

**LONE MOUNTAIN PRODUCTION COMPANY**

Mailing Address:  
P.O. Box 3394  
Billings, MT 59103-3394

(406) 245-5077  
FAX 248-6321

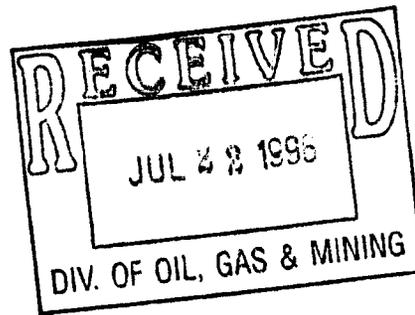
Shipping Address:  
100 North 27th Street  
Suite 650  
Billings, MT 59101

July 17, 1996

Utah Division of Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
P. O. Box 145801  
Salt Lake City, Utah 84114-5801

Attn: Mr. Ron Firth

RE: APPLICATION FOR PERMIT TO DRILL  
BAR-X UNIT #23  
SESE SECTION 1: T17S-R25E  
GRAND COUNTY, UTAH



Dear Ron:

Enclosed in duplicate is Lone Mountain Production Company's application to drill the referenced well. Lone Mountain anticipates beginning operations on or about September 1, 1996.

If you have any questions please call me.

Sincerely,

LONE MOUNTAIN PRODUCTION COMPANY

A handwritten signature in cursive script that reads "James G. Routson".

James G. Routson  
President

Enclosure

cc: Joe Dyk

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL                       DEEPEN                       PLUG BACK

b. TYPE OF WELL  
 OIL WELL                       GAS WELL                       OTHER                       SINGLE ZONE                       MULTIPLE ZONE

2. NAME OF OPERATOR  
 LONE MOUNTAIN PRODUCTION COMPANY

3. ADDRESS OF OPERATOR  
 P.O. BOX 3394 BILLINGS, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 210'FSL & 900' FEL  
 At proposed prod. zone  
 SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 FROM MACK COLORADO - 20 MILES NORTHWEST

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 900' (LSE)  
 (Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE  
 1280

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 NA

13. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1736'

19. PROPOSED DEPTH  
 3642 MORRISON

20. ROTARY OR CABLE TOOLS  
 ROTARY

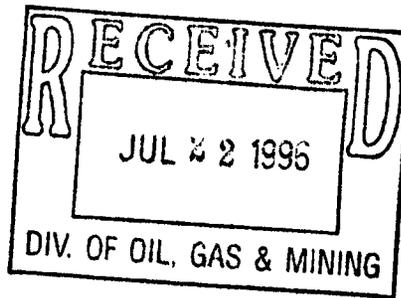
21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5321.8' GR                      5332 KB (EST.)

22. APPROX. DATE WORK WILL START\*  
 9-1-96

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8 5/8"	24#	300'	115 sks
6 1/4"	4 1/2"	10.5	3642	175 sks 10-0 THIXOTROPIL

SEE ATTACHMENTS



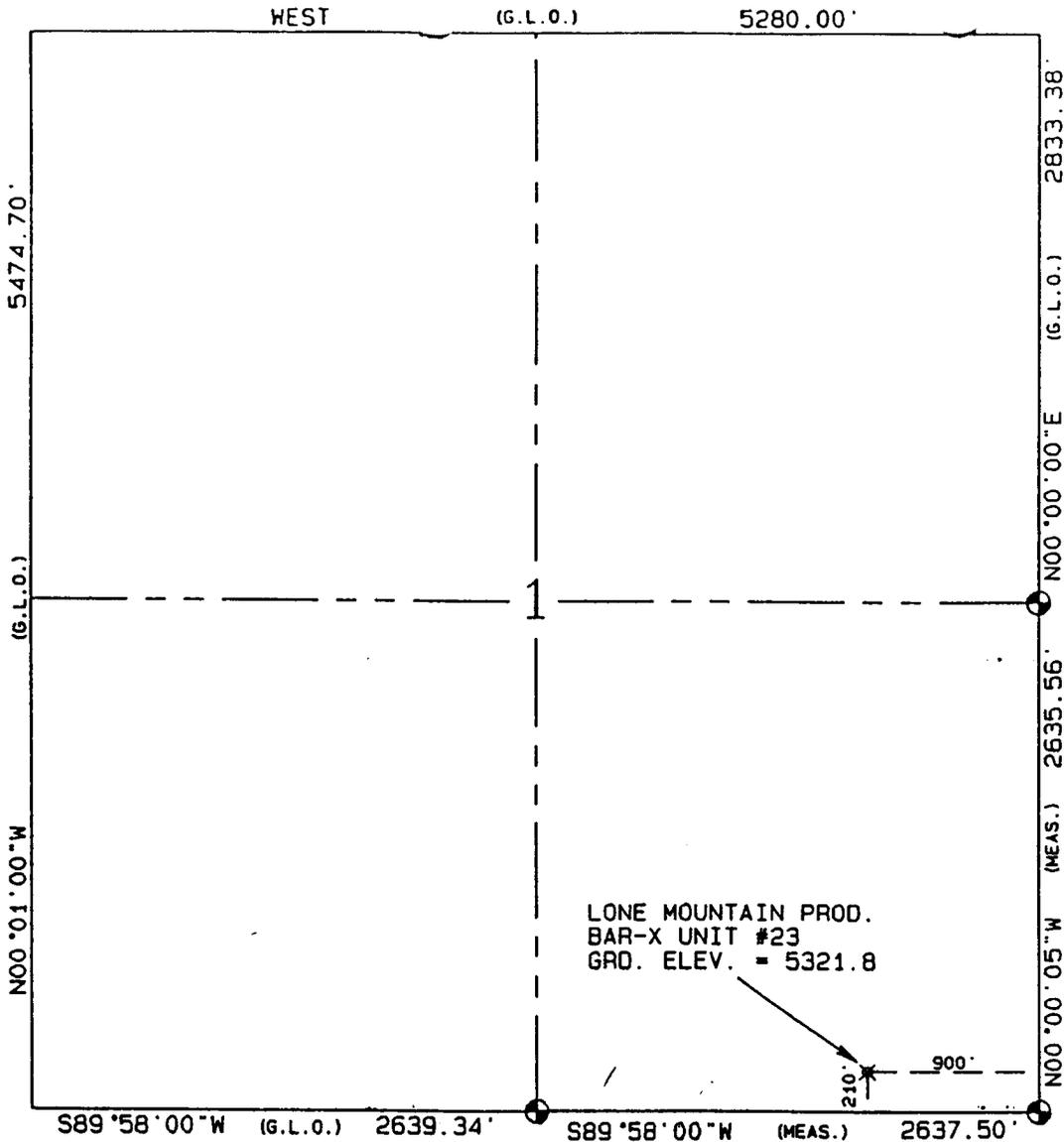
24. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED J. Matthews TITLE PETROLEUM ENGINEER DATE July 17, 1996  
 (This space for Federal or State office use)

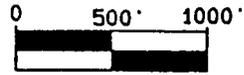
PERMIT NO. 43-019-31347 APPROVAL DATE \_\_\_\_\_  
 APPROVED BY J. Matthews TITLE Petroleum Engineer DATE 8/26/96  
 CONDITIONS OF APPROVAL, IF ANY \_\_\_\_\_

\*See Instructions On Reverse Side

PLAT # 4



N



SCALE 1" = 1000'

LEGEND

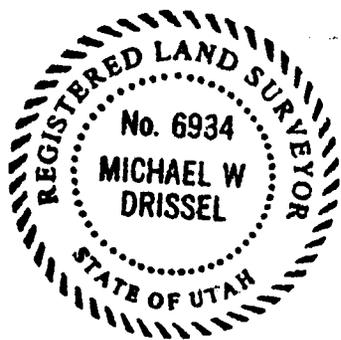
- G.L.O. BRASS CAP
- ⊗ SET #5 REBAR

LONE MOUNTAIN PROD.  
 BAR-X UNIT #23  
 GRD. ELEV. = 5321.8

WELL LOCATION  
 210 FT. FSL - 900 FT. FEL  
 SECTION 1, T17S, R25E, S.L.B. & M.  
 GRAND COUNTY, UTAH

SURVEYOR'S STATEMENT

I, MICHAEL W. DRISSEL, a registered Land Surveyor in the State of Utah, do hereby state that the well location shown hereon was staked on the ground based on existing monumentation and/or physical evidence found in the field and is correct to the best of my knowledge, and belief.



*Michael W. Drissel* 9-12-94

**D H SURVEYS INC.**  
 118 OURAY AVE.  
 Grand Junction, CO. 81501-6572  
 (303) 245-8749  
 JOB NO. 244-94-01

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 LONE MOUNTAIN PRODUCTION COMPANY

3. ADDRESS OF OPERATOR  
 P.O. BOX 3394 BILLINGS, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 210' FSL & 900' FEL  
 At proposed prod. zone 770  
 SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 FROM MACK COLORADO - 20 MILES NORTHWEST

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 900' (LSE)

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 1736'

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 5321.8' GR 5332 KB (EST.)

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11"	8 5/8"	24#	300'	115 sks
6 1/4"	4 1/2"	10.5	3642	175 sks 10-0 THIXOTROPIL

5. LEASE DESIGNATION AND SERIAL NO.  
 SL-064806

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 NA

7. UNIT AGREEMENT NAME  
 BAR-X

8. FARM OR LEASE NAME  
 FEDERAL

9. WELL NO.  
 NO. 23

10. FIELD AND POOL, OR WILDCAT  
 BAR-X

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 SEC 1, T17S-R25E

12. COUNTY OR PARISH  
 GRAND

13. STATE  
 UT

16. NO. OF ACRES IN LEASE  
 1280

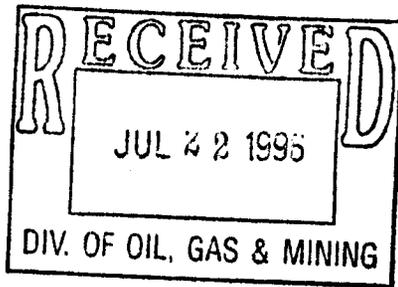
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SEE ATTACHMENTS



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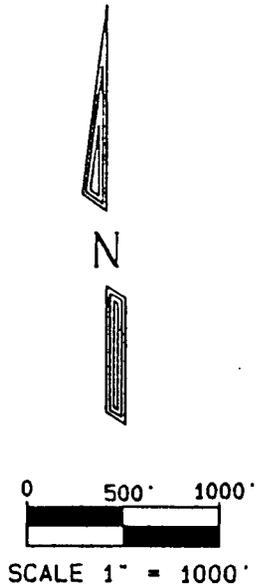
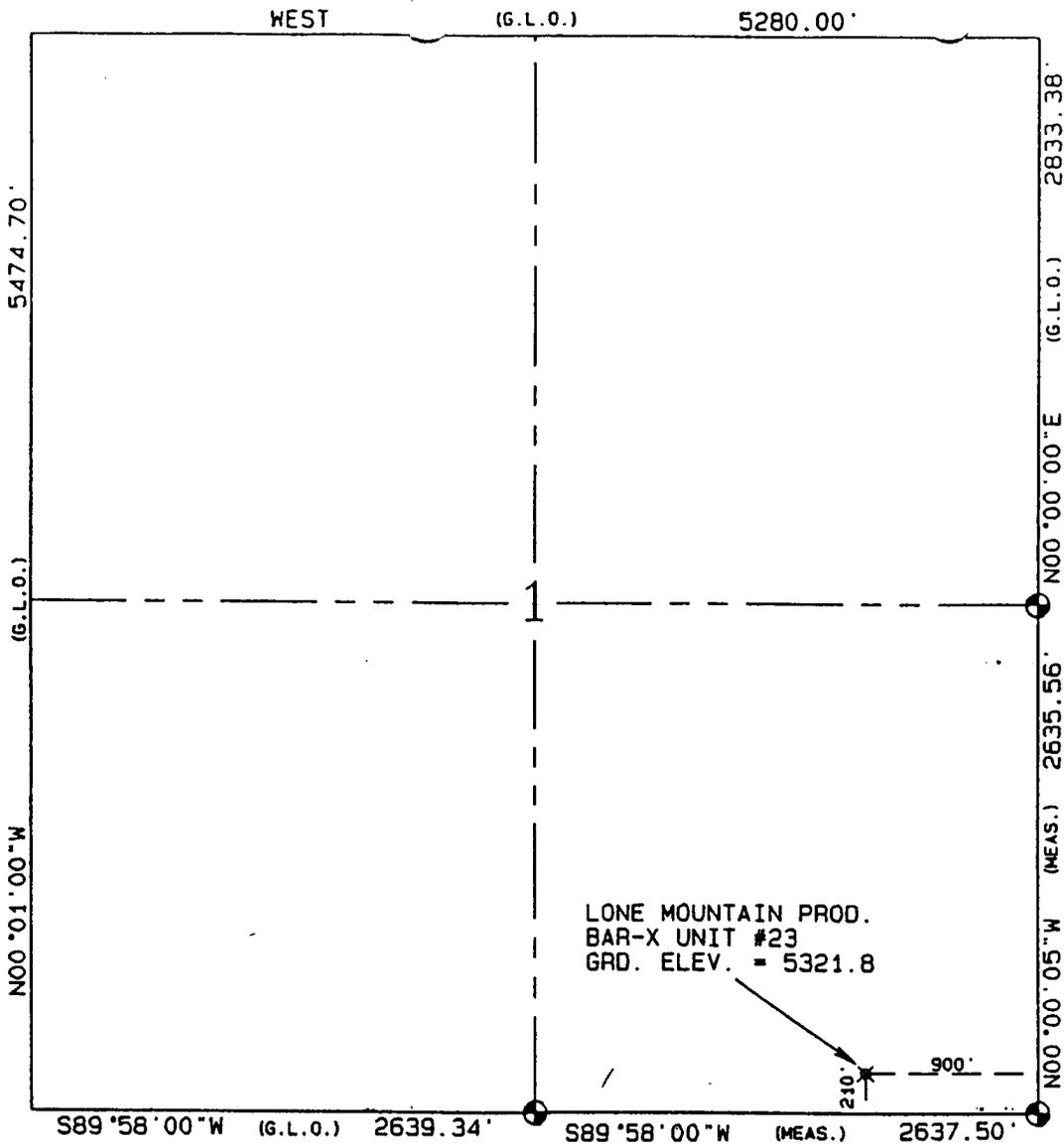
SIGNED James R. Barton TITLE PETROLEUM ENGINEER DATE July 17, 1996

PERMIT NO. 43-013-31347 APPROVAL DATE 8/26/96

APPROVED BY J.P. Matthews TITLE Petroleum Engineer

\*See Instructions On Reverse Side

PLAT # 4



LEGEND

- G.L.O. BRASS CAP
- ⊗ SET #5 REBAR

LONE MOUNTAIN PROD.  
 BAR-X UNIT #23  
 GRD. ELEV. = 5321.8

WELL LOCATION

210 FT. FSL - 900 FT. FEL  
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*Michael W. Drissel* 9-12-94

**D H SURVEYS INC.**  
 118 OURAY AVE.  
 Grand Junction, CO. 81501-6572  
 (303) 245-8749  
 JOB NO. 244-94-01

Application for Permit to Drill  
Bar-X Federal #23  
SESE Sec. 1, T17S-R25E  
Grand County, Utah

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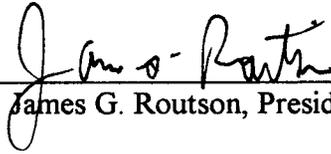
1. Surface formation is the Mancos.
2. Anticipated Geologic Markers: Mancos @ surface, Dakota Silt @ 3092', Dakota Sand @ 3176', Morrison @ 3300'.
3. Gas is anticipated in the Dakota and Morrison. No oil or other minerals are anticipated. No water sands are expected.
4. Proposed casing program: See Item #23 of form 3160-3.
5. Pressure control equipment: see attached Well Control Plan and schematic of contractor's BOP stack. BOP's will be tested before drilling out from under surface casing and checked daily.
6. Air or mist drilling will be used to drill the surface hole unless water is encountered. If water is encountered, chemical/gel mud will be used. The well will be air drilled from under surface casing to TD.
7. Auxiliary equipment: See Well Control Plan.
8. The logging program will consist of a DIL log from TD to base of surface casing and GR-FDC-CNL logs across the bottom 1000'. No cores or drill stem tests are planned.
9. No abnormal pressures or temperatures are anticipated. No poisonous gas is anticipated.
10. Anticipated spud date is September 1, 1996. completion operations should commence within 30 days of rig release.
11. Survey plats are attached.
12. The gas is not dedicated at this time.
13. Lone Mountain Production Company's Statewide Bond is UT0719.
14. The completion program will be designed after the logs have been evaluated.

## WELL CONTROL PLAN

1. Surface casing: 8-5/8", 24#/ft, STC-J-55 set @ 300' and cemented back to surface with 85 sacks Class G + 3% salt, 16% gel, 0.2% retarder and 30 sacks Class G + 3% CaCl<sub>2</sub> (yield: 2.33 ft<sup>3</sup>/sk; compressive strength=650 psi in 6 hours).
2. Casinghead Flange: 8-5/8" x 4-1/2" 600 series casinghead with two 2", 2000 psi L.P. outlets.
3. Blowout Preventer: the drilling rig is equipped with a 10", 3000 psi WP double gate hydraulic Shaffer BOP (or equivalent) with drill pipe rams and blind rams to meet requirements for a 2000 psi stack as indicated in Onshore Order No. 2. All fill, kill and choke lines will be a minimum of 2", 2000 psi WP. A rotating head will be used while air and mist drilling. A new rubber will be installed before drilling through the Dakota. Pipe rams and hydril will be function tested daily and blind rams each trip when out of the hole. BOP's will be tested to 2000 psi but not more than 70% of the casing burst pressure prior to drilling the shoe joint.
4. Auxiliary Equipment: (a) Drill pipe floats will be allowed at contractor's discretion. (b) Visual monitoring of air returns will be maintained. (c) Upper kelly cock will be used. (d) Stabbing valve will be kept on the floor.
5. Anticipated bottom hole pressure is less than 0.21 psi/ft gradient. No abnormal temperatures of hydrogen sulfide gas are anticipated.

LONE MOUNTAIN PRODUCTION COMPANY

By: \_\_\_\_\_

  
James G. Routson, President

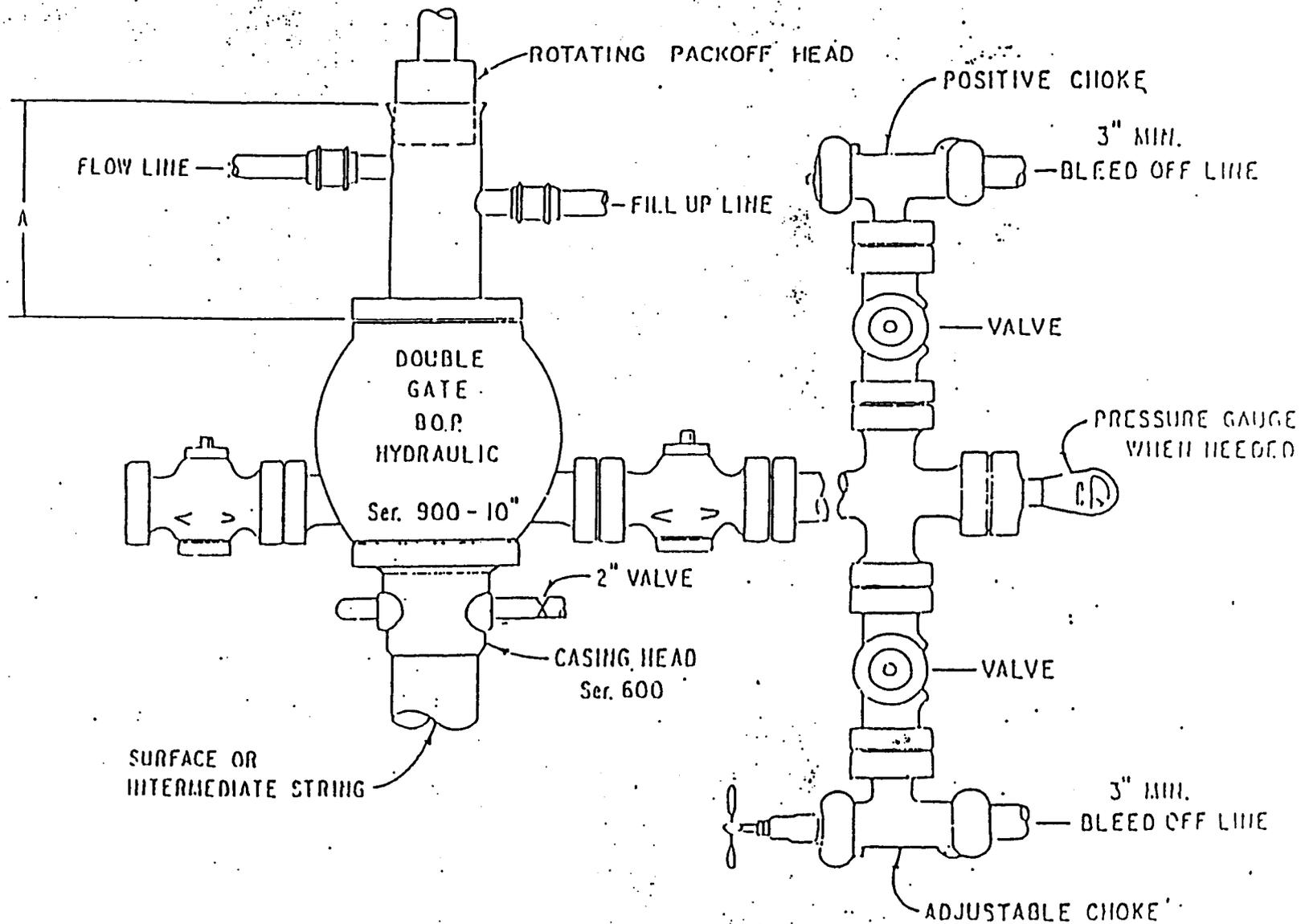


EXHIBIT I  
 BLOWOUT PREVENTER DIAGRAM

## SURFACE USE PLAN

Lone Mountain Production Company  
Bar-X Federal #23  
SESE Sec. 1, T17S-R25E  
Grand County, Utah

### 1. EXISTING ROADS

See maps #1 and #2 and Plat #4. This proposed well is located approximately 20 miles northwest of Mack, CO. Go 9.1 miles west on old highway 6 & 50 to 2 Road. Right on 2 Road 4.2 miles to State Line fence road. Right on State Line fence road for 4.3 miles then left for 2.3 miles to new access road. Go 0.4 miles to location..

2. The proposed 0.4 miles of access road will be constructed with an 18 foot travel width. Total disturbance width will be 30 feet. Approximately 0.21 miles of the proposed road is located outside the Bar-X Unit Boundary. This application should also be considered as application for a right of way grant for that portion of the road. The remaining 0.2 miles of access road is within the Unit boundary. A cultural survey will be performed along the entire route. See Map #1 and Plat #2.

The topsoil will be windrowed on the north side of the road.

### 3. LOCATION OF EXISTING WELLS

11 producing wells and no dry holes are located within a one mile radius. See Map #3.

### 4. LOCATION OF PRODUCTION FACILITIES

Upon completion of the well as a producing gas well, sufficient facilities to handle gas production will be installed. In addition an 8' dia. x 8' deep culvert will be installed for containment and evaporation of produced water will be installed. A submittal in accordance with Onshore Order #7 will be completed at that time. All facilities will be painted desert brown to blend in with the natural surroundings.

### 5. LOCATION AND TYPE OF WATER SUPPLY

The water source for this well is West salt Creek. The pick up point is on old highway 6 & 50, 2.5 miles west of Mack, Colorado.

### 6. SOURCE OF CONSTRUCTION MATERIALS

No construction materials will be used other than native materials. Soil from cuts will be used in fills. Only upon completion will outside material be brought in if deemed necessary for production operations.

## 7. METHODS FOR HANDLING WASTE MATERIAL

Cuttings will be buried in the reserve pit at cleanup. Garbage and other waste material will be contained in a trash cage. this cage will be dumped at an approved sanitary landfill. Human waste will be contained in chemically treated sanitary porta-potties.

Drilling fluids will be contained in the reserve pit and left to evaporate. Any fluids produced during testing operations will be collected in a test tank. If a test tank is not available, the fluids will be contained in the reserve pit. Any spills of oil, gas, saltwater, or noxious fluid will be cleaned up and removed.

If the well is productive, produced water will be disposed of on site for 30 days only or 90 days with the permission of the State Petroleum Engineer. After that time, application will be made for approval of permanent disposal method in compliance with the rules and regulations of the State of Utah and Onshore Order No. 7

## 8. ANCILLARY FACILITIES

A 3" welded steel line will be laid approximately 2300' south to the Bar-X #20well. Arch clearance will be done upon completion of the well and approval of the appropriate Sundry Notice.

## 9. WELLSITE LAYOUT

See Plat #2 - Pit and Pad Layout

See Plat #3 - Cross Sections of Pit and Pad

The location will be constructed large enough to accommodate the drilling rig and associated equipment with allowance made for future completion and production equipment. In addition to the location indicated on the attached plat, it is proposed to remove existing grass and vegetation from the surface a radial distance of 75' from the reserve pit. This will act as a fire barrier in the event gas flaring while drilling is necessary.

Topsoil will be stripped to a depth of 4" and stockpiled on the north edge of the location. No topsoil stripping will be done when soils are moisture saturated to a depth of 3" or frozen below the stripping depth.

The reserve pit will be fenced on three sides prior to drilling activity and closed off on the fourth side after drilling is finished. Fencing will be four strands of barbed wire or 48 inch woven wire with one strand of barbed wire above the woven wire. All corners will be braced. The fence construction will be on the north end of the reserve pit to contain dust from the blooie line.

All construction activities will be confined to the minimum area necessary. The exterior boundaries of the construction area will be clearly flagged prior to any surface disturbing activities or vegetation removal.

Lone Mountain Production Company will clear all brush prior to construction. Brush will be stock piled on the northeast and southwest edges of the location and will be kept separate from the soil stock piles. The brush will be used for mulch after the disturbed area has been reseeded.

#### 10. PLANS FOR RECLAMATION OF THE SURFACE

A biodegradable mulch may be required if soil erosion or vegetation establishment is determined to be a problem by the authorized officer on the access or location reclamation.

All disturbed areas will be seeded with the approved seed mixture. Seed tags will be submitted to the area manager within 30 days of seeding.

Lone Mountain will prepare seedbed by contour cultivating 4 - 6 inches deep and drilling seed 1/2 to 1 inch deep following the contour. In areas that cannot be drilled, seed will be broadcast at 1.5 times the application rate and covered 1/2 to 1 inch deep with a harrow or drag bar.

Seeding will be completed prior to October 1 1996 if feasible, but not later than the fall of 1997.

If the well is a producer:

Lone Mountain will upgrade and maintain access roads as necessary to prevent soil erosion and accommodate year-round traffic. Lone Mountain will reshape areas unnecessary to operation, rip or disk on the contour, and seed all disturbed areas outside the work area according to the above seed mixture. The top soil will be saved for use during final reclamation unless the site can be recontoured to blend with the natural topography as required for the final abandonment. Perennial vegetation will be established. Additional work will be required in case of seeding failures. All permanent facilities placed on the location will be painted dark green to blend with the natural environment.

If the well is abandoned/dryhole:

Lone Mountain will restore the access road and location to blend with the natural topography. During reclamation of the site, till material will be pushed into cuts and up over the backslope. No depressions will be left that could trap water or form ponds. Topsoil will be distributed evenly over the location and seeding according to the above seed mixture. The access road and location will be ripped or disked prior to seeding.

The area is considered to be satisfactorily reclaimed when:

- A) Soil erosion resulting from the operation has been stabilized.
- B) A vegetative cover at least equal to that present prior to disturbance and a plant species composition at least as desirable as that present prior to disturbance has been established. Establishment of seeded species in the approved seed formula will be considered as acceptance.

Additional work will be required until these conditions are satisfied.

11. SURFACE OWNERSHIP

All lands involving new construction are federal lands.

12. Lone Mountain will contact the Grand Resource area Manager at least 24 hours prior to commencing construction or maintenance of the access road and/or well pad.

Lone Mountain will immediately bring to the attention of the Grand Resource Area manager any and all antiquities or other objects of historic or prehistoric ruins, artifacts, or fossils discovered as a result of operations under this permit. Lone Mountain will immediately suspend all activities in the area of the object and will leave such discoveries intact until told to proceed by the area manager. Notice to proceed will be based upon the evaluation of the cultural significance of the object. Evaluation will be by a qualified professional selected by the Area Manager from a federal agency insofar as practical. When not practical, Lone Mountain will follow the mitigation requirements set forth by the Area Manager concerning protection, preservation, or disposition of any sites or material discovered. In those situations where the Area Manager determines that data recovery and/or salvage excavations are necessary. Lone Mountain will bear the cost of such data recovery and/or salvage operations.

The Grand Resource Area Manager will be notified at least 24 hours prior to commencing reclamation work.

13. LESSEE'S OR OPERATOR'S REPRESENTATIVES AND CERTIFICATION

James G. Routson  
Lone Mountain Production Company  
P. O. Box 3394  
Billings, Montana 59103  
Office Phone: (406) 245-5077  
Home Phone: (406) 656-4325

Joel V. Dyk  
Lone Mountain Production Company  
1360 Highway 6 & 50  
Loma, Colorado 81524  
Office Phone: (970) 858-7546  
Home Phone: (970) 858-0536  
Mobile Phone: (970) 244-6238

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Lone Mountain Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

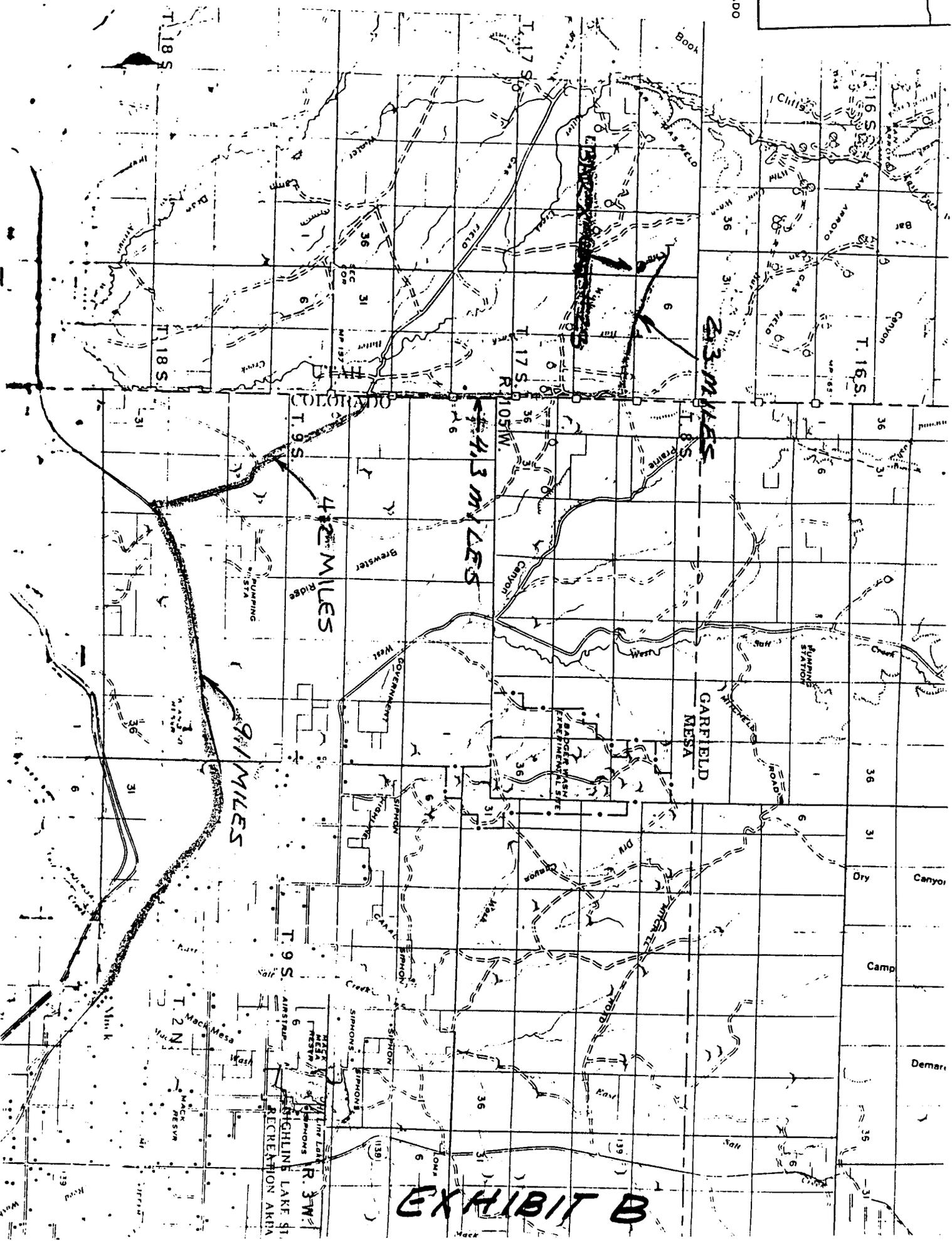
Date July 17, 1996

James G. Routson  
James G. Routson, President

MAP #1  
BAR-X #23

COLORADO

Limon  
Springs



3.3 MILES

4.3 MILES

4.2 MILES

9.1 MILES

EXHIBIT B

TRAP #2  
BAR-X23

Drill hole  
5080

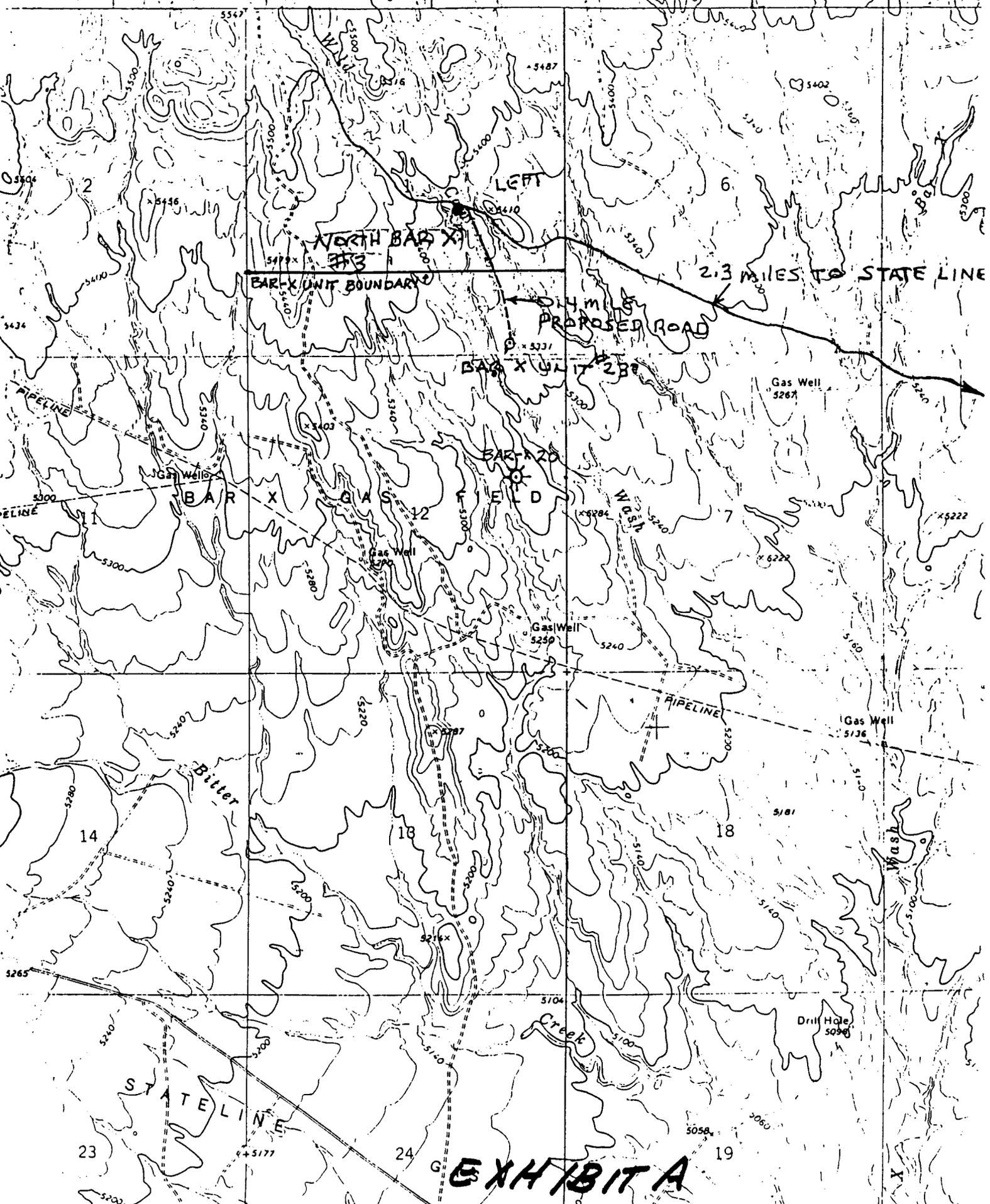


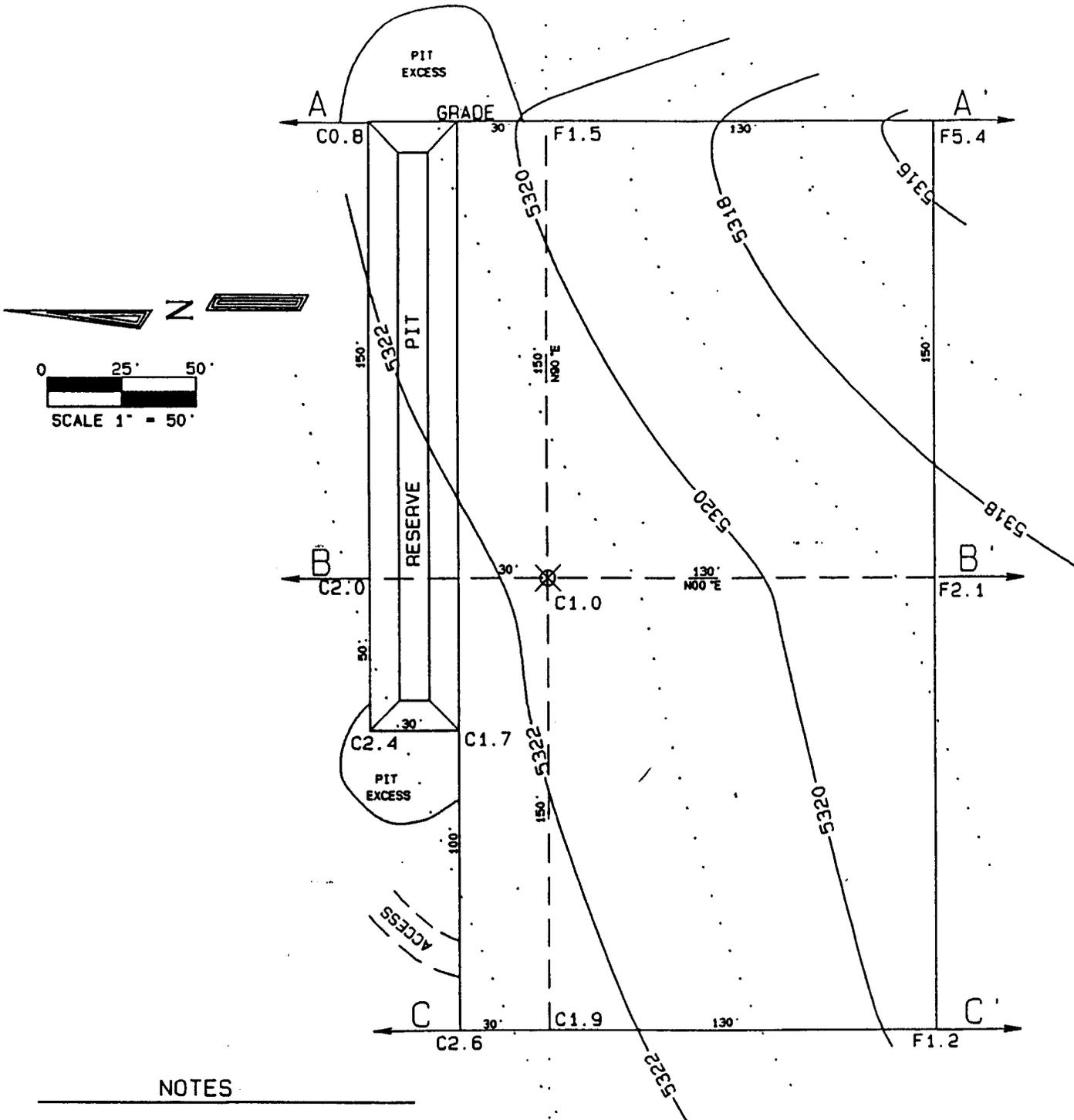
EXHIBIT A

# PAD LAYOUT

LONE MOUNTAIN PROD.  
BAR-X UNIT #23

PLAT#2  
BAR-X 23

REF. PT. 200



## NOTES

1. ELEVATIONS ARE DETERMINED FROM USGS 7.5 MINUTE QUADRANGLE
2. CONTOUR INTERVAL = 1 FOOT
3. TOPSOIL TO BE STOCKPILED ON EXTERIOR OF WELL PAD

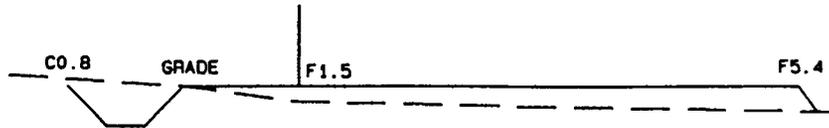
FILL = 1,972 cu. yds.  
CUT = 3,190 cu. yds.

# CROSS SECTION

LONE MOUNTAIN PROD.  
BAR-X UNIT #23

PLAT #3  
BAR-X #23

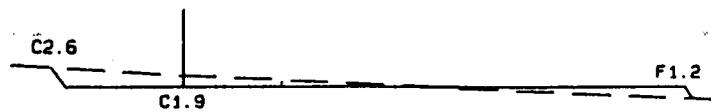
## SECTION A - A'



## SECTION B - B'



## SECTION C - C'



HORIZ. SCALE 1" = 50'  
VERT. SCALE 1" = 10'

D H SURVEYS INC.

JOB NO. 244-94-01



WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 07/22/96

API NO. ASSIGNED: 43-019-31347

WELL NAME: BAR-X FEDERAL No. 23  
 OPERATOR: LONE MOUNTAIN PRODUCTION (N7210)

PROPOSED LOCATION:  
 SESE 01 - T17S - R25E  
 SURFACE: 0210-FSL-0900-FEL  
 BOTTOM: 0210-FSL-0900-FEL  
 GRAND COUNTY  
 BAR-X FIELD (160)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED  
 LEASE NUMBER: SL - 064806

PROPOSED PRODUCING FORMATION: MRSN

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal  State  Fee   
 (Number 43-019-31347)

Potash (Y/N)

Oil shale (Y/N)

Water permit  
 (Number 4)

RDCC Review (Y/N)  
 (Date: \_\_\_\_\_)

LOCATION AND SITING:

R649-2-3. Unit: BAR-X

R649-3-2. General.

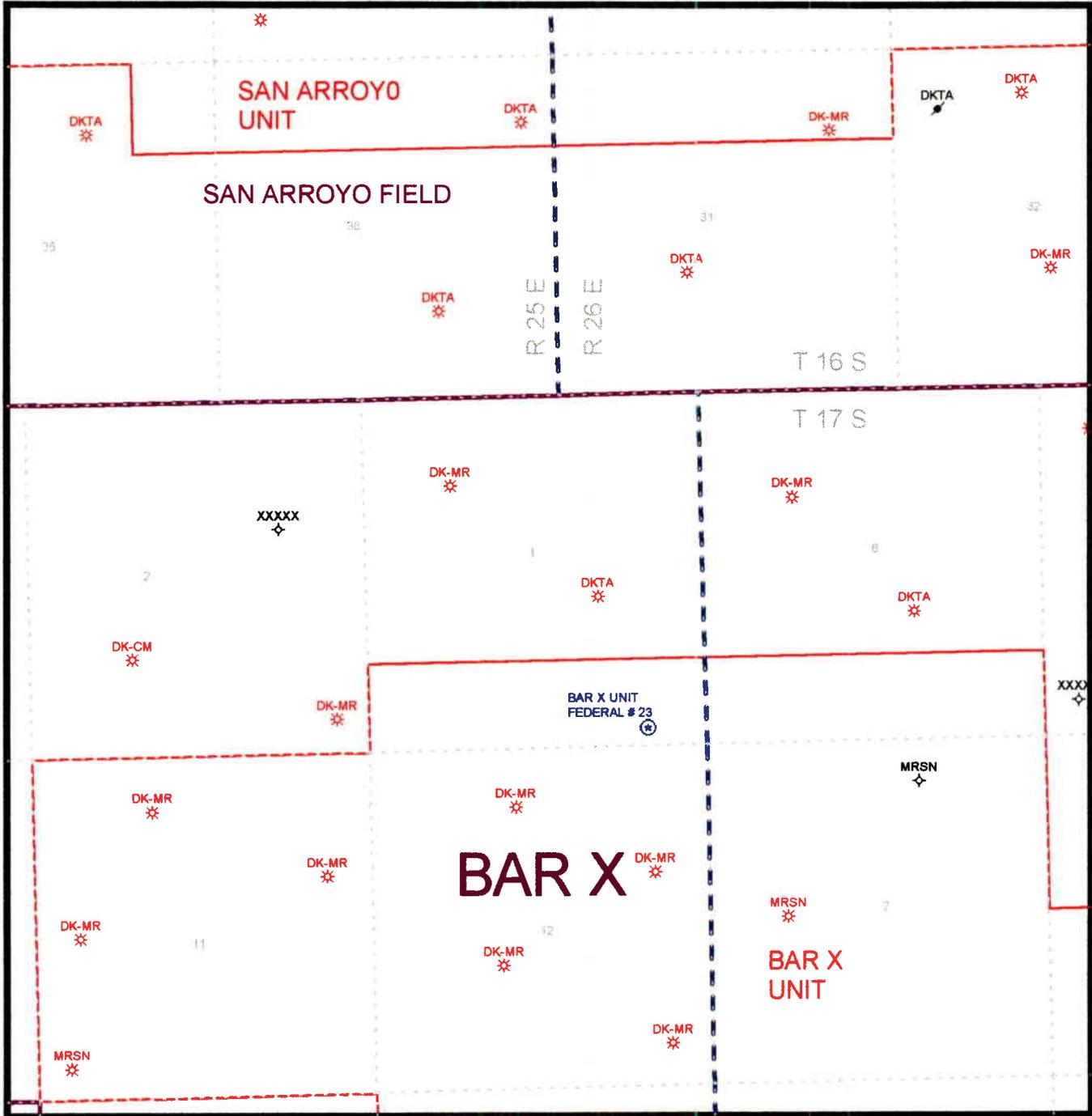
R649-3-3. Exception.

Drilling Unit.  
 Board Cause no: \_\_\_\_\_  
 Date: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

OPERATOR: LONE MOUNTAIN  
FIELD: BAR X FIELD BAR X UNIT  
SEC, TWP, RNG: SEC. 1 T17S, R25E  
COUNTY: GRAND  
UAC: R649-2-3 BAR X



PREPARED:  
DATE: 23-JULY-96



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

August 26, 1996

Lone Mountain Production Company  
P.O. Box 3394  
Billings, Montana 59103

Re: Bar-X Federal 23 Well, 210' FSL, 900' FEL, SE SE, Sec. 1,  
T. 17 S., R. 25 E., Grand County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-019-31347.

Sincerely,

  
for R. J. Firth  
Associate Director

lwp

Enclosures

cc: Grand County Assessor  
Bureau of Land Management, Moab District Office



Operator: Lone Mountain Production Company  
Well Name & Number: Bar-X Federal 23  
API Number: 43-019-31347  
Lease: SL-064806  
Location: SE SE Sec. 1 T. 17 S. R. 25 E.

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews at (801)538-5334 or Mike Hebertson at (801)538-5333.

3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

**STATE OF UTAH, DIV OF OIL, GAS & MINERALS**

<b>Operator: LONE MOUNTAIN PROD CO</b>	<b>Well Name: FEDERAL 23</b>
<b>Project ID: 43-019-31347</b>	<b>Location: SEC. 01 - T17S - R25E</b>

Design Parameters:

Mud weight ( 8.30 ppg) : 0.431 psi/ft  
 Shut in surface pressure : 1488 psi  
 Internal gradient (burst) : 0.022 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using air weight  
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	3,642	4.500	10.50	J-55	ST&C	3,642	3.927		
	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	1570	4010	2.554	1570	4790	3.05	38.24	132	3.45 J

Prepared by : MATTHEWS, Salt Lake City, Utah  
 Date : 08-26-1996  
 Remarks :

DAKOTA MORRISON

Minimum segment length for the 3,642 foot well is 1,500 feet.  
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 89°F (Surface 74°F , BHT 125°F & temp. gradient 1.400°/100 ft.)  
 String type: Production  
 The mud gradient and bottom hole pressures (for burst) are 0.431 psi/ft and 1,570 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.  
 Costs for this design are based on a 1987 pricing model. (Version 1.07)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 LONE MOUNTAIN PRODUCTION COMPANY

3. ADDRESS OF OPERATOR  
 P.O. BOX 3394 BILLINGS, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 210' FSL & 900' FEL  
 At proposed prod. zone  
 SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 FROM MACK COLORADO - 20 MILES NORTHWEST

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)  
 900' (LSE)

16. NO. OF ACRES IN LEASE  
 1280

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 NA

5. LEASE DESIGNATION AND SERIAL NO.  
 SL-064806

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 NA

7. UNIT AGREEMENT NAME  
 BAR-X

8. FARM OR LEASE NAME  
 FEDERAL

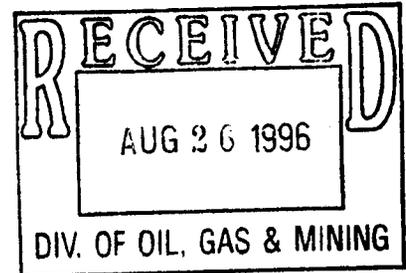
9. WELL NO.  
 NO. 23

10. FIELD AND POOL, OR WILDCAT  
 BAR-X

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 SEC 1, T17S-R25E

12. COUNTY OR PARISH  
 GRAND

13. STATE  
 UT



zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James R. Barton TITLE PETROLEUM ENGINEER DATE July 17, 1996

(This space for Federal or State office use)

PERMIT NO. 43-019-31347 APPROVAL DATE \_\_\_\_\_

APPROVED BY 1st Brad D. Palmer TITLE Assistant Field Manager, Resource Management DATE AUG 22 1996

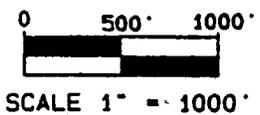
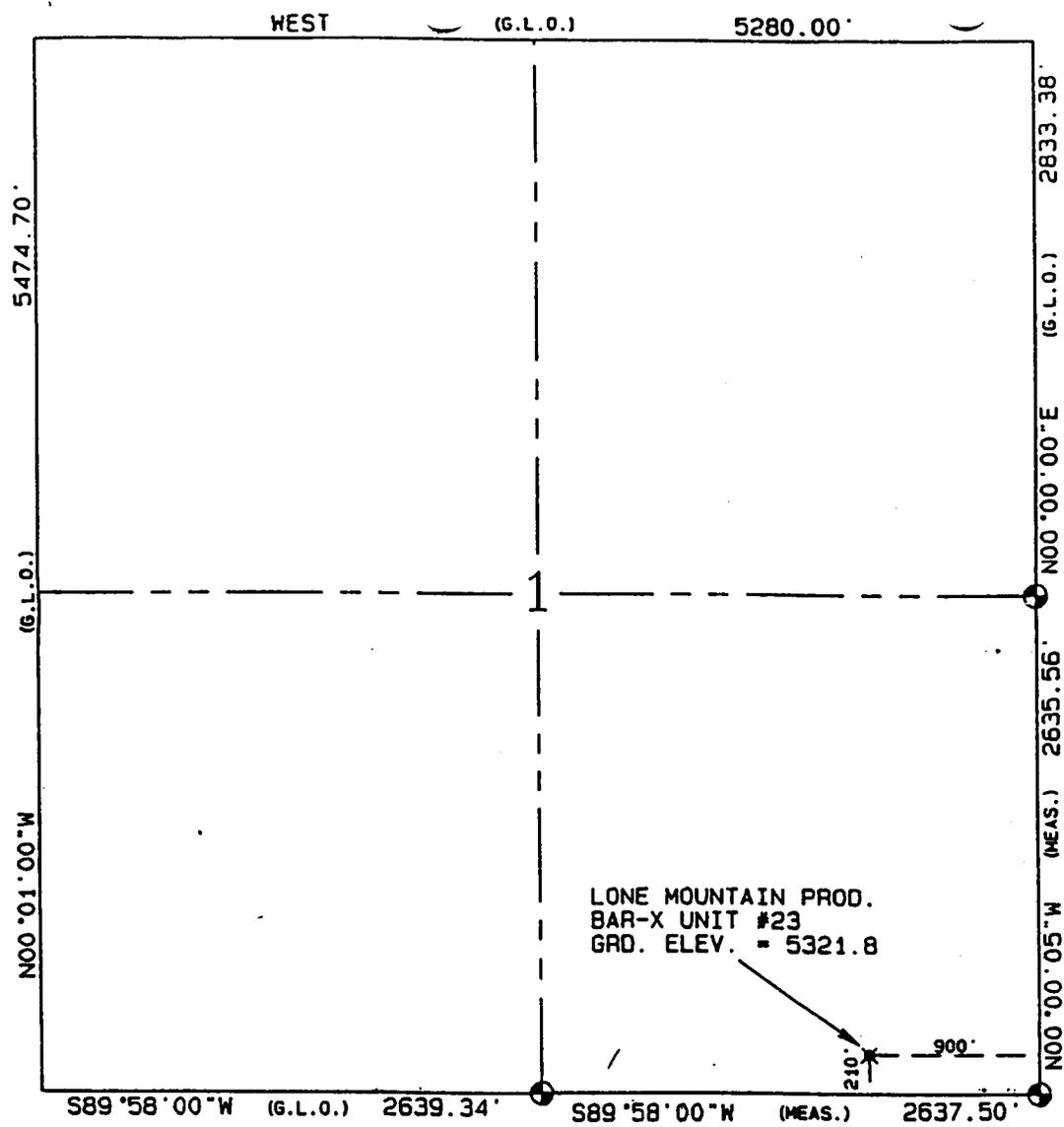
CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

\*See Instructions On Reverse Side

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A Dated 1/1/80

PLAT # 4



LEGEND

- G.L.O. BRASS CAP
- ⊗ SET #5 REBAR

LONE MOUNTAIN PROD.  
 BAR-X UNIT #23  
 GRD. ELEV. = 5321.8

WELL LOCATION

210 FT. FSL - 900 FT. FEL  
 SECTION 1, T17S, R25E, S.L.B. & M.  
 GRAND COUNTY, UTAH

SURVEYOR'S STATEMENT

I, MICHAEL W. DRISSEL, a registered Land Surveyor in the State of Utah, do hereby state that the well location shown hereon was staked on the ground based on existing monumentation and/or physical evidence found in the field and is correct to the best of my knowledge, and belief.



*Michael W. Drissel* 9-12-94

**D H SURVEYS INC.**  
 118 OURAY AVE.  
 Grand Junction, CO. 81501-6572  
 (303) 245-8749  
 JOB NO. 244-94-01

Lone Mountain Production Company  
Federal No. 23  
Lease SL-064806  
Bar-X Unit  
SESE Section 1, T17S, R25E  
Grand County, Utah

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Lone Mountain Production Company is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT 0719 (Principal - Lone Mountain Production Company) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. The surface location of this well does not fall within a "spacing window" as specified by the State of Utah, Division of Oil, Gas and Mining (DOGM). Concurrent approval from DOGM is required. Spacing of this wellsite is governed by Cause No. 13-6 of the Board of Oil, Gas and Mining.
2. The proposed 2M BOP system is adequate. The BOP system shall be maintained and tested in accordance with Onshore Oil and Gas Order No. 2.
3. If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.

## **B. SURFACE USE PLAN**

1. All phases of installation, operation, maintenance, and abandonment of the pipeline transporting gas from the Bar-X Unit No. 23 Well will avoid archaeological site 42GR2571 that was identified along the northern side of the Bar-X Unit No. 20 Well.
2. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer. Within five working days the authorized officer will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
  - a timeframe for the authorized officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the authorized officer are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the authorized officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the operator will then be allowed to resume construction.

3. In order to protect deer winter range, no drilling will be allowed from December 1 through April 15. The limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation may be specified in writing by the authorized officer.
4. No construction or drilling operations will be authorized between February 1 and July 15, unless additional raptor surveys are completed prior to conducting operations to identify and avoid raptor nesting sites within 1/2 mile of the proposed action. Any peregrine falcon nesting areas identified within the project area will be avoided by 1 mile. These limitations does not apply to maintenance and operation of existing wells.

5. Surface disturbance and vehicular travel will be limited to the approved location and access route. Any additional area needed will be approved in advance.
6. The access road will be rehabilitated or brought to Resource (Class III) Road Standards within sixty (60) days of dismantling the drilling rig. If upgraded, the road must be maintained at these standards until the well is properly abandoned. If this time frame cannot be met, the Area Manager will be notified so that temporary drainage control can be installed along the access road.
7. The reserve pit will be located in cut material, with at least 50% of the pit volume below original ground level.
8. To minimize the amount of fugitive dust and spray escaping from the blooie pit, the blooie line will be directed into a sloped bank of soil material.
9. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.6. When the well is abandoned, the abandonment marker must be at least four feet above restored ground level and must be inscribed with the following: operator name, lease number, well name and surveyed description (township, range, section and either quarter-quarter or footages).
10. At the end of drilling operations and prior to reclamation of the reserve pit, the fourth side of the pit will be fenced and the top of the pit will be covered with netting of one inch or less to prevent access by birds.
11. The reserve pit and blooie pit will be dry prior to being covered and recontoured.
12. Pipeline installation involving cross-country traffic will be suspended during periods of wet weather to reduce soil rutting and soil compaction.
13. In the event the well pad or road is graveled or surfaced, the material will be removed prior to recontouring the surface for rehabilitation.

### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the District Office. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the District Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the District Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Office within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

NOTIFICATIONS

Notify Rich McClure or Jack Johnson of the Grand Resource Area in Moab, Utah, at (801) 259-8193 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, contact the person listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer

Office: (801) 259-6111  
Home: (801) 259-2214

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

SUBMIT IN  
TRIPLICATE\*  
(Other Instructions on  
reverse side)

Form Approved  
Budget Bureau No. 1004-0135  
Expires : March 31, 1993

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals	5. LEASE DESIGNATION AND SERIAL NO. <b>SL-064806</b>
<b>SUBMIT IN TRIPLICATE</b>	6. IF INDIAN, ALLOTEE OR TRIBE NAME
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	7. IF UNIT OR CA, AGREEMENT DESIGNATION <b>14-08-001-324</b>
2. NAME OF OPERATOR <b>Lone Mountain Production Company</b>	8. WELL NAME and No. <b>Bar-X Unit No. 23</b>
3. ADDRESS OF OPERATOR <b>P. O. Box 3394, Billings, Montana 59103 (406) 245-5077</b>	9. API WELL NO. <b>43-019-31347</b>
4. LOCATION OF WELL (Footage, Sec, T., R., M., or Survey Description) <b>210' FSL, 900' FEL Section 1-T17S-R25E (SESE)</b>	10. Field and Pool, or Exploratory Area <b>Bar-X</b>
	11. County or Parish, State <b>Grand County, Utah</b>

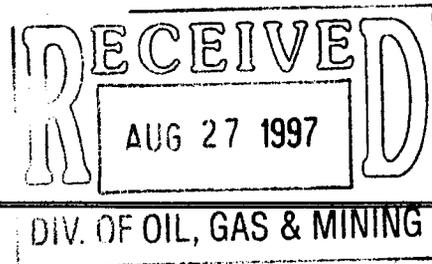
12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> +Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Notice of Spud</u>	<input type="checkbox"/> Dispose of Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form)

13. Describe the Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If a well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The Bar-X Unit No. 23 well was spud at 4:30 p.m., August 21, 1997.

Drilled 12 1/4" surface hole to 324'. Set 8 5/8", 24#, J-55 casing at 310' GL. Cemented with 225 sx. Class "G", 2% CaCl<sub>2</sub>. Cementing witnessed by Jack Johnson, BLM, Moab.



14. I hereby certify that the foregoing is true and correct.  
Signed: James S. Shultz Title: **Petroleum Engineer**

Date: **August 25, 1997**

(This space for Federal or State office use)

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_  
CONDITIONS OF APPROVAL IF ANY

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

**REPORT OF WATER ENCOUNTERED DURING DRILLING**

1. Well name and number: Bar-X Unit No. 23

API number: 43-019-31347

2. Well Location: QQ SESE Section 1 Township 17S Range 25E County Grand

3. Well operator: Lone Mountain Production Company

Address: P. O. Box 3394

Billings, MT 59103-3394

Phone: (406) 245-5077

4. Drilling contractor: CAZA Drilling Inc.

Address: P. O. Box 17805

Denver, CO 80217

Phone: (970) 242-6912

5. Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
No water encountered			

6. Formation tops: Dakota Silt 3080' (+2253')

Dakota Sand 3184' (+2149')

Morrison 3308' (+2025')

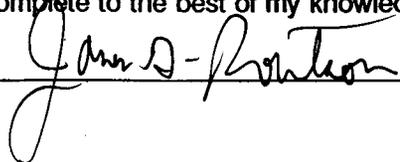
TD 3530'

If an analysis has been made of the water encountered, please attach a copy of the report to this form.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 9/17/97

Name & Signature: James G. Routson



Title: President

OPERATOR Lone Mountain Production Company

OPERATOR ACCT. NO. 11 7210

ADDRESS P. O. Box 3394

Billings, MT 59103-3394

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
<i>XB</i>	<i>99999</i>	<i>00455</i>	43-019-31347	Bar-X Unit No. 23	SESE	1	17S	25E	Grand	8/21/97	
WELL 1 COMMENTS: <i>Entity added 9-18-97 (Bar X Unit/DK-mR B P.A.) Jec</i>											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

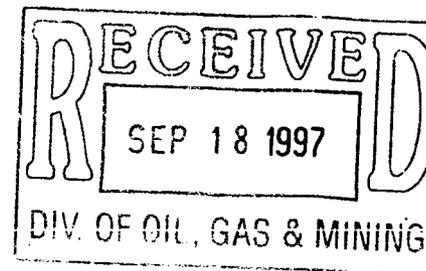
**ACTION CODES** (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

*James O. Paulson*  
Signature  
President  
Title  
9/16/97  
Date  
Phone No. (406) 245-5077



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

SUBMIT IN  
TRIPLICATE\*  
(Other Instructions on  
reverse side)

Form Approved  
Budget Bureau No. 1004-0135  
Expires : March 31, 1993

	5. LEASE DESIGNATION AND SERIAL NO. <b>SL-064806</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals	6. IF INDIAN, ALLOTEE OR TRIBE NAME
<b>SUBMIT IN TRIPLICATE</b>	7. IF UNIT OR CA, AGREEMENT DESIGNATION <b>14-08-001-324</b>
b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input type="checkbox"/> WELL <input type="checkbox"/> WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	8. WELL NAME and No. <b>Bar-X Unit No. 23</b>
2. NAME OF OPERATOR <b>Lone Mountain Production Company</b>	9. API WELL NO. <b>43-019-31347</b>
3. ADDRESS OF OPERATOR <b>P. O. Box 3394, Billings, Montana 59103 (406) 245-5077</b>	10. Field and Pool, or Exploratory Area <b>Bar-X</b>
4. LOCATION OF WELL (Footage, Sec, T., R., M., or Survey Description) <b>210' FSL, 900' FEL Section 1-T17S-R25E (SESE)</b>	11. County or Parish, State <b>Grand County, Utah</b>

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

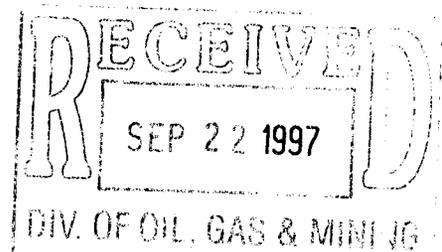
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Completion</u>	<input type="checkbox"/> Dispose of Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form)

13. Describe the Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If a well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Lone Mountain Production Company intends to complete the Bar-X Unit No. 23 well as per the attached completion procedure.

We will commence operations as soon as a rig is available, probably within three weeks.



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

Signed: James R. Rauter

Title: **President**

Date: **September 19, 1997**

(This space for Federal or State office use)

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_  
CONDITIONS OF APPROVAL IF ANY

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

\*See Instructions of Reverse Side

**LONE MOUNTAIN PRODUCTION COMPANY**

**Bar-X Unit #23**

**SESE Sec. 1: T17S-R25E**

**Grand County, Utah**

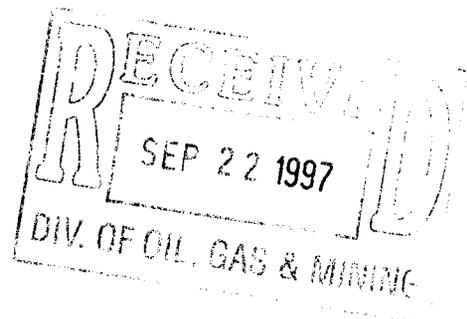
**GL: 5322' KB: 5333'**

**4½" J-55 Casing @ 3526', PBTD 3479'.**

**Cemented with 225 sx.**

**COMPLETION PROCEDURE**

1. Run correlation and bond logs off mast truck.
2. MIRU workover rig. Nipple up tree, BOP's, frac spool.
3. Pick up 3⅞" bit, SN, 4½" csg scraper, 2⅜" tubing. TIH to PBTD, circulate well clean. Pressure test casing and BOP's to 4000 psi. drop standing valve, pressure test tbg to 6000 psi. Swab well dry, TOH w/ tbg, bit, scraper.
4. Rig up wireline truck. Perforate Dakota and Morrison with one .35" diameter hole at each of the following depths: 3206', 3210', 3258', 3268', 3306', 3366', 3373', 3390', 3392'; 9 holes total. Rig down wireline truck.
5. TIH w/ 4½" tension packer on 2⅜" tubing, set @ ± 3175'. Acidize all perforations with 500 Gallons 7½% MSR and 30 ball sealers.
6. Run packer past perforations to knock balls off. Swab well to clean up & test. COH & lay down packer.
7. Frac well with 100,000# 20-40 sand in cross linked borate base fluid. Maximum treating pressure 4000 psi.
8. TIH w/ 2⅜" tubing, tag sand fill. Land with tbg tail @ ± 3400'. Swab and flow back well to clean up. Run production test.
9. Reverse sand fill with well gas if necessary. Flange well up, RDMO service rig.



SUBMIT IN  
TRIPLICATE\*  
(Other Instructions on  
reverse side)

Form Approved.  
Budget Bureau No. 1004-0135  
Expires : March 31, 1993

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

	5. LEASE DESIGNATION AND SERIAL NO. <b>SL-064806</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
<b>SUBMIT IN TRIPLICATE</b>	7. IF UNIT OR CA, AGREEMENT DESIGNATION <b>14-08-001-324</b>
b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> WELL <input type="checkbox"/> WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	8. WELL NAME and No. <b>Bar-X Unit No. 23</b>
2. NAME OF OPERATOR <b>Lone Mountain Production Company</b>	9. API WELL NO. <b>43-019-31347</b>
3. ADDRESS OF OPERATOR <b>P. O. Box 3394, Billings, Montana 59103 (406) 245-5077</b>	10. Field and Pool, or Exploratory Area <b>Bar-X</b>
4. LOCATION OF WELL (Footage, Sec. T., R., M., or Survey Description) <b>210' FSL, 900' FEL Section 1-T17S-R25E (SESE)</b>	11. County or Parish, State <b>Grand County, Utah</b>

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

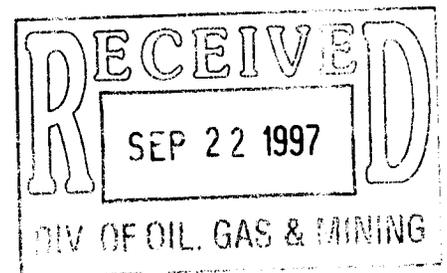
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Run casing</u>	<input type="checkbox"/> Dispose of Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form)

13. Describe the Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If a well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)\*

Drilled 7-7/8" wellbore to 3530'. Ran E-logs. Log tops: Dakota Silt @ 3080', (+2253'); Dakota Sand @ 3184', (+2149'); Morrison @ 3308', (+2025').

Ran 4-1/2" casing to 3527' KB and cemented with 225 sacks of 10-0 thixotropic.

Rig released @ 10:00 am, 9/17/97.



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

Signed: James O. Renteria

Title: **President**

Date: **September 17, 1997**

(This space for Federal or State office use)

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_  
CONDITIONS OF APPROVAL IF ANY

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

\*See Instructions of Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Lone Mountain Production Company

3. ADDRESS OF OPERATOR  
P. O. Box 3394, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 210' FSL, 900' FEL  
At top prod. interval reported below Same  
At total depth Same

14. PERMIT NO. 43-019-31347 DATE ISSUED 8/26/96

5. LEASE DESIGNATION AND SERIAL NO.  
SL-064806

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Bar-X Unit 14-08-001-324

8. FARM OR LEASE NAME

9. WELL NO.  
Federal No. 23

10. FIELD AND POOL, OR WILDCAT  
Bar-X

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Section 1: T17S-R25E (SE 1/4 SE 1/4)

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

15. DATE SPUDDED 8/21/97 16. DATE T.D. REACHED 9/16/97 17. DATE COMPL. (Ready to prod.) 10/20/97 18. ELEVATIONS (DF, RKB, RT, CR, ETC.)\* 5333' KB 5322' GL 19. ELEV. CASINGHEAD 5324'

20. TOTAL DEPTH, MD & TVD 3530' 21. PLUG, BACK T.D., MD & TVD 3479' 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY ROTARY TOOLS 0-TD CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
3198' - 3308' Dakota  
3360' - 3403' Morrison 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN FDC/CNL/GR DIL/GR CBL/GR 27. WAS WELL CORED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24	310'	12-1/4"	225 sx. Class "G"	----
4-1/2"	10.5	3526'	7-7/8"	225 sx. 10-0 Thixotropic	----

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	3202'	None

31. PERFORATION RECORD (Interval, size and number)  
1-.36" dia. hole @ 3206', 3210', 3258', 3268', 3306', 3366', 3373', 3390', 3392'  
9 shots total.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3206' - 3392'	750 gallon, 15% MSR
3206' - 3392'	Fract with 2000# 100 mesh sand 105,000# 20-40 sand 936 bbls. X-linked Bore Fluid

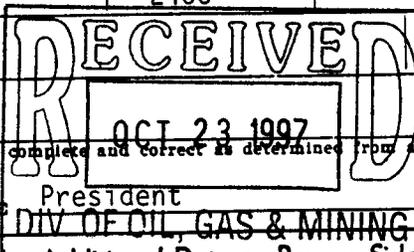
33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)					
10/20/97	Flowing	SI-WOPL					
DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10/20/97	1	3/4"	→		100		
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
180 psig	440 psig	→		2400			

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
Vented TEST WITNESSED BY Joe Dyk

35. LIST OF ATTACHMENTS  
None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNED James R. ... TITLE President DATE 10/21/97



\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION		TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
Dakota	3198'	3222'	Gas	Dakota Silt Dakota Sand Morrison	3080' 3184' 3308'		+2253' +2149' +2025'
Dakota	3254'	3272'	Gas				
Dakota	3297'	3308'	Gas				
Morrison	3360'	3403'	Tight gas				

38. GEOLOGIC MARKERS

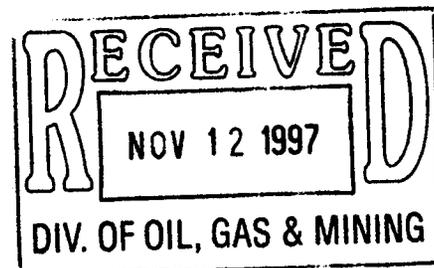


State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

RECEIVED NOV - 7 1997

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)



November 4, 1997

Mr. James Routson  
Lone Mountain Production Company  
P. O. Box 3394  
Billings, Montana 59103

*Also enclosed are  
Utah State #3 &  
Valentine #4 logs*

Re: Federal # 23, API No. 43-019-31347 175 25E 01 36W  
Submittal of Electric and Radioactivity Logs

Dear Mr. Routson:

We have received the Compensated Density Compensated Neutron Gamma Ray and Dual Induction Guard Log Gamma Ray Logs for the above referenced well. However, the Well Completion Report indicates that a **CBL/GR Log** was also run. Please submit a copy of that log to our office as soon as possible.

Your help in this matter will be greatly appreciated. If you have questions regarding this request, please contact me at (801) 538-5279.

Sincerely,

Vicky Dyson  
Production Group Supervisor

cc: Log File

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

SUBMIT IN  
TRIPLICATE\*  
(Other Instructions on  
reverse side)

Form Approved  
Budget Bureau No. 1004-0135  
Expires : March 31, 1993

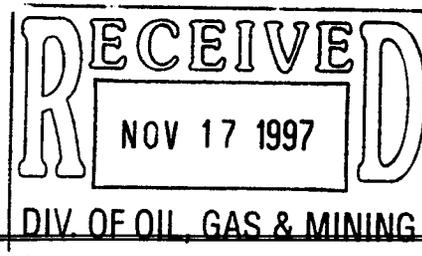
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b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. IF UNIT OR CA, AGREEMENT DESIGNATION <b>14-08-001-324</b>
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		11. County or Parish, State <b>Grand County, Utah</b>

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13. Describe the Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If a well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Initial production of the Bar-X Unit No. 23 well into the Bar-X LLC pipeline began at 3:30 p.m., 11/13/97.

SICP and SITP 730 psi, initial rate 700 MCFD.



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

Signed: *James R. Banta*

Title: **President**

Date: **November 14, 1997**

(This space for Federal or State office use)

APPROVED BY : \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_  
CONDITIONS OF APPROVAL IF ANY

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

\*See Instructions of Reverse Side