

STATE OF NEW MEXICO  
 ENERGY, MINERALS AND NATURAL  
 RESOURCES DEPARTMENT

Oil Conservation Division  
 1220 South St. Francis Dr.  
 Santa Fe, New Mexico 87505

SEP 22 2003 FORM C-108  
 Revised June 10, 2003

**APPLICATION FOR AUTHORIZATION TO INJECT OIL CONSERVATION**

I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage  
 Application qualifies for administrative approval? ☒ Yes ☐ No

II. OPERATOR: MARBOB ENERGY CORPORATION

ADDRESS: P. O. BOX 227, ARTESIA, NM 88211-0227

CONTACT PARTY: BRIAN COLLINS PHONE: 505-748-3303

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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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.

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 sources 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: BRIAN COLLINS TITLE: PETROLEUM ENGINEER

SIGNATURE: *Brian Collins* DATE: 16 Sept 03

E-MAIL ADDRESS: engineering@marbob.com

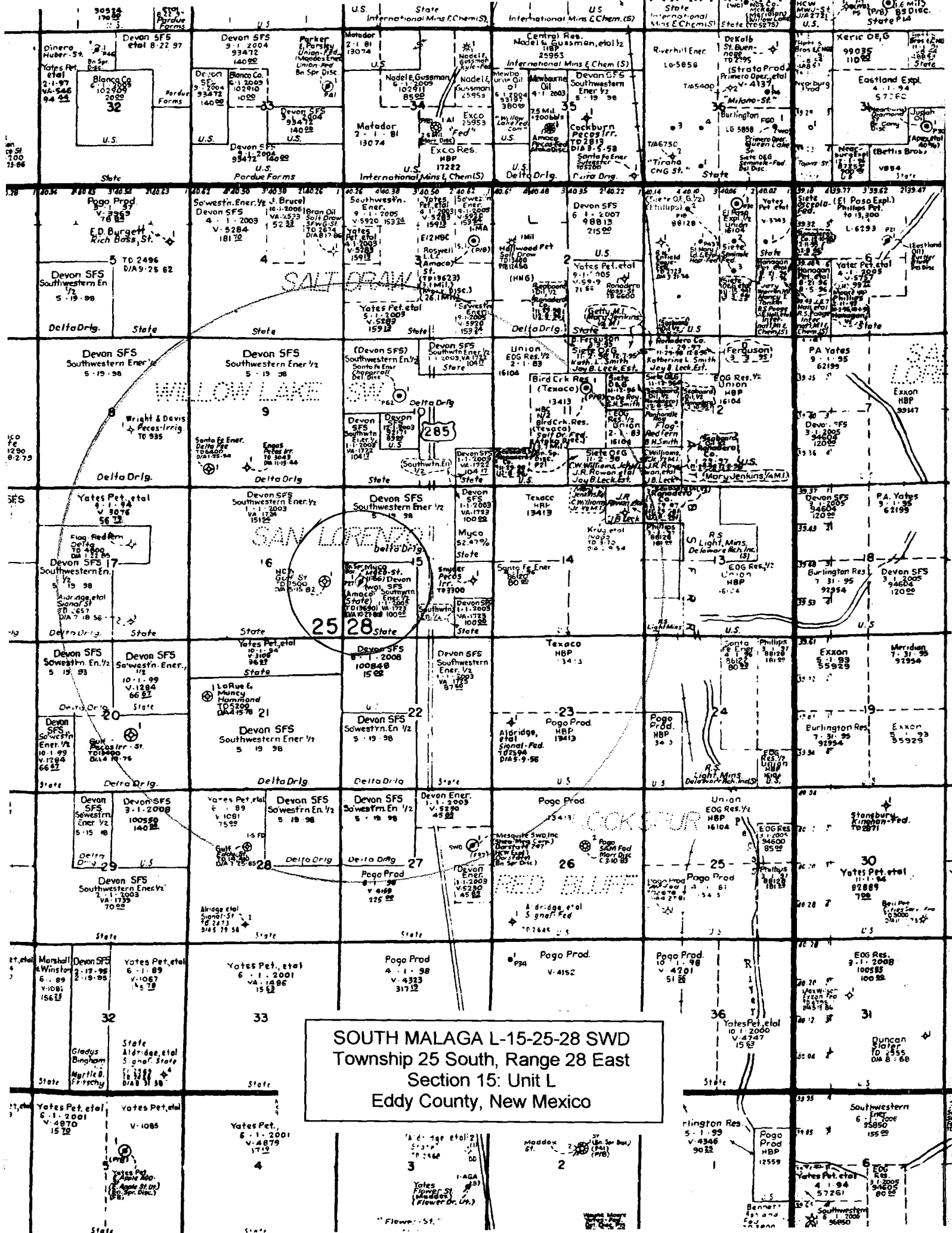
\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

C-108 Application for Authorization to Inject  
South Malaga L-15-25-28 SWD  
(Formerly Myco 15 State No. 1)  
1980' FSL 660' FWL  
L-15-25S-28E, Eddy County

Marbob Energy Corporation proposes to re-enter the captioned well and convert it to salt water disposal service into the Delaware Sand.

- V. Map is attached.
- VI. Wellbore schematics are attached for all the wells that penetrate the proposed injection zone within the 1/2 mile radius area of review.
- VII.
  - 1. Proposed average daily injection rate = 500 BWPD  
Proposed maximum daily injection rate = 2500 BWPD
  - 2. Closed system
  - 3. Proposed maximum injection pressure = 553 psi  
(0.2 psi/ft. x 2765 ft.)
  - 4. Source of injected water will be Delaware Sand produced water. The Delaware produced water is the same as the Delaware water in the receiving formation. No compatibility problems are expected. An analysis of Delaware water from an analogous field is attached.
  - 5. Disposal zone formation water is essentially the same as the injection water.
- VIII. The injection zone is the Delaware Sandstone, a fine-grained sandstone from 2765' to 3800'. Any underground water sources will be shallower than 408'.
- IX. The Delaware sand injection interval will be acidized with approximately 20 gals/ft. of 7 1/2% HCl acid. If necessary, the Delaware injection interval may be fraced with up to 300,000 lbs. of 16/30 mesh sand.
- X. Well logs have been filed with the Division.
- XI. There are no fresh water wells within one mile of the proposed SWD well.
- XII. After examining the available geologic and engineering data, no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Proof of Notice is attached.



SOUTH MALAGA L-15-25-28 SWD  
Township 25 South, Range 28 East  
Section 15: Unit L  
Eddy County, New Mexico

**INJECTION WELL DATA SHEET**OPERATOR: Marbob Energy Corporation 30-015-23067WELL NAME & NUMBER: South Malaga L-15-25-28 SWD (Formerly Myco 15 State No. 1)WELL LOCATION: 1980' FSL, 660' FWL L 15 25s 28e  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE**WELLBORE SCHEMATIC****WELL CONSTRUCTION DATA****Surface Casing**Hole Size: 26" Casing Size: 20" @ 408'Cemented with: 750 sx. or - ft<sup>3</sup>Top of Cement: Surface Method Determined: Circulated**Intermediate Casing**Hole Size: 17 1/2" Casing Size: 13 3/8" @ 2530'Cemented with: 2300 sx. or - ft<sup>3</sup>Top of Cement: Surface Method Determined: Circulated**Production Casing**Hole Size: 8 1/2" Csg. Size: 7 5/8" 9245-12200'Cemented with: 820 sxTop of cement: 9245' Method Determined: CirculatedHole Size: 12 1/4" Casing Size: 9 5/8" from 2050-9730'Cemented with: 2660 sx. or - ft<sup>3</sup>Top of Cement: 2280' Method Determined: CBLTotal Depth: 13690'**Injection Interval**2765 feet to 3800

(Perforated) or Open Hole; indicate which)

See attached BEFORE and AFTER  
wellbore schematics**Liner**

**INJECTION WELL DATA SHEET**

Tubing Size: 2 7/8" Lining Material: Internal Plastic Coating  
 Type of Packer: 10K nickel plated double grip retrievable packer  
 Packer Setting Depth: 2700'  
 Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection?        Yes   X   No

If no, for what purpose was the well originally drilled? Oil & Gas

2. Name of the Injection Formation: Delaware Sand

3. Name of Field or Pool (if applicable): N/A

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 11864-11916', C1BP+35' cmt @ 11790',

11064-11080', C1BP+35' cmt @ 9200', 8912-20', C1BP+35' cmt @ 8850', 7692-8012', C1BP+35' cmt @ 7500', 6361-7164',  
C1BP+35' cmt @ 6300', C1BP+35' cmt @ 5000', 2741-3123', 592d 800SX

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Overlying: None

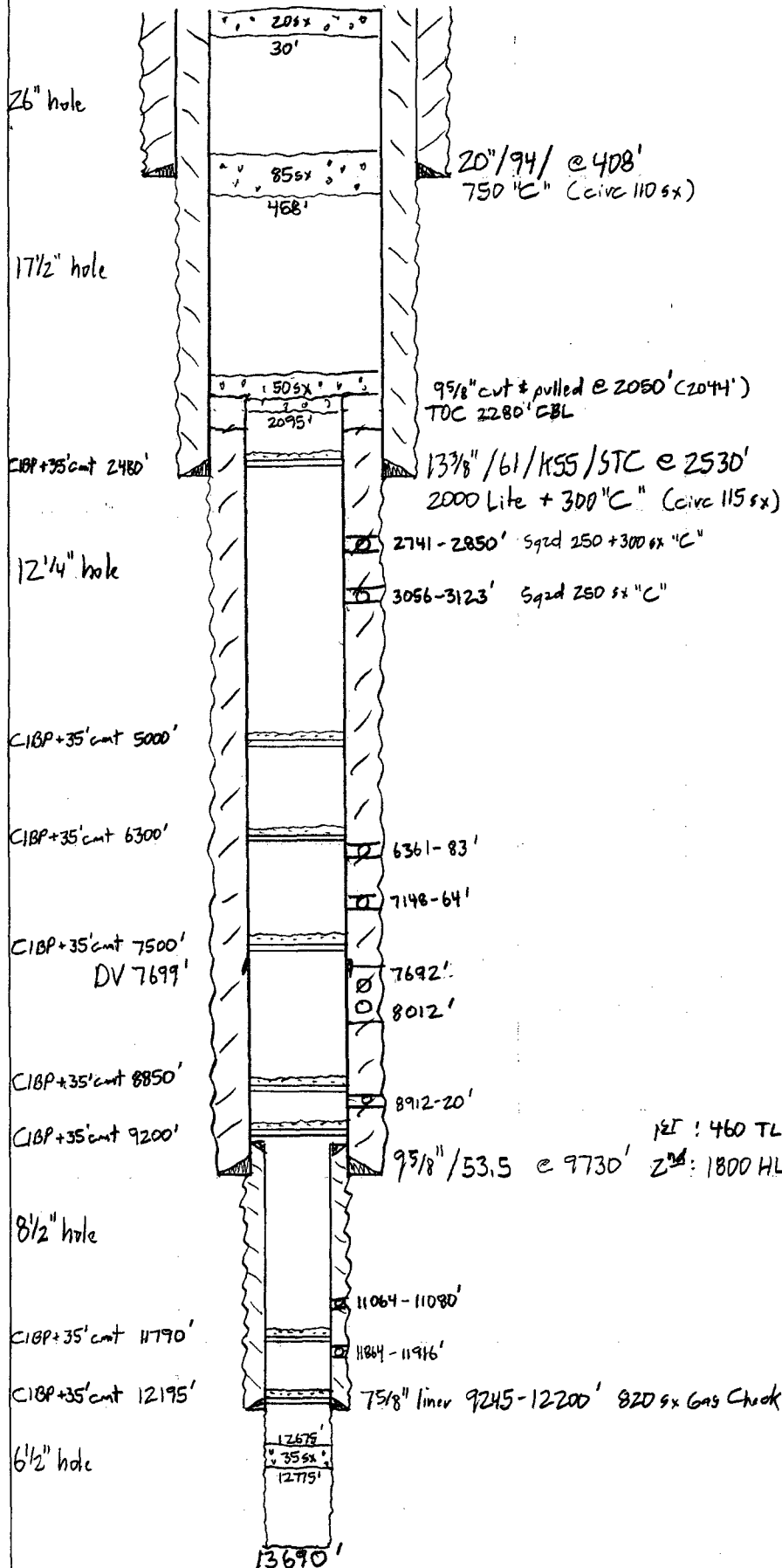
Underlying: Delaware 4500-6000'

Bone Spring 6000-8000'

Atoka 11700-12300'

Myco 15 St. #1  
(Amoco St. GG Com. #1)  
1980' FSL, 660' FSL  
L-15-25s-28e  
Eddy, NM

P&A: 12/94



BEFORE

Elev: 2988.3' GL

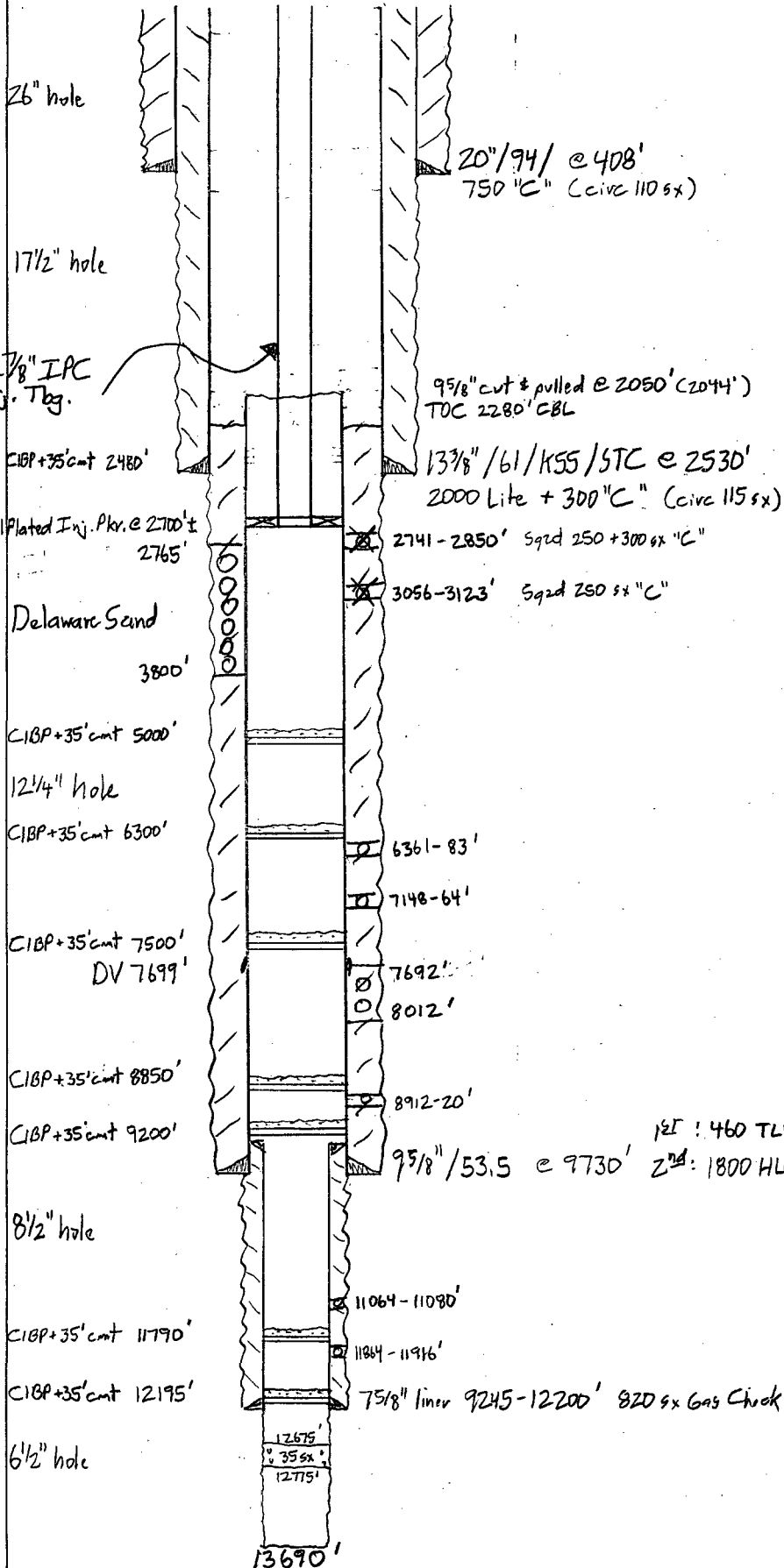
HBCollins / 10 Sept 03

# South Malaga L-15-25-28 SWD

1980' FSL, 660' FWL  
L-15-25s-28e  
Eddy, NM

P&A: 12/94

13-782  
42-382  
42-382  
42-389  
42-392  
42-395  
50 SHEETS PAPER 5 SQUARE  
50 SHEETS PAPER 5 SQUARE  
100 SHEETS PAPER 5 SQUARE  
200 SHEETS PAPER 5 SQUARE  
100 RECYCLED WHITE 5 SQUARE  
200 RECYCLED WHITE 5 SQUARE  
Made in U.S.A.



AFTER

Elev: 2988.3' GL

HBCG 11/11/03 / 10 Sept 03

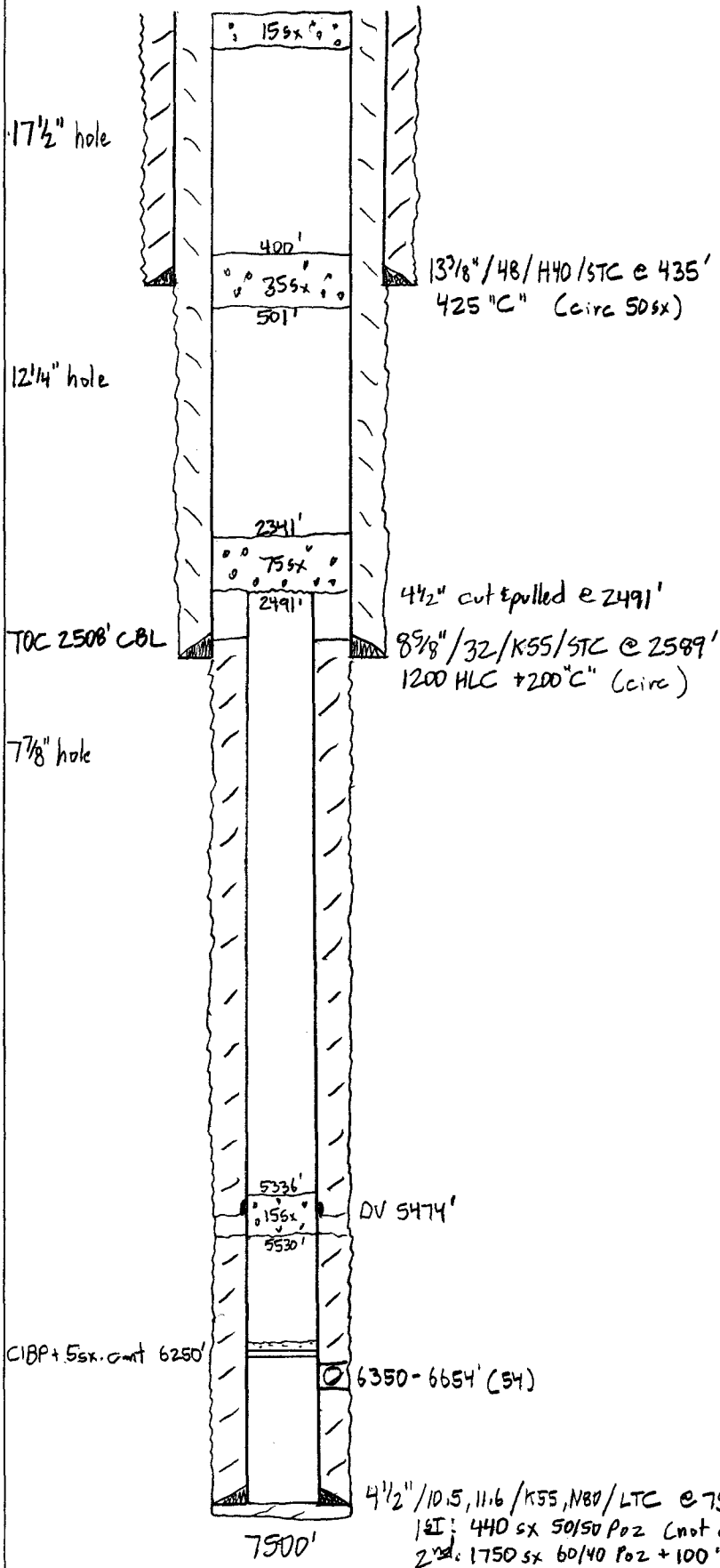
HCW GULF 16 St. No. 1

1980' FSL, 660' FEL

I-16-25s-28e

Eddy, NM

P&A: 5/82



Within Area of Review

Elev: 2981' GL

HBCollins/10 Sept 03

500 SHEETS, FILLER 5 SQUARE  
42-381 100 SHEETS EYE-EAST 5 SQUARE  
42-382 100 SHEETS EYE-EAST 5 SQUARE  
42-389 200 SHEETS EYE-EAST 5 SQUARE  
42-392 100 RECYCLED WHITE 5 SQUARE  
42-399 200 RECYCLED WHITE 5 SQUARE  
Made in U.S.A.





## HALLIBURTON DIVISION LABORATORY

## HALLIBURTON SERVICES

## ARTESIA DISTRICT

## LABORATORY REPORT

No. W45-93TO Hanagan PetroleumDate February 7, 1993P. O. Box 1737Roswell, NM 88201

This report is the property of Halliburton Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the express written approval of laboratory management. It may, however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services.

Submitted by \_\_\_\_\_ Date Rec. \_\_\_\_\_

Well No. Gehrig #2 Depth 5050' Formation DelawareField Brushy Draw 9-26s-29e County Eddy Source Produced WaterResistivity ..... .052Specific Gravity .. 1.1856pH ..... 7.0Calcium ..... 24,250Magnesium ..... 9,000Chlorides ..... 170,000Sulfates ..... 250Bicarbonates ..... 350Soluble Iron ..... + 500

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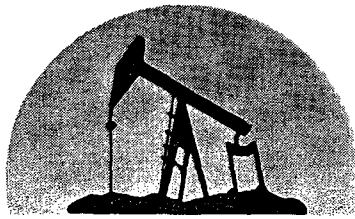
Remarks:

  
Respectfully submittedAnalyst: Art Carrasco - Technical Advisor

HALLIBURTON SERVICES

## NOTICE:

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**marbob**  
energy corporation

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September 17, 2003

Artesia Daily Press  
P. O. Box 190  
Artesia, NM 88211-190

Re: Legal Notices  
Salt Water Disposal Wells

Gentlemen:

Enclosed are legal notices regarding New Mexico Oil Conservation Division C-108 Application for Authorization to Inject for four salt water disposal wells.

Please run these notices and return the proofs of notice to the undersigned at Marbob Energy Corporation, P. O. Box 227, Artesia, NM 88211-0227.

Sincerely,

Brian Collins  
Petroleum Engineer

BC/dlw

enclosure

**ARTESIA DAILY PRESS**  
**LEGAL NOTICES**

Marbob Energy Corporation, Post Office Box 227, Artesia, New Mexico, 88211-0227, has filed Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Myco 15 State #1 is located 1980' FSL and 660' FWL, Section 15, Township 25 South, Range 28 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware formation. The disposal water will be injected into the Delaware formation at a depth of 2675' - 3800' at a maximum surface pressure of 553 psi and a maximum rate of 2500 BWPD. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 South Saint Francis Street, Santa Fe, New Mexico, 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at Marbob Energy Corporation, Post Office Box 227, Artesia, New Mexico 88211-0227, or call 505-748-3303.

Published in the Artesia Daily Press, Artesia, New Mexico  
\_\_\_\_\_, 2003.

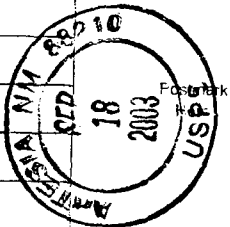
7002 2030 0001 8346 6367

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**CERTIFIED MAIL™ RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



C-108 Myco IS Str 1

Sent To  
 Devon SFS Operating  
 Street, Apt. No.,  
 or PO Box No. 20 N Broadway, Ste. 1500  
 City, State, ZIP+4  
 Oklahoma City, OK 73102

PS Form 3800, June 2002

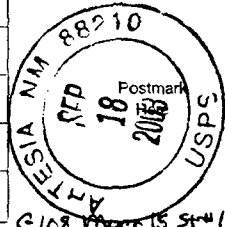
See Reverse for Instructions

7002 0860 0006 7055 8390

**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



C-108 Myco IS Str 1

Sent To  
 State Land Office  
 Street, Apt. No.,  
 or PO Box No. 310 Old Santa Fe Trail  
 City, State, ZIP+4  
 Santa Fe, NM 87504

PS Form 3800, April 2002

See Reverse for Instructions



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**marbob**  
energy corporation

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September 16, 2003

State Land Office  
310 Old Santa Fe Trail  
Santa Fe, NM 87504

Re: Application to Inject  
Myco 15 State No. 1  
Township 25 South, Range 28 East, NMPM  
Section 35: 1980' FSL 660' FWL, Unit L  
Eddy County, New Mexico

Gentlemen:

Enclosed for your review is a copy of Marbob Energy Corporation's application to convert the referenced well into a saltwater disposal well. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter. If you have no objections to our application, please indicate below and return one copy of this letter to our office.

Please do not hesitate to contact us should you have any questions.

Sincerely,

Brian Collins  
Petroleum Engineer

BC/dlw  
enclosure

**State Land Office has no objection to the proposed disposal well:**

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_



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**marbob**  
energy corporation

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September 16, 2003

Devon SFS Operating  
20 N. Broadway, Ste. 1500  
Oklahoma City, OK 73102

Re: Application to Inject  
Myco 15 State No. 1  
Township 25 South, Range 28 East, NMPM  
Section 35: 1980' FSL 660' FWL, Unit L  
Eddy County, New Mexico

Gentlemen:

Enclosed for your review is a copy of Marbob Energy Corporation's application to convert the referenced well into a saltwater disposal well. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter. If you have no objections to our application, please indicate below and return one copy of this letter to our office.

Please do not hesitate to contact us should you have any questions.

Sincerely,

Brian Collins  
Petroleum Engineer

BC/dlw  
enclosure

**Devon SFS Operating has no objection to the proposed disposal well:**

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_