.

9 MR. JENNINGS: We'll join in the request.

10 MR. STAMETS: Okay, the record in Cases 5562 and
11 5619 will be incorporated in the record of this case.

12 Q. (Mr. Sperling continuing.) Do you have any informa-
13 tion as to the volumes which are going into the perforated
14 interval in the C-2 at the present time and the volumes that
15 are going into the open-hole interval?

16 A. No, sir, we have not run any radioactive surveys
17 or any other information on the well.

18 Q. I notice from the report of the previous hearing,
19 Mr. Abbott, that is with reference to Case 5644, that you
20 were asked whether or not your company would undertake
21 indemnification in the event of remedial action being required
22 on certain wells in the area, would you be willing to under-
23 take indemnification of Exxon?

24 MR. JENNINGS: I think I objected to that question
25 and told him not to answer it, if you will read the transcript.

1 MR. STAMETS: And you are renewing your objection
2 to that line of questioning?

3 MR. JENNINGS: That's right.

4 MR. SPERLING: Okay, that's all.

5

6 REDIRECT EXAMINATION

7 BY MR. JENNINGS:

8 Q Just a couple of questions, Mr. Abbott. Do you
9 recall the original order that was issued on the A-22 Well
10 in Case 5644?

11 A I don't remember the number, no, sir.

12 Q Well, you remember the context of it?

13 A Yes.

14 Q Isn't it true that that order provided that the
15 pressure could be administratively increased by an order of
16 the Secretary Director?

17 A That's right.

18 Q And did you make an application to administratively

19 A Yes, we made an application.

20 Q And what happened as a result of your application
21 for administrative approval?

22 A It was put on the docket for a hearing before the
23 full Commission.

24 Q And that was the hearing that was held here on
25 March 10th?

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1 A. Yes.

2 Q. Have you ever had any indication from the Commission
3 or from anyone else that you were going to be restricted to
4 one hundred barrels?

5 A. To one hundred pounds?

6 Q. To one hundred pounds pressure?

7 A. No, just the order.

8 Q. Are you ready to go forward and complete this well
9 as soon as the Commission takes some action?

10 A. Yes, sir.

11 Q. What will this involve?

12 A. Well, it will involve moving some present injection
13 pumps to the A-22 Well and injecting under pressure. We
14 ask in our latest order a pressure of twelve hundred psi. It
15 may be that it would be less than twelve hundred psi. It
16 could be a thousand or eight hundred. We have no way of
17 knowing until we start injecting.

18 Q. How long do you anticipate it would take to complete
19 the well after the order comes down, assuming that you are
20 allowed to increase the pressure?

21 A. Oh, it takes at least thirty days to install the
22 pumps and get the electricity to the pumps and equip the
23 terminal storage.

24 Q. I believe that's all I have. Mr. Abbott, did you
25 prepare what has been marked as Exhibit Number One?

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1 A. Yes, sir.

2 MR. JENNINGS: We would offer Exhibit Number One.
3 I believe the prior record has the same exhibit. If we adopt
4 the old record we have lots of exhibits.

5 MR. STAMETS: Without objection Exhibit Number One
6 will be admitted.

7 (THEREUPON, Applicant's Exhibit Number One
8 was admitted into evidence.)
9

10 CROSS EXAMINATION

11 BY MR. STAMETS:

12 Q Mr. Abbott, what would happen if your application
13 were denied in Case 5644?

14 A Well, we would have to find another disposal well or
15 drill another disposal well in the area and we would not be
16 assured that we would not have to pump that well also.

17 Q Recent Commission orders on injection wells have
18 limited the pressure at the surface so that the pressure at
19 the perforations was no more than seven-tenths of a pound per
20 foot of depth. Just some rough calculations here on the A-22
21 well led me to believe then that a pressure limitation under
22 those conditions would be something around eight hundred pounds
23 on the A-22 well. Do you have any idea what that well would
24 take at eight hundred pound pressure?

25 A No, I don't know. Let me see, it would be eight-tenths

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1 you say?

2 Q Seven-tenths.

3 A Seven-tenths?

4 Q Right.

5 A It may be that would be enough pressure to get the
6 water in.

7 Q Now, there is some question about the expiration
8 date here. The extension asked for a minimum of ninety days
9 and then thirty days after a favorable order in Case 5644.
10 And I believe Mr. Sperling has already pointed out that if
11 you don't get a favorable order that's a permanent extension.
12 Would you be agreeable to something less than a permanent
13 extension if you are turned down in Case 5644?

14 A Well, at the present time we don't know what the
15 intention of the Commission is, nor do we know what solution
16 will come out of the committee action in the area, so that
17 is why we had to leave it a little loose there.

18 Q Getting back to my question, would you be agreeable
19 to some lesser extension?

20 MR. JENNINGS: I might say this, I think we need
21 some time after the Commission action, favorable or unfavorable,
22 that would be --

23 MR. STAMETS; Would something on the order of
24 thirty, sixty, ninety days following the entry of the order
25 in Case 5644 be an agreeable figure?

1 MR. JENNINGS: I would think so. We would need
2 time to drill another well. Maybe they will let us start
3 putting it back in the H-35 again.

4 THE WITNESS: We can't get it in there.

5 Q (Mr. Stamets continuing.) Is this a relatively
6 isolated area or is there a potential for moving the water
7 we've got in this area outside into another injection system
8 or area?

9 A. No, this area served by our disposal system is an
10 area that has approximately nine hundred wells in the area
11 and, of course, anything we do, if we move the water out of
12 the area we have to be assured that we can dispose of the
13 water outside of the area and this pressure that is on the
14 surface of any of these injection wells is a result of just
15 poor permeability around the wellbore. Actually we haven't
16 pressured up the San Andres. The San Andres, as you can see
17 by this new well, we can gravity five to seven hundred barrels
18 a day into it. The pressure distribution around any of the
19 pressure disposal wells in the San Andres is an exponential
20 function of the distance from the wellbore. If you draw a
21 curve, you know, on pressure around the wellbore and back in
22 the reservoir it will decrease rapidly into the reservoir
23 because this San Andres reservoir is continuous from this
24 area all of the way north twenty or thirty or forty miles, so
25 you are not injecting into a limited reservoir, so when you

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1 limit pressure, surface pressure, in the San Andres really
2 it is just local pressure around the wellbore. I mean you
3 are not pressuring up the whole San Andres reservoir, it's
4 a thousand feet thick.

5 Q I believe, Mr. Abbott, it has been six or seven
6 months since your original application was filed for the
7 disposal well in question. Has there been any development,
8 to your knowledge, by Exxon on their acreage since that first
9 case?

10 A No, sir, not in the San Andres reservoir.

11 MR. STAMETS: Any other questions of the witness?
12 He may be excused.

13 (THEREUPON, the witness was excused.)

14 MR. JENNINGS: That's all we have.

15 MR. STAMETS: Any other witnesses in this case?
16 Any statements?

17 MR. SPERLING: Yes, I would like to make a short
18 statement.

19 I think Exxon has demonstrated, Mr. Examiner,
20 that Agua has been rather dilatory in making its plans and
21 alternate plans to take care of the situation which, as you
22 have indicated, has been pending now for a matter of months.
23 I firmly believe that there has been strong reliance on the
24 part of this disposal system on the fact that the Commission
25 would be most reluctant to cause four hundred and thirty wells

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1 or whatever number it is to be shut in, that's understandable.
2 At the same time there has to be a limit to the fact that you
3 can depend upon acquiescence in a situation which would have
4 disastrous results. Whatever the interests of the people in
5 the area may be, large or small, they are entitled to be pro-
6 tected and that's the function and the duty of this Commission.

7 The question of whether or not there has been
8 development by Exxon in the area may have some bearing in the
9 opinion of Mr. Abbott upon whether or not there is development
10 potential there. It would seem to me that he has not
11 indicated, based upon the past performance of the company,
12 that they are possessed of any great geological knowledge
13 with reference to what the oil potential might be and a great
14 example of that is the results of the A-22 Well and the
15 analysis of the potential permeability and porosity to be
16 found in that area. It seems that the factor that most
17 influenced the selection of the location was the fact that
18 water would run down hill.

19 Exxon acquiesced in the prior application by letter
20 dated January 16, 1976 to the extension granted at that time.
21 based upon the assurance as reflected by the finding in the
22 Commission's order that the facilities would eliminate the
23 necessity, that is the facilities to be constructed, would
24 eliminate the necessity of injecting into the perforated
25 area of the C-2.

1 We object strenuously to the allowance of any
2 further extension. That's all.

3 MR. STAMETS: Does anyone else have a comment?

4 MR. JENNINGS: We are sorry about our geology but
5 if the Commission will recall that well, Exxon was about like
6 us. I think that was a water source well when they discovered
7 the field. We are doing our best. I think we have been up
8 here every month since last August.

9 MR. STAMETS: If there is nothing further we will
10 take this case under advisement.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish
Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5674
heard by me on 4/28/76 1976...
Richard R. Ham, Examiner
New Mexico Oil Conservation Commission

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 28, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Agua, Inc. for an extension of time and amendment of Orders R-4495-A and R-4495-B, Lea County, New Mexico.

CASE
5674

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

| | |
|---|---|
| For the New Mexico Oil Conservation Commission: | William F. Carr, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico |
| For the Applicant: | James T. Jennings, Esq. JENNINGS, CHRISTY & COPPLE Attorneys at Law Security National Bank Bldg. Roswell, New Mexico |
| For Exxon Company U.S.A.: | James E. Sperling, Esq. MODRALL, SPERLING, ROEHL, HARRIS & SISK Attorneys at Law Public Service Building Albuquerque, New Mexico |

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W. G. ABBOTT

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1 MR. STAMETS: The hearing will come to order,
2 please. We will call the next Case 5674.

3 MR. CARR: Case 5674, application of Agua, Inc.
4 for an extension of time and amendment of Orders Nos. R-4495-A
5 and R-4495-B, Lea County, New Mexico.

6 MR. JENNINGS: James T. Jennings of Jennings, Christy
7 and Copple and I have one witness, Mr. Abbott.

8 MR. STAMETS: If you will stand and be sworn,
9 please.

10 (THEREUPON, the witness was duly sworn.)

11 MR. STAMETS: Call for other appearances in this
12 case.

13 MR. SPERLING: James E. Sperling of Modrall,
14 Sperling, Roehl, Harris and Sisk, Albuquerque, appearing on
15 behalf of Exxon Company U.S.A.

16 MR. STAMETS: Mr. Jennings, you may proceed.

17
18 W. G. ABBOTT

19 called as a witness, having been first duly sworn, was
20 examined and testified as follows:

21
22 DIRECT EXAMINATION

23 BY MR. JENNINGS:

24 Q Would you state your name, occupation and place of
25 residence, please, sir?

1 A My name is W. G. Abbott, I'm manager of Agua,
2 Incorporated, Hobbs, New Mexico.

3 Q Mr. Abbott, have you appeared before this Commission
4 on many occasions in the past in connection with this case and
5 other cases and testified?

6 A Yes, sir.

7 Q And had your qualifications accepted?

8 A Yes, sir.

9 MR. JENNINGS: Is the witness considered qualified?

10 MR. STAMETS: The witness is considered qualified.

11 Q (Mr. Jennings continuing.) Mr. Abbott, are you
12 familiar with the application that has been filed in this
13 matter?

14 A Yes, sir.

15 Q Just relate briefly what you are asking by the
16 application and the reason for it?

17 A Yes, if you remember correctly previous hearings and
18 orders, Agua, Incorporated was instructed to shut in our
19 SWD H-35, September 26th of last year. When this well was
20 shut in we had to have a disposal well to put this water in
21 that had been going into the H-35, so we got an emergency order
22 to perforate some additional sections in the San Andres in our
23 SWD C-2 Well. Then we layed a temporary line from H-35 to
24 SWD C-2 to pump the water to the C-2 Well. Then we drilled
25 another disposal well, the SWD A-22, and the order on that well

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1 from the Commission put a limitation of a hundred pounds per
2 square inch on the surface. We then came back to the Commission
3 and had another hearing before the full Commission to secure
4 approval to raise the surface pressure on this SWD A-22 to
5 twelve hundred pounds so that we could dispose of the water
6 in this area that is now being pumped up to the SWD C-2.

7 Q Mr. Abbott, was that in Case Number 5644?

8 A I believe it was, yes.

9 Q And I believe that hearing was on March 10th, 1976?

10 A Yes, sir.

11 Q To your knowledge has the Commission taken any
12 action?

13 A No, sir.

14 Q I hand you what has been marked as Exhibit One and
15 ask if you will review that and identify it?

16 A Yes, sir, this exhibit is a diagrammatic sketch of
17 our salt water disposal well C-2. On this sketch it shows our
18 nine-and-five-eighths inch surface pipe set at three hundred
19 and twelve feet and cemented with a hundred and seventy-five
20 sacks and the cement was circulated to the surface. It also
21 shows the seven inch casing set at forty-four hundred with
22 a hundred and seventy-five sacks. The calculated top of the
23 cement was at thirty-four hundred. It shows the open-hole
24 section from forty-four hundred to the total depth of forty-
25 nine, fifty and then it shows the perforated interval from

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1 forty-two, thirty to forty-three, twenty.

2 Q That perforated area, was it perforated pursuant to
 3 an order of this Commission?

4 A Yes, sir.

5 Q And I believe that the first hearing which is in
 6 Case 5562, you were allowed to continue to inject water
 7 through the perforated interval until October 7th?

8 A Yes.

9 Q And you had another hearing on January 26th and you
 10 got an extension?

11 A Yes, sir, a ninety-day extension.

12 Q Was that in Order No. 4495-B?

13 A Right.

14 Q When does that extension expire?

15 A May 7th, 1976.

16 Q How are you putting this water into the A-22 Well
 17 now, Mr. Abbott?

18 A You mean the C-2?

19 Q The C-2, yes.

20 A It is being gravity injection with a vacuum on the
 21 tubing.

22 Q What volumes are you injecting?

23 A The last twenty-four hours we put in four hundred
 24 and sixty-five barrels per hour in the C-2 Well by gravity.

25 Q How much are you putting in a month?

1 A Our figure for March, which was last month, we put
2 two hundred and eighty-eight thousand, five hundred and
3 seventy-eight barrels in the C-2 Well.

4 MR. STAMETS: Two hundred and eighty-eight thousand
5 and how much?

6 A Five hundred and seventy-eight.

7 MR. STAMETS: Thank you.

8 MR. SPERLING: In one month?

9 A Yes, sir.

10 Q (Mr. Jennings continuing.) You are putting
11 approximately that much in each month, are you not?

12 A Yes, sir.

13 Q Mr. Abbott, what is the status of your new well which
14 is the A-22?

15 A That well has been completed and at the present
16 time we are running some tests on the well. We have set up a
17 test tank and we are gravitying water into the SWD A-22 and
18 the well will take five hundred to seven hundred barrels
19 per day by gravity. We plan to go ahead and install our
20 permanent tankage at that well site and gravity the water
21 into the well and we may, after we get our permanent tankage
22 installed, we will come back and re-acidize the well. We may
23 be able to get it up to a thousand barrels a day by gravity.

24 Q What is the status of the C-35 Well?

25 A The H-35?

1 Q The H-35.

2 A The H-35 Well at the present time is being flowed
3 back and the water being disposed of in the SWD C-2. We are
4 flowing it back at the estimated rate of fifty barrels an
5 hour.

6 Q Mr. Abbott, do you have some place to dispose of the
7 water if you are not allowed to put it into the perforated
8 interval?

9 A Not a practical method of disposing of it, no, sir.

10 Q What would you have to do?

11 A We would probably have to shut in the producing
12 wells that are connected to this disposal system.

13 Q How many wells are on the system?

14 A There are about four hundred and thirty wells.

15 Q Is the number increasing?

16 A Yes.

17 Q Mr. Abbott, in your opinion would continued injection
18 of water into this zone affect the correlative rights of any
19 of the operators in the area?

20 A No, sir.

21 Q Do you think that it is in the interest of conserva-
22 tion and the prevention of waste?

23 A Yes, sir.

24 Q Do you have anything else that you wish to add at
25 this time?

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1 A. No, not that I can think of at this time.

2 MR. JENNINGS: I believe that's all.

3 MR. STAMETS: Are there any questions of the witness?

4 MR. SPERLING: Yes.

5 MR. STAMETS: Mr. Sperling.

6

7 CROSS EXAMINATION

8 BY MR. SPERLING:

9 Q Mr. Abbott, your application which is before the
10 Commission at this time and this case, seeks an extension
11 from May 7th, 1976 for an additional thirty days.

12 MR. STAMETS: I believe it is ninety days.

13 MR. SPERLING: Excuse me, it says thirty days.

14 MR. STAMETS: I believe it is an additional ninety
15 days after May 7th and thereafter until thirty days after the
16 entry of an order favorable to the applicant.

17 Q (Mr. Sperling continuing.) All right, ninety days
18 from May 7th, 1976 and thereafter until thirty days after the
19 entry of an order favorable to the applicant in this case,
20 that is in 5644?

21 A. Yes, sir.

22 Q. Is that right?

23 A. Right.

24 Q. On a scale of one to ten, how do you appraise your
25 chances insofar as favorable action in 5644 is concerned?

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1 A I think there will be favorable action. The delay,
2 I believe, in issuing any order is that at the present time
3 the Conservation Commission and the oil industry is working
4 under a committee to seek solutions to the water problem in
5 that area that is affecting the surface pipe on some of the
6 producing wells.

7 Q You expect favorable action in view of the history
8 of the position of the Commission beginning in December of
9 1974 to the effect that they are concerned with the injection
10 of water under pressure in the problem area?

11 A Yes, sir, there is a history of previous disposal
12 wells that are still under operation in this area and using
13 pressure injection and I believe it would be unfair to Agua,
14 Incorporated not to issue an order to allow us to pump water
15 into the A-22 well.

16 Q Well, you are asking the Commission to change its
17 position from that of limiting injection under pressure from
18 a hundred up to twelve hundred pounds?

19 A Yes, sir.

20 Q And it has had that position, that is of limitation
21 to one hundred psi, since December of 1974 when the problem
22 first came under consideration?

23 A No, not that I know of.

24 Q You don't think that has been the Commission's
25 position?

1 A. No, sir.

2 Q. You don't?

3 Q. Do you remember the hearing in December of 1974?

4 A. Which hearing was that?

5 Q. The hearing before this Commission which considered
6 the question of the thirty-six section area in Lea County and
7 the concern at that time with water migrating from the
8 formation into which it had been injected, into shallower
9 formations and in some cases reaching the surface.

10 A. Yes, sir.

11 Q. Does that order specify a limitation of injection
12 pressure of one hundred psi?

13 A. No, sir.

14 Q. I take it from your testimony that only three wells
15 have ever been used by your company for salt water disposal?

16 A. In this area, yes, sir.

17 Q. All right, and that there remains only one well
18 which is capable of salt water disposal at this time?

19 A. That's right.

20 Q. And that is the well which you obtained temporary
21 permission to inject into in the perforated interval on two
22 different occasions?

23 A. That's correct.

24 Q. The last order which was issued, which is

25 R-4495-B, contains the finding by the Commission to the

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1 effect that applicant has assured the Commission that the
2 additional disposal well, speaking of the A-22, and related
3 facilities can be put into operation prior to the expiration
4 of the requested ninety day extension of time?

5 A Yes, sir.

6 Q Do you have any quarrel with that finding?

7 A No, that was their finding.

8 Q And that was your assurance?

9 A Right.

10 Q In the event that the Commission does not take
11 favorable action, that is action favorable to the applicant
12 in Case 5644, the effect of your request in this case is to
13 continue injection into the perforated interval in perpetuity,
14 right?

15 A Possibly.

16 Q And that in the light of your previous assurances
17 that that would not be the case?

18 A Right.

19 Q Did you take any alternative steps or make any
20 contingent plan of any kind which would have taken care of
21 the situation which has developed apparently with the A-22
22 well?

23 A No, we think it would be in the best interests of
24 conservation to use this well for injection.

25 Q Well, isn't it true, actually, Mr. Abbott, that

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1 your efforts, your company's efforts, have largely been based
2 upon the assumption that the Commission under no circumstance
3 would undertake to shut in four hundred and thirty wells and
4 that you have gone along based upon that and your plans have
5 been conducted accordingly without regard to the effect on the
6 C-2 Well?

7 A. We operate under an operating committee made up of
8 thirty-six parties that are parties to the Blinebry-Drinkard
9 Salt Water Disposal System and it was their recommendation
10 that we did that. Exxon is a party to the system.

11 Q. Do you have any current plans to take any action
12 other than that which you have already taken?

13 A. No. The only current plans, as I stated, was to
14 set the permanent tankage at the SWD A-22 and probably
15 re-acidize the well which may increase the injectivity of
16 this disposal well.

17 Q. Your estimate was you might be able to get, under
18 the best of circumstances, a thousand barrels a day?

19 A. Yes, sir.

20 Q. And that's against two hundred and eighty-eight
21 thousand, two hundred and eighty-nine thousand barrels a
22 month going into the C-2. Do you plan to drill any other
23 wells?

24 A. Yes, we plan to drill more wells in the future. As
25 the water increases we will undoubtedly have to have more

1 disposal wells.

2 Q In other words, when the C-2 can't take anymore
3 then you will make some plans, is that it?

4 A Well, we have already contacted a party in the area
5 that wants to sell another well to us.

6 Q I take it from your previous testimony that it is your
7 opinion, and I'm not sure of your qualifications to express
8 it, that there is no injury to correlative rights as a result
9 of the injection program which you have currently going,
10 which you expect to follow indefinitely?

11 A No, sir.

12 Q What do you base that on?

13 A The structure that we are putting the water in, the
14 San Andres, and the fact that the oil is produced on top of
15 the San Andres. Any water put in down dip in the San Andres
16 will not cause injury to any parties to producing that oil,
17 it will probably help them produce that oil.

18 Q Is that the same kind of geologic information and
19 knowledge that you used in connection with the selection of
20 the site of the A-22 Well?

21 A Yes, sir.

22 Q And that same knowledge and information has resulted
23 in your inability to inject into that well, that is the porosity
24 and permeability conditions were not such at that location
25 that would permit injection without pressure?

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1 A. Yes, probably the permeability.

2 Q Well, what were the factors that you used in the
3 selection of the site?

4 A. For which well?

5 Q The A-22.

6 A. We wanted a well in the area that our surface
7 water collected in our gathering system would gravity to and
8 also we wanted a well located in the San Andres down structure
9 of any producing wells and also in an area where there was
10 a history of lost circulation when the parties drilled through
11 the San Andres.

12 Q Is this location in the so-called problem area?

13 A. It is within the thirty-six section area, yes, sir.

14 Q Well, I take it that a good portion of your site
15 location or selection was based on the economy of gravity flow
16 of salt water disposal, thereby eliminating the necessity
17 for pumping?

18 A. Yes, sir, we always watch the economy.

19 MR. STAMETS: Excuse me, for the Examiner's
20 information what is the location of the A-22 Well?

21 A. It is located in the Unit letter "A" of Section 22,
22 Township 22 South, Range 37 East.

23 MR. STAMETS: So, that is going to be to the south
24 and west of the well in question, what, about four miles
25 south?

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- 1 A. It is about three miles due south.
- 2 MR. STAMETS: What is the footage location, do you
- 3 recall?
- 4 A. No, I don't remember the footage on the A-22.
- 5 MR. STAMETS: That will be fine, thank you.
- 6 Q (Mr. Sperling continuing.) I understood that you
- 7 expected the connection of additional wells to the salt water
- 8 disposal system in the immediate future and that the volume of
- 9 the salt water to be disposed of will increase?
- 10 A. Yes, sir.
- 11 Q What is your outside limit projected?
- 12 A. Well, the limit would be, the present system would
- 13 be the limit on this SWD C-2.
- 14 Q What would you do if the volume to be disposed of
- 15 exceeded that which was the capacity of the C-2?
- 16 A. We would have to secure another disposal well at that
- 17 time or drill another well.
- 18 Q Well, that was your plan in August of 1975?
- 19 A. Yes, sir.
- 20 Q You drilled a well and it is unsuccessful?
- 21 A. Yeah, in the eyes of the Commission it is unsuccessful.
- 22 Q You mean unsuccessful so long as the limit of a
- 23 hundred pounds pressure remains on it?
- 24 A. Yes, sir.
- 25 Q Do you have any idea what the volumes would be if

1 pressure was increased to twelve hundred psi?

2 A. Well, approximately two hundred barrels an hour at
3 the present time.

4 Q. Which would nowhere near accommodate the reduction
5 in volume in the C-2 to that which you indicated several
6 months ago?

7 A. Well, it would reduce the volume in the C-2 by
8 two hundred barrels an hour.

9 Q. Well, you indicated at previous hearings on this
10 matter that the relief which you expected by virtue of
11 drilling the A-22 well would eliminate the necessity for
12 injecting in the perforated area in the C-2 Well?

13 A. Yes.

14 Q. Now, you are telling me, I believe, that even with
15 the A-22 under pressure that it will still be necessary for
16 you to utilize the C-2 Well in the perforated area?

17 A. At this point we don't know if we would have to
18 apply pressure to the open-hole section in the C-2 if we
19 blanked off the perforations.

20 Q. You don't even know what the capacity of the A-22
21 is except by speculation even at twelve hundred pounds?

22 A. I think I testified that we could pump nine barrels
23 a minute in at twelve hundred pounds.

24 Q. That equates to five hundred and forty barrels
25 an hour?

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1 A Yes, sir.

2 Q Well, do I understand then that if the application
3 in 5644 is not granted permitting the injection under twelve
4 hundred pounds that you will then have to request at some
5 point in time, request permission to inject under pressure
6 in the C-2?

7 A We may if we blank off those perforations, we don't
8 know how much the well will take if we blank off the
9 perforations. We hope that we could get it all in by gravity
10 in the open-hole section.

11 Q Are you willing, Mr. Abbott, to undertake the
12 squeezing of the perforations in the C-2?

13 A Well, we're not going to squeeze the perforations.

14 Q Well, blank them off?

15 A If that is the present order, yes, sir, of the
16 Commission.

17 Q Well, the present order is that you are supposed to
18 stop injecting on May 7th, 1976 into the perforations?

19 A Yes, sir.

20 Q And you are prepared to do that?

21 A No, that's why we are having this hearing to extend
22 that deadline.

23 Q Well, this hearing is for the purpose of extending
24 it indefinitely, as I understand it, assuming unfavorable
25 action in the other case, 5644?

1 A. Uh-huh.

2 MR. SPERLING: Mr. Examiner, since this is a new
3 case may we expect that the testimony which was the basis for
4 the issuance of Orders R-4495-A and B be a part of the record
5 in this case?

6 MR. STAMETS: I think you should ask that the
7 record do so.

8 MR. SPERLING: I do make that request.

9 MR. JENNINGS: We'll join in the request.

10 MR. STAMETS: Okay, the record in Cases 5562 and
11 5619 will be incorporated in the record of this case.

12 Q. (Mr. Sperling continuing.) Do you have any informa-
13 tion as to the volumes which are going into the perforated
14 interval in the C-2 at the present time and the volumes that
15 are going into the open-hole interval?

16 A. No, sir, we have not run any radioactive surveys
17 or any other information on the well.

18 Q. I notice from the report of the previous hearing,
19 Mr. Abbott, that is with reference to Case 5644, that you
20 were asked whether or not your company would undertake
21 indemnification in the event of remedial action being required
22 on certain wells in the area, would you be willing to under-
23 take indemnification of Exxon?

24 MR. JENNINGS: I think I objected to that question
25 and told him not to answer it, if you will read the transcript.

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1 MR. STAMETS: And you are renewing your objection
2 to that line of questioning?

3 MR. JENNINGS: That's right.

4 MR. SPERLING: Okay, that's all.

5

6 REDIRECT EXAMINATION

7 BY MR. JENNINGS:

8 Q Just a couple of questions, Mr. Abbott. Do you
9 recall the original order that was issued on the A-22 Well
10 in Case 5644?

11 A I don't remember the number, no, sir.

12 Q Well, you remember the context of it?

13 A Yes.

14 Q Isn't it true that that order provided that the
15 pressure could be administratively increased by an order of
16 the Secretary Director?

17 A That's right.

18 Q And did you make an application to administratively

19 A Yes, we made an application.

20 Q And what happened as a result of your application
21 for administrative approval?

22 A It was put on the docket for a hearing before the
23 full Commission.

24 Q And that was the hearing that was held here on
25 March 10th?

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1 A. Yes.

2 Q Have you ever had any indication from the Commission
3 or from anyone else that you were going to be restricted to
4 one hundred barrels?

5 A. To one hundred pounds?

6 Q To one hundred pounds pressure?

7 A. No, just the order.

8 Q Are you ready to go forward and complete this well
9 as soon as the Commission takes some action?

10 A. Yes, sir.

11 Q What will this involve?

12 A. Well, it will involve moving some present injection
13 pumps to the A-22 Well and injecting under pressure. We
14 ask in our latest order a pressure of twelve hundred psi. It
15 may be that it would be less than twelve hundred psi. It
16 could be a thousand or eight hundred. We have no way of
17 knowing until we start injecting.

18 Q How long do you anticipate it would take to complete
19 the well after the order comes down, assuming that you are
20 allowed to increase the pressure?

21 A. Oh, it takes at least thirty days to install the
22 pumps and get the electricity to the pumps and equip the
23 terminal storage.

24 Q I believe that's all I have. Mr. Abbott, did you
25 prepare what has been marked as Exhibit Number One?

1 A Yes, sir.

2 MR. JENNINGS: We would offer Exhibit Number One.
3 I believe the prior record has the same exhibit. If we adopt
4 the old record we have lots of exhibits.

5 MR. STAMETS: Without objection Exhibit Number One
6 will be admitted.

7 (THEREUPON, Applicant's Exhibit Number One
8 was admitted into evidence.)

9
10 CROSS EXAMINATION

11 BY MR. STAMETS:

12 Q Mr. Abbott, what would happen if your application
13 were denied in Case 5644?

14 A Well, we would have to find another disposal well or
15 drill another disposal well in the area and we would not be
16 assured that we would not have to pump that well also.

17 Q Recent Commission orders on injection wells have
18 limited the pressure at the surface so that the pressure at
19 the perforations was no more than seven-tenths of a pound per
20 foot of depth. Just some rough calculations here on the A-22
21 well led me to believe then that a pressure limitation under
22 those conditions would be something around eight hundred pounds
23 on the A-22 well. Do you have any idea what that well would
24 take at eight hundred pound pressure?

25 A No, I don't know. Let me see, it would be eight-tenths

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1 you say?

2 Q Seven-tenths.

3 A Seven-tenths?

4 Q Right.

5 A It may be that would be enough pressure to get the
6 water in.

7 Q Now, there is some question about the expiration
8 date here. The extension asked for a minimum of ninety days
9 and then thirty days after a favorable order in Case 5644.
10 And I believe Mr. Sperling has already pointed out that if
11 you don't get a favorable order that's a permanent extension.
12 Would you be agreeable to something less than a permanent
13 extension if you are turned down in Case 5644?

14 A Well, at the present time we don't know what the
15 intention of the Commission is, nor do we know what solution
16 will come out of the committee action in the area, so that
17 is why we had to leave it a little loose there.

18 Q Getting back to my question, would you be agreeable
19 to some lesser extension?

20 MR. JENNINGS: I might say this, I think we need
21 some time after the Commission action, favorable or unfavorable,
22 that would be --

23 MR. STAMETS: Would something on the order of
24 thirty, sixty, ninety days following the entry of the order
25 in Case 5644 be an agreeable figure?

1 MR. JENNINGS: I would think so. We would need
2 time to drill another well. Maybe they will let us start
3 putting it back in the H-35 again.

4 THE WITNESS: We can't get it in there.

5 Q (Mr. Stamets continuing.) Is this a relatively
6 isolated area or is there a potential for moving the water
7 we've got in this area outside into another injection system
8 or area?

9 A. No, this area served by our disposal system is an
10 area that has approximately nine hundred wells in the area
11 and, of course, anything we do, if we move the water out of
12 the area we have to be assured that we can dispose of the
13 water outside of the area and this pressure that is on the
14 surface of any of these injection wells is a result of just
15 poor permeability around the wellbore. Actually we haven't
16 pressured up the San Andres. The San Andres, as you can see
17 by this new well, we can gravity five to seven hundred barrels
18 a day into it. The pressure distribution around any of the
19 pressure disposal wells in the San Andres is an exponential
20 function of the distance from the wellbore. If you draw a
21 curve, you know, on pressure around the wellbore and back in
22 the reservoir it will decrease rapidly into the reservoir
23 because this San Andres reservoir is continuous from this
24 area all of the way north twenty or thirty or forty miles, so
25 you are not injecting into a limited reservoir, so when you

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1 limit pressure, surface pressure, in the San Andres really
2 it is just local pressure around the wellbore. I mean you
3 are not pressuring up the whole San Andres reservoir, it's
4 a thousand feet thick.

5 Q I believe, Mr. Abbott, it has been six or seven
6 months since your original application was filed for the
7 disposal well in question. Has there been any development,
8 to your knowledge, by Exxon on their acreage since that first
9 case?

10 A No, sir, not in the San Andres reservoir.

11 MR. STAMETS: Any other questions of the witness?
12 He may be excused.

13 (THEREUPON, the witness was excused.)

14 MR. JENNINGS: That's all we have.

15 MR. STAMETS: Any other witnesses in this case?
16 Any statements?

17 MR. SPERLING: Yes, I would like to make a short
18 statement.

19 I think Exxon has demonstrated, Mr. Examiner,
20 that Agua has been rather dilatory in making its plans and
21 alternate plans to take care of the situation which, as you
22 have indicated, has been pending now for a matter of months.
23 I firmly believe that there has been strong reliance on the
24 part of this disposal system on the fact that the Commission
25 would be most reluctant to cause four hundred and thirty wells

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1 or whatever number it is to be shut in, that's understandable.
2 At the same time there has to be a limit to the fact that you
3 can depend upon acquiescence in a situation which would have
4 disastrous results. Whatever the interests of the people in
5 the area may be, large or small, they are entitled to be pro-
6 tected and that's the function and the duty of this Commission.

7 The question of whether or not there has been
8 development by Exxon in the area may have some bearing in the
9 opinion of Mr. Abbott upon whether or not there is development
10 potential there. It would seem to me that he has not
11 indicated, based upon the past performance of the company,
12 that they are possessed of any great geological knowledge
13 with reference to what the oil potential might be and a great
14 example of that is the results of the A-22 Well and the
15 analysis of the potential permeability and porosity to be
16 found in that area. It seems that the factor that most
17 influenced the selection of the location was the fact that
18 water would run down hill.

19 Exxon acquiesced in the prior application by letter
20 dated January 16, 1976 to the extension granted at that time.
21 based upon the assurance as reflected by the finding in the
22 Commission's order that the facilities would eliminate the
23 necessity, that is the facilities to be constructed, would
24 eliminate the necessity of injecting into the perforated
25 area of the C-2.

1 We object strenuously to the allowance of any
2 further extension. That's all.

3 MR. STAMETS: Does anyone else have a comment?

4 MR. JENNINGS: We are sorry about our geology but
5 if the Commission will recall that well, Exxon was about like
6 us. I think that was a water source well when they discovered
7 the field. We are doing our best. I think we have been up
8 here every month since last August.

9 MR. STAMETS: If there is nothing further we will
10 take this case under advisement.

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REPORTER'S CERTIFICATE

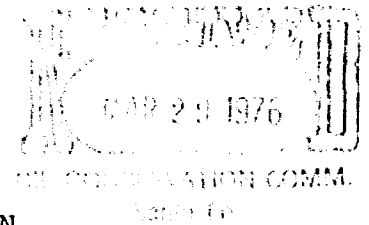
I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish
Sidney F. Morrish, C.S.R.

sid morrish reporting service

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5677
heard by me on 4-28, 1976.
Richard L. Ham, Examiner
New Mexico Oil Conservation Commission



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
AGUA, INC. FOR AN EXTENSION OF TIME
AND TO AMEND ORDERS NO. R-4495-A AND
R-4495-B, LEA COUNTY, NEW MEXICO.

APPLICATION FOR EXTENSION OF TIME AND
TO AMEND ORDERS NO. R-4495-A AND R-4495-B

Comes now Agua, Inc. and hereby makes Application to Amend Order No. R-4495-A heretofore entered on October 7, 1975, and Order No. R-4495-B heretofore entered on February 3, 1976, to permit it to continue to dispose of produced salt water into the San Andres formation in the interval from 4230 feet to 4320 feet below the surface for a period of at least three months from May 7, 1976 and thereafter until at least thirty days after the Oil Conservation Commission enters an Order in Case No. 5644 amending Order No. R-5137 permitting Agua to dispose of produced salt water into its A-22 Well located in Unit A of Section 22, Township 22 South, Range 37 East, N.M.P.M., at a pressure in excess of 100 psi, and in support thereof states:

1. That by Order No. 4495-A entered in Case No. 5562 on October 7, 1975, Applicant was authorized to dispose of produced salt water into its SWD Well #C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, N.M.P.M., into the San Andres formation through perforations from the interval from 4230 feet to 4320 feet and into the open hole interval from 4400 feet to 5000 feet below the surface.

2. That by Order No. 4495-B dated January 20, 1976 in Case No. 5619, it was provided that the disposal into perforations from 4230 feet to 4320 feet should not occur after May 7, 1976.

3. That on October 21, 1975 Applicant filed an Application for Authority to Dispose of Produced Salt Water into the San Andres Formation in its Well #A-22 located in Section 22, Township 22 South,

Range 37 East, N.M.P.M. That a hearing was had on this Application, being Case No. 5592, on November 19, 1975 and on December 16, 1975 the Commission entered Order No. R-5137 authorizing the Applicant to utilize its Blinebry-Drinkard SWD System Well No. A-22 to dispose of produced salt water, but the Order limited the wellhead pressure of the injection well to no more than 100 psi, provided that the Secretary-Director of the Commission should have authority to increase the pressure limit upon satisfactory showing.

4. That Applicant, Agua, Inc., made Application for an Amendment to Order No. R-5137 to authorize it to increase the surface injection pressure to permit surface injection pressures up to 1200 psi, and that a hearing was had upon said Application on March 10, 1976 before the Commission, and that the Commission has not yet acted on said Application.

5. That by reason of the delay in the issuance of an Order allowing the Applicant to increase the surface injection pressures from 100 psi to 1200 psi, it is not possible for the Applicant to complete the well for salt water disposal purposes on or before May 7, 1976, and that Applicant should be allowed to dispose of produced water in the interval from 4230 feet to 4320 feet and into the open hole interval from 4400 feet to 5000 feet in its SWD Well #C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, N.M.P.M., for an additional period of three months from May 7, 1976 and thereafter until thirty days after the Commission enters an Order in Case No. 5644 amending Order No. R-5137 authorizing the Applicant to increase the surface injection pressure in its SWD System No. A-22 Well.

WHEREFORE, Applicant requests the Commission to set this matter down for hearing before an Examiner at an early date, publish the Notice as required by law and after hearing issue its Order amending Orders No. R-4495-A and No. R-4495-B to authorize Applicant to

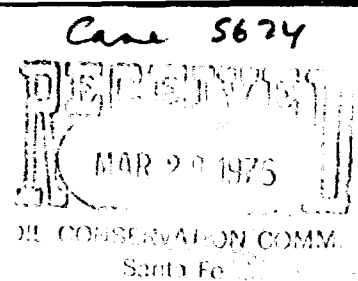
dispose of produced salt water into the San Andres formation in the perforated interval from 4230 feet to 4320 feet for an additional period of three months from May 7, 1976 and thereafter until thirty days after the Commission enters an Order authorizing the Applicant to increase the surface injection pressure above 100 psi in the Salt Water Disposal Well A-22 located in Unit A of Section 22, Township 22 South, Range 37 East, N.M.P.M.

Respectfully submitted,

AGUA, INC.

By 

For JENNINGS, CHRISTY & COPPEE
Attorneys for Applicant
P. O. Box 1180
Roswell, New Mexico 88201



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
AGUA, INC. FOR AN EXTENSION OF TIME
AND TO AMEND ORDERS NO. R-4495-A AND
R-4495-B, LEA COUNTY, NEW MEXICO.

APPLICATION FOR EXTENSION OF TIME AND
TO AMEND ORDERS NO. R-4495-A AND R-4495-B

Comes now Agua, Inc. and hereby makes Application to Amend Order No. R-4495-A heretofore entered on October 7, 1975, and Order No. R-4495-B heretofore entered on February 3, 1976, to permit it to continue to dispose of produced salt water into the San Andres formation in the interval from 4230 feet to 4320 feet below the surface for a period of at least three months from May 7, 1976 and thereafter until at least thirty days after the Oil Conservation Commission enters an Order in Case No. 5644 amending Order No. R-5137 permitting Agua to dispose of produced salt water into its A-22 Well located in Unit A of Section 22, Township 22 South, Range 37 East, N.M.P.M., at a pressure in excess of 100 psi, and in support thereof states:

1. That by Order No. 4495-A entered in Case No. 5562 on October 7, 1975, Applicant was authorized to dispose of produced salt water into its SWD Well #C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, N.M.P.M., into the San Andres formation through perforations from the interval from 4230 feet to 4320 feet and into the open hole interval from 4400 feet to 5000 feet below the surface.

2. That by Order No. 4495-B dated January 20, 1976 in Case No. 5619, it was provided that the disposal into perforations from 4230 feet to 4320 feet should not occur after May 7, 1976.

3. That on October 21, 1975 Applicant filed an Application for Authority to Dispose of Produced Salt Water into the San Andres Formation in its Well #A-22 located in Section 22, Township 22 South,

Range 37 East, N.M.P.M. That a hearing was had on this Application, being Case No. 5592, on November 19, 1975 and on December 16, 1975 the Commission entered Order No. R-5137 authorizing the Applicant to utilize its Blinebry-Drinkard SWD System Well No. A-22 to dispose of produced salt water, but the Order limited the wellhead pressure of the injection well to no more than 100 psi, provided that the Secretary-Director of the Commission should have authority to increase the pressure limit upon satisfactory showing.

4. That Applicant, Agua, Inc., made Application for an Amendment to Order No. R-5137 to authorize it to increase the surface injection pressure to permit surface injection pressures up to 1200 psi, and that a hearing was had upon said Application on March 10, 1976 before the Commission, and that the Commission has not yet acted on said Application.

5. That by reason of the delay in the issuance of an Order allowing the Applicant to increase the surface injection pressures from 100 psi to 1200 psi, it is not possible for the Applicant to complete the well for salt water disposal purposes on or before May 7, 1976, and that Applicant should be allowed to dispose of produced water in the interval from 4230 feet to 4320 feet and into the open hole interval from 4400 feet to 5000 feet in its SWD Well #C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, N.M.P.M., for an additional period of three months from May 7, 1976 and thereafter until thirty days after the Commission enters an Order in Case No. 5644 amending Order No. R-5137 authorizing the Applicant to increase the surface injection pressure in its SWD System No. A-22 Well.

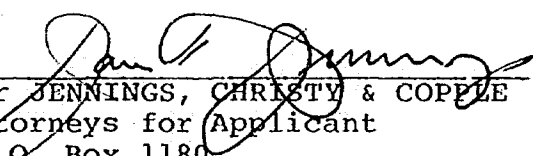
WHEREFORE, Applicant requests the Commission to set this matter down for hearing before an Examiner at an early date, publish the Notice as required by law and after hearing issue its Order amending Orders No. R-4495-A and No. R-4495-B to authorize Applicant to

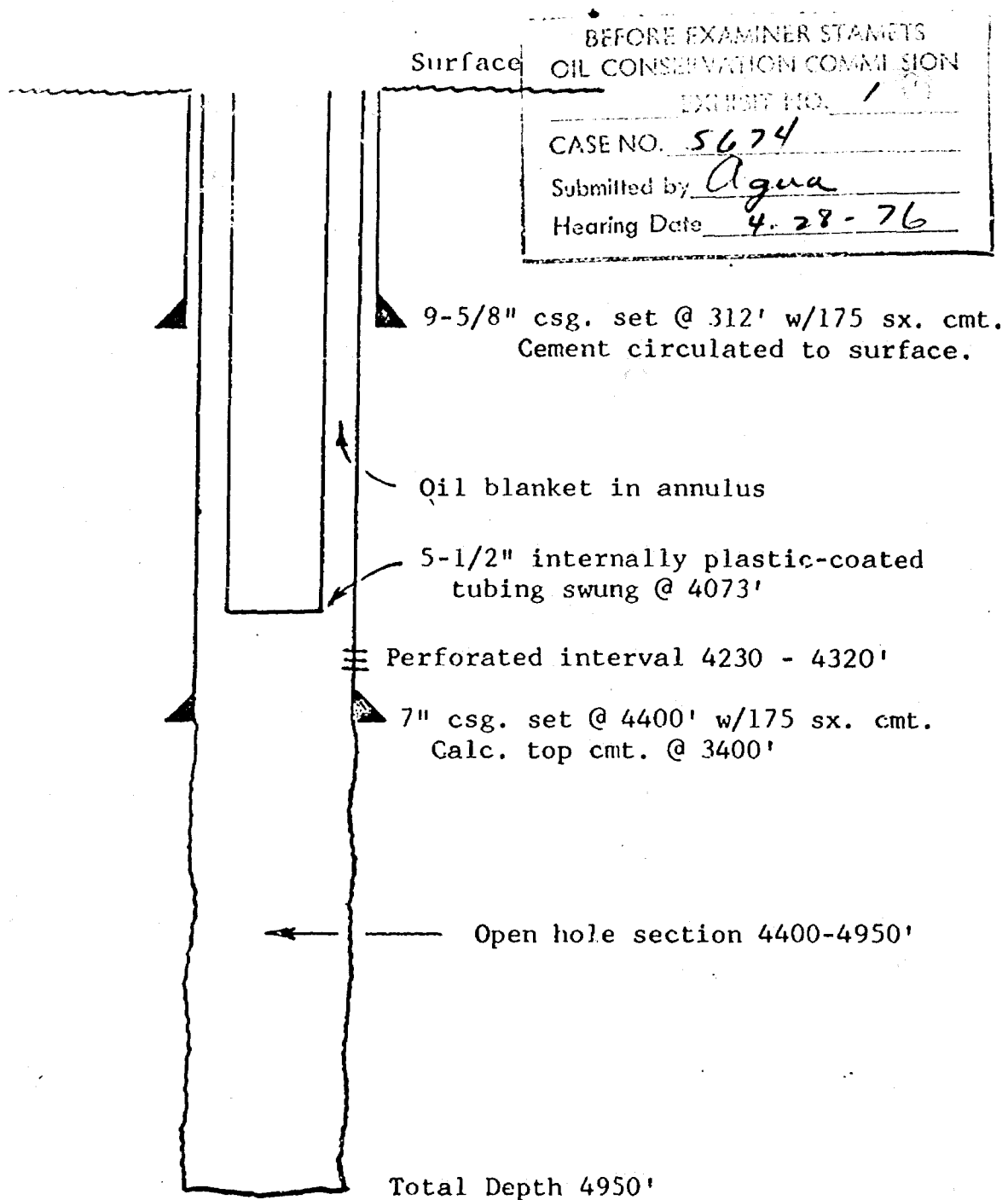
dispose of produced salt water into the San Andres formation in the perforated interval from 4230 feet to 4320 feet for an additional period of three months from May 7, 1976 and thereafter until thirty days after the Commission enters an Order authorizing the Applicant to increase the surface injection pressure above 100 psi in the Salt Water Disposal Well A-22 located in Unit A of Section 22, Township 22 South, Range 37 East, N.M.P.M.

Respectfully submitted,

AGUA, INC.

By


For JENNINGS, CHRISTY & COPPLE
Attorneys for Applicant
P. O. Box 1180
Roswell, New Mexico 88201



DIAGRAMMATIC SKETCH

SALT WATER DISPOSAL WELL No. C-2
NE/4 NW/4 Section 2, T22S, R37E, Lea County, New Mexico
BLINEBRY-DRINKARD SALT WATER DISPOSAL SYSTEM

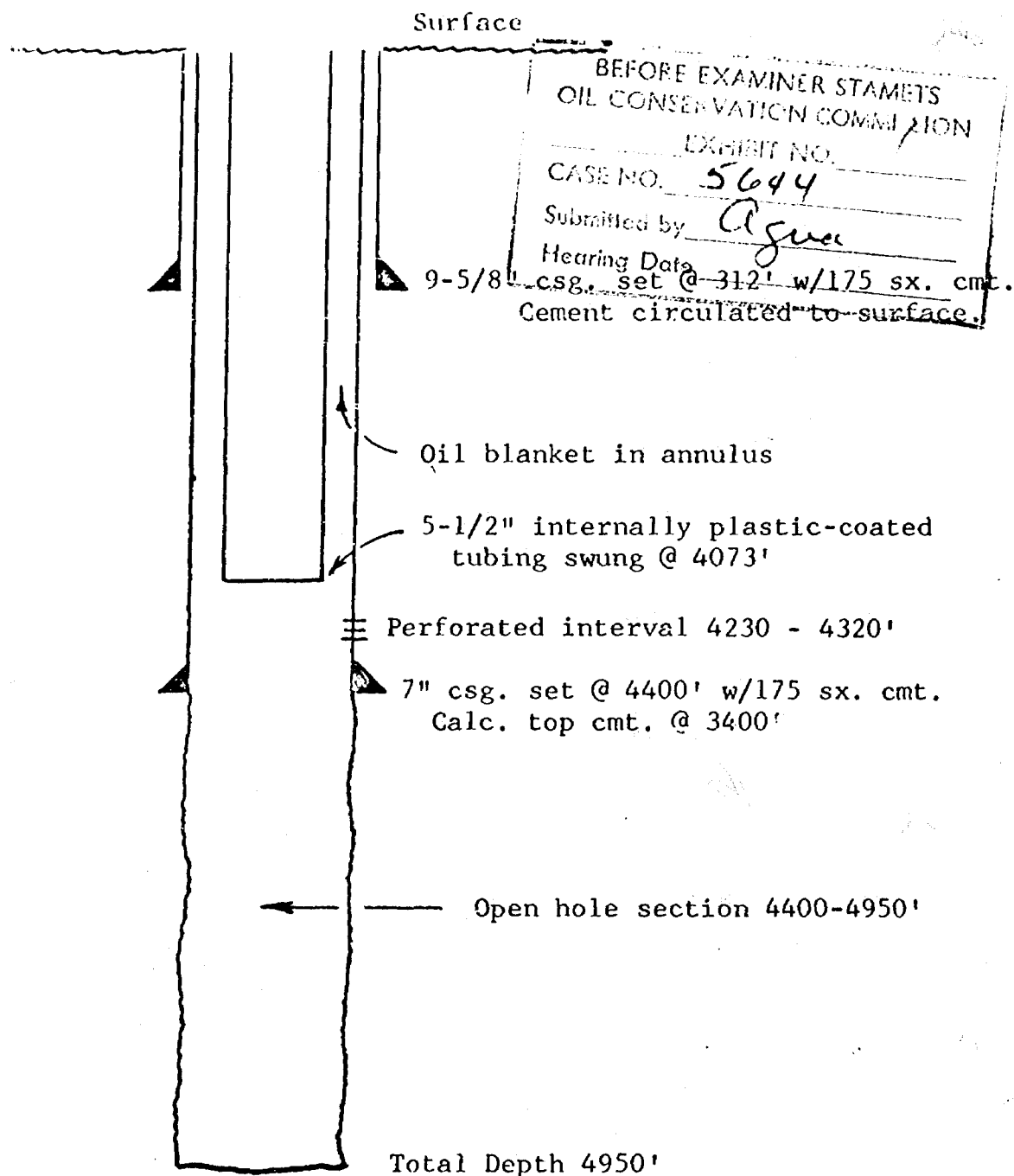
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| | 9/75 | JVR |
| | | |

AGUA, INC.

HOBBS, NEW MEXICO

SCALE
None

DWG. NO.
A-174



DIAGRAMMATIC SKETCH

SALT WATER DISPOSAL WELL No. C-2
NE/4 NW/4 Section 2, T22S, R37E, Lea County, New Mexico
BLINEBRY-DRINKARD SALT WATER DISPOSAL SYSTEM

| | | |
|------|------|-----|
| DWN. | 1/73 | JVR |
| | 9/75 | JVR |
| | | |

AGUA, INC.

HOBBS, NEW MEXICO

SCALE
None

DWG. NO.
A-174

Dockets Nos. 14-76 and 15-76 are tentatively set for hearing on May 12 and May 26, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 28, 1976

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

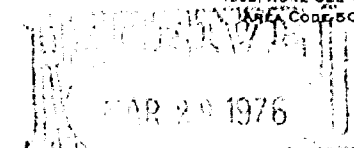
The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 5670: Application of Read & Stevens, Inc. for an unorthodox location and directional drilling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to deviate its Harris-Federal Well No. 3, the surface location of which is 660 feet from the South line and 1980 feet from the East line of Section 27, Township 15 South, Range 28 East, Chaves County, New Mexico, by directionally drilling said well from a kick-off point at approximately 6000 feet and bottoming it at an unorthodox location in the Pennsylvanian formation within 250 feet of a point 990 feet from the South line and 1650 feet from the East line of said Section 27, the S/2 of the Section to be dedicated to the well.
- CASE 5671: Application of Ard Drilling Co. for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to deviate its State 10 Well No. 1, the surface location of which is 660 feet from the South and East lines of Section 10, Township 10 South, Range 32 East, North Mescalero-Cisco Pool, Lea County, New Mexico, by directionally drilling said well from a kick-off point at approximately 7800 feet and bottoming it in the Cisco formation within 100 feet of a point 810 feet from the South line and 660 feet from the East line of said Section 10.
- CASE 5672: Application of Horace F. McKay, Jr. for downhole commingling and simultaneous dedication, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Aztec-Fruitland and Aztec-Pictured Cliffs gas production in the wellbore of his Beardon "A" Well No. 1, located in Unit C of Section 19, Township 29 North, Range 10 West, San Juan County, New Mexico. Applicant further seeks approval for the simultaneous dedication of the NW/4 of said Section 19 to the above-described well and his Beardon Well No. 1 in Unit E of said Section 19.
- CASE 5673: Application of David Fackel for approval of an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 1980 feet from the South line and 660 feet from the West line of Section 32, Township 20 South, Range 25 East, Cemetery-Morrow Gas Pool, Eddy County, New Mexico, the S/2 of said Section 32 to be dedicated to the well.
- CASE 5674: Application of Agua, Inc. for an extension of time and amendment of Orders Nos. R-4495-A and R-4495-B, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Orders Nos. R-4495-A and R-4495-B to permit disposal, after the current May 7, 1976, deadline, of produced salt water through perforations from 4230 feet to 4320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 37 East, Lea County, New Mexico. Applicant seeks the amendment of said orders to permit such disposal for an additional 90-day period after May 7, 1976, and thereafter until 30 days after the entry of an order favorable to the applicant in Case No. 5644.
- CASE 5675: Application of Merrion & Bayless for a dual completion and downhole commingling, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (combination) of its Jicarilla 428 Well No. 2, located in Unit A of Section 31, Township 23 North, Range 4 West, Sandoval County, New Mexico, by cementing parallel strings of 2 7/8-inch casing and 4 1/2-inch casing in a common wellbore, completing said well in such a manner as to commingle undesignated Pictured Cliffs and undesignated Chacon gas production in the 2 7/8-inch casing, and to commingle various undesignated Mesaverde, Mancos, Gallup, Carlisle, and Graneros gas stringers in the 4 1/2-inch casing.
- CASE 5443: (Reopened & Continued)
- In the matter of Case 5443 being reopened pursuant to the provisions of Order No. R-4994, which order established special rules and regulations for the East Lusk-Bone Spring Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units. All interested parties may appear and show cause why said pool should not be developed on less than 160-acre spacing units.

LAW OFFICES OF
JENNINGS, CHRISTY & COPPLEJAMES T. JENNINGS
SIM B. CHRISTY IV
BRIAN W. COPPLE1012 SECURITY NATIONAL BANK BUILDING
P. O. BOX 1180
ROSWELL, NEW MEXICO 88201TELEPHONE 622-8432
FAX CODE 505

ROBERT G. ARMSTRONG

March 26, 1976

OIL CONSERVATION COMM.
Santa FeOil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: ORDER R-4495-A

Gentlemen:

Enclosed herewith you will find an Application in triplicate which we are filing on behalf of Agua, Inc. to amend the above Order. We assume you will set this down for hearing before an Examiner on April 28. It will be necessary that we have the hearing a sufficient time prior to May 7 to enable you to consider the matter as the Order to inject into the well in question expires May 7, 1976.

Yours very truly,

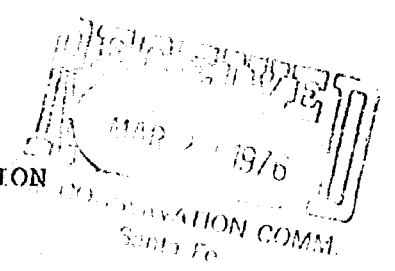

JAMES T. JENNINGS

JTJ/mb

Encl.

cc: Agua, Inc.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO



IN THE MATTER OF THE APPLICATION OF
AGUA, INC. FOR AN EXTENSION OF TIME
AND TO AMEND ORDERS NO. R-4495-A AND
R-4495-B, LEA COUNTY, NEW MEXICO.

APPLICATION FOR EXTENSION OF TIME AND
TO AMEND ORDERS NO. R-4495-A AND R-4495-B

Comes now Agua, Inc. and hereby makes Application to Amend Order No. R-4495-A heretofore entered on October 7, 1975, and Order No. R-4495-B heretofore entered on February 3, 1976, to permit it to continue to dispose of produced salt water into the San Andres formation in the interval from 4230 feet to 4320 feet below the surface for a period of at least three months from May 7, 1976 and thereafter until at least thirty days after the Oil Conservation Commission enters an Order in Case No. 5644 amending Order No. R-5137 permitting Agua to dispose of produced salt water into its A-22 Well located in Unit A of Section 22, Township 22 South, Range 37 East, N.M.P.M., at a pressure in excess of 100 psi, and in support thereof states:

1. That by Order No. 4495-A entered in Case No. 5562 on October 7, 1975, Applicant was authorized to dispose of produced salt water into its SWD Well #C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, N.M.P.M., into the San Andres formation through perforations from the interval from 4230 feet to 4320 feet and into the open hole interval from 4400 feet to 5000 feet below the surface.

2. That by Order No. 4495-B dated January 20, 1976 in Case No. 5619, it was provided that the disposal into perforations from 4230 feet to 4320 feet should not occur after May 7, 1976.

3. That on October 21, 1975 Applicant filed an Application for Authority to Dispose of Produced Salt Water into the San Andres Formation in its Well #A-22 located in Section 22, Township 22 South,

Range 37 East, N.M.P.M. That a hearing was had on this Application, being Case No. 5592, on November 19, 1975 and on December 16, 1975 the Commission entered Order No. R-5137 authorizing the Applicant to utilize its Blinebry-Drinkard SWD System Well No. A-22 to dispose of produced salt water, but the Order limited the wellhead pressure of the injection well to no more than 100 psi, provided that the Secretary-Director of the Commission should have authority to increase the pressure limit upon satisfactory showing.

4. That Applicant, Agua, Inc., made Application for an Amendment to Order No. R-5137 to authorize it to increase the surface injection pressure to permit surface injection pressures up to 1200 psi, and that a hearing was had upon said Application on March 10, 1976 before the Commission, and that the Commission has not yet acted on said Application.

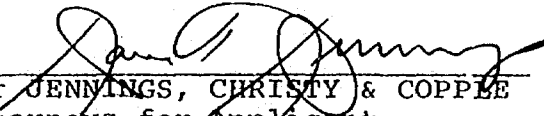
5. That by reason of the delay in the issuance of an Order allowing the Applicant to increase the surface injection pressures from 100 psi to 1200 psi, it is not possible for the Applicant to complete the well for salt water disposal purposes on or before May 7, 1976, and that Applicant should be allowed to dispose of produced water in the interval from 4230 feet to 4320 feet and into the open hole interval from 4400 feet to 5000 feet in its SWD Well #C-2 located in Unit C of Section 2, Township 22 South, Range 37 East, N.M.P.M., for an additional period of three months from May 7, 1976 and thereafter until thirty days after the Commission enters an Order in Case No. 5644 amending Order No. R-5137 authorizing the Applicant to increase the surface injection pressure in its SWD System No. A-22 Well.

WHEREFORE, Applicant requests the Commission to set this matter down for hearing before an Examiner at an early date, publish the Notice as required by law and after hearing issue its Order amending Orders No. R-4495-A and No. R-4495-B to authorize Applicant to

dispose of produced salt water into the San Andres formation in the perforated interval from 4230 feet to 4320 feet for an additional period of three months from May 7, 1976 and thereafter until thirty days after the Commission enters an Order authorizing the Applicant to increase the surface injection pressure above 100 psi in the Salt Water Disposal Well A-22 located in Unit A of Section 22, Township 22 South, Range 37 East, N.M.P.M.

Respectfully submitted,

AGUA, INC.

By 
For JENNINGS, CHRISTY & COPPLE
Attorneys for Applicant
P. O. Box 1180
Roswell, New Mexico 88201

DRAFT

dr/

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. 5674

Order No. R- 4495-C

APPLICATION OF AGUA INC. FOR
AN EXTENSION OF TIME AND AMENDMENT
OF ORDER NOS. R-4495-A AND R-4495-B.

ORDER OF THE COMMISSION

BY THE COMMISSION:

April 28

This cause came on for hearing at 9 a.m. on ~~Richard L. Stamets~~
19 76, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this day of May, 1976, 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 the applicant, Agua, Inc., is the operator of the
SWD Well No. C-2, located in Unit C of Section 2, Township 22
South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That by Order No. R-4495, dated March 21, 1973, the
Commission authorized the use of said well for salt water disposal
purposes, provided that disposal would be into the San Andres
formation through the open-hole interval from 4,400 feet to 5,000
feet.

(4) That by Order No. R-4495-A, dated October 7, 1975,
said Order No. R-4495 was amended to also permit, until February 7,
1976, the disposal of produced salt water into perforations
between 4,230 feet and 4,320 feet.

(5) That in Case No. 5619 held on January 20, 1976 before Commission Examiner Daniel S. Nutter, the applicant sought an additional 90-day period for disposal into the aforesaid perforated interval while applicant completed an additional disposal well for its salt water disposal system in the subject area.

(6) That at said January 20th hearing, the applicant assured the Commission that the additional disposal well and related facilities could be put into operation prior to the expiration of the requested 90-day extension of time and that upon placing such well and related facilities in operation, applicant would be able to reduce disposal volumes in said SWD Well No. C-2 to a level which the open-hole interval from 4,400 feet to 5,000 feet would accept, and would then be able to discontinue disposal into the perforated interval from 4,230 feet to 4,320 feet.

(7) That on February 3, 1976, the Commission entered Order No. R-4495-B amending Order No. R-4495-A to permit the continued disposal of produced salt water into perforations between 4,230 feet and 4,320 feet in said SWD Well No. C-2 until May 7, 1976.

(8) That the applicant has now completed ~~the~~ SWD Well No. A-22 located in Unit A of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico.

(9) That said SWD Well No. A-22 will not accept sufficient water at pressure limitations imposed by Commission Order No. R-5137 (100 psi surface pressure) to permit the applicant to discontinue use of the perforated interval in said SWD Well No. C-2. *for disposal purposes.*

such additional disposal well being its

(10) That in Case No. 5644 heard by the Commission on March 10, 1976, applicant requested an amendment of said Order No. R-5137 to permit surface injection pressures of up to 1200 psi for said SWD Well No. A-22 to cause said well to accept volumes of water sufficient to offset those being disposed in said perforated interval in said SWD Well No. C-2.

(11) That as of the date of the subject hearing, no order had been issued in Case No. 5644.

(12) That applicant now seeks the amendment of Commission Order Nos. R-4495-A and R-4495-B to permit ^{continued} disposal ^{into said} ~~such~~ ~~for an~~ ~~perforated interval in its SWD Well No C-2 for an~~ additional 90-day period after May 7, 1976, and thereafter until 30 days after the entry of an order favorable to the applicant in Case No. 5644.

(13) That the possibility exists that the Commission will not act favorably upon applicant's request in Case No. 5644.

(14) That the applicant anticipates the connection of additional wells to the subject salt water disposal system in the immediate future and a concomitant increase in the volume of salt water requiring disposal.

(15) That the applicant has made no contingency plans for ^{in the event} water disposal ~~neither if~~ its application in Case No. 5644 is ^{the} denied nor for anticipated additional expected volumes of produced waters. ~~continue to operate the subject water disposal~~

^{for the applicant}

(16) That in order to cease disposal of water into the perforated interval in said SWD Well No C-2 and to dispose of the aforementioned present and anticipated volumes of salt water, additional disposal facilities will be required.

(18) That continued temporary extensions of applicant's authority to inject into said perforated interval in ~~said~~ SWD Well No. C-2 would have the same effect as permanent or unrestricted authority to inject.

(19) That evidence previously presented indicates that unrestricted disposal of salt water into said perforated interval in the subject well for an extended period of time could have an adverse effect on oil production and oil reserves in the vicinity of said well.

(20) That to avoid said adverse effects no order should be issued at this time which authorizes or may authorize permanent or unrestricted injection into ~~said~~ perforated interval in ~~said~~ well. *SWD Well No C-2.*

(21) That if the subject application for extension of temporary authority to inject into said perforated interval in applicant's SWD Well No. C-2 should be denied approximately 430 producing wells would be shut in.

(22) That to avoid the immediate shut-in of said 430 producing wells a 90-day extension of the temporary authority to inject into said perforated interval in applicant's SWD Well No. C-2 should be granted.

(23) That an offset operator has objected to continued disposal of salt water into said perforated interval in applicant's SWD Well No. C-2.

(24) That such objection is based upon assertions that there is oil under said objecting operators' lease which will be swept off such lease by the water being injected within said perforated interval in ~~said~~ SWD Well No. C-2.

(25) That if such assertions are correct, said operators' correlative rights would be violated by unlimited injection into said perforated interval in ~~said~~ SWD Well No. C-2.

(26) That the evidence presented to date is sufficient to indicate that correlative rights will be violated if any order or series of ~~orders~~ ^{grant} should be issued by the Commission which would ~~or~~ would have the affect of granting permanent authority for injection of water into said perforated interval in said SWD Well No. C-2.

(27) That the application for an amendment of Commission Order Nos. R-4495-A and R-4495-B for an additional 90-day period of temporary authority after May 7, 1976, to inject into said perforated interval in ~~said~~ SWD Well No. C-2 should be granted.

(28) That the application for authority to inject into said perforated interval in said well until 30 days after the entry of an order favorable to the applicant in Case No. 5644 should be denied.

(29) That on or before August 7, 1976, the applicant should discontinue injection into the perforated interval from 4,230 feet to 4,320 feet in said SWD Well No. C-2, should ~~commence~~ ^{have} ~~operations on~~ additional disposal facilities ~~in or near the subject area~~ or should ~~seek a hearing before~~ ^{have obtained from} the Commission ~~seeking~~ permanent authority to inject into said perforated interval.

IT IS THEREFORE ORDERED:

(1) That the "PROVIDED FURTHER" Section of Order No. 1 of Commission Order No. R-4495-A is hereby amended to read in its entirety as follows:

"PROVIDED FURTHER, that disposal into the aforesaid perforated interval from 4,230 feet to 4,320 feet shall not occur after August 7, 1976, and proper action shall be taken by the applicant to the satisfaction of the Supervisor of the Hobbs District Office of the Commission to prevent such disposal."

provide for sufficient capacity to
prevent immediate discontinuance
of water injection into the
subject perforated interval

-6-
Case No. 5674
Order No. R-

(2) That 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.