

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE X WATER SANDS \_\_\_\_\_ LOCATION INSP \_\_\_\_\_ SUB. REPORT/abd. \_\_\_\_\_

971203 LAID off. 12.1.97:

DATE FILED **AUGUST 15, 1996**

LAND FEE & PATENTED \_\_\_\_\_ STATE LEASE NO \_\_\_\_\_ PUBLIC LEASE NO **UTU-69960** INDIAN \_\_\_\_\_

DRILLING APPROVED: **OCTOBER 24, 1996**

SPUDDED IN: \_\_\_\_\_  
 COMPLETED \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION \_\_\_\_\_

GRAVITY A.P.I. \_\_\_\_\_

GOR: \_\_\_\_\_

PRODUCING ZONES: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_

WELL ELEVATION: \_\_\_\_\_

DATE ABANDONED **12.1.97 LAID**

FIELD: **WILDCAT**

UNIT: \_\_\_\_\_

COUNTY: **MILLARD**

WELL NO **MAMBA FEDERAL 43-22** API NO. **43-027-30039**

LOCATION **2350 FSL** FT. FROM (N) (S) LINE. **1300 FEL** FT. FROM (E) (W) LINE. **NE SE** 1/4 - 1/4 SEC. **22**

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
16S	19W	22	EQUITABLE RESOURCES				

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE  
(Other instructions on reverse)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

**CONFIDENTIAL** LEASE DESIGNATION AND SERIAL NO.  
UTU-69960

**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  
 Equitable Resources Energy Company

3. ADDRESS OF OPERATOR  
 1601 Lewis Avenue; Billings, MT 59102 (406) 259-7860

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface: NE SE Section 22, T16S, R19W  
 At proposed prod. zone: 2350' FSL, 1300' FEL  
 716      396

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 1.5 miles from Warm Creek Ranch

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

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL

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

19. PROPOSED DEPTH  
 5,000'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 4828' GL

22. APPROX. DATE WORK WILL START\*  
 September 5, 1996

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 n/a

7. UNIT AGREEMENT NAME  
 n/a

8. FARM OR LEASE NAME  
 Mamba Federal

9. WELL NO.  
 #43-22

10. FIELD AND POOL, OR WILDCAT  
 Wildcat/Paleozoic

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 22, T16S, R19W

12. COUNTY OR PARISH  
 Millard

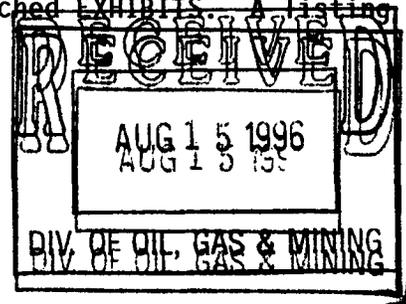
13. STATE  
 UTAH

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
See attached	Drilling Program/Casing Design			

**CONFIDENTIAL**

Operator plans to drill this well in accordance with the attached EXHIBITS. A listing of EXHIBITS is also attached.



ORIGINAL: Bureau of Land Management (Fillmore, UT)  
 COPY: Bureau of Land Management (Richfield, UT)  
 COPY: Utah Division of Oil, Gas and Mining

**SELF CERTIFICATION:** I hereby certify that I am authorized, by proper lease interest owner, to conduct these operations associated with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Equitable Resources Energy Company as principal and Safeco Insurance Company of America as surety under BLM Bond No. MT 0576 (Nationwide Oil & Gas Bond #5547188) who will be responsible for compliance with all of the terms and conditions of that portion of the lease associated with this application.

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.

34. SIGNED Bobbie Schuman TITLE Regulatory and Environmental Specialist DATE August 13, 1996  
 Bobbie Schuman

(This space for Federal or State office use)

PERMIT NO. 43-027-30039 APPROVAL DATE \_\_\_\_\_

APPROVED BY [Signature] TITLE Petroleum Engineer DATE 10/24/96

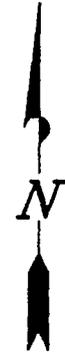
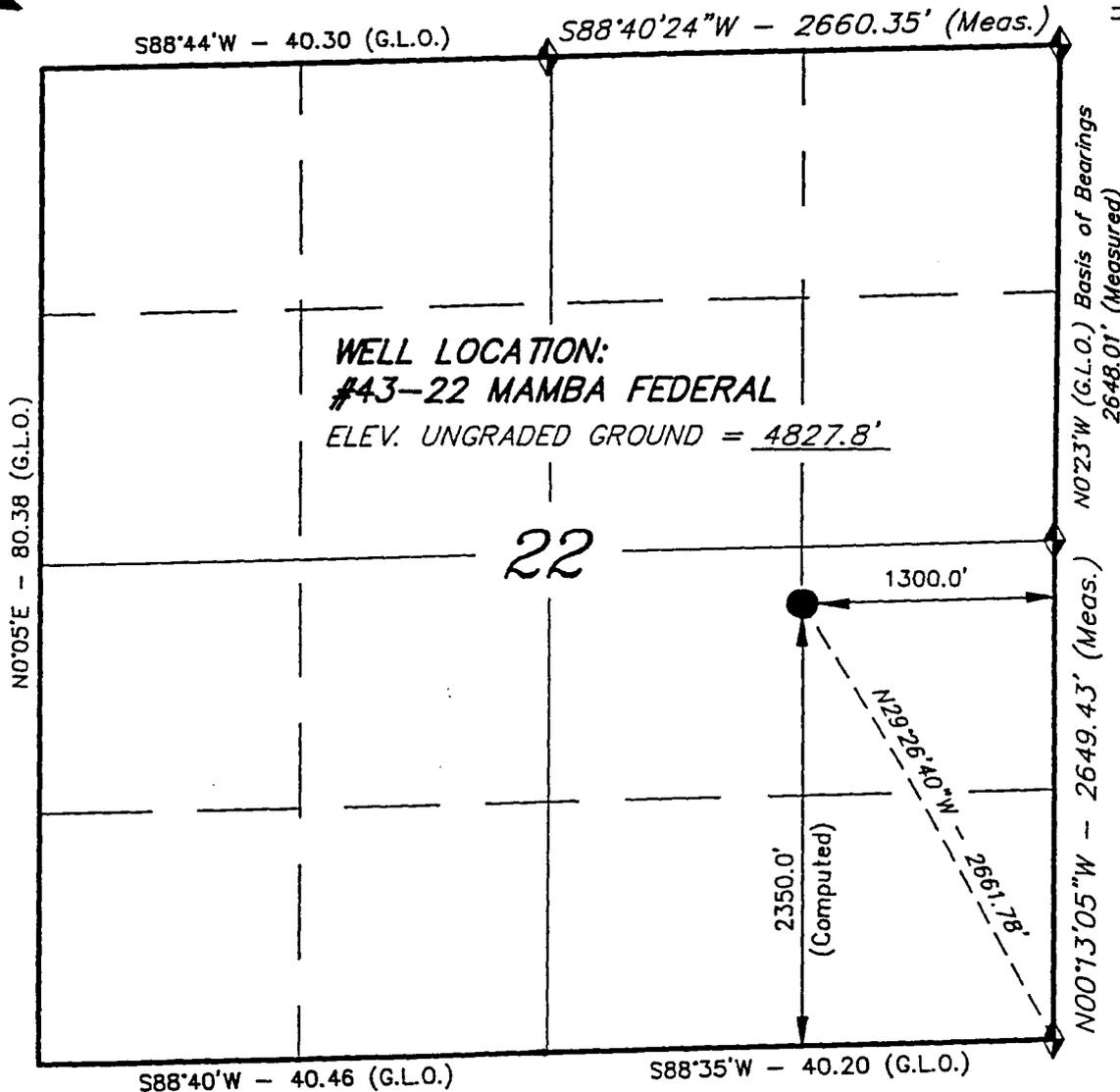
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

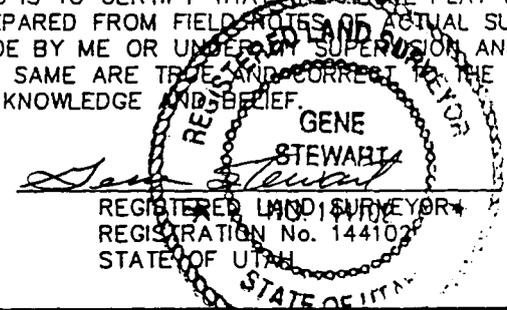
T16S, R19W, S.L.B.&M.

**EQUITABLE RESOURCES ENERGY CO.**

WELL LOCATION, #43-22 MAMBA FEDERAL,  
 LOCATED AS SHOWN IN THE NE 1/4 SE 1/4  
 OF SECTION 22, T16S, R19W, S.L.B.&M.  
 MILLARD COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
 PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
 MADE BY ME OR UNDER MY SUPERVISION AND THAT  
 THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
 MY KNOWLEDGE AND BELIEF.



◆ = SECTION CORNERS LOCATED  
 BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (GANDY)

**TRI STATE LAND SURVEYING & CONSULTING**  
 38 WEST 100 NORTH - VERNAL, UTAH 84078  
 (801) 781-2501

SCALE: 1" = 1000'	SURVEYED BY: S.S. D.S.
DATE: 5-1-96	WEATHER: WARM
NOTES:	FILE #

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
SUBMIT IN TRIPPLICATE\*  
(Other insert is on reverse)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

LEASE DESIGNATION AND SERIAL NO.

UTU-69960

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK  
-DW. OF OIL, GAS & MINING

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  
Equitable Resources Energy Company

3. ADDRESS OF OPERATOR  
1601 Lewis Avenue; Billings, MT 59102 (406) 259-7860

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
NE SE Section 22, T16S, R19W  
At proposed prod. zone 2350' FSL, 1300' FEL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
Approximately 1.5 miles from Warm Creek Ranch

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

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL

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

19. PROPOSED DEPTH  
5,000'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, BT, GR, etc.)  
4828' GL

22. APPROX. DATE WORK WILL START\*  
September 5, 1996

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
See attached	Drilling Program/Casing Design			

Operator plans to drill this well in accordance with the attached EXHIBITS. A listing of EXHIBITS is also attached.

ORIGINAL: Bureau of Land Management (Fillmore, UT)  
COPY: Bureau of Land Management (Richfield, UT)  
COPY: Utah Division of Oil, Gas and Mining

SELF CERTIFICATION: I hereby certify that I am authorized, by proper lease interest owner, to conduct these operations associated with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Equitable Resources Energy Company as principal and Safeco Insurance Company of America as surety under BLM Bond No. MT 0576 (Nationwide Oil & Gas Bond #5547188) who will be responsible for compliance with all of the terms and conditions of that portion of the lease associated with this application.

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.

24. SIGNED Bobbie Schuman TITLE Regulatory and Environmental Specialist DATE August 13, 1996  
Bobbie Schuman

(This space for Federal or State office use)

PERMIT NO. 43-027-30039 APPROVAL DATE \_\_\_\_\_

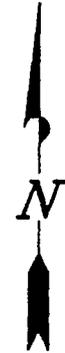
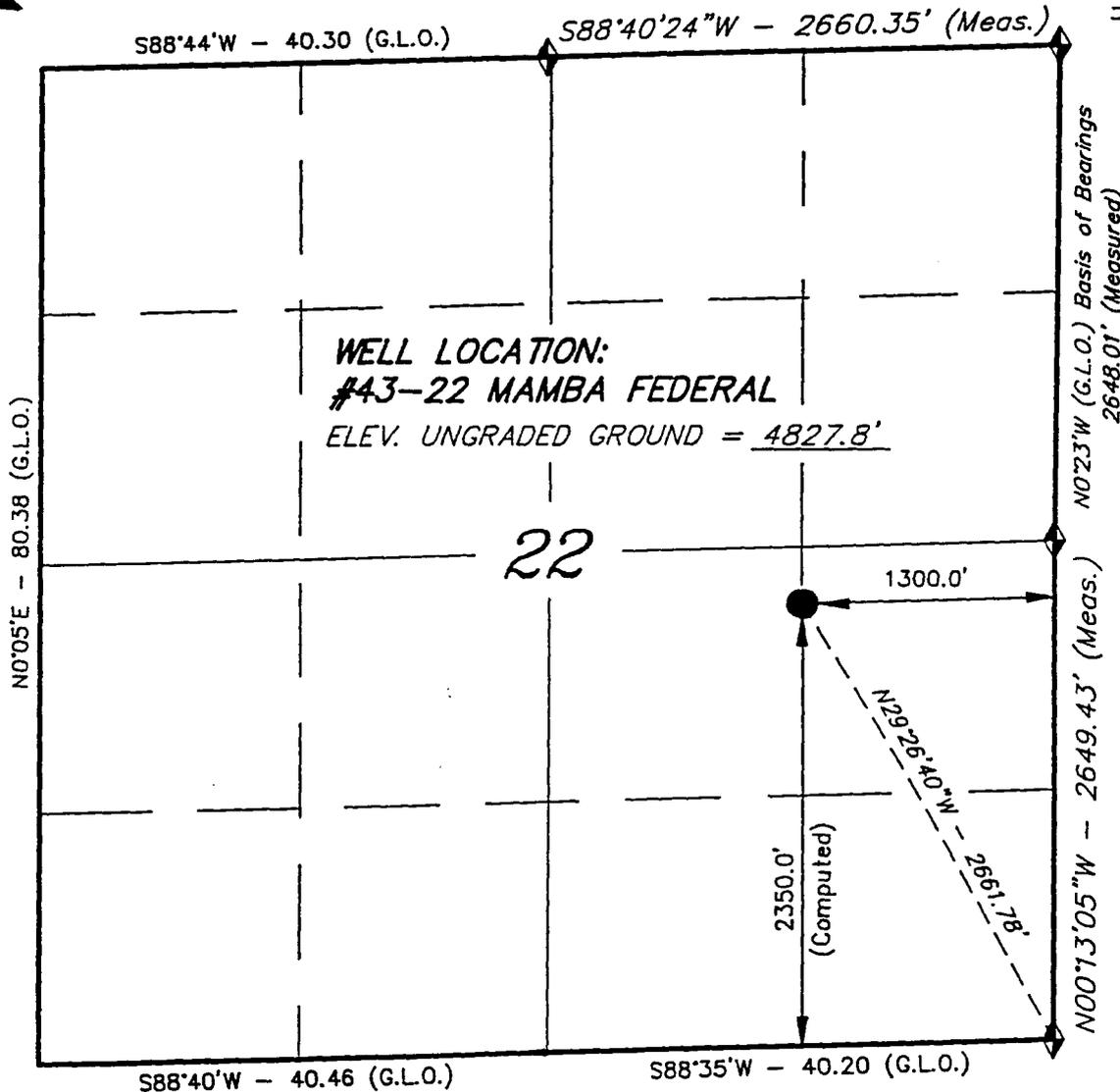
APPROVED BY [Signature] TITLE Petroleum Engineer DATE 10/24/96  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

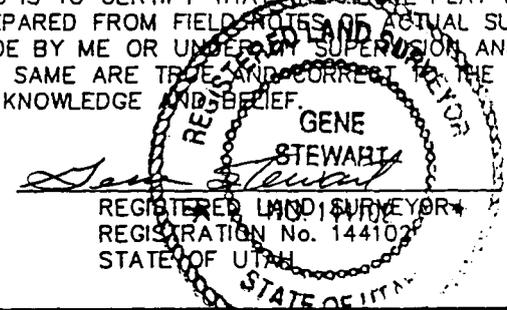
T16S, R19W, S.L.B.&M.

**EQUITABLE RESOURCES ENERGY CO.**

WELL LOCATION, #43-22 MAMBA FEDERAL,  
 LOCATED AS SHOWN IN THE NE 1/4 SE 1/4  
 OF SECTION 22, T16S, R19W, S.L.B.&M.  
 MILLARD COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
 PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
 MADE BY ME OR UNDER MY SUPERVISION AND THAT  
 THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
 MY KNOWLEDGE AND BELIEF.



◆ = SECTION CORNERS LOCATED  
 BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (GANDY)

**TRI STATE LAND SURVEYING & CONSULTING**  
 38 WEST 100 NORTH - VERNAL, UTAH 84078  
 (801) 781-2501

SCALE: 1" = 1000'	SURVEYED BY: S.S. D.S.
DATE: 5-1-96	WEATHER: WARM
NOTES:	FILE #

**CONFIDENTIAL**

**AS OPERATOR, WE HEREBY REQUEST THAT THE STATUS OF THIS WELL BE HELD TIGHT FOR THE MAXIMUM PERIOD ALLOWED BY FEDERAL AND STATE REGULATIONS.**

**Equitable Resources Energy Company  
Western Region  
1601 Lewis Avenue  
Billings, MT 59102  
(406) 259-7860  
FAX: (406) 245-1361**

**EXHIBITS FOR MAMBA FEDERAL WELLS:**

- A PROPOSED DRILLING PROGRAM**
- B PROPOSED SURFACE USE PROGRAM**
- C GEOLOGIC PROGNOSIS**
- D DRILLING PROGRAM/CASING DESIGN**
- E EVIDENCE OF BOND COVERAGE**
- F HAZMAT DECLARATION**
- G EXISTING & PLANNED ACCESS ROADS**
- H WELLSITE LAYOUT/CUT & FILL DIAGRAM**
- I BOPE SCHEMATIC**
- J RIG LAYOUT**
- K SURVEY PLAT**
- L BLM CONDITIONS**
- M ARCHAEOLOGICAL SURVEY REPORT**

**8/13/96/rs**

EQUITABLE RESOURCES ENERGY COMPANY  
Balcron Oil Division  
Mamba Federal #43-22  
NE SE Section 22-T16S-R19W  
Millard County, Utah

In accordance with requirements outlined in 43 CFR 3162-3.1 (d):

1. ESTIMATED IMPORTANT GEOLOGICAL MARKERS:

See Geologic Prognosis (EXHIBIT "C")

2. ESTIMATED DEPTHS OF ANTICIPATED OIL, GAS OR WATER:

Water can be expected throughout the Neogene (young Valley Fill) from 10' below surface to target formation (Paleozoic). The water should be relatively fresh and similar in salinity to surface waters coming from springs in the valley.

Oil or gas, if present, will be found only in rock formations beneath the base of the Valley Fill.

The boundary between the water in Valley Fill and the underlying hydrocarbons is a clay seal at the base of the Valley Fill that caps the hydrocarbon reservoirs. No mixing of the water above the seal and the hydrocarbons below the seal has been seen anywhere.

Also see Geologic Prognosis (EXHIBIT "C")

3. OPERATOR'S MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

- a. EXHIBIT "I" is a schematic of the BOP equipment and choke manifold. A 3M system will be used. The BOPE will be installed after setting 9-5/8" casing at 600'. The blind rams and pipe rams will be tested to 1500 psi. Pipe rams will be operationally checked each 24-hour period and blind rams each time pipe is pulled out of the hole.
- b. The BOPE will be tested to 1500 psi when initially installed, whenever any seal subject to test pressure is broken, and following related repairs. The pipe and blind rams will be activated at least weekly and on every trip the pipe and blind rams will be activated.

- c. An accumulator of sufficient capacity to open the hydraulically-controlled choke valve lines (if so equipped), close all rams, and retain a minimum of 200 psi above precharge on the closing manifold without the use of the closing unit pumps will be installed during the drilling of this well.
- d. An upper kelly cock will be used during the drilling of this well.
- e. Visual mud monitoring equipment will be used to detect volume changes indicating loss or gain in circulating fluid volume.
- f. Sufficient quantities of mud materials will be maintained or will be readily accessible for the purpose of assuring well control.

4. PROPOSED CASING AND CEMENTING PROGRAM:

- a. Surface casing will be set in the Valley Fill formation to approximately 600' and cemented to surface.
- b. All potentially productive hydrocarbon zones will be isolated.
- c. Casing designs are based on factors of burst: 1.00, collapse: 1.125, and joint strength: 1.8.
- d. All casing strings will be pressure tested to 0.22 psi/ft. of casing string length or 1500 psi whichever is greater (not to exceed 70% of yield).
- E. For details of casing, cement program, drilling fluid program, and proposed mud program, see the following attachment:

Drilling Program/Casing Design (EXHIBIT "D")

5. HAZARDOUS PRESSURES, TEMPERATURES, FLUIDS/GASSES EXPECTED:

- a. Expected bottom hole temperature is 150 degrees F. Expected bottom hole pressure is 2200 psi.

b. No abnormal pressures or temperatures have been noted or reported in wells drilled in this area.

6. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

- a. The drilling operations for this well will begin as soon after APD approval as possible.
- b. These drilling operations should be completed within 21 days after spudding the well depending on weather and hole conditions.
- c. If the well is productive, a sundry notice and plat showing exact installed facilities will be submitted.
- d. If this well is non-productive, a sundry notice will be filed with the BLM District Office within 30 days following completion of the well for abandonment.

SURFACE USE PROGRAM

EQUITABLE RESOURCES ENERGY COMPANY  
Mamba Federal #43-22  
NE SE Section 22-T16S-R19W  
Millard County, Utah

In accordance with requirements outlined in 43 CFR 3162.3-1 (d):

1. EXISTING ROADS:

- a. From Highway 6 and 50, take the Gandy road north 23.3 miles. Turn right and follow the dirt road to proposed access road sign. Follow flags approximately 1.5 miles to location.
- b. The portion of the existing seismic trail that will be used will be upgraded and graveled.
- c. All existing roads used by these drilling operations will be maintained in the same or better condition as were existing prior to entry.
- d. See EXHIBIT "G" for access route.

2. PLANNED ACCESS ROADS: See EXHIBIT "G"

- a. Length: Approximately 1.65 miles of upgraded seismic trail and new access road will be required.
- b. Width: Maximum 30' overall right-of-way with an 18' running surface.
- c. Maximum grade: < 8%
- d. Culverts will be installed if necessary.
- e. Surface materials: Any surface materials which are required will either be native materials from the location and/or access site or materials purchased from a private source.

- f. All travel will be confined to location and access routes.
- g. All access roads and surface disturbing activities will conform to the standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, (1989).

The road shall be constructed/upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. This shall include ditching, draining, graveling, crowning, and capping the roadbed as necessary to provide a well-constructed safe road. If necessary prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Road drainage crossings will be of the typical dry creek draining crossing type. Crossings, if necessary, will be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading will not be done during muddy conditions. Should mud holes develop, they will be filled in and detours around them will be avoided.

- h. If a Right-of-Way is necessary for the proposed access, please consider this the Application.
- g. A cattleguard will be installed at the fence where it leaves the road.

3. LOCATION OF EXISTING WELLS:

There are no existing wells in this area.

4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:

- a. Upon completion, a sundry notice and plat showing exact production facilities will be submitted.
- b. All above-ground facilities will be painted earthtone color Desert Brown #10Y/R in accordance with the Munsell Soil Color chart within six months of the well completion unless prior

written approval to proceed with another alternative has been granted via Sundry Notice.

5. LOCATION AND TYPE OF WATER SUPPLY:

- a. Water to be used for drilling of this well will be hauled by truck over the roads described in this Surface Use Program. The water will be purchased from a private source owned by Gerald C. Bates of HCR Box 340, Garrison, UT 84728.
- b. No water well will be drilled on this location.

6. CONSTRUCTION ROAD/LOCATION MATERIALS:

- a. Any construction materials which are required will either be native materials from the location and/or access site or material purchased from a private source.
- b. Reasonable precautions will be taken to protect all lands.

7. METHODS FOR HANDLING WASTE MATERIALS AND DISPOSAL:

- a. Garbage will be stored in a dumpster and disposed of according to local and state regulations, at an approved facility. Disposal will not be allowed on location. No trash will be disposed of in the reserve pit.
- b. Fluids produced during the completion operation will be collected in test tanks. Any spills of oil, gas, salt water or other noxious fluids will be cleaned up and hauled to an approved disposal site. Burning will not be allowed.
- c. The reserve pit will be lined. In order to conserve water and protect the environment, a plastic nylon reinforced liner will be used. It will be a minimum of 12 mil thickness with sufficient bedding (either straw or dirt) to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. The liner will be torn and perforated before backfilling of the reserve pit.

- d. Saltwater or testing tanks will be located and/or diked so that any spilled fluids will flow into the reserve pit. Saltwater tanks will not be placed on topsoil stockpiles.
- e. Any produced water will be contained on site for a period not to exceed 90 days.
- f. Sewage will be disposed of according to county and state requirements. Sealed chemical portable toilets will be on location during these drilling operations. Waste and chemicals will not be disposed of on location.
- g. Cuttings will be deposited in the reserve pit.

8. ANCILLARY FACILITIES:

None anticipated.

9. LOCATION SITE LAYOUT:

- a. The proposed location site and elevation plat is shown on EXHIBIT "K".
- b. The drill pad layout, showing elevations, orientation, and access to the pad is shown on EXHIBIT "H".
- c. The drilling rig facilities layout is shown on EXHIBIT "J". No permanent living facilities are planned. There will be two or three trailers on location during drilling operations.
- d. If a flare pit is used, it will be located downwind of the prevailing wind directions a minimum of 100' from the wellhead.
- e. All pits will be fenced according to the following minimum standards:
  - a. 39-inch net wire will be used with at least one strand of barbed wire on top of the net wire unless pipe or some type of reinforcement rod is attached to the top of the entire fence.
  - b. The net wire shall be no more than 2 inches above the ground. If barbed wire it shall be 3 inches above the

net wire. Total height of fence will be at least 42 inches.

- c. Corner posts will be cemented and/or braced in such a manner to keep the fence tight at all times. Standard

steel, wood, or pipe posts will be used between the cornerbraces. Maximum distance between any two posts will be no greater than 16'.

- d. All wire will be stretched before it is attached to the corner posts.

The reserve pit will be fenced on three sides during drilling operations and on the fourth side when the rig moves off locations. Pits will be fenced and maintained until clean-up.

10. PLANS FOR RECLAMATION OF LOCATION SITE:

The BLM will be contacted prior to commencement of any reclamation operations.

Producing location:

- a. Immediately upon well completion, the location and surrounding areas will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.
- b. Immediately upon well completion, any hydrocarbons in the pit will be removed in accordance with 43 CFR 3162.7-1.
- c. The plastic nylon reinforced liner will be torn and perforated before backfilling of the reserve pit.
- d. The reserve pit and that portion of the location not needed for production facilities or operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 120 days from the date of well completion. Before any dirt work takes place, the reserve pit will have all fluids and hydrocarbons removed and all trash will be removed.

Dry hole/abandoned location:

At such time as the well is plugged and abandoned, operator will submit a subsequent report of abandonment and BLM will attach the appropriate surface rehabilitation conditions of approval.

See Mitigation Measures (EXHIBIT "L") for seed mixture to be used in reclamation of this location.

11. SURFACE OWNERSHIP:

Bureau of Land Management  
150 East 900 N  
Richfield, UT 84701

12. OTHER INFORMATION:

- a. An archeology survey is shown as EXHIBIT "M".
- b. If unexpected cultural resources are observed during construction or reclamation operations, Equitable Resources Energy Company's Balcron Oil division will suspend operations in the vicinity of the discovery and immediately report the finding to the BLM District Office.
- c. Operator will have on site a copy of the Surface Use Program and a copy of the supplemental conditions.
- d. Drilling operations will be conducted in accordance with the Bureau of Land Management conditions of approval when received.
- e. EXHIBIT "L" is a copy of the mitigation measures provided by the Bureau of Land Management.

13. OPERATOR'S REPRESENTATIVES:

Equitable Resources Energy Company  
1601 Lewis Avenue  
Billings, Montana 59102  
(8:00 a.m. to 5:00 p.m.)

(406) 259-7860  
FAX: (406) 245-1361

Dave McCoskery, Operations Manager  
Home: (406) 248-3864

John Zellitti, Production Engineer  
Home: (406) 652-5784

14. CERTIFICATION:

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 presently exist; that any statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Equitable Resources Energy Company's Balcron Oil Division 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.

August 13, 1996  
Date

Bobbie Schuman  
Bobbie Schuman  
Regulatory and Environmental  
Specialist  
Equitable Resources Energy  
Company

/rs





**DRILLING PROGRAM**

WELL NAME: Mamba Federal #43-22  
 PROSPECT/FIELD: Snake Valley  
 LOCATION: NE SE Section 22 Twn.16S Rge.19W  
 COUNTY: Millard  
 STATE: Utah

DATE: 6-17-96

TOTAL DEPTH: 5000

**HOLE SIZE INTERVAL**

12 1/4" Surface to 600'  
 8 3/4" 600' to 5000'

CASING STRING TYPE	INTERVAL		CASING		
	FROM	TO	SIZE	WEIGHT	GRADE
Surface Casing	0'	600'	9 5/8"	36	J55
Production Casing	0'	6400'	7"	20,23#	K55

**CEMENT PROGRAM**

Surface Casing 100 sacks Halliburton Lite with 2% CaCl and 1/4 #/sack Flocele. (Yield=1.97 Cu.Ft./Sx, Weight=12.4 PPG) Tailed with 150 sacks Premium cement with 2% CaCl and 1/4 #/sack Flocele. (Yield=1.15 Cu.Ft./Sk, Weight=15.8 PPG) (Cement will be circulated to surface.)

Production Casing 300 sacks of Premium Plus AG 250 with 35% SSA-1, 0.4% CFR-3, 0.5% Halad-24, and 0.2% HR-5. (Yield=1.50 Cu.Ft./Sx, Weight=15.8 PPG) (Note: Actual cement volumes will be calculated from caliper log. Cement top will be 3000')

**PRELIMINARY DRILLING FLUID PROGRAM**

TYPE	FROM	TO	WEIGHT	PLAS. VIS	YIELD POINT
Spud Mud(Fresh Water)	0'	600'	8.5-8.8	N.A.	N.A.
Fresh Gel Mud (LSND)	600'	T.D.	8.5-8.8	N.A.	N.A.

**COMMENTS**

1.) One possible DST will be run in the Paleozoic Carbinates.

D

## EQUITABLE RESOURCES ENERGY COMPANY

Operator: EREC	Well Name: Mamba Fed. 43-22
Project ID:	Location: Millard / Utah

### Design Parameters:

Mud weight ( 8.80 ppg) : 0.457 psi/ft  
 Shut in surface pressure : 1786 psi  
 Internal gradient (burst) : 0.100 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)  
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	4,300	7"	20.00	K-55	ST&C	4,300	6.331
2	700	7"	23.00	K-55	ST&C	5,000	6.250

	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	1966	2237	1.138	2216	3740	1.69	102.10	254	2.49 J
2	2286	3270	1.430	2286	4360	1.91	16.10	309	19.19 J

Prepared by : *McCoskery, Billings, Montana*

Date : 06-17-1996

Remarks :

Design is for a Production string.

Minimum segment length for the 5,000 foot well is 1,500 feet.

The mud gradient and bottom hole pressures (for burst) are 0.457 psi/ft and 2,286 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)



SURETY RIDER

SAFECO INSURANCE COMPANY OF AMERICA  
GENERAL INSURANCE COMPANY OF AMERICA  
FIRST NATIONAL INSURANCE COMPANY  
OF AMERICA  
HOME OFFICE: SAFECO PLAZA  
SEATTLE, WASHINGTON 98185 **E**

To be attached to and form a part of

Bond No. 5547188

Type of

Bond: STATE, NATIONWIDE OR NATIONAL PETROLEUM; FOR LOCATION IN ALASKA; OIL & GAS BOND. BLM #MT0576

dated effective

09/08/1988  
(MONTH-DAY-YEAR)

executed by

EQUITABLE RESOURCES ENERGY COMPANY & BALCRON OIL ,  
DIV. OF EQUITABLE RESOURCES ENERGY COMPANY  
(PRINCIPAL)

,as Principal,

and by

SAFECO INSURANCE COMPANY OF AMERICA

,as Surety,

in favor of

U.S. DEPT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT, MONTANA.  
(OBLIGEE)

In consideration of the mutual agreements herein contained the Principal and the Surety hereby consent to changing

THE NAME OF THE PRINCIPAL:

FROM EQUITABLE RESOURCES ENERGY COMPANY & BALCRON OIL, DIV OF  
EQUITABLE RESOURCES ENERGY COMPANY  
TO EQUITABLE RESOURCES ENERGY COMPANY & EQUITABLE RESOURCES  
ENERGY COMPANY, WESTERN REGION

Nothing herein contained shall vary, alter or extend any provision or condition of this bond except as herein expressly stated.

This rider

is effective 04/01/1996

(MONTH-DAY-YEAR)

Signed and Sealed April 12, 1996

(MONTH-DAY-YEAR)

EQUITABLE RESOURCES ENERGY COMPANY & EQUITABLE RESOURCES ENERGY COMPANY, WESTERN REC

By: *Jeffrey S. Swartz*  
(PRINCIPAL)

SAFECO INSURANCE COMPANY OF AMERICA

By: *DonnaMarie Roberts*  
(ATTORNEY-IN-FACT)

DonnaMarie Roberts

E

Power of Attorney  
FIDELITY AND DEPOSIT COMPANY OF MARYLAND  
HOME OFFICE, BALTIMORE, MD

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by C. M. PECOT, JR., Vice-President, and C. W. ROBBINS, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint R. George Voinchet, Rosemarie Rodden, Gerald A. Walsh, Marjorie J. Arch, Nicholas R. Edinger, DonnaMarie Roberts and Debra S. Murr, all of Pittsburgh, Pennsylvania, EACH its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings.....

And the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons. This power of attorney revokes that issued on behalf of R. George Voinchet, etal, dated August 17, 1995.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 17th day of August, A.D. 1995



FIDELITY AND DEPOSIT COMPANY OF MARYLAND

*C. W. Robbins*  
Assistant Secretary

By *R. George Voinchet*  
Vice-President

STATE OF MARYLAND  
COUNTY OF BALTIMORE

ss:

On this 17th day of August, A.D. 1995, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, came C. M. PECOT, JR., Vice-President and C. W. ROBBINS, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



*Carol J. Fader*  
CAROL J. FADER Notary Public  
My Commission Expires August 1, 1996

CERTIFICATE

I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 16th day of July, 1969.

RESOLVED: "That the facsimile or mechanically reproduced signature of any Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company, this 12th day of April, 1996.

*Gregory Hamilton*  
Assistant Secretary

E

Form 3104-8  
(July 1984)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

STATE, NATIONWIDE, OR NATIONAL PETROLEUM RESERVE  
IN ALASKA OIL AND GAS BOND

Act of February 25, 1920 (30 U.S.C. Sec. 181)

Act of August 7, 1947 (30 U.S.C. Sec. 351)

Department of the Interior Appropriations Act, Fiscal Year 1981 (P.L. 96-514)  
Other Oil and Gas Leasing Authorities as Applicable

KNOW ALL MEN BY THESE PRESENTS, That we  
BALCRON OIL COMPANY  
of 1601 Lewis Avenue, Billings, MT 59104

as principal, and  
SAFECO INSURANCE COMPANY OF AMERICA  
of 111 Presidential Blvd., Suite 231, Bala Cynwyd, PA 19004

as surety, are held and firmly bound unto the United States of America in the sum of ONE HUNDRED FIFTY THOUSAND AND 00/100-----dollars (\$ 150,000.00 ), in lawful money of the United States, which sum may be increased or decreased by a rider hereto executed in the same manner as this bond, for the use and benefit of (1) the United States; (2) the owner of any of the land subject to the coverage of this bond, who has a statutory right to compensation in connection with a reservation of the oil and gas deposits to the United States; and (3) any lessee or permittee under a lease or permit issued by the United States prior to the issuance of an oil and gas lease for the same land subject to this bond, covering the use of the surface or the prospecting for, or development of, other mineral deposits in any portion of such land, to be paid to the United States. For such payment, well and truly to be made, we bind ourselves, and each of our heirs, executors, administrators, and successors, jointly and severally.

- The coverage of this bond shall extend to all of the principal's holdings of federal oil and gas leases in the United States, including Alaska, issued or acquired under the Acts cited in Schedule A.
- The coverage of this bond extends only to the principal's holdings of federal oil and gas leases issued or acquired under the Acts cited and in the States named in Schedule A and to any other State or States that may be named in a rider attached hereto by the lessor with the consent of the surety.
- The coverage of this bond extends only to the principal's holdings of federal oil and gas leases within the National Petroleum Reserve in Alaska.

SCHEDULE A

Mineral Leasing Act of February 25, 1920 (30 U.S.C. Sec. 181), Acquired Lands Leasing Act of August 7, 1947 (30 U.S.C. Sec. 351), and other oil and gas leasing authorities as applicable.

NAMES OF STATES

ALL STATES

The conditions of the foregoing obligations are such that, whereas the said principal has an interest in oil and gas leases issued under the Acts cited in this bond: (1) as lessee; (2) as the approved holder of operating rights in all or part of the lands covered by such leases under operating agreements with the lessees; or (3) as designated operator or agent under such leases pending approval of an assignment or operating agreement; and

WHEREAS the principal is authorized to drill for, mine, ex-

tract, remove, and dispose of oil and gas deposits in or under the lands covered by the leases, operating agreements or designations and is obligated to comply with certain covenants and agreements set forth in such instruments; and

WHEREAS the principal and surety agree that without notice to the surety the coverage of this bond, in addition to the present holdings of the principal, shall extend to and include:



E

3798

No. \_\_\_\_\_

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation, does each hereby appoint

-----THOMAS L. VEHAR; R. GEORGE VOINCHET, Pittsburgh, Pennsylvania-----

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 4th day of September, 19 87.

CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA:

"Article V, Section 13. — FIDELITY AND SURETY BONDS . . . the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business . . . On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,

- (i) The provisions of Article V, Section 13 of the By-Laws, and
- (ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
- (iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Boh A. Dickey, Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 8th day of September, 19 88.



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
MONTANA STATE OFFICE  
222 NORTH 32ND STREET  
P.O. BOX 36800  
BILLINGS, MONTANA 59107-6800

IN REPLY TO:

MTM 12619-A et al  
BLM BOND NO. MT0576  
(922.31)

April 25, 1989

## NOTICE

Equitable Resources Energy Company  
P. O. Box 21017  
Billings, Montana 59104

OIL AND GAS

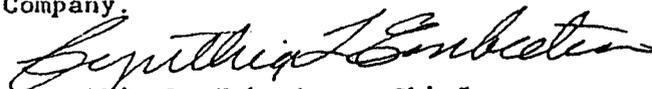
### CORPORATE MERGER RECOGNIZED RIDER TO NATIONWIDE BOND ACCEPTED

Acceptable evidence has been filed in this office concerning the merger of Balcron Oil Company into Equitable Resources Energy Company, the surviving corporation. Information provided shows that Balcron Oil Company merged into Equitable Resources Energy Company, changing the former entity's name to Balcron Oil, a Division of Equitable Resources Energy Company. Please note that Divisions cannot hold leases, therefore, after consultation with Balcron Oil, this office is recognizing only the merger action.

A rider was filed on April 20, 1989, to be made a part of \$150,000 Nationwide Oil and Gas Bond No. 5547188 (BLM Bond No. MT0576) with Balcron Oil Company as principal and Safeco Insurance Company of America as surety. By means of this rider, the surety consents to changing the name on the bond from Balcron Oil Company to Equitable Resources Energy Company. The rider is accepted effective April 20, 1989.

For our purposes, the merger is recognized effective April 20, 1989.

The oil and gas lease files and communitization agreement files identified on the enclosed Exhibit A have been noted as to the merger. Other lease interests will be transferred by assignments from Ballard & Cronoble to Equitable Resources Energy Company.

  
Cynthia L. Embretson, Chief  
Fluids Adjudication Section

1 Enclosure  
1-Exhibit A

cc: (w/encl.)  
AFS, Denver (1)  
All DMs (1 ea.)  
RMO Section (1)  
Regional Forester, Lakewood (2)  
Regional Forester, Missoula (2)  
Bureau of Reclamation (1)

EXHIBIT A

E

MTM 12619-A  
MTM 21738  
MTM 22172  
NDM 31247  
MTM 39246  
MTM 39248  
MTM 39249  
MTM 44308  
MTM 44309  
MTM 44319  
MTM 44320  
MTM 45281  
MTM 45282  
MTM 45283  
MTM 45284  
MTM 45285  
MTM 45285--A  
MTM 45286  
MTM 45286- A  
MTM 45287  
MTM 45289  
MTM 45290  
MTM 45295  
MTM 45323  
MTM 45324  
MTM 45325  
MTM 45326  
MTM 45327  
MTM 45328  
MTM 45629  
MTM 45653  
MTM 46538  
MTM 46807  
MTM 46819  
MTM 46830  
MTM 46843  
MTM 46846  
MTM 46847  
MTM 46849  
MTM 46889  
MTM 46958  
MTM 46960  
MTM 46961  
MTM 47005  
MTM 47075  
MTM 47085  
MTM 47144  
MTM 47168  
MTM 47177  
MTM 47451  
MTM 47452  
MTM 47454  
MTM 47455

MTM 47634  
MTM 48098  
MTM 48267  
MTM 48281  
MTM 48310  
MTM 48329  
SDM 48725  
MTM 49503  
MTM 50425  
MTM 53234  
MTM 53672  
MTM 53739  
NDM 54150  
MTM 54187  
MTM 54277  
MTM 55097  
MTM 55117  
MTM 55667  
MTM 55707-A  
MTM 55717-A  
MTM 55868  
MTM 55965  
MTM 57386  
MTM 59207  
MTM 59631  
MTM 60249  
MTM 60388  
MTM 61355  
MTM 61718  
MTM 61720  
MTM 63006  
MTM 63007  
MTM 63008  
MTM 63010  
MTM 63108  
MTM 63109  
MTM 63944  
MTM 63945  
NDM 66594  
MTM 69222  
MTM 69529  
MTM 70655  
MTM 74220  
MTM 75507  
MTM 75693  
MTM 75897  
MTM 76276  
MTM 77012  
MTM 77015  
MTM 77016  
MTM 77362  
MTM 77364  
MTM 77365  
MTM 77366



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
MONTANA STATE OFFICE  
222 NORTH 32ND STREET  
P.O. BOX 36800  
BILLINGS, MONTANA 59107-6800

**E**  
TAKE  
PRIDE IN  
AMERICA  
[REDACTED]  
IN REPLY TO:  
BLM BOND  
NO. MT0576  
(922.31)

October 5, 1988

## DECISION

### Principal:

✓ Balcron Oil Company  
1601 Lewis Avenue  
Billings, MT 59104

OIL AND GAS

### Surety:

Safeco Insurance Company of America  
c/o Thomas L. Vehar, AIF  
111 Presidential Blvd., Suite 231  
Bala Cynwyd, PA 19004

### NATIONWIDE OIL AND GAS BOND ACCEPTED

Nationwide Oil and Gas Bond No. 5547188 (BLM Bond No. MT0576) in the amount of \$150,000 was filed in this office on September 27, 1988. The bond was executed by Balcron Oil Company, as principal, and Safeco Insurance Company of America, as surety, on September 8, 1988. Acceptance of the bond is effective as of date of receipt in this office.

The bond constitutes coverage in all states, for obligations under oil and gas leases held or hereafter acquired by your company, including lease offers, assignments, operating agreements, etc., issued under the authority of the Public Domain Leasing Act of February 25, 1920, as amended, and the Acquired Lands Leasing Act of August 7, 1947, as amended, and other oil and gas leasing authorities as applicable. The bond is retained in the active bond file maintained in this office.

Balcron Oil Company currently maintains \$150,000 Nationwide Bond of Oil and Gas No. 900G3860 (BLM Bond No. MT0450), with The Travelers Indemnity Company as surety. In a telephone conversation with Esther Rivera of this office, you indicated that the new bond was a replacement bond and that you wished to terminate the period of liability under Bond No. 900G3860 with Travelers. In order to terminate the duplicate coverage, a surety rider must be submitted to condition Balcron's new Nationwide Bond No. 5547188 (BLM Bond No. MT0576) to assume any outstanding liability remaining under their Nationwide Bond No. 900G3860 with The Travelers Indemnity Company as surety. The rider must be executed by Balcron and Safeco and filed in this office.

BLM BOND  
NO. MT0576

2

Upon acceptance of the assumption of liability rider, this office will terminate the period of liability under your prior bond. If you have any questions, please contact Esther Rivera at (406) 657-6566.

*Karen L. Skauge*

Karen L. Skauge, Chief  
Lease Maintenance Unit

cc:

Fred S. James & Co., Inc. of Pennsylvania  
600 Grant Street, Suite 5300  
Pittsburg, PA 15219

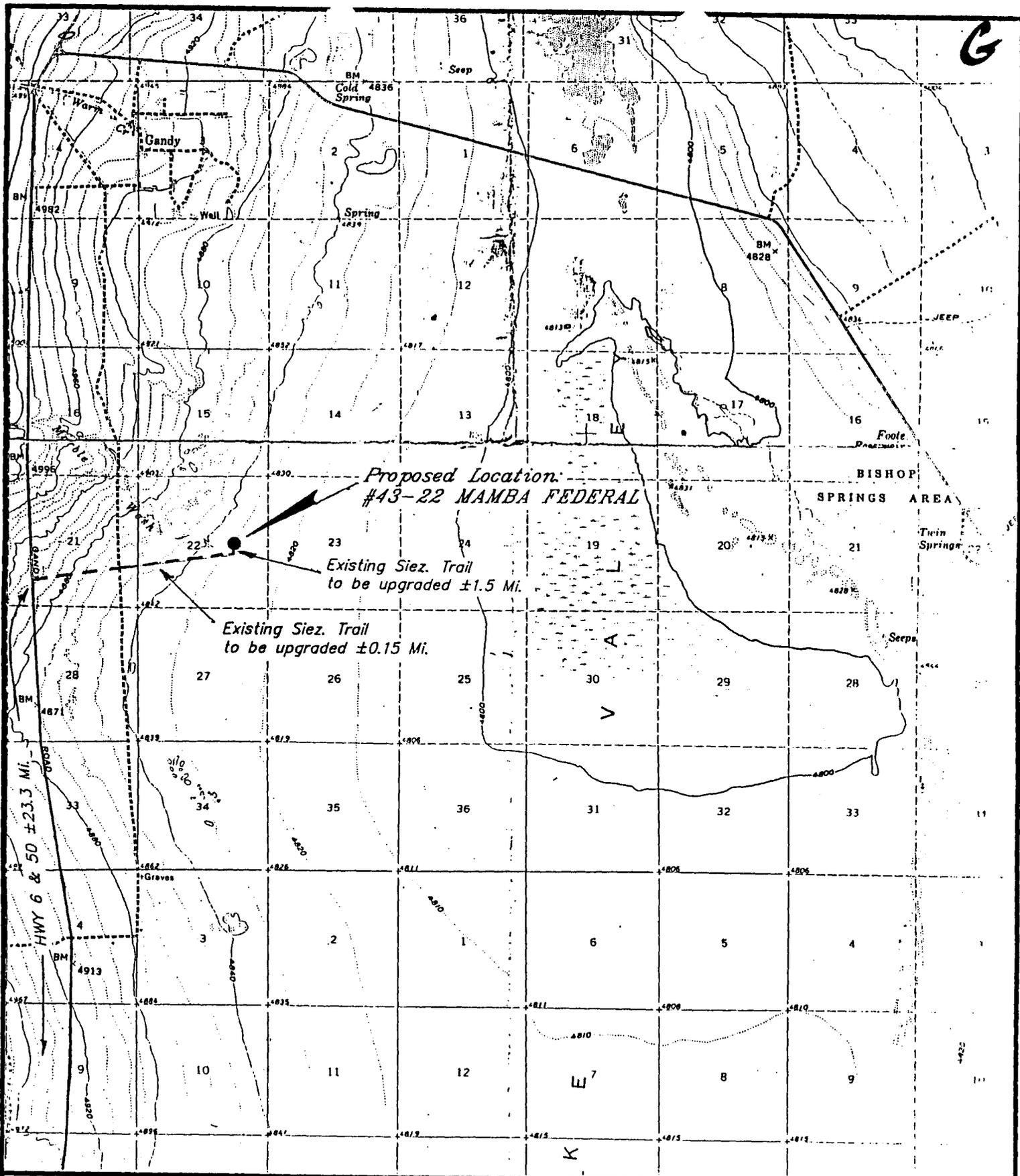
- A. Hazardous chemicals 10,000 pounds of which will most likely be used, produced, stored, transported, or disposed of in association with the proposed action of drilling, completing and producing this well:

We anticipate that none of the hazardous chemicals in quantities of 10,000 pounds or more will be associated with these operations.

- B. Extremely hazardous substances threshold quantities (per Howard Cleavinger 11/30/93) of which will be used, produced, stored, transported, or disposed of in association with the proposed action of drilling, completing and producing this well:

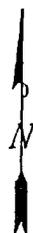
We anticipate that none of the extremely hazardous substances in threshold quantities per 40 CFR 355 will be associated with these operations.

12/1/93  
Revised 12/7/93  
/rs



**EQUITABLE RESOURCES CO.**

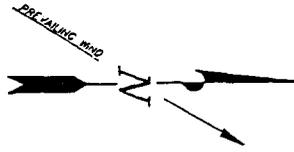
#43-22 MAMBA FEDERAL  
 SEC. 22, T16S, R19W, S.L.B.&M.  
 TOPO "A"



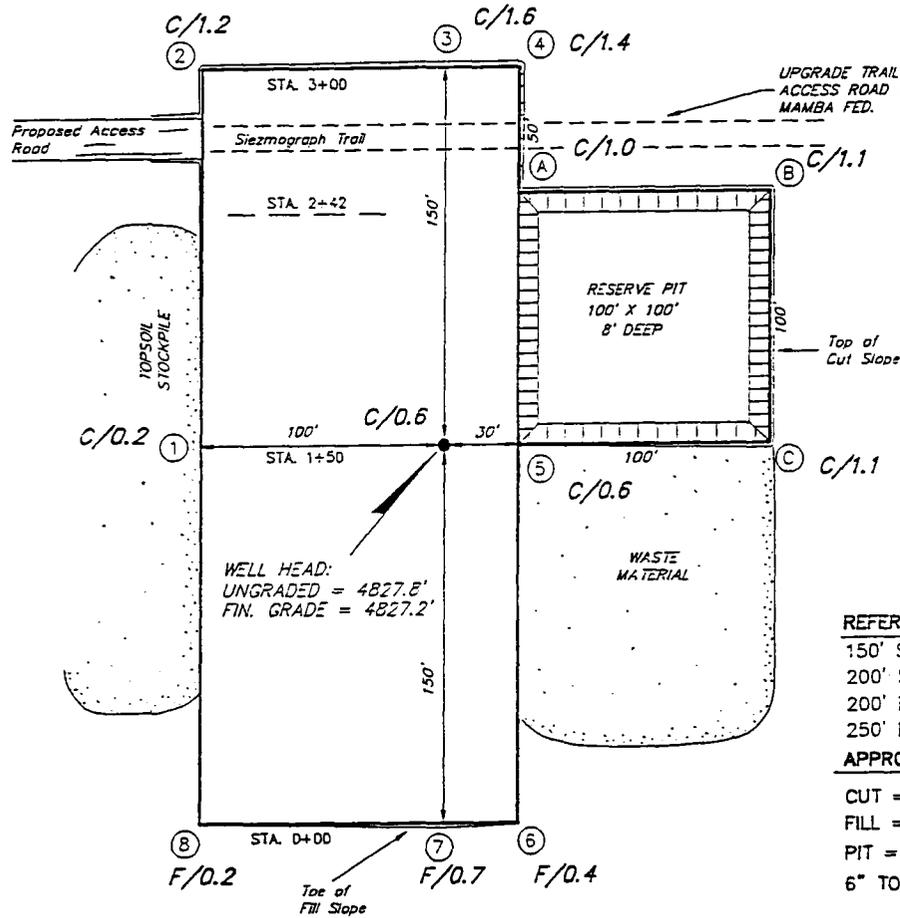
**Tri State**  
 Land Surveying, Inc.  
 (801) 781-2501  
 38 WEST 100 NORTH VERNAL, UTAH 84078

# EQUITABLE RESOURCES ENERGY CO.

#43-22 MAMBA FEDERAL  
SEC. 22, T16S, R19W, S.L.B.&M.



SCALE: 1" = 50'

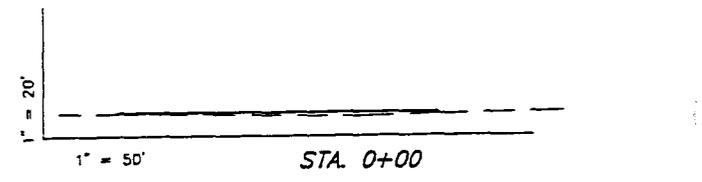
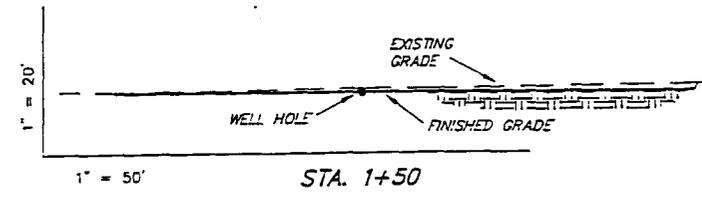
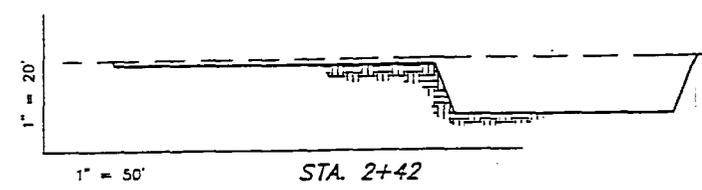
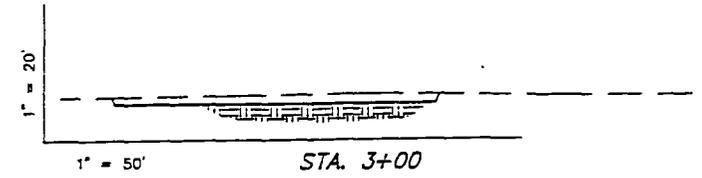


### REFERENCE POINTS

- 150' SOUTH = 4827.7'
- 200' SOUTH = 4827.2'
- 200' EAST = 4826.6'
- 250' EAST = 4826.3'

### APPROXIMATE YARDAGES

- CUT = 370 Cu. Yds.
- FILL = 360 Cu. Yds.
- PIT = 2,510 Cu. Yds.
- 6" TOPSOIL = 910 Cu. Yds.

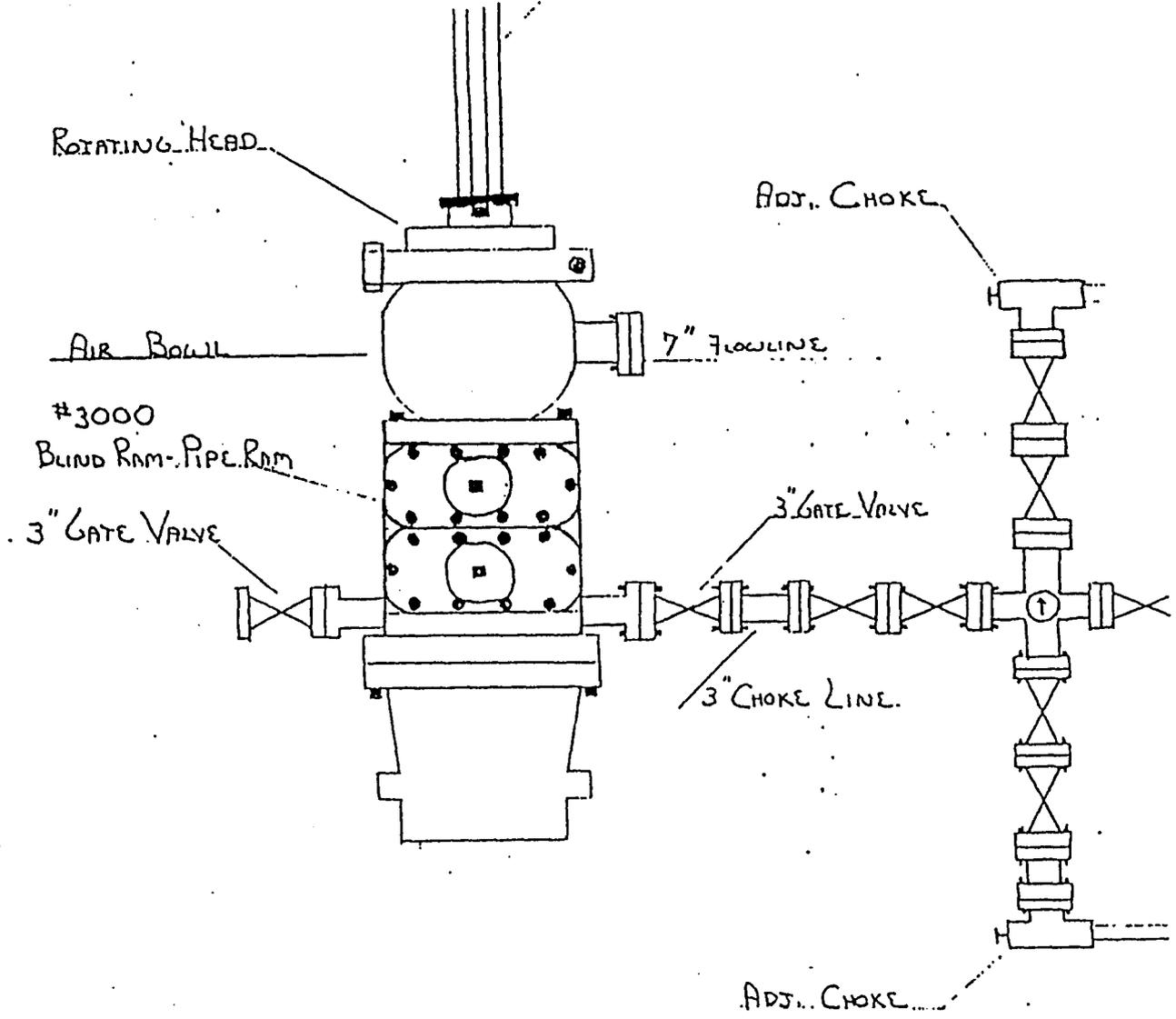


SURVEYED BY: S.S. D.S.
DRAWN BY: J.R.S.
DATE: 5-2-96
SCALE: 1" = 50'
FILE:

**Tri State**  
Land Surveying, Inc.  
(801) 781-2501  
38 WEST 100 NORTH VERNAL, UTAH 84078

H

UNION DRILLING RIG #17 Hex Kelly



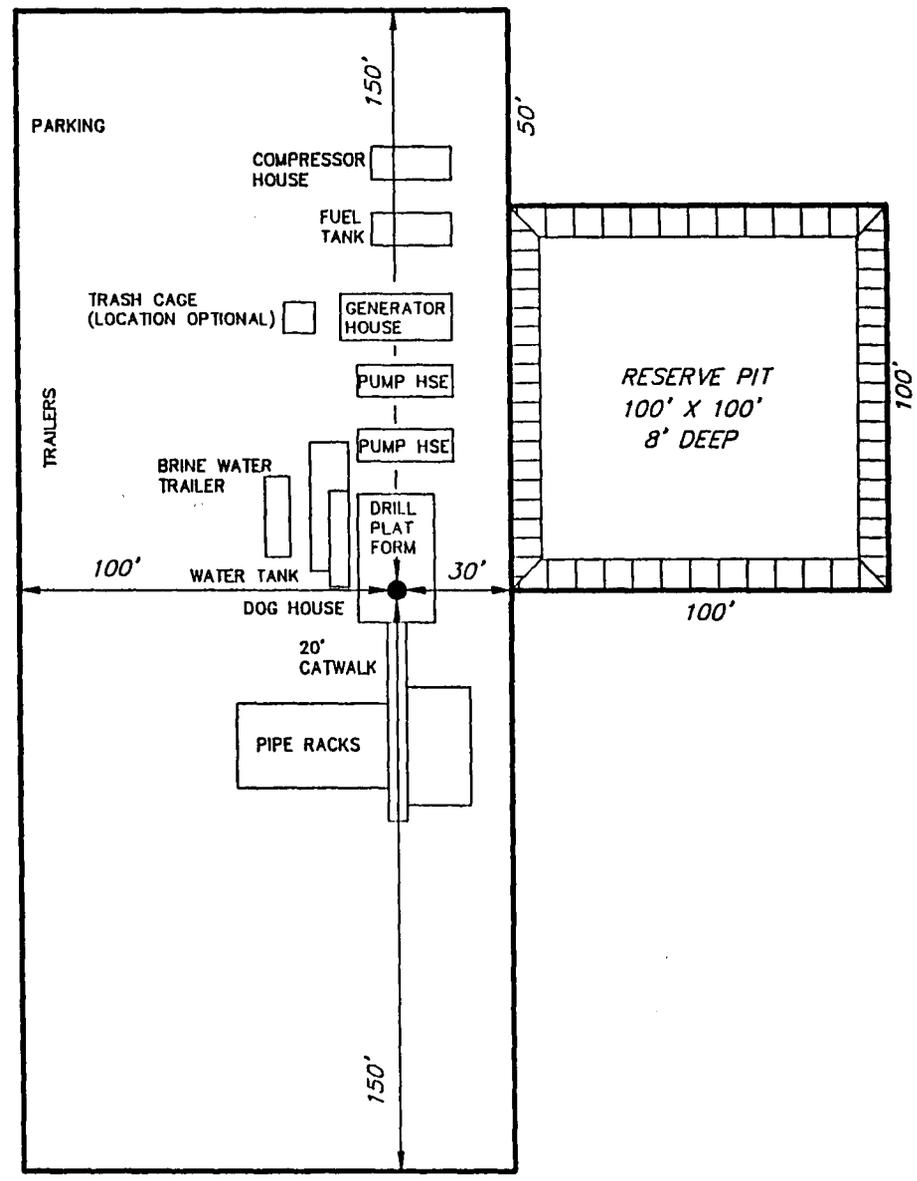
#3000 STACK

J

# TYPICAL RIG LAYOUT

---

## #43-22 MAMBA FEDERAL



**Tri State**  
Land Surveying, Inc.  
(801) 781-2501  
38 WEST 100 NORTH, VERNAL, UTAH 84078

Post-It® Fax Note	7671	Date	7/24	# of pages	6
To	Robbie Schuman				
From	M. Jackson				
Co./Dept.					
Phone #	406 245-1361				
Fax #					

**EL**

3160  
(w-055)

JUN 29 1996

June 27, 1996

BOBBIE SCHUMAN  
REGULATORY AND ENVIRONMENTAL SPECIALIST  
EQUITABLE RESOURCES COMPANY  
PO BOX 21017  
BILLINGS MT 59104

SEARCHED	INDEXED	SERIALIZED	FILED
ADMIN ASSIST			
MARKS/DATE			

RE: On-site Inspection for Notice of Staking, Mamba Federal #43-22, & 31-22  
Lease U-69960, T. 16 S., R. 19 W., Section 22 NE/4SE/4, and NW/4NE/4  
SLM, Millard County, Utah

Dear Ms. Schuman:

I appreciate the time that you took in meeting with Michael Jackson and Larry Garahana for an on-site, pre-operational inspection of the proposed well sites referenced above.

As was previously discussed with you, Onshore Order #1 specifies the information that must be included in the drilling plan and surface use plan, and all points must be covered. Based on the on-site inspection, adherence to the enclosed mitigations should be addressed in the Applications for Permit to Drill. These mitigations will be identical to the mitigations for the Cobra Federal site, with the exception of #18, reclamation, with regards to appropriate seed mixture for this area.

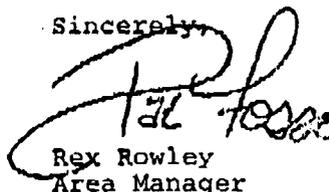
During the on-site inspection, the following was discussed:

1. The application will need to include construction specifications for the proposed access and the drill pad.
2. Access through the existing fence, i.e. a cattleguard.
3. Right of way for telephone lines along road side. We will supply the contacts needed for the information on this if necessary.

An environmental document will be prepared to analyze the proposed action, prior to granting approval. Bureau policy requires identification of: (1) any chemical(s) in quantities of 10,000 pounds or greater annually, and (2) any extremely hazardous substances that will be used, produced, stored, transported or disposed by the operator. These requirements are in accordance with Title III, Superfund Amendments and Reauthorization Act of 1986, and 40 CFR 355, respectively. Please provide a statement addressing these quantities, chemicals and/or substances.

If you have any questions about preparing the APD, please contact Michael Jackson or Larry Garahana.

Sincerely,



Rex Rowley  
Area Manager

**ACTING**

Enclosures  
Mitigations (5 p.)

bc: Michael Jackson, RDO, w/ enclosures

LGarahana:masc

MITIGATIONS  
EQUITABLE NOTICE OF STAKING ON-SITE  
WELL MAMBA FEDERAL #43-22, & 31-22 LEASE U-69960

1. The top 6-8 inches of soil material, including all vegetation, shall be removed from the disturbed areas and stockpiled adjacent to the well pad and adjacent to the roadside, within the right-of-way if applicable. Topsoil stockpiles shall be indicated on well pad layouts and access maps. Topsoil shall be reserved for reclamation and not utilized for any other purpose.
2. If snow is present on the ground when construction begins, the lessee shall remove it before the topsoil is stripped, and stockpile it separately from the topsoil or spoils stockpiles.
3. Well pads and roads shall be designed with necessary gravel surfaces, crowning, ditches, or other means to allow for proper drainage and to prevent ponding of water adjacent to or on the pad, except for the reserve pit. Roads and pads shall be constructed to be above seasonally elevated water tables.
4. Three sides of the reserve pit shall be fenced in accordance with Bureau standards (Attached) for a "cattle only" fence and H-style corner braces before drilling starts. The fence shall be maintained in good repair during operations.
5. Any fill dikes in the reserve pit shall be compacted in lifts.
6. Design of the reserve pit liner is dependent upon the site conditions and shall be specified in the surface use plan. If a polyurethane liner is used, it shall be cut above the fill of the cuttings and disposed at an approved facility.
7. All drilling fluids must be contained in the reserve pit or holding tanks. All appropriate measures must be taken to prevent leakage into the substratum or onto the surface. All appropriate measures must be taken to prevent overflow, and a minimum of 2 feet of freeboard must be maintained in the reserve pit.
8. Immediately upon completion of drilling operations, the reserve pit shall be de-watered by removing and disposing drilling related fluids at an approved facility, unless otherwise requested by the lessee and approved by the Authorized Officer. The location and surrounding area, including the reserve pit, shall be cleared of all remaining debris, trash, junk, and materials not required for production.
9. Any accumulations of hydrocarbons in the reserve pit shall be removed and recovered for sale unless it is determined by the Authorized Officer to be waste oil. All waste oil shall be disposed of properly at approved facilities. The borehole shall not be used for disposal of any waste materials. Fluids produced during the completion operation shall be collected in test tanks. Disposal of these fluids will be in accordance with Onshore Oil and Gas Order No. 7.

10. Once any oil or waste fluid has been removed, then the reserve pit fence shall be completed by constructing the fourth side in accordance with Bureau standards, and the pit shall be allowed to completely dry. The fence must remain in place and in good repair until the pit is dry and site restoration begins.
11. Cuttings shall be buried in the pit. The pit shall be backfilled to slightly above grade to promote settling of the unconsolidated fill material.
12. The reserve pit and that portion of the location and access road not needed for production shall be reclaimed. The stockpiled topsoil shall be applied in proportion to the area being reclaimed.
13. Earthen dikes shall be required around fuel tanks to contain accidental spills. They will exceed the capacity of the largest tank by 50% and be lined with compacted clay or an artificial liner. Non-abrasive padding may be placed under the tank to provide stability as long as the integrity of the liner is not compromised.
14. Gas, diesel fuel, oil lubricants, and other petroleum products shall be located, handled and stored in a manner that prevents them from entering into and contaminating the soils. If lubricants are drained from equipment, then a thick plastic liner shall be required under the equipment to collect any spilled material. This spilled material shall be drained from the liner and disposed with other petroleum based fluids. No material shall be allowed to drain on the ground. If soils or the ground are accidentally contaminated by fuels, lubricants or other hazardous materials, such materials shall be removed from the public lands and disposed of at an approved disposal site. If necessary, the lessee will collect soil samples below the spill to assure that all hydrocarbon-contaminated soils are removed. If vegetation is contaminated, it will be collected, bagged and disposed at an approved facility.
15. If surface water appears to be contaminated, as indicated by the presence of a film or sheen, then it shall be cleaned up and hauled to an approved disposal site. No surface discharge or other release of contained water shall be allowed without prior approval from BLM's Authorized Officer.
16. Appropriate sanitation permits from the Six County Sanitation and Health Department shall be obtained prior to any construction related activity.
17. Burning of waste shall not be allowed. All trash must be contained in a trash cage and hauled away to an approved disposal site as necessary to keep the project area free and clean from trash, litter, discarded materials, and debris. The project area shall be maintained in a sanitary condition at all times. "Waste" is defined as all discarded matter including, but not limited to, human waste, trash, garbage, refuse, pipe, oil, oil drums, grease, petroleum products, ashes, concrete, construction materials, equipment.

18. Site reclamation shall include contouring the location to reestablishing natural contours and natural drainages. After contouring the stockpiled topsoil will be evenly redistributed and then seeded. Spreading of the topsoil would not occur during wet periods to avoid compaction. Disturbed areas, including access roads, will be scarified to a depth of at least 1 inch immediately prior to seeding. Reclaimed areas shall not be recontoured to a smooth condition, but left in a slightly roughened condition to collect precipitation and to promote seed germination. The following seed mixture will be drilled at the application rate below:

Common Name	Scientific Name	Rate (lbs/acre)
Hycrest crested wheatgrass	<u>Agropyron desertorum</u>	2
Pubescent wheatgrass	<u>Agropyron trichophorum</u>	1
Russian wildrye	<u>Elymus junceus</u>	3
Fourwing saltbrush	<u>Atriplex canescens</u>	2
Yellow sweetclover	<u>Malilotus officinales</u>	2
Black greasewood	<u>Artesima Nova</u>	2
Winterfat	<u>Ceratoides lanata</u>	2
Tall wheatgrass	<u>Thinopyrum ponticum</u>	1
TOTAL		15

The seed will be certified, pure live seed and seed tags must be available if requested by the Authorized Officer. No noxious weeds shall be in the seed mixture. Fertilizers shall not be applied to reclaimed lands unless recommended by a professional agronomist and will not be applied within 100 feet of any drainage.

19. Seeding shall be accomplished by drilling. Drill row spacing shall be 7 to 12 inches and the depth calibrated for between  $\frac{1}{2}$  and 1 inches. Drilling shall be parallel to contour as much as possible.
20. Seeding will be done in the fall unless conditions are not conducive to such action. Seeding would be repeated until native vegetation attains 50% of the surrounding undisturbed cover, as determined by a method acceptable to the Authorized Officer.
21. Matting and silt fences, made from geotextiles or straw bales, shall be used based on site-specific conditions, as necessary for erosion control.
22. Reclamation will include the removal of all culverts, signs, fences, cattleguards and any other improvements.
23. If deemed necessary by the Authorized Officer, any material transported from another location that is used in the construction of the drill pad or access road will be removed, as practicable, and disposed of at an approved location. Areas that have been compacted due to operations will be ripped to a depth of approximately 6 inches.
24. Weed control shall be the responsibility of the lessee. On BLM administered lands, use of pesticides and herbicides shall be approved by the Authorized Officer for any applications.

25. The lessee shall submit to the Authorized Officer appropriate written agreements and/or permits as necessary for the acquisition and use of water.
26. The lessee shall submit to the Authorized Officer a copy of the lessee's Conditional Use Permit with Millard County for access over county roads, prior to any construction activity.
27. Access roads that shall be used in existing condition or constructed or reconstructed are to be addressed under the surface use plan as stated in Onshore Order #1. A right-of-way shall be granted as appropriate and necessary for off-lease portions of access roads. During operations, all equipment and vehicles will be confined to the access roads and pad as specified in the APD.
28. A right-of-way will be issued subject to all valid existing rights including other authorized rights-of-way that may be located adjacent to or which may be affected by the construction of this subject right-of-way. Any existing facilities which may be damaged during operation, maintenance, or termination of the proposed operation shall be repaired or restored to the same condition as existed prior to the damage. Any costs for such damage or repair shall be the total responsibility of the lessee.
29. The holder of rights-of-way or lessee shall permit free and unrestricted public access to and upon rights-of-way for all lawful purposes except for those specific areas designated as restricted by the Authorized Officer to protect the public, wildlife, livestock, or facilities constructed within the right-of-way.
30. The holder of rights-of-way or lessee shall conduct all activities associated with the operation, maintenance, and termination of rights-of-way on public land, within the authorized limits of the right-of-way, unless otherwise approved in writing by the Authorized Officer.
31. Boundary adjustments in oil and gas leases owned by Equitable Resources Company, shall automatically require an amendment to any right-of-way to include that portion of a facility no longer contained within the lease. In the event of an automatic amendment to a right-of-way grant, the prior on-lease conditions of approval for any facility will not be affected even though they would now apply to facilities outside of the lease as a result of a boundary adjustment. Rental fees, if appropriate shall be recalculated, based on the conditions of the grant and the regulations in effect at the time of an automatic amendment.
32. Dust shall be controlled by applying water or other means as approved by the Authorized Officer and in accordance with federal, state and local emission standards for air quality.

33. The lessee shall indemnify and hold harmless the United States against any liability for damage to life or property arising from the occupancy or use of the public lands. Where strict liability is imposed and the damage or injury was caused by a third party, the rules of subrogation shall apply in accordance with the laws of the jurisdiction in which the damage or injury occurred.
34. Compliance shall be made with all applicable Federal laws and regulations existing or hereafter enacted or promulgated for industrial wastes and toxic substances. Undesirable events shall be reported in accordance with NTL-2B and any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b.
35. The lessee 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 lessee is to immediately stop work that might further disturb such materials and contact the AO. Within five (5) working days, the AO will inform the lessee as to:
- whether the materials appear to be eligible for the National Register of Historic Places,
  - the mitigation measures the lessee will likely have to undertake before the site can be used, assuming in situ preservation is not necessary, and
  - a time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

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

**EM**

**CULTURAL RESOURCE EVALUATION  
OF PROPOSED MAMBA FEDERAL UNITS  
NO. 43-22 & 31-22 AND ASSOCIATED  
ACCESS ROUTES IN THE SNAKE VALLEY  
LOCALITY OF MILLARD COUNTY, UTAH**

Report Prepared for **Equitable Resources Energy Company**

Dept. of Interior Permit No.: UT-96-54937  
AERC Project 1534 (BLCR-96-4)

Utah State Project No.: UT-96-AF-0302b

Principal Investigator  
F. Richard Hauck, Ph.D.

Author of the Report  
F. Richard Hauck



**ARCHEOLOGICAL-ENVIRONMENTAL RESEARCH  
CORPORATION (AERC)**

181 North 200 West, Suite 5  
Bountiful, Utah 84011-0853

June 7, 1996

## **ABSTRACT**

An intensive cultural resource evaluation has been conducted for Equitable Resources Energy Company of proposed Mamba Federal Units No. 43-22 and 31-22 and associated access routes in the Snake Valley locality of Millard County, Utah. This evaluation involved a total of 32 acres, of which 20 acres are associated with the two proposed well pads, and an additional 12 acres associated with a 2 mile-long access corridors. These evaluations were conducted by F. R. Hauck and Glade Hadden of AERC on June 6, 1996.

No previously recorded significant or National Register eligible cultural resources will be adversely affected by the proposed development.

No newly identified cultural resource activity loci or isolated diagnostic artifacts were discovered or recorded during the examination.

AERC recommends project clearance based on adherence to the stipulations noted in the final section of this report.

## **TABLE OF CONTENTS**

	page
Abstract . . . . .	ii
Table of Contents . . . . .	iii
List of Maps of the Project Area . . . . .	iv
General Information . . . . .	1
Project Location . . . . .	1
Environmental Description . . . . .	1
Previous Research in the Locality . . . . .	4
File Search . . . . .	4
Prehistory and History of the Cultural Region . . . . .	5
Site Potential in the Project Development Zone . . . . .	5
Field Evaluations . . . . .	5
Methodology . . . . .	5
Site Significance Criteria . . . . .	6
Results of the Inventory . . . . .	6
Conclusion and Recommendations . . . . .	7
References . . . . .	8

## **LIST OF MAPS OF THE PROJECT AREA**

	page
MAP 1: General Project Area in Millard County, Utah . . . . .	2
MAP 2: Cultural Resource Survey of Mamba Federal Units No. 43-22 and 31-22 in the Gandy Locality of Millard County, Utah. . . . .	3

## **GENERAL INFORMATION**

On June 6, 1996, AERC archaeologists F. R. Hauck and Glade Hadden conducted an intensive cultural resource evaluation for Equitable Resources Energy Company of Billings, Montana. This examination involved the proposed Mamba Federal Units No. 43-22 and 31-22 and an associated access routes located in the Gandy locality of Snake Valley in Millard County, western Utah. Two 10 acre well pads with some 2 miles of access right of way were examined for a total of 32 acres. The entire project is situated on public lands administered by the Fillmore Office of the Bureau of Land Management (Richfield District, Warm Springs Resource Area).

The purpose of the field study and this report is to identify and document cultural site presence and assess National Register potential significance relative to established criteria (cf., Title 36 CFR 60.6). The proposed development of these wells and access routes requires archaeological evaluations in compliance with U.C.A. 9-8-404, the Federal Antiquities Act of 1906, the Reservoir Salvage Act of 1960-as amended by P.L. 93-291, Section 106 of the National Historic Preservation Act of 1966-as amended, the National Environmental Policy Act of 1969, the Federal Land Policy and Management Act of 1979, the Archaeological Resources Protection Act of 1979, the Native American Religious Freedom Act of 1978, the Historic Preservation Act of 1980, Executive Order 11593, and various Utah State regulations.

In addition to documenting cultural identity and significance, mitigation recommendations relative to the preservation of cultural data and materials can be directed to the Bureau of Land Management Richfield District Office and to the Utah State Antiquities Section. This work was done under U.S. Department of Interior Permit for Utah UT-96-54937 which expires on January 31, 1997.

### **Project Location**

The project location is in the Snake Valley locality of Millard County, Utah. It is situated on the Gandy 7.5 minute topographic quad (see Maps).

The proposed 100 foot-wide access corridor begins at the existing roadway ca. 3.5 miles south of Gandy. That location is in the SW quarter of Section 21, Township 16 South, Range 19 West, Salt Lake Meridian. It extends to the east-northeast for two miles, passing through Section 22 and the Mamba 43-22 Unit and ending at the Mamba Federal Unit 31-22 located in the NE quarter of Section 22 (see Map 2).

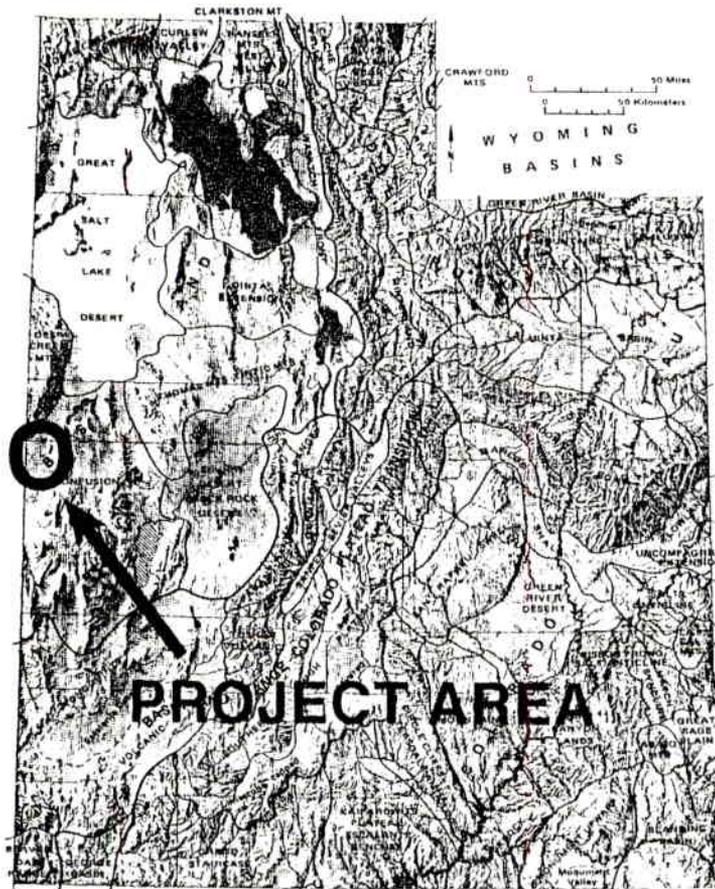
### **Environmental Description**

The project area is within the 4830 to 4870 foot elevation zone above sea level. Open rangeland terrain is associated with the project area.

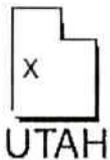
**MAP 1: GENERAL PROJECT AREA  
IN  
MILLARD COUNTY  
UTAH**



**PROJECT: BLCR - 96 - 4  
SCALE: see below  
QUAD: see below  
DATE: June 7, 1996**



UTAH GEOLOGICAL AND MINERAL SURVEY  
MAP 43 1977  
PHYSIOGRAPHIC SUBDIVISIONS OF UTAH  
BY W.L. STOKES

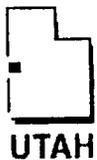
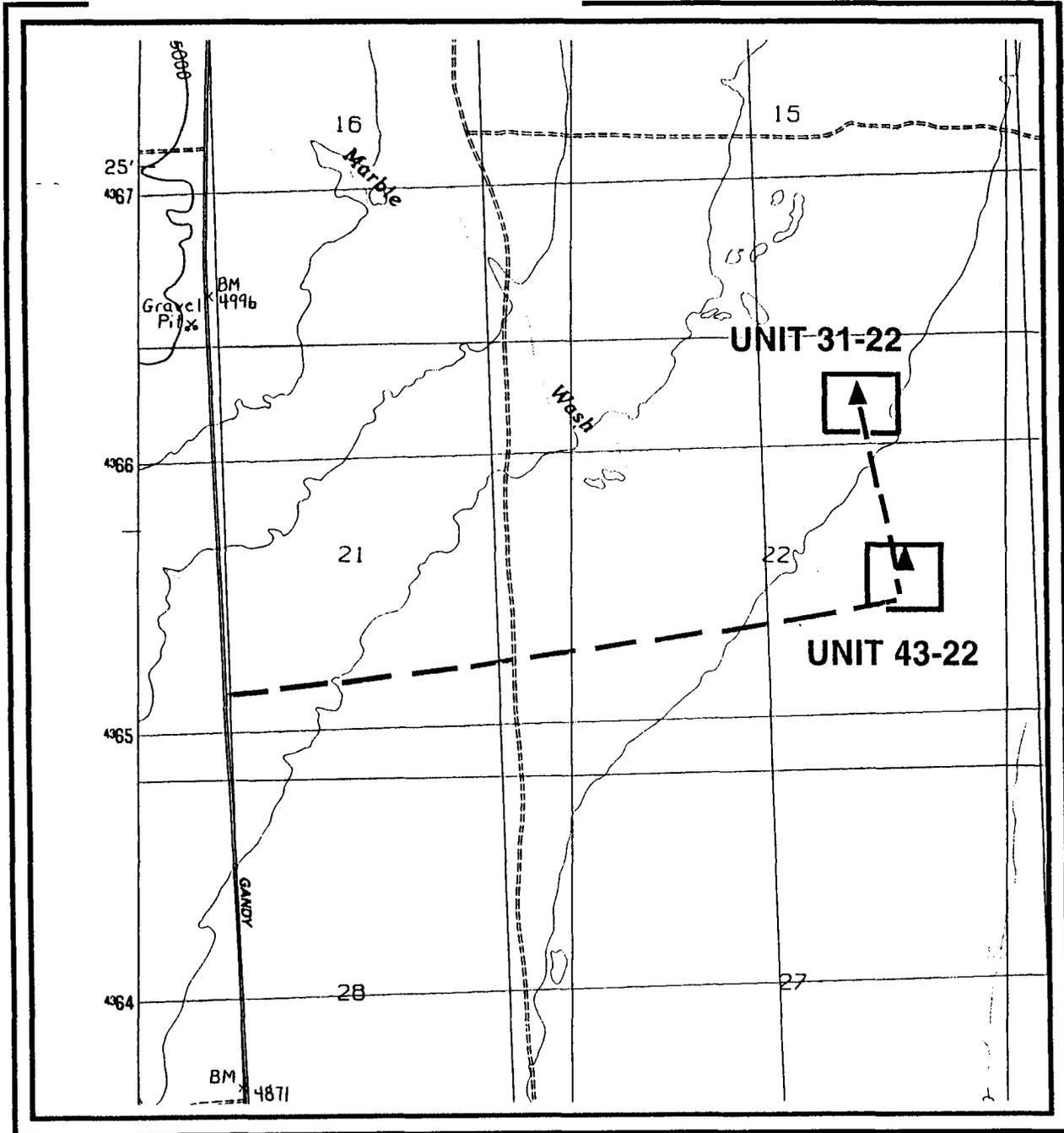


**TOWNSHIP: MULTIPLE  
RANGE: MULTIPLE  
MERIDIAN: SALT LAKE & UINTAH B. & M.**

**MAP 2: CULTURAL RESOURCE SURVEY  
 OF MAMBA FEDERAL UNITS NO. 43-22  
 & 31-22 IN THE GANDY LOCALITY  
 OF MILLARD COUNTY, UTAH**



**PROJECT:** BLCR - 96- 1  
**SCALE:** 1: 24,000  
**QUAD:** Gandy, Utah  
**DATE:** June 7, 1996



**TOWNSHIP:** 16 South  
**RANGE:** 19 West  
**MERIDIAN:** Salt Lake B. & M.

**LEGEND**

Well Location ▲

Access Route - - -

Survey Area □

Pipeline Corridor ↔

Vegetation in the general project area reflects a typical "Artemisian" or Saltbush biotic province (Dice 1943) which is the dominant pattern found in many lowland areas throughout the eastern Great Basin. Limited rainfall and harsh climate promote the growth of xeric, salt tolerant species over most of the area, interspersed with scattered oases where shallow sub-surface water allows marshland vegetation to occur. The sparse vegetation in the general project area includes Rabbitbrush, (*Chrysothamnus spp.*), Sagebrush (*Artemisia spp.*), Greasewood (*Sarcobatus vermiculatus*), Mormon Tea (*Ephedra viridis*), Four-Wing Saltbush (*Atriplex canescens*), and a variety of alkali resistant grasses and sedges (cf. *Distichlis spicatus*, *Sporobolus airoides*, *Scirpus maritimus*, *Bromus tectorum* and *Carex rostrata*).

The geological associations within the project area consist of Quaternary fluvial and lake deposits which correlate with the post-Pleistocene recession of Lake Bonneville.

## **PREVIOUS RESEARCH IN THE LOCALITY**

### **File Search**

A records search of the site files and maps at the Antiquities Section of the State Historic Preservation Office in Salt Lake City was conducted on June 6, 1996. A similar search was conducted in the Fillmore BLM Office on that date. The National Register of Historic Places has been consulted and no registered historic or prehistoric properties will be affected by the proposed development.

Two archaeological inventories have been conducted in the immediate vicinity of this present project area. These projects include a seismic line examined in 1994 (94-409bs) and a parcel survey conducted in 1987. The seismic line was situated in the NW quadrant of Section 22; the parcel survey was in the NW quarter of Section 21. Both projects reported negative results.

Known cultural sites are situated in the Snake Valley locality. During the years, various prehistoric resources in the Gandy locality (cf., 42MD 66 and 42MD 68) have been identified and recorded by archaeologists conducting surface evaluations in this valley. Ms. Nancy Shearin, the Area Archaeologist has conducted surface evaluations within the vicinity of this present project (Shearin 1992a 1992b, 1993, 1994a, 1994b). Site 42MD 1129, a significant resource, was recently recorded by that archaeologist (Shearin 1994a). In addition, Kristopher Corambelas with Desert West Research, Inc. has recently evaluated seismic line corridors which pass through the Gandy locality (Corambelas 1994a and 1994b). Corambelas documented two ineligible sites (42MD 1167 and 1168) during his inventories in this general locality. AERC's evaluations in this locality since 1994 have resulted in the identification and recording of a series of significant prehistoric sites including 42MD 1180 through 42MD 1184 (Hauck 1995c).

## **Prehistory and History of the Cultural Region**

Currently available information indicates that the Great Basin Cultural Area has been occupied by a variety of cultures beginning perhaps as early as 10,000 B.C. These cultures, as identified by their material remains, demonstrate a cultural developmental process that begins with the earliest identified Paleoindian peoples (10,000 -- 7,000 B.C.) and extends through the Archaic (ca. 7,000 B.C. -- A.D. 300), and Formative (ca. A.D. 400 -- 1100) Stages, and the Late Prehistoric-Protohistoric periods (ca. A.D. 1200 -- 1850) to conclude in the Historic-Modern period which was initiated with the incursion of the Euro-American trappers, explorers, and settlers. Basically, each cultural stage -- with the possible exception of the Late Prehistoric hunting and gathering Shoshonean bands -- features a more complex life-way and social order than occurred during the earlier stage of development (cf., Jennings 1978, 1980). For a more definitive outline of the area's pre-history see Prehistory of Southeastern Nevada (Fowler et. al. 1973)

## **Site Potential in the Project Development Zone**

Previous archaeological evaluations in the general project area have resulted in the identification and recording of cultural resource sites having eligibility for potential nomination to the National Register of Historic Places (NRHP). These sites include occupations sometimes containing ceramic scatters, and lithic scatters containing reduction materials.

## **FIELD EVALUATIONS**

### **Methodology**

The intensive evaluation of the access routes and two ten acre parcels consisted of the archaeologists walking a series of 15 - 20 meter transects on each side of the right-of-way center line and within the ten acre parcels. Thus, a 30 to 35 meter-wide or 100 foot-wide corridor (ca. 12 acres) was examined for the total ca. two mile length of the proposed access routes.

Observation of cultural materials results in intensive examinations to determine the nature of the resource (isolate or activity locus). The analysis of each specific cultural site results in its subsequently being sketched, photographed, and appropriately recorded on standard IMACS forms. Cultural sites are then evaluated for significance utilizing the standards described below and mitigation recommendations are considered as a means of preserving significant resources which may be situated within the development zone.

## **Site Significance Criteria**

Prehistoric and historic cultural sites which can be considered as eligible for nomination to the National Register of Historic Places have been outlined as follows in the National Register's Criteria for Evaluation as established in Title 36 CFR 60.6:

*The quality of significance in American ... archaeology ... and culture is present in ... sites ... that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:*

- a. That are associated with events that have made a significant contribution to the broad patterns of our history; or*
- b. that are associated with the lives of persons significant in our past; or*
- c. that embody the distinctive characteristics of a type, period, or method of construction ... ; or*
- d. that have yielded, or may be likely to yield, information important in prehistory or history.*

In addition to satisfying one or more of these general conditions, a significant cultural resource site in Utah will generally be considered as being eligible for inclusion in the National Register if it should advance our current state of knowledge relating to chronology, cultural relationships, origins, and cultural life ways of prehistoric or historic groups in the area.

In a final review of any site's cultural significance, the site must possess integrity and at least one of the above criteria to be considered eligible for nomination to the National Record of Historic Places.

## **Results of the Inventory**

No prehistoric cultural resource activity loci were observed or recorded during the archaeological evaluations.

No previously recorded sites are located within the proposed development zone.

No isolated diagnostic artifacts were recorded or collected during the evaluation. One obsidian secondary flake was observed on the access route in Section 21. A careful search of the immediate vicinity failed to produce any other indicators of an activity locus. AERC considers three or more fragments of debitage as indicators of a cultural activity site.

No paleontological loci were observed or recorded during the evaluation.

## **CONCLUSION AND RECOMMENDATIONS**

No known significant cultural or paleontological resources will be adversely impacted during the development and operation of the Equitable Resources Energy Company's Mamba Federal Units No. 43-22 and 31-22 as evaluated during this project.

AERC recommends that a cultural resource clearance be granted to Equitable Resources Energy Company relative to the proposed development of these well pads and access corridors based upon adherence to the following stipulations:

1. All vehicular traffic, personnel movement, construction and restoration operations should be confined to the flagged areas and corridors examined as referenced in this report, and to the existing roadways.
2. All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
3. The authorized official should be consulted should cultural remains from subsurface deposits be exposed during construction work or if the need arises to relocate or otherwise alter the location of the development area.



F. Richard Hauck, Ph.D.  
President and Principal  
Investigator

## **REFERENCES**

Corambelas, Kristopher

1994a "Class III Cultural and Paleontological Inventory for the Balcron 2-D Seismic Line in Millard County, Utah." Report prepared for Balcron Oil Division by Desert West Research, Inc. Salt Lake City.

1994b "Class III Cultural and Paleontological Inventory for the Snake Valley 2-D Seismic Line in Millard County, Utah." Report prepared for Balcron Oil Division by Desert West Research, Inc. Salt Lake City.

Dice, L.R.

1943 The Biotic Provinces of North America. University of Michigan Press, Ann Arbor.

Fowler, D. D., D. B. Madsen and E. M. Hattori

1973 "Prehistory of Southeastern Nevada." Desert Research Institute Publications in the Social Sciences No. 6, Reno.

Grayson, D.K.

1993 The Desert's Past: A Natural Prehistory of the Great Basin. Smithsonian Institution Press, Washington.

Hauck, F.R.

1994a Cultural Resource Evaluation of Proposed Cobra State Unit No. 1 in the Snake Valley Locality of Millard County, Utah. Report prepared for Balcron Oil Division. (BLCR-94-8A) Archaeological-Environmental Research Corporation, Bountiful. (Ut-94-AF-599bs)

1994b *Addendum to* Cultural Resource Evaluation of Proposed Cobra State Unit No. 1 in the Snake Valley Locality of Millard County, Utah. Report prepared for Balcron Oil Division. (BLCR-94-8B) Archaeological-Environmental Research Corporation, Bountiful. (Ut-94-AF-599bs)

1994c Cultural Resource Evaluation of Proposed Asp Federal Unit No. 1 and Associated Access Route in the Snake Valley Locality of Millard County, Utah. Report prepared for Balcron Oil Division. (BLCR-94-8B) Archaeological-Environmental Research Corporation, Bountiful. (Ut-94-AF-599bs)

- 1995a Cultural Resource Evaluation of Proposed Cobra State Unit No. 12-36 and Associated Access Route in the Snake Valley Locality of Millard County, Utah. Report prepared for Balcron Oil Division. (BLCR-95-4) Archaeological-Environmental Research Corporation, Bountiful. (Ut-95-AF-107bs)
- 1995b Cultural Resource Evaluation of Proposed Cobra Federal Unit No. 42-35 and Associated Access Route in the Snake Valley Locality of Millard County, Utah. Report prepared for Balcron Oil Division. (BLCR-95-6) Archaeological-Environmental Research Corporation, Bountiful. (Ut-95-AF-559b)
- 1995c Site Reports and associated documentation for 42MD 1180 through 42MD 1184. (BLCR-94-8) Archaeological-Environmental Research Corporation, Bountiful. (Ut-94-AF-599bs)

Jennings, Jesse D.

- 1957 "Danger Cave." University of Utah Anthropological Papers, No. 27, University of Utah Press, Salt Lake City.
- 1978 "Prehistory of Utah and the Eastern Great Basin." University of Utah Anthropological Papers, No. 98, University of Utah Press, Salt Lake City.

Shearin, Nancy

- 1992a "Bureau of Land Management Report on the Moriah Pipeline in Millard County, Utah (U92-BL-278b)." Warm Springs Resource Area Office, Fillmore.
- 1992b "Bureau of Land Management Report on the Gandy Fence in Millard County, Utah (U92-BL-388b)." Warm Springs Resource Area Office, Fillmore.
- 1993 "Bureau of Land Management Report on the Gandy Middle Road in Millard County, Utah (U93-BL-096b)." Warm Springs Resource Area Office, Fillmore.
- 1994a "Bureau of Land Management Report on the Wild Horse Corrals in Millard County, Utah (U94-BL-246b)." Warm Springs Resource Area Office, Fillmore.
- 1994b "Bureau of Land Management Report on the Gandy Marsh Fences in Millard County, Utah (U94-BL-630b)." Warm Springs Resource Area Office, Fillmore.

Smith, Shelley J.

- 1994 "Fremont Subsistence Practices in Skull Valley, Northern Utah." Paper presented at the 24th Great Basin Anthropological Conference, Elko. (Manuscript on file.)

U.S.  
 Department of the Interior  
 Bureau of Land Management  
 Utah State Office  
 (AERC FORMAT)

Project  
 Authorizatic No .U.9.6.A.F.3.0.2.b..  
 Report Acceptable Yes \_\_\_ No \_\_\_  
 Mitigation Acceptable Yes \_\_\_ No \_\_\_  
 Comments: \_\_\_\_\_

Summary Report of  
 Inspection for Cultural Resources

F E D E R A L U N I T S 4 3 - 2 2 & 3 1 - 2 2  
 S N A K E V A L L E Y

1. Report Title . . . . .

2. Development Company Equitable Resources Energy Co. (BLCR-96-4)

3. Report Date . . . . . 6 6 1 9 9 6 4. Antiquities Permit No. UT-96-54937

5. Responsible Institution . . . . . A E R C B L C R 9 6 - 1 Millard County

6. Fieldwork Location: 1 6 S 1 9 W 2 1 2 2  
 TWN . . . . . RNG . . . . . Section. . .|. . .|. . .|. . .|

7. Resource Area .WS.  
 TWN . . . . . RNG . . . . . Section. . .|. . .|. . .|. . .|  
 TWN . . . . . RNG . . . . . Section. . .|. . .|. . .|. . .|

8. Description of Examination Procedures: The archeologists, F.R. Hauck & Glade Hadden intensively examined the proposed access routes for the proposed well locations by walking a series of 10 to 15 meter-wide transects within the flagged corridors and within the two ten acre pad sites.

9. Linear Miles Surveyed and/or Definable Acres Surveyed and/or Legally Undefinable Acres Surveyed 2 . . . . . 32 . . . . .  
 10. Inventory Type . . . . . I  
 R = Reconnaissance  
 I = Intensive  
 S = Statistical Sample

11. Description of Findings: No archaeological sites were identified and recorded during the inventory associated with these roadway corridors & well sites.  
 12. Number Sites Found .0. . . . . (No sites = 0)  
 13. Collection: .N. (Y = Yes, N = No)

14. Actual/Potential National Register Properties Affected: The National Register of Historic Places (NRHP) has been consulted and no registered properties will be affected by the proposed development.

15. Literature Search, Location/ Date: Utah SHPO 6-6-96 Fillmore BLM 06-6-96

16. Conclusion/ Recommendations:

AERC recommends that a cultural resource clearance be granted to Equitable Resources Energy Company for this proposed development based on the following stipulations:

1. all vehicular traffic, personnel movement, construction and restoration operations should be confined to the flagged areas and corridors examined as referenced in this report, and to the existing roadways;
2. all personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area; and
3. the authorized official should be consulted should cultural remains from subsurface deposits be exposed during construction work or if the need arises to relocate or otherwise alter the location of the exploration area.

---

17. Signature of Administrator & Field Supervisor  
Administrator:

Field  
Supervisor:

UT 8100-3 (2/85)

A handwritten signature in black ink, appearing to read "J. G. Gandy", is written over the "Field Supervisor:" label.

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 08/15/96

API NO. ASSIGNED: 43-027-30039

WELL NAME: MAMBA FEDERAL 43-22  
 OPERATOR: EQUITABLE RESOURCES (N9890)

PROPOSED LOCATION:  
 NESE 22 - T16S - R19W  
 SURFACE: 2350-FSL-1300-FEL  
 BOTTOM: 2350-FLS-1300-FEL  
 MILLARD COUNTY  
 WILDCAT FIELD (001)

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

LEASE TYPE: FED  
 LEASE NUMBER: UTU - 69960

PROPOSED PRODUCING FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal  State[] Fee[]  
 (Number MT 0576)

Potash (Y/N)

Oil shale (Y/N)

Water permit  
 (Number PURCHASED FROM WEAVER GATES)

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

LOCATION AND SITING:

\_\_\_ R649-2-3. Unit: \_\_\_\_\_

\_\_\_ R649-3-2. General.

R649-3-3. Exception.

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

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

\_\_\_\_\_

\_\_\_\_\_

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

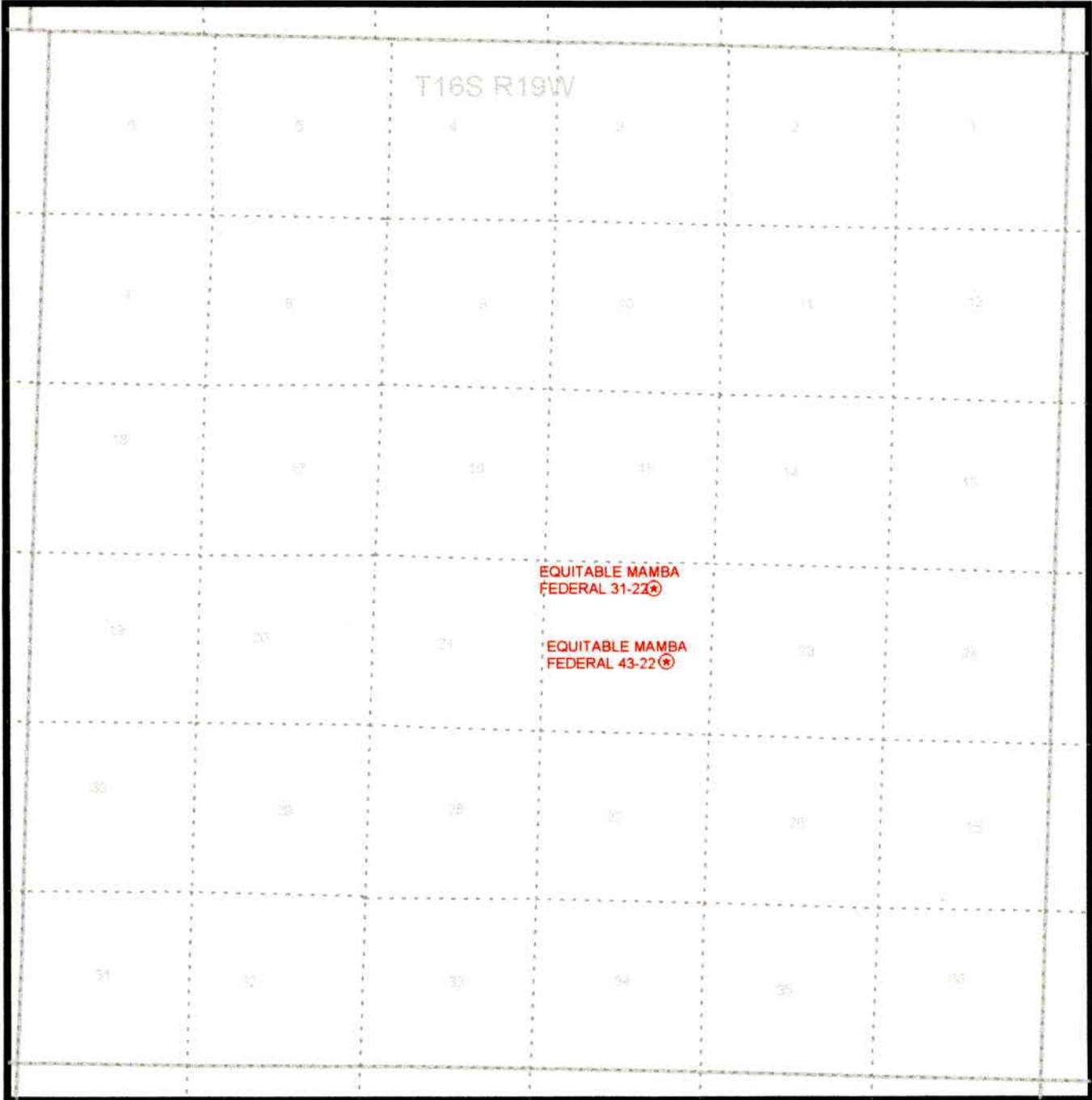
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**OPERATOR: EQUITABLE RESOURCES  
FIELD: WILDCAT (001)  
SEC, TWP, RNG: SEC. 22, T16S, R19W  
COUNTY: MILLARD  
UAC: R649-3-3**



**PREPARED: KMH  
DATE: 16-AUG-96**

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

<b>Operator: EQUITABLE RESOURCES</b>	<b>Well Name: MAMBA FED 43-22</b>
<b>Project ID: 43-027-30039</b>	<b>Location: SEC. 22 - T16S - R19W</b>

Design Parameters:

Mud weight ( 8.80 ppg) : 0.457 psi/ft  
 Shut in surface pressure : 1962 psi  
 Internal gradient (burst) : 0.065 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using buoyed 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	4,300	7.000	20.00	K-55	ST&C	4,300	6.331	
2	700	7.000	23.00	K-55	ST&C	5,000	6.250	

	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	1966	2242	1.140	2241	3740	1.67	88.36	254	2.87 J
2	2286	3270	1.430	2286	4360	1.91	13.93	309	22.18 J

Prepared by : MATTHEWS, Salt Lake City, Utah  
 Date : 10-24-1996  
 Remarks :

**PALEOZOIC CARBONATES**

Minimum segment length for the 5,000 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 119°F (Surface 74°F , BHT 144°F & temp. gradient 1.400°/100 ft.)  
 String type: Production  
 The mud gradient and bottom hole pressures (for burst) are 0.457 psi/ft and 2,286 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)

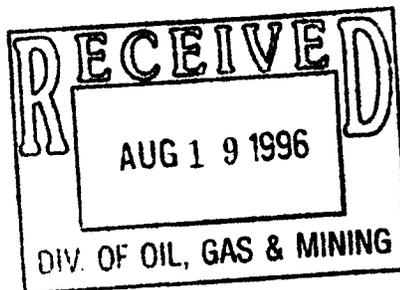


**EQUITABLE RESOURCES**  
ENERGY COMPANY

**WESTERN REGION**

1601 Lewis Avenue  
Billings, MT 59102

Office: (406) 259-7860  
FAX: (406) 245-1365   
FAX: (406) 245-1361



August 16, 1996

Mr. Mike Hebertson  
State of Utah  
Division of Oil, Gas and Mining  
1594 West North Temple  
Suite 1210  
Salt Lake City, UT 84114-5801

Dear Mr. Herbertson:

RE: Mamba Federal #43-22  
NE SE Section 22, T16S, R19W  
Millard County, Utah

As Operator, we hereby request an exception to location for the referenced well due to geologic reasons.

Sincerely,

Bobbie Schuman  
Regulatory and Environmental  
Specialist

/hs

cc: Bureau of Land Management, Richfield, UT

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

LEASE DESIGNATION AND SERIAL NO.  
UTU-69960

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
n/a  
 7. UNIT AGREEMENT NAME  
n/a  
 8. FARM OR LEASE NAME  
Mamba Federal

2. NAME OF OPERATOR  
Equitable Resources Energy Company

9. WELL NO.  
#43-22

3. ADDRESS OF OPERATOR  
1601 Lewis Avenue; Billings, MT 59102 (406) 259-7860

10. FIELD AND POOL OR WILDCAT  
Wildcat/Paleozoic

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface NE SE Section 22, T16S, R19W  
 At proposed prod. zone 2350' FSL, 1300' FEL

11. SEC., T., R., M., OR B.E. AND SURVEY OR AREA  
22, T16S, R19W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE  
Approximately 1.5 miles from Warm Creek Ranch

12. COUNTY OR PARISH  
Millard  
 13. STATE  
UTAH

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

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL

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

19. PROPOSED DEPTH  
5,000'

20. ROTARY OR CABLE TOOL  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
4828' GL

22. APPROX. DATE WORK WILL START  
September 5, 1996

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
See attached Drilling Program/Casing Design				

Operator plans to drill this well in accordance with the attached EXHIBITS. A listing of EXHIBITS is also attached.

RICHFIELD FIELD OFFICE  
 OFFICE AND RECORDS SECTION  
 AUG 22 1996  
 This original was sent to F: Hmore. Duplicate copies sent to RPO; received 8/14/96. mmj

ORIGINAL: Bureau of Land Management (Fillmore, UT)  
 COPY: Bureau of Land Management (Richfield, UT)  
 COPY: Utah Division of Oil, Gas and Mining

MISTAKE NEARLY ADAM ASBESTI BANKSVILLE

SELF CERTIFICATION: I hereby certify that I am authorized, by proper lease interest owner, to conduct these operations associated with the application. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Equitable Resources Energy Company as principal and Safeco Insurance Company of America as surety under BLM Bond No. MT 0576 (Nationwide Oil & Gas Bond #5547188) who will be responsible for compliance with all of the terms and conditions of that portion of the lease associated with this application.

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.

24. SIGNATURE: Bobbie Schuman TITLE: Regulatory and Environmental Specialist DATE: August 13, 1996  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY: David Anderson TITLE: District Manager DATE: October 21, 1996  
 CONDITIONS OF APPROVAL, IF ANY: SEE ATTACHED Acting

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

**SUBMIT IN TRIPLICATE**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. <b>UTU-69960</b>
2. Name of Operator <b>Equitable Resources Energy Company</b>	6. If Indian, Allottee or Tribe Name <b>n/a</b>
3. Address and Telephone No. <b>1601 Lewis Avenue; Billings, MT 59102 (406) 259-7860</b>	7. If Unit or CA, Agreement Designation <b>n/a</b>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>NE SE Section 22, T16S, R19W 2350' FSL, 1300' FEL</b>	8. Well Name and No. <b>Mamba Federal #43-22</b>
	9. API Well No. <b>43-027-30039</b>
	10. Field and Pool, or Exploratory Area <b>Wildcat/Paleozoic</b>
	11. County or Parish, State <b>Millard County, UTAH</b>

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

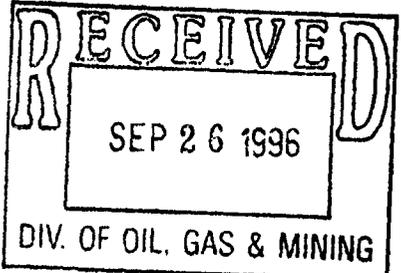
TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input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

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

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

Operator intends to use water from Warm Creek in drilling this well. A copy of the Certificate of Appropriation of Water is attached.

ORIGINAL: Bureau of Land Management (Richfield, UT)  
COPY: Utah Division of Oil, Gas and Mining



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

Signed Bobbie Schuman Title Regulatory and Environmental Specialist Date September 24, 1996

(This space for Federal or State Office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any:

RECEIVED  
6 PM  
BOD OPERATIONS

(DUPLICATE)

# CERTIFICATE OF APPROPRIATION OF WATER

STATE OF UTAH **TITLE CHANGE**

CERTIFICATE NO. 1480

APPLICATION NO. 3490

SEVIER RIVER

2-4-70  
WATER DIVISION

Cecil R. Bates, Geny, etc

Whereas, It has been made to appear to the satisfaction of the undersigned, State Engineer of the State of Utah, that the appropriation of water from Warm Creek in Millard County, made by ~~Charles A. Phillips~~ has been perfected in accordance with the application therefor, received in the office of the State Engineer on the 6 day of September 1910, and recorded on page 418 in book I-10 of the record of applications to appropriate water; Therefore, Be it known that I, Geo. L. Bacon, State Engineer of the State of Utah, under and by authority and direction of the provisions of the Compiled Laws of Utah, 1907, as amended by Chapter 62 of the Session Laws of Utah, 1909, on "Water Rights and Irrigation," do hereby certify that the said Charles A. Phillips of Chicago in Cook County, State of Illinois, is entitled to the use of 1.5 cubic feet of water per second, subject to the following restrictions, to-wit:

The water to be diverted from Warm Creek at a point 1320 ft. E. and 415 ft. S. of the NW Cor. Sec. 4, T. 16 S., R. 19 W., S.L.B. & M. The diverting works consist of a wooden and earthen dam and an earthen ditch, known as the Phillips Ditch being 4760 ft. long, 4 ft. wide on top, 2 ft. wide in the bottom and having an effective depth of 1 1/4 ft. The water is to be used from March 1st to October 15th of each year to irrigate 120 acres of land embraced in SE 1/4 Sec. 4, NE 1/4 Sec. 9, NW 1/4 Sec. 10, T. 16 S., R. 19 W., S.L.B. & M. and more particularly described as follows: Beg. NE cor. SE 1/4 Sec. 4, T. 16 S., R. 19 W., W. 620 ft., S. 960 ft., E. 290 ft., S. 360 ft., E. 330 ft., N. 1320 ft. to place of beginning containing 16 acres, also begin 620 ft. W. NE cor. SE 1/4 Sec. 4, T. 16 S., R. 19 W; thence W. 469 ft., S. 1320 ft., E. 759 ft., N. 360 ft., W. 290 ft., N. 960 ft. SE 1/4 said Sec. 4, T. 16 S., R. 19 W; thence W. 469 ft., S. 1320 ft., E. 759 ft., N. 360 ft., W. 290 ft., N. 960 ft. to place of beginning containing 17 acres, also begin NW cor. SE 1/4 said Sec. 4, T. 16 S., R. 19 W., thence S. 1320 ft. E. 231 ft., N. 1320 ft., W. 231 ft. to place of beg. containing 7 acres, also beg. NW cor. NE 1/4 said Sec. 9, T. 16 S., R. 19 W., thence S. 330 ft., E. 594 ft., N. 330 ft., W. 594 ft., S. 330 ft., W. 594 ft., S. 361 ft., E. 1320 ft., N. 691 ft., to place of beginning containing 18 acres., also begin SE cor. NE 1/4 said Sec. 9, T. 16 S., R. 19 W., thence N. 629 ft., W. 1320 ft., S. 629 ft., E. 1320 ft., to place of beginning containing 17.5 acres, also beg. NW cor. NW 1/4 said Sec. 10, T. 16 S., R. 19 W., thence S. 300 ft., E. 590 ft., N. 300 ft., W. 590 ft., to place of beginning containing 4 acres, also beg. NE cor. NW 1/4 said Sec. 10, T. 16 S., R. 19 W., thence W. 730 ft., S. 300 ft., W. 590 ft., S. 1020 ft., E. 1320 ft., N. 1320 ft., to place of beginning containing 36 acres.

This certificate does not entitle the holder to use to exceed 3 acre feet of water per acre of land irrigated per annum. The diverting works must be maintained in such condition as will prevent an unreasonable loss of water.

The date of the appropriation is September 6 1910

In witness whereof, I have hereunto set my hand and affixed the seal of my office this TENTH day of AUGUST A. D. 19 26

MICROFILMED

STATE ENGINEER

T16 S R19 W

Pipe line -

7

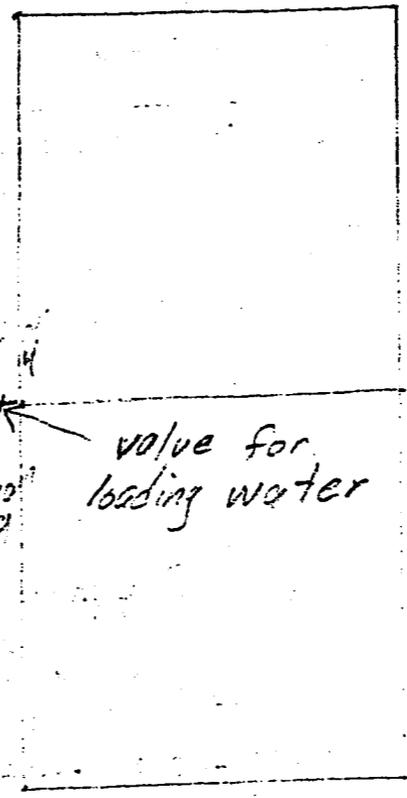
5	4
section 8	section 9

10 road

Gandy

section 10  
1/4 section 9

valve for loading water





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)

October 24, 1996

Equitable Resources Energy Company  
1601 Lewis Avenue  
Billings, Montana 59102

Re: Mamba Federal 43-22 Well, 2350' FSL, 1300' FEL, NE SE,  
Sec. 22, T. 16 S., R. 19 W., Millard 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 43-027-30039.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. G. Firth'.

R. G. Firth  
Associate Director

lwp

Enclosures

cc: Millard County Assessor  
Bureau of Land Management, Richfield District Office



Operator: Equitable Resources Energy Company  
Well Name & Number: Mamba Federal 43-22  
API Number: 43-027-30039  
Lease: UTU-69960  
Location: NE SE Sec. 22 T. 16 S. R. 19 W.

### 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

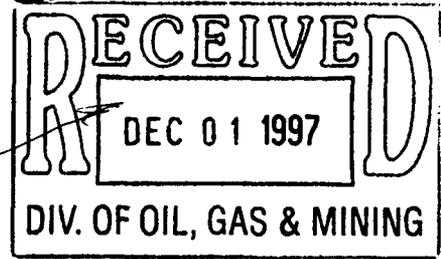
Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5336.

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.

DOG M  
LA  
DATE



3162.35  
(U-050)

November 21, 1997

Bobbie Schuman  
Equitable Resources Energy Company  
1601 Lewis Avenue  
Billings, Montana 59102

43-027-30039

RE: Mamba Federal 43-22  
T. 16S., R. 19W. Sec. 22  
millard county

Dear Ms. Schuman:

The application for Permit to Drill (APD) the referenced well was approved on October 24, 1996. Under Bureau policy, APD's are effective for a period of one year. Since that date no known activity has transpired at the approved location. In view of the foregoing, this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location at a future date, a new APD must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location for this well must be rehabilitated. A schedule of this rehabilitation must be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Jerry Goodman".

Jerry Goodman  
District Manager

cc: Utah DOGM

bcc: Well File  
Al McKee (U-922)  
Resource Area

MJackson:sh:11-21-97