

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

RECEIVED

JAN 15 2004 Revised June 10, 2003

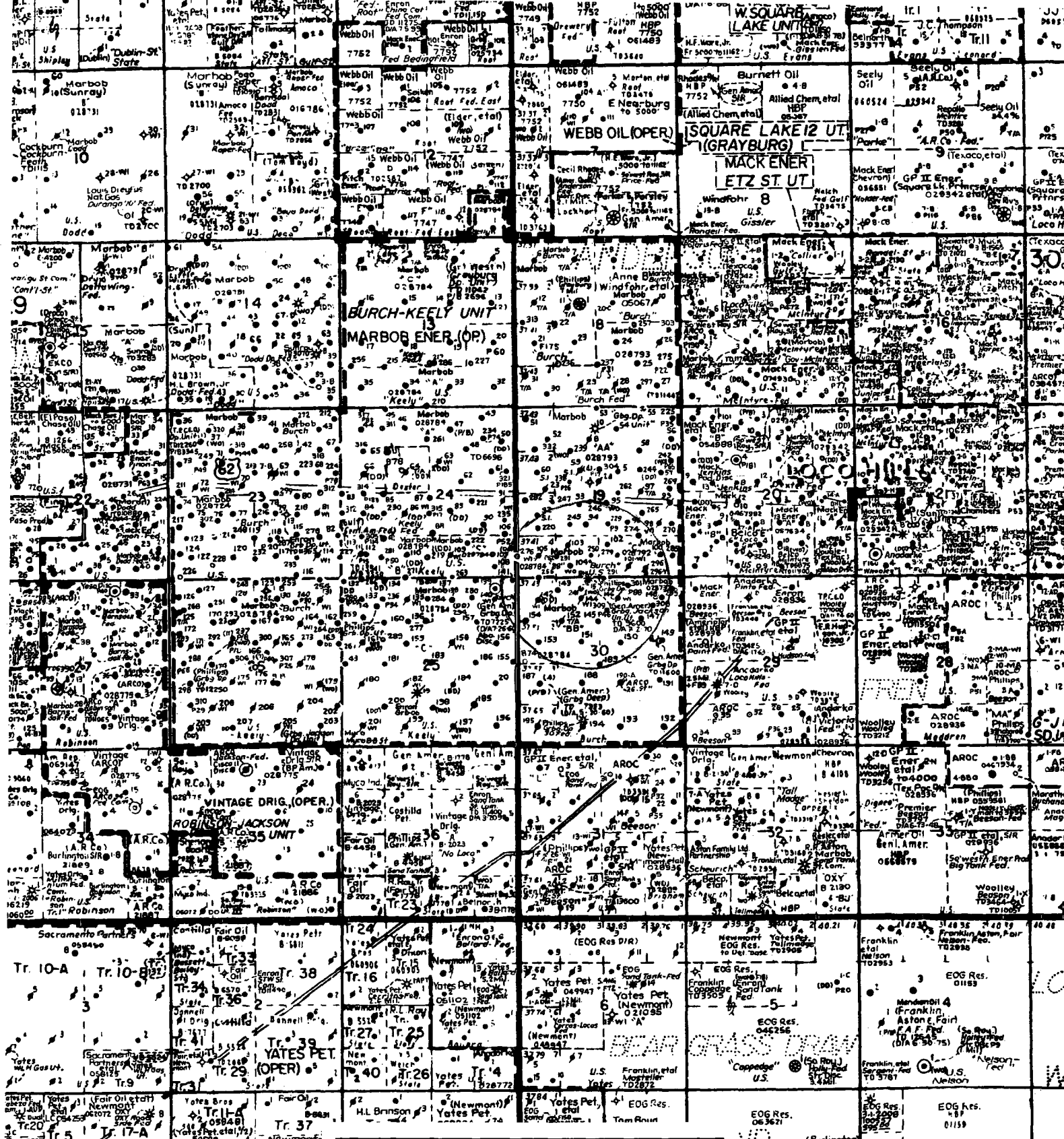
FORM C-108

OCD-ARTESIA

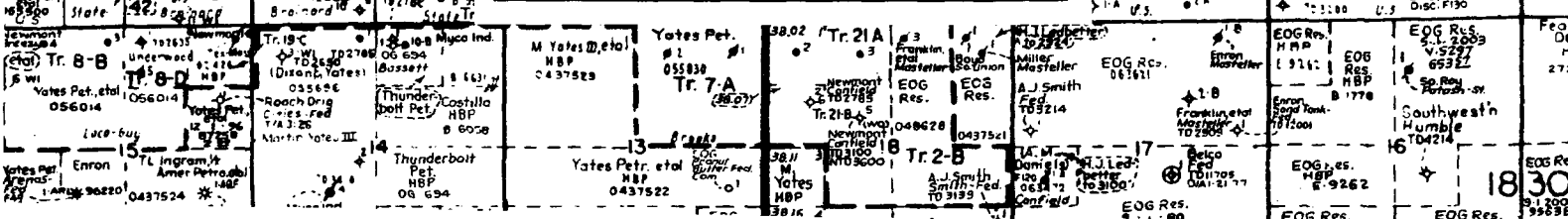
APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X 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 X 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: ENGINEER
SIGNATURE: *Brian Collins* DATE: 01/07/04
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



Grayburg Deep 15 SWD
Township 17 South, Range 20 East, NMPM
Section 30: 198 FNL and 2201 FWL
Eddy County, NM



Application for Authorization to Inject
Grayburg Deep 15 SWD
Unit C, Section 30-T17S-R30E

30-015-30300
was Sand TANK-MORROW
Co WACO PHILLIPS

- V. Map is attached.
- VI. No wells within the 1/2 mile radius area of review penetrate the proposed injection zone.
- VII.
 - 1. Proposed average daily rate = 5000 BWPD
Proposed maximum daily rate = 20,000 BWPD
 - 2. Proposed maximum injection pressure = 1896 psi (0.2 psi/ft)
 - 3. System is closed
 - 4. Source of injection fluid will be San Andres & Yeso produced water. Water analysis is attached
 - 5. Disposal zone water analysis is attached. There will be no compatibility problems.
- VIII. The injection zone is the Penn from 9480' to 9680' and is composed of dolomite. Underground sources of drinking water will be shallower than 649 feet deep.
- IX. The proposed injection zone will be acidized with 25,000 gallons 20% HCL acid
- X. Logs are filed with the Division. A section of the neutron-density log is attached.
- XI. There are no fresh water wells within 1 mile of the proposed SWD well.
- XII. After examining available geologic and engineering data, there is no evidence 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.

INJECTION WELL DATA SHEET

OPERATOR: Marbob Energy Corp

WELL NAME & NUMBER: Grayburg Deep 15 SWD (Formerly Grayburg Deep Unit 15)

WELL LOCATION: 198' FNL 2201' FNL C 30 17s 3De

FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC**WELL CONSTRUCTION DATA****Surface Casing**

Hole Size: 14 3/4" Casing Size: 11 3/4" @ 649'

Cemented with: 600 sx. or ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 11" Casing Size: 8 5/8" @ 4516'

Cemented with: 1175 sx. or ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 7 7/8" Casing Size: 5 1/2" @ 11400'

Cemented with: 2050 sx. or ft³

Top of Cement: 4000' Method Determined: Calculated

Total Depth: 11400'

Injection Interval

9480' feet to 9680'

(Perforated) or Open Hole; indicate which)

See Attached
Before & After Schematics

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: Plastic
 Type of Packer: 10K nickel plated double grip retrievable
 Packer Setting Depth: 9430' ±
 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: Penn
3. Name of Field or Pool (if applicable): Sand Tank
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. 11024-11200'
CIBP + 4 sx. cmt. 11,000', 10703-16', CIBP + 35' cmt. 10660'
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Underlying: Morrow 10,800' ±
Atoka 10,400' ±
Overlying: Yeso 4000' ±, San Andres 2800' ±
Grayburg 2400' ±, Seven Rivers 1600' ±

Well: Grayburg Deep Unit 15

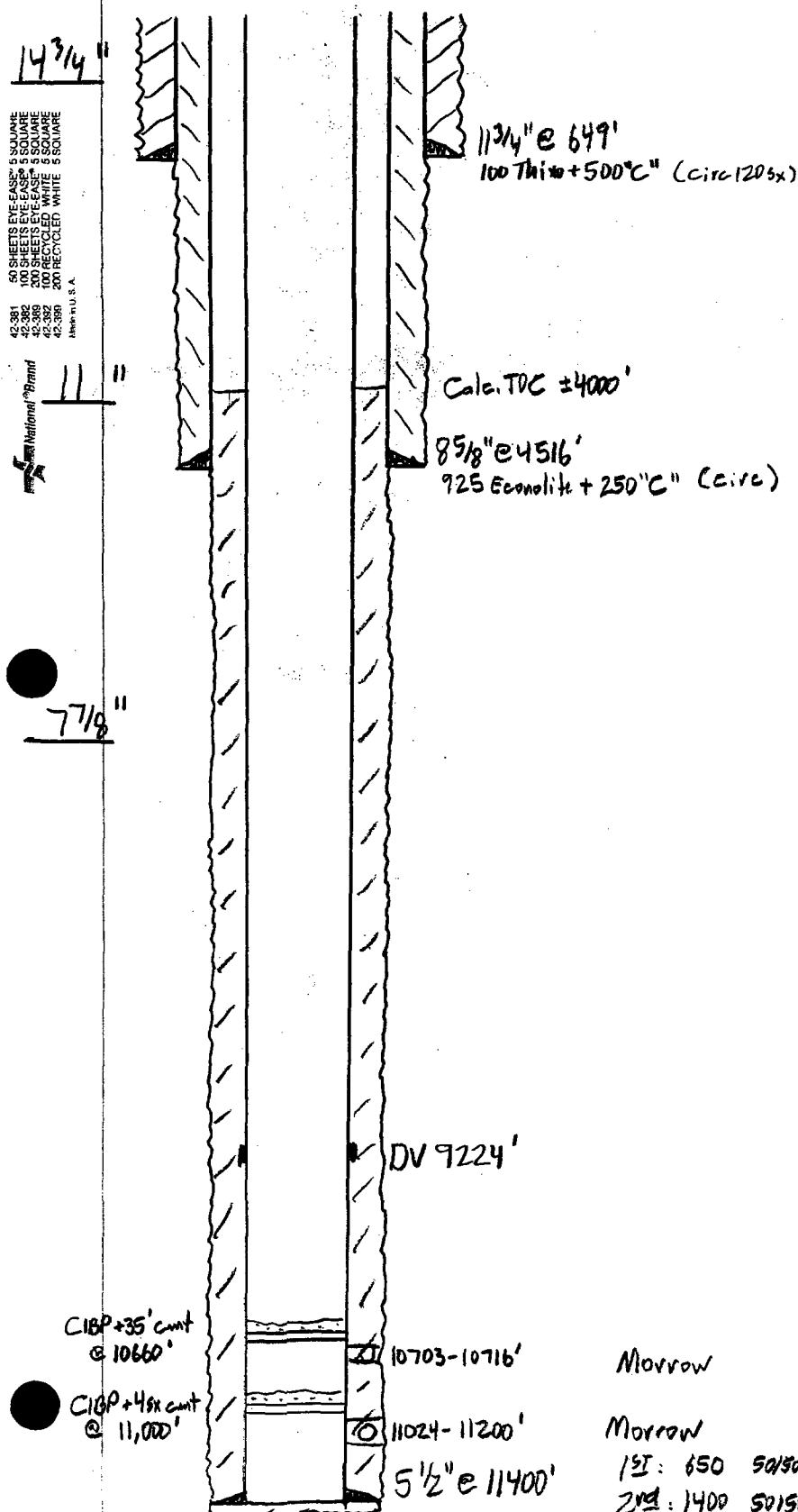
Zero: 19' AGL

Location: 198' N, 2201' W
C-30-174-30e
Eddy NM
30-D15-30300

KB:
 GL: 3610'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
11 3/4"	42	H40	STC	649'
8 5/8"	32	K55	STC	4516'
5 1/2"	17	L80	LTC	11400'



Before Conversion
to SWD

Morrow

Morrow

1st: 650 50/50 Pwz (Circ 875x)
 2nd: 1400 50/50 Pwz

- Sketch Not To Scale -

KBCollins / 6 Jan 04

Well: Grayburg Deep 15 SWD

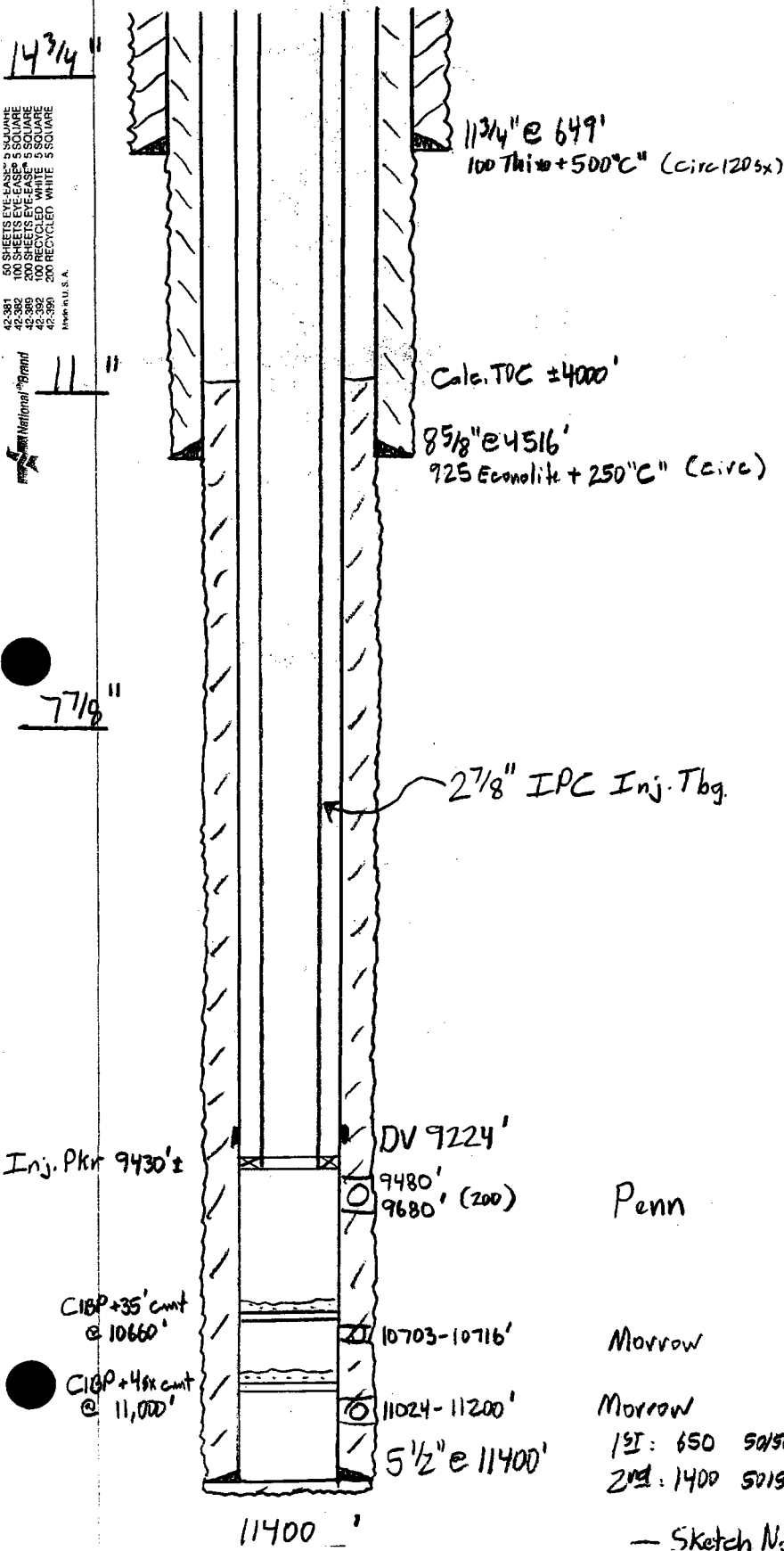
Zero: 19' AGL

Location: 198' N, 2201' W
C-30-175-30e
Eddy NM
30-015-30300

KB:
 GL: 3610'

Casing Program:

Size	Wt.	Grade	Conn.	Depth
11 3/4"	42	H40	STC	649'
8 5/8"	32	K55	STC	4516'
5 1/2"	17	L80	LTC	11400'
2 7/8"	6.5	L80	EVE	9430' ±
Internally Plastic Coated				



After Conversion
to SWD

Penn

Morrow

Morrow

1st: 650 50150 Ave (circ 875x)
 2nd: 1400 50150 Ave

- Sketch Not To Scale -

KBCollins / 6 Jan 04

HALLIBURTON SERVICES

(Section VII, C-108)

ARTESIA DISTRICT

LABORATORY REPORT

No. W167 & W168-93TO Marbob Energy CorporationDate May 20, 1993P. O. Box 304Artesia, NM 88210

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. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

Burch KeelyMary Dodd AResistivity 0.066 @ 70° 0.060 @ 70°Specific Gravity .. 1.0979 @ 70° 1.1250 @ 70°pH 7.0 7.0Calcium 4,379 3,332Magnesium 2,081 2,890Chlorides 84,000 111,000Sulfates 1,000 400Bicarbonates 976 1,403Soluble Iron 0 0

Remarks:

Produced Water AnalysesEric Jacobson
Respectfully submittedAnalyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

NOTICE:

This report is for information only and the content is limited to the sample described. Halliburton makes no warranties, express or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage, regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Keith Norvell
P. O. Box 10340, Midland, TX 79702

LABORATORY NO. ANDLAP-79419
SAMPLE RECEIVED 7-6-94
RESULTS REPORTED 7-8-94

COMPANY Pogo Producing Company LEASE Sabre Federal #1
FIELD OR POOL _____
SECTION _____ BLOCK _____ SURVEY _____ COUNTY Eddy STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO.1 Produced water - taken from Sabre Federal #1. B-11-17s-29e

NO. 2 _____

NO.3

NO. 4 Analysis of Injection Zone Water (From nearby well)

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 50° F.	1.0119			
pH When Sampled				
pH When Received	6.96			
Bicarbonate as HCO ₃	1,525			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	3,050			
Calcium as Ca	880			
Magnesium as Mg	207			
Sodium and/or Potassium	3,453			
Sulfate as SO ₄	2,400			
Chloride as Cl	4,829			
Iron as Fe	58.0			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	13,294			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	954			
Resistivity, ohms/m at 77° F.	0.558			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

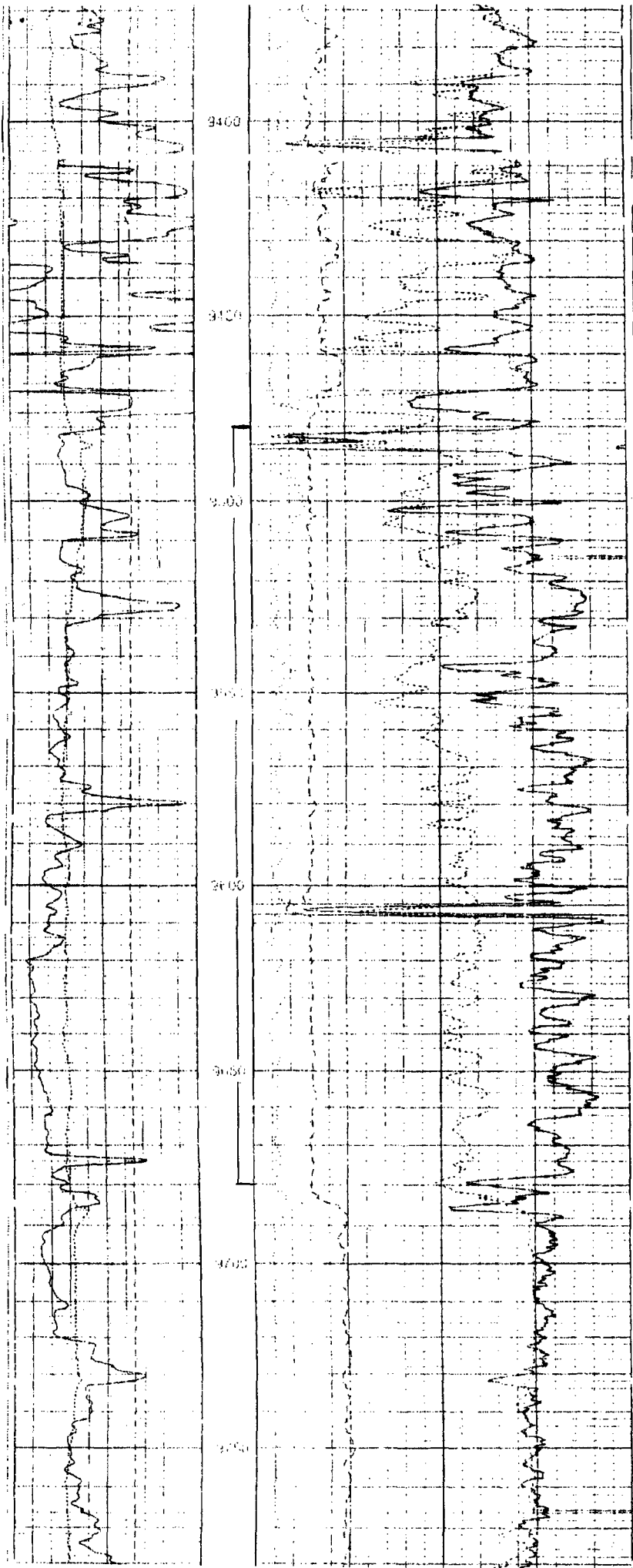
Results Reported As Milligrams Per Liter

Additional Determinations And Remarks We are not familiar with the specific location of this well or the zone involved herein; but in comparing with our general records in this county, we find this water correlates with what would be expected from a natural Canyon.

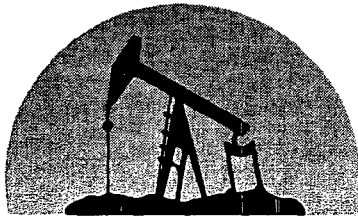
— **Priglasenie**

MAIN SECTION 2" = 100'





Penn Dolomite
SWD Interval
9480' - 9680'



marbob
energy corporation

January 7, 2004

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

Re: Legal Notice
Salt Water Disposal Well

Gentlemen:

Enclosed is a legal notice regarding New Mexico Oil Conservation Division C-108 Application for Authorization to Inject for a salt water disposal well.

Please run this notice and return the proof 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 Grayburg Deep 15 SWD, is located 198' FNL and 2201' FWL, Section 30, Township 17 South, Range 30 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the San Andres & Yeso formations. The disposal water will be injected into the Penn formation at a depth of 9480' - 9680' at a maximum surface pressure of 1896 psi and a maximum rate of 20,000 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
_____, 2004.

AR
RAN
1/15/04 in
Artesia Paper



marbob
energy corporation

January 13, 2004

Bureau of Land Management
2909 W. 2nd St.
Roswell, NM 88201

Re: Application to Inject
Grayburg Deep 15 SWD
Township 17 South, Range 30 East, NMPM
Section 30: 198 FNL and 2201 FWL
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

Bureau of Land Management has no objection to the proposed disposal well:

By: _____

Title: _____

Date: _____



marbob
energy corporation

January 13, 2004

Conoco Phillips
P. O. Box 2197
WL3 6106
Houston, TX 77252-2197

Re: Application to Inject
Grayburg Deep 15 SWD
Township 17 South, Range 30 East, NMPM
Section 30: 198 FNL and 2201 FWL
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

Conoco Phillips has no objection to the proposed disposal well:

By: _____

Title: _____

Date: _____



marbob
energy corporation

January 13, 2004

Burnett Oil Co. Inc.
801 Cherry St., Ste. 1500
Ft. Worth, TX 76102

Re: Application to Inject
Grayburg Deep 15 SWD
Township 17 South, Range 30 East, NMPM
Section 30: 198 FNL and 2201 FWL
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

Burnett Oil Co. Inc. has no objection to the proposed disposal well:

By: _____

Title: _____

Date: _____