

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.  
NMNM66425

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.  
LAGUNA SALADO SOUTH 1

2. Name of Operator

DEVON ENERGY PRODUCTION CO

Contact: SANDRA FARLEY

Email: sandy.farley@devn.com

9. API Well No.  
30-015-26407-00-S1

3a. Address

333 WEST SHERIDAN AVE  
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)

Ph: 575-746-5587

10. Field and Pool, or Exploratory  
UNDESIGNATED

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 22 T23S R29E SENW 2030FNL 1980FWL

11. County or Parish, and State

EDDY COUNTY, NM

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input checked="" type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

1. This well is producing from the Delaware &amp; Wildcat Atoka

2. Water produced is approximately 1100 BWPD

3. There are three 500 BBL tanks on location

4. Water will be piped to the a) Remuda Basin SWD 1 b) Cochiti 28 Fed 1; both owned by Devon Energy Production Co LP. c) as a back up it will be trucked to Belco Well #1 owned by Basic Energy Services, LP a) API 30-015-29549 b) 30-015-30113 c) 30-015-25141

5. a) NW/4NW/4, S20, T23S, R30E  
b) SW/4NW/4, S28, T23S, R29EJED 9-26-14  
Accepted for record  
NMOCDNM OIL CONSERVATION  
ARTESIA DISTRICT

SEP 18 2014

RECEIVED

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #237127 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad  
Committed to AFMSS for processing by JAMES AMOS on 03/29/2014 (14JA0929SE)

Name (Printed/Typed) SANDRA FARLEY

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 02/27/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED

SEP 10 2014

JAMES A. AMOS  
SUPERVISOR-EPS

Approved By

Title

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

**Additional data for EC transaction #237127 that would not fit on the form**

**32. Additional remarks, continued**

c)SW/4NW/4, S20, T23S, R28E

6. a)SWD-837 (attached)

b)SWD-972-A (attached)

c)SWD-666 (attached)

7. This well, the Laguna Salado South 1 is the battery for:

a)Laguna Salado 22 Federal 2 b)Laguna Salado 22 Federal 3H c)Laguna Salado 22 Federal 4H d)Laguna Salado 22 Federal 5H e) Laguna Salado Federal 22 Federal 6H

8. API: a) 30-015-34677 b)30-015-35073 c)30-015-36461 d)30-015-36738 e)30-015-37371

Laguna Salado South 1

## WATER PRODUCTION & DISPOSAL INFORMATION

In order to process your disposal request, the following information must be completed:

1. Name of formations producing water on the lease. Delaware, wildcat AtoKa
2. Amount of water produced from all formations in barrels per day. 1,100 Bbl/d
3. Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. (One sample will suffice if water is commingled.)
4. How water is stored on lease. 3,500 Bbl water tanks
5. How water is moved to the disposal facility. pipd, trucked as back up
6. Identify the Disposal Facility by:
  - A. Facility Operators name. 1) Devon 6) Devon 0 Basic
  - B. Name of facility or well name and number. 1) Kenuka Basin SWD#1, 6) Cochiti 28 Fed 1
  - C. Type of facility or well (WDW) (WIW) etc. WDW
  - D. Location by  $\frac{1}{4}$   $\frac{1}{4}$  NW/4 NW/4 Section 20 Township 23S Range 30E
7. Attach a copy of the State issued permit for the Disposal Facility.

Submit to this office, 620 EAST GREENE ST, CARLSBAD NM, 88220, the above required information on a Sundry Notice 3160-5. Submit 1 original and 3 copies, within abatement period. (This form may be used as an attachment to the Sundry Notice.)

2<sup>nd</sup> A. c) Below well #1

6<sup>th</sup> b) SW/4 NW/4, S28, T23S, R29E c) SW/4 NW/4 S20, T23S, R28E



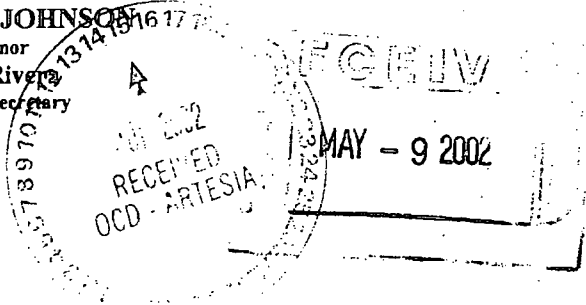
# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor  
Betty Rivera  
Cabinet Secretary

Lori Wrotenberg  
Director

Oil Conservation Division



ADMINISTRATIVE ORDER SWD-837

## **APPLICATION OF STRATA PRODUCTION COMPANY FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.**

### **ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Strata Production Company made application to the New Mexico Oil Conservation Division on April 8, 2002, for permission to re-complete for produced water disposal its Remuda Basin "20" Federal Well No. 1 (API No. 30-015-29549) located 330 feet from the North line and 660 feet from the West line (Unit D) of Section 20, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico.

#### **THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

#### **IT IS THEREFORE ORDERED THAT:**

Strata Production Company is hereby authorized to re-complete its Remuda Basin "20"

Federal Well No. 1 (API No. 30-015-29549) located 330 feet from the North line and 660 feet from the West line (Unit D) of Section 20, Township 23 South, Range 30 East, NMPM, Eddy County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into the Delaware formation from a depth of 4124 feet to 4774 feet through 2 7/8 inch plastic-lined tubing set in a packer located at approximately 4050 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to perforating the injection interval, a CIBP shall be set at 6575 feet and capped with cement. A CBL/CET shall be then pulled from this depth to 3000 feet or the cement top - whichever is higher - to verify the calculated cement top. Supply the bond log to the Artesia District Office for interpretation prior to proceeding with the perforating operations. In addition, the well bore shall be legally plugged back to 4900 feet.

Prior to commencing injection operations into the well and at least once per year thereafter, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 825 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Delaware formation. Such proper showing shall at least consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia District Office of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia District Office of the

Administrative Order SWD-837

Strata Production Company

May 3, 2002

Page 3

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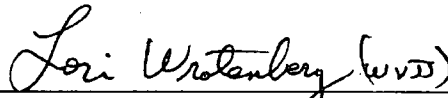
Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 3rd day of May 2002.

 (WVJ)

LORI WROTENBERY, Director

LW/WVJ

cc: Oil Conservation Division – Artesia  
Bureau of Land Management - Carlsbad

State of New Mexico  
Energy, Minerals and Natural Resources Department

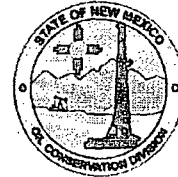
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Susana Martinez  
Governor

David Martin  
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



Administrative Order SWD-972-A  
August 16, 2013

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of 19.15.26.8B NMAC, Devon Energy Production Company L. P. (the "operator"), seeks an administrative order to recompleat its Cochiti 28 Federal Well No. 1 with a location of 1980 feet from the North line and 660 feet from the West line, Unit letter E of Section 28, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes. The application is a major modification for expansion of the injection interval of an active disposal well.

**THE DIVISION DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of 19.15.26.8B NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Devon Energy Production Company L. P. (OGRID 6137), is hereby authorized to recompleat its Cochiti 28 Federal Well No. 1 (API 30-015-30113) with a location of 1980 feet from the North line and 660 feet from the West line, Unit letter E of Section 28, Township 23 South, Range 29 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) into the Bell Canyon formation of the Delaware Mountain Group through perforations from approximately 3260 feet to 3810 feet. Injection will occur through internally coated tubing and a packer set within 100 feet of the permitted interval.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the well rehabilitation proposed and described in the application.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 652 psig**. **The previous wellhead injection pressure of 825 psig, approved under administrative order IPI-312, is rescinded since this order was based on Step-Rate Test conducted with the prior injection interval.** In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's district II office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district II office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon division approval. The division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

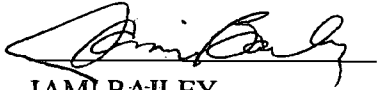
The division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.



Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



JAMI BAILEY  
Director

JB/prg

cc: Oil Conservation Division – Artesia District Office  
Bureau of Land Management – Carlsbad Office



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

ADMINISTRATIVE ORDER SWD-666

*APPLICATION OF RAY WESTALL FOR SALT WATER DISPOSAL,  
EDDY COUNTY, NEW MEXICO.*

ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Ray Westall made application to the New Mexico Oil Conservation Division on May 15, 1997, for permission to complete for salt water disposal its Belco Well No.1 located 2200 feet from the North line and 660 feet from the West line (Unit E) of Section 20, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

The applicant herein, is hereby authorized to complete its Belco Well No.1 located 2200 feet from the North line and 660 feet from the West line (Unit E) of Section 20, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Delaware formation at approximately 5,726 feet to 5,809 feet through 2 7/8-inch plastic-lined tubing set in a packer located at approximately 5,675 feet.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1145 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Delaware formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

**PROVIDED FURTHER THAT,** jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

*Administrative Order SWD-666*

*Ray Westall*

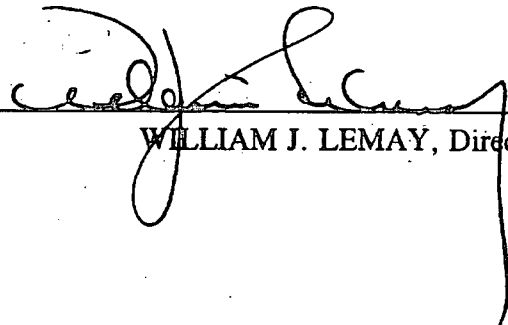
*July 7, 1997*

*Page 3*

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The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 7th day of July, 1997.

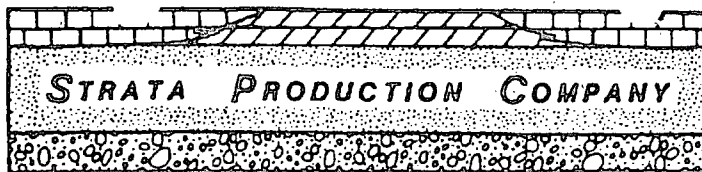
A handwritten signature in black ink, appearing to read "William J. Lemay", is written over a horizontal line.

WILLIAM J. LEMAY, Director

WJL/BES

cc: Oil Conservation Division - Artesia

POST OFFICE DRAWER 1030  
ROSWELL, NM 88202-1030



TELEPHONE (505) 622-1127  
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700  
ROSWELL, NEW MEXICO 88201

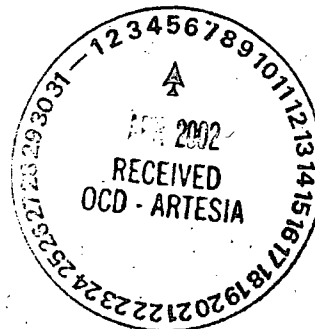
March 18, 2002

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

Attention: David Catanach

RE:

Application for Salt Water Disposal Well  
Remuda Basin "20" Federal #1  
Bell Canyon and Cherry Canyon Formations  
Unit Letter D, Section 20, T-23-S, R-30-E  
Eddy County, New Mexico




Gentlemen:

Strata Production Company respectfully requests administrative approval for the attached C-108 application on its Remuda Basin "20" Federal # 1 well for the purpose of disposing of produced fluids in the non-commercial Bell Canyon and Cherry Canyon interval. This work will allow Strata, to supplement the disposal for the Nash Draw Unit and dispose of produced water that is anticipated from work to be performed on wells in the 49'er Ridge Unit. The installation of the proposed disposal well will lower the current economic limit on each well and ultimately allow Strata to recover additional oil & gas reserves that would otherwise be left in place.

Strata respectfully requests that this application be approved administratively, or through an NMOCD sponsored hearing scheduled at the earliest possible time. This is requested so that the necessary operations can be advanced in a prudent manner. If you have any questions concerning the application, please contact me at (505) 624-2800.

Yours very truly,



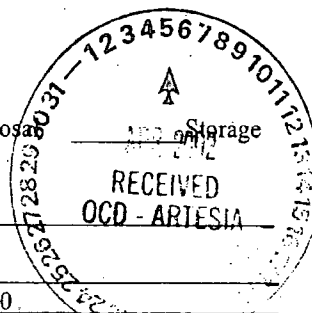
Bruce A. Stubbs  
Consulting Engineer

Attachments  
File

Accepted for record - NMOCD

cc: Tim Gum - NMOCD; Artesia, New Mexico

**APPLICATION FOR AUTHORIZATION TO INJECT**



- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage  
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Strata Production Company  
ADDRESS: P.O. Box 1030  
CONTACT PARTY: Bruce A. Stubbs PHONE: 505-624-2800
- 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: Bruce A. Stubbs TITLE: Consulting Engineer  
SIGNATURE: *B. Stubbs* DATE: 3-25-02
- \* 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: \_\_\_\_\_

### 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 the 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, 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.

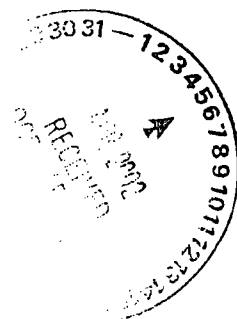
## INJECTION WELL DATA SHEET

OPERATOR: Strata Production CompanyWELL NAME & NUMBER: Remuda Basin 20 Federal #1WELL LOCATION: 330' FNL & 660' FWL D 20 23S 30E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

\*\*\*\*\*

Hole Size: 14 3/4" Casing Size: 11 1/4"Cemented with: 400 sx. or                      ftTop of Cement: Circ. Method Determined:                     Intermediate CasingHole Size: 11" Casing Size: 8 5/8"Cemented with: 900 sx. or                      ft<sup>3</sup>Top of Cement: Circ. Method Determined:                     Production CasingHole Size: 7 7/8" Casing Size: 5 1/2"Cemented with: 1400 sx. or                      ft<sup>3</sup>Top of Cement: 3000' Method Determined: CalculatedTotal Depth: 7500Injection Interval4124 feet to 4774Perforated with 1 jsf

(Perforated or Open Hole; indicate which)





INJECTION WELL DATA SHEETTubing Size: 2 7/8" Lining Material: PlasticType of Packer: Nickel plated 5 1/2" Arrow Type "H" PackerPacker Setting Depth: +/-4000 ft.

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

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 Well

2. Name of the Injection Formation: Bell Canyon and Cherry Canyon

3. Name of Field or Pool (if applicable): \_\_\_\_\_

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. 6608-6706' and 7162-7242'

A CIBP will be set at 6575' and capped with 35 ft. of cement.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Brushy Canyon 5600'-7250'

3-18-2002

NEW MEXICO OIL CONSERVATION DIVISION - Form C-108

III. SALT WATER DISPOSAL WELL DATA

Remuda Basin "20" Federal #1 : Bell Canyon and Cherry Canyon Intervals

Unit Letter D, 330' FNL & 660 FWL, Section 20, T-23-S, R-30-E Eddy County, New Mexico

All pertinent data for the above proposed salt water disposal well is included on the well schematic sheets in this application.

V. SUBJECT AREA MAPS AND AREA OF REVIEW

A map of the subject area, Remuda Basin "20" Federal #1-lease, including all wells within a 2 mile radius is attached. Also attached is a map showing the subject well's area of-review (or 1/2 mile radius circle).

VI. TABULATION OF DATA ON WELLS WITHIN AREA OF REVIEW

To date, the following wells are within a half mile radius of the proposed salt water disposal well:

T-23-S, R-30-E

SE/4 Section 18 : None

SW/4 Section 17 : None

NE/4 Section 19 : 2 Wells : Remuda Basin "19" Federal #1 (A) and #2 (B)

SE/4 Section 19 : None

N/2 Section 20 : None

Attached is a schematic and summary report for each well within the area of review.

VII. PROPOSED OPERATION

Currently, Strata Production Company operates the Nash Draw Unit and the Forty-Niner Ridge Unit producing approximately 300 BOPD, 2,500 MCFPD and 1,000 BWPD. The proposed well will be converted as soon as possible to facilitate water disposal. Attached is a schematic of the subject disposal well and its proposed completion and tubing/packer arrangement.

The intent of this application is to seek approval, either through a NMOCD administrative approval, or through a New Mexico Oil Conservation Commission sponsored hearing to convert the subject well to salt water disposal. This application is pursuant to the continuation of development and production on Strata's Nash Draw Unit

and the Forty-Niner Ridge Unit, which produce from the Bell Canyon, Cherry Canyon and Brushy Canyon intervals. The approval of this application will enhance Strata's efforts to operate the subject lease as optimally as possible and increase the reserve potential by lowering the economic limit on each producing well.

The proposed completion within the Remuda Basin "20" #1 wellbore will be in the Bell Canyon and Cherry Canyon interval with perforations between 4124' and 4774'. The packer will be placed within approximately 50' to 100' above the top perforation at +/- 4000'. The tubing will be internally plastic coated. The proposed maximum salt water disposal rate is expected to be 1,000 BWPD. The initial disposal rate is expected to be 500 BWPD. Maximum injection pressure will not exceed 825 psig (0.2 psi/ft OCD allowable rate) until a step rate test establishes a higher limit. Injected fluids will be produced fluids from the Bell Canyon, Cherry Canyon and Brushy Canyon intervals. These zones and the proposed injection interval (Bell Canyon and Cherry Canyon) all contain saline waters with total dissolved solids (TDS) and salinity above 10,000 ppm (mg/l). A chemical analysis of the disposed water is included. The system will be closed.

#### **VIII. GEOLOGICAL DATA**

The injection interval consists of an interbedded, fine to medium grain sorted sandstone reservoir. The saturation within the reservoir show a low oil saturation which is non-mobile making the formation non-commercial. The Bell Canyon and Cherry Canyon interval has a total thickness of approximately 2100' within the subject area. It overlays the Brushy Canyon and Bone Spring intervals which are the main productive interval within the subject area.

The known sources of fresh water within the subject area exist from approximately 120' to 400' deep in windmills that are approximately 250' deep. Based on a current geological and engineering data and a petrophysical rock-properties evaluation, there is no evidence of any natural or artificially created open faults within the unitized interval, or above, which would communicate salt water to the shallow fresh water strata. A representative shallow water analysis is included with this application.

#### **IX. PROPOSED STIMULATION PROGRAM**

The subject wells will be stimulated using 4,000 to 10,000 gallons of 7 1/2% NEFE HC1 acid. Rock salt blocks or ball sealers will be utilized during the acid job(s). A potential hydraulic frac job will, be performed using a 2% KCL crosslinked borate gel carrying 16/30 Ottawa sand. The necessity of a frac job and it's appropriate size will be determined after reworking and acidizing is completed.

**STATEMENT OF SURFACE OWNER AND OFFSET OPERATOR**

**40 ACRE SURFACE OWNER     Bureau of Land Management**

**OFFSET OPERATORS OR MINERAL INTEREST LEASEE :**

**Section 17: All, T23S-R30E**

Devon Energy Production Company  
20 N. Broadway, Suite 1500  
Oklahoma City, OK 73102-8260

**Section 20: NE/4, S/2 NW/4, NE/NW, T20S-R30E**

Texaco Exploration & Production Company  
Box 46513  
Denver Colorado 80201-6513

**Section 19: NW/4, T20S-R30E**

Texaco Exploration & Production Company  
Box 46513  
Denver Colorado 80201-6513

**Nash Unit - Section 18: E/2, T20S-R30E**

Strata Production Company (Sub Operator Surface to Base of Bone Spring)  
P.O. Box 1030  
Roswell, New Mexico 88202-1030

Murchison Oil & Gas Inc. (Operator below the Bone Spring)  
Attn: Michael Daugherty  
1100 Mira Vista Blvd.  
Plano, Texas 75093-4698

**Section 19: SE/4, T20S-R30E**

Yates Petroleum Corporation  
105 S. 4<sup>th</sup> Street  
Artesia, New Mexico 88210

Remuda Basin 20 Federal #1  
330' FNL & 660' FEL, D-20-23S-30E  
Eddy County, New Mexico

3/18/02

### **Add Bell Canyon and Cherry Canyon Injection Intervals**

#### **Well Data**

Tubing: 2-7/8" Casing: 17# & 15.5#, 5-1/2" @ 7500'  
TD: 7500' PBTD: 7408' Elevation: 3153'GR12'KB

#### **Injection Perforations:**

Bell Canyon 4124-36', 4140-48', 4180-90', 4196-4212'  
Cherry Canyon 4296-4308', 4380-90', 4414-20', 4540-48', 4572-82', 4594-4603',  
4614-20', 4634-46', 4682-90', 4696-4712', 4738-74'

CIBP at 6575' with 35' of cement on top

#### **Plugged Back Perforations:**

Brushy Canyon: 6608-12', 6616-20', 6702-06', 7162-66', 7194-7204', 7216-34', 7240-42'

#### **Procedure**

1. Rig up pulling unit. ND wellhead. NU BOP. P.O.H. with tubing and production equipment.
2. TIH with bit and scrapper on 2-7/8" workstring. T.I.H. to 6600'. Set CIBP at 6575' and cap with 35' of cement. Test casing at 1000 psi for 30 minutes.
3. Rig up Schlumberger. Run GR/CBL log from 4900' to 3800' to check cement bond. Perforate 4124-36', 4140-48', 4180-90', 4196-4212', 4296-4308', 4380-90', 4414-20', 4540-48', 4572-82', 4594-4603', 4614-20', 4634-46', 4682-90', 4696-4712', 4738-74', 1 jsf, 170 shots. Rig down Schlumberger.
4. TIH with 5-1/2" X 2-7/8", 15.5# - 17# full bore treating packer on 2-7/8" workstring. Set packer at +/- 4500'.
5. Acidize Cherry Canyon perforations 4540-48', 4572-82', 4594-4603', 4614-20', 4634-46', 4682-90', 4696-4712', 4738-74' with 3,000 gal 7 1/2 % HCl with ball sealers as diverter. Average injection rate should be 4 to 6 BPM. Flush acid to bottom perforation with 2% KCl water. TOH with workstring and treating packer.
6. TIH with 5-1/2" X 2-7/8", 15.5# - 17# full bore treating packer and RBP on 2-7/8" workstring. Set RBP at +/- 4500'. Set packer at +/- 4000'.

7. Acidize Bell Canyon perforations 4124-36', 4140-48', 4180-90', 4196-4212' with 3,000 gal 7 ½ % HCl with rock salt as diverter. Average injection rate should be 3 to 4 BPM. Flush acid to bottom perforation with 2% KCl water. Unset treating packer and RBP, TOH with workstring, treating packer, and RBP.
8. TIH with injection packer and plastic lined tubing. Set packer at +/- 4,000'. ND BOP. NU wellhead.
9. Put well on injection. Maximum injection rate is 1000 BWIPD at a maximum pressure of 825 psig at surface. RD pulling unit. Monitor surface injection pressure and rate.

EXISTING

14 3/4" HOLE

PROPOSED

T. SALT 410'

11 3/4" @ 406'  
400 SX.  
CIRC.

REMUDA BASIN 20 FED. #1  
330' FNL & 660' FWL  
SEC. 20-T23S-R30E  
EDDY COUNTY, NM  
API # 30-015-29549  
SPUD DATE: 4/29/97

B. SALT 1985'

11" HOLE

T.O.C. @ +/- 3000'

DELAWARE SD 3490'

8 5/8" @ 3400'  
900 SX., CIRC.

LOAD ANNULUS WITH  
PACKER FLUID

2 7/8" PLASTIC COATED TUBING

5 1/2" NICKLE PLATED PACKER  
SET @ +/- 4000'

CHERRY CANYON 4266'

MANZANITA 4460'

7 7/8" HOLE

PERF. 4124-36', 4140-48',  
4180-90', 4196-4212', 4296-4308'  
4380-90', 4414-20', 4540-48'  
4572-82', 4594-4603', 4614-20'  
4634-46', 4682-90', 4696-4712'  
4738-74', 1 JSPF, 170 SHOTS

ACIDIZE W/ 5000 GALS.  
15% NEFE ACID + BALLS  
FRAC. W/ 60,000 GALS. +  
100,000 # 16-30 SAND

BRUSHY CANYON 5600'

6608-6612', 6616-20', 6702-06'

SET CIBP @ 6575'  
W/ 35' CEMENT

7162-66', 7194-7204', 7216-7234', 7240-7242'

BONE SPRING 7250'

5 1/2" @ 7500'  
700 SX.  
5 1/2" X 7 5/8" = .1733 CU. FT. / FT.  
+/- 4500 FT. OF FILL

**INJECTION WELL DATA SHEET**Tubing Size: 2 7/8" Lining Material: PlasticType of Packer: Nickel plated 5 1/2" Arrow Type "H" PackerPacker Setting Depth: +/-4000 ft.

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**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 Well

2. Name of the Injection Formation: Bell Canyon and Cherry Canyon

3. Name of Field or Pool (if applicable): \_\_\_\_\_

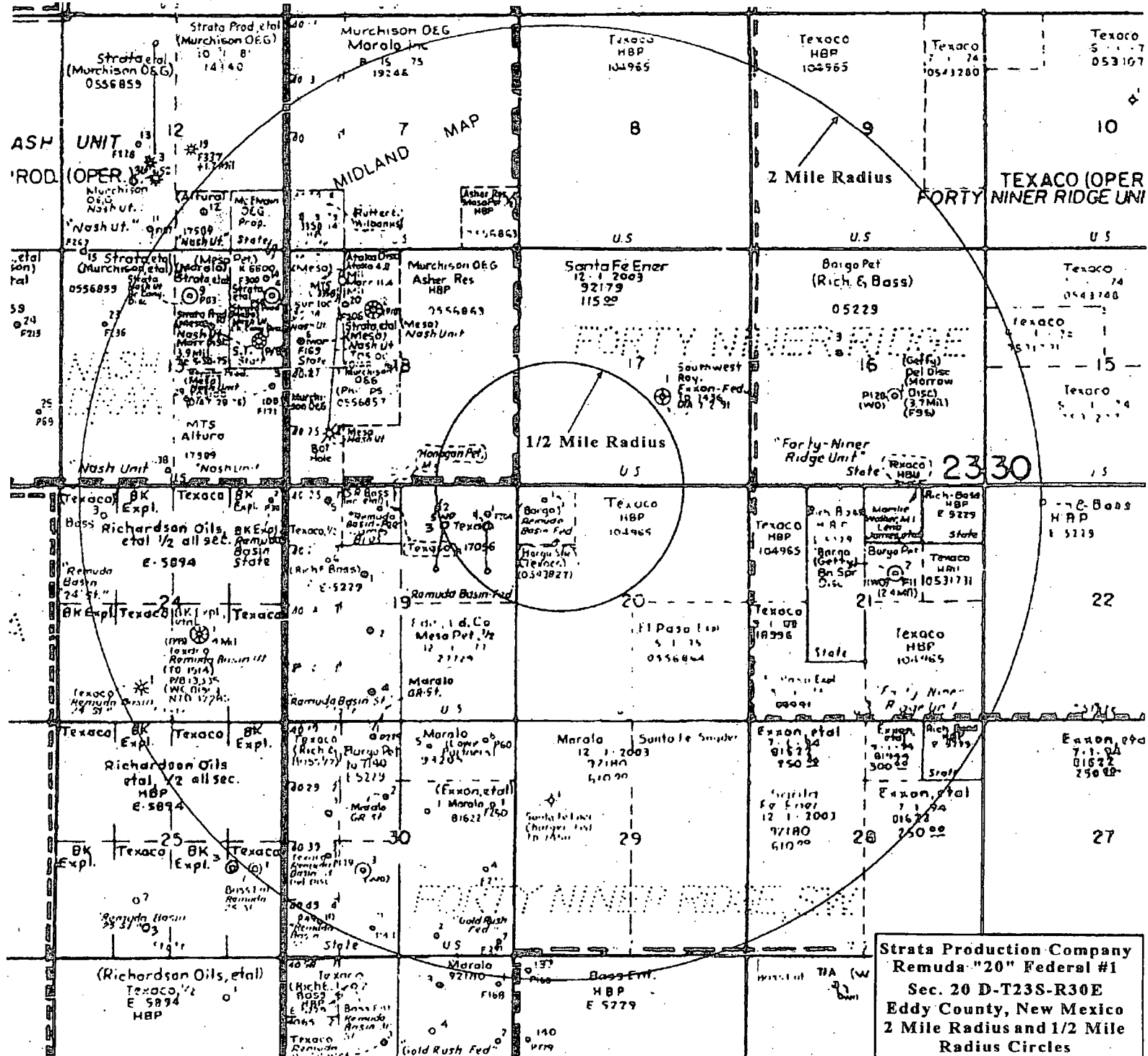
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. 6608-6706' and 7162-7242'

A CIBP will be set at 6575' and capped with 35 ft. of cement.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Brushy Canyon 5600'-7250'

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

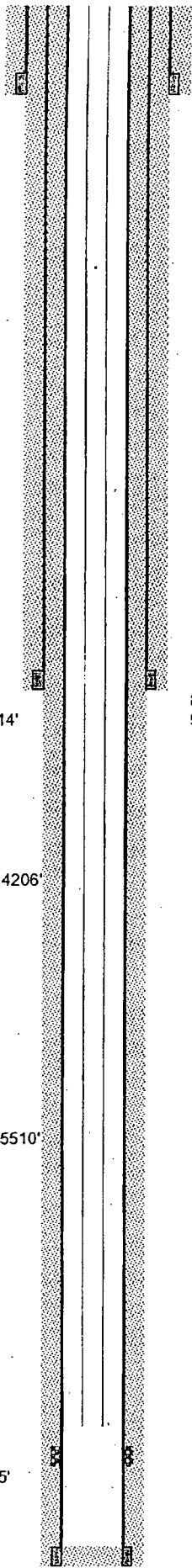




<u>LEASE NAME</u>	<u>WELL #</u>	<u>PRODUCTION ID</u>	<u>API</u>	<u>OPERATOR NAME</u>	<u>PROD_ZONE NAME</u>	<u>LEASE CODE</u>	<u>COUNTY</u>
REMUDA BASIN 19 FEDERAL	2	1300220152890140000	30-015-289010000	TEXACO EXPLORATION & PRODUCTION INC	BRUSHY CANYON	18768	EDDY
REMUDA BASIN 19 FEDERAL	1	1300220152890240000	30-015-289020000	TEXACO EXPLORATION & PRODUCTION INC	BRUSHY CANYON	18768	EDDY
REMUDA BASIN 20 FEDERAL	1	1300220152954940000	30-015-295490000	STRATA PRODUCTION COMPANY	BRUSHY CANYON	20817	EDDY

		<u>LOCATION</u>	<u>FIELD NAME</u>	<u>OIL CUM</u>	<u>GAS CUM</u>	<u>WTR CUM</u>	<u>STATUS</u>	<u>TD</u>	<u>UPPER PERF</u>	<u>LOWER PERF</u>
REMUDA BASIN 19 FEDERAL	2	19B 23S 30E	NASH DRA	11,523	32,530	55,792	INA	7,640	7,105	7,169
REMUDA BASIN 19 FEDERAL	1	19A 23S 30E	NASH DRA	78,113	311,056	152,558	ACT	7,650	7,105	7,169
REMUDA BASIN 20 FEDERAL	1	20D 23S 30E	NASH DRA	3,173	14,090	67,605	INA	7,800	6,608	7,242

		<u>OIL YTD</u>	<u>GAS YTD</u>	<u>WTR YTD</u>	<u>OIL LATEST MONTH</u>	<u>GAS LATEST MONTH</u>	<u>WATER LATEST MONTH</u>	<u>FIRST PROD DATE</u>	<u>LAST PROD DATE</u>
REMUDA BASIN 19 FEDERAL	2							06/01/96	05/31/97
REMUDA BASIN 19 FEDERAL	1	8,501	36,564	29,166	797	1,410	2,560	05/01/96	10/31/01
REMUDA BASIN 20 FEDERAL	1							07/01/97	08/31/98



11 3/4" @ 400'  
400 SX.

REMUDA BASIN 19 FED. #1  
660' FNL & 660' FEL  
SEC. 19-T23S-R30E  
EDDY COUNTY, NM  
API # 30-015-28901  
SPUD DATE: 4/20/96

B. SALT 3390'  
T. DELAWARE SD 3414'

8 5/8" @ 3225'  
900 SX.

T. CHERRY CANYON 4206'

T. BRUSHY CANYON 5510'

T. BONE SPRING 7185'

2 7/8" @ 7002'

7105-48', 7150-57', 7166-69'; BRUSHY CANYON.

5 1/2" @ 7640'  
1700 SX

11 3/4" @ 400'  
400 SX., CIRC.

REMUDA BASIN 19 FED. #2  
510' FNL & 1580' FEL  
SEC. 19-T23S-R30E  
EDDY COUNTY, NM  
API # 30-015-28902  
SPUD DATE: 4/5/96

SALTWATER DISPOSAL APPROVED WITH  
ADMINISTRATIVE ORDER No. SWD-626

8 5/8" @ 3209'  
900 SX., CIRC.

B. SALT 3364'  
T. DELAWARE SD 3382'

T. CHERRY CANYON 4160'

4048-95', 4012-4035'

4255-80', 4165-92'

4609-4634', 4579-88', 4555-75'

CIBP @ 4700'

T. BRUSHY CANYON 5478'

2 7/8" @ 6993

CIBP @ 6525' WITH 35' OF CEMENT

7056-7099'; BRUSHY CANYON

T. BONE SPRING 7152'

5 1/2" @ 7650'  
1600 SX

5 1/2" 7 7/8" = 1.1733 CU.FT./FT.  
9100' FILL W/ 25% EXCESS

## HALLIBURTON DIVISION LABORATORY

## HALLIBURTON SERVICES

## ARTESIA DISTRICT

## LABORATORY REPORT

No. W121, W122, &amp; W123-93

TO Strata Production  
648 Petroleum Building  
Roswell, NM 88201

Date March 25, 1993

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 who employs or is authorized to receive such report from Halliburton Services.

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

Well No. \_\_\_\_\_ Depth \_\_\_\_\_ Formation \_\_\_\_\_

Field \_\_\_\_\_ County \_\_\_\_\_ Source \_\_\_\_\_

	3-25-93 Nash Draw #10	3-24-93 Nash Draw #10	3-24-93 Fresh Water
Resistivity .....	0.050 @ 70°	0.051 @ 70°	4.18 @ 70°
Specific Gravity ..	1.204 @ 70°	1.1200 @ 70°	1.0016 @ 70°
pH .....	7.0	7.2	7.0
Calcium .....	33,040	29,901	2,478
Magnesium .....	3,607	4,008	902
Chlorides .....	188,000	184,000	600
Sulfates .....	600	800	200
Bicarbonates .....	275	244	153
Soluble Iron .....	250	250	0
KCL	Trace	1/2%	
-----	-----	-----	-----
-----	-----	-----	-----

Remarks:

MAR 29 1993

  
 Respectfully submitted
Analyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

## NOTICE:

This report is for information only and the content is limited to the sample described. Halliburton express or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton for any loss or damage, regardless of cause, including any act or omission of Halliburton, results.

VII

XI

Offset Operators  
Remuda Basin "20" Federal #1 SWD  
NW/NW Section 20, T23S-R30E, Eddy County, NM

Section 17: All, T23S-R30E

Devon Energy Production Company  
20 N. Broadway, Suite 1500  
Oklahoma City, OK 73102-8260

Section 20: NE/4, S/2 NW/4, NE/NW, T20S-R30E

Texaco Exploration & Production Company  
Box 46513  
Denver Colorado 80201-6513

Section 19: NW/4, T20S-R30E

Texaco Exploration & Production Company  
Box 46513  
Denver Colorado 80201-6513

Nash Unit - Section 18: E/2, T20S-R30E

Strata Production Company (Sub Operator Surface to Base of Bone Spring)  
P.O. Box 1030  
Roswell, New Mexico 88202-1030

Murchison Oil & Gas Inc. (Operator below the Bone Spring)  
Attn: Michael Daugherty  
1100 Mira Vista Blvd.  
Plano, Texas 75093-4698

Section 19: SE/4, T20S-R30E

Yates Petroleum Corporation  
105 S. 4<sup>th</sup> Street  
Artesia, New Mexico 88210

March 5 12

Remuda Basin "20" Fed #1  
OCD file.

APPLICATION FOR  
WATER DISPOSAL

No 21962

Affidavit of Publication

State of New Mexico,  
County of Eddy, ss.

Dawn Higgins

being first duly sworn, on oath says:

That she is Business Manager  
of the Carlsbad Current-Argus, a newspaper published  
daily at the City of Carlsbad, in said county of Eddy, state  
of New Mexico and of general paid circulation in said coun-  
ty; that the same is a duly qualified newspaper under the  
laws of the State wherein legal notices and advertisements  
may be published; that the printed notice attached hereto  
was published in the regular and entire edition of said  
newspaper and not in supplement thereof on the date as  
follows, to wit:

<u>March 31</u>	<u>2002</u>
<u>                    </u>	<u>2002</u>
<u>                    </u>	<u>2002</u>
<u>                    </u>	<u>2002</u>
<u>                    </u>	<u>2002</u>
<u>                    </u>	<u>2002</u>

That the cost of publication is \$ 66.93  
and that payment thereof has been made and will be  
assessed as court costs.

Dawn Higgins

Subscribed and sworn to before me this

31 day of March, 2002

Stephanie Dobson

My commission expires 12/13/05  
Notary Public

Strata Production Com-  
pany, P.O. Box 1030,  
Roswell, New Mexico  
882092-1030, (Contact:  
Bruce Stubbs, 505-624-  
2800), has filed Applica-  
tion with the Oil Con-  
servation Division, Ener-  
gy, Minerals and Natural  
Resources Department,  
State of New Mexico, for  
Administrative Approval  
and authority to inject salt  
water into the Remuda  
Basin "20" Fed. #1 well  
located 330' FNL and  
660' FWL of Section 20,  
Township 23 South, Ra-  
nge 30 East, NMPM, Ed-  
dy County, New Mexico.

The purpose of the  
water injection well is to  
dispose of salt water pro-  
duced from the Nash  
Draw Delaware field as  
currently designated by  
the Oil Conservation Divi-  
sion and as may be ex-  
tended by additional drill-  
ing.

Water to be disposed  
will be injected into the  
Bell Canyon and Cherry  
Canyon formation of the  
Delaware Mountain group  
at an interval between  
4124 feet to 4774 feet be-  
neath the surface.

The minimum injection  
rate is expected to be ap-  
proximately 500 barrels of  
water per day. The maxi-  
mum injection rate is ex-  
pected to be approxi-  
mately 1000 barrels of  
water per day.

Minimum injection pre-  
ssure is expected to be  
approximately 300 PSI.  
The maximum injection  
pressure is expected to  
be approximately 825  
PSI.

Any interested party  
may file an objection to  
the Application or may re-  
quest a public hearing.  
Any objection or request  
for hearing must be filed  
with the Oil Conservation  
Division, P.O. Box 2088,  
Santa Fe, New Mexico  
87504-2088 within 15  
days from the date of  
publication.

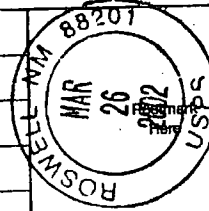
Strata Production  
Company

By: Bruce Stubbs  
P.O. Box 1030  
Roswell, New Mexico  
88202-1030  
Telephone 505-624-2800

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

**OFFICIAL USE**

Postage	\$ 1.03
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 4.63</b>

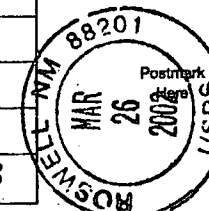


**Sent To** Texaco Exploration & Production Company  
**Street, Apt. No., or PO Box No.** P. O. Box 46513  
**City, State, ZIP+4** Denver, CO 80201-6513  
 PS Form 3800, January 2001 See Reverse for Instructions

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

**OFFICIAL USE**

Postage	\$ 1.03
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 4.63</b>

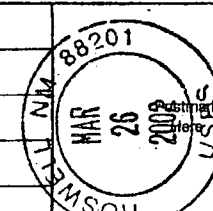


**Sent To** Yates Petroleum Corporation  
**Street, Apt. No., or PO Box No.** 105 S. 4th Street  
**City, State, ZIP+4** Artesia, NM 88210  
 PS Form 3800, January 2001 See Reverse for Instructions

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

**OFFICIAL USE**

Postage	\$ 1.03
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 4.63</b>

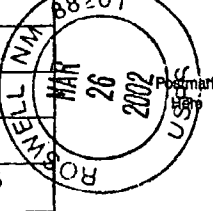


**Sent To** Devon Energy Production Company  
**Street, Apt. No., or PO Box No.** 909 N. Broadway, Suite 1500  
**City, State, ZIP+4** Oklahoma City, OK 73102-8260  
 PS Form 3800, January 2001 See Reverse for Instructions

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

**OFFICIAL USE**

Postage	\$ 1.03
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 4.63</b>



**Sent To** Murchison Oil & Gas Inc.  
**Street, Apt. No., or PO Box No.** Attn: Michael Daugherty  
**City, State, ZIP+4** 1100 Mira Vista Blvd  
 Plano, TX 75093-4698  
 PS Form 3800, January 2001 See Reverse for Instructions



BUREAU OF LAND MANAGEMENT

Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972

Disposal of Produced Water From Federal Wells  
Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency shall be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
6. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
7. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
8. Disposal at any other site will require prior approval.
9. Subject to like approval by NMOCD.

7/10/14