

Case Number.

4188

Application

Transcripts.

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 6, 1969

EXAMINER HEARING

IN THE MATTER OF:)
)
)

Application of Coastal States)
Gas Producing Company for salt)
water disposal, Lea County,)
New Mexico.)

Case No. 4188

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

I N D E XPageCLARENCE MURRAY, JR.

Direct Examination by Mr. Eaton

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Cross Examination by Mr. Nutter

10

E X H I B I T SMarkedOffered and
Admitted

Applicant's Exhibits Nos. 1 through 4

4

10

MR. NUTTER: Case No. 4188.

MR. HATCH: Case No. 4188. Application of Coastal States Gas Producing Company for salt water disposal, Lea County, New Mexico.

MR. EATON: Paul W. Eaton, Junior, of the firm of Hinkle, Bondurant and Christy, Roswell, New Mexico, representing the Applicant. We have one witness, Mr. Clarence Murray,

(Witness sworn.)

CLARENCE MURRAY, JR.

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

DIRECT EXAMINATION

BY MR. EATON:

Q Would you please state your name, residence and occupation and employer?

A Clarence Murray, Jr., Midland, Texas. I am presently employed by Coastal States Gas Producing Company in the New Mexico area as an engineer.

Q Mr. Murray, are you familiar with the Application of Coastal States in this case?

A Yes, sir.

Q Are you familiar with the property and the proposed

injection well?

A Yes.

Q Have you previously testified before the New Mexico Oil Conservation Commission?

A No, I haven't.

Q Would you please briefly give a resume of your educational background and your professional history?

A I have a Master's degree in Petroleum Engineering from Texas A and M. I worked for about six -- about eight years in the Permian Basin for Mobil Oil and Signal and Coastal States.

Q When did you get your Master's degree?

A In 1958.

MR. NUTTER: Qualified.

BY MR. EATON:

Q What is Coastal States seeking by its Application?

A We are requesting permission to dispose of produced salt water in the west Sawyer Field and the Lower San Andres formation.

(Whereupon, Applicant's Exhibits Nos. 1 through 4 were marked for identification.)

BY MR. EATON:

Q Mr. Murray, would you please refer to what has

been marked as Applicant's Exhibit No. 1 and state what that represents?

A This is a map showing the general area surrounding the West Sawyer Field producing area and it includes the producing wells in the West Sawyer Field and for several miles around it. It also shows the proposed well circled in red that we are requesting to dispose of salt water in.

Q I assume Coastal States is the operator of the well?

A Yes, we are the operator of this well.

Q Would you please give the history of this proposed injection well?

A We drilled this well as a producing well and attempted completion in the Upper San Andres, The upper portion of the Slaughter zone was productive in this area. We first perforated it from 4904 to 10 and 4913 to 18 and 4922 to 28 and acidized at 9000 gallons, placed it on a pump and the production dropped about 5 barrels per day in a very short while. We then went back and perforated an additional zone, 4934 to 44 and gave the whole interval 15,000 gallons of acid and production again dropped to around 5 barrels a day. We then went back and frankly, it was 40,000 gallons of jelled water and 33,000 pounds of

sand. This didn't help the well either.

MR. NUTTER: It was determined to produce less than 5 barrels a day.

THE WITNESS: It was non-commercial. So since then, we have squeezed these perforations off with 50 sacks and drilled a well on to 5133 in the Lower Slaughter zone of the San Andres formation.

BY MR. EATON:

Q Do you have a log of the well?

A Yes, sir.

Q Is that what has been marked as Exhibit No. 2?

A This is a copy of the gamma ray neutron log which was run on a well which is a complete log from the surface to the T.D. on it.

Q Was that the original T.D., 5025 feet?

A Well, the first time we drilled at 5025 feet when we were attempting to make a producing well. We came back later and drilled out the shoe then and drilled on to the 5133.

Q Mr. Murray, would you next refer to what has been marked as Exhibit No. 3 and state what that represents?

A This is a sketch of the well bore showing the casing strains that have been set, the amount of cement and

whether or not it was circulated or how the cement came behind the various casing strains. It also shows the perforated zone and shows the proposed completion, if we are granted permission, of the injection for produced water.

Q This Exhibit, I believe, indicates that you inject through a plastic coated tubing?

A Yes.

Q And into an open-hole interval from 5025 feet to 5125 feet, is that correct?

A Actually, we made a small mistake there. It should be actually drilled to 5133.

Q Will the water be injected by pressure?

A Yes. We plan to set up a small pump and inject the water under, probably, 1500 pounds of pressure or so.

Q Will the injection interval take the water, in your opinion?

A Yes. After we drilled the well deeper, we ran an injection test on it. We pumped approximately 100 barrels into the well after the well was acidized and it would take a barrel per minute at 3325 pounds which is quite a bit in excess of what we plan to dispose of.

Q Is the injection zone in this area productive

or capable of producing oil or gas?

A We don't think so. The lower portion of the core out of the upper part of the Slaughter zone -- we cored it down to 5025 feet -- and the lower portion of this core indicated to be water wet. Then also some wells to the south of it down-dip from this well produced water on drill-stem tests of the Slaughter zone.

Q Where will the produced water which you propose to inject come from?

A It will come from our producing wells in the area and any other -- we plan to probably drill several more wells in this area.

Q What volume of water do you anticipate that you will inject?

A Well, it will be something on the order of 100 to 300 barrels per day. We are presently producing about 230 barrels a day right now. We have one well which is sort of sub-economic that we may plug which will reduce that volume of water.

Q Mr. Murray, will you refer to Exhibit 4 and state what that represents?

A Exhibit 4 is an analysis showing the chloride content of the produced water, about 130,000 parts per mill

and this was obtained from a sample of the produced water.

Q What steps do you plan to take to ascertain any leakage that might hurt --

A (Interrupting) We will put some kind of treated fresh water behind the packer in the annulus between the tubing and 4½ inch casing and then install a pressure gage on this annulus at the surface.

Q In your opinion, is the well case cemented in such a fashion that there will be no danger to any fresh water reservoir that may exist in the area?

A I would say that it is.

Q Have these Exhibits been prepared by you or under your supervision?

A Yes.

Q In your opinion will approval of the Application prevent waste?

A Yes, it will. At present, it is costing quite a lot of money to have the water trucked.

Q If the Application is approved, will Coastal States notify the Commission when it commences the injection operation to comply with the Commission's requirements as to information and other data?

A Yes, we will.

MR. EATON: Mr. Examiner, we move the admission of Exhibits 1 through 4.

MR. NUTTER: Coastal State's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 4 were offered and admitted in evidence.)

MR. EATON: I have no further questions.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Murray, how many wells are presently completed in this West Sawyer and San Andres Pool?

A Well, we have 3 wells, if you will notice on Exhibit No. 1, our Santa Fe No. 1 and our State No. 41, I believe is the designation, and Sun Oil Company has presently completed their 1-S in Section 32.

Q So there are 4 producing wells?

A Four producing wells.

Q Now, at what interval are each one of these four wells producing from?

A They are all producing from what we refer to as the upper portion of the Slaughter zone.

Q In other words, they are producing from this

section that you attempted completion in this well, being from about 4909 down to about 4944?

A That's right.

Q And there is no production from the Lower San Andres where you propose to dispose of water?

A There is none in this area.

Q This Application was advertised for the open-hole interval from approximately 5025 to 5125 and now the well has been deepened an additional 8 feet so we've got an 8-foot interval here which is not covered by the Notice. You are going farther away from production than the notice was for, actually, because you are going 8 feet deeper. All the production is up above this?

A Right. Actually what happened here, the completion foreman, when he was drilling out the well, they got off in their measurements or something and drilled to 5133 instead of 5125. In other words, we figured an additional 100 feet below the original 5025 would be deep enough to go to get into the lower portion of the zone.

MR. EATON: That would be also true of the 108 feet, is that correct?

THE WITNESS: I think so. In other words, the deeper you go, the more water you should encounter.

BY MR. NUTTER:

Q There is no production below this 5125?

A No, there is not.

MR. NUTTER: Are there any further questions of Mr. Murray?

You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Eaton?

MR. EATON: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in Case No. 4188?

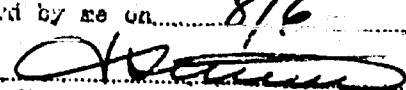
We will take the case under advisement.

STATE OF NEW MEXICO)
) SS.
COUNTY OF SANTA FE)

I, RICHARD L. NYE, Court 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.


COURT REPORTER

My Commission expires April 8, 1971.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 4188 heard by me on 8/6 1970.

Examiner
New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

August 14, 1969

Mr. Paul Eaton
Hinkle, Bondurant & Christy
Attorneys at Law
Post Office Box 10
Roswell, New Mexico 88201

Re: Case No. 4188
Order No. R-3815
Applicant:
Coastal States Gas Producing Co.

Dear Sir:

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

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other State Engineer Office

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. 4188
Order No. R-3815

APPLICATION OF COASTAL STATES GAS
PRODUCING COMPANY FOR SALT WATER
DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 6, 1969, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 14th day of August, 1969, 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, Coastal States Gas Producing Company, is the owner and operator of the Santa Fe Well No. 2, located in Unit F of Section 33, Township 9 South, Range 37 East, NMPM, West Sawyer-San Andres Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Lower San Andres formation, with injection into the open-hole interval from approximately 5025 feet to 5133 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 4980 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should

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CASE No. 4188
Order No. R-3815

be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Coastal States Gas Producing Company, is hereby authorized to utilize its Santa Fe Well No. 2, located in Unit F of Section 33, Township 9 South, Range 37 East, NMPM, West Sawyer-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4980 feet, with injection into the open-hole interval from approximately 5025 feet to 5133 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman

ALEX J. ARMISTO, Member

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

- CASE 4181: Application of J. M. Huber Corporation for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Stoltz Federal Well No. 1 located in Unit J of Section 12, Township 15 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Morton-Wolfcamp Pool and the disposal of produced salt water through the 8 5/8 X 4 1/2-inch casing-casing annulus into the San Andres, Tubb, Abo, and possibly other formations in the open-hole interval from approximately 4330 feet to 9750 feet.
- CASE 4182: Application of Franklin, Aston & Fair, Inc. for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico. Said exception would be for certain of applicant's Loco Hills Field wells located in Units T and P of Section 20, Township 17 South, Range 30 East, Unit A of Section 17 and Unit F of Section 4, Township 18 South, Range 30 East, and Unit O of Section 36, Township 17 South, Range 29 East, Eddy County, New Mexico. Disposal would be into unlined surface pits in the vicinity of said wells.
- CASE 4183: Application of Pan American Petroleum Corporation for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Cedar Point Unit Area comprising 5,120 acres, more or less, of State and Federal lands in Township 15 South, Range 30 East, Chaves County, New Mexico.
- CASE 4172: (Continued from the July 23, 1969. Examiner Hearing)
Application of Pennzoil United, Inc. for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the East Lovington-Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre oil proration units.
- CASE 4184: Application of Pennzoil United, Inc. for the creation of a new oil pool, promulgation of special rules therefor, and a non-standard oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian oil pool for its Gallagher "8" State Well No. 1 located in the NW/4 NW/4 of Section 8, Township 17 South, Range 34 East, Lea County, New Mexico, and for the promulgation

Docket No. 22-69
DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 6, 1969

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

The following cases will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 4179: Application of Petroleum Corporation of Texas for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Flint "B" Federal Well No. 1 located in Unit M of Section 14, Township 17 South, Range 30 East, Grayburg-Jackson Pool, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by said well in an unlined surface pit located in said Unit M.

CASE 4180: Application of Union Oil Company of California for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Federal "E" and Federal "F" leases in Section 31, Township 18 South, Range 31 East, Shugart Field, Eddy County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells on said leases in unlined surface pits on the subject leases.

CASE 4167: (Continued from the July 9, 1969 Examiner Hearing)
Application of Charles B. Read for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete his Hobbs "Y" Well No. 1 located in Unit J of Section 29, Township 12 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the East Hightower-Pennsylvanian Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres, Glorieta, Yeso, and Abo formations in the open-hole interval from approximately 4195 feet to 7720 feet.

(Case 4184 continued)

of special rules therefor including a provision for 160-acre proration units and well locations in either the Northwest or Southeast quarter of a quarter section. Applicant further seeks an exception to said proposed rules to re-enter its Monsanto Gallagher State Well No. 1 located 660 feet from the South and West lines of said Section 8 and to recomplete said well in the subject pool.

CASE 4185: Application of Pennzoil United, Inc., for the creation of a new oil pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Wolfcamp oil pool for its Sinclair "6" State Well No. 1 located 660 feet from the South line and 760 feet from the East line of Section 6, Township 17 South, Range 34 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 160-acre proration units and well locations in either the Northwest or Southeast quarter of a quarter section.

CASE 4186: Application of Tenneco Oil Company for compulsory pooling and an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Basin-Dakota Gas Pool underlying the North half of Section 11, Township 29 North, Range 13 West, San Juan County, New Mexico, said acreage to be dedicated to a well to be drilled at an unorthodox gas well location 2250 feet from the North line and 660 feet from the East line of said Section 11. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4187: Application of Aztec Oil & Gas Company for the amendment of Administrative Order NWU-341 and Commission Order No. R-2046, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Administrative Order NWU-341 and Commission Order No. R-2046, which orders established, respectively and among other units, certain non-standard gas proration units for the Blanco Mesaverde and Basin-Dakota Pools in Sections 7, 8, 9, 10, 11, 12, 18, and 19, Township 32 North, Range 8 West, San Juan County, New Mexico. Applicant seeks to amend said orders in such a manner as to establish eight co-extensive Mesaverde and Dakota gas proration units in Sections 7, 8, 9, 10, 11, 12, and 18, said units to average 318.89 acres each.

Examiner Hearing - August 6, 1969

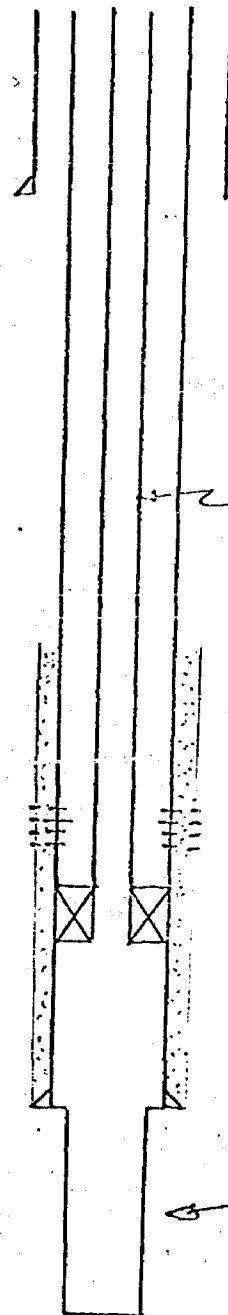
Docket No. 22-69

-4-

CASE 4188: Application of Coastal States Gas Producing Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Lower San Andres formation in the open-hole interval from approximately 5025 feet to 5125 feet in its Santa Fe State Well No. 2 located in Unit F of Section 33, Township 9 South, Range 37 East, West Sawyer-San Andres Pool, Lea County, New Mexico.

CASE 4189: Application of Cayman Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the well location requirements for the High Plains-Pennsylvanian Pool as promulgated by Rule 4 of Order No. R-2874, to permit the drilling of a well at an unorthodox location in the center of the SE/4 NE/4 of Section 15, Township 14 South, Range 34 East, Lea County, New Mexico.

San Jo Fe No. 2
G.L. Elev. 3964.1'



3 5/8" @ 478'
Cemented w/ 350 SX.
(Cement Circulated)

2 3/8" EUE Plastic Coated Tbg.

Circ. Cement top 3500'

~~1500 PSI~~
1500 PSI
100-350
BUD

Bluson Tension
Packer @ 4980'

TD 5025

Perls 4904-10 4913-18
4922-28 4934-44
squeered with 50 sacks

Shoe joint 29.86' PBTD 4945'
4 1/2 - 9.5" CSG set @ 5025'

Drill 3 3/4" hole to 5125'
5133

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 3

CASE NO. 4188

FORM O-11 (REV. 4-57)

SAMPLE NO. _____

District: _____

THE WESTERN COMPANY

"Engineered Well Services"

GEOLOGICAL AND CHEMICAL LABORATORIES

f.

CSGP CO.		
Drig. & Prod. Dept.		
Midland Div.		
APR 1 1969		
To	In	Out
STILL	14	✓
File	WSE	

WATER ANALYSIS

County Lea

Field Sawyer

Operator Coastal States Producing Co.

Well Adlong #1

Depth

Formation San Andres

Date Sampled 3-30-69

Date Received

Submitted By

Worked By Mike Russell

Other Description

Properties of Sample

Density	1.161	Chloride	130,000	PPM
pH	5.0	Hydrogen Sulfide	Strong	
Total Solids (Collected)		Iron	None	

Remarks

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 4188

P. O. BOX 235

PHONE MU 2-7925

COASTAL STATES GAS PRODUCING COMPANY

NORTH TEXAS DIVISION
WILCO BUILDING
MIDLAND, TEXAS
79701

July 17, 1969

15
8
18
JUL
1969

New Mexico Oil Conservation Commission
State Land Office Bldg.
Santa Fe, New Mexico 87501

Attention A. L. Porter, Jr.
Secretary-Director

Re: Request for approval for SWD
West Sawyer Field
Lea County, New Mexico

Gentlemen:

Coastal States Gas Producing Company respectfully requests administrative approval to convert our Santa Fe Well No. 2, located in Unit F, Section 33, T-9S, R-37E in the West Sawyer (San Andres) Field, Lea County, New Mexico, to salt water disposal status.

The subject well was drilled by Coastal States in February, 1969. Completion attempts were made by perforating the upper portion of the slaughter zone of the San Andres from 4904-10', 4913-18', 4922-28'. These perforations were acidized with 9,000 gallons, swab tested, and placed on pump. Production dropped to 5 BOPD after recovery of load fluids. Additional zone was perforated from 4934-44' and the well was acidized with 15,000 gallons acid. Again production dropped to less than 5 BOPD. On April 16, 1969, the well was fraced with 40,000 gallons gel water and 33,000# sand. Production again dropped to less than 5 BOPD.

The well was cored from 4910' to 5010'. The bottom 40 feet from 4970'-5010' appeared to be water wet and was not analyzed.

Coastal States plans to drill an additional 100 feet from 5025' to 5125' and dispose of produced water from the West Sawyer Field into the open hole section (lower San Andres) from 5025'-5125'. This will be done through tubing with packer set at 4980', below all existing perforations. By observation of the core this is well below the water-oil contact in the slaughter zone. All producing wells in the West Sawyer Field are producing from the slaughter zone above 5000'.

Coastal States requests that this be approved administratively according to Rule 701-C. However, if this cannot be approved administratively, we request that it be set down for hearing at the next scheduled date.

Very truly yours,

Joe R. Howard

Joe R. Howard
Division Production Manager

DOCKET MAILED

JRH:JRMCG:bm
Attachments

Date 7-24-69

✓ Docket to Chance Gunkle

PERTINENT DATA

Name and Depth of Formation - Lower San Andres at 5025' - 5125'

Injection Fluid - Produced salt water from the West Sawyer (San Andres) Field, Lea County, New Mexico (Analysis Attached)

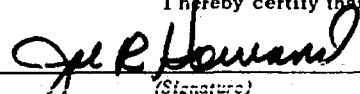
Expected Injection Pressure - 1500 psi

Maximum and Minimum Injection Volumes - 100 - 300 bbls per day

NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR Coastal States Gas Producing Company		ADDRESS P. O. Box 235, Midland, Texas 79701			
LEASE NAME Santa Fe State	WELL NO. 2	FIELD West Sawyer (San Andres)	COUNTY Lea		
LOCATION UNIT LETTER <u>F</u> ; WELL IS LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>West</u> LINE, SECTION <u>33</u> TOWNSHIP <u>9S</u> RANGE <u>37E</u> NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8-5/8	478'	350	Circ.	Visual
INTERMEDIATE	- - -				
LONG STRING	4-1/2	5025'	250	3500'	Calculated
TUBING	2-3/8	4980'	NAME, MODEL AND DEPTH OF TUBING PACKER Johnson Tension Packer @ 4900'		
NAME OF PROPOSED INJECTION FORMATION Lower San Andres		TOP OF FORMATION 5025'		BOTTOM OF FORMATION 5125'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Open Hole		PROPOSED INTERVAL(S) OF INJECTION Lower San Andres	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No		IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil Production		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Yes	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH 4904-10', 4913-18', 4922-28', 4934-44'					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 400'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 4944'		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 12,650	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 100	MINIMUM 100	MAXIMUM 300	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY PRESSURE? Pressure	APPROX. PRESSURE (PSI) 1500
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - Yes			WATER TO BE DISPOSED OF NATURAL WATER IN DISPOSAL ZONE Yes		
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Michael Harton, Tatum, New Mexico 88267					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Sun-DX Oil Company, P. O. Box 1861, Midland, Texas 79701 Oil Development Corporation, 900 Polk St., Amarillo, Texas 79100					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?		PLAT OF AREA Yes		ELECTRICAL LOG Yes	
				THE NEW MEXICO STATE ENGINEER Yes	
				DIAGRAMMATIC SKETCH OF WELL Yes	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.


(Signature)

Division Production Manager

(Title)

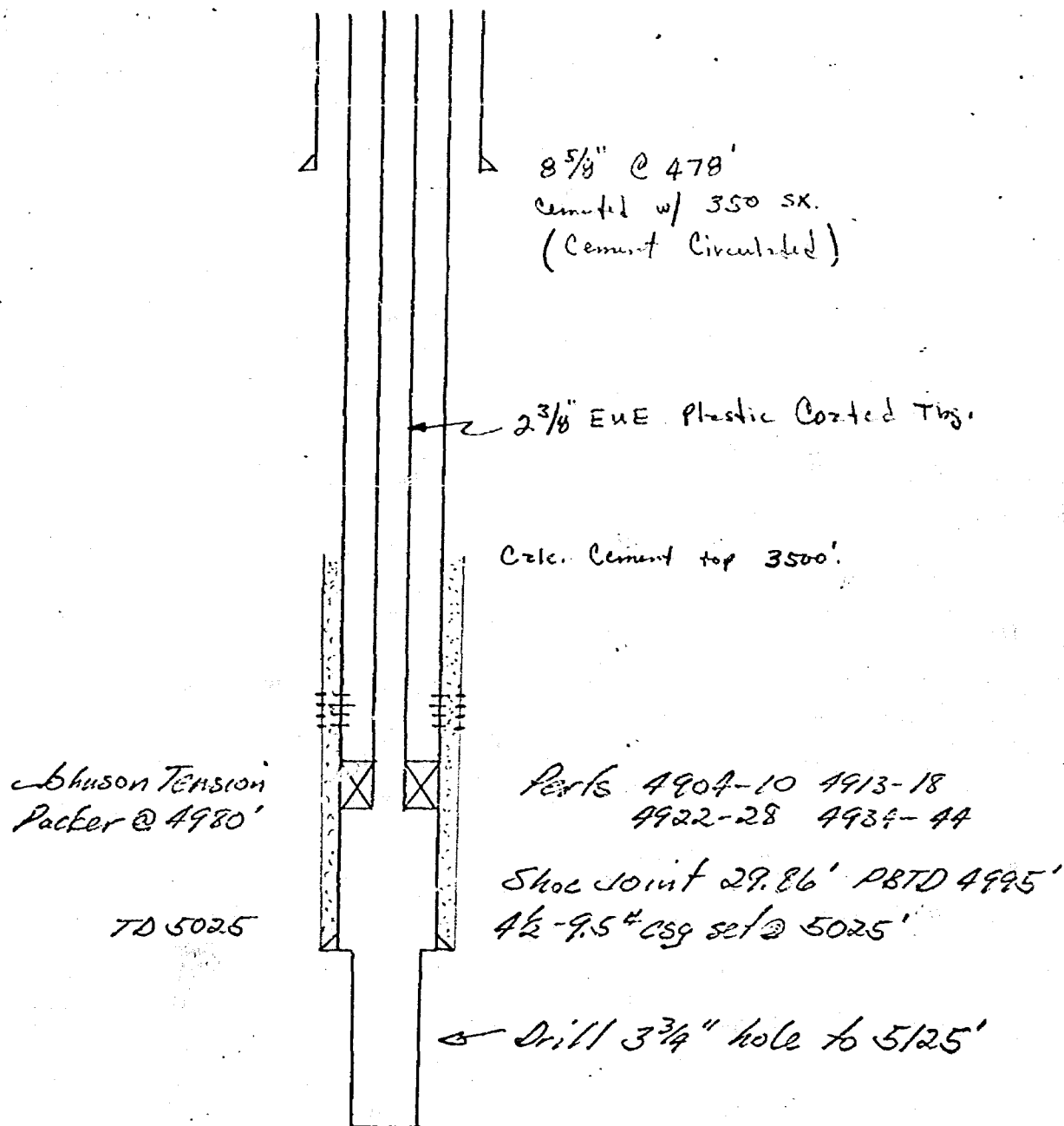
July 17, 1969

(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

Santa Fe No. 2

G.L. Elev. 3964.1'



Case 4/88

FORM O-11 (REV. 4-57)

SAMPLE NO. _____

District: _____

THE WESTERN COMPANY

"Engineered Well Services"

GEOLOGICAL AND CHEMICAL LABORATORIES

CSGP CO.

Drig. & Prod. Dept.

Midland Div.

APR 1 1969

To	In	Out
ORA 9/1		✓
File	W5	

WATER ANALYSIS

County Lea

Date Sampled 3-30-69

Field Sawyer

Date Received

Operator Coastal States Producing Co.

Submitted By

Well Adlong #1

Worked By Mike Russell

Depth

Other Description

Formation San Andres

Properties of Sample

Density 1.161 Chloride 130,000 PPM
pH 5.0 Hydrogen Sulfide Strong
Total Solids (Estimated) _____ PPM Iron None

Remarks:

Case 4188

approximately 4980 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Coastal States Gas Producing Company, is hereby authorized to utilize its Santa Fe ~~State~~ Well No. 2, located in Unit F of Section 33, Township 9 South, Range 37 East, NMPM, West Sawyer-San Andres Pool, Lea County, New Mexico, to dispose of produced salt water into the Lower San Andres formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 4980 feet, with injection into the open-hole interval ~~from~~ approximately 5025 feet to ⁵¹³³~~5125~~ feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus ~~or the annulus left open~~ at the surface in order to determine leakage in the casing, tubing, or packer.

✓ (2) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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.

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. 4188

Order No. R- 3815

APPLICATION OF COASTAL STATES GAS
PRODUCING COMPANY FOR SALT WATER
DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 6, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of August, 1969, 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, Coastal States Gas Producing Co.
is the owner and operator of the Santa Fe State Well No. 2
located in Unit F of Section 33, Township 9 South, Range
37 East, NMPM, West Sawyer-San Andres Pool, Lea
County, New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Lower San Andres
formation, with injection into the open-hole interval
from approximately 5025 feet to 5133 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at