11/7/03 12/8/03

| SUSPENSE | ENGINEER | LOGGED IN | TYPE | APP NO. |
|---|---|---|---|---|
| | WVJ | LR | SWD | PLRD0332252711 |

**NEW MEXICO OIL CONSERVATION DIVISION**
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ABOVE THIS LINE FOR DIVISION USE ONLY

# ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

30-039-27533

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
NSL NSP SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
DHC CTB PLC PC OLS OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
WFX PMX (SWD) IPI EOR PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or _ Does Not Apply

(A) Working, Royalty or Overriding Royalty Interest Owners

(B) Offset Operators, Leaseholders or Surface Owner

(C) Application is One Which Requires Published Legal Notice

(D) Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

(E) For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

| Print or Type Name | Signature | Title | Date |
|---|---|---|---|
| BRIAN WOOD<br>(505) 466-8120<br>FAX 466-9682 | B. Wood | CONSULTANT | 11-12-03<br>e-mail Address<br>brian@permitswest.com |

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 XXX Disposal _____Storage
Application qualifies for administrative approval? XXX Yes _____No

II. OPERATOR: ELM RIDGE REOSURCES, INC.

ADDRESS: P. O. BOX 189, FARMINGTON, NM 87499

CONTACT PARTY: BRIAN WOOD c/o PERMITS WEST, INC. PHONE: 505 466-8120

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 XXX No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

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

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE: B Wood DATE: NOV. 11, 2003

* 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

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 1

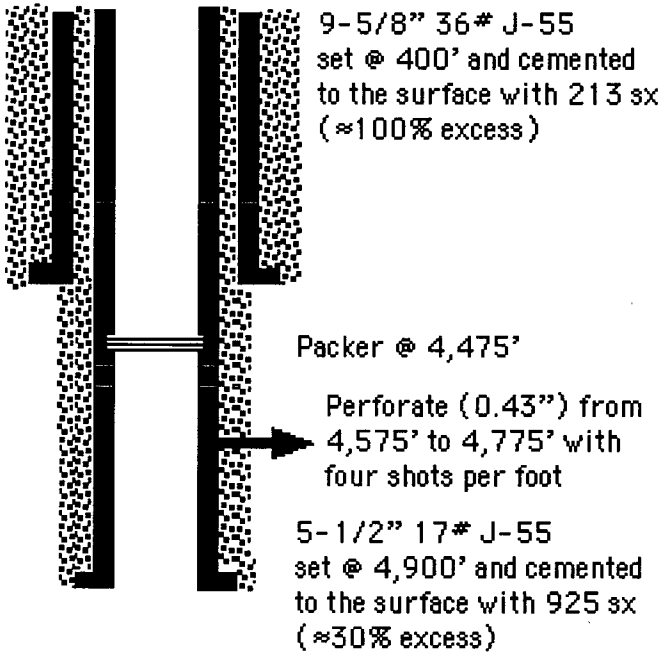
# INJECTION WELL DATA SHEET

OPERATOR: ELM RIDGE RESOURCES, INC.

WELL NAME & NUMBER: LYBROOK YARD WDW #1 (30-039-27533)

| WELL LOCATION: | 988' FNL & 2035' FEL | B | 14 | 23N | 7W |
|---|---|---|---|---|---|
| | FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE |

***WELLBORE SCHEMATIC***




***WELL CONSTRUCTION DATA***

Surface Casing

Hole Size: 12-1/4" Casing Size: 9-5/8" @ 400'

Cemented with: 213 sx. *or* 251 $ft^3$

Top of Cement: SURFACE Method Determined: VISUAL

Intermediate Casing

Hole Size: · Casing Size: ·

Cemented with: · sx. *or* · $ft^3$

Top of Cement: · Method Determined: ·

Production Casing

Hole Size: 8-3/4" Casing Size: 5-1/2" @ 4,900'

Cemented with: 925 sx. *or* 1,640 $ft^3$

Top of Cement: SURFACE Method Determined: VISUAL &

Total Depth: 4,900' BOND LOG

Injection Interval

4,575' feet to 4,775'

(Perforated or Open Hole; indicate which)

Side 2

## INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" 6.5# Lining Material: TUBOSCOPE

Type of Packer: ARROW SET DB OR ITS EQUIVALENT

Packer Setting Depth: ≈4,475'

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

Additional Data

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

   If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: SWD; PONT LOOKOUT OF MESA VERDE

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

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. NO (NEW WELL)

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

   NOW PRODUCING OVERLYING: NONE

   NOW PRODUCING UNDERLYING: GALLUP (5,373')

   DAKOTA (6,000')

ELM RIDGE RESOURCES, INC.
LYBROOK YARD WDW #1
988' FNL & 2035' FEL
SEC. 14, T. 23 N., R. 7 W.
RIO ARRIBA COUNTY, NEW MEXICO

I. Purpose is water disposal.

II. Operator: Elm Ridge Resources, Inc.
Operator phone number: (505) 632-3476
Operator address: P. O. Box 189
Farmington, NM 87499
Contact: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: BLM lease NMSf-078360
Lease Size: 2,565.24 acres
Lease Area: S2 Sec. 13, all Section 14, T. 23 N., R. 7 W. et a
Closest Lease Line: 988'
Well Name & Number: Lybrook Yard WDW #1
Well Location: 988' FNL and 2035' FEL Sec. 14, T. 23 N., R. 7 W.
(see Exhibit A)

A. (2) Surface casing (9-5/8", 36#, J-55, S T & C) will be set at ≈400' in a 12-1/4" hole and cemented to the surface with ≈213 sacks (100% excess) Class G cement + Flocele + $CaCl_2$. Top will be determined by visual observation. Cement will be mixed at 15.6 pounds per gallon and 1.18 cubic feet per sack.
Production casing (5-1/2", 17#, J-55, L T & C) will be set at ≈4,900' in a 8-3/4" hole and cemented to the surface. Top will be determined by visual observation and bond log. Will lead with ≈875 sacks Halliburton Light + gilsonite + Flocele + gel mixed at 12.3 pounds per gallon and 1.8 cubic feet per sack. Will tail with ≈50 sacks 50/50 Poz + gilsonite + Flocele + gel mixed at 15.4 pounds per gallon and 1.30 cubic feet per sack. Exact volume will be determined by open hole caliper log + ≈30% excess.
Mechanical integrity of the casing will be assured by hydraulically pressure testing and charting before perforating.

A. (3) Tubing will be 2-7/8" 6.5# J-55 tuboscope lined injection string. It will be set at ≈4,475' (disposal interval will be ≈4,575' to ≈4,775').

A. (4) Arrow Set Model DB packer or its equivalent will be set at ≈4,475' (which will be ≈100' above top perforation).

B. (1) Disposal zone will be the Point Lookout sandstone member of the Mesa Verde sandstone. Fracture gradient is expected to be a normal ≈0.65 to ≈0.70 psi per foot.

B. (2) Disposal interval will be ≈4,575' to ≈4,775' (well logs will determine exact interval after drilling). It will be perforated (0.43") with four shots per foot.

B. (3) Well has not yet been drilled. It will be drilled for the exclusive use by Elm Ridge and for the sole purpose of water disposal from present and future Elm Ridge wells. Water analyses from Elm Ridge wells in the Fruitland coal and Gallup sandstone are attached.

B. (4) Well bore has not yet been perforated since it has not been drilled. It will be perforated from ≈4,575' to ≈4,775' (logs will determine exact interval after drilling).

B. (5) Top of the Point Lookout is at ≈4,570'. Gas is produced elsewhere in the San Juan Basin from the Point Lookout as part of the Blanco Mesa Verde field and pool. Closest Mesa Verde production is 7 miles northeast in the Devils Fork Mesa Verde. There is no overlying production in Section 14 or any of its 8 adjacent sections. Bottom of the closest overlying potentially productive formation (Pictured Cliffs) is at ≈2,380'. There will be a ≈2,195' interval between the highest injection perforation and the bottom of the Pictured Cliffs. Closest underlying productive formation is the Gallup. Top of the Gallup is at ≈5,370'. There will be a ≈595' interval between the lowest injection perforation and the top of the Gallup.

IV. This is not an expansion of an existing injection project.

V. A map (See Exhibit B) is attached showing all 3 well bores (1 P & A + 1 oil + 1 water) within a half mile radius. A second map (Exhibit C) shows all 80 (8 water + 16 P & A + 56 oil or gas) well bores within a two mile radius. Details on the 3 wells within a half mile radius are below.

| OPERATOR | WELL | WHERE (23n-7w) | ZONE | TD | STATUS |
|---|---|---|---|---|---|
| Bannon | Nancy 14-1 | NWNE Sec. 14 | Gallup | 5,700' | P & A |
| Elm Ridge | Lybrook South 1 | NWNE Sec. 14 | Gallup | 5,700' | Oil |
| Williams | Water Supply | NENW Sec. 14 | Nacimiento | 1,300' | Water |

A map (see Exhibit D) showing all leases (all BLM) within a half mile and all leases (State, Navajo allotted, or BLM) within two miles is attached. Details on the leases within a half mile are:

| AREA (all T. 23 N., R. 7 W) | LEASE # | LESSEES |
|---|---|---|
| S2 Sec. 11, S2 Sec. 12, N2 Sec. 13, et al | NMSF-078359 | Bannon Energy<br>Cole, Jack<br>Elm Ridge<br>Merrion, G. T.<br>Merrion Trust<br>Walsh Trust |
| S2 Sec. 13, all Sec. 14, et al | NMSF-078360 | Bannon Energy<br>Elm Ridge<br>Range Production |

A map (see Exhibit E) showing all leases (all BLM, allotted, or State) within two miles and all leases is attached.

VI. Three wells (below) are within a half mile. Two of the three penetrated the Point Lookout. See Exhibit F for a tabulation of the two wells. See Exhibit G for a profile of the P & A well.

| OPERATOR | WELL | 14-23n-7w | ZONE | TD | STATUS | DISTANCE |
|---|---|---|---|---|---|---|
| Bannon | Nancy 14-1 | NWNE | Gallup | 5700' | P & A | 185' |
| Elm Ridge | S. Lybrook 1 | NWNE | Gallup | 5700 | Oil Well | 401' |
| Williams | Water Well | NENW | Nacimiento | 1300' | Water Well | ≈1,650' |

VII. 1. Average injection rate = 500 bwpd. Maximum = 1,000 bwpd.
2. System will be open (water will be trucked). Facilities will include six 300 barrel water tanks, 2 filtration units, 2 injection pumps, and a 30' x 40' building.
3. Average injection pressure =1,700 psi
Maximum pressure =2,400 psi
4. Water source will be present and future Elm Ridge wells in the San Juan Basin. Three produced water analyses (Exhibit H) are attached. A summary follows. No local sample exists from the Mesa Verde.

| Parameter | Fruitland | Gallup | Gallup |
|---|---|---|---|
| Bicarbonates | 752.6 ppm | 497.7 ppm | 389.6 ppm |
| Calcium | 258.7 ppm | 517.4 ppm | 239.5 ppm |
| Chlorides | 5,970.1 ppm | 12,736.3 ppm | 13,173.7 ppm |
| Hydrogen Sulfide | 0 ppm | 0 ppm | 0 ppm |
| Iron | 0 ppm | 0 ppm | 5 ppm |
| Magnesium | 495.7 | 411.0 ppm | 873.1 ppm |
| pH | 7.5 | 7.8 | 7.4 |
| Potassium | 160.0 ppm | 100.0 ppm | 150.0 ppm |
| Resistivity | 0.45 ohm/meter | 0.75 ohm/meter | 0.62 ohm/meter |
| Sodium | 2,919.8 ppm | 7,069.4 ppm | 6,760.6 ppm |
| Sulfates | 0 ppm | 0 ppm | 0 ppm |
| Specific Gravity @ 67° F | 1.005 | 1.005 | 1.002 |
| Total Dissolved Solids | 10,557.40 ppm | 21,332.65 ppm | 21,592.05 ppm |

5. The Point Lookout has not been proven productive within two miles of the proposed well. (Elm Ridge will attempt to swab load water back after stimulation and take a Point Lookout water sample. If successful, then the analysis will be provided to the New Mexico Oil Conservation Division.) According to Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico, Point Lookout water generally has a specific conductance of <1,500 μmhos. Point Lookout water from deeper parts of the basin can have a specific conductance of >59,000 μmhos. Summaries of analyses of Mesa Verde water follow (also see Exhibit I).

| Parameter | Sanchez O'Brien #1 | GCU #13 | King Gas Comm. #1 |
|---|---|---|---|
| Bicarbonate | 548 mg/l | 1,780 mg/l | 14,152 mg/l |
| Calcium | 336 mg/l | 76 mg/l | 40 mg/l |

| Parameter | Sanchez O'Brien #1 | GCU #13 | King Gas Comm. #1 |
|---|---|---|---|
| Carbonate | - | - | 1,200 mg/l |
| Chloride | 22,137 mg/l | 12,600 mg/l | 10,600 mg/l |
| Hydrogen Sulfide | No Trace | - | - |
| Iron | 3 mg/l | - | 1.9 mg/l |
| Magnesium | 57 mg/l | 12 mg/l | 73 mg/l |
| pH | 7.23 | 7.6 | 8.4 |
| Potassium | 84 mg/l | - | - |
| Resistivity | 0.16 ohms @ 76° F | 0.38 ohms @ 66° F | - |
| Sodium | - | 8,700 mg/l | - |
| Sodium Chloride | 36,415 mg/l | - | - |
| Sodium + Potassium | 14,075 mg/l | - | - |
| Sulfate | 0 mg/l | - | 90 mg/l |
| Specific Gravity | 1.025 | 1.0174 | - |
| Total Hardness | 1,074 mg/l | - | 8 mg/l |
| Total Dissolved Solids | 37,823 mg/l | 23,000 mg/l | - |
| Location | 13-28n-13w | 6-24n-9w | - |
| Distance | 35 miles NW | 16 miles NW | - |

**VIII.** The Point Lookout sandstone is a shoreline marine sandstone. It produces gas elsewhere in the basin (e. g., Blanco Mesa Verde). It is estimated it will be ≈210' thick in the well bore. Top will be ≈4,570'. Bottom will be ≈4,780'. Estimated well bore formation tops are:

San Jose: 0'
Ojo Alamo Sandstone: 1,780'
Kirtland Fruitland formation: 1,853'
Pictured Cliffs Sandstone: 2,330'
Lewis Shale: 2,380'
Chacra Sandstone: 2,720'
Cliff House Sandstone: 3,850'
Menefee Shale: 3,890'
Point Lookout Sandstone: 4,570'
Mancos Shale: 4,780'
Total Depth: 4,900'

According to State Engineer records and an on the ground inspection,

there are three water wells within a 1 mile radius. They are:

| OPERATOR | WELL | 23n-7w | ZONE | TD | STATUS | DISTANCE |
|---|---|---|---|---|---|---|
| Williams | Water Well | NENW Sec. 14 | Nacimiento | 1,300' | Water Well | ≈1,650' |
| BLM | Windmill | NESW Sec. 13 | San Jose ? | ? | Abandoned | ≈4,550' |
| LWUA | Water Well | SWSE Sec. 10 | Nacimiento | 1,709' | Water Well | 5,165' |

Two water bearing strata (San Jose and Nacimiento) are locally used as fresh water sources. No existing underground drinking water sources are below the Point Lookout within a two mile radius. There will be three shale zones and ≈2,861' of vertical separation between the bottom of the lowest existing underground water source and the top of the Point Lookout.

**IX.** The well will be stimulated with ≈150,000 pounds 20/40 Ottawa sand with Ambormax gel.

**X.** CNL/FDC, IES logs will be run. Copies will then be provided to the NMOCD.

**XI.** No water well within one mile penetrates the Point Lookout. The deepest water well within a mile is 1,709' deep. Analyses (Exhibit J) of samples from the Williams gas plant and Lybrook Water Users Association wells are attached. (While the windmill is in the State Engineer's records, it could not be found on the ground.)

**XII.** Elm Ridge is not aware of any geologic or engineering data which indicates the Point Lookout is in hydrologic connection with any underground sources of water. There will be ≈3,432' of vertical separation and three shale zones (Kirtland (477' thick), Lewis (340' thick), and Menefee (720')) between the top (4,570') of the Point Lookout and the bottom (1,709') of the deepest water well within a mile.

**XIII.** Notice (this application) has been sent to the surface owner (Elm Ridge owns 12 acres where the well is staked), operators of all wells (only Elm Ridge), and lease operating right holders (Bannon, Cole, Elm Ridge, Merrions, Range, and Walsh), and lessors (BLM) within a half mile. A legal ad (see Exhibit K) was published on April 3, 2003.

A

Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No. **NMSF-078360**

6. If Indian, Allottee or Tribe Name **N/A**

1a. Type of Work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Other WATER DISPOSAL WELL ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. **LYBROOK YARD WDW #1**

2. Name of Operator **ELM RIDGE RESOURCES, INC.**

9. API Well No. **30-039-**

3a. Address **P. O. BOX 189 FARMINGTON, NM 87499**

3b. Phone No. *(include area code)* **(505) 632-3476**

10. Field and Pool, or Exploratory **POINT LOOKOUT**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface **988' FNL & 2035' FEL**

At proposed prod. zone **SAME**

11. Sec., T., R., M., or Blk. and Survey or Area **14-23n-7w NMPM**

14. Distance in miles and direction from nearest town or post office* **1 MILE NORTHEAST OF LYBROOK**

12. County or Parish **RIO ARRIBA**

13. State **NM**

| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) | 16. No. of Acres in lease | 17. Spacing Unit dedicated to this well |
|---|---|---|
| **988'** | **2,565.24** | **N/A** |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | 19. Proposed Depth | 20. BLM/BIA Bond No. on file |
| **401'** | **4,900'** | **#886201C (BLM - NATION WIDE)** |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) | 22. Approximate date work will start* | 23. Estimated duration |
| **7,080' GL** | **UPON APPROVAL** | **3 WEEKS** |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. *Well plat certified by a registered surveyor.*
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. *Bond to cover the operations unless covered by an existing bond on file (see* Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

*Comments*

Only other well in quarter-quarter is an Elm Ridge Gallup well.

**cc: BLM (&OCD), Elm (D & F)**

| 25. Signature | Name *(Printed/Typed)* | Date |
|---|---|---|
| | **BRIAN WOOD** | **11-11-03** |
| Title **CONSULTANT** | **PHONE: 505 466-8120** | **FAX: 505 466-9682** |
| Approved by *(Signature)* | Name *(Printed/Typed)* | Date |
| Title | Office | |

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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.

EXHIBIT A

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| | | |

| Property Code | Property Name | Well Number |
|---|---|---|
| | LYBROOK YARD WDW | 1 |
| OGRID No. 149052 | Operator Name ELM RIDGE RESOURCES | Elevation 7080' |

Surface Location

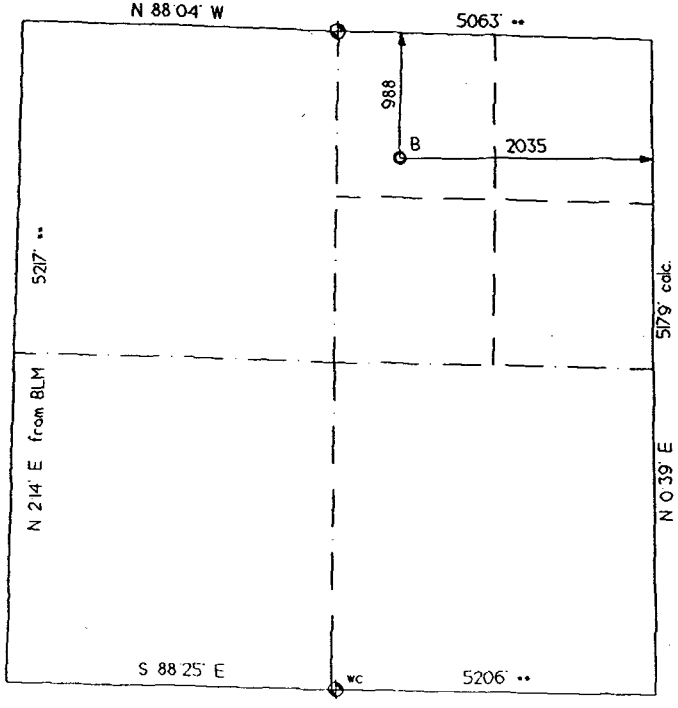
| UL or Lot | Sec. | Twp. | Rge. | Lot Idn. | Feet from> | North/South | Feet from> | East/West | County |
|---|---|---|---|---|---|---|---|---|---|
| B | 14 | 23 N. | 7 W. | | 988' | NORTH | 2035' | EAST | RIO ARRIBA |

Bottom Hole Location If Different From Surface

| UL or Lot | Sec. | Twp. | Rge. | Lot Idn. | Feet from> | North/South | Feet from> | East/West | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedication | Joint ? | Consolidation | Order No. |
|---|---|---|---|
| | | | |

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION




**OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature B. Wood

Printed Name BRIAN WOOD

Title CONSULTANT

Date NOV. 11, 2003

**SURVEYOR CERTIFICATION**

I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey 21 MARCH, 03

Signature and Seal of Professional Surveyor

GARY L. HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR

Drilling Program

1. ESTIMATED FORMATION TOPS

| Formation Name | GL Depth | KB Depth | Elevation |
|---|---|---|---|
| San Jose | 000' | 12' | +7,080' |
| Nacimiento | 100' | 112' | +6,980' |
| Ojo Alamo | 1,780' | 1,792' | +5,300' |
| Kirtland - Fruitland | 1,853' | 1,865' | +5,227' |
| Pictured Cliffs Ss | 2,330' | 2,342' | +4,750' |
| Lewis Shale | 2,380' | 2,392' | +4,700' |
| Chacra Ss | 2,720' | 2,732' | +4,360' |
| Cliff House Ss | 3,850' | 3,862' | +3,230' |
| Menefee Shale | 3,890' | 3,902' | +3,190' |
| Pt. Lookout Ss | 4,570' | 4,582' | +2,510' |
| Mancos Shale | 4,780' | 4,792' | +2,300' |
| Total Depth | 4,900' | 4,912' | +2,180' |

* all elevations reflect the ungraded ground level of 7,080'

2. NOTABLE ZONES

| Oil &/or Gas Zones | Water Zones | Coal Zone |
|---|---|---|
| Fruitland | San Jose | Fruitland |
| Pictured Cliffs | Ojo Alamo | |
| | Fruitland | |
| | Pictured Cliffs | |

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

EXHIBIT A

PERMITS WEST INC.
PROVIDING PERMITS for LAND USERS

Elm Ridge Resources, Inc.
Lybrook Yard WDW #1
988' FNL & 2035' FEL
Sec. 14, T. 23 N., R. 7 W.
Rio Arriba County, New Mexico



3. PRESSURE CONTROL

The exact drill rig and BOP model to be used are not yet known. (A typical 2,000 psi model is on PAGE 3.) BOP and choke manifold system will be installed and tested to 500 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

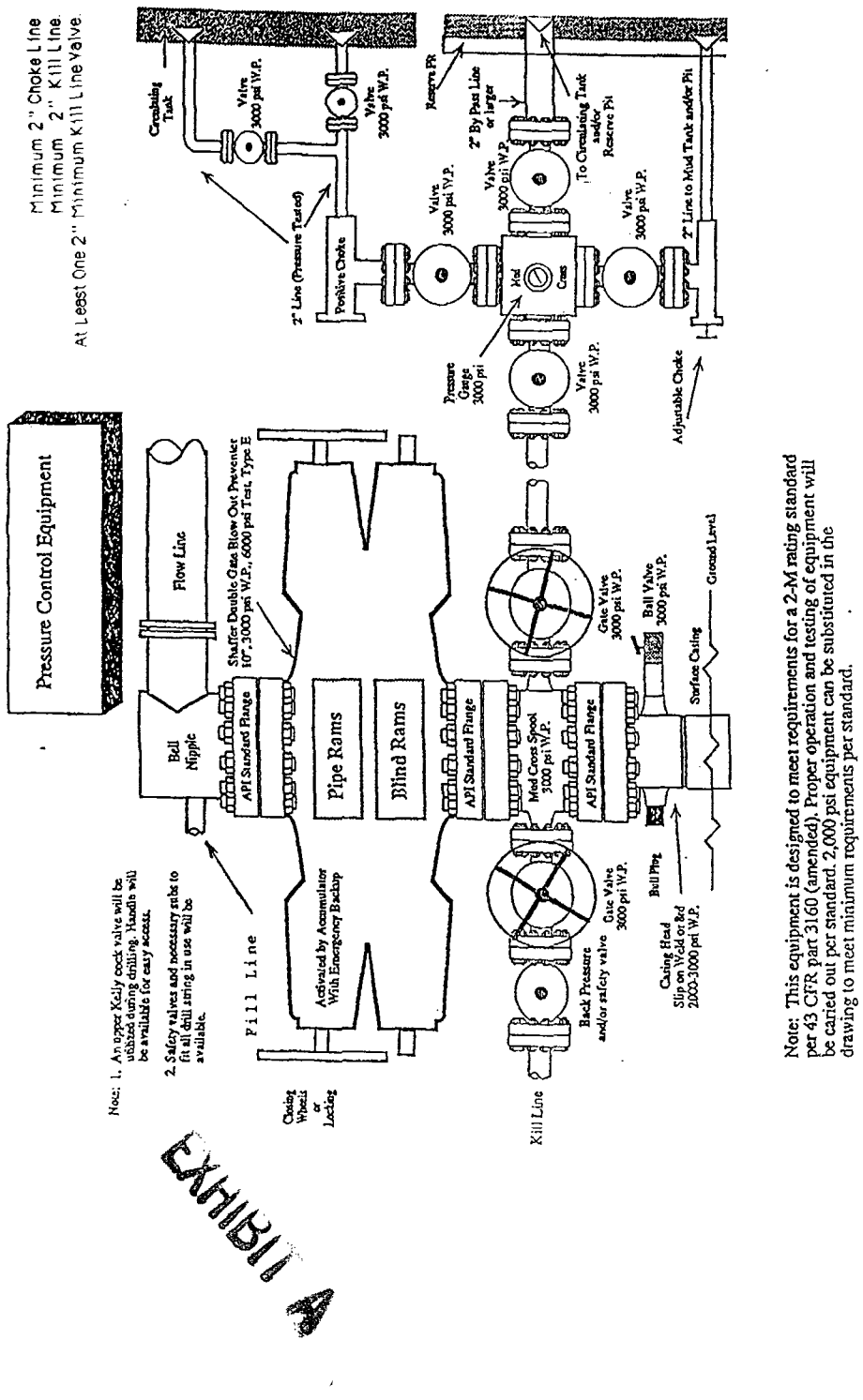
4. CASING & CEMENT

| Hole Size | O. D. | Weight (lb/ft) | Grade | Type | Age | GL Setting Depth |
|---|---|---|---|---|---|---|
| 12-1/4" | 9-5/8" | 36 | J-55 | S T & C | New | 400' |
| 8-3/4" | 5-1/2" | 17 | J-55 | S T & C | New | 4,900' |

Surface casing will be cemented to the surface with ≈251 cubic feet (≈213 sx) Class G with 1/4# per sack Flocele + 2% $CaCl_2$. Cement will be mixed at 15.6 pounds per gallon and 1.18 cubic feet per sack. Volume is based on >100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope. Top will be determined by visual observation.

Long string will be cemented to the surface. Top will be determined by visual observation and bond log. Lead with ≈875 sacks Halliburton Light + gilsonite + Flocele + gel mixed at 12.3 pounds per gallon and 1.8 cubic feet per sack. Tail with ≈50 sacks 50/50 Poz + gilsonite + Flocele + gel mixed at 15.4 pounds per gallon and 1.30 cubic feet per sack. Volume is based on >30% excess.

PERMITS WEST INC.
PROVIDING PERMITS for LAND USERS




Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
2. Safety valves and necessary subs to fit all drill string in use will be available.

Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.

EXHIBIT A

5. MUD PROGRAM

| Depth | Type | ppg | Viscosity | Fluid Loss | pH |
|---|---|---|---|---|---|
| 0' - 400' | Fresh water gel chem | 9.0 | 50 | NC | 9 |
| 400' - TD' | Fresh water gel chem | 9.0 | 38-50 | 6.0 | 9 |

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

6. CORING, TESTING, & LOGGING

No cores or drill stem tests are planned. DIL/GR logs will be run from TD to surface. CNL/FDC logs may be run over selected segments.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum pressure will be ≤1,960 psi.

8. OTHER INFORMATION

It is expected it will take ≈1 week to drill and ≈2 weeks to complete the well.

Centralizers will be installed on the middle of the shoe joint and on every joint thereafter. Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See Pages 9 & 10)

From the equivalent of Mile Post 102.7 in Lybrook on NM 44/US 550 ...
Go north 200' through gate at the Elm Ridge sign
Then turn left onto the pad which overlaps Elm Ridge's existing yard

Roads will be maintained to a standard at least equal to their present condition.

2. ROADS TO BE BUILT & IMPROVED

No new road will be built. No upgrading is needed. The pad is within Elm Ridge's storage yard and overlaps its existing roads.

3. EXISTING WELLS (See PAGE 10)

There are 3 water wells, 4 P & A wells, and 9 existing oil or gas wells within a mile radius. There are no injection wells.

4. PROPOSED PRODUCTION FACILITIES

Facilities will include six 300 barrel water tanks, 2 filtration units, 2 injection pumps, and a 30' x 40' building. Surface equipment will be painted a flat juniper green color. Water for disposal will be trucked, not piped, to the well.

5. WATER SUPPLY

Water will be trucked from private land.







6. CONSTRUCTION MATERIALS & METHODS

Brush, trees, and the top 6" of soil will be stripped and piled west of the pad and north of the pit. A diversion ditch will be cut south of the pad. A minimum 12 mil plastic liner will be installed in the reserve pit.

7. WASTE DISPOSAL

The reserve pit will be fenced sheep tight on 3 sides with woven wire fence topped with barbed wire. The fourth side will be fenced once the rig moves off. The fence will be kept in good repair while the pit dries. Once dry, contents of the reserve pit will be buried in place.

All trash will be placed in a portable trash cage and hauled to an approved landfill. Human waste will be disposed of in 10' deep rat holes under trailers or in chemical toilets. Holes will be filled when the trailers are removed.

8. ANCILLARY FACILITIES

There will be no air strips or camps. Camper trailers will be on location for the company man, tool pusher, and mud logger.

9. WELL SITE LAYOUT

See Pages 11 and 12 for depictions of the well pad, cross sections, cut and fill diagrams, reserve pit, trash cage, access road onto the location, parking, living facilities, soil stockpile, and rig orientation.

10. RECLAMATION

Reclamation starts once the reserve pit is dry, at which point it will be back filled. The pad and filled pit will be contoured to a natural appearance and disturbed areas ripped or harrowed. BLM's "south" (aka, dry mix or mix #2) seed mix (below) will be drilled at a depth and time to be determined by BLM.

4 pounds per acre western wheatgrass
2-1/2 pounds per acre Indian ricegrass
1-1/2 pound per acre blue grama grass
0.1 pound pr acre antelope bitter brush
1/4 pound per acre four wing salt bush
1 pound per acre small burnet

11. SURFACE OWNER

Well site is on 12 acres of land owned by Elm Ridge Resources, Inc. County assessor's parcel number is 105-396.

12. OTHER INFORMATION

The nearest clinic is an hour drive away in Cuba. The nearest hospital is a ≈90 minute drive away in southwest Farmington.

13. REPRESENTATION

Anyone having questions concerning the APD should contact:

Brian Wood, Consultant
Permits West, Inc.
37 Verano Loop
Santa Fe, NM 87505
(505) 466-8120 FAX: (505) 466-9682 Mobile: (505) 699-2276

EXHIBIT A





The field representative will be:

Terry Lindeman
Elm Ridge Resources, Inc.
P. O. Box 189
Farmington, NM 87499
(505) 632-3476

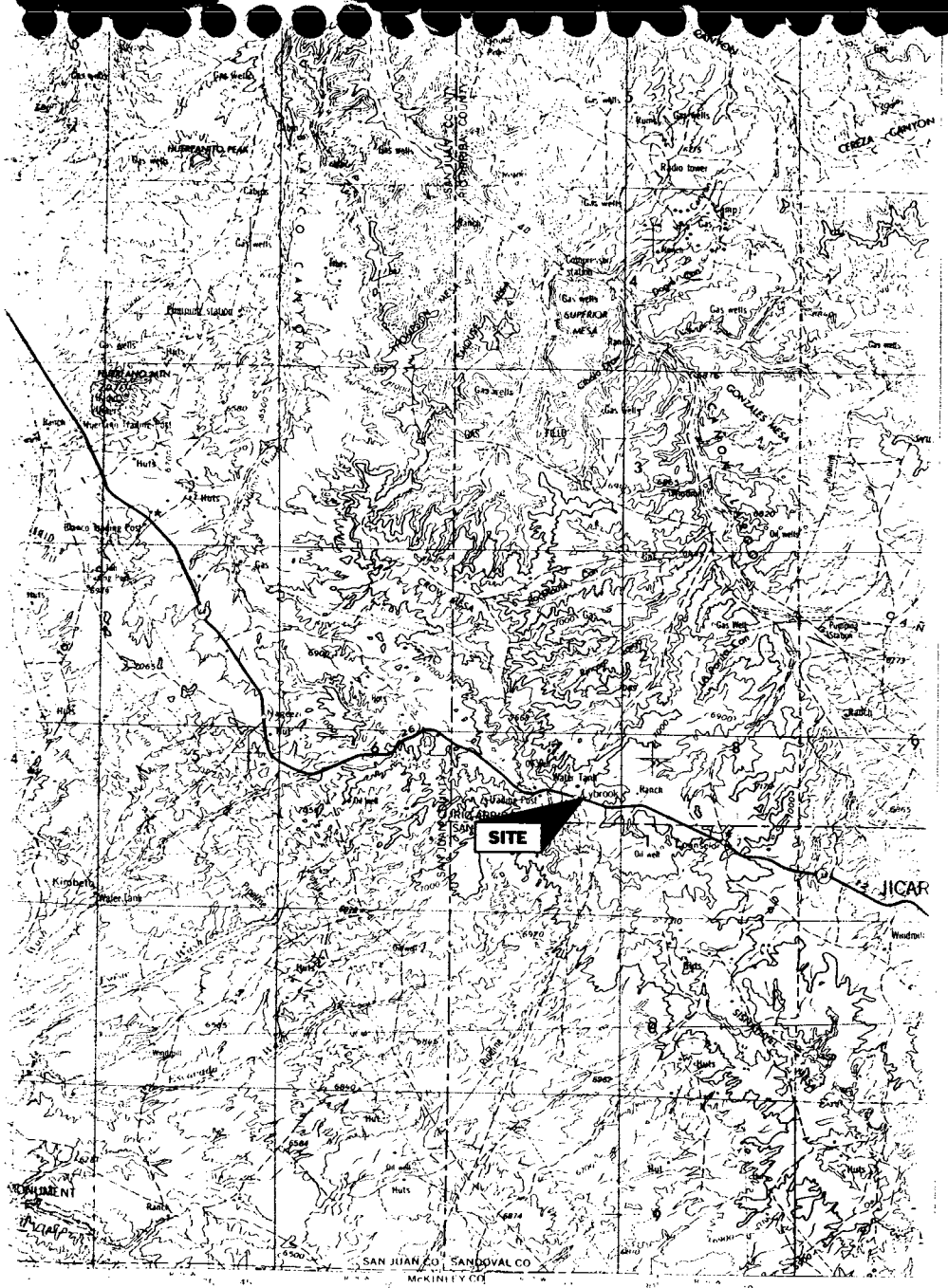
Elm Ridge Resources, Inc. has the necessary consents from the proper lease owners to conduct lease operations in conjunction with this well. Bond coverage pursuant to 43 CFR 3104 for lease activities and operations is being provided by Elm Ridge Resources, Inc.

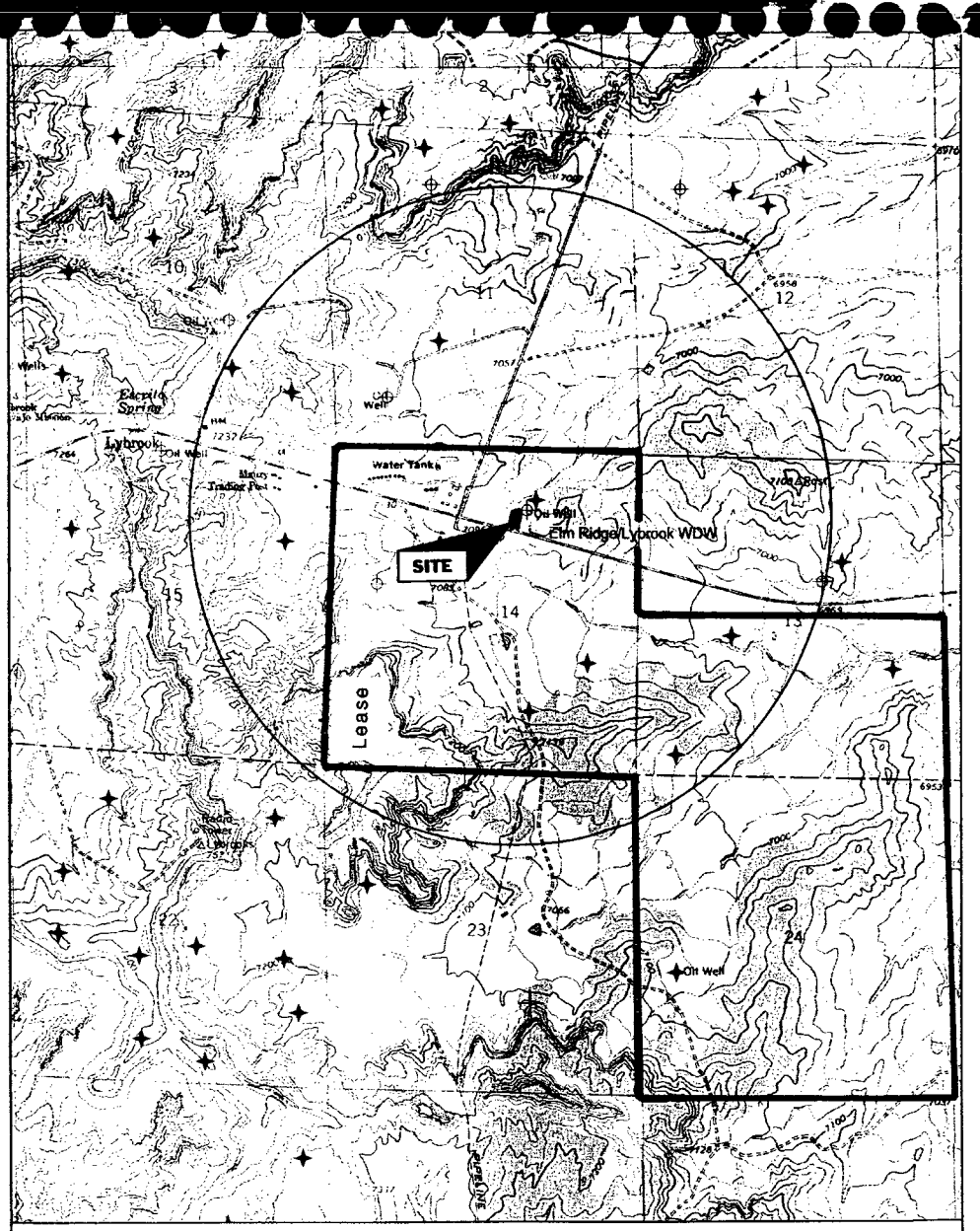
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Elm Ridge Resources, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U. S. C. 1001 for the filing of a false statement.

B. Wood

November 11, 2003

Brian Wood, Consultant




Name: LYBROOK
Date: 10/15/2003
Scale: 1 inch equals 2000 feet

Location: 036.2251398° N 107.5444870° W
Caption: 14, 23N-7W



EXHIBIT A

Elm Ridge Resources, Inc.
Lybrook Yard WDW #1
988' FNL & 2035' FEL
Sec. 14, T. 23 N., R. 7 W.
Rio Arriba County, New Mexico



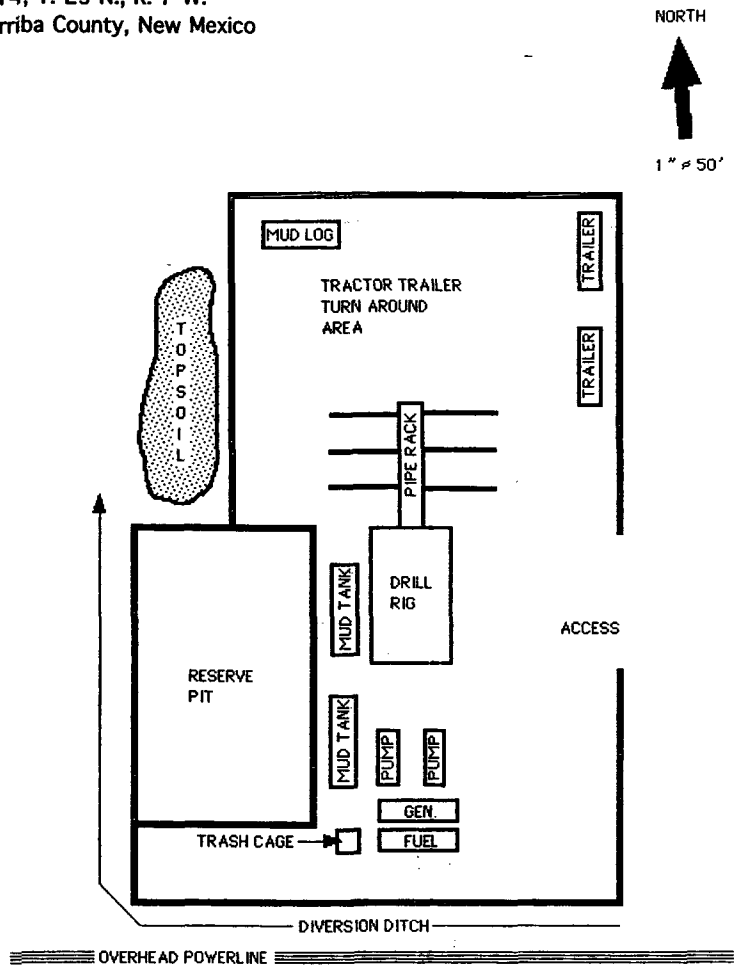
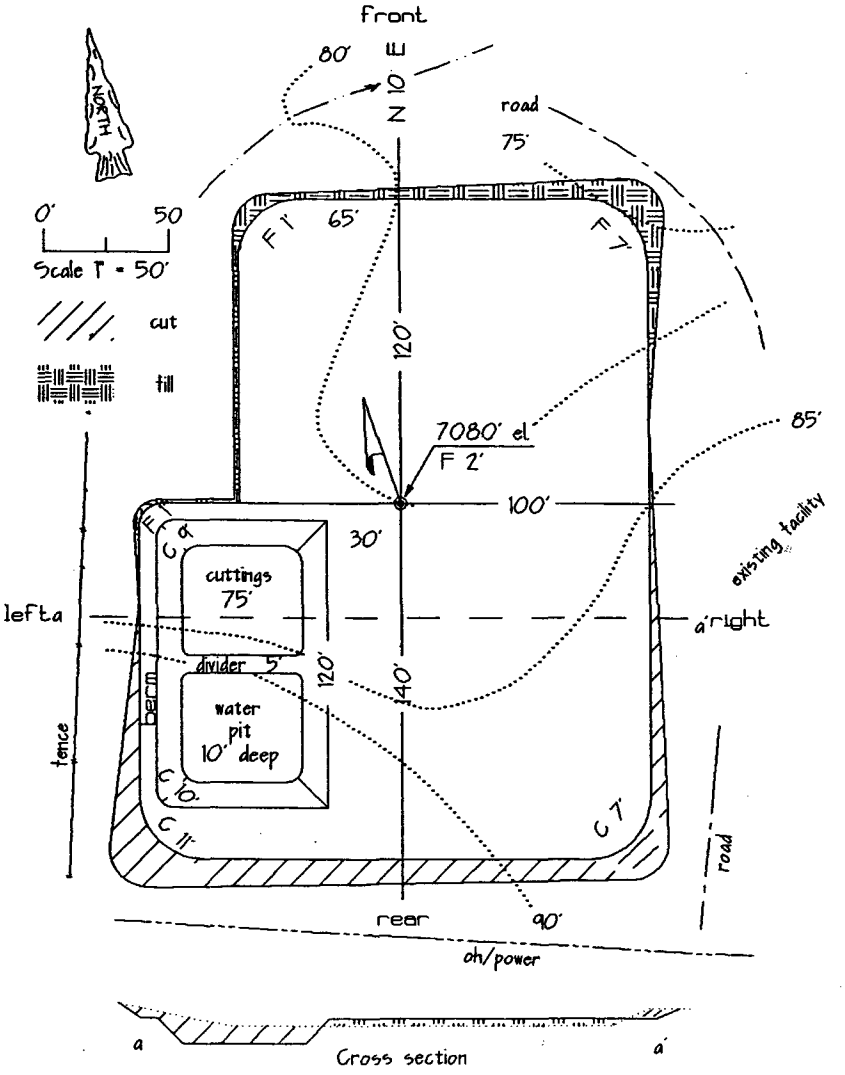
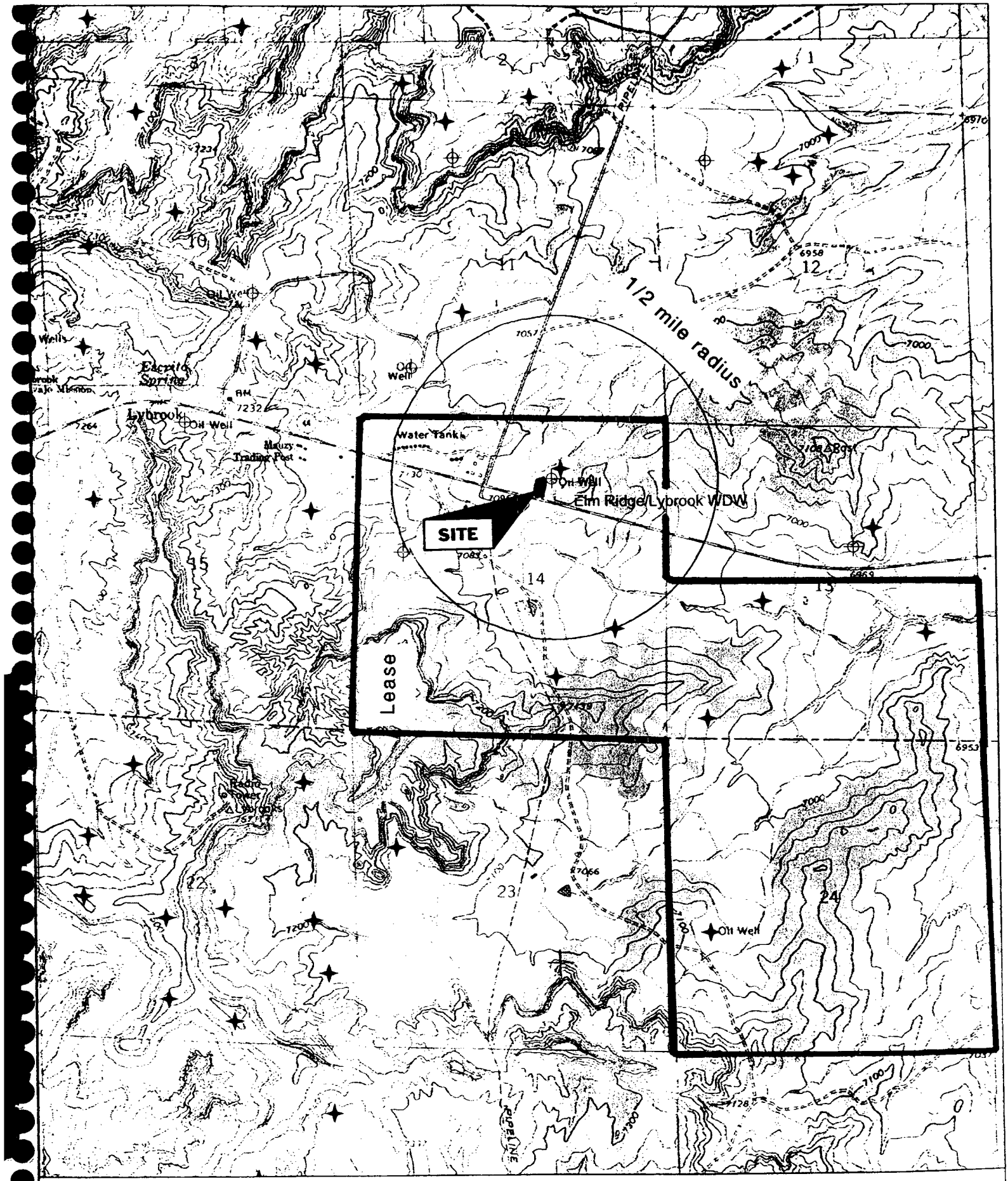



EXHIBIT A

PERMITS WEST INC.
PROVIDING PERMITS for LAND USERS

Lybrook Yard WDW # 1
well pad & section
260' by 205'

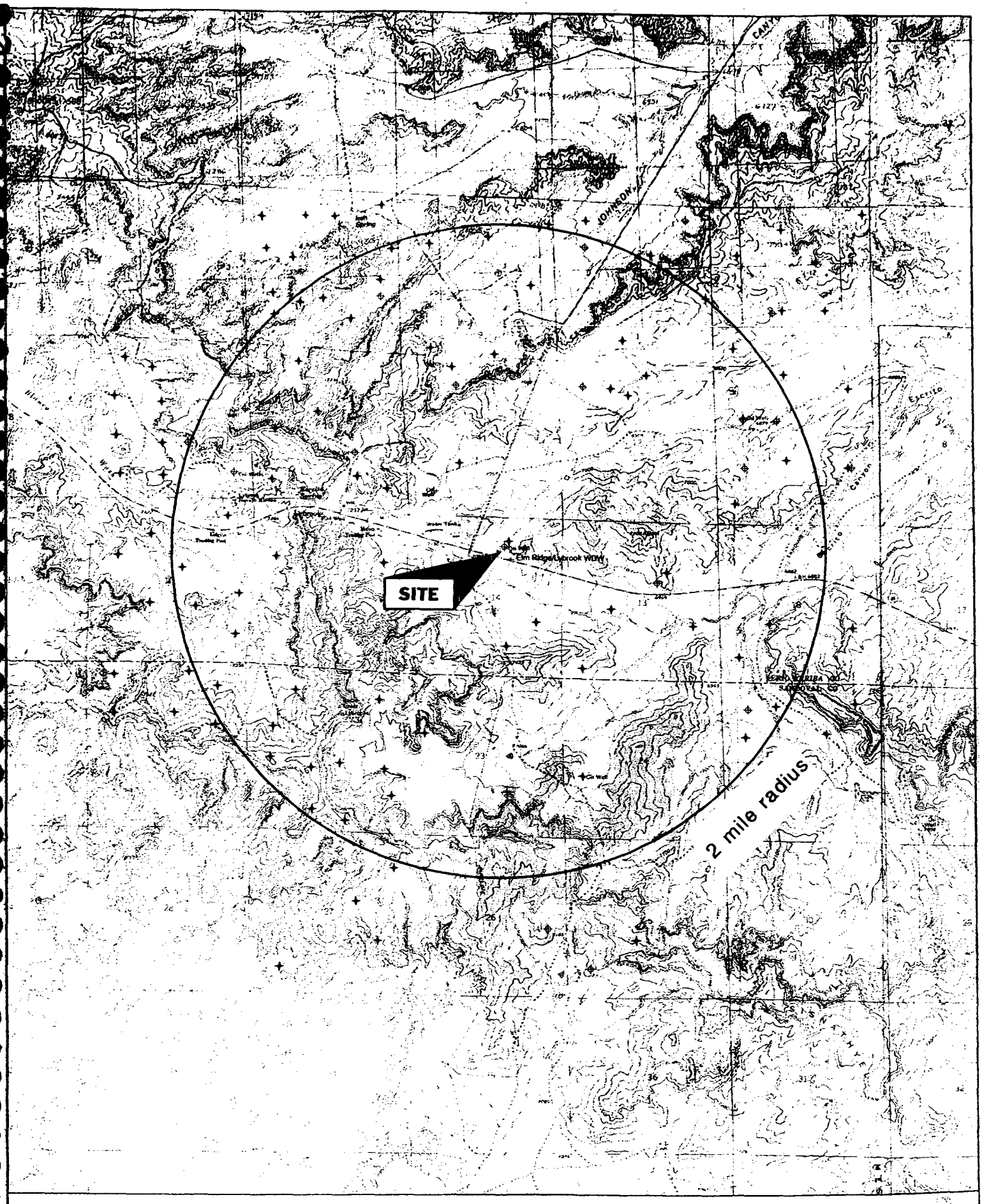





Name: LYBROOK
Date: 10/15/2003
Scale: 1 inch equals 2000 feet

Location: 036.2251398° N 107.5444870° W
Caption: 14, 23N-7W

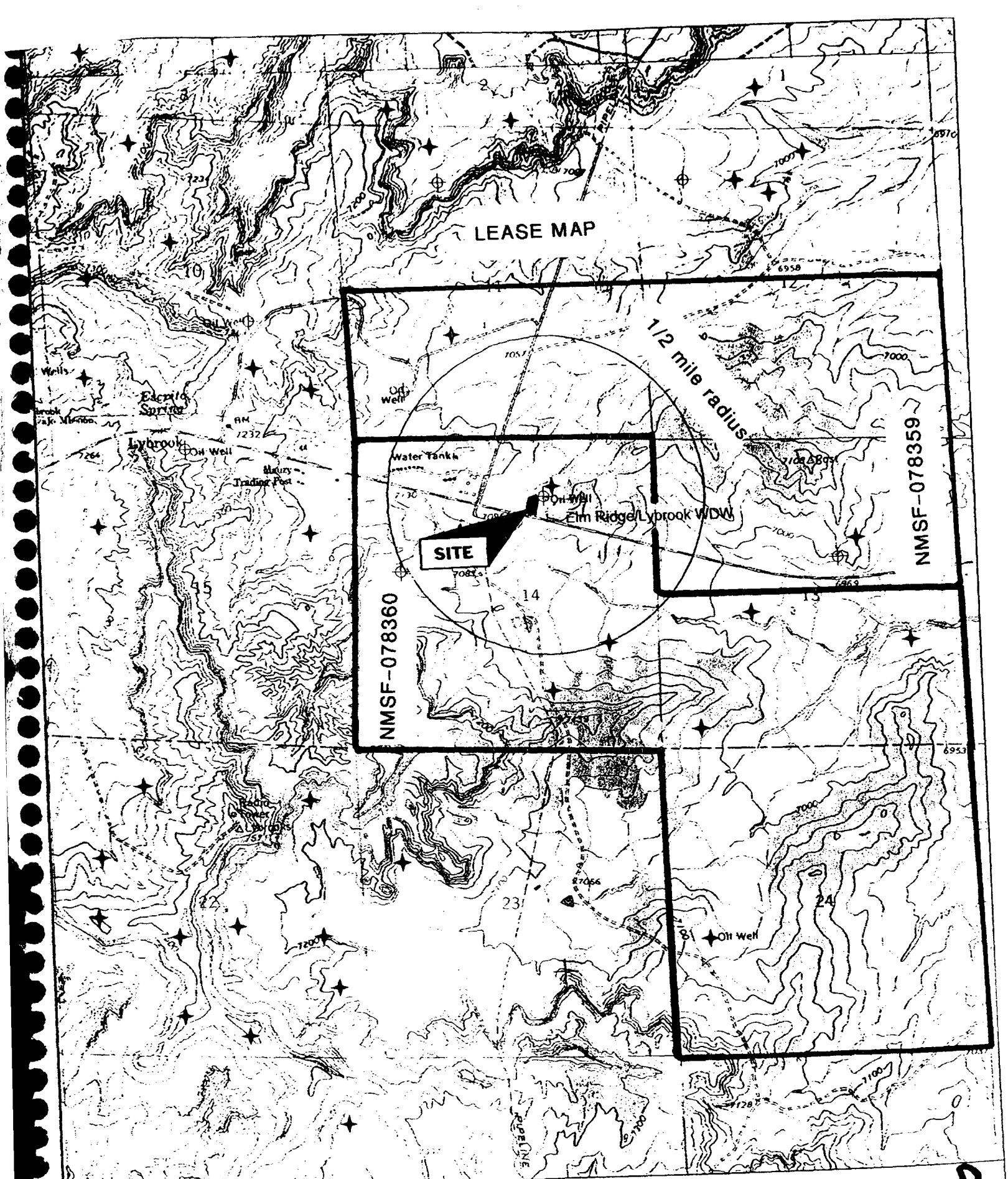
EXHIBIT D

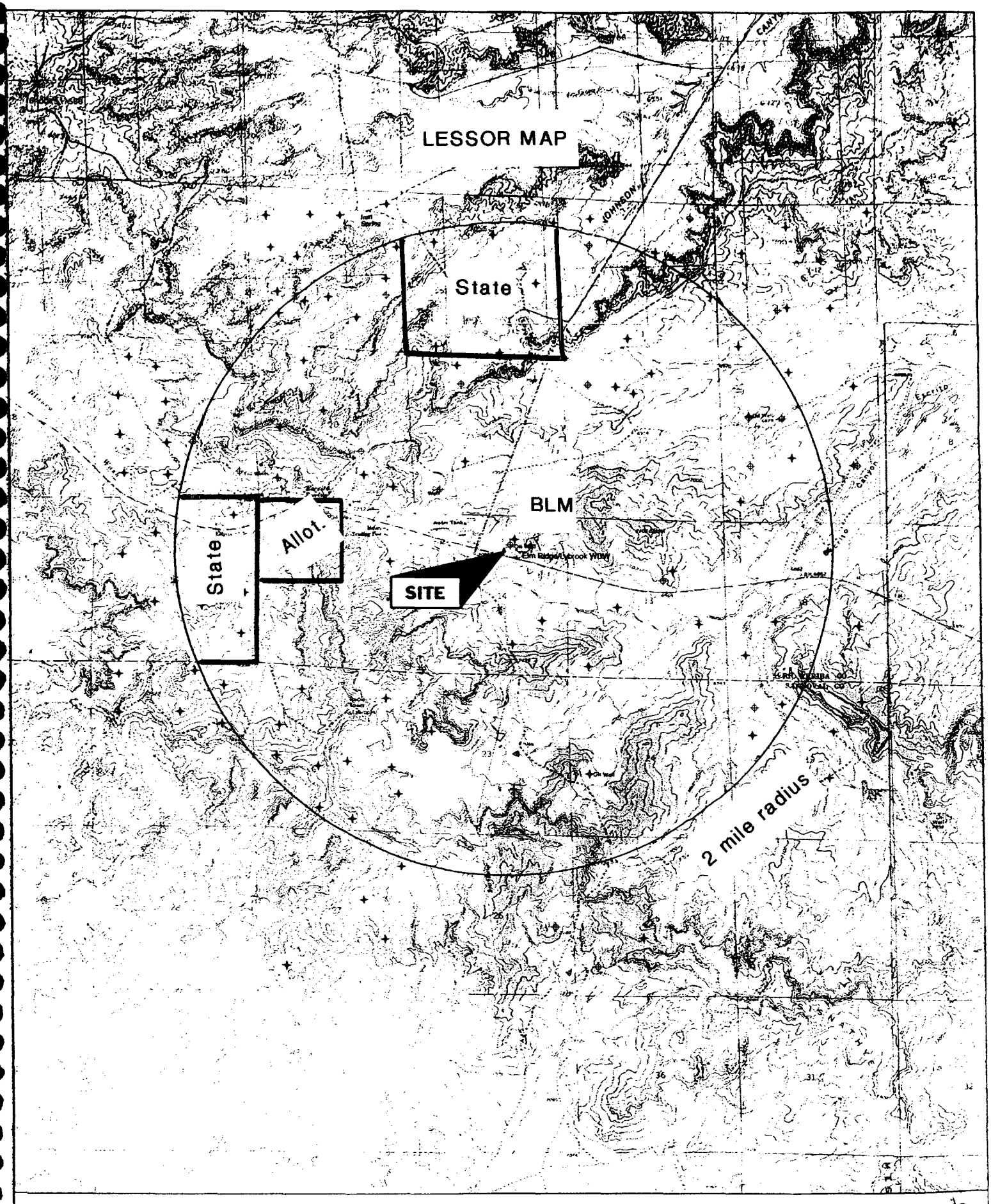



Name: LYBROOK
Date: 10/15/2003
Scale: 1 inch equals 4000 feet

Location: 036.2249334° N 107.5439780° W
Caption: 14, 23N-7W

EXHIBIT






Name: LYBROOK
Date: 10/15/2003
Scale: 1 inch equals 4000 feet

Location: 036.2249334° N 107.5439780° W
Caption: 14, 23N-7W

EXHIBIT 5

| CURRENT OR LAST OPERATOR | WELL NAME | 14-23n-7w | STATUS NOW | SPUD DATE | COMPLETION DATE | P & A DATE | TD | PBTD | SURFACE CASING | SURFACE CEMENT | LONG STRING | LONG STRING CEMENT | PERFORATION INTERVAL(S) & ZONE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bannon | Nancy 14-1 | 970 FNL & 1850 FEL | P & A | 12/7/61 | 12/19/61 | 10/24/89 | 5700' | 5695' | 8-5/8" @ 208' | 130 sx to surface | 4-1/2" @ 5690' | 150 sx to 5078' | 5376' - 5672' Gallup |
| Elm Ridge | Lybrook South 1 | 797 FNL & 1682 FEL | Producing Oil Well | 10/9/89 | 10/28/89 | N/A | 5700' | 5652' | 8-5/8" @ 304' | 240 sx to surface | 4-1/2" @ 5680' | 1330 sx to surface | 5508' - 5610' Gallup |

EXHIBIT 5

# BANNON'S NANCY 14-1

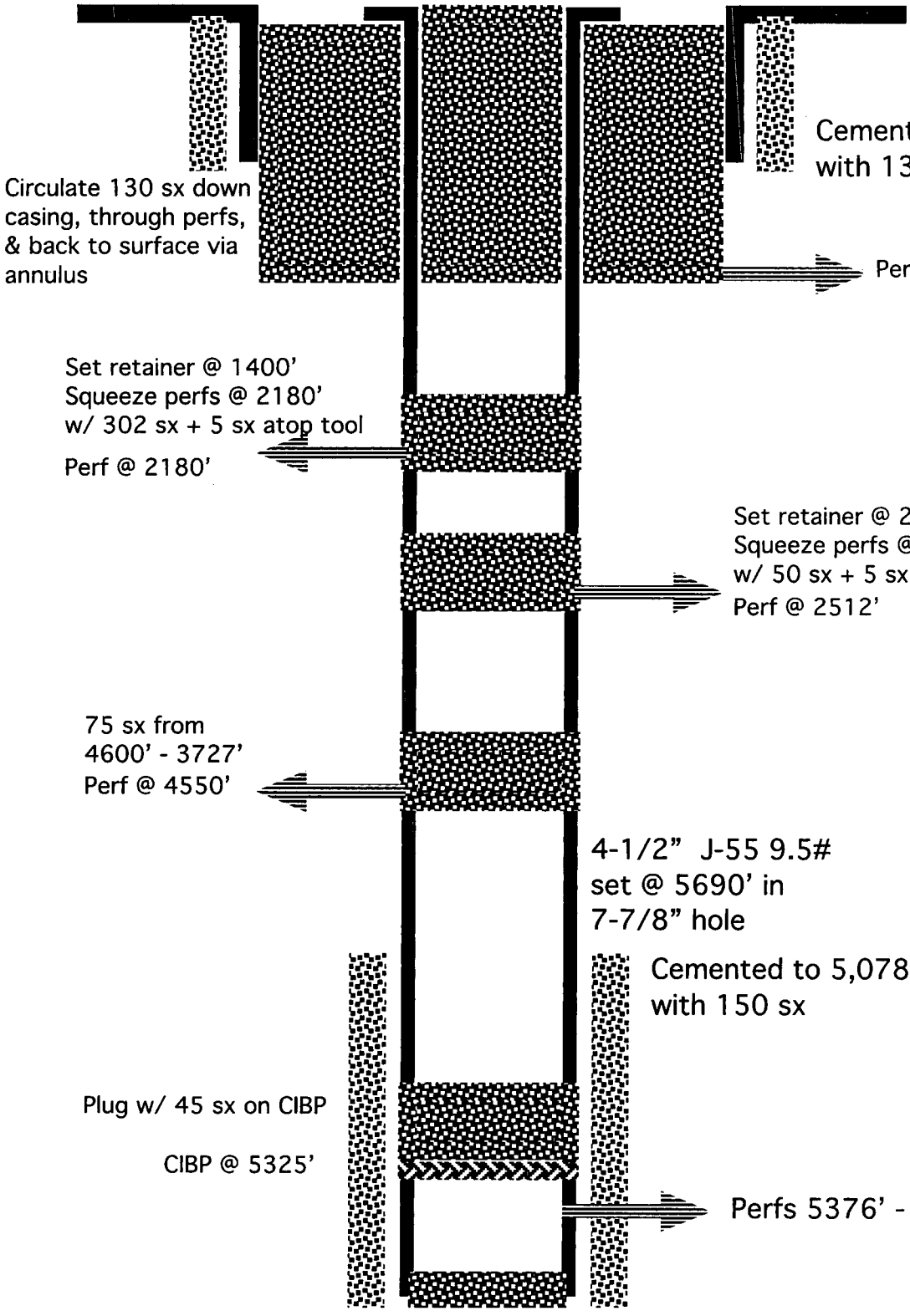



EXHIBIT 5

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

**American Energy Services**
Water Analysis Results Sheet
Farmington NM
708 S. Tucker
Phone:(505)325-4192
Fax:(505)564-3524
Zip:87401

| | | | |
|---|---|---|---|
| Operator: | Elm Ridge | Date: | October 15, 2002 |
| Well : | ~~Joe Hixon #1~~ Joe Hixon #1 SESW 22-25n-12w | District: | Farmington |
| Formation: | ~~N/A~~ MV | Requested by: | Tim Duggan |
| County: | San Juan | Technician: | Mike Brown |
| Depth: | 4800 | Source: | Well |

## PHYSICAL AND CHEMICAL DETERMINATION

| | | | | |
|---|---|---|---|---|
| SPECIFIC GRAVITY: | 1.002 | AT 67 Degrees F. | | |
| pH: | 7.4 | | SULFATES: | 0 ppm |
| | | | CALCIUM: | 239.5 ppm |
| IRON: | 5 | ppm | BICARBONATES: | 389.6 ppm |
| | | | RESISTIVITY: | 0.62 ohm/meter |
| H2S: | 0 | ppm | CHLORIDES: | 13173.7 ppm |
| | | | SODIUM : | 6760.6 ppm |
| | | | POTASSIUM: | 150.0 ppm |
| MAGNESIUM: | 873.1 | ppm | TDS: | 21592.05 ppm |

CaCO3 Scale Tendency = Remote
CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

EXHIBIT H

EXHIBIT

**American Energy Services**
Water Analysis Results Sheet
Farmington NM
708 S. Tucker
Phone:(505)325-4192
Fax:(505)564-3524
Zip:87401

| | | | |
|---|---|---|---|
| Operator: | Elm Ridge | Date: | October 15, 2002 |
| Well : | C.T.B. | District: | Farmington |
| Formation: | Gallup | Requested by: | Tim Duggan |
| County: | San Juan | Technician: | Mike Brown |
| Depth: | 4800 | Source: | Well |

P H Y S I C A L  A N D  C H E M I C A L  D E T E R M I N A T I O N

SPECIFIC GRAVITY: 1.005 AT 67 Degrees F.

| | | | | | |
|---|---|---|---|---|---|
| pH: | 7.8 | | SULFATES: | 0 | ppm |
| | | | CALCIUM: | 517.4 | ppm |
| IRON: | 0 | ppm | BICARBONATES: | 497.7 | ppm |
| | | | RESISTIVITY: | 0.75 | ohm/meter |
| H2S: | 0 | ppm | CHLORIDES: | 12736.3 | ppm |
| | | | SODIUM : | 7069.4 | ppm |
| | | | POTASSIUM: | 100.0 | ppm |
| MAGNESIUM: | 411.0 | ppm | TDS: | 21332.65 | ppm |

CaCO3 Scale Tendency = Remote
CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

EXHIBIT H

**American Energy Services**
Water Analysis Results Sheet
Farmington NM
708 S. Tucker
Phone:(505)325-4192
Fax:(505)564-3524
Zip:87401

| | | | |
|---|---|---|---|
| Operator: | Elm Ridge | Date: | October 15, 2002 |
| Well : | B.C. 28-1 | District: | Farmington |
| Formation: | Coal | Requested by: | Tim Duggan |
| County: | San Juan | Technician: | Mike Brown |
| Depth: | 1200 | Source: | Well |

## PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY: 1.005 AT 67 Degrees F

| | | | | | |
|---|---|---|---|---|---|
| pH: | 7.5 | | SULFATES: | 0 | ppm |
| | | | CALCIUM: | 258.7 | ppm |
| IRON: | 0 | ppm | BICARBONATES: | 752.6 | ppm |
| | | | RESISTIVITY: | 0.45 | ohm/meter |
| H2S: | 0 | ppm | CHLORIDES: | 5970.1 | ppm |
| | | | SODIUM : | 2919.8 | ppm |
| | | | POTASSIUM: | 160.0 | ppm |
| MAGNESIUM: | 495.7 | ppm | TDS: | 10557.4 | ppm |

CaCO3 Scale Tendency = Remote
CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

EXHIBIT H

FW01W027

SWD 694

# BJ SERVICES COMPANY

## WATER ANALYSIS #FW01W027

## FARMINGTON LAB

### GENERAL INFORMATION

| | | | |
|---|---|---|---|
| OPERATOR: | DUGAN PRODUCTION | DEPTH: | |
| WELL: | SANCHEZ O'BRIEN #1 | DATE SAMPLED: | 12/03/97 |
| FIELD: | SEC.6/T24N/R9W | DATE RECEIVED: | 12/03/97 |
| SUBMITTED BY: | JOHN ALEXANDER | COUNTY: | SAN JUAN STATE: NM |
| WORKED BY : | D. SHEPHERD | FORMATION: | MESAVERDE |
| PHONE NUMBER: | | | |

### SAMPLE DESCRIPTION

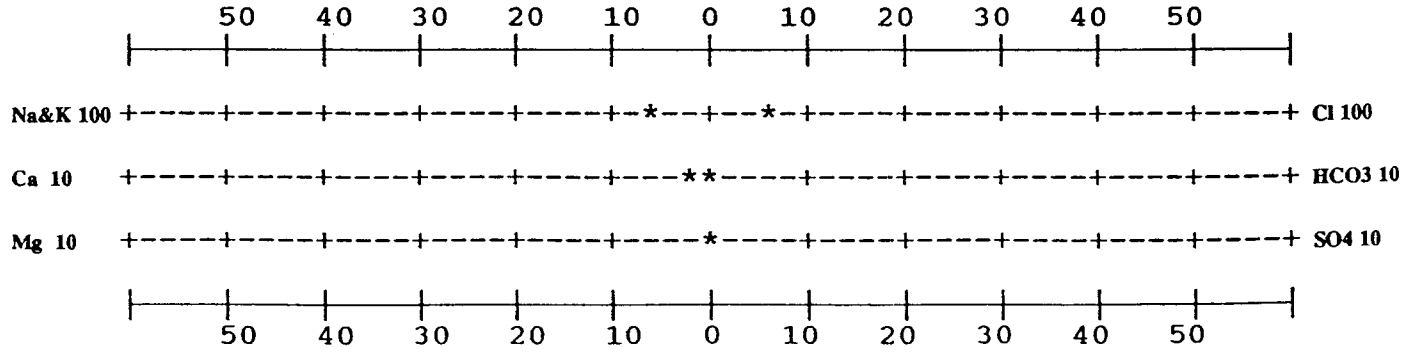
SWAB SAMPLE AFTER 200 BBL.

### PHYSICAL AND CHEMICAL DETERMINATIONS

| | | | |
|---|---|---|---|
| SPECIFIC GRAVITY: | 1.025 @ 76°F | PH: | 7.23 |
| RESISTIVITY (MEASURED ): | 0.160 ohms @ 76°F | | |
| IRON (FE++) : | 3 ppm | SULFATE: | 0 ppm |
| CALCIUM: | 336 ppm | TOTAL HARDNESS | 1,074 ppm |
| MAGNESIUM: | 57 ppm | BICARBONATE: | 548 ppm |
| CHLORIDE: | 22,137 ppm | SODIUM CHLORIDE(Calc) | 36,415 ppm |
| SODIUM+POTASS: | 14,065 ppm | TOT. DISSOLVED SOLIDS: | 37,823 ppm |
| H2S: NO TRACE | | POTASSIUM (PPM): | 84 |

### REMARKS

STIFF TYPE PLOT (IN MEQ/L)




ANALYST _____

D. SHEPHERD

EXHIBIT 2

# API WATER ANALYSIS REPORT FORM

Laboratory No. 25-920113-3

| Company | Sample No. | Date Sampled |
|---|---|---|
| BHP Petroleum | | 1-9-92 |

| Field | Legal Description | County or Parish | State |
|---|---|---|---|
| | Sec 13 - T29N - R13W | San Juan | NM |

| Lease or Unit | Well | Depth | Formation | Water, B/D |
|---|---|---|---|---|
| | GCU 13 SWD #1 | 2870' - 2972' | Mesa Verde Cliffhouse | |

| Type of Water (Produced, Supply, etc.) | Sampling Point | Sampled By |
|---|---|---|
| | Swab Line | |

**DISSOLVED SOLIDS**

| *CATIONS* | *mg/l* | *me/l* |
|---|---|---|
| Sodium, Na (calc.) | 8,700 | 380 |
| Calcium, Ca | 76 | 3.8 |
| Magnesium, Mg | 12 | 1 |
| Barium, Ba | | |

| *ANIONS* | | |
|---|---|---|
| Chloride, Cl | 12,600 | 356 |
| Sulfate, $So_4$ | - | - |
| Carbonate, $CO_3$ | - | - |
| Bicarbonate, $HCO_3$ | 1,780 | 29.2 |

Total Dissolved Solids (calc.) 23,000

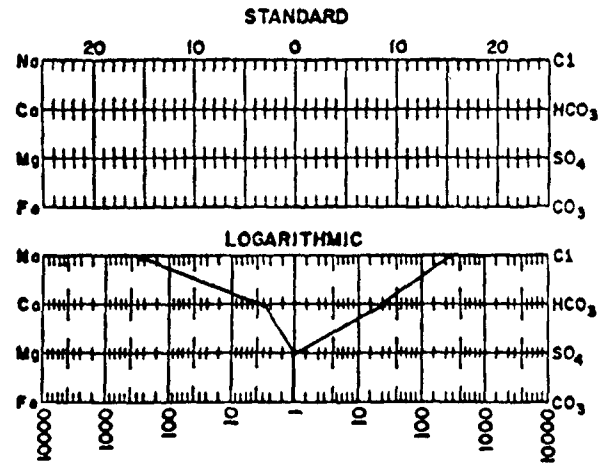
Iron, Fe (total)

Sulfide, as $H_2S$

**OTHER PROPERTIES**

| | |
|---|---|
| pH | 7.60 |
| Specific Gravity, 60/60 F. | 1.0174 |
| Resistivity (ohm-meters) 66 F. | 0.58 |

WATER PATTERNS — *me/l*




REMARKS & RECOMMENDATIONS:

| Date Received | Preserved | Date Analyzed | Analyzed By |
|---|---|---|---|
| 13th Jan, 1992. | | 20th Jan, 1992. | R.H. |


TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311


EXHIBIT F

SWD 450

N L Industries, Inc.
P.O. Box 1675 Houston, Texas 77001

# WATER ANALYSIS TEST REPORT

## BAROID TREATING CHEMICALS

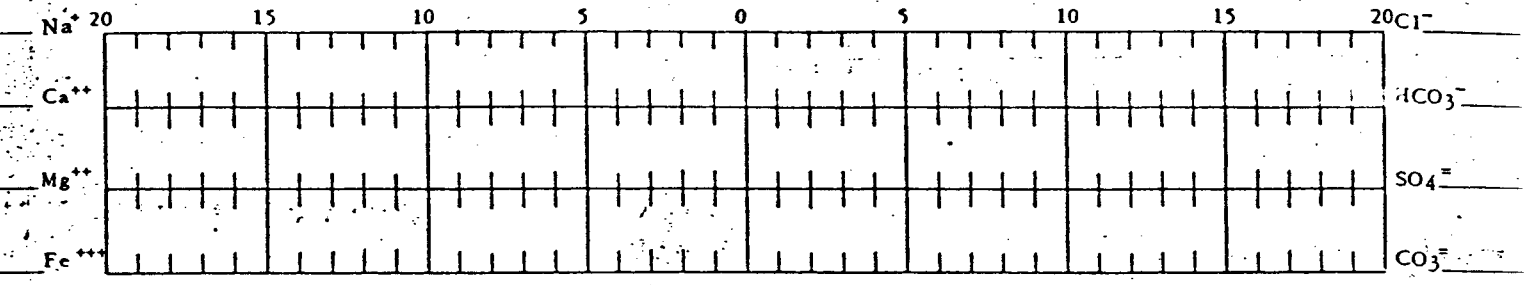
Exhibit D

RECEIVED JUN 23 1977

| | | | |
|---|---|---|---|
| COMPANY: Energy Reserves | | | SHEET NUMBER / DATE: 6-10-77 |
| FIELD: Basin Dakota | | COUNTY OR PARISH: San Juan | STATE: N. Mexico |
| LEASE OR UNIT: King Gas Com. | WELL(S) NAME OR NO.: #1 | WATER SOURCE (FORMATION): Mesaverde - Cliffhouse | |
| DEPTH, FT. | BHT, F | SAMPLE SOURCE | TEMP, F |
| WATER, BBL/DAY | OIL, BBL/DAY | GAS, MMCF/DAY | |
| TYPE OF OIL | API GRAVITY: 0 | TYPE OF WATER: ☒ PRODUCED WATER ☐ INJECTION WATER OTHER | |

### WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)




### DISSOLVED SOLIDS

| CATIONS | me/l * | mg/l * |
|---|---|---|
| Total Hardness | 8 | |
| Sodium, Na+ (calc.) | | |
| Calcium, Ca++ | 2 | 40 |
| Magnesium, Mg++ | 6 | 73 |
| Iron (Total), Fe+++ | | 1.9 |
| **ANIONS** | | |
| Chloride, Cl- | | 10,600 |
| Sulfate, SO4= | | 90 |
| Carbonate, CO3= | | 1,200 |
| Bicarbonate, HCO3- | 232 | 14,152 |
| Hydroxyl, OH- | | -0- |
| Sulfide, S= | | |
| Phosphate-Meta, PO3- | | |
| Phosphate-Ortho, PO4≡ | | |

### DISSOLVED GASES

| | | |
|---|---|---|
| Hydrogen Sulfide, $H_2S$ | | mg/l * |
| Carbon Dioxide, $CO_2$ | | mg/l * |
| Oxygen, $O_2$ | | mg/l * |

### PHYSICAL PROPERTIES

| | | |
|---|---|---|
| pH | 8.4 | |
| Eh (Redox Potential) | | MV |
| Specific Gravity | | |
| Turbidity, JTU Units | | |
| Total Dissolved Solids (Calc.) | | mg/l * |
| Stability Index @ F | | |
| @ F | | |
| $CaSO_4$ Solubility @ F | | mg/l * |
| @ F | | mg/l * |
| Max. $CaSO_4$ Possible (Calc.) | | mg/l * |
| Max. $BaSO_4$ Possible (Calc.) | | mg/l * |
| Residual Hydrocarbons | | ppm(Vol/Vo |

### SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

EXHIBIT 4

| ENGINEER | DIST. NO. | ADDRESS | OFFICE PHONE | HOME PHONE |
|---|---|---|---|---|
| Max Woolery | | Farmington, NM | 325-5701 | |
| Woolery | DATE 6-10-77 | DISTRIBUTION ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ BTC ENGINEER OR ☐ BTC LAB ☐ BTC SALES SUPERVISOR | | |

# Hall Environmental Analysis Laboratory

**Date:** *27-Oct-03*

**CLIENT:** Permits West
**Lab Order:** 0310140
**Project:** Lybrook WDW
**Lab ID:** 0310140-01

**Client Sample ID:** Williams Plant Well
**Collection Date:** 10/20/2003 1:50:00 PM
**Matrix:** AQUEOUS

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **BL** |
| Chloride | 8.0 | 0.10 | | mg/L | 1 | 10/20/2003 8:45:23 PM |
| **EPA 6010C: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **NMO** |
| Iron | 0.041 | 0.020 | | mg/L | 1 | 10/23/2003 9:55:52 AM |
| **EPA METHOD 160.1: TDS** | | | | | | Analyst: **MAP** |
| Total Dissolved Solids | 640 | 1.0 | | mg/L | 1 | 10/23/2003 |

EXHIBIT

**Qualifiers:**

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

# Hall Environmental Analysis Laboratory

**Date:** *27-Oct-03*

| | | | |
|---|---|---|---|
| **CLIENT:** | Permits West | **Client Sample ID:** | Lybrook Water Users Well |
| **Lab Order:** | 0310140 | **Collection Date:** | 10/20/2003 2:30:00 PM |
| **Project:** | Lybrook WDW | | |
| **Lab ID:** | 0310140-02 | **Matrix:** | AQUEOUS |

| Analyses | Result | Limit | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **BL** |
| Chloride | 8.0 | 0.10 | | mg/L | 1 | 10/20/2003 9:02:08 PM |
| **EPA 6010C: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **NMO** |
| Iron | 0.35 | 0.020 | | mg/L | 1 | 10/23/2003 10:21:07 AM |
| **EPA METHOD 160.1: TDS** | | | | | | Analyst: **MAP** |
| Total Dissolved Solids | 600 | 1.0 | | mg/L | 1 | 10/23/2003 |

EXHIBIT J

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

**Date:** *27-Oct-03*

**CLIENT:** Permits West
**Work Order:** 0310140
**Project:** Lybrook WDW

# QC SUMMARY REPORT
Method Blank

| Sample ID **MB 102003** | Batch ID: **R9867** | Test Code: **E300** | Units: **mg/L** | Analysis Date **10/20/2003 3:37:29 PM** | Prep Date |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **LC_031020A** | | SeqNo: **221590** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 0.10 | | | | | | | | | |

| Sample ID **MB-4524** | Batch ID: **4524** | Test Code: **SW6010A** | Units: **mg/L** | Analysis Date **10/23/2003 9:43:37 AM** | Prep Date **10/22/2003** |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **ICP_031023A** | | SeqNo: **222166** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.01579 | 0.020 | | | | | | | | | J |

| Sample ID **MB-4520** | Batch ID: **4520** | Test Code: **E160.1** | Units: **mg/L** | Analysis Date **10/23/2003** | Prep Date **10/21/2003** |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **WC_031023D** | | SeqNo: **222198** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | 1.0 | | | | | | | | | |

EXHIBIT 1

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

**Date:** *27-Oct-03*

**CLIENT:** Permits West
**Work Order:** 0310140
**Project:** Lybrook WDW

# QC SUMMARY REPORT

Sample Duplicate

| Sample ID **0310140-01B DUP** | Batch ID: **4524** | Test Code: **SW6010A** | Units: **mg/L** | Analysis Date **10/23/2003 9:58:26 AM** | Prep Date **10/22/2003** |
|---|---|---|---|---|---|
| Client ID: **Williams Plant We** | | Run ID: **ICP_031023A** | | SeqNo: **222171** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.0452 | 0.020 | 0 | 0 | 0 | 0 | 0 | 0.04071 | 10.4 | 30 | |

| Sample ID **0310140-02A** | Batch ID: **4520** | Test Code: **E160.1** | Units: **mg/L** | Analysis Date **10/23/2003** | Prep Date **10/21/2003** |
|---|---|---|---|---|---|
| Client ID: **Lybrook Water Us** | | Run ID: **WC_031023D** | | SeqNo: **222209** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 606 | 1.0 | 0 | 0 | 0 | 0 | 0 | 598 | 1.33 | 20 | |

EXHIBIT 5

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

**Date:** *27-Oct-03*

**CLIENT:** Permits West
**Work Order:** 0310140
**Project:** Lybrook WDW

# QC SUMMARY REPORT

## Sample Matrix Spike

| Sample ID **0310140-01B MS** | Batch ID: **4524** | Test Code: **SW6010A** | Units: **mg/L** | Analysis Date **10/23/2003 10:01:01 A** | Prep Date **10/22/2003** |
|---|---|---|---|---|---|
| Client ID: **Williams Plant We** | | Run ID: **ICP_031023A** | | SeqNo: **222172** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.5365 | 0.020 | 0.5 | 0.04071 | 99.1 | 75 | 125 | 0 | | | |

| Sample ID **0310140-01B MSD** | Batch ID: **4524** | Test Code: **SW6010A** | Units: **mg/L** | Analysis Date **10/23/2003 10:03:23 A** | Prep Date **10/22/2003** |
|---|---|---|---|---|---|
| Client ID: **Williams Plant We** | | Run ID: **ICP_031023A** | | SeqNo: **222173** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.5163 | 0.020 | 0.5 | 0.04071 | 95.1 | 75 | 125 | 0 | | | |

| Sample ID **0310140-02A** | Batch ID: **4520** | Test Code: **E160.1** | Units: **mg/L** | Analysis Date **10/23/2003** | Prep Date **10/21/2003** |
|---|---|---|---|---|---|
| Client ID: **Lybrook Water Us** | | Run ID: **WC_031023D** | | SeqNo: **222210** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1583 | 1.0 | 1000 | 598 | 98.5 | 80 | 120 | 0 | | | |

EXHIBIT 7

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

**Date:** *27-Oct-03*

**CLIENT:** Permits West
**Work Order:** 0310140
**Project:** Lybrook WDW

# QC SUMMARY REPORT

## Laboratory Control Spike - generic

| Sample ID **LCS 102003** | Batch ID: **R9867** | Test Code: **E300** | Units: **mg/L** | Analysis Date **10/20/2003 3:54:14 PM** | Prep Date |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **LC_031020A** | | SeqNo: **221591** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 5.492 | 0.10 | 5 | 0 | 110 | 90 | 110 | 0 | | | |

| Sample ID **LCS-4524** | Batch ID: **4524** | Test Code: **SW6010A** | Units: **mg/L** | Analysis Date **10/23/2003 9:46:07 AM** | Prep Date **10/22/2003** |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **ICP_031023A** | | SeqNo: **222167** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.4698 | 0.020 | 0.5 | 0.01579 | 90.8 | 80 | 120 | 0 | | | |

| Sample ID **LCSD-4524** | Batch ID: **4524** | Test Code: **SW6010A** | Units: **mg/L** | Analysis Date **10/23/2003 9:48:29 AM** | Prep Date **10/22/2003** |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **ICP_031023A** | | SeqNo: **222168** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 0.4865 | 0.020 | 0.5 | 0.01579 | 94.1 | 80 | 120 | 0.4698 | 3.48 | 20 | |

| Sample ID **LCS-4520** | Batch ID: **4520** | Test Code: **E160.1** | Units: **mg/L** | Analysis Date **10/23/2003** | Prep Date **10/21/2003** |
|---|---|---|---|---|---|
| Client ID: | | Run ID: **WC_031023D** | | SeqNo: **222199** | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1006 | 1.0 | 1000 | 0 | 101 | 80 | 120 | 0 | | | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

ELM RIDGE RESOURCES INC. is applying to drill the Lybrook Yard WDW #1 as a water disposal well. The Lybrook Yard WDW #1 will be located at 988' FNL & 2035' fel, Sec. 14, T. 23 N., R. 7 W., Rio Arriba County, NM. The well will dispose of water produced from oil and gas wells into the Point Lookout sandstone at a depth of 4,575' to 4,775' at a maximum rate of 1,000 barrels of water per day and at a maximum pressure of 2,400 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting Brian Wood, Permits West, In., 37 Verano Loop, Santa Fe, Nm 87508. Phone number is (505) 466-8120.

# her's Bill

28 lines one time at 16 80

_____ lines_ _____ times at_____ ____

Affidavit 5 00

Subtotal 21 80

Tax 1 44

Total 23 24

**Payment received at Rio Grande SUN**

Date_____

By lc

# Affidavit of Publication

State of New Mexico
County of Rio Arriba

I, Robert Trapp, being first duly sworn, declare and say I am the Publisher of the Rio Grande SUN, a weekly newspaper published in the English language and having a general circulation in the County of Rio Arriba, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisons of Chapter 167 of the Session Laws of 1937. The publication, a copy of which is hereto attached, was published in said paper once each week for

1 consecutive weeks and on the same day of each week in the regular issue of the paper during the time of publication and the notice was published in the newspaper proper, and not in any supplement. The first publication being on the 3rd day of April

and the last publication on the 3rd day of April payment for said advertisement has been duly made, or assessed as court costs. The undersigned has personal knowledge of the matters and things set forth in this affidavit.

Robert Trapp
Publisher

Subscribed and sworn to before me this 3rd day of April A.D. 2003

Ruth S. Trapp
Ruth S. Trapp/Notary Public
My commission expires 17 May 2005

EXHIBIT A

**PERMITS WEST, INC.**
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

BLM
1235 LaPlata Highway
Farmington, NM 87401

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

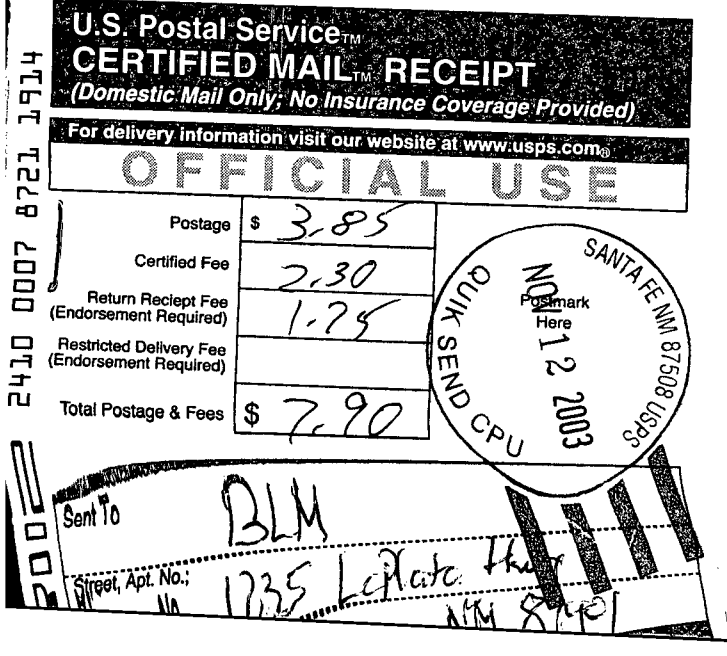
Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood



PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

Bannon Energy Inc.
3934 FM 1960 W #240
Houston, TX 77068-3539

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
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Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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| Certified Fee | 2.30 |
| Return Reciept Fee (Endorsement Required) | 1.75 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | $ 5.11 |

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**PERMITS WEST, INC.**
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

Jack Cole
P. O. Box 191
Farmington, NM 87499

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

2410 0007 8721 1891

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| Return Receipt Fee (Endorsement Required) | 1.75 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | $ 5.11 |

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NOV 12 2003
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T Cole

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

J & R Merrion Trust
610 Reilly Ave.
Farmington, NM 87401

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

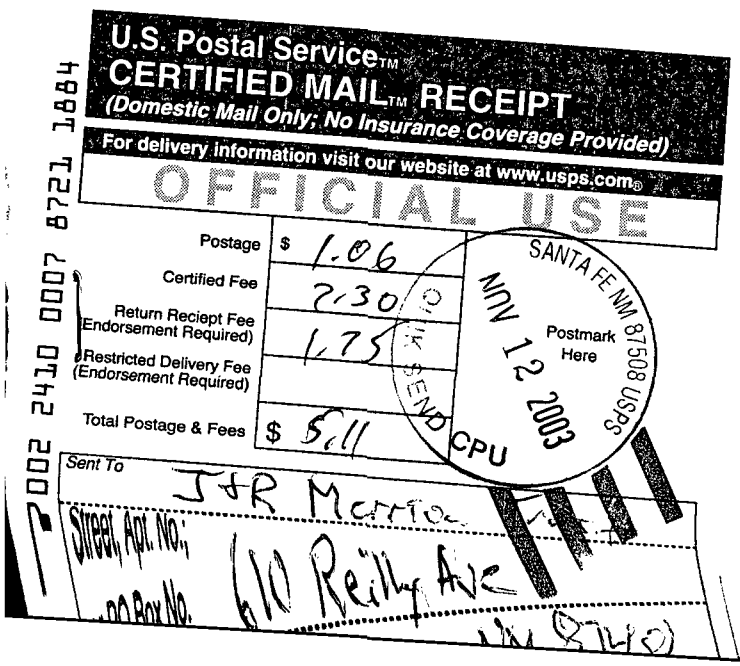
Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood



**PERMITS WEST, INC.**
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

T. Greg Merrion
504 McDonald Ave.
Farmington, NM 87401

Dear T. Greg,

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | $ 5.11 |

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7410 0007 8721 1877

Sent To
T. Greg Merrion

**PERMITS WEST, INC.**
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

Range Production Co.
500 Throckmorton
Ft. Worth, TX 76102

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | $ 5.11 |

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**PERMITS WEST, INC.**
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

Range Production Co.
500 Throckmorton
Ft. Worth, TX 76102

As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Elm Ridge Resources, Inc. is applying (see attached revised application) to drill its Lybrook Yard WDW #1 well.

Well Name: Lybrook Yard WDW #1 Total Depth: 4,900'
Proposed Disposal Zone: Point Lookout (from ≈4,575' to ≈4,775')
Location: 988' FNL & 2035' FEL Sec. 14, T. 23 N., R. 7 W.,
Rio Arriba County, NM on BLM lease NMSF-078360
Approximate Location: at Lybrook, NM
Applicant Name: Elm Ridge Resources, Inc. (505) 632-3476
Applicant's Address: P. O. Box 189, Farmington, NM 87499

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

U.S. Postal Service
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(Domestic Mail Only; No Insurance Coverage Provided)

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PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 12, 2003

Walsh Trust
204 N. Auburn
Farmington, NM 87401

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