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Case 10088

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#### PEAK CONSULTING SERVICES

P.C. Box 636 Hotbs, New Mexico 88240 (505) 392-1915

July 18. 1990

Mr. David Catanach Oil Conser ation Division P.O. Box 2088 Santa Fe. New Mexico 87504-2088

Dear Sirs:

Please find enclosed Circle Ridge Production Inc.'s application to convert the Well No. 3 sec.26 T135 -R31E and Well No. 9 sec. 27 T135 - R31E to injection.

The land owner and offset operator have been notified by certified mail. As per our conversation. I will forward the proof of publication as soon as it is received.

If you have any questions about this application, please contact James Davis at 676-2130 or myself at the number listed above. I thank you for your help and I appreciate your cooperation.

Sincerely

Michael L. Pierce

## 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. 1798 Order No. R-1541

APPLICATION OF GREAT WESTERN DRILLING COMPANY FOR APPROVAL OF A UNIT AGREEMENT AND FOR AN ORDER AUTHORIZING A WATER FLOOD PROJECT IN THE CAPROCK-QUEEN POOL, LEA AND CHAVES COUNTIES, NEW MEXICO

#### ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on October 28, 1959, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this <u>30th</u> day of November, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 seeks approval of its proposed Rock Queen Unit Agreement with the unit area comprising some 4940 acres, more or less, in Township 13 South, Ranges 31 and 32 East, Lea and Chaves Counties, New Mexico.

(3) That approval of the Rock Queen Unit Agreement will in principle tend to promote the conservation of oil and gas and the prevention of waste.

(4) That the applicant further proposes to institute a water flood project in the Caprock-Queen Pool on said Rock Queen Unit by the injection of water into the Queen formation through the following-described wells: -2-Case No. 1798 Order No. R-1541

State Well No. 7, NW/4 SW/4 of Section 22
State Well No. 6, SE/4 SW/4 of Section 22
State Well No. 1, NW/4 SE/4 of Section 22
Werner State Well No. 1, SE/4 SE/4 of Section 22
Las Cruces "A" Well No. 2, SE/4 NW/4 of Section 27
Malco Federal Well No. 3, NW/4 NE/4 of

all in Township 13 South, Range 31 East, NMPM, Chaves County, New Mexico.

(5) That the proposed water flood project should be authorized and the operation thereof should be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including those provisions regarding allocation of allowables and expansion of the project area.

#### IT IS THEREFORE ORDERED:

Section 27

(1) That Great Western Drilling Company be and the same is hereby authorized to institute the Rock Queen Water Flood Project in the Caprock-Queen Pool, Lea and Chaves Counties, New Mexico, by the injection of water into the Queen formation through the following-described wells:

State Well No. 7, NW/4 SW/4 of Section 22
State Well No. 6, SE/4 SW/4 of Section 22
State Well No. 1, NW/4 SE/4 of Section 22
Werner State Well No. 1, SE/4 SE/4 of
Section 22
Las Cruces "A" Well No. 2, SE/4 NW/4 of
Section 27
Malco Federal Well No. 3, NW/4 NE/4 of
Section 27

all in Township 13 South, Range 31 East, NMPM, Chaves County, New Mexico.

-3-Case No. 1798 Order No. R-1541

(2) That the operation of the water flood project herein authorized shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including those provisions regarding allocation of allowables and expansion of the project area.

(3) That monthly progress reports on the water flood project herein authorized shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

(4) (a) That the unit agreement herein referred to shall be known as the Rock Queen Unit Agreement.

(b) That the plan by which the unit area shall be operated shall be embraced in the form of a unit agreement for the development and operation of the Rock Queen Unit Area and such plan shall be known as the Rock Queen Unit Agreement Plan.

(5) That the Rock Queen Unit Agreement Plan shall be, and hereby is, approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing in any manner any right, duties, or obligations which are now, or may hereafter be, vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for exploration and development of any lands committed to said Rock Queen Unit Agreement, or relative to the production of oil and gas therefrom.

(6) (a) That the unit area shall be:

NEW MEXICO PRINCIPAL MERIDIAN

TOWNSHIP 13 SOUTH, RANGE 31 EAST

NW/4 SW/4, E/2 SW/4 and E/2Section 22: N/2 NW/4, NW/4 NE/4, S/2 N/2 and S/2 Section 23: Section 24: N/2 SW/4, NW/4 SE/4 and S/2 S/2 Section 25: A11 Section 26: A11 Section 27: E/2 NW/4 and E/2Section 34: NE/4 and S/2 NW/4N/2 NW/4Section 35: Section 36: A11

TOWNSHIP 13 SOUTH, RANGE 32 EAST Section 19: SW/4 NE/4, NE/4 SW/4, S/2 SW/4 and SE/4 Section 30: N/2, N/2 S/2, S/2 SW/4 and SW/4 SE/4Section 31: NW/4 NW/4

containing 4940 acres more or less.

-4-Case No. 1798 Order No. R-1541

(b) The unit area may be enlarged or contracted as provided in said Plan; provided, however, that administrative approval for expansion of the unit area must also be obtained from the Secretary-Director of the Oil Conservation Commission.

(7) That the unit operator shall file with the Commission an executed original or executed counterpart of the Rock Queen Unit Agreement within 30 days after the effective date thereof.

(8) That any party owning rights in the unitized substances who does not commit such rights to said unit agreement before the effective date thereof may thereafter become a party thereto by subscribing to such agreement or counterpart thereof, or by ratifying the same. The unit operator shall file with the Commission within 30 days an original of any such counterpart or ratification.

(9) That this order shall become effective upon the approval of said unit agreement by the Director of the United States Geological Survey and the Commissioner of Public Lands for the State of New Mexico and shall terminate <u>ipso facto</u> upon the termination of said unit agreement. The last unit operator shall immediately notify the Commission in writing of such termination.

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

> STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

SEAL

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

STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

**OIL CONSERVATION DIVISION** 

GARREY CARRUTHERS GOVERNOR August 10, 1990

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SSANTA FE, NEW MEXICO 87504 (505) 827-5800

Circle Ridge Production Inc. C/O Peak Consulting Services P.O. Box 636 Hobbs, New Mexico 88240

Attention: Michael L. Pierce

Dear Mr. Pierce:

Reference is made to your request dated July 18, 1990, on behalf of Circle Ridge Production Inc., to convert the Rock Queen Unit Well Nos. 3 and 9, located respectively in Unit C of Section 26, and Unit I of Section 27, both in Township 13 South, Range 31 East, NMPM, Lea County, New Mexico, to injection within the Rock Queen Unit Waterflood Project.

Please be advised that the Division has received an objection to your application, and therefore, your application has been set to hearing before a Division examiner on September 5, 1990.

It is our understanding that during July, 1990, you received verbal authorization from the Division to commence injection into the above-described wells, pending approval of your application. Please be advised that in light of the objection, it will be necessary to discontinue injection until such time as the matter has been resolved.

If you should have any questions, please contact myself at (505) 827-5800.

Sincerely, and (

David Catanach Engineer

xc: OCD-Hobbs Case File

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STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS GOVERNOR POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

August 15, 1990

Case 10038

Circle Ridge Production, Inc. c/o Peak Consulting Services P.O. Box 636 Hobbs, NM 88240

Attention: Michael L. Pierce

RE: Proposed water injection wells, Rock Queen Unit - Section 26 Well No. 3, C-26-T13S-R31E and the Rock Queen Unit - Section 27 Well No. 9, I-27-T13S-R31E. Caprock Queen Pool, Rock Queen Unit Waterflood Project Area, Chaves County, New Mexico.

Reference is made to your letter dated August 14, 1990 and to my telephone conversations with you and Mr. Eddie Seay of our Hobbs District Office on Tuesday August 14, 1990, concerning the two proposed injection wells.

Circle Ridge Production Inc. is hereby authorized to conduct an injectivity test on both wells. Said test period shall not extend beyond September 1, 1990 and the maximum injection pressure for such test shall not exceed 0.2 psi per foot of depth to the top of the open hole interval in each well. Circle Ridge is also authorized to proceed with the mandatory casing mechanical integrity test on both wells.

Circle Ridge must contact Mr. Eddie Seay in the Hobbs District Office of the Division at such time as each test phase on both wells are to commence so that a representative of his office may be present.

Jurisdiction of this matter is retained for the entry of such further orders as the Division may deem necessary.

Circle Ridge Production, Inc. Attn: Michael L. Pierce August 15, 1990 Page 2

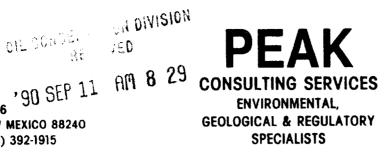
Should you have any questions, please contact me.

Sincerely, Mahur Estoyn

Michael E. Stogner Chief Hearing Officer/Engineer

MES/ag

cc: Oil Conservation Division - Hobbs: Eddie Seay Case File Templeman & Crutchfield - Lovington William J. LeMay - Oil Conservation Division Director Jim Morrow - Oil Conservation Division Chief Engineer





PCS

Mr. David Calanach Oil Conservation Division P.O. Boy 2088 Santa Fe, New Mexico 87504-2088

> Re: Authorization to extend injectivity test on Circle Ridge Production wells no. 3 and 9 Rock Queen Unit.

Dear David:

P.O. BOX 636

HOBBS, NEW MEXICO 88240

OFFICE (505) 392-1915

Reference is made to the letter dated August (5) 1990 from Mr. Mike Stogner of your office, granting Circle Ridge Production authorization to conduct injectivity test on well no. 3, C-26-T135-RB1E and well no. 9, I-27-T135-RB1E.

Circle Ridge Production respectfully request permission to continue testing these wells for an additional 30 days. Circle Ridge will of course abide by all rules and regulations set forth by the Oil Conservation Division.

I appreciate your help and consideration in this matter. If I can be of any assistance please let me know.

Sincerely.

Michael L. Pierce

State of New Mexico



Care No. 10088

in S

P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

Commissioner of Public Lands

September 7, 1990

New Mexico Energy, Minerals & Nat. Resources Dept. Dil Conservation Division P.D. Box 2088 Santa Fe, New Mexico 87504-2088 Attn: Mike Stogner

> Re: Circle Ridge Production Rock Queen Unit Well #3 Conversion to Injection

Dear Mr. Stooner:

The State Land Office has received a copy of the application by Circle Ridge Production Inc. to convert the Rock Queen Unit Well #3 to an injection well within the waterflood unit. The well is located in Unit C, Section 26, Township 13 South, Range 31 East, Chaves County.

Because this well is within an established waterflood unit and operations conform to approved unit agreements, we have no objection to the conversion of this well, pursuant to any requirements the Dil Conservation Division may impose.

Sincerely, I loge to Thank

Floyd O. Prando, Director Oil, Gas & Minerals Division (505) 827-5744

cc: Circle Ridge Production Inc.



W.R. HUMPHRIES COMMISSIONER

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

## September 18, 1990

GARREY CARRUTHERS

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

Circle Ridge Production Inc. C/O Peak Consulting Services P.O. Box 636 Hobbs, New Mexico 88240

Attention: Michael L. Pierce

Dear Mr. Pierce:

Reference is made to your request dated September 7, 1990, on behalf of Circle Ridge Production Inc., to conduct an additional 30-day injectivity test on the Rock Queen Unit Well Nos. 3 and 9, located respectively in Unit C of Section 26, and Unit I of Section 27, both in Township 13 South, Range 31 East, NMPM, Lea County, New Mexico.

It is my understanding that due to an objection from the surface owner, the application to convert these wells to injection was heard by the Division on the September 5, 1990 docket. It is further my understanding that due to incomplete notice, the case was continued to the October 3, 1990, docket.

You are hereby authorized to conduct an additional 30-day injectivity test on the above-described wells. Be advised that all Division Rules and Regulations pertaining to injection will apply to these wells during this test period. If you should have any questions, please contact myself at (505) 827-5800.

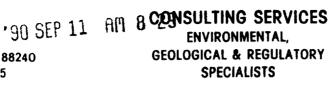
Sincerely.

David Catanach Engineer

xc: OCD-Hobbs
Templeman & Crutchfield-Lovington
Case File-10088



P.O. BOX 636 HOBBS, NEW MEXICO 88240 OFFICE (505) 392-1915





PCS

Mr. Michael Stogner Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87504-2088

Ease No. 10088 Re: rcle Ridge Produ tion

Dear Mille:

As per your instructions of September 5, 1990. the State Land Office has been provided a copy of Circle Ridge Productions application to convert wells no. 3 and 9 to injection. Leo at the land office is sending you conformation of this. As you know well no. 9 is on a Federal Lease. Mr. E.P. Caudill owns the surface rights on this lease.

I believe this this addresses the questions you had concerning the application. I certainly appreciate all the help you have given us. If I can be of any assistance. please don't hesitate to call.

Sincerel

Michael L. Pierce

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### TELECOPIER COVER SHEET

October 2, 1990 DATE: PLEASE DELIVER TO: Mr. Robert G. Stovall NAME . Oil Conservation Division FIRM: CITY: Santa Fe, New Mexico FROM: TEMPLEMAN AND CRUTCHFIELD, P.C. C. Barry Crutchfield NAME: 2nd Floor, Reed McCrory Building Lovington, New Mexico 88260 (505) 396-4927 Telecopier Number: (505) 396-5481 TOTAL NUMBER OF PAGES INCLUDING COVER SHEET. 2 IF THERE ARE ANY PROBLEMS WITH TRANSMISSION PLEASE CONTACT THIS OFFICE. COMMENTS: 

xc/ Mr. James Bruce Hinkle, Cox, Euton, Coffield & Henaley Albuquerque, New Mexico Law Offices of

TEMPLEMAN AND CRUTCHFIELD

JAMES E. TEMPLEMAN C. BARRY CRUTCHFIELD A Professional Corporation Second PLOOR, REED-MORORY BUILDING LAUDIOTON, NEW MITTICO 19760

1ELEPHONES (505) 396-4927 (505) 396-4840 TFLFCOPIER (505) 396-3481

October 2, 1990

## VIA TELECOPIER

Mr. Robert G. Stovall, Counsel Oil Conservation Division Energy, Minerale and Matural Resources Department Post Office Box 2088 Santa Fe, New Mexico 87504

> Re: Case 10088 - Application of Circle Ridge Production, Inc. Waterflood Expansion

Dear Mr. Stovall:

In regard to the above matter, this firm represents E. P. Caudill. Inc., owners of the surface property upon which the subject line arrest to reach the injection wells. An objection to the subject action has been filed on the basis that Circle Ridge has no authority to cross such land and we shall view this matter as a continuing trespass. Likewise, since the line has been laid on the surface under the authority of your division, such line has had two serious leaks causing permanent damage to the surface property.

In order that this matter may be of record before the hearing examiner, I would respectfully request that this letter be filed with your records for notice in this matter.

Thank you for your assistance.

Sincerely,

TEMPLEMAN/AND CRUTCHFIELD

CBC/bb xc/ Mr. James Bruce

### Law Offices of

# TEMPLEMAN AND CRUTCHBIELD 10 22

JAMES E. TEMPLEMAN C. BARRY CRUTCHFIELD A Professional Corporation SECOND FLOOR, REED-McCRORY BUILDING LOVINGTON, NEW MEXICO 88260

October 2, 1990

TELEPHONES (505) 396-4927 (505) 396-4840 TELECOPIER (505) 396-5481

## VIA TELECOPIER

Mr. Robert G. Stovall, Counsel Oil Conservation Division Energy, Minerals and Natural Resources Department Post Office Box 2088 Santa Fe, New Mexico 87504

# Re: Case 10088 - Application of Circle Ridge Production, Inc. Waterflood Expansion

Dear Mr. Stovall:

In regard to the above matter, this firm represents E. P. Caudill, Inc., owners of the surface property upon which the subject line crosses to reach the injection wells. An objection to the subject action has been filed on the basis that Circle Ridge has no authority to cross such land and we shall view this matter as a continuing trespass. Likewise, since the line has been laid on the surface under the authority of your division, such line has had two serious leaks causing permanent damage to the surface property.

In order that this matter may be of record before the hearing examiner, I would respectfully request that this letter be filed with your records for notice in this matter.

Thank you for your assistance.

Sincerely,

TEMPLEMAN AND CRUTCHFIELD

CBC/bb xc/ Mr. James Bruce STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS GOVERNOR

November 28, 1990

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICD 87504 (505) 827-5800

Mr. James Bruce Hinkle, Cox, Eaton, Coffield & Hensley Attorneys at Law 500 Marquette, N.W., Suite 800 Albuquerque, New Mexico 87102-2121

Re: CASE NO. <u>10088</u> ORDER NO. <u>R-9361</u>

Applicant:

Circle Ridge Production Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Florene Clavidson

FLORENE DAVIDSON OC Staff Specialist

Copy of order also sent to:

Hobbs OCD	x
Artesia OCD	x
Aztec OCD 🗌	

Other

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION CASE 10088 EXAMINER HEARING IN THE MATTER OF: Application of Circle Ridge Production, Inc., for a Waterflood Expansion, Chaves County, New Mexico TRANSCRIPT OF PROCEEDINGS BEFORE: MICHAEL E. STOGNER, EXAMINER STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO September 5, 1990 ORIGINAL CUMBRE COURT REPORTING (505) 984-2244

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	CUMBRE COURT REPORTING (505) 984-2244	

EXAMINER STOGNER: Going in line, we'll 1 2 call Case No. 10088, which is the application of 3 Circle Ridge Production, Incorporated. 4 I'll call for appearances. 5 MR. BRUCE: Mr. Examiner, I'm Jim Bruce of 6 the Hinkle law Firm in Albuquerque, representing the 7 Applicant, and I have one witness to be sworn. 8 EXAMINER STOGNER: Are there any other 9 appearances? 10 Mr. Bruce, according to your prehearing 11 statement there was an opposing party. Do you know 12 anything about that? 13 MR. BRUCE: No, Mr. Examiner. My client 14 had received an objection by the surface owner, E. P. Caudill, Inc., which apparently was filed with 15 16 the Oil Conservation Division, and that's why I stated 17 that the case was opposed. But I see no opponent here 18 today. 19 EXAMINER STOGNER: Okay. Will the witness 20 please stand to be sworn. You may be seated. Mr. 21 Bruce? 22 MICHAEL L. PIERCE 23 the witness herein, after having been first duly sworn 24 upon his oath, was examined and testified as follows: 25 CUMBRE COURT REPORTING

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(505) 984-2244

EXAMINATION 1 2 BY MR. BRUCE: 3 Ο. Would you please state your full name and your city of residence, please? 4 5 Michael L. Pierce, Hobbs, New Mexico. Α. What is your occupation? 6 Q. 7 Α. I'm a consulting geologist. I work for 8 Peak Consulting Services out of Hobbs. 9 Q. Are you consulting on behalf of the 10 Applicant, Circle Ridge, in this case? 11 Α. I am. 12 Have you previously testified before the 0. 13 OCD? 14 Α. No, I have not. 15 Would you briefly outline your educational Q. 16 and work background? 17 Α. I received my Bachelor of Science degree in geology from the University of New Mexico in 1979. 18 19 Since then I worked for Hobbs Pipe & Supply 20 in Hobbs, New Mexico, for five years as an exploration 21 geologist, and then as a consulting geologist for the last four and a half years. 22 23 Have you previously prepared and filed form Q. C-108s regarding injection wells? 24 25 Α. Yes, I have. CUMBRE COURT REPORTING (505) 984-2244

Are you familiar with the matters related 1 Q. to this application? 2 3 Α. I am. MR. BRUCE: Mr. Examiner, is the witness 4 5 qualified? EXAMINER STOGNER: He is. 6 Mr. Pierce, briefly what does Circle Ridge 7 Q. 8 seek in this case? 9 Circle Ridge Production seeks to convert Α. two wells in the Rock Queen Unit that we're currently 10 11 producing to injection wells, to enhance production in 12 the unit. The #3 well is located in Unit C of Section 13 26 and Well #9 is located in Unit I of Section 27, in 14 Township 13 South, Range 31 East, in Chaves County, 15 New Mexico. 16 17 That's in the Rock Queen Unit? Ο. Yes, it is. 18 Α. Would you please refer to the C-108s marked 19 0. as Exhibits 1 and 2, and briefly discuss the injection 20 21 applications? 22 Α. Yes. If we could turn to the land plats to show you the location of these wells and the area of 23 review of the wells, they're both within the confines 24 25 of the unit. If you turn further back we can see the CUMBRE COURT REPORTING (505) 984-2244

casing program and cement and all in the wells for the 1 #3, starting with the #3. 2 The status prior to--it states there it's a 3 producer from an open-hole section 3052 to 3064. The 4 top of cement in that well was 2697 feet with 5 calculated cement, using 50-percent efficiency on that 6 7 one. 8 That was the #3 well? 0. Yes, sir. The #9 well is currently a 9 Α. producer from an open-hole section 3020 feet to 3028. 10 11 The top of cement on this well, using 50-percent 12 efficiency, is 2308 feet. The remaining well diagrams on Exhibits 1 13 0. and 2, are those the wells in the area of review? 14 15 Yes, sir, they are. Α. Were all of these wells, in your opinion, 16 Q. 17 properly cased and cemented? 18 Α. Yes, they are. 19 Are there any problem wells in this area? Q. All of the wells were cemented and . 20 No. Α. 21 cased according to OCD approval, and the P & A'd wells were approved by the OCD, also, the plugging 22 23 procedure ... Did Circle Ridge receive preliminary 24 0. approval to convert these wells? 25 CUMBRE COURT REPORTING (505) 984-2244

Yes. We received approval August 15th, I 1 Α. believe it was, to run an injectivity test and 2 mechanical integrity test on these two wells. 3 Would you refer to Exhibits 3 and 4 and 4 Ο. describe those exhibits? 5 All right. Exhibits 3 and 4 are sundry 6 Α. notices for both wells that were turned in to the OCD 7 8 and to the BLM for the Federal Well #9. These just 9 detail the procedure to convert the wells to injection and estimate the rate and the pressure at which 10 injection will be done. 11 Were mechanical integrity tests conducted? 12 Q. Both the mechanical integrity tests 13 Α. Yes. were completed last week, and I believe a copy of 14 1.5 those have been submitted. Are those Exhibits 5 and 6, submitted to 16 0. 17 the Examiner? 18 Yes, they are. Α. 19 Q. Were there any problems with either of 20 those wells? 21 Α. No. Each well passed. 22 Ο. Would you please describe the proposed initial rate and pressure of injection in these wells? 23 24 Α. The average injection will be approximately 150 barrels a day to a maximum of 300. During the 25 CUMBRE COURT REPORTING (505) 984-2244

injectivity test, the rates, the injection rates, were 1 400 to 450 pounds and at about 175 barrels a day. The 2 maximum pressure that we're looking at is 600 pounds. 3 0. Where does the produced water come from, 4 and is it compatible with the formation water? 5 6 The produced water is from the Queen Α. 7 formation and it is compatible. 8 Is there a proposed stimulation program? Q. 9 Α. No, there's not. Are there any freshwater wells within a 10 Q. 11 mile of the proposed injection wells? 12 Α. No, there are not. 13 Do you have any knowledge of open faults or Q. other hydrologic connection between the injection 14 15 formation and any underground freshwater sources? 16 Α. I do not. 17 Were the surface owners and the offset 0. operators or lease owners notified as required by form 18 C - 108?19 20 Yes, they were. Α. 21 Are the certified receipts marked as Q. 22 Exhibit 7? 23 Α. They are. Is Exhibit 8 a copy of the Affidavit of 24 Q. Publication of the notice of this matter? 25 CUMBRE COURT REPORTING (505) 984-2244

Yes, it is. 1 Α. 2 In your opinion, will the granting of this Q. application be in the interests of conservation, the 3 prevention of waste and the protection of correlative 4 5 rights? 6 Α. It will. 7 Were Exhibits 1 through 8 prepared by you Q. 8 or under your direction? 9 Α. They were. 10 MR. BRUCE: Mr. Examiner, I move the 11 admission of Exhibits 1 through 8. 12 EXAMINER STOGNER: Exhibits 1 through 8 13 will be admitted into evidence. 14 EXAMINATION 15 BY EXAMINER STOGNER: 16 Mr. Pierce, let's start with your schematic Ο. of your proposed injection wells or your test wells. 17 18 Α. Yes, sir. 19 Do you still plan to utilize the tubing 0. 20 which you have shown on your Exhibits 3 and 4 in both 21 of these wells? 22 Α. No, sir. What we've done after approval 23 from the OCD, we ran plastic-lined tubing with 24 Halliburton tension packer and set them both about 25 3000 feet. CUMBRE COURT REPORTING (505) 984-2244

This is what you're planning on doing? 1 0. That's what we've done so that we could do 2 Α. 3 the mechanical integrity test and injectivity test. So how do you plan to put these on 4 0. 5 permanent injection? 6 With that same procedure, plastic-lined Α. 7 tubing, tension plate. 8 Ο. The same 2-7/8-inch plastic-lined tubing 9 with packers? 10 Yes, sir. Α. 11 Do Exhibits 3 and 4 show the packers? Q. 12 No, they do not, sir. They just show the Α. 13 status as producing wells. 14 Q. Okay. Look at Exhibit 3. What is that? 15 Okay. That was the proposal to go ahead Α. 16 and convert these wells to injection. 17 Q. Okay. Now, how is this write-up on portion 18 12, the description of the proposed operations, how 19 does this differ than what you're planning on doing 20 permanently? 21 Α. It does not differ. This is what we're 22 planning to do or what we've done. There was no difference in that. 23 And the **#9** well, that is on federal 24 Ο. 25 acreage? CUMBRE COURT REPORTING (505) 984-2244

1 Α. Yes, sir. 2 Was the BLM notified? 0. Yes, sir. 3 Α. 4 Do you have that notification? I guess I'm 0. 5 missing it. 6 It is the sundry notice, sir. Α. It was 7 submitted as evidence, I think, there. 8 But were they notified of today's hearing? 0. 9 Yes. They knew we were going to hearing. Α. 10 EXAMINER STOGNER: Mr. Bruce, what's your 11 opinion of that notification? Is that adequate, since 12 they are the surface owner pursuant to the C-108? 13 MR. BRUCE: I was not aware they were the 14 surface owner. I thought Mr. Caudill, or E. P. 15 Caudill, Inc., was the surface owner. 16 EXAMINER STOGNER: Also, was the land office notified, other than the C-102 or the C-103 17 sundry noticed? 18 19 MR. BRUCE: If not, Mr. Examiner, we will 20 renotify them. 21 EXAMINER STOGNER: I think we need to 22 renotify them. 23 (BY EXAMINER STOGNER) Okay. Let's look at Ο. Exhibits 5 and 6. These are the results of the 24 25 preliminary test, is that correct? CUMBRE COURT REPORTING (505) 984-2244

Yes, sir. 1 Α. Why don't you be more specific and tell me 2 0. what we're looking at here, in detail. 3 Well, this was the mechanical integrity 4 Α. test performed on the Wells #3 and the #9 and 5 witnessed by OCD personnel, Jack Griffin, out of the 6 Hobbs District. 7 How long did this 30-day test take? 8 Q. 9 We got approval to do a 15-day test, from Α. August 15th to September 1st. 10 And this is it? 11 Q. 12 Well, this is just the mechanical integrity Α. 13 test, sir. 14 Oh, okay. Okay, I'm sorry. Q. Ι misunderstood you then. 15 Yes, sir. Both of these passed this test. 16 Α. 17 Over the 15-day injectivity test, what were Ο. the results of that? 18 The average injection on the two wells were 19 Α. 20 both approximately 175 barrels a day, at 450 to 500 21 pounds. 22 0. Okay. Let's refer to the land plat. This 23 is in the middle of an active waterflood? 24 Α. Yes, sir. 25 What is the boundary of this waterflood Q. CUMBRE COURT REPORTING (505) 984-2244

1 unit? Is it shown on that map? 2 Vaquely. Let's see. In 13/31, that Α. Section 23, it includes unit letters B, C and D and 3 That would be the top boundary. 4 not A. 5 0. Okay. 6 And then in Section 22, it includes unit Α. 7 letters A and B, G and H, I, J, K, L, N O and P. 8 Q. Okay. 9 In Section 27, it includes the whole north Α. 10 half save the west half of the northwest quarter, and 11 then the whole southeast quarter of Section 27. In 12 Section 34, the whole northeast guarter, and the south 13 half of the northwest quarter. In Section 35, it 14 includes the north half of the northwest quarter, all 15 of Section 36, all of Section 26, all of Section 25, 16 and all of the south half of Section 24 save the northeast of the southeast. 17 18 Q. Who was the lease operator of the southwest 19 guarter of Section 27? 20 Α. Dakota Resources. 21 Ο. So they took over from City Service, it 22 appears on your map? 23 Yes, sir. Α. 24 Now, who is Mr. Caudill and what is his 0. 25 interest? CUMBRE COURT REPORTING (505) 984-2244

He is the surface lessee out there. 1 Α. Both federal and state? 2 0. 3 Α. I believe the state he is leasing, he may own the surface on section--I'm not sure. He does 4 5 have some--he does own some surface out there outright, but he's the only landowner in the area of 6 review. 7 8 EXAMINER STOGNER: Mr. Bruce, would you check into that? This federal portion may be where I 9 might be misreading it here. They might definitely 10 own the surface but the BLM owns the federal, which 11 12 may look like, to me, an old homestead. 13 But definitely the State Land Office would, 0. 14 I assume, retain their leases and their lands? 15 Yes, sir. Α. 16 MR. BRUCE: We'll check it out, Mr. Examiner. 17 EXAMINER STOGNER: And if you find that the 18 19 BLM does not need to be notified pursuant to the notification procedures on the C-108, if you'll let me 20 21 know, but we'll need get ahold of the Land Office. 22 MR. BRUCE: Okay. 23 ο. (BY EXAMINER STOGNER) And you did a review of all the wells within a half-mile radius, Mr. 24 25 Pierce? CUMBRE COURT REPORTING (505) 984-2244

Yes, sir. All of those are included there. 1 Α. 2 Now, all of these wells within the Ο. 3 half-mile radius have tested the Rock Queen formation, is that correct? 4 5 Α. Yes, sir. 6 Are there any wells deeper than the Rock Q. 7 Oueen? 8 Α. No, sir. What's the nearest water wells? You said 9 Ο. 10 there weren't any within a two-mile radius, if I 11 remember your testimony right. Is this near the 12 Caprock? 13 Α. Yes, sir. It's up above, on top of the Caprock? 14 Q. Part of the field is on the Caprock and 15 Α. part is off of it. 16 17 Are there any water windmills below, off Q. the Caprock? 18 19 Α. I can't answer that. I've never been to 20 that location. 21 Do you know where the nearest water wells Q. 22 are? 23 There's a well in Section 35, and it's not Α. 24 within a mile of the producing wells. 25 But that is the nearest windmill? Q. CUMBRE COURT REPORTING (505) 984-2244

1 Yes, sir. Α. 2 Okay. Are there any plugged and abandoned Ο. wells within a half-mile radius? 3 4 Yes, sir. Those are shown in there. Α. 5 Q. They are properly plugged and abandoned to 6 prevent any migration from the Queen formation? 7 Α. Yes, sir. What will be the source of the water to be 8 0. 9 injected? 10 Α. It would be produced water from the Queen. 11 0. And this will be a unit project only? No 12 outside water or no outside--13 Α. Correct. 14 EXAMINER STOGNER: I do not have any other 15 questions of Mr. Pierce. 16 Are there any other questions of this 17 witness? 18 MR. MORROW: I have one. 19 EXAMINER STOGNER: All right. Go ahead. 20 EXAMINATION 21 BY MR. MORROW: 22 I would ask you, Mr. Pierce, on the two Q. charts it looks like on #3 you had a decline on the 23 24 pressure and an increase on the **#9.** Do you know why that is? 25 CUMBRE COURT REPORTING (505) 984-2244

No, sir, I do not. I was not present when ٦ Α. 2 these tests were run. 3 All right. Thank you. Q. 4 Α. Both these tests were witnessed by Jack Griffin out of the Hobbs office. 5 6 One of them was shown from midnight to 6:00 0. a.m. I don't think that's really right. 7 8 Α. Yeah, I don't think that was probably 9 correct. MR. MORROW: That's all I have. 10 EXAMINER STOGNER: Mr. Bruce, I assume this 11 application will have to be continued--12 13 MR. BRUCE: Yes, Mr. Examiner. EXAMINER STOGNER: -- for proper 14 15 notification? This case will be continued to October 3, 1990. 16 17 If there's nothing further in Case 10088, this case will be continued. 18 19 20 I do hereby certify that the foregoing is a complete record of the proceedings in 21 the Examiner hearing of Case No. 10039. heard by me on 5 Sipt. 1990. 22 5 thogens \_\_\_\_, Examiner 23 Oil Conservation Division 24 25 CUMBRE COURT REPORTING (505) 984-2244

19 CERTIFICATE OF REPORTER 1 2 3 STATE OF NEW MEXICO ) ) SS. COUNTY OF SANTA FE 4 ) 5 I, Carla Diane Rodriguez, Certified 6 7 Shorthand Reporter and Notary Public, HEREBY CERTIFY 8 that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that 9 I caused my notes to be transcribed under my personal 10 11 supervision; and that the foregoing is a true and 12 accurate record of the proceedings. 13 I FURTHER CERTIFY that I am not a relative 14 or employee of any of the parties or attorneys involved in this matter and that I have no personal 15 16 interest in the final disposition of this matter. WITNESS MY HAND AND SEAL September 7, 1990. 17 18 19 CARLA DIANE RODRI CSR No. 91 20 21 My commission expires: May 25, 1991 22 23 24 25 CUMBRE COURT REPORTING (505) 984-2244

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION CASE 10088 EXAMINER HEARING IN THE MATTER OF: Application of Circle Ridge Production, Inc., for a Waterflood Expansion, Chaves County, New Mexico. TRANSCRIPT OF PROCEEDINGS BEFORE: JIM MORROW, EXAMINER STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO October 3, 1990 TO RIGINAL 

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EXAMINER MORROW: We'll call Case 10088. 1 MR. STOVALL: Application of Circle Ridge 2 3 Production, Inc., for waterflood expansion, Chaves County, New Mexico. 4 EXAMINER MORROW: Call for appearances. 5 This case was heard on September 5, 1990. 6 It was readvertised due to a notice problem. 7 8 Yesterday we received a letter of objection from Templeton & Crutchfield, representing Caudill, 9 10 Incorporated. The letter will be made a part of the 11 record. 12 MR. STOVALL: I think that Templeton--they 13 were representing the surface owner I believe, is that 14 correct? 15 EXAMINER MORROW: That is correct. If there's nothing further in this case, it 16 17 will be taken under advisement. 18 (Thereupon, the proceedings concluded.) 19 20 21 22 23 24 25

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CERTIFICATE OF REPORTER 1 2 3 STATE OF NEW MEXICO ) ) SS. 4 COUNTY OF SANTA FE ) 5 6 I, Carla Diane Rodriguez, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY 7 that the foregoing transcript of proceedings before 8 the Oil Conservation Division was reported by me; that 9 10 I caused my notes to be transcribed under my personal 11 supervision; and that the foregoing is a true and 12 accurate record of the proceedings. I FURTHER CERTIFY that I am not a relative 13 or employee of any of the parties or attorneys 14 involved in this matter and that I have no personal 15 interest in the final disposition of this matter. 16 17 WITNESS MY HAND AND SEAL October 15, 1990. 18 CARLA DIANE RODRIGUEZ 19 CSR No. 91 20 21 My commission expires: May 25, 1991 4. 22 23 100 24 25 Oll Conservation Division

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