223933354 SWD 9/10/02

MARALEX
Disposal, LLC

P O Box 338
Ignacio, Colorado 81137
(970) 563-4000
FAX (970) 563-4116

AUG 26 2002

August 21, 2002

State of New Mexico
Oil Conservation Division
Attn: David Catanach
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Bisti No. 2
API No. 30-045-25784
740' FSL; 1860' FEL
Section 23-T25N-R11W
San Juan County, NM

Mr. Catanach:

The above captioned well was purchased by Maralex Resources, Inc., effective August 1, 2002 with the intention of converting the well to a produced water disposal well. The previous operator was Pro NM Energy, Inc. Subsequently, the operator of the well was then transferred to Maralex Disposal, LLC effective 08/14/02. In addition, the well name was changed from the Bisti No. 2 to the Trading Post Disposal No. 2. The appropriate forms are being sent to the NMOCD, Aztec District Office, for approval of these changes. Additionally, the BLM will be sent the appropriate BLM forms to notify them of the same.

Because the turn-around time for approval of the above-mentioned changes can sometimes be somewhat lengthy, we felt it necessary to proceed in mailing the produced water disposal application (C-108) to you in advance. The application is sent to you with Maralex Disposal, LLC as the operator and the well is referenced as the Trading Post Disposal No. 2.

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

Sincerely,

Maralex Resources, Inc./ Maralex Disposal LLC
Carla S. Shaw

Carla S. Shaw
Production Technician

cc: A.M. O'Hare
Dennis Reimers
NMOCD-Aztec-Steve Hayden
BLM-Stephen Mason
FIMO-Kevin Gambrell

Sinclair 9/83

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised 4-1-98

## APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: MARALEX DISPOSAL, LLC

ADDRESS: P.O. Box 338, Ignacio, CO 81137

CONTACT PARTY: A.M. O'Hare 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? __X__ Yes _____ No
If yes, give the Division order number authorizing the project: Trading Post SWD-782-A

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. See Attachment 1

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).

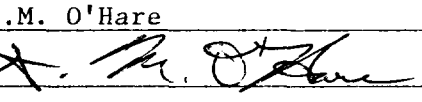
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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:  DATE: 08/20/02

* 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

Side 1

# INJECTION WELL DATA SHEET

OPERATOR: MARALEX DISPOSAL, LLC

WELL NAME & NUMBER: TRADING POST DISPOSAL NO. 2 (formerly known as Bisti No. 2)

WELL LOCATION: 740' FSL; 1860' FEL | O | 23 | 25N | 11W

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

***WELLBORE SCHEMATIC***

Schematic Attached Within This Application.

***WELL CONSTRUCTION DATA***

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 210 sx. *or* 248 $ft^3$

Top of Cement: Surface Method Determined: _____

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ $ft^3$

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 900 sx. *or* _____ $ft^3$

Top of Cement: Surface Method Determined: _____

Total Depth: 5100'

Injection Interval

4962' 5004' feet to 4980' (Marye Bar) 5010' (Huerfano)

(Perforated or Open Hole; indicate which)

Side 2

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.

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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.

Side 2

## INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: Internally Coated Plastic

Type of Packer: Permanent Injection Packer

Packer Setting Depth: Approximately 4950'

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 & Gas Production

2. Name of the Injection Formation: Gallup

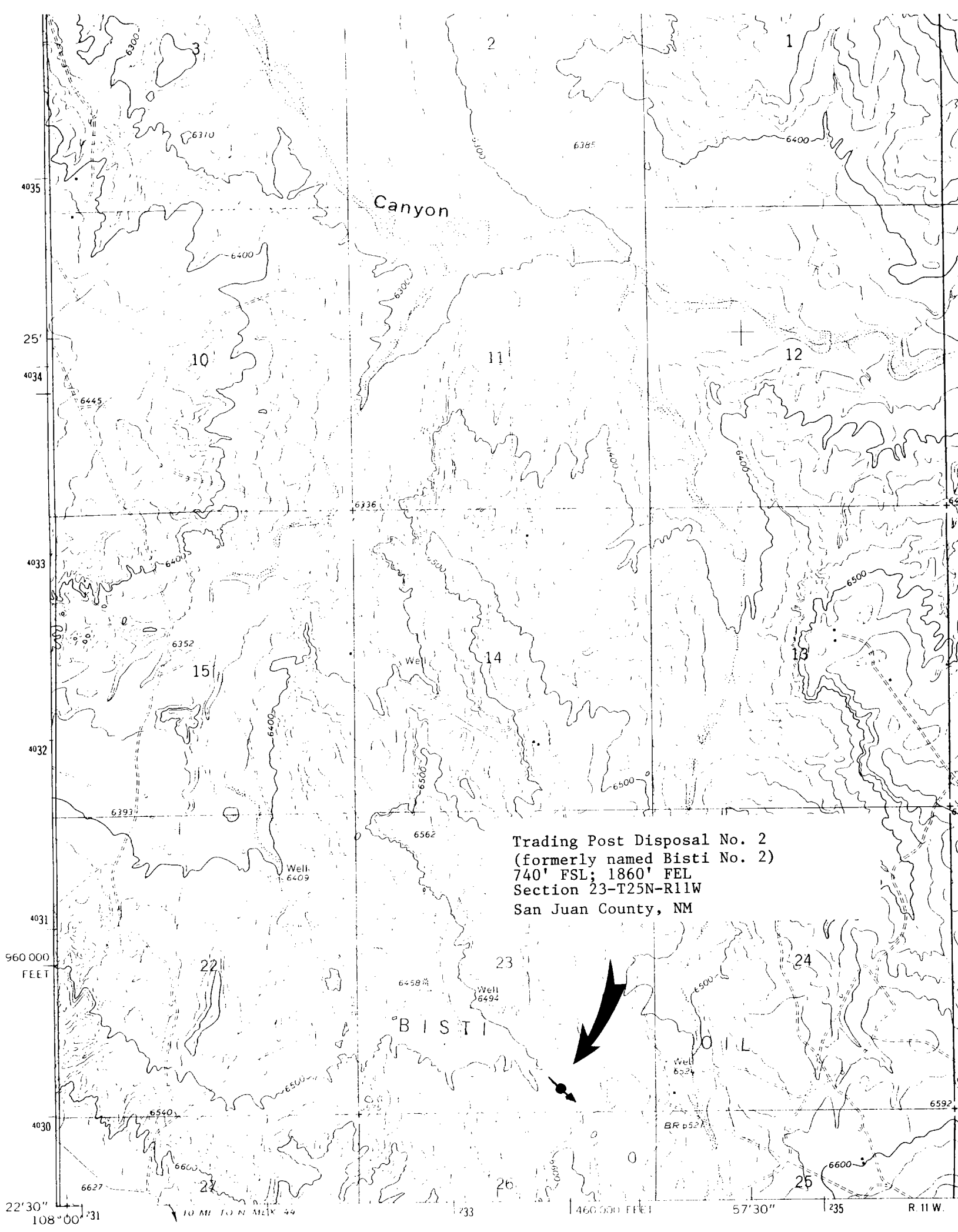
3. Name of Field or Pool (if applicable): Bisti Lower Gallup

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.

   Huerfano Perforations 5004'-5010' > Gallup Lower Gallup
   Marye Bar Perforations 4962'-4980'

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

| | |
|---|---|
| Dakota (Offset Well Test) | 5900' - 6100' |
| Gallup (Wet) | 4565' - 5010' |
| Mesa Verde (Wet) | 2045' - 3748' |
| Pictured Cliff (Wet) | 1310' - 1330' |
| Fruitland (Water/Gas) | 1067' - 1310' |




Mapped, edited and published by the Geological Survey

# MARALEX DISPOSAL, LLC
# TRADING POST DISPOSAL # 2
# PROPOSED GALLUP PRODUCED WATER DISPOSAL WELL

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

1. Lease: BIA NO-G-9909-1357

   Well No: Trading Post Disposal #2 (Bisti #2)

   Location: 740' FSL; 1860' FEL, Section 23-T25N-R11W
   San Juan County, NM

2. Casing and Cementing Specifications (as completed September 1973)

| Depth | Hole Size | Casing & Weight | Cement |
|---|---|---|---|
| 312' | 12-1/4" | 8-5/8" 24 lb/ft | 210 sxs. - 248 $ft^3$ - Circ. surf. |
| 5100' | 7-7/8" | 5-1/2" 15.5 lb/ft | 1st Stage: 250 sxs.-DV Tool<br>2nd Stage: 650 sxs.- @ 3895'<br>Circ. cmt. to surface. |

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 Gallup at a depth of approximately 4950'.

   No wells within the area of review produce from the Pictured Cliffs, Mesa Verde, Gallup or Dakota sands. The only active producers in the ½ mile radius of investigation are two Maralex Fruitland Coal producers.

## PROPOSED OPERATION:
(As Related to Section VII of the OCD Application Form C-108)

The Trading Post Disposal #2 (Formerly the Bisti #2) was drilled and completed by Coronado Management Corporation as a Gallup producer in September of 1983. The well was completed in the Huerfano and Mayre Bar intervals. Cumulative recovery from the Gallup is 11,551 barrels of oil and 9614 MCF. The well last produced in January of 1995. After Pro New Mexico purchased the well a casing integrity test was performed. In an effort to return the well to production the Huerfano perforations were isolated with a cement retainer and the complete Mayre Bar interval

was perforated and swab tested. After several days of testing the Gallup tested all water with only a faint trace of oil. Maralex has acquired the well from Pro New Mexico with the vision of converting it to a Gallup produced water disposal well. Our generalized procedure to convert this well to a disposal well is as follows:

1. Move-in a completion rig. Trip in hole with a 4 ¾" bit. Drill out the cement retainer currently set above the Huerfano perforations. Clean out to the PBTD of 5015'.

2. Pickup selective stimulation tools, and pump an acid breakdown treatment on the Huerfano and Mayre Bar perforations within the Gallup Formation.

3. After tripping out of hole with the selective stimulation tools, set an injection packer above the Gallup at 4950'. Internally coated 2 7/8" tubing will be seated in the packer and used as the wells permanent injection tubing. The well will be placed on injection and if required will be fractured stimulated to improve the injection rate.

4. The disposal system will operate totally contained. The disposal tanks, filtration and pump on the nearby Trading Post Disposal #1 will be used to provide injection water to the Trading Post Disposal #2. An injection line will be placed between the two wells with the volume regulated according to the maximum allowable pressure to each wellbore. The Trading Post Disposal #1 is set up with both Fruitland Coal seam water that is shipped by pipeline and hauled by truck. Six - 400 Bbl. tanks provide storage for the water that is to be disposed off at this well.

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 Gallup. Typical wells in this area have seen a fracture gradient of approximately 0.64 psi/ft. We expect to inject approximately 1200 BWPD, which will decline as the coal wells are dewatered. With a true vertical depth of 4962', the anticipated fracture pressure is 1027 psi (surface). The step rate test will be conducted with a field inspector from the NMOCD.

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 Gallup formation.

## GEOLOGICAL DESCRIPTION – GALLUP FORMATION:

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

The proposed target interval for disposing of the produced water is the Huerfano and Mayre Bar intervals of the Gallup. 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 = 6510'.

| | Depth (Top) | Thickness | Lithology |
|---|---|---|---|
| Upper Gallup | 4565' | 390' | Interbedded sandstones, siltstones and shales |
| Lower Gallup | 4955' | 55' | Interbedded sandstones, siltstones and shales |

As the attached maps show, there are very few active wells in the immediate vicinity but quite a few plugged and abandoned wells. The closest producing Gallup wells are in the south-half of section 26 (Delo #12, and the JC Daum #1), and in the south-east of section 27 (Patty #1). These wells are outside the primary area of investigation and are very marginal lower Gallup producers. The attached table summarizes the cumulative recoveries and current rates on these wells:

| | | Cum. Rec. (4/1/02) | | Current Rates | |
|---|---|---|---|---|---|
| | Operator | Oil (Bbl) | Gas (MCF) | BOPD | MCFD |
| Delo #12 | Redwolf | 1304 | 1,115,667 | 0.5 | 4 |
| JC Daum #1 | Dugan | 14,593 | 907,136 | 0 | 1 |
| Patty #1 | Little O&G | 10,604 | 297,909 | 0.5 | 26 |

## PROPOSED STIMULATION PROGRAM:

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

After drilling out the cement retainer, that is currently isolating the Lower Gallup, an acid breakdown treatment will be pumped through a selective stimulation tool across both the Lower and Upper Gallup perforations. The water injectivity of the Gallup will be tested. If required the Gallup will be stimulated with a sand propped fracture treatment.

**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 obtained on this well and were presumably submitted to the NMOCD by the original operator. No additional logging is planned. As previously referenced, after the acid breakdown treatment on the Lower and Upper Gallup perforations, a water injectivity test will be conducted to determine if the intervals need to be fracture stimulated. During the original completion these intervals were fracture stimulated, and it appears that sufficient conductivity with the formation exists to allow adequate water injection.

**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)

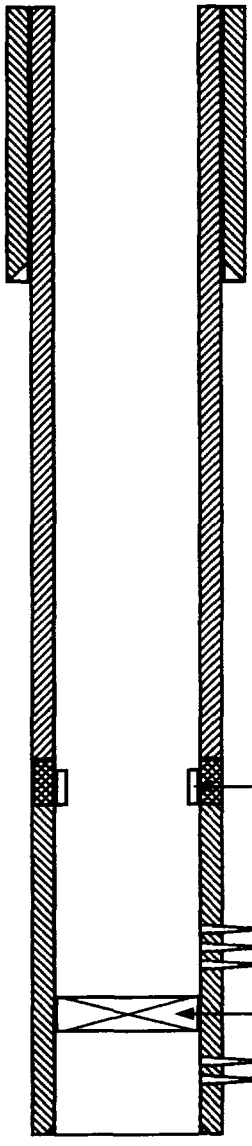
Certification:

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

Trading Post Disposal #2
(Formerly the Bisti #2)
740' FSL, 1860' FEL
S23-T25N-R11W

Current Status



8 5/8" 24 Lb/ft
Csg Set @ 312'
Cmt w/ 210sxs.
247 ft3 – Cmt circ
to surface

2nd Stage Cement Top
Circ. to Surface.

DV Tool @ 3895'

1st Stage Calculated
Cement Top = 3556'

Upper Gallup
4962-4980'

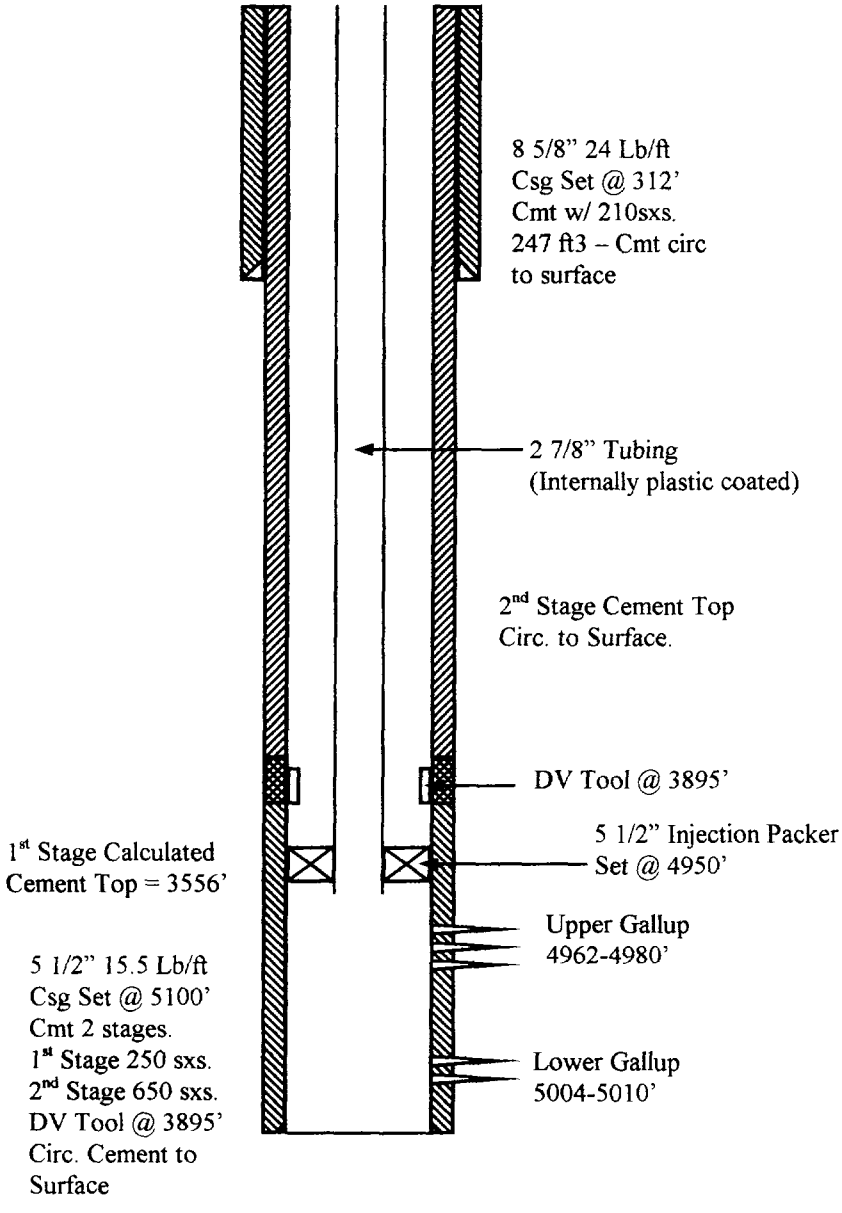
5 1/2" 15.5 Lb/ft
Csg Set @ 5100'
Cmt 2 stages.
1st Stage 250 sxs.
2nd Stage 650 sxs.
DV Tool @ 3895'
Circ. Cement to
Surface

Cmt Retainer Set @ 4994'

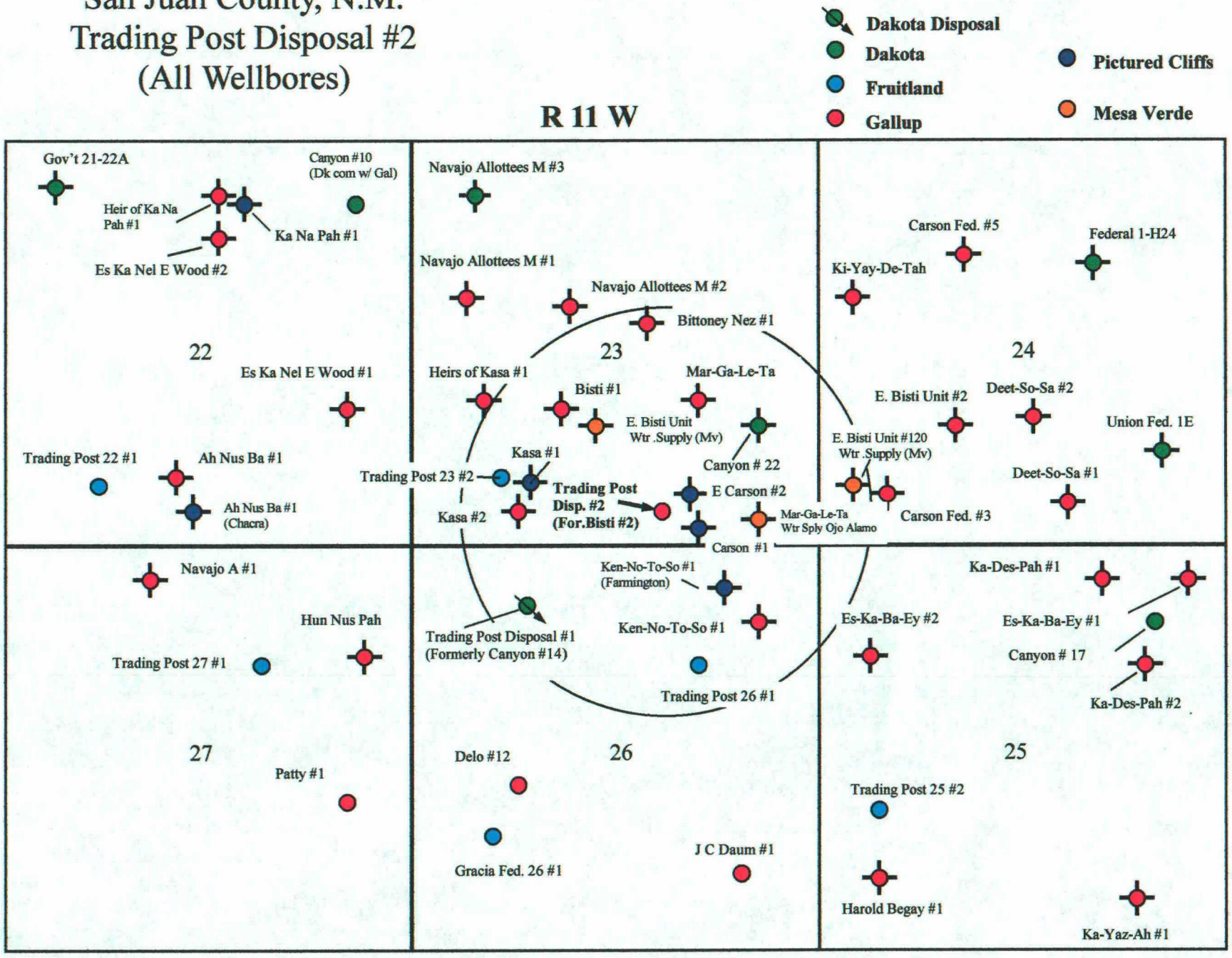
Lower Gallup
5004-5010'

Trading Post Disposal #2
(Formerly the Bisti #2)
740' FSL, 1860' FEL
S23-T25N-R11W

Injection Status

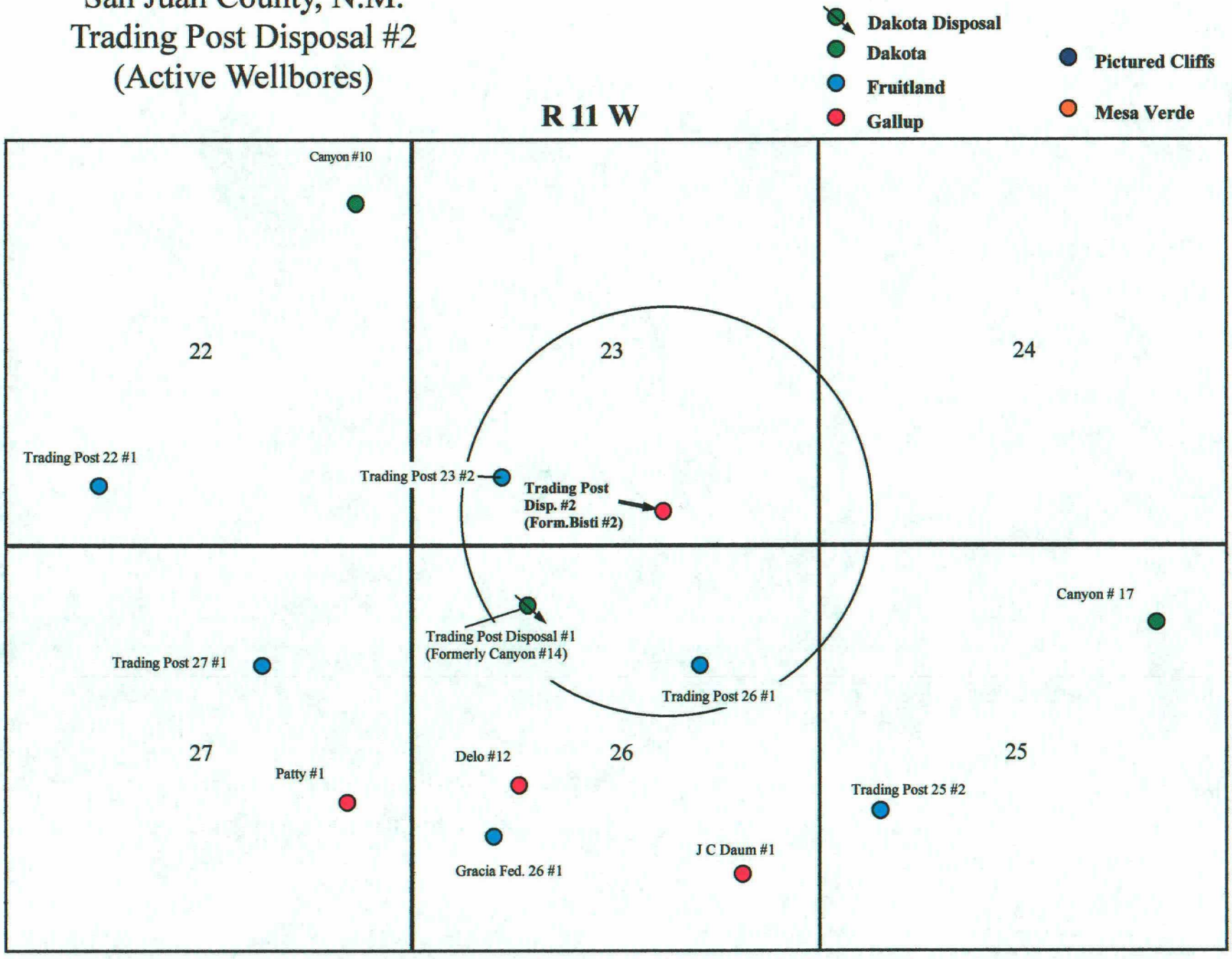


# Maralex Disposal, LLC
# San Juan County, N.M.
# Trading Post Disposal #2
# (All Wellbores)




Attachment No. 1

# Maralex Disposal, LLC
# San Juan County, N.M.
# Trading Post Disposal #2
# (Active Wellbores)

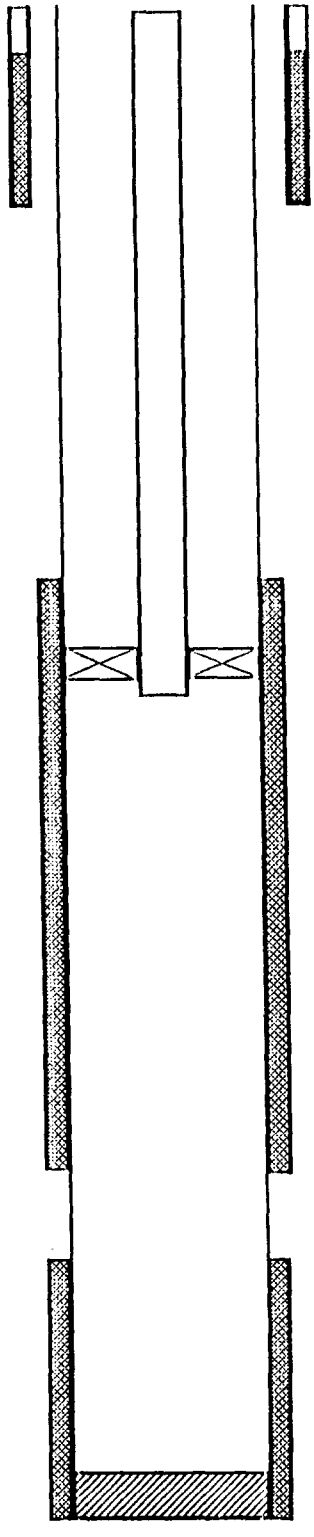



Attachment No. 2

AS RELATED TO SECTION VI OF THE OCD APPLICATION FORM C-108.

# TRADING POST DISPOSAL #1
## Wellbore Diagram
## Disposal Configuration

990' FNL, 1600' FWL
S26-T25N-R11W



**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'

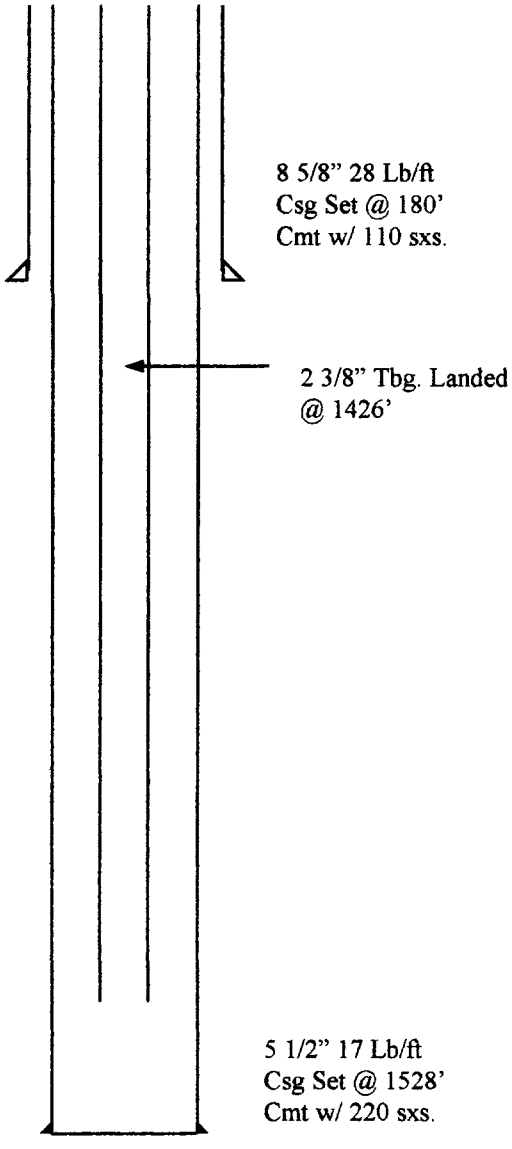
Sqz/ Perforations:
5011-5021'
5879-5883', 5900-5908'
5902-5906'

Calculated Top of 1st Stage = 5100'

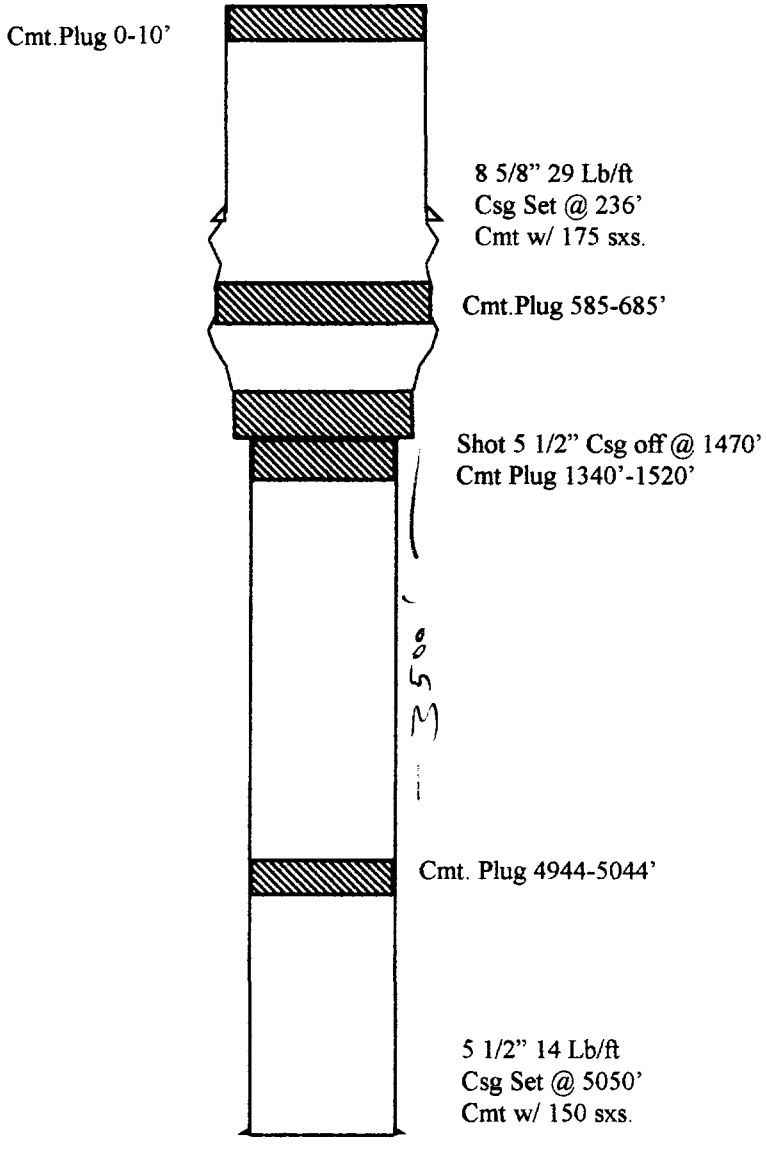
PBTD @ 6055'

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

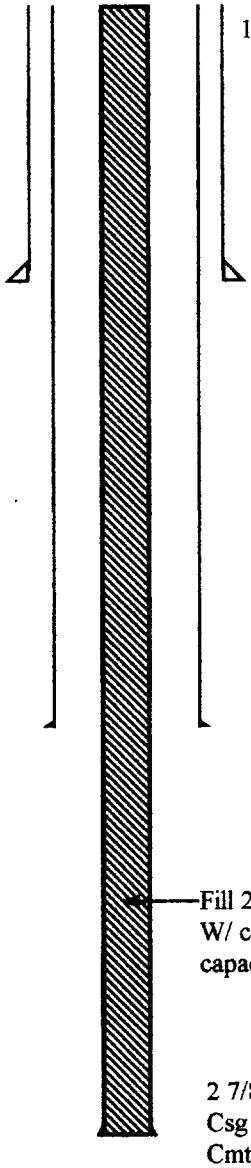
Trading Post 26 #1
1800' FNL, 1500' FEL
S26-T25N-R11W



Ken-No-To #1 (E. Bisti Unit #31)
660' FNL, 660' FEL
S26-T25N-R11W



Ken-No-To #1
840' NL, 840' FEL
S26-T25N-R11W
Water Supply Well



10 sx. Cement Plug

8 5/8" "Csg 24 lb/ft
Set @ 33''
Cmt w/ 10 sxs.

Cement Plug 550-650'

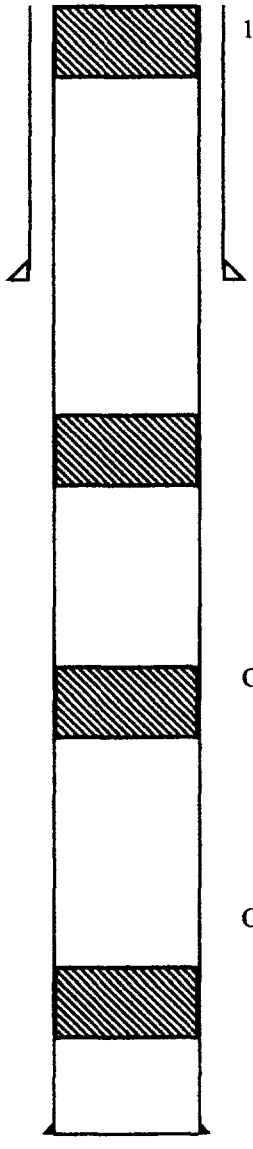
Cement Plug 1345-1445'

5 1/2" 15.5 Lb/ft
Csg Set 905'
Cmt w/ 200 sxs.

Fill 2 7/8" Prod. Csg
W/ cmt 25 % over
capacity

2 7/8" 6.5 Lb/ft
Csg Set 1580'
Cmt w/ 75 sxs.

East Bisti #120
760' FSL, 240' FWL
S24-T25N-R11W
Water Supply Well



10 sx. Cement Plug

16 "Csg Set @
124'
Cmt w/ 110 sxs.

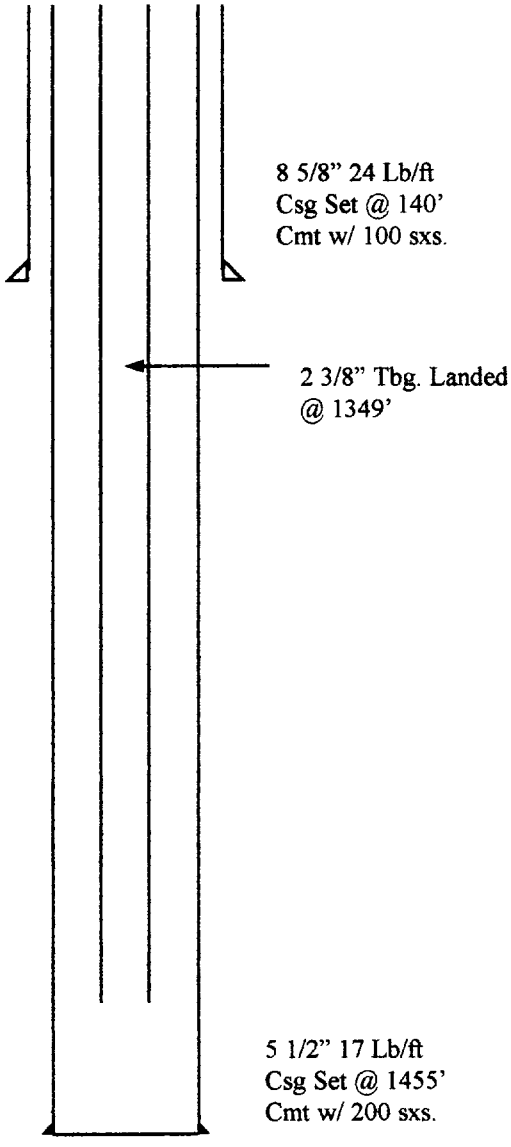
Cement Plug 550-650'

Cement Plug 1345-1445'

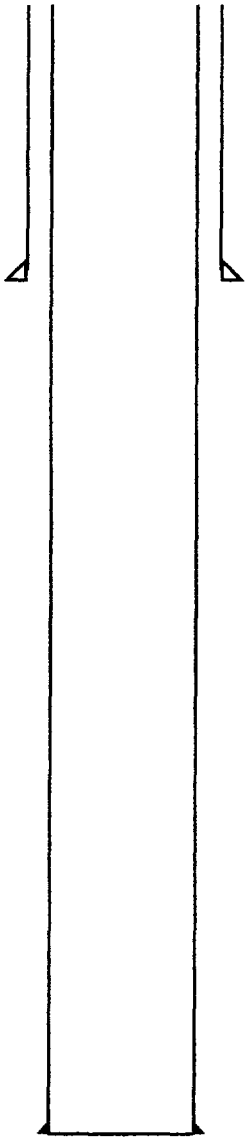
Cement Plug 2025-2125'

9 5/8" Lb/ft Csg
Set @ 2639'
Cmt w/ 300 sxs.

Trading Post 23 #2
900' FSL, 1800' FWL
S23-T25N-R11W



East Bisti #122
2080' FSL, 2060' FWL
S23-T25N-R11W
Water Supply Well

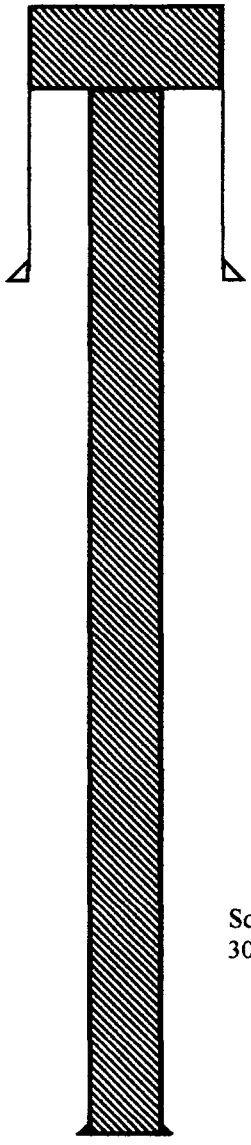


13 3/8Lb/ft Csg
Set @ 300'
Cmt w/ 110 sxs.

No P & A Information
available

7" Lb/ft Csg Set
@ 2411'
Cmt w/ 150 sxs.

East Carson Navajo #1
790' FSL, 1850' FEL
S23-T25N-R11W



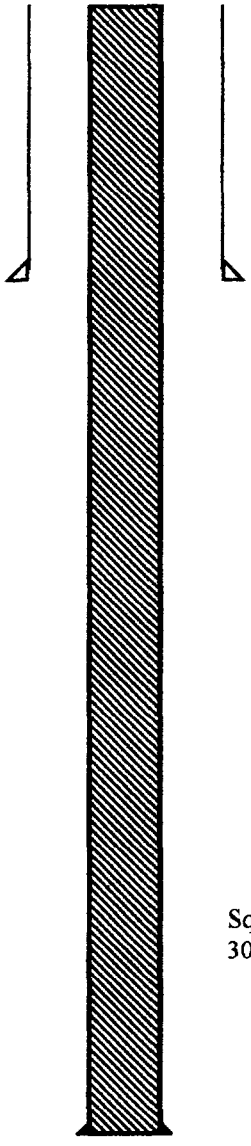
Backed off six joinst 2 7/8"
Set surface plug from to of 2 7/8"
To surface

5 1/2" 15.5 Lb/ft
Csg Set @ 34'
Cmt w/ 5 sxs.

Squeezed 2 7/8" production casing w/ cmt.
30'-1350' 75 sxs.

2 7/8" 6.5 Lb/ft
Csg Set @ 1448'
Cmt w/ 35 sxs.

East Carson #2
960' FSL, 1685' FEL
S23-T25N-R11W



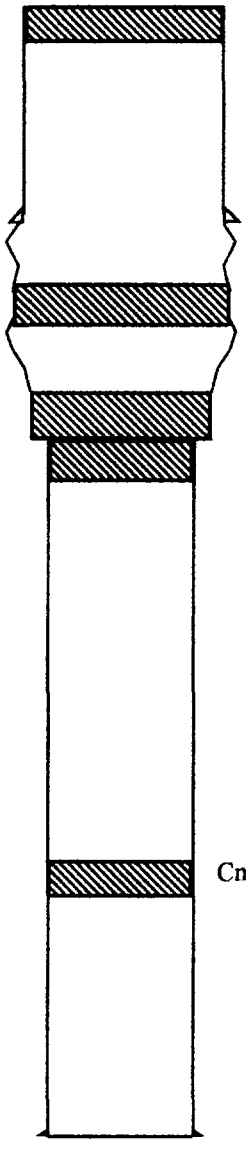
Backed off top joint 2 7/8"
Set 10 sx surface plug

7" 24 Lb/ft Csg
Set @ 95'
Cmt w/ 35 sxs.

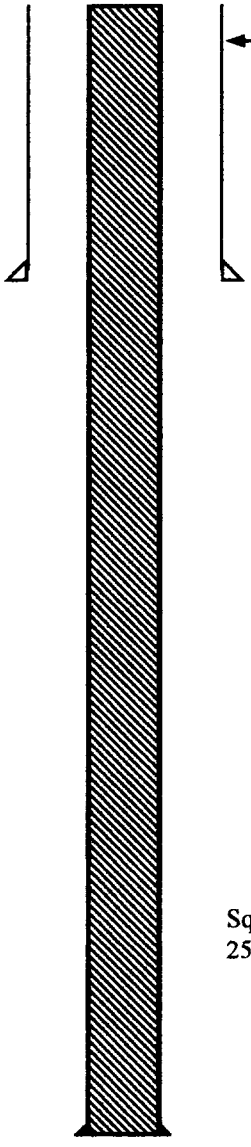
Squeezed 2 7/8" production casing w/ cmt.
30'-1350' 75 sxs.

2 7/8" 6.5 Lb/ft
Csg Set @ 1360'
Cmt w/ 125 sxs.

Ko-Sa #2 (E. Bisti Unit #29)
660' FSL, 1979' FWL
S23-T25N-R11W



Ko-Sa #1 #1
870' FSL, 1850' FWL
S23-T25N-R11W



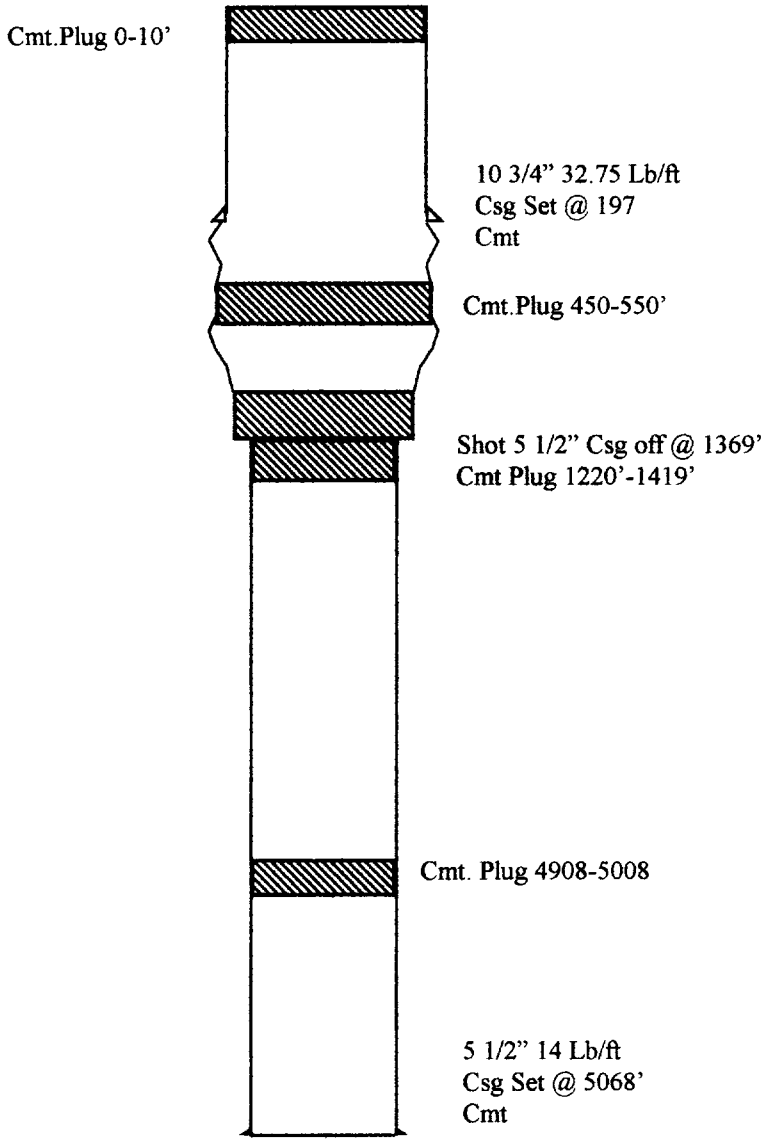
Cmt 5 1/2" x 8 5/8" Ann.
W/ 1" tbg. 63' from surface

7" 20 Lb/ft Csg
Set @ 35'
Cmt w/ 10 sxs.

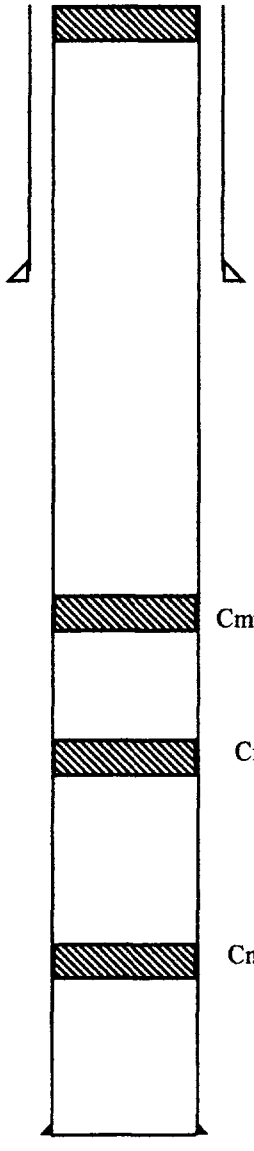
Squeezed 2 7/8" production casing w/ cmt.
25% over capacity

2 7/8" 6.5 Lb/ft
Csg Set @ 1448'
Cmt w/ 175 sxs.

Heirs of Kasa #1 (E. Bisti Unit #20)
1980' FSL, 720' FWL
S23-T25N-R11W



East Bisti #122
2080' FSL, 2060' FWL
S23-T25N-R11W



10 sx Cmt.Plug 50' to sur-

8 5/8" 32 Lb/ft
Csg Set @
Cmt

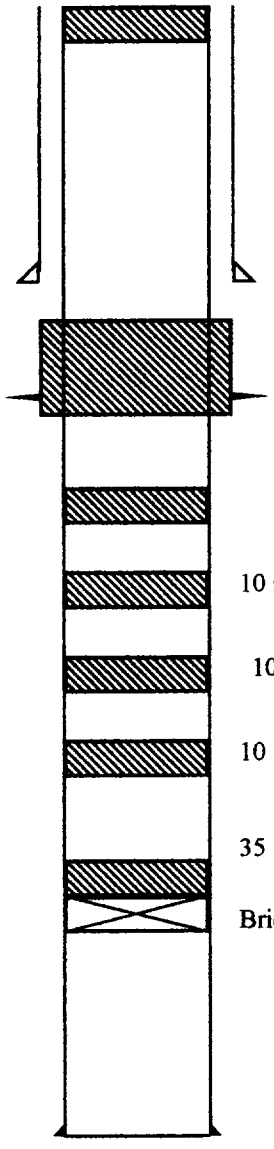
Cmt.Plug 490-590'

Cmt.Plug 1240-1390'

Cmt. Plug 2000'-2621'

51/2" 10.5 Lb/ft
Csg Set 2635
Cmt

Bisti #1
2090' FSL, 1960' FWL
S23-T25N-R11W



5 sx Cmt.Plug 50' to surface

8 5/8" 32 Lb/ft
Csg Set @ 319'
Cmt w/ 137 ft3

Sqz Perfs @ 600' Cmt Plug
From 270'-600' Sqz @ 500 psi

10 sx Cmt.Plug @ 1418'

10 sx Cmt.Plug @ 1750'

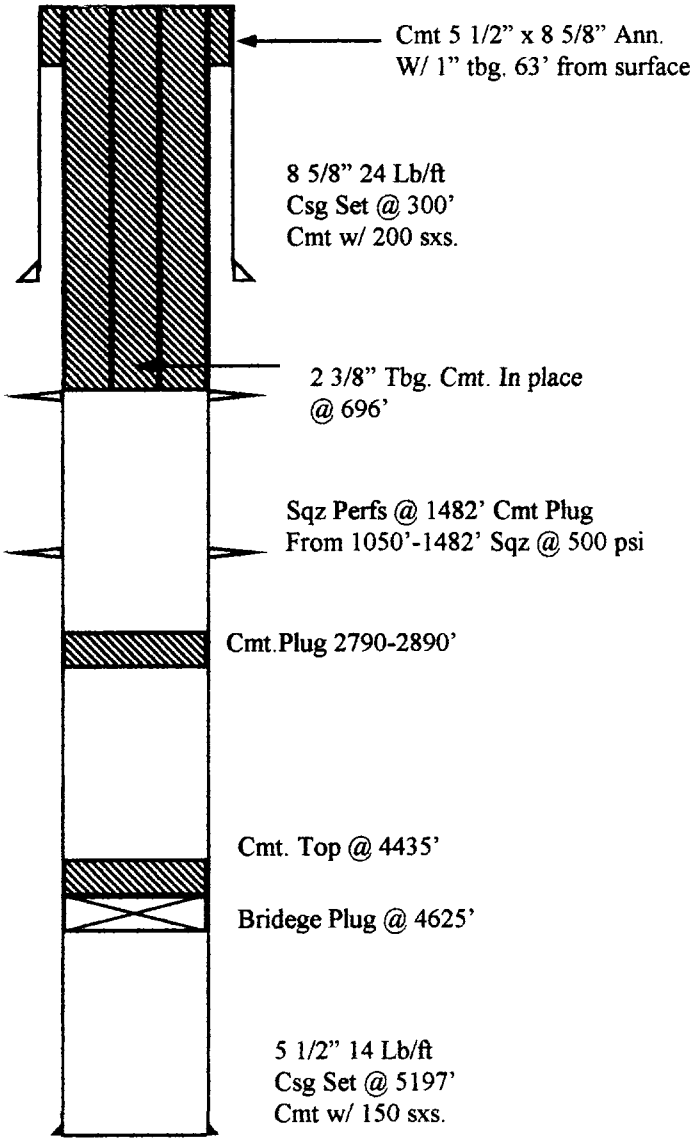
10 sx Cmt.Plug @ 2803'

35 sx. Cmt. Plug

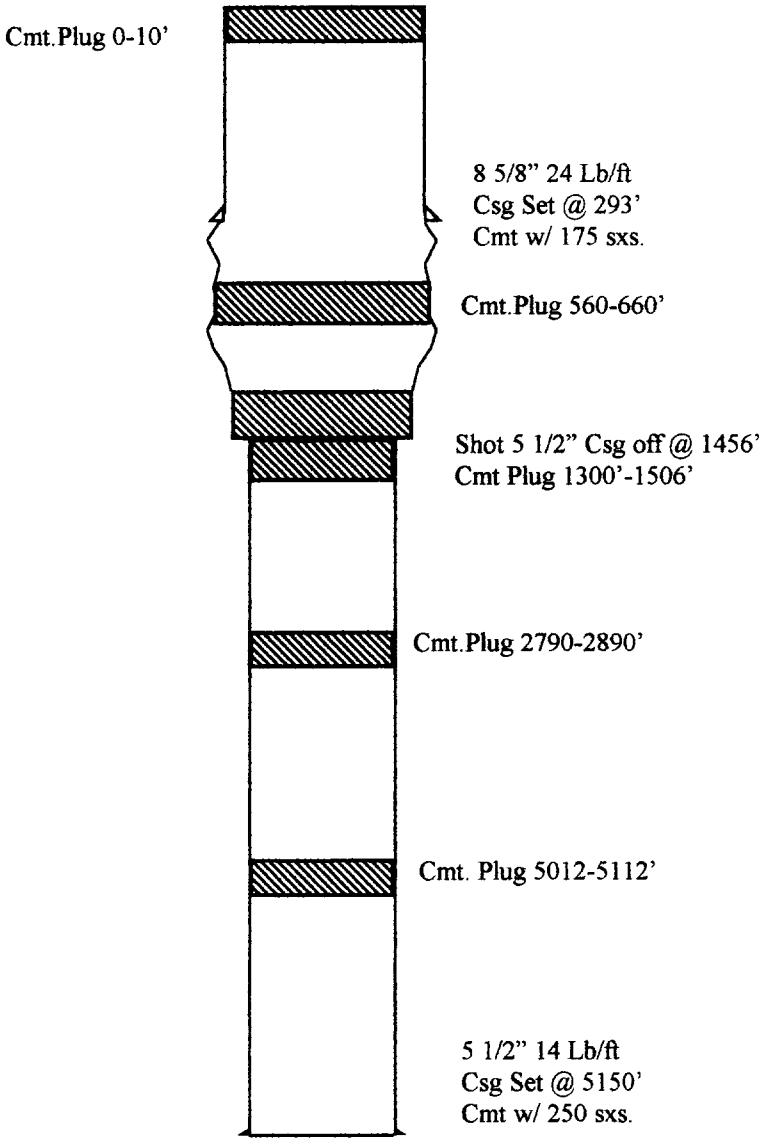
Bridege Plug @ 4902'

41/2" 10.5 Lb/ft
Csg Set @ 5098'
Cmt w/ 970 ft3

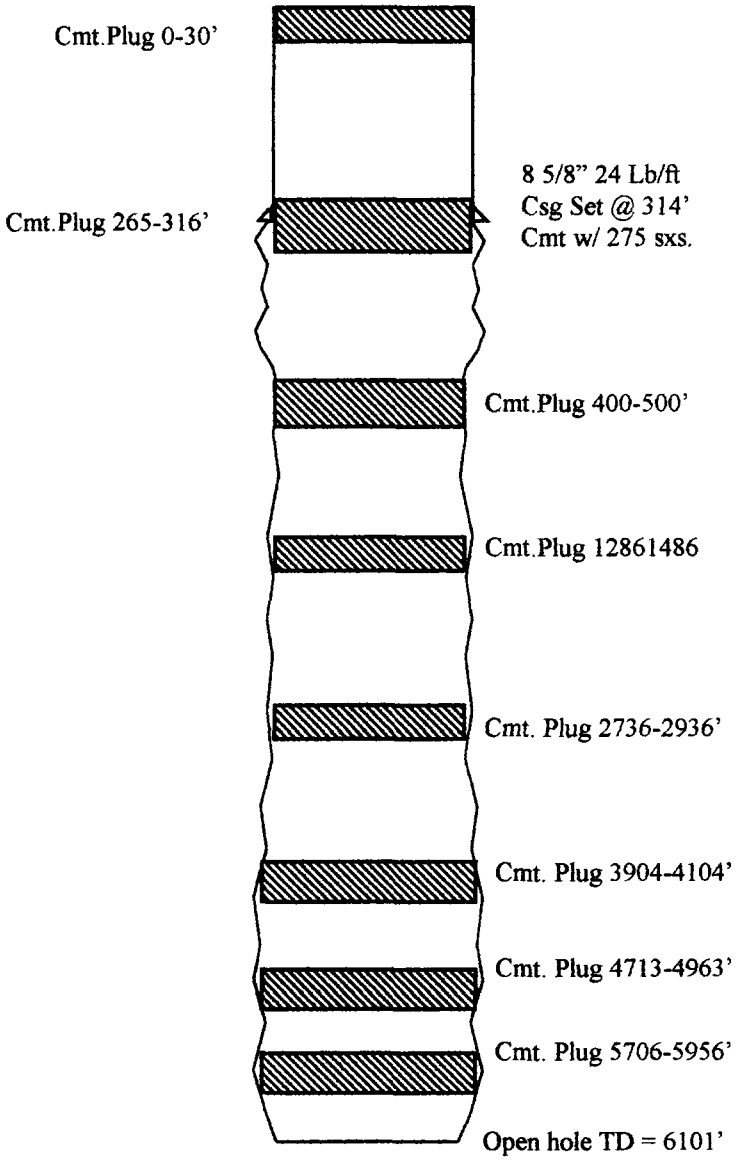
Bittoney Nez #1
2310' FNL, 2310' FWL
S23-T25N-R11W



Mar-Ga-Le-Ta #1 (E. Bisti Unit #21)
1980' FSL, 1980' FEL
S23-T25N-R11W



Canyon #22
1850' FSL, 790' FEL
S23-T25N-R11W



AS RELATED TO SECTION VII, NO.6 OF THE OCD APPLICATION FORM C-108.

HALLIBURTON

# Water Analysis Report

To: Maralax Resources | Date: 11/03/2000

Submitted by: Halliburton Energy Services | Date Rec: 11/03/2000

Attention: 970-563-4116 | Report #: BLMM0653

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 ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 773 | Mg / L |
| Total Dissolved Solids | 17437 | Mg / L |

Respectfully: Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

| | | | |
|---|---|---|---|
| To: | Maralax Resources | Date: | 11/03/2000 |
| Submitted by: | Halliburton Energy Services | Date Rec: | 11/03/2000 |
| Attention: | 970-883-4118 | Report #: | BLMM0852 |
| Well Name: | Trading Post 22 # 1 | Formation: | Flow Back |

Anthrone 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) | 5766 | Mg / L |
| Calcium (Ca) | 124 | Mg / L |
| Magnesium (Mg) | 46 | Mg / L |
| Chlorides (Cl) | 9100 | Mg / L |
| Sulfates ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 732 | Mg / L |
| Total Dissolved Solids | 16069 | Mg / L |

Respectfully, Bill Cowhridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

To: Maralex Resources
Date: 11/03/2000

Submitted by: Halliburton Energy Services
Date Rec: 11/03/2000

Attention: 970-563-4116
Report #: BLMM0655

Well Name: Trading Post 23 # 2
Formation: Flow Back

Anthrone test for broken Gel = Negative

| | | |
|---|---|---|
| Specific Gravity | 1.020 | |
| 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 ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 813 | Mg / L |
| Total Dissolved Solids | 16490 | Mg / L |

Respectfully: Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

| | | | |
|---|---|---|---|
| To: | Maralax Resources | Date: | 11/03/2000 |
| Submitted by: | Halliburton Energy Services | Date Rec: | 11/03/2000 |
| Attention: | 970-563-4116 | Report #: | BLMM0654 |
| 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 ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 813 | Mg / L |
| Total Dissolved Solids | 16107 | Mg / L |

Respectfully: Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

| | | | |
|---|---|---|---|
| To: | Maralax Resources | Date: | 11/03/2000 |
| Submitted by: | Halliburton Energy Services | Date Rec: | 11/03/2000 |
| Attention: | 970-563-4116 | Report #: | BLMM0656 |
| Well Name: | Trading Post 26 #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 ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 813 | Mg / L |
| Total Dissolved Solids | 16773 | Mg / L |

Respectfully: Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

| | | | |
|---|---|---|---|
| To: | Maralax Resources | Date: | 11/03/2000 |
| Submitted by: | Halliburton Energy Services | Date Rec: | 11/03/2000 |
| Attention: | 970-663-4118 | Report #: | BLMM0668 |
| Well Name: | Trading Post 27 #1 | Formation: | Flow Back |

Anthrone test for broken Gel = Negative

| | | |
|---|---|---|
| Specific Gravity | 1.016 | |
| 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 ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 813 | Mg / L |
| Total Dissolved Solids | 16850 | Mg / L |

Respectfully, Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

| | | | |
|---|---|---|---|
| To: | Maralax Resources | Date: | 11/03/2000 |
| Submitted by: | Halliburton Energy Services | Date Rec: | 11/03/2000 |
| Attention: | 970-563-4116 | Report #: | BLM0857 |
| 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 ($SO_4$) | 0 | Mg / L |
| Carbonates ($CO_3$) | 0.0 | Mg / L |
| Bicarbonates ($HCO_3$) | 773 | Mg / L |
| Total Dissolved Solids | 16629 | Mg / L |

Respectfully: Bill Loughridge

Title: Senior Scientist

Location: Farmington, NM

HALLIBURTON

# Water Analysis Report

| | | | |
|---|---|---|---|
| **To:** | Maralex | **Date:** | 9/9/99 |
| **Submitted by:** | Halliburton Energy Services | **Date Rec:** | 9/9/99 |
| **Attention:** | Jim Graves; 970-563-4000 (FX- 4116) | **Report #:** | WF-990-0208 |
| **Well Name:** | Gracia Federal 26-1 | **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 ($SO_4$)** | 0 | Mg / L |
| **Carbonates ($CO_3$)** | 0.0 | Mg / L |
| **Bicarbonates ($HCO_3$)** | 813 | Mg / L |
| **Total Dissolved Solids** | 15978 | Mg / L |

Respectfully: 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:

W.M. Galloway
3005 North Ridge Drive
Suite 1
Farmington, NM 87401

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 1670 0002 8628 9549

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- 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:

BP Amoco
Attn: Gary Weitz
380 Airport Road
Durango, CO 81301

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 1670 0002 8628 9556

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

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- 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:

Central Resources, Inc.
1775 Sherman Street
Suite 2600
Denver, CO 80203-4313

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 1670 0002 8628 9563

PS Form 3811, July 1999 Domestic Return Receipt

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- 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:
Four Star Oil & Gas Co.
3300 North Butler Ave.
Farmington, NM 87401

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label)
7000 1670 0002 8628 9570

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

**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:
Energen Resources Corp.
2198 Bloomfield Hwy.
Farmington, NM 87401

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label)
7000 1670 0002 8628 9594

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

**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:
Kerr-McGee Co.
Attn: Marcus Crosby
1999 Broadway
Suite 3600
Denver, CO 80202

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Copy from service label)
7000 1670 0002 8628 9587

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

MARALEX
Disposal, LLC

P.O. Box 338
Ignacio, Colorado 81137
(970) 563-4000
FAX (970) 563-4116

August 20, 2002

Daily Times
P.O. Box 450
Farmington, NM 87499

Re: Legal Publication

The following information is required to be published according to the rules and regulations of the State of New Mexico, Oil Conservation Division. Please provide us with an Affidavit of Publication. This information is required to run in your newspaper for one day only. Please send bill to the above address.

**Maralex Disposal, LLC**
**P.O. Box 338**
**Ignacio, CO 81137**

**Contact Person:**
**Dennis Reimers (970/563-4000)**

**Notice is given of Maralex Disposal, LLC request for authorization of a produced water disposal well named the Trading Post Disposal No. 2 and located as follows:**

**740' FSL; 1860' FEL**
**Section 23-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 Gallup formation is requested. Anticipated injection rate of 1200 barrels of water per day is expected with a maximum injection pressure of 1000 psi.**

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

Thank you.

Sincerely,

Maralex Disposal, LLC

Carla S. Shaw
Production Technician