

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT TO REPLICATE

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEEN

1. TYPE OF WORK

DRILL ☒DEEPEEN ☐

2. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒OTHER ☐SINGLE
ZONE ☒MULTIPLE
ZONE ☐

3. NAME OF OPERATOR

CONCHO RESOURCES, INC.

(ERICK NELSON) 915-683-7443

4. ADDRESS AND TELEPHONE NO.

110 WEST LOUISIANA SUITE 410 MIDLAND, TEXAS 79702 (915-683-7443)

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

1980' FNL & 1980' FWL SEC. 24 T22S-R25E EDDY CO. NM
At proposed prod. zone SAME

Unit F

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

Approximately 6 miles Northwest of Carlsbad, New Mexico

7. DISTANCE FROM PROPOSED*

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

1980

8. NO. OF ACRES IN LEASE

320

9. NO. OF ACRES ASSIGNED
TO THIS WELL

320

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

NA

11. PROPOSED DEPTH

11,500'

12. ROTARY OR CABLE TOOLS

ROTARY

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

3413' GR.

14. APPROX. DATE WORK WILL START*
When Approved

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface with Redi-mix
17 1/2"	H-40 13 3/8"	48	600'	650 Sx. circulate to surface
12 1/2"	J-55 9 5/8"	36	2250'	1150 Sx. " " "
8 3/4"	S-95 5 1/2"	17	11,500'	2350 Sx. cement in two stages

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17 1/2" hole to 600'. Run and set 600' of 13 3/8" H-40 48# ST&C casing. Cement with 200 Sx. of thixatropic cement, 250 Sx. of 35/65 POZ + 6% Gel + 2% Celo flakes, tail in with 200 Sx. of Class "C" cement + 2% CaCl + 1/2# Celoflakes/Sx. Circulate cement to surface.
3. Drill 12 1/2" hole to 2250'. Run and set 2250' of 9 5/8" 36# J-55 ST&C casing. Cement with 250 Sx. of thixatrophic + 700 Sx. of 50/50 POZ + 10% Gel + 1/2# Celo Flakes/Sx., tail in with 200 Sx. of Class "C" Neat, circulate cement to surface.
4. Drill 8 3/4" hole to 11,500'. Run and set 11,500' of 5 1/2" casing as follows: 1500' of 5 1/2" 17# S-95, 10,000' of 5 1/2" 17# N-80 LT&C casing. Cement in two stages. Cement 1st stage with 450 Sx. of 50/50 Class "H" POZ + 10% Salt + 1% Salt + 1/2# Celo Flakes/Sx. tail in with 625 Sx. of 50/50 Class "H" POZ + 2% Gel + .3 CD-32 + .5% FL25 + 35 KCL. Cement 2nd stage with 300 Sx. of 50/50 Class "H" POZ + 10% Gel + 1% salt + 1/2# Celo Flakes/Sx. tail in with 950 Sx. of 16/61/11 Super Class "C" + 1/2% FL52 + 42% FL25 + 2# KCL + 5# Gilsonite/Sx.

SIGNED

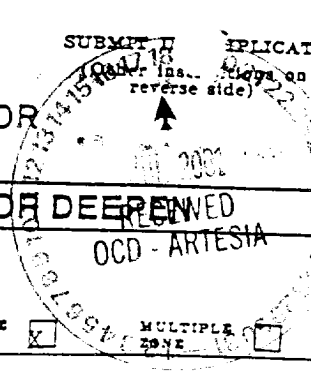
(This space for Federal or State office use)

PERMIT NO.

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would enable the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:APPROVED BY /s/ LESLIE A. THEISS TITLE FIELD MANAGERDATE JUL 16 2001

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR



RECEIVED
2001 MAY 25 AM 9:05
BUREAU OF LAND MGMT.
ROSWELL OFFICE

DISTRICT I
P.O. Box 1880, Hobbs, NM 88241-1880

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

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

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 78060	Pool Name HAPPY VALLEY-MORROW
Property Code 24301	Property Name FILAREE "24" FEDERAL	Well Number 3
OGRID No. 166111	Operator Name CONCHO RESOURCES, INC.	Elevation 3413'

Surface Location

UL or lot No. F	Section 24	Township 22-S	Range 25-E	Lot Idn	Feet from the 1980	North/South line NORTH	Feet from the 1980	East/West line WEST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

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

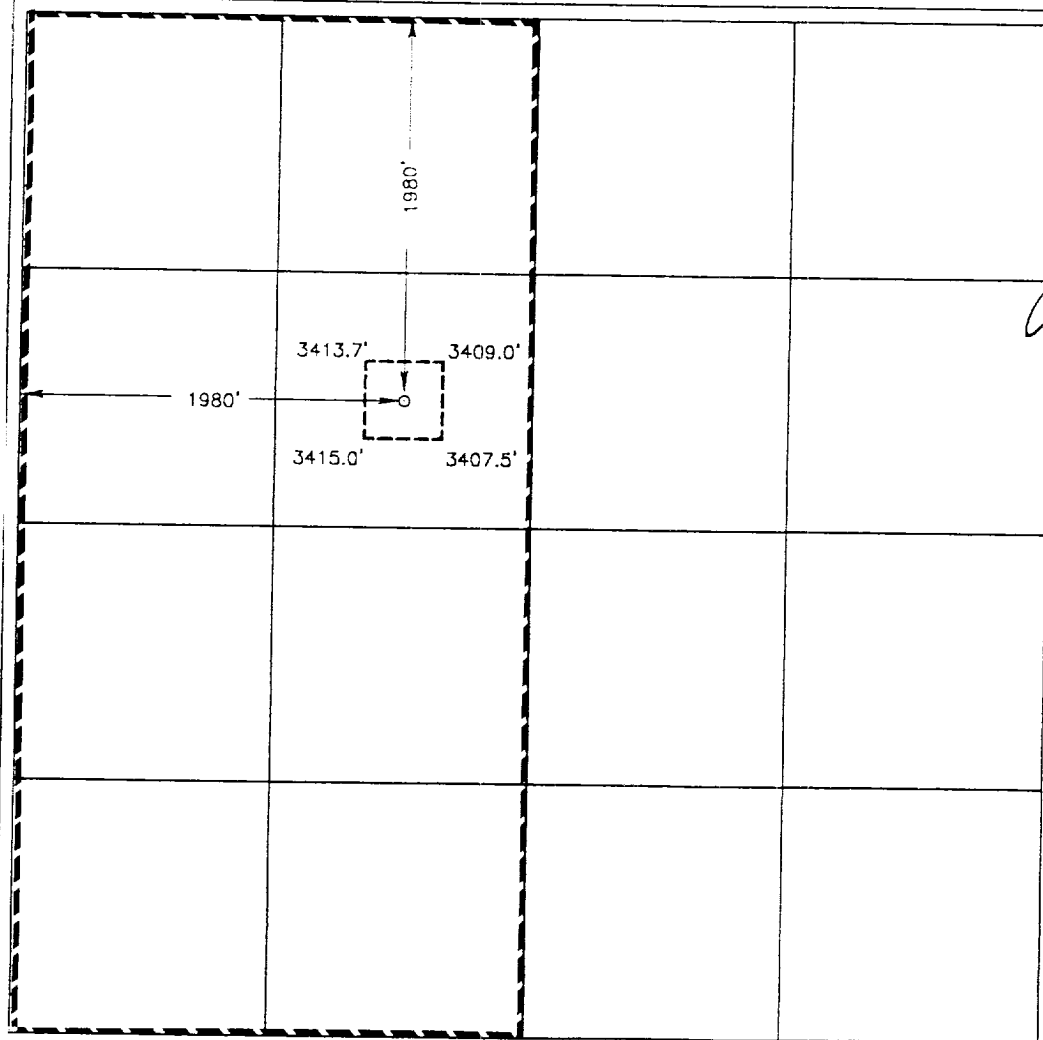
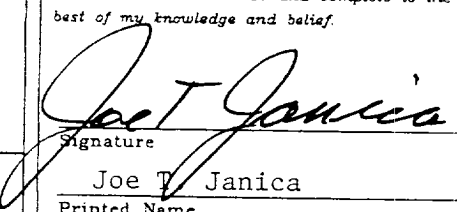
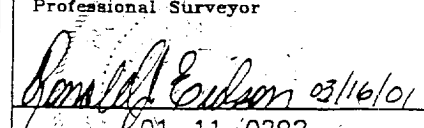
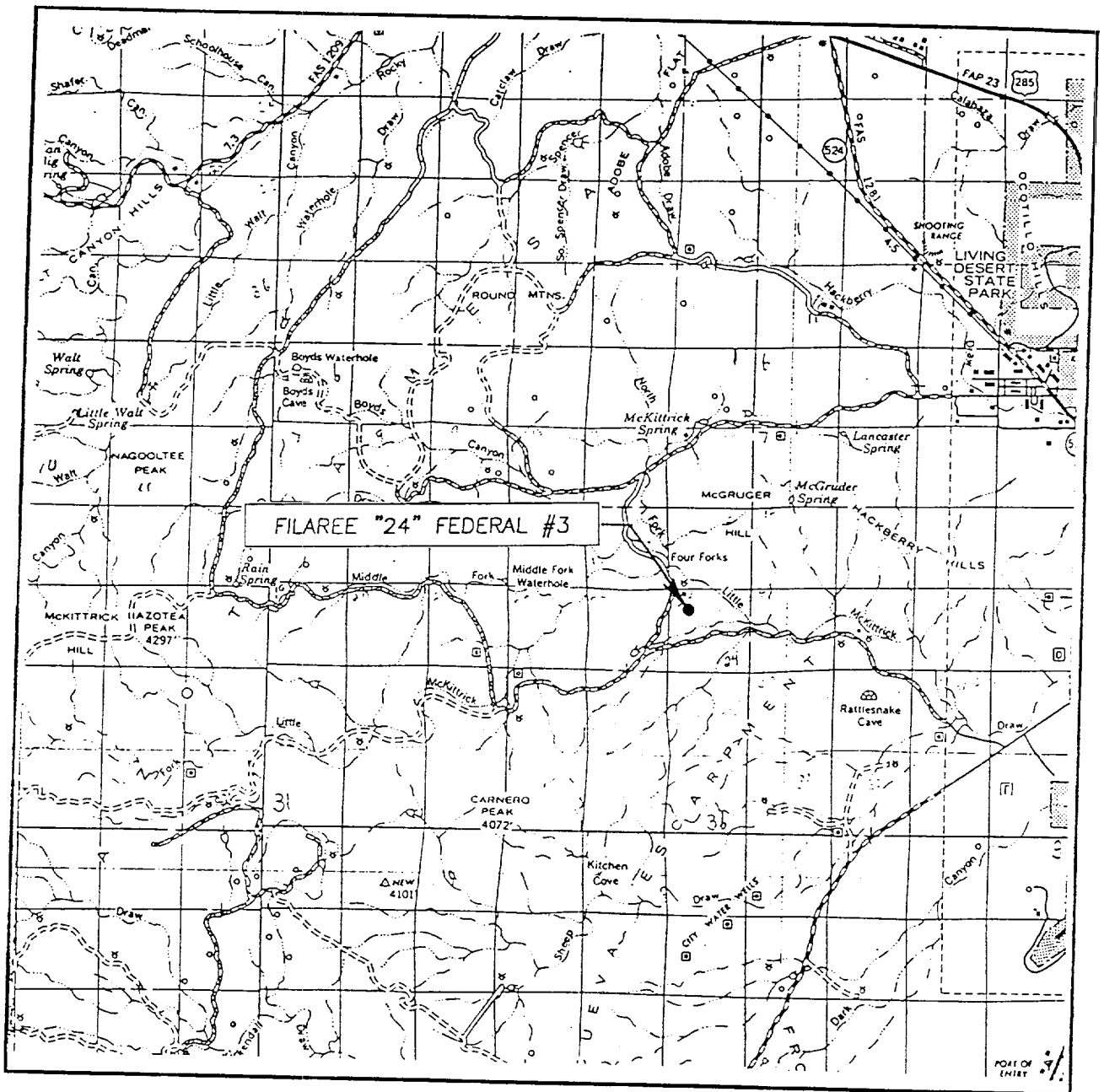
	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature Joe T. Janica Printed Name Agent Title 05/24/01 Date	
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from 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 belief. MARCH 12, 2001 Date Surveyed Signature & Seal of Professional Surveyor  01-11-0292 Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641	
	AWS	

EXHIBIT "A"

VICINITY MAP

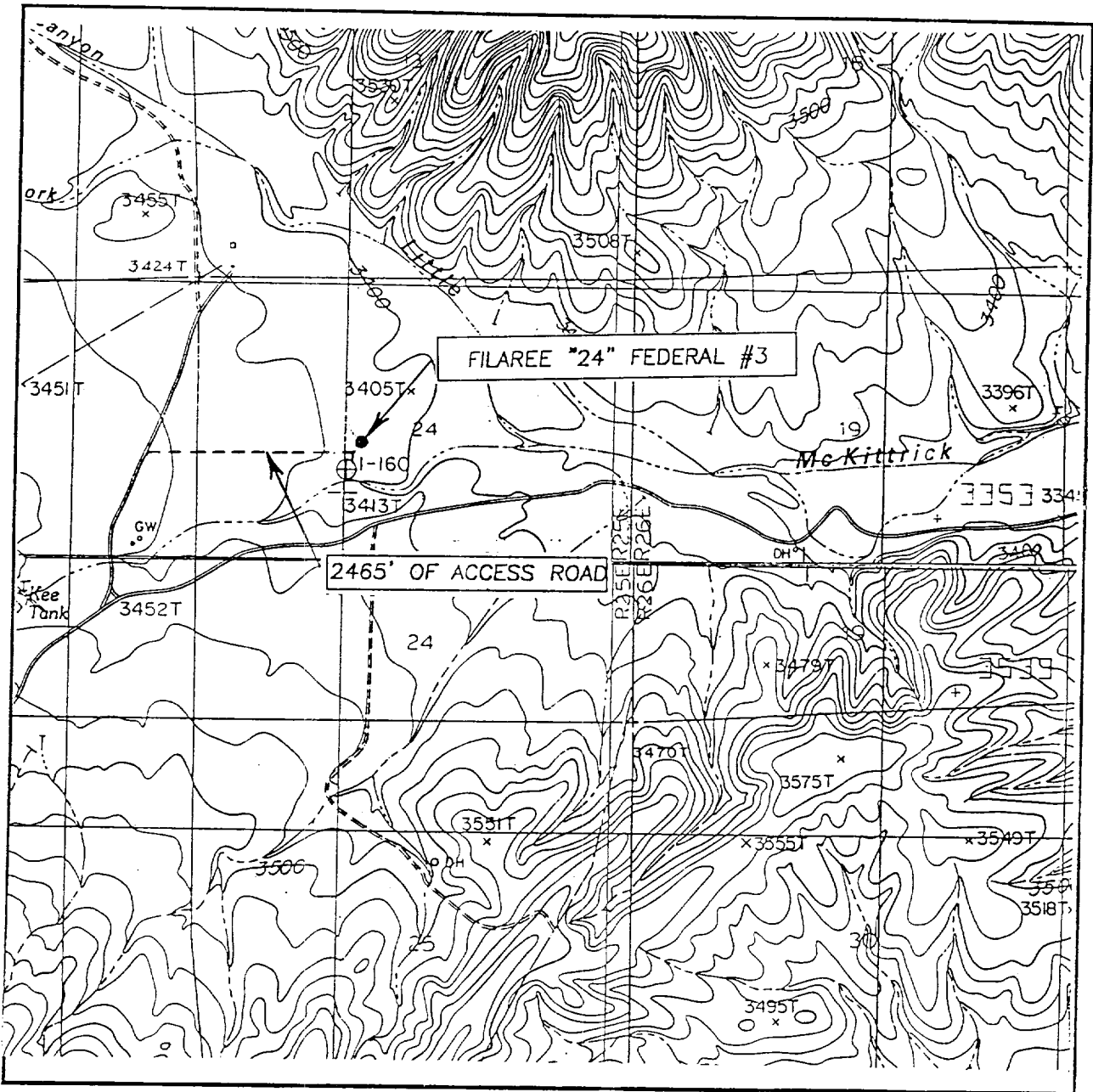


SCALE: 1" = 2 MILES

SEC. 24 TWP. 22-S RGE. 25-E
 SURVEY N.M.P.M.
 COUNTY EDDY
 DESCRIPTION 1980'FNL & 1980'FWL
 ELEVATION 3413'
 OPERATOR CONCHO RESOURCES, INC.
 LEASE FILAREE "24" FEDERAL

JOHN WEST SURVEYING
 HOBBS, NEW MEXICO
 (505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 20'

CARLSBAD WEST, N.M.

SEC. 24 TWP. 22-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980'FNL & 1980'FWL

ELEVATION 3413'

OPERATOR CONCHO RESOURCES, INC.

LEASE FILAREE "24" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
CARLSBAD WEST, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

CONCHO RESOURCES, INC.
 FILAREE "24" FEDERAL # 3
 UNIT "F" SECTION 24
 T22S-R25E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location: 1980' FNL & 1980' FWL SEC. 24 T22S-R25E EDDY CO. NM
2. Elevation above Sea Level: 3413' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 11,500'
6. Estimated tops of geological markers:

Delaware	2310'	Strawn	9670'
Bone Spring	4670'	Atoka	10130'
Wolfcamp	8220'	Morrow	10625'
Cisco	9380'	Barnett Sh.	11160'
7. Possible mineral bearing formations:

Bone Spring	Oil	Strawn	Gas
Wolfcamp	Oil	Atoka	Gas
Cisco	Gas	Morrow	Gas
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-600'	13 3/8"	48	8-R	ST&C	H-40
12½"	0-2250'	9 5/8"	36	8-R	ST&C	J-55
8 3/4"	0-11,500'	5½"	17	8-R	LT&C	S-95

CONCHO RESOURCES, INC.
 FILAREE "24" FEDERAL # 3
 UNIT "F" SECTION 24
 T22S-R25E EDDY CO. NM

9. CEMENTING AND SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 600' of 13 3/8" 48# H-40 ST&C casing. Cement with 650 Sx. of Class "C" 35/65 POZ + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 2250' of 9 5/8" 36# J-55 ST&C casing. Cement with 1150 Sx. of Class "C" thixatrophic + additives, 700 Sx. of 50/50 POZ + additives, tail in with 200 Sx. of Class "C" neat circulate cement to surface.
5 1/2"	Production	Set 11,500' of 5 1/2" casing as follows: 1500' of 5 1/2" 17# S-95 LT&C, 10,000' of 5 1/2" 17# N-80 LT&C casing. Cement in two stages: 1st stage cement with 450 Sx. of Class "H" 50/50 POZ + 10% Gel + 1% Salt + 1/2# Celo flakes/Sx., tail in with 625 Sx. of Class "H" 50/50 POZ + additives, 2nd stage cement with 300 Sx. of Class "H" 50/50 POZ + additives tail in with 950 Sx. of Super Class "C" + additives.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 1500 Series 5000 PSI working pressure B.O.P., consisting of a double ram type preventor with a bag type annular preventor. The B.O.P. can be operated manually or hydraulically by a closing unit shown on exhibit "E-1", along with the choke manifold. The B.O.P. will be nipped up on the 13 3/8" casing and will be operated at least once every 24 hours while drilling and the blind rams will be operated when on trips when drill pipe is out of hole. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-600'	8.4-9.6	29-34	NC	Fresh water spud mud add paper to control seepage.
600-2250'	8.4-8.6	28-34	NC	Fresh water use paper to control seepage, if necessary use high viscosity sweeps to clean hole.
2250-9500'	8.4-8.6	29-36	NC	Same as above
9500-11500'	8.4-8/6	29-36	10 cc or less	Same as above add Polymer to control water loss if necessary to lower water loss.

Sufficient mud material will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs and casing the viscosity and/or water loss may need to be adjusted to meet these needs.

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

12. Testing, Logging and Coring Program:

A. Open hole logs: Dual Induction, Micro SFL, LDT, Gamma Ray, Caliper from TD. to 2250'. Run Gamma Ray, Neutron from 2250' to surface.

B. Mud logger on hole from 2250' to TD.

C. No cores or DST's are planned at this time.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H₂S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 5500 PSI, estimated BHT 170°.

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 50 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The MORROW pay will be perforated and stimulated. The well will be swab tested and potentialized as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of bleed line (mud pit) and on derrick floor or doghouse.
3. Windsack and/or wind streamers
 - A. Windsack at mudpit area should be high enough to be visible.
 - B. Windsack at briefing area should be high enough to be visible.
 - C. There should be a windsack at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If the location is near to a dwelling a closed DST will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

1. EXISTING ROADS. Area map, Exhibit "B" is a reproduction of the New Mexico General Hi-way Co. Map. Exhibit "C" is a reproduction of a topographic map. Existing roads and proposed roads are shown on each exhibit. All roads will be maintained in a condition equal to or better than current conditions. Any new roads constructed will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well location as staked.
 - B. From Carlsbad New Mexico take U.S. Hi-way 62-180 West to junction with Hidalgo Road (Co. Road 672) turn right follow Hidalgo Road 3.5± miles to McKittrick Road (Co. Road 429) follow McKittrick Road .5 mile± turn Right (North) follow road .4- miles turn Right (East) follow lease road .5 miles to location.
 - C. Lay gas flow lines along lease road to meter run.
2. PLANNED ACCESS ROADS : Approximately 2400' of new road will be constructed.
 - A. The access road will be crowned and ditched to a 12'00" wide travel surface with 40' right-of-way.
 - B. Gradient on all roads will be less than 5.00%.
 - C. Turn outs will be constructed where necessary.
 - D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
 - E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
 - F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the topography.
3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"
 - A. Water wells - One approximately 2 miles East of location
 - B. Disposal wells - None known
 - C. Drilling wells - None known
 - D. Producing wells - As shown on Exhibit "A-1"
 - E. Abandoned wells - As shown on Exhibit "A-1"

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

4. If, upon completion this well is a producer Concho Resources Inc. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.
5. LOCATION AND TYPE OF WATER SUPPLY:
Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.
6. SOURCE OF CONSTRUCTION MATERIAL:
If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "C".
7. METHODS OF HANDLING WASTE MATERIAL:
 - A. Drill cuttings will be disposed of in the reserve pit.
 - B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
 - C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
 - D. Sewage from living quarters will drain into holes with a minimum depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
 - E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.
8. ANCILLARY FACILITIES:
 - A. No camps or airstrips to be constructed.

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of Limestone Hills Southwest of Pecos River rocky soils. Vegetation consists of acacia, javelina bush, creosote bush, and native grasses. Drainage is to the Northeast to the Pecos River.
- B. The surface is owned by The U.S. Department of Interior, administered by ~~The Bureau of Reclamation~~ & The Bureau Of Land Management. Use of the land is limited livestock grazing & production of oil & gas.
- C. An archaeological survey will be conducted and filed with the Bureau of Land Management Carlsbad Field Office.
- D. Adwelling is located approximately $\frac{1}{2}$ mile Northwest of location.

12. OPERATORS REPRESENTATIVE:

Before construction:

TIERRA EXPLORATION INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE PHONE 505-392-2112
JOE T. JANICA

During and after construction:

CONCHO RESOURCES, INC.
110 WEST LOUISIANA SUITE 410
MIDLAND, TEXAS 79702
OFFICE PHONE 915-683-7443
JIM BLOUNT

13. 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 currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Concho Resources, Inc., it's contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME : Joe T Janica
DATE : 05/24/01
TITLE : Agent

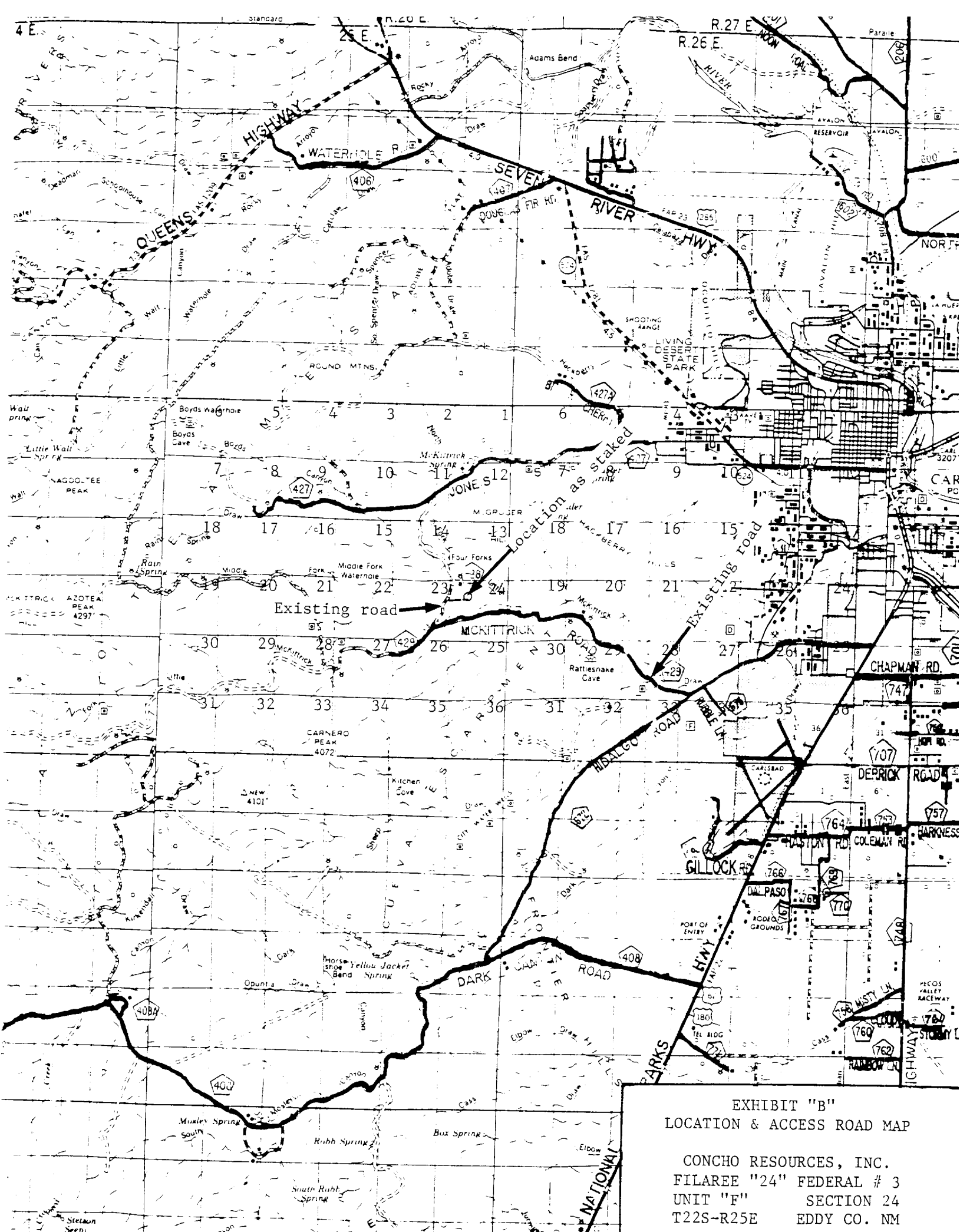


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

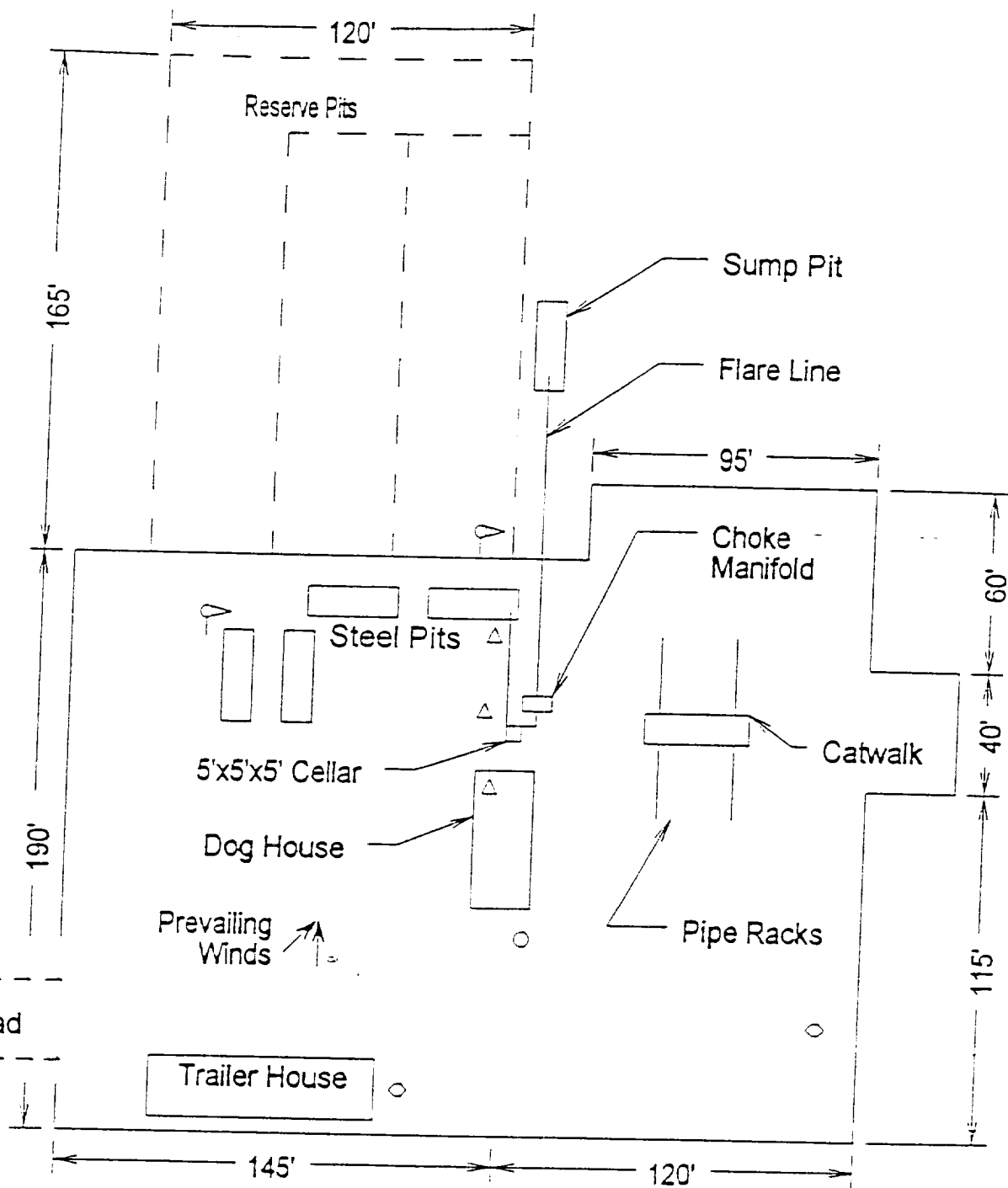
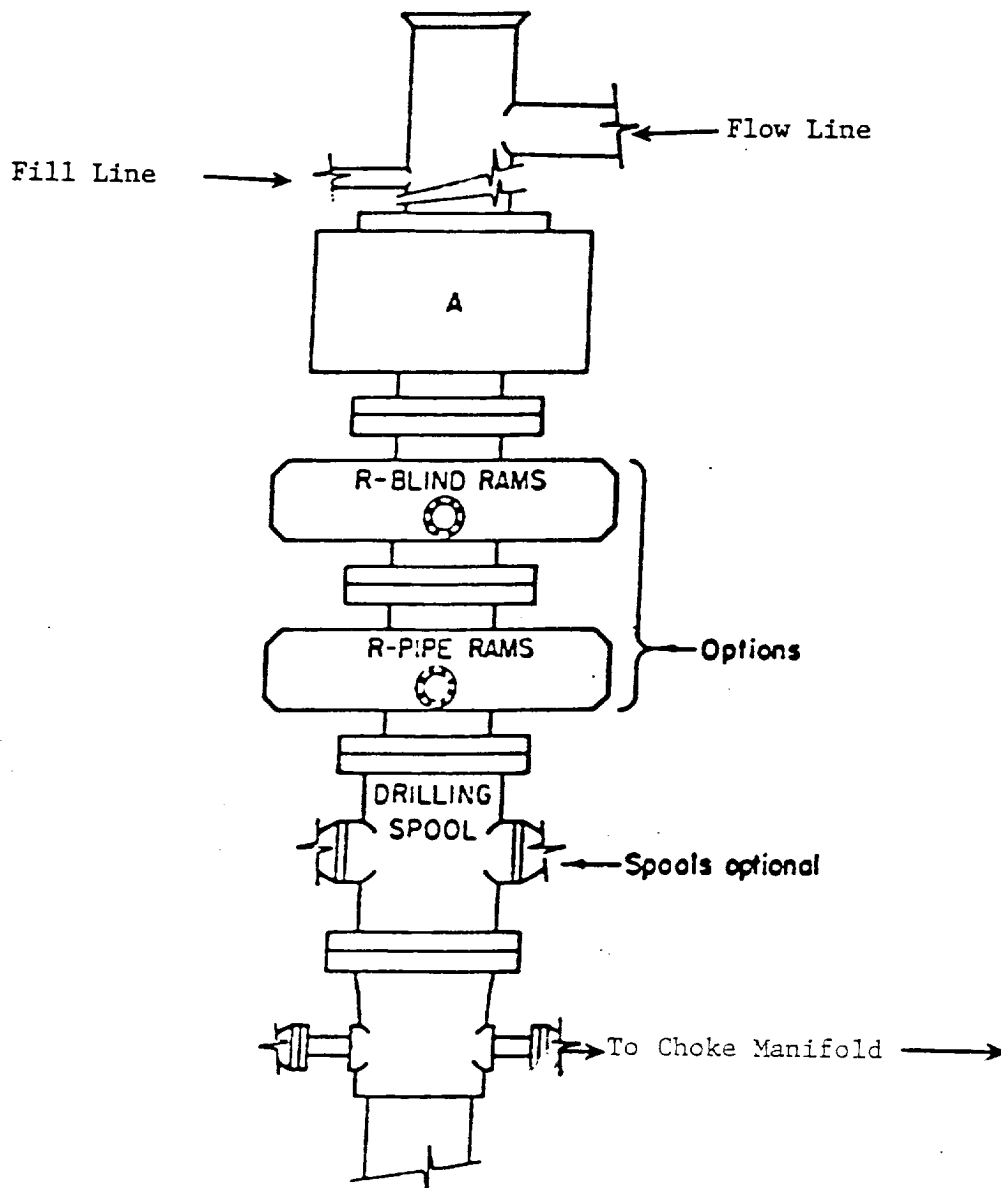


EXHIBIT "D"
RIG LAY OUT PLAT

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM



ARRANGEMENT SRRA

1500 Series
5000# Working Pressure

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM

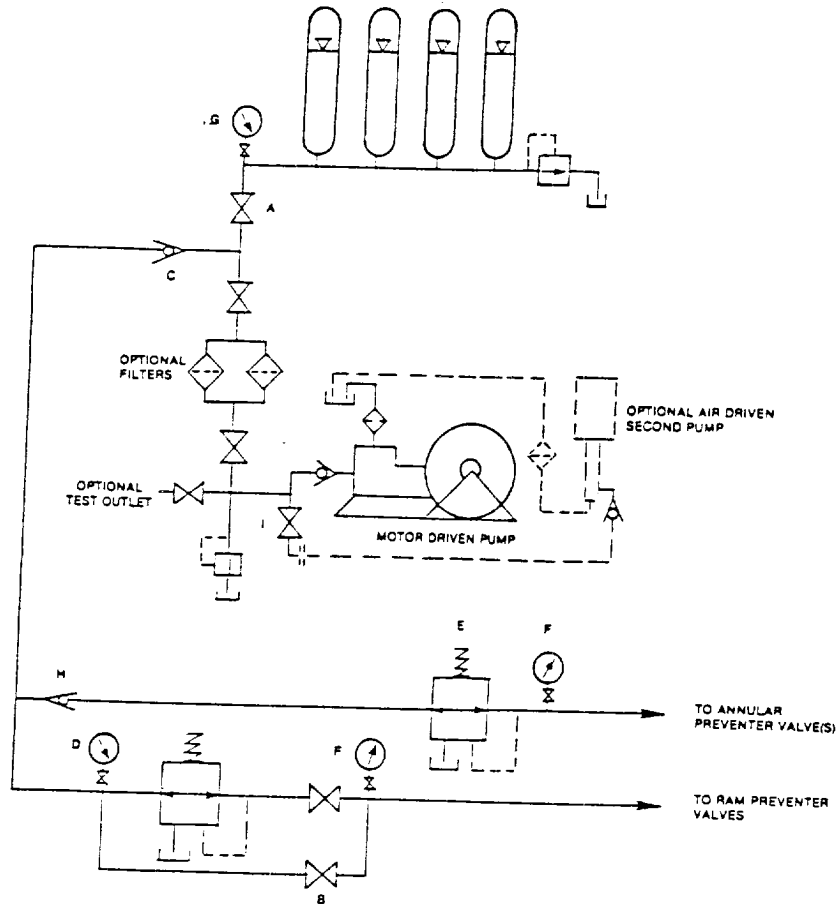


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

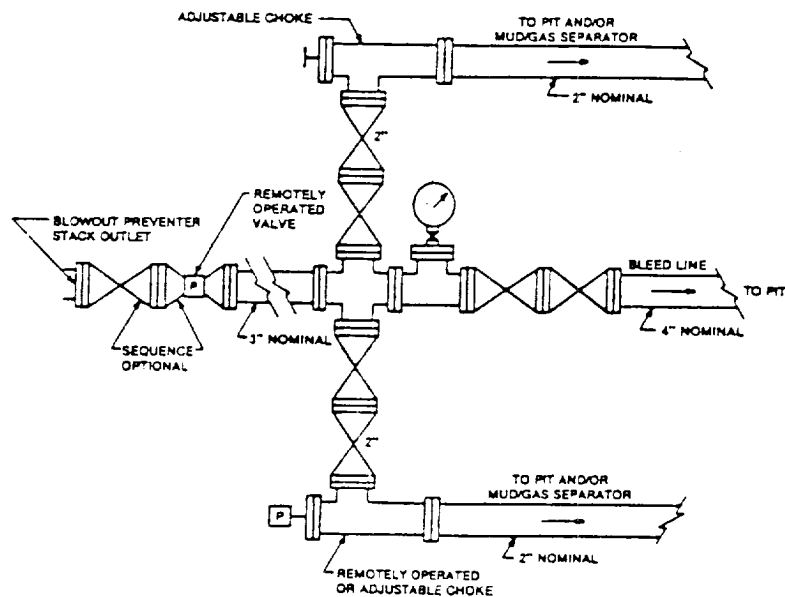


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

CONCHO RESOURCES, INC.
FILAREE "24" FEDERAL # 3
UNIT "F" SECTION 24
T22S-R25E EDDY CO. NM