

P.O. Box 338

Ignacio, Colorado 81137

(970) 563-4000

FAX (970) 563-4116

April 10, 2002

*RF*  
New Mexico Energy, Minerals and  
Natural Resources Department  
Oil Conservation Division  
Attn: David Catanach  
1220 South St. Francis Drive  
Santa Fe, NM 87505



Re: Amendment of Order No. SWD-782  
Trading Post Disposal No. 1  
(Formerly named Canyon No. 14)  
Section 26-T25N-R11W, NMPM  
San Juan County, NM

*30-045-21470*

*No order yet 5-8-2*  
Mr. Catanach:

This letter is sent as a formal request to amend Administrative Order SWD-782 to add the upper Dakota and Mesa Verde intervals by completing the well as a commingled water disposal well. Please find enclosed the original and one copy of the amended Form C-108, Application to Inject, plus attachments which provide the proposed procedure. Copies of the amended Form C-108 were also mailed to all offset operators within 1/2 mile of the well. Certified mail receipt cards are attached for your verification. In addition, a revised newspaper publication was also published by the Farmington Daily Times (copy attached).

Should you have any questions or require additional information, please feel free to contact our Engineering Manager, Dennis Reimers at 970/563-4000.

Thank you in advance for your prompt review of our amended application and we look forward to your response.

Sincerely,

Maralex Disposal, LLC

*Carla S. Shaw*

Carla S. Shaw  
Production Technician

Encl.

cc: Charlie Perrin-NMOCD ✓  
A.M. O'Hare  
Dennis Reimers

*421.2+912.1*

*Ch 2106-2170*

*PL 3824-3925*

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ ☒ Disposal \_\_\_\_\_ Storage \_\_\_\_\_  
Application qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ No
- II. OPERATOR: Maralex Disposal, LLC  
ADDRESS: P.O. Box 338, Ignacio, CO 81137  
CONTACT PARTY: Dennis R. Reimers PHONE: 970/563-4000
- 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: SWD-782
- 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: A. M. O'Hare TITLE: Managing Member  
SIGNATURE: *A. M. O'Hare* DATE: 04/10/02
- \* 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: \_\_\_\_\_
- DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

# INJECTION WELL DATA SHEET

OPERATOR: Maralex Disposal, LLC

WELL NAME & NUMBER: Trading Post Disposal No. 1 (formerly Canyon No. 14)

WELL LOCATION: 950' ENT - 1600' ENT C 26 25N 11W  
FOOTAGE LOCATION SECTION TOWNSHIP RANGE

## WELLBORE SCHEMATIC

## WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"  
Cemented with: 300 SK or PS  
Top of Cement:                      Method Determined:                     

Intermediate Casing

Hole Size:                      Casing Size:                       
Cemented with:                      SK or PS  
Top of Cement:                      Method Determined:                     

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"  
Cemented with: 800 SK or PS  
Top of Cement:                      Method Determined:                       
Total Depth: 6060'

Injection Interval

2100 feet to 6032 feet

(Perforated Interval: 5958' - 5968')

5958' - 5968' and 6012' - 6032' (existing Lower Dakota)

5879' - 5883' and 5900' - 5908' (Upper Dakota)

2100' - 3605' Mesa Verde Gross Intervals  
Perforations not yet picked.

**INJECTION WELL DATA SHEET**

Tubing Size: 2-7/8" Lining Material: Plastic Coated  
 Type of Packer: Permanent Injection Packer  
 Packer Setting Depth: Approximately 2100'  
 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? Gas production

2. Name of the Injection Formation: Upper & Lower Dakota & Mesa Verde Sands

3. Name of Field or Pool (if applicable): Basin Dakota

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 plugs used. Yes

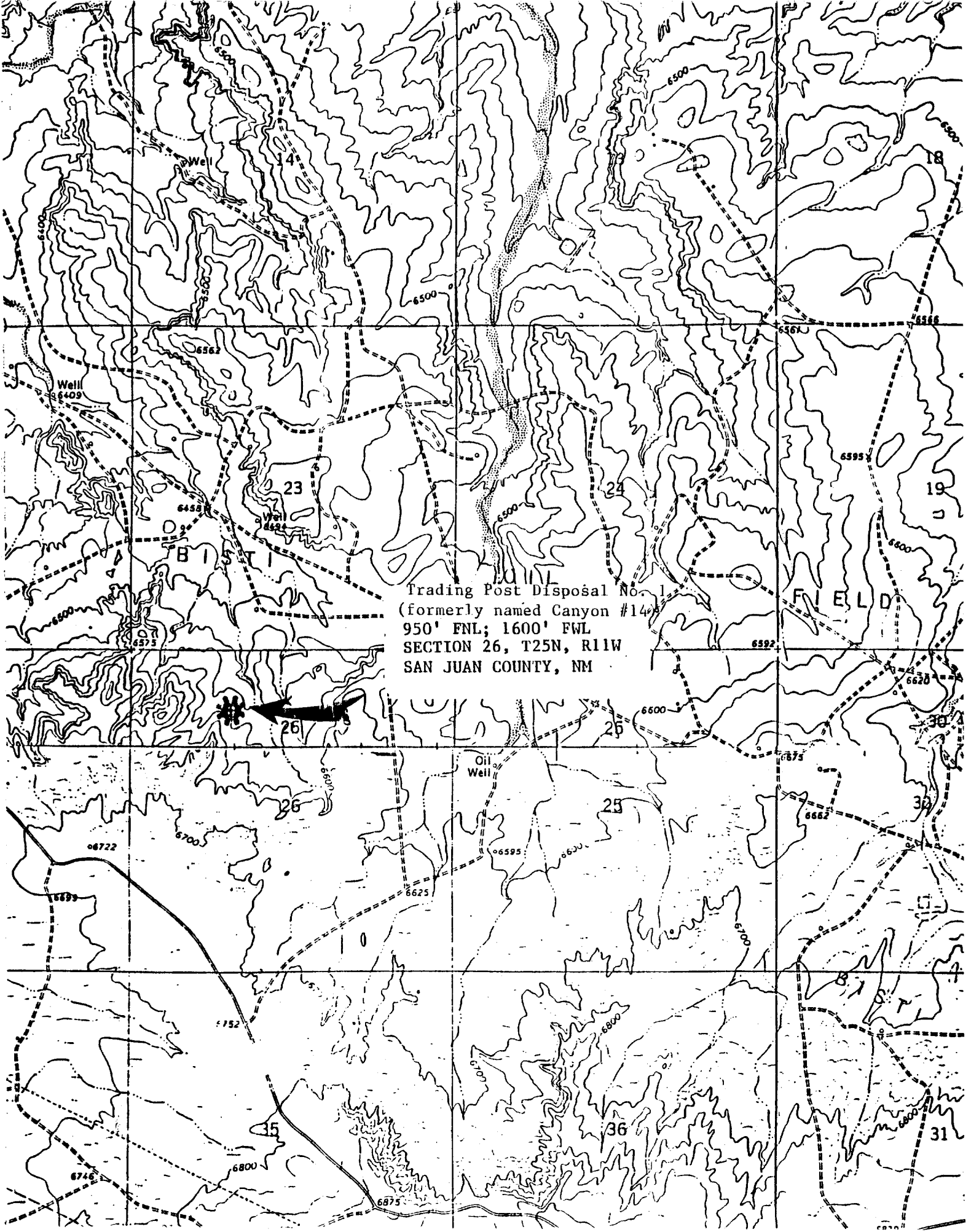
Dakota= 5879-5883', 5900-5908'. Set retainer at 5816', squeezed with 100 sacks.  
 5011-5021' (Gallup) squeezed with 50 sacks. Currently perforated at 5900-5908', 5958-5968' & 6012-6032'

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Potential oil in Gallup-Top @ 4820'

Perforated and tested all water. Mesa Verde

was used as a water supply well for the East

Carson Gallup Waterflood (Sec. 23 & 24 of T25N-R11W)



Trading Post Disposal No. 1  
(formerly named Canyon #14)  
950' FNL; 1600' FWL  
SECTION 26, T25N, R11W  
SAN JUAN COUNTY, NM

**MARALEX DISPOSAL, LLC**  
**TRADING POST DISPOSAL # 1**  
**PROPOSED PRODUCED WATER DISPOSAL WELL**

**WELL DATA**

(As Related to Section III of the OCD Application Form C-108)

1. Lease: Federal Lease NM-036252
- Well No: Trading Post Disposal #1 (Formerly Canyon #14)
- Location: 950' FNL; 1600' FWL, Section 26-T25N-R11W  
San Juan County, NM

2. Casing and Cementing Specifications (as completed August 1974)

<u>Depth</u>	<u>Hole Size</u>	<u>Casing &amp; Weight</u>	<u>Cement</u>
608'	12-1/4"	8-5/8" 24 lb/ft	300 sxs
6060'	7-7/8"	5-1/2" 15.5 lb/ft	1 <sup>st</sup> Stage: 250 sxs 2 <sup>nd</sup> Stage: 550 sxs

3. New 2-7/8" 6.5 lb/ft of internally coated tubing will be used as the injection string.
4. An injection packer will be set just above the top of the Mesa Verde Sands at a depth of approximately 2100'.

No wells within the area of review produce from the Mesa Verde or Dakota sands.

**PROPOSED OPERATION:**

(As Related to Section VII of the OCD Application Form C-108)

The Trading Post Disposal #1 (formerly Canyon #14) was drilled and completed as an upper Dakota producer. It was a marginal Dakota gas well that has depleted the gas reserves from this area. The Gallup was tested at uneconomical rates and subsequently was cement squeezed. After purchasing the well Maralex cement squeezed the upper Dakota and then perforated and fracture stimulated the lower Dakota. An attempt was made to inject water into the lower Dakota under matrix pressures, however the extremely low permeability, resulted in a very low injection rate. With NMOCD approval Maralex will add the upper Dakota and Mesa Verde intervals and complete the well as a commingled water disposal well. The proposed procedure is as follows:

1. Perforate the upper Dakota (5879'-5883' & 5900'-5908') and pump an acid breakdown treatment.
2. Isolate the upper and lower Dakota perforations. Perforate the production casing and pump a cement squeeze to allow good cement across the Mesa Verde interval. Run a CBL and resqueeze if necessary. Perforate the Mesa Verde interval from 2100'-3605' (gross interval – the perforations will be picked after the cement bond log has been analyzed). The Mesa Verde perforations will be broken down with acid and fracture stimulated. This zone will be tested to ensure that it is not hydrocarbon productive. In this area the Mesa Verde was used as a water supply source for the East Carson Gallup waterflood.
3. Commingle the Mesa Verde with the Dakota perforations. A packer will be set above the Mesa Verde with 2 7/8" plastic coated tubing used as the injection string. The tubing-casing annulus will be filled with inhibited packer fluid. A casing integrity test as well as a step rate test will be conducted with a NMOCD witness before commencing the commingled Mesa Verde and Dakota injection.
4. The disposal system will operate totally contained. Water from some of the producing wells will be pumped through a pipeline to the proposed disposal site, where it will be filtered before it is disposed of in the injection well. Produced water from some of the further extensions wells will be trucked to the disposal site. There will not be any open-top water pits or tanks.
5. As previously referenced a step rate injectivity test will be conducted on the new disposal well to determine the maximum injection pressure that water can be injected below the fracture gradient of the Mesa Verde and Dakota Sands. Typical wells in this area have seen a fracture gradient of approximately 0.64 psi/ft. We expect to inject approximately 1000 BWPD which will decline as the coal wells are dewatered.
6. Water analysis are included with this application showing the Fruitland coal seam water quality from our surrounding Trading Post wells. There are no known compatibility issues associated with the mixing of coal seam water with the Lower Dakota formation.

**GEOLOGICAL DESCRIPTION – LOWER DAKOTA SANDS:**

(As Related to Section VIII of the OCD Application Form C-108)

The proposed target interval for disposing of the produced water is the Mesa Verde and the Dakota. The formations in this area, with their tops as picked following the original completion, are as follows: (Depths are measured from KB to the top of each formation) KB level = 6564'.

	<u>Depth</u>	<u>Thickness</u>	<u>Lithology</u>
Upper Dakota	5807'	148'	Interbedded sandstones, siltstones and shales
Lower Dakota	5954'	96'	Interbedded sandstones, siltstones and shales
Mesa Verde	2100'	1500'	Interbedded sandstones, siltstones and shales

As the attached maps show, there are a number of wells drilled in the immediate vicinity but not many Dakota completions. The closest Dakota well is approximately  $\frac{3}{4}$  mile away and was P&A'd. The Mesa Verde has not produced hydrocarbons in this area. As previously referenced, in this area, the Mesa Verde was used as a water supply source for the Gallup waterflooding. After perforating the Mesa Verde, the interval will be tested to insure that the interval is not hydrocarbon productive.

**PROPOSED STIMULATION PROGRAM:**

(As Related to Section IX of the OCD Application Form C-108)

After perforating the Upper Dakota an acid breakdown treatment will be pumped. The Dakota will be isolated and remedial cement squeeze work will be conducted to ensure good cement integrity across the Mesa Verde. The Mesa Verde perforations will be stimulated with acid and fracture stimulated.

**LOGGING AND TESTING PROGRAM:**

(As Related to Section X of the OCD Application Form C-108)

A Dual Induction-Laterlog and an FDC-CNL log were originally run on this well and presumably submitted to the NMOC. After the remedial cement squeeze of the Mesa Verde a cement bond log will be obtained to insure that a good cement bond exists across this interval.



**POTENTIAL FRESH WATER ZONES:**

(As Related to Section XI of the OCD Application Form C-108)

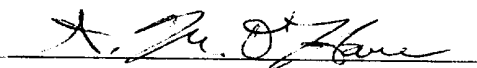
There are no known fresh water wells within a one-mile radius of the proposed disposal well.

**AFFIRMATIVE STATEMENT**

(As Related to Section XII of the OCD Application Form C-108)

Certification:

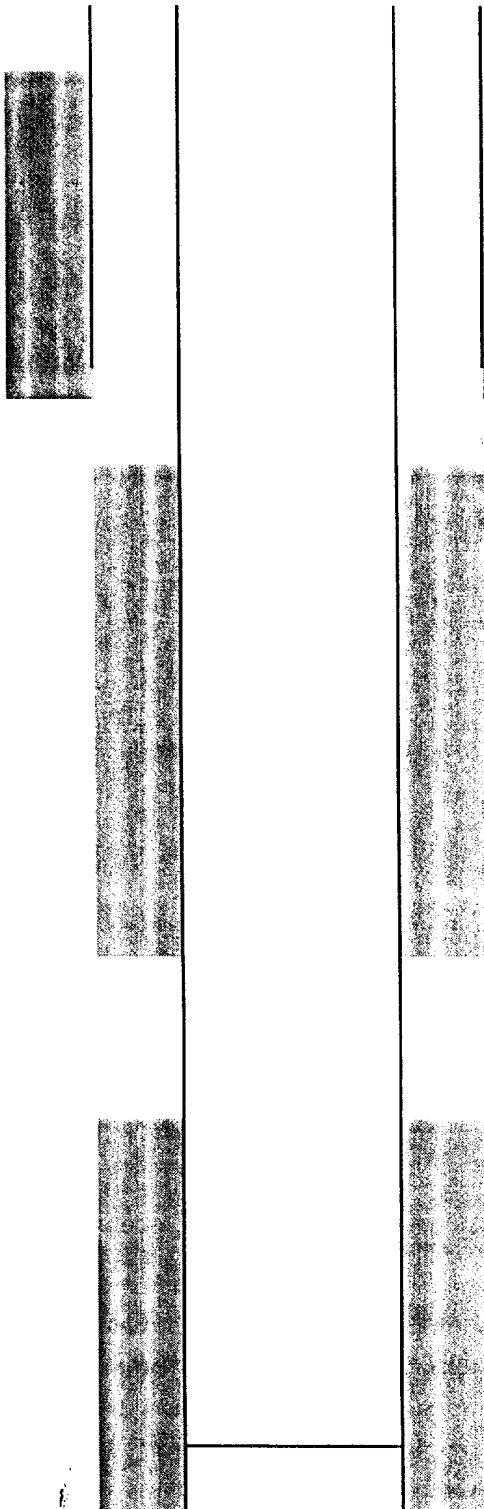
I hereby certify that I, or persons under my direct supervision, have inspected the proposed produced water disposal well site and found no evidence of open faults or any other hydrologic connection between the proposed disposal zone and any underground sources of drinking water and, that I am familiar with the conditions which currently exist and that the statements made in this application are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Maralex Disposal, LLC, and its contractors and subcontractors in conformity with this application and the terms and conditions under which it is approved.



A.M. O'Hare

Maralex Disposal, LLC

**MARALEX RESOURCES, INC.**  
**TRADING Post Disposal #1**  
**WELLBORE DIAGRAM**  
**CURRENT CONFIGURATION**



ESTIMATED TOP OF CEMENT: 176'

12-1/4" HOLE

8-5/8", 24# casing  
@ 608' w/ 300 sacks

CALCULATED TOP OF 2ND STAGE CEMENT:  
1355' (assuming stage tool @ 3700'.)

7-7/8" HOLE

STAGE TOOL @ ?

SQUEEZED PERFORATIONS:

5879'-5883, 5900'-5908'

5011'-5021'

5902'-5906'

DATE SQUEEZED:

7/25/74

3/5/76

Jun-01

CALCULATED TOP OF 1ST STAGE CEMENT:  
5100'

OPEN PERFORATIONS:

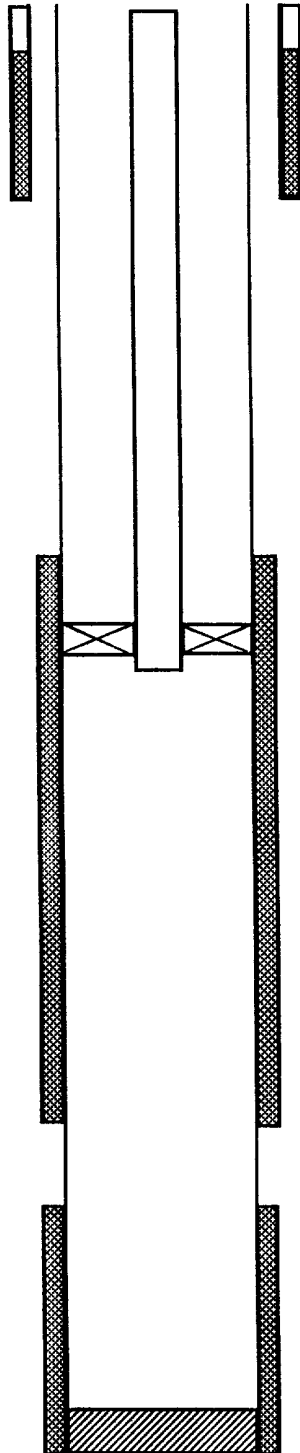
5960-5966', 6014-6032'

PLUG BACK DEPTH 6017'

5-1/2", 15.5# casing  
@ 6060' w/ 800 sacks in 2 stages

## TRADING POST DISPOSAL #1

### Wellbore Diagram Disposal Configuration



**8 5/8" 24 lb/ft set @ 608'**  
**12 1/4" hole - Cmt w/ 300 sxs**  
**Estimated Cmt top @ 176'**

Injection Perforations will be shot in the Mesa Verde and cement will be circulated to insure that the entire interval has a good cement bond. This may require several squeeze attempts. A final CBL will be obtained and submitted to the NMOCD. The Mesa Verde perforations will be picked after evaluating the CBL.

Stage Tool @ 3700' (est.)  
Calculated top of 2nd stage cement = 3700'

Injection packer set at approximately 2100' (depending on Mesa Verde perforations)

2 7/8" plastic coated tubing set @ 2100'

#### Open Perforations:

Mesa Verde - Intervals to be picked after cmt. sqz. & CBL

Upper Dakota - 5879-5883' & 5900-5908'

Lower Dakota - 5958-5968', 6012-6032'

#### Sqz/ Perforations:

5011-5021'

5879-5883', 5900-5908'

5902-5906'

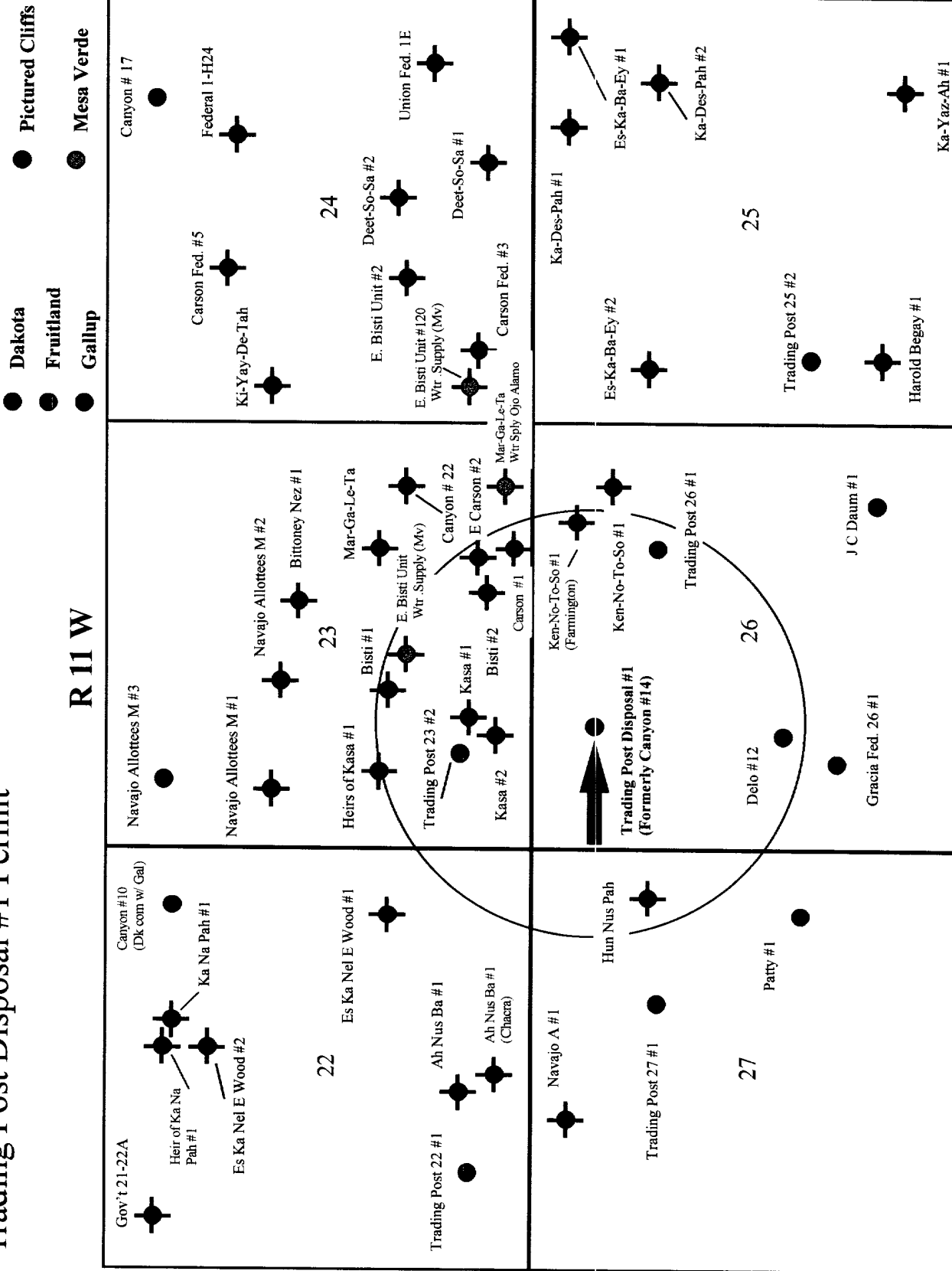
Calculated Top of 1st Stage == 5100'

PBTD @ 6055'

**5 1/2" 15.5 lb/ft J-55 set @ 6060'**  
**Cmt. w/800 sxs in 2 stages**  
**Est. float collar @ 3700'**

San Juan County, N.M.

# Trading Post Disposal #1 Permit

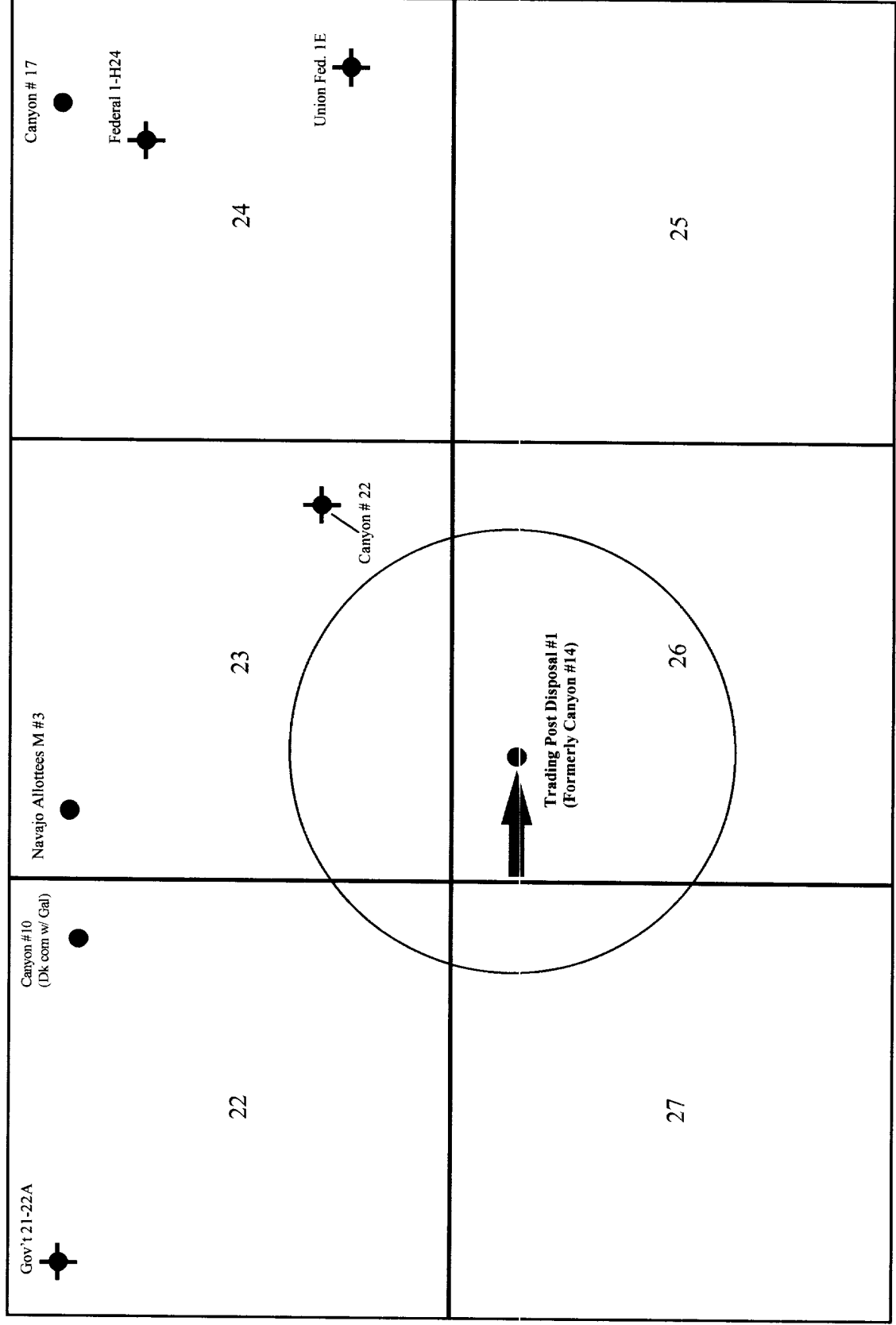


**T 25 N**

Maralex Resources, Inc.  
San Juan County, N.M.  
Trading Post Disposal #1 Permit  
Dakota Wells

● Dakota

R 11 W

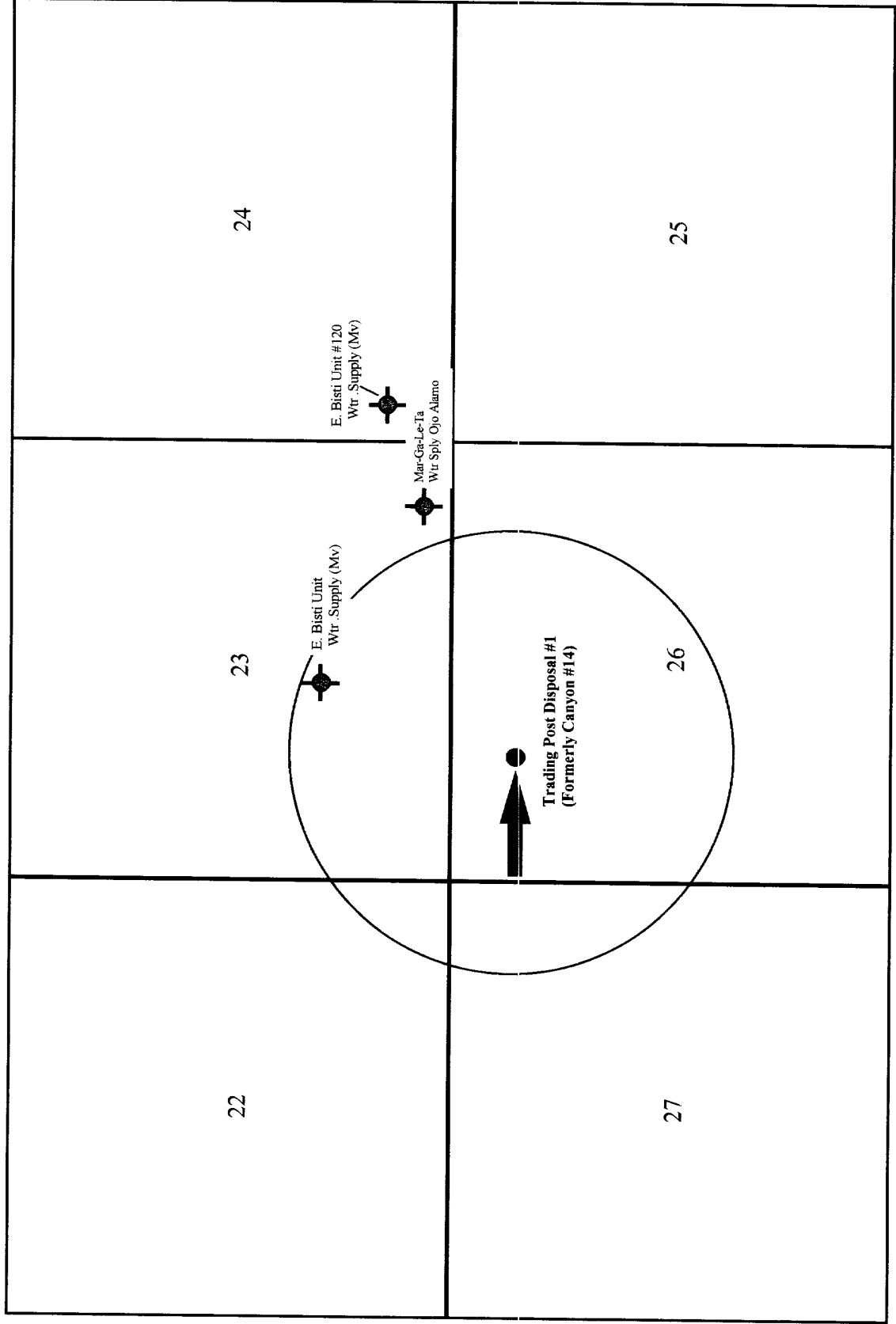


T 25 N

Maralex Resources, Inc.  
San Juan County, N.M.  
Trading Post Disposal #1 Permit  
Mesa Verde

● Mesa Verde

R 11 W

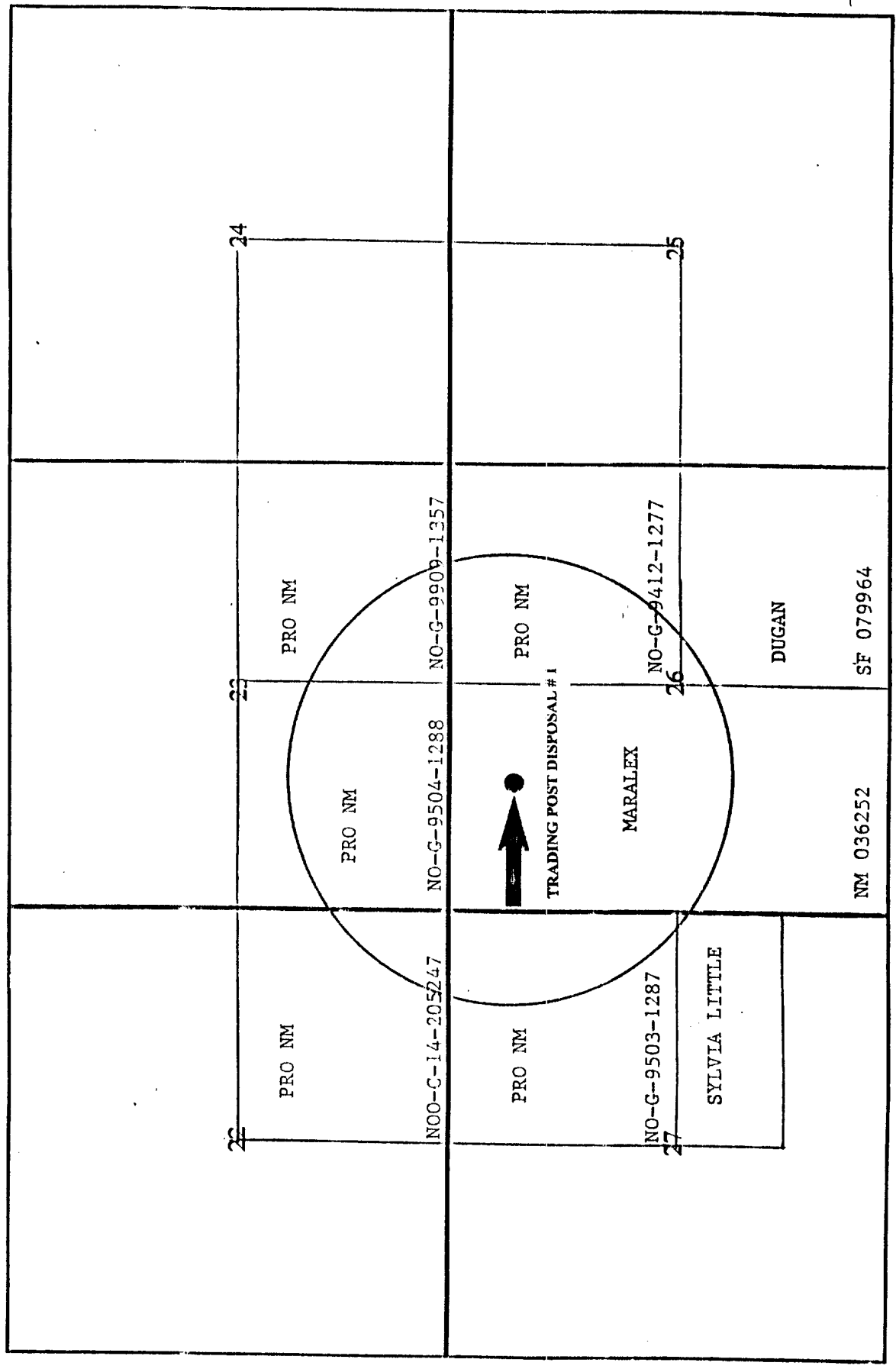


Maralex Disposal, LLC  
San Juan County, N.M.  
TRADING POST DISPOSAL # 1 PERMIT

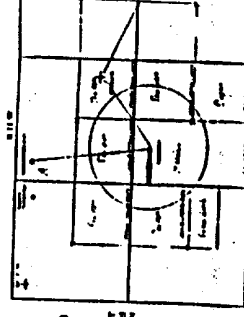
OFFSET OPERATOR MAP

R 11 W

T 25 N



CANYON #22  
D&A 10/76  
1850' FSL. 790' FEL, SEC 23, T25N, R11W



12/99 CUM = 674 NIMCF  
CURRENT RATE = 0 MC/FD





## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 870-563-4118 Report #: BLMM0853  
Well Name: Trading Post # 1 Formation: Flow Back

Anthrone test for broken Gel - Negative

Specific Gravity	1.015	
pH	7.51	
Resistivity	0.72	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	300	Mg / L
Sodium (Na)	6272	Mg / L
Calcium (Ca)	141	Mg / L
Magnesium (Mg)	51	Mg / L
Chlorides (Cl)	9900	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	773	Mg / L
Total Dissolved Solids	17437	Mg / L

  
Respectfully, Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

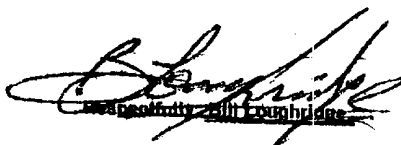


## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 970-963-4116 Report #: BLMM0162  
Well Name: Trading Post 22 # 1 Formation: Flow Back

Anthracene test for broken Gel - Negative

Specific Gravity	1.012	
pH	7.87	
Resistivity	0.78	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	300	Mg / L
Sodium (Na)	5706	Mg / L
Calcium (Ca)	124	Mg / L
Magnesium (Mg)	48	Mg / L
Chlorides (Cl)	9100	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	732	Mg / L
Total Dissolved Solids	16069	Mg / L



Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

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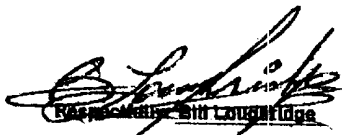


## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 970-583-4116 Report #: BLMM0155  
Well Name: Trading Post 23 # 2 Formation: Flow Buck

Anthrone test for broken Gel - Negative

Specific Gravity	1.026	
pH	7.55	
Resistivity	0.73	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	300	Mg / L
Sodium (Na)	5903	Mg / L
Calcium (Ca)	100	Mg / L
Magnesium (Mg)	73	Mg / L
Chlorides (Cl)	9300	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	813	Mg / L
Total Dissolved Solids	16490	Mg / L



Kenneth W. Loughridge

Title: Senior Scientist

Location: Farmington, NM

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## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 970-863-4116 Report #: SLMM0484  
Well Name: Trading Post 25 #2 Formation: Flow Back

Anthrone test for broken Gel - Negative

Specific Gravity	1.016	
pH	7.80	
Resistivity	0.74	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	100	Mg / L
Sodium (Na)	5928	Mg / L
Calcium (Ca)	129	Mg / L
Magnesium (Mg)	37	Mg / L
Chlorides (Cl)	9100	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	813	Mg / L
Total Dissolved Solids	16107	Mg / L

  
Respectfully, Sam Loughridge

Title: Senior Scientist

Location: Farmington, NM

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HALLIBURTON

## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 870-583-4116 Report #: BLMM0656  
Well Name: Trading Post 28 #1 Formation: Flow Back

Anthrone test for broken Gel - Negative

Specific Gravity	1.020	
pH	7.87	
Resistivity	0.69	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	100	Mg / L
Sodium (Na)	6220	Mg / L
Calcium (Ca)	108	Mg / L
Magnesium (Mg)	32	Mg / L
Chlorides (Cl)	9500	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	813	Mg / L
Total Dissolved Solids	16773	Mg / L



Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

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## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 970-683-4116 Report #: BLMM0159  
Well Name: Trading Post 27 #1 Formation: Flow Back

Anthrone test for broken Gel = Negative

Specific Gravity	1.018	
pH	7.67	
Resistivity	0.71	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	300	Mg / L
Sodium (Na)	6093	Mg / L
Calcium (Ca)	104	Mg / L
Magnesium (Mg)	39	Mg / L
Chlorides (Cl)	9500	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	813	Mg / L
Total Dissolved Solids	16850	Mg / L



Title: Senior Scientist

Location: Farmington, NM

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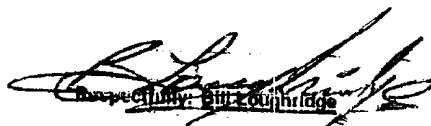
HALLIBURTON

## Water Analysis Report

To: Maralax Resources Date: 11/03/2000  
Submitted by: Halliburton Energy Services Date Rec: 11/03/2000  
Attention: 970-663-4116 Report #: BLMM0652  
Well Name: Trading Post 28 #1 Formation: Flow Back

Anthrone test for broken Gel = Negative

Specific Gravity	1.015	
pH	7.41	
Resistivity	0.74	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	100	Mg / L
Sodium (Na)	6107	Mg / L
Calcium (Ca)	88	Mg / L
Magnesium (Mg)	61	Mg / L
Chlorides (Cl)	9400	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.9	Mg / L
Bicarbonates (HCO <sub>3</sub> )	773	Mg / L
Total Dissolved Solids	16529	Mg / L

  
Bill Zoumbride

Title: Senior Scientist

Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.



# Water Analysis Report

To: Maralex  
Submitted by: Halliburton Energy Services  
Attention: Jim Graves; 978-563-4000 (FX-4116)  
Well Name: Gracia Federal 26-1

Date: 9/9/99  
Date Rec: 9/9/99  
Report #: WF-990-0208  
Formation: Flow back Water

Specific Gravity	1.005	
pH	7.42	
Resistivity	0.68	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	150	Mg / L
Sodium (Na)	5880	Mg / L
Calcium (Ca)	112	Mg / L
Magnesium (Mg)	22	Mg / L
Chlorides (Cl)	9000	Mg / L
Sulfates (SO <sub>4</sub> )	0	Mg / L
Carbonates (CO <sub>3</sub> )	0.0	Mg / L
Bicarbonates (HCO <sub>3</sub> )	813	Mg / L
Total Dissolved Solids	15978	Mg / L

  
Responsible: Bill Loughridge

Title: Field Chemist II

Location: Farmington, NM

**NOTICE:**

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.



**SENDER: COMPLETE THIS SECTION**

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

## 1. Article Addressed to:

Pro New Mexico  
460 St. Michael's Drive  
Building 300, Suite 402  
Santa Fe, NM 87505

## 2. Article Number (Copy from service label)

7000 0520 0025 5801 1499

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

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If YES, enter delivery address below: ☐ No

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## 1. Article Addressed to:

Dugan Production Company  
709 E. Murray Drive  
Farmington, NM 87401

## 2. Article Number (Copy from service label)

7000 0520 0025 5801 1505

PS Form 3811, July 1999

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## 1. Article Addressed to:

Little Oil & Gas  
2346 E. 20th  
Farmington, NM 87401

## 2. Article Number (Copy from service label)

7000 0520 0025 5801 1512

PS Form 3811

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If YES, enter delivery address below: ☐ No

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☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

# AFFIDAVIT OF PUBLICATION

Ad. No. 45845

## STATE OF NEW MEXICO County of San Juan:

CONNIE PRUITT, being duly sworn says:  
That she is the Classified Manager of THE  
DAILY TIMES, a daily newspaper of general  
circulation published in English at Farmington,  
said county and state, and that the hereto  
attached Legal Notice was published in a  
regular and entire issue of the said DAILY  
TIMES, a daily newspaper duly qualified for  
the purpose within the meeting of Chapter 167  
of the 1937 Session Laws of the State of New  
Mexico for publication on the following day(s):  
Monday, March 18, 2002.

And the cost of the publication is \$30.23

Connie Pruitt

ON 3/20/02 CONNIE PRUITT appeared  
before me, whom I know personally to be the  
person who signed the above document.

Genny Beck  
My Commission Expires April 2, 2004.

## COPY OF PUBLICATION

918 Legals

Notice is given of **Maralex  
Disposal, LLC** amendment to  
Order No. SWD-782 for  
authorization of a produced  
water disposal well located as  
follows:

950' FNL; 1600' FWL  
Section 26-T25N-R11W  
San Juan County,  
New Mexico

The well will serve as a  
produced water disposal well  
for the Fruitland coal seam  
water from nearby production  
wells. Produced water  
disposal in the commingled  
Dakota and Mesa Verde  
formations is requested.  
Anticipated injection rate of  
1000 barrels of water per day  
is expected with a maximum  
injection pressure of 2000 psi.

Interested parties must file  
objections or requests for  
hearing with the Oil  
Conservation Division, 1220  
St. Francis Drive, Santa Fe,  
New Mexico 87504, within 15  
days.

Legal No. 45845, published in  
The Daily Times, Farmington,  
New Mexico, Monday, March  
18, 2002.