



LTR



Job separation sheet

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

30-039-25229

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

American Hunter Exploration Ltd. ✓ 577

3. ADDRESS OF OPERATOR

410 - 17 Street, Suite #1220, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface
1025' FSL & 2030' FWL (SE SW) Sec 24 T27N R2W

At proposed prod. zone
1025' FSL & 2030' FWL (SE SW) Sec 24 T27N R2W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

1025'

16. NO. OF ACRES IN LEASE

N/A

17. NO. OF ACRES ASSIGNED
TO THIS WELL

640

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

N/A

19. PROPOSED DEPTH

7600 TVD

20. ROTARY OR CABLE TOOLS

Rotary

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

7357' ✓ GR This action is subject to technical and
procedural review pursuant to proposed casing and cementing program.

22. APPROX. DATE WORK WILL START*

September 5, 1992

23. PROPOSED CASING AND CEMENTING PROGRAM

and appeal pursuant to 43 CFR 1.106-4

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	400'	To surface
7 7/8"	5 1/2"	17#	7600'	To surface

A 12 1/4" vertical surface hole will be drilled to 400'. A 7 7/8" main hole will then be drilled to a total depth of approximately 7600'. At this point 5 1/2" casing will be run and cemented in accordance with NTL-FRA 90-1.

EXHIBITS ATTACHED

"A" Location Survey Plat
"B" Drilling Program
"C" Wellbore Schematic
"D" Blowout Prevention Diagram
"E" Drilling Pad Layout

RECEIVED

SEP 16 1992

OIL CON. DIV.
DIST. 3

"F" Cross Section of Drilling Pad
"G" Drill Rig Layout
"H" Access Road
"I" Surface Use Program

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 B. Thistle TITLE Drilling Technologist DATE August 25, 1992

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AS AMENDED

SEP 14 1992

For AREA MANAGER

*See Instructions On Reverse Side

EXHIBIT A

State of New Mexico
Energy, Minerals and Natural Resources Department

RECEIVED
Form C-102
Revised 1-1-90
DEN

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

50 SEP -1 PM 2:57

019 FAN, SECTION, N.M.

Submit to Appropriate
District Office
Stain Less - 4 copies
Foil Less - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240;

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Benito Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator American Hunter Exploration Ltd.		Lease Jicarilla 24N		Well No. 1
Unit Letter N	Section 24	Township 27 North	Range 2 West	County Rio Arriba
Actual Footage Location of Well: 1025 feet from the South line and 2030 feet from the West line				
Ground level Elev. 7357'	Producing Formation Mancos/Gallup	Pool W. Puerto Chiquito Mancos	Dedicated Acreage: 640 Acres	
1. Outline the acreage dedicated to the subject well by colored pencil or ink on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____ If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary). No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.				
			OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Bradley W. Salzman</i> Signature Bradley W. Salzman Printed Name Operations Sup. Position American Hunter Company Aug. 31, 1992 Date	
			SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. 8-19-92 Date Surveyed NEAL C. EDWARDS Name <i>Neal C. Edwards</i> Signature Professional Surveyor 9257 Certificate No. 6857	
0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0				

EXHIBIT "B"

DRILLING PROGRAM

AMERICAN HUNTER EXPLORATION LTD.

Jicarilla 24N-1

SE SW 24-27N-2W

1025'FSL & 2030'FWL

(Surface & TD locations)

Rio Arriba County, New Mexico

1. SURFACE FORMATION: San Jose

2&3. ESTIMATED GEOLOGICAL FORMATION TOPS:

FORMATION	VERTICAL		COMMENTS
	SubSea Elev (ft.)	Drilling Depth (ft MD)	
San Jose (surface)	+ 7357	15	
Ojo Alamo	+ 4060	3310	
Fruitland	+ 3740	3630	
Pictured Cliffs	+ 3690	3680	possible gas
Lewis Shale	+ 3455	3915	
Cliff House	+ 1600	5770	
Point Lookout	+ 1345	6025	possible gas
Mancos Shale	+ 1145	6225	
Grey Zone	+ 212	7158	
Niobrara A	+ 98	7272	possible oil/gas
Niobrara B	+ 28	7342	possible oil/gas
Niobrara C	- 88	7458	
T.D.	- 230	7600	

4. WELL DESIGN

Surface hole will be drilled to 400' then 8 $\frac{5}{8}$ " casing will be set. The casing will be cemented to surface with 100% excess. A 7 $\frac{7}{8}$ " main hole will then be drilled to a TD of 7600' - approximately 50' below the base of the Niobrara "C". 5 $\frac{1}{2}$ " production casing will then be run to TD and cemented back to surface.

CASING PROGRAM

HOLE SIZE	INTERVAL	LENGTH	CASING SIZE	WEIGHT	GRADE	CONN	COND
12 $\frac{1}{4}$	0 - 400'	400'	8 $\frac{5}{8}$ "	24.0	K-55	STC	New
7 $\frac{7}{8}$	400 - 7600'	7200'	5 $\frac{1}{2}$ "	17.0	L-80	LTC	New

CEMENTING PROGRAM

The 8 $\frac{5}{8}$ " surface casing will be cemented to surface with 290 sacks Class G + 2% CaCl₂.

The 5 $\frac{1}{2}$ " production casing will be cemented to surface as follows:

- 7600 - 7150' 90 sx Class G + 0.5% D59 + 0.4% D65 + 0.2% D136 + 0.25% D79
- 7150' - Surface 870 sx Litepoz + 2% CaCl₂ + 6% Bentonite

Cement slurry volumes will be calculated as follows:

- 100% excess over gauge (annular) hole volume for surface casing.
- 30% excess over annular hole volume (based on calliper log) for production casing.

5. PRESSURE CONTROL EQUIPMENT

Exhibit "D" is a schematic diagram of the proposed blowout preventer equipment.

Ram type preventers and associated equipment (choke manifold, kelly cocks, etc.) shall be pressure tested to 100% of their rated working pressure (with BOP stack isolated from casing by a test plug) for a period of 10 minutes. Annular preventers shall be tested to 50% of rated working pressure for 10 minutes. Tests will be run after initial installation, prior to drilling out of surface casing shoe and after any use under pressure, or a minimum of once every 14 days. Pipe rams will be operationally checked each 24 hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Annular preventers will be functionally operated at least weekly. BOP checks will be noted on daily drilling reports.

6. MUD PROGRAM

	MW	WL	VIS	TYPE
0 - 400'	8.5 - 9.0	NC	35 - 50	Water/Gel-Lime
400 - 7600'	8.5 - 8.8	8 - 10	32 - 36	KOH-PHPA

7. AUXILIARY EQUIPMENT

- 1) Upper and lower kelly cock.
- 2) Drillpipe float (except for lost circulation drilling conditions).
- 3) A mud logging unit with gas detecting device will be used to detect any influx of formation fluids.
- 4) A sub on the floor with a full opening valve to be stabbed into drillpipe when a kelly is not in the string.

8. EVALUATION

LOGGING:	<u>INTERVAL</u>	<u>LOG RUN</u>
	T.D. to Surface	1. BHC Sonic/GR/Caliper 2. DIL/SFL/SP/GR
CORING:	No cores will be cut.	
TESTING:	No DSTs are planned.	
MUD LOGGING:	Full mud logging services from surface casing to T.D.	
STIMULATION:	Stimulation procedures will be determined after evaluation of logs. If treatment is indicated, appropriate sundry notice will be submitted for approval.	

9. **ABNORMAL PRESSURES**

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. The Niobrara is an underpressured reservoir (0.27 psi/ft max). Maximum expected bottomhole pressure is 1980 psi.

10. **TIMING**

The anticipated starting date for this well is set for September 5, 1992. Operations will require 16 days for drilling and 7 days for completion.

WELLBORE SCHEMATIC

AH EL JICARILLA 24N-1

Rio Arriba County, New Mexico

GROUND ELEVATION

7357' ASL

ROTARY TABLE EL
approx 7370' ASL

400' RKB

12 1/4" hole

8 5/8" OD 24#/ft K-55 ST&C new csg
set at 400'

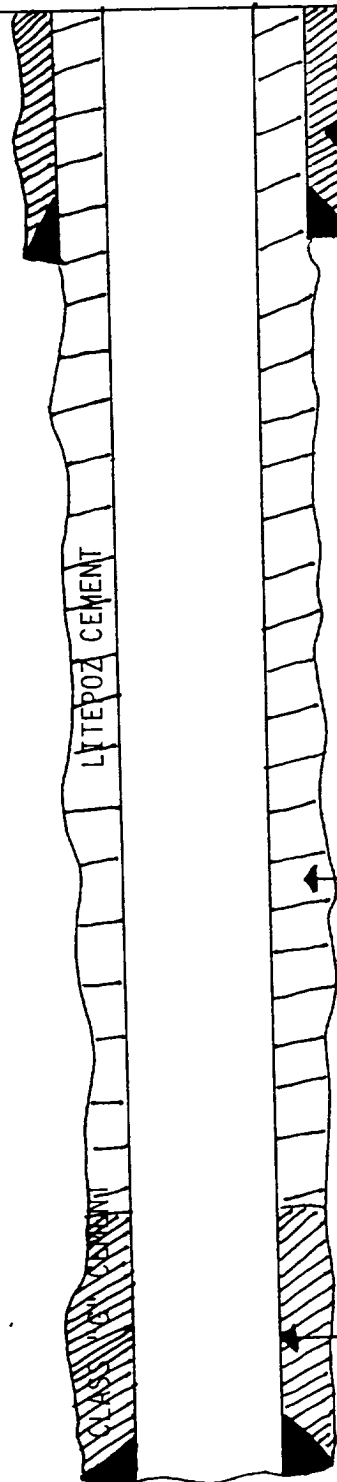
LYTEPOZ CEMENT

7 7/8" OD hole drilled to approx 7600'
(ie: approx 50' below base of
Niobrara "C" formation)

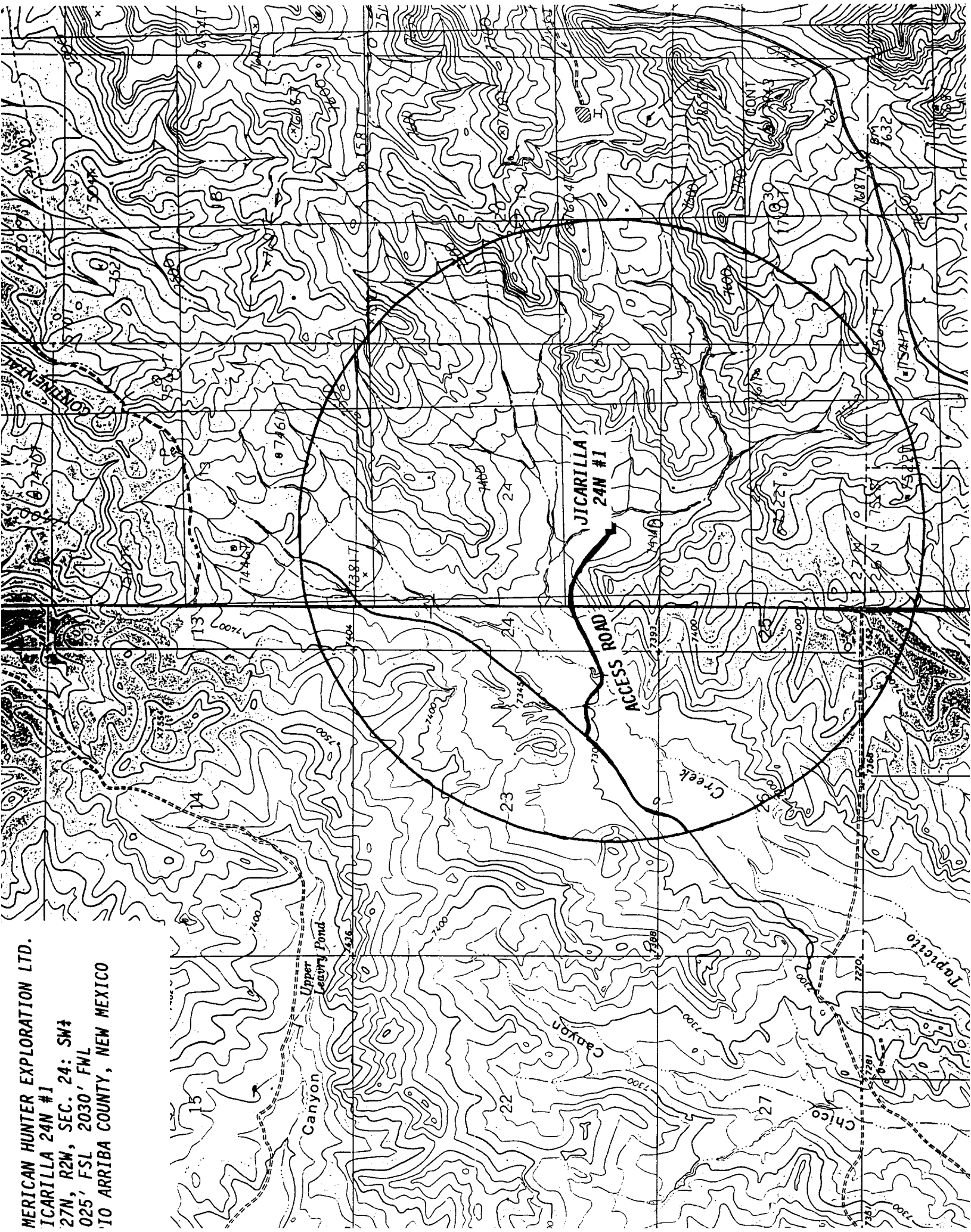
7150' RKB

5 1/2" production csg to 7600' RKB and
cemented back to surface as per
NTL-FRA 90-1

7600' RKB



MERICAN HUNTER EXPLORATION LTD.
ICARILLA 24N #1
27N, R2W, SEC. 24: SW4
025' FSL 2030' FWL
IO ARriba COUNTY, NEW MEXICO



MULTIPLE-POINT SURFACE USE PLAN

JICARILLA 24N-1

1. EXISTING ROADS

From the junction of US 64 and NM 537 proceed south on NM 537 approximately 19 miles to the junction of NM 537 and J-4. Turn left on J-4 and proceed 2.5 miles south, thru the dike rock to the east-west running boundary of the Jicarilla Reservation. Turn left and follow the boundary fence line approx. 3.3 miles to Tapicito Creek. Proceed northwest approx. 1 mile. Turn right and proceed approx. 1/2 mile to location.

2. PLANNED ACCESS ROADS

A new access road will be built running 2200' west to east. New road will not exceed 30' wide disturbance. This road will be built upon approval of Regulatory authorities, BIA, and the Jicarilla Tribe.

See access road as represented on Exhibit "H".

3. LOCATION OF EXISTING WELLS

No wells could be identified in the immediate area.

4. LOCATION OF PRODUCTION FACILITIES

Given the exploratory nature of this project, the type and quantity of facility is yet to be determined. If successful, production facilities will be located on a reduced drill pad which will be fenced with a dike sufficient to contain all fluids held on site. Production equipment shall be painted in accordance with BIA and BLM requests of a green complimentary color. Upon completion of drilling the reserve pit prior to closing will be fenced. All trash and debris shall be removed as per agreement.

5. WATER SUPPLY

Water for drilling and completion operations will be hauled by truck from either Hayden Lake or from a multiple of fresh water sources for completion/cementing purposes based on analysis.

11. SURFACE OWNERSHIP

The surface ownership is Jicarilla Apache Tribe, administered by BIA and BLM.

12. OTHER INFORMATION

Refer to EA and archaeological reports submitted for description of topography, flora, fauna, soil characteristics, dwelling, historical and cultural sites.

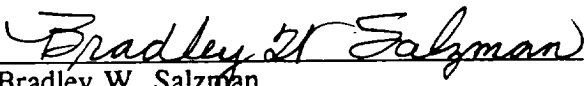
13. LEASES'S OR OPERATOR'S REPRESENTATIVE

Bradley W. Salzman
P.O. Box 2058
Farmington, New Mexico 87499
Office (505) 326-0550
Residence (505) 325-3446

14. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the 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 a reputable contractor and its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

DATE: 9-1-92


Bradley W. Salzman
Operations Superintendent