

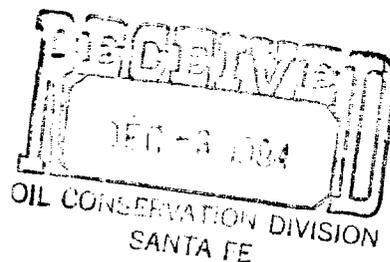


Coastal Oil & Gas Corporation

a subsidiary of The Coastal Corporation

Dinero Plaza
1004 North Big Spring St.
P. O. Box 235
Midland, Texas 79702-0235

915/682-7925



November 29, 1984

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for Authorization
to Inject - State "31" Well #4
Lea County, New Mexico

Gentlemen:

Please find enclosed a Form C-108, Application for Authorization to Inject, with appropriate attachments. If additional information is needed or questions should arise concerning this matter, please feel free to contact me at the above address and telephone number.

Sincerely,

B. L. Smith
Petroleum Engineer

BLS:eh
Enclosures

cc: New Mexico Oil Conservation Division
District Office
P. O. Box 1980
Hobbs, New Mexico 88240

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: Coastal Oil & Gas Corporation
Address: P. O. Box 235, Midland, Texas 79702
Contact party: Bobby L. Smith Phone: 915 - 682-7925
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
None
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Bobby L. Smith Title Petroleum Engineer

Signature: Bobby L. Smith Date: November 12, 1984

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

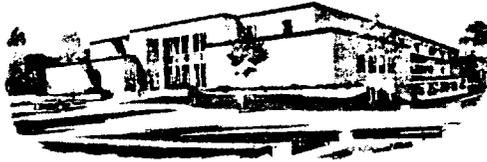
- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

SWD

State of New Mexico



Commissioner of Public Lands

JIM BACA
COMMISSIONER

November 26, 1984

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

Express Mail Delivery Use:
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Coastal Oil & Gas Corporation
P. O. Box 235
Midland, Texas 79702-0235

Re: State "31" Well No. 4, Located in Unit Letter N, Section 31,
T-13S, R-33E

Attn: Mr. Bobby L. Smith

Gentlemen:

This letter will acknowledge receipt of a copy of an application to the Oil Conservation Division to convert the captioned well to a Salt Water Injection Well.

Our oil and gas records reflect that Coastal Oil and Gas Corporation is the record title holder of the following described lands, Lots 1,2,3,4, E $\frac{1}{2}$ W $\frac{1}{2}$ of Section 31, T-13S, R-33E.

Because an oil and gas lessee is entitled to use so much of the land as is necessary to explore for and remove the oil and gas, he does not need additional permission from the Land Commissioner to dispose of the salt water upon or under the leased land, so long as the salt water being disposed of is produced exclusively from wells located upon the State Trust Lands. Otherwise, if any of the salt water to be injected is produced from lands not under the applicant's lease, then the applicant, in addition to a disposal site easement, will be required to secure a regular right-of-way and easement or for a pipeline.

At this time the Land Commissioner does not entertain any objections as to the Oil Conservation Division approval of this application; however, he does reserve the right to refuse to grant an easement when to do so would be detrimental to the trust or inconsistent with law or policy.

Very truly yours,

Jim Baca
Commissioner of Public Lands

JB:FOP:cw
cc: Oil Conservation Div.

Floyd O. Prando
By: Floyd O. Prando
Assistant Director
Oil and Gas Division
A/C 505-827-5744

INJECTION WELL DATA SHEET

SIDE 1

Coastal Oil & Gas Corporation
OPERATOR

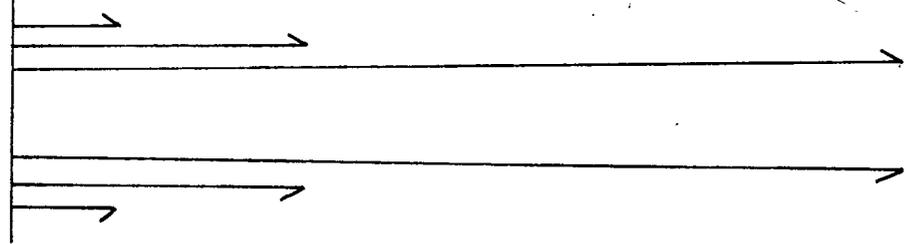
State "31"
LEASE

4 990' FSL and 1980' FWL
WELL NO. FOOTAGE LOCATION

31 SECTION
TOWNSHIP

R-33-E RANGE

Schematic



Tabular Data

Surface Casing
 Size 13-3/8 " Cemented with 425 sx.
 TOC Surface feet determined by Visual
 Hole size 17-1/2"

Intermediate Casing
 Size 8-5/8" " Cemented with 1400 sx.
 TOC Surface feet determined by Visual
 Hole size 11"

Long string
 Size 5-1/2" " Cemented with 700 sx.
 TOC 10,000' feet determined by T.S.
 Hole size 7-7/8"

Total depth ~~10,700'~~ 13,700'

Injection interval perforated

5-1/2" at 13,700'
 Cmt. will be brought 10,500 feet to 10,700 feet
 up to 4100' after (perforated or open-hole, indicate which)
 satisfactory *Initially will cement in one stage. Assuming injectivity is satisfact
 injectivity test. we will locate the top of cement via temperature survey and bring ceme
 to intermediate casing point

13,700' TOC

INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2-7/8" and 2-3/8" lined with Salta PVC set in a
(material)
Baker Model "F" packer at 13,400 feet
(brand and model)
(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Devonian
2. Name of field or pool (if applicable) _____
3. Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Bough "B", Bough "C" 9700-9900' (Evaluated as a dry hole in this particular well.)

State "31" Well No. 4
Lea County, New Mexico

- V. A map has been attached (Exhibit A) showing all wells and leases within two miles of this proposed disposal well. A circle around the proposed well representing the area of review (one-half mile radius) is shown. It should be noted that there are no wells within two miles of our State "31" #4 that have been drilled to the Devonian formation.
- VI. There are no wells within the area of review that have penetrated the zone of interest.
- VII. 1) We anticipate the average daily volume of water disposal to be 1750 BWPD initially. The maximum foreseeable volume of disposed water is 2300 BWPD.
2) This will be a closed system.
3) Average injection pressure should be no more than 750 psi and the maximum anticipated injection pressure during the life of the well is 2000 psi. Our Devonian disposal well in Section 20 has been taking 1700+ barrels of water per day on a vacuum. We are hoping this new well will behave similarly.
4) Water to be injected is Penn produced water.
5) An analysis of Devonian formation water is attached (Exhibit B). There is no Devonian oil or gas production within one mile of our proposed disposal well.
- VIII. Geological Data: The proposed disposal zone is named for its geologic age: Siluro-Devonian. The Siluro-Devonian is a limestone that is dense in approx. the upper 200 feet and develops intracrystalline and vugular porosity deeper within the formation. In the Baum Field Area, the Siluro-Devonian has only been penetrated at the extreme edges of the field. The anticipated top of the Siluro-Devonian will occur at 13,500 feet. No well in the vicinity (5-mile radius) has fully penetrated the entire Siluro-Devonian section. Wells outside the 5-mile radius exhibit approx. 700 feet of Siluro-Devonian formation. The Ogallala formation with a maximum depth of approximately 300 feet below the surface is the only source of drinking water in this area.
- IX. Proposed Stimulation Program: We anticipate stimulating the Devonian with approx. 3000 gallons of 15% HCl. This acid stimulation will be conducted via a workstring and below a packer.
- X. Logs - A copy of all open hole and cased hole logs that will be run on this well will be sent as soon as they are available.

- XI. To our knowledge, there are no fresh water wells within one mile of our proposed disposal well. Thus, we were not able to include a water analysis of fresh water.
- XII. There are no major faults within 2.5 miles of this location that bisect the Siluro-Devonian to the Ogalalla. In fact, the movement of the major faults that bisect the Siluro-Devonian have reached their final displacement within the lower Wolfcampian or Cisco age limestones and shales. Thus, the injection of water into the Siluro-Devonian will not affect the drinking water in the Ogalalla formation.
- XIII. Proof of Notice

Copies of this C-108, complete with all attachments, has been sent by certified mail to the surface owner of the wellsite and also to all leasehold operators within one-half mile of the well. These copies were sent off November 16, 1984.

Since this application is subject to administrative approval, we must provide a proof of publication. We anticipate having the legal advertisement placed within seven days, and will send proof of such ad as soon as possible.

PROJECTED LOG TOPS FOR DEEPENING THE BAUM
FIELD STATE '31' NO. 4-S

Bough D	10270 (-5970)
Strawn	11170 (-6870)
Atoka	11400 (-7100)
Morrow	11980 (-7680)
Mississipian	12250 (-7950)
Woodford	13370 (-9070)
Siluro-Devonian	13430 (-9130)

These formation tops should be \pm 50 feet from their predicted occurrence.

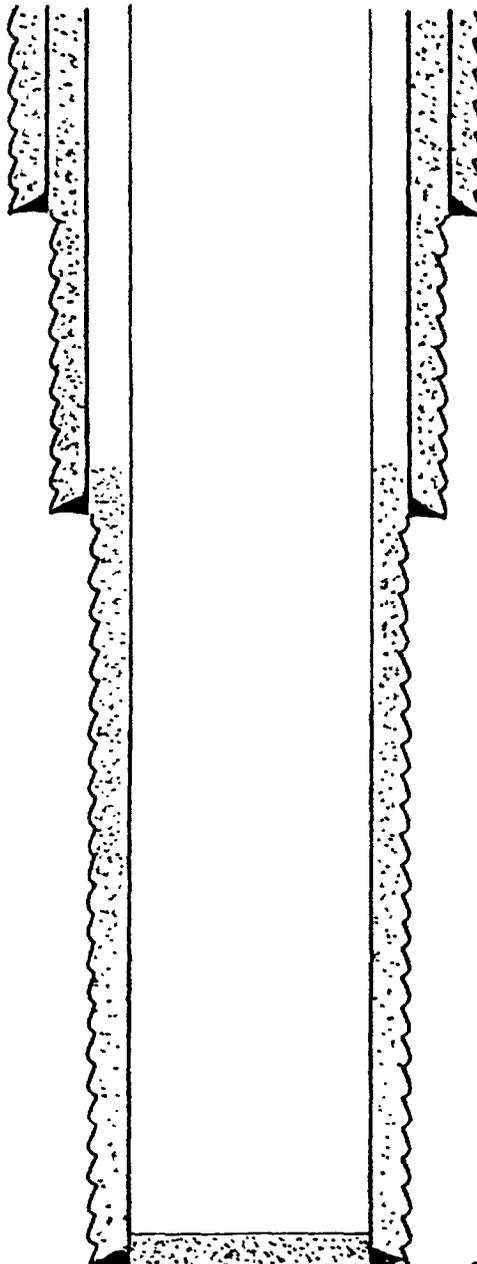
Well Status Proposed Date November 12, 1984

Lease State "31" Well No. 4 Operator Coastal Oil & Gas Corp.

Location 990 ft. from S Line & 1980 ft from W Line, Sec, 31, Blk _____

Survey T-13-S, R-33-E County Lea State New Mexico

Elevation 4284.5 GR Remarks SI since 9-28-84



13-3/8" Csg. Set @ 397'

Cmt. W/ 425 sacks

Cmt. circ. to surface.

8-5/8" Csg. Set @ 4100'

Cmt. W/ 1400 sacks

Cmt. circ. to surface.

ATD 13,700'

5-1/2" casing to be set at 13,700'

Porosity zones to be perforated and acid stimulated.

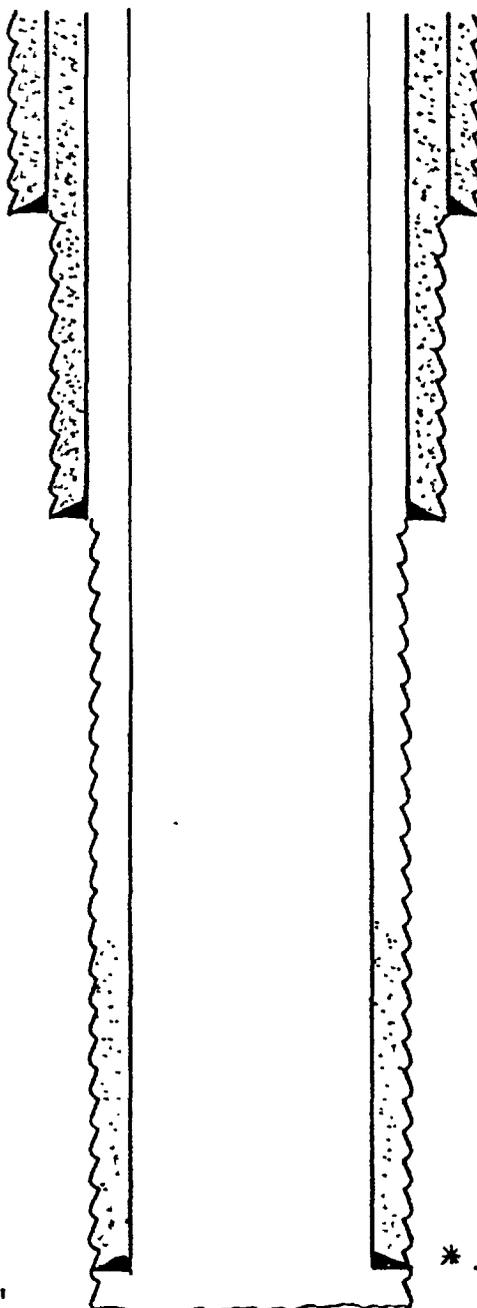
Well Status Proposed Date November 12, 1984

Lease State "31" Well No. 4 Operator Coastal Oil & Gas Corp.

Location 990 ft. from S Line & 1980 ft from W Line, Sec, 31, Blk

Survey T-13-S, R-33-E County Lea State New Mexico

Elevation 4284.5 GR Remarks SI since 9-28-84.



13-3/8 Csg. Set @ 397'

Cmt. W/ 425 sacks
Cmt. circ. to surface.

8-5/8 Csg. Set @ 4100'

Cmt. W/ 1400 sacks
Cmt. circ. to surface.

ATD 13,700'

* 5-1/2" casing to be set at 13,500' and cemented initially with 700 sacks. Well then to be deepened approx. 200' for an open hole completion. This type of completion to be utilized only if severe lost circulation is incurred after drilling into the Devonian porosity.

* Alternate Completion

LOCATION

WELL NO. OR EXT. NO.

THE WESTERN COMPANY

WATER ANALYSIS

ANALYSIS NO.

GENERAL INFORMATION

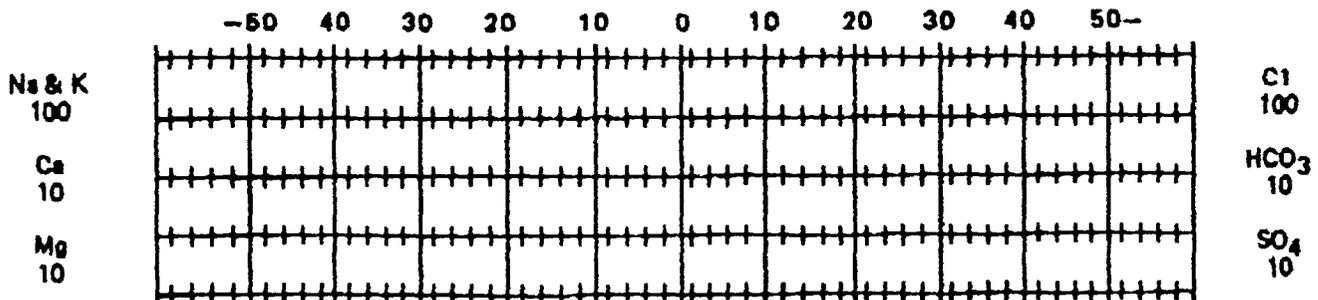
OPERATOR	DATE SAMPLED
WELL	DATE RECEIVED
FIELD	SUBMITTED BY
FORMATION <i>Devonian</i>	WORKED BY
COUNTY	SAMPLE DESCRIPTION:
STATE	
DEPTH	

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY 1.015 AT 83 °F	TOTAL DISSOLVED SOLIDS	PPM
pH 7.4	RESISTIVITY	PPM
IRON <i>very faint</i>	SULFATE 1090	PPM
HYDROGEN SULFIDE <i>none</i>	BICARBONATE 573	PPM
HARDNESS	CHLORIDE 17,600	PPM
CALCIUM 1440	SODIUM CHLORIDE	PPM
MAGNESIUM 413 PPM	SODIUM	PPM
SODIUM & POTASSIUM 9720 PPM	POTASSIUM	PPM
PHOSPHATE		

REMARKS:

for Stiff type plot (In meq./l.)



AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, _____

Robert L. Summers

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a period

of _____

One weeks.

Beginning with the issue dated

November 22, 19 84

and ending with the issue dated

November 22, 19 84

Robert L. Summers
Publisher.

Sworn and subscribed to before

me this 26 day of

November 84
Jane Paulowsky
Notary Public.

My Commission expires

3-24, 19 87
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

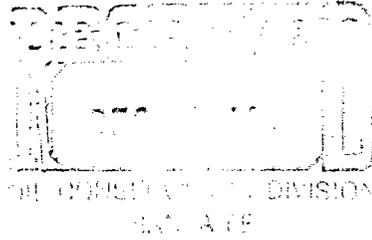


38 LEGAL NOTICE
NOVEMBER 15, 1984
Coastal Oil & Gas Corporation wishes to make public its request for administrative approval of its application for authorization to inject water to the Devonian formation in a well located on FSL and 1980 F.W.L. Section 27-T-13-S, R-33-E. The proposed water injection is from open hole to 13,500' to 13,700'. The purpose of this well is to dispose of produced water from the Summit (Penn) wells operated by Coastal Oil & Gas Corporation and its partners. The proposed maximum injection rate is 100 BWPD and maximum permitted surface injection pressure is 2000 psi. Particles are not in filling injections of this nature for a long concern. The matter may do so with the State. Affidavit of the OH Corporation, District P. O. Box 1000, Hobbs, New Mexico 88240.
Additional information concerning this matter may be obtained by contacting the following:
Bobby G. [unclear] [unclear]
Petroleum [unclear]
Coastal Oil & Gas Corporation
P.O. Box 1000
Midland, Texas 79701
915-682-7925



Coastal Oil & Gas Corporation

a subsidiary of The Coastal Corporation



Dinero Plaza
1004 North Big Spring St.
P. O. Box 235
Midland, Texas 79702-0235

915/682-7925

December 6, 1984

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for Authorization
to Inject - State "31" #4
Lea County, New Mexico

Gentlemen:

Please find attached copies of return receipts concerning the notification of offset operators to the above-referenced application. If additional information is needed, please feel free to contact me.

Sincerely,

Bobby L. Smith
Bobby L. Smith
Petroleum Engineer

BLS:eh
Attachments

cc: New Mexico Oil Conservation Division
District Office
P. O. Box 1980
Hobbs, New Mexico 88240

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. This return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery. **PM**

3. Article Addressed to: **MSQ Printing Co.**
Fruit of the Loom Building Co.
Myrtle St. 79901

4. Type of Service: Registered Insured
 Certified COD **P711723403**
 Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee: **[Signature]**

6. Signature - Agent: **[Signature]**

7. Date of Delivery: **NOV 19 11-19-84**

8. Addressee's Address (ONLY if requested and fee paid): **1804 EUB**

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. This return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery.

3. Article Addressed to: **Sabine Corp.**
Paragon Tower, Suite 210
Midland, TX 79701

4. Type of Service: Registered Insured
 Certified COD **P711 723 399**
 Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee: **[Signature]**

6. Signature - Agent: **[Signature]**

7. Date of Delivery: **NOV 19 11-19-84**

8. Addressee's Address (ONLY if requested and fee paid): **TX**

(B. Smith)

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. This return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery.

3. Article Addressed to: **Charles and Stanley Good**
c/o Good & Good
Box 36
Milda, New Mexico 88116

4. Type of Service: Registered Insured
 Certified COD **P 711 723 400**
 Express Mail

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Addressee: **[Signature]**

6. Signature - Agent: **[Signature]**

7. Date of Delivery: **NOV 17 11-17-84**

8. Addressee's Address (ONLY if requested and fee paid): **Box 36 Elkhorn NM 88116**

(B. Smith)

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 HOBBS DISTRICT OFFICE

December 11, 1984

TONY ANAYA
 GOVERNOR

POST OFFICE BOX 1980
 HOBBS, NEW MEXICO 88240
 (505) 393-6161

David Catana

RECEIVED
 DEC 17 1984
 OIL CONSERVATION DIVISION
 SANTA FE

OIL CONSERVATION DIVISION
 P. O. BOX 2088
 SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
 DHC _____
 NSL _____
 NSP _____
 SWD _____ X _____
 WFX _____
 PMX _____

Gentlemen:

I have examined the application for the:

Coastal Oil & Gas Corp.	State 31	No. 4-N	31-13-33
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,

Jerry Sexton
 Jerry Sexton
 Supervisor, District 1

/mc