Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

OPER OGRID NO. 6742
PROPERTY NO. 25280
POOL CODE 59930
EFF. DATE 1-26-2000
API NO. 30-025-34901

1a. TYPE OF WORK: DRILL [x]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Echo Production, Inc.

3. ADDRESS AND TELEPHONE NO.: PO Box 1210, Graham, TX 76450 (940) 549-3292

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330' FSL & 1980' FEL
At proposed prod. zone: O

5. LEASE DESIGNATION AND SERIAL NO.: LC - 063228

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Corsair 27 Federal #1

9. API WELL NO.: 30-025-34901

10. FIELD AND POOL, OR WILDCAT: Triste Draw Delaware

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 27 T23S R32E

12. COUNTY OR PARISH: Lea

13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 45 miles west of Jal, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330'

16. NO. OF ACRES IN LEASE: 600

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40.00

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1st well

19. PROPOSED DEPTH: 9000'

20. ROTARY OR CABLE TOOLS: rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3662' GR

CARLSBAD CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*: 2/1/2000

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 ½	13 3/8	48#	600'	Circ to Surface
11"	8 5/8"	24# & 32#	4700'	Circ to Surface
7 7/8"	4 ½"	11.6 & 10.5	9000'	600' above top of Delaware pay (+6400')

Echo Production, Inc. proposes to drill to a depth sufficient to test the Delaware formation. If productive, 4½" casing will be set. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as set out in Onshore Oil and Gas Order #1 are outlined in the following attachments:

NMOCD Form C-102 Well Location and Acreage Dedication Plat
Hole Prognosis
Surface Use and Operating Plan
Exhibit "A" Equipment Description
Exhibit "B" Planned Access Roads
Exhibit "C" One Mile Radius Map
Exhibit "D" Drilling Rig Layout Plan

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Tom Felder TITLE Operations Manager DATE 1/7/00

(This space for Federal or State office use)

ORIGINAL SIGNED BY ARMANDO A. LOPEZ
DISTRICT I SUPERVISOR

PERMIT NO. _____ APPROVAL DATE JAN 27 2000

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

CONDITIONS OF APPROVAL, IF ANY:

/S/ LESLIE A. BRAY
Acting Field Office Manager,
Minerals and Minerals

APPROVED BY _____ TITLE _____ DATE _____

*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.


RECEIVED
JAN 11 2000
BLM
ROSWELL, NM

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address.	[2] OGRID Number
Echo Production, Inc. PO Box 1210 Graham, Texas 76450	06742
	[3] API Number 30-025-34901

[4] Property Code	[5] Property Name	[6] Well No.
25280	Corsair 27 Federal	1

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	27	23S	32E		330'	south	1980'	east	Lea

[8] Proposed 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

[9] Proposed Pool 1	[10] Proposed Pool 2
Triste Draw Delaware	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	O	Rotary	Federal	3662'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	9000'	Delaware Sand		2/1/2000

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 ½"	13 3/8"	48#	600'	650 sacks	Circ to Surface
11"	8 5/8"	24# & 32#	4700'	1500 sacks	Circ to Surface
7 7/8"	4 ½"	10.5# & 11.6#	9000'	suff. to reach	6400'
				±600 ft³ above	top of
					Delaware pay

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Echo Production, Inc. proposes to drill to a depth sufficient to test the Delaware formation. If productive, 4½" casing will be set. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: Tom Golden

Printed name: Tom Golden

Title: Operations Manager

Date: 1/7/00

Phone: 940-549-3292

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY CHRIS WILLIAMS
DISTRICT I SUPERVISOR

Title:

Approval Date: JAN 27 2000

Expiration Date:

Conditions of Approval :
Attached ☐

A See Ltr Dtd

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-34901	59930	Triste Draw Delaware

[4] Property Code	[5] Property Name	[6] Well Number
25280	CORSAIR 27 FEDERAL	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
006742	ECHO PRODUCTION, INC.	3662.

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	27	23-S	32-E		330	SOUTH	1980	EAST	LEA

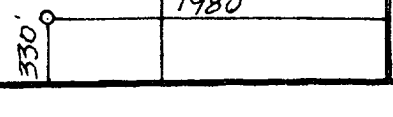
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] 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

16



[17] OPERATOR CERTIFICATION

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

Signature: Tom Golden

Printed Name: Tom Golden

Title: Operations Manager

Date: 1/7/00

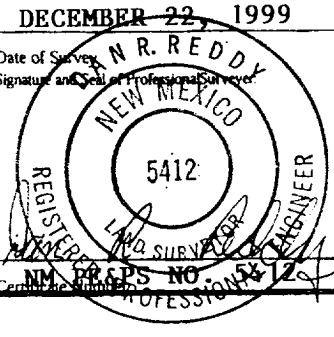
[18] SURVEYOR CERTIFICATION

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.

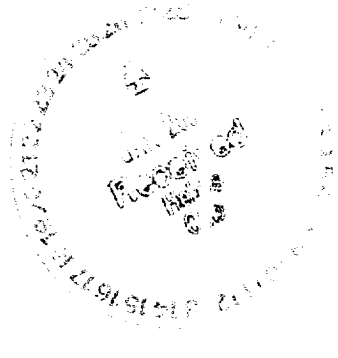
DECEMBER ~~22~~, 1999

Date of Survey

Signature and Seal of Professional Surveyer:



Certificate Number: NM PE & PS NO. 5412



HOLE PROGNOSIS
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
ECHO PRODUCTION, INC.
CORSAIR 27 FEDERAL #1
330' FSL & 1980' FEL
SECTION 27-23S-32E
LEA COUNTY, NEW MEXICO

In conjunction with Form 3160-3 Application for Permit to Drill, Echo Production, Inc. submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. Geological Name of Surface Formation:

   Permian

2. Estimated Tops of Geologic Markers:

Rustler	1200'	Cherry Canyon	5950'
T. Lamar	4890'	Bone Spring	8700'
Bell Canyon	4920'	Avalon Sand	8860'
T.D.	9000'		

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Surface	150'	Fresh Water
Delaware	4920'-8450'	Oil or Gas
Bone Spring	8700'	Oil or Gas
Avalon Sand	8860'	Oil or Gas

No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 600' and circulating cement back to surface. Any shallower zones above TD that contain commercial quantities of oil and/or gas will have cement circulated across the zone.

4. Casing Program:

Hole Size	Interval	OD Csg	Weight, Grade, JT. Cond, Type
17 ½"	0-600'	13 3/8"	48#, H-40, ST&C
11"	0-4700'	8 5/8"	24# & 32#, J-55, S-80, LT&C
7 7/8"	0-TD	4 ½"	10.5 & 11.6#

5. Cementing Program:

Surface Casing: 13 3/8" casing will be set at approximately 600' and cemented with approximately 650 sacks of Premium Plus cement with 2% CaCl and additives. The amount may be adjusted depending upon the fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Intermediate Casing: 8 5/8" casing will be set at approximately 4700' and cemented with approximately 1500 sacks of 35/65 Poz "c" with additives. The amount may be adjusted dependent upon fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Production Casing: If appropriate, 4 ½" casing will be set at Total Depth. Echo will utilize cement in sufficient quantities to tie back 600' above any Delaware pay. Well will be cemented w/appropriate number of sacks of 50/50 POZ 'H' w/ additives and 100 sacks of 'C' Neat.

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) show in Exhibit "A" will consist of a double ram-type (3000 psi WP) preventer and a bag-type (hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. Both BOP's will be nippled up on the 13 3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000* psi and the hydril to 70% of rated working pressure (2100* psi). * 2065# or 70% of burst on 8 5/8" if 24# J casing is utilized.

7. Types and Characteristics of the Proposed Mud System:

O' to 600'	Fresh water with lime, gel paper and fiber will be used for drilling purposes. Weight 8.4 – 8.6, Vis 29-36, PH > 8.
600' to 4700'	Saturated brine water purchased from commercial sources with paper and fiber will be utilized. Weight 8.6-10.5, Vis 32-34, Ph 10.
4700' to 9000'	Brine and fresh water purchased from commercial sources with gel and starch, 3% KCl, 20-50 PPM Nitrates, Cl 30-75,000, caustic for control and paper for seepage will be utilized. Weight 8.5 – 8.9, Vis 29-34, Ph 9-10, WL 20-50.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be available at the well site at all times.

8. Auxiliary Well Control and Monitoring Equipment:

   A. A kelly cock will be kept in the drill string at all times.
   B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

9. Testing, Logging and Coring Program:

   A Mudlogging unit will be on location from top of Delaware formation to TD. Mudlogging unit will be employed from approximately 4920' (Top of Delaware) to 9000' (Total Depth).

   If indicated, AIT-GR, CNL-LDT-GR logs and Caliper logs will be run at TD. The Gamma Ray AIT will be run from TD back to the intermediate casing. The Gamma Ray Compensated Neutron Log will be run from TD back to surface. If indicated, Echo may elect to run rotary sidewall cores from selected intervals from approximately 4920' to 9000' dependent upon logging results.

10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

    No abnormal pressures or temperatures are anticipated. Anticipated bottomhole pressure is 3600# PSI.

    Loss of circulation is possible in the Delaware section of the hole, however, no major loss circulation zones have been reported in offsetting wells.

    Six wells have been drilled and completed in the immediate area. To date, Hydrogen Sulfide has not been encountered. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide training and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blow out preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is February 1, 2000. Once commenced, the drilling operation will be completed in approximately 20 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities. In conjunction with Form 3160-3, Application for Permit to Drill, Echo Production, Inc submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

SURFACE USE AND OPERATING PLAN
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
ECHO PRODUCTION, INC.
CORSAIR 27 FEDERAL #1
330' FSL & 1980' FEL
SECTION 27-23S-32E
LEA COUNTY, NEW MEXICO

Submitted with Form 3160-5, Application For Permit to Drill covering the above proposed well. The purpose of the plan is to describe the location, the proposed construction activities, the operations, the surface disturbance involved, and the rehabilitation of the surface after completion of proposed well so that an appraisal can be made of the environment affected by the proposed well.

1. Existing Roads:

   A. The Well Location and Acreage Dedication Plat for the proposed wellsite was staked by Dan R. Reddy, Registered Professional Engineer, Carlsbad, New Mexico and is attached.

   B. All roads to the location are shown on Exhibit "B". The existing roads are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be completed where necessary as determined during the on-site inspection.

   C. Directions to location: From Carlsbad; ± 8 miles on Hwy 285 to Hwy 31, NW ± 8 miles to 128, West ± 18 miles to Pipeline Road, NE 4 ½ miles to lease road & SE 3/4 mile.

   D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as operations continue on the lease.

2. Proposed Access Road:

   A new access road of approximately 3800' will be required as illustrated on Exhibit "B".

   A. The average grade will be less than 5%.

B. No turnouts will be necessary.

C. No culverts, gates, or low-water crossing will be necessary.

D. Surfacing material will consist of native caliche. If required, road across pad will be surfaced with a minimum of 6" of caliche. Caliche will be obtained from the nearest BLM approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.

3. Location of Existing Wells:

All existing wells within a one mile radius of proposed well are show on Exhibit "C".

4. Location of Existing and/or Proposed Facilities:

In the event the proposed well proves to be productive Echo Production, Inc. will furnish plats showing "on well pad" facilities and "off well pad" facilities (if necessary) by Sundry Notice prior to construction.

5. Location and Type of Water Supply:

The proposed well will be drilled with a combination of brine and fresh water mud systems as outlined in the Hole Prognosis. The water will be purchased from commercial water stations in the area and trucked to the location by transport over the existing and proposed access roads as indicated on Exhibit "B". No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad will be obtained from a BLM approved caliche pit. All roads and pads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal:

A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.

B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit approximately 150' x 150' x 6' deep and fenced on three sides prior to drilling. The fourth side will be fenced immediately following rig removal. The reserve pit will be plastic lined (5-7 mil thickness) to minimize loss of drilling fluids and saturation of the ground with brine water. Drilling fluids will be allowed to evaporate in the reserve pits until dry.

C. Water produced from the proposed well during completion may be disposed into the reserve pit or a steel tank (depending upon rates). After the proposed well is permanently placed on production, produced water will be collected in a fiberglass tank at the Avion Federal #2 and piped to an approved disposal system down already existing line. Produced oil will be collected in steel tanks until sold at the Avion Federal #2 facility.

D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations. Compliance with current laws and regulations will be followed pertaining to the disposal of human waste.

E. Garbage and trash produced during drilling or completion operations will be disposed in a separate trash trailer on location. All waste material will be contained to prevent scattering by the wind. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by the operation.

F. After the rig is moved out and the proposed well is either completed or abandoned, all waste materials will be removed within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until dried. When the reserve pit is dry enough to breakout and fill and, as weather permits, the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only that portion of the pad required for production operations will remain in use. In the event of a dry hole, only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facility will be built as a result of the operations of the proposed well.

9. Well Site Layout:

A. The drill pad layout with elevations, as staked by Dan R. Reddy, Registered Professional Engineer, is shown on Exhibit "D". Dimensions of the pad, pits and location of major rig components are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection. Since the pad is fairly level no major cuts will be required.

B. Planned orientation for the rig and associated drilling equipment, reserve pit, pipe racks, turn-around and parking areas, and access road are shown on Exhibit "D". No permanent living facilities are planned, however, a temporary foreman/toolpusher's trailer will be on location during drilling operations.

C. The reserve pit will be lined with a high quality plastic sheeting (5-7 mil thickness).

10. Plan for Restoration of the Surface:

A. Upon completion of the proposed operations, should the proposed well be abandoned, the pit area, after allowed to dry, will be broken out and leveled. The original topsoil will be returned to the entire location, and leveled and contoured to the original topography as closely as possible.

All trash, garbage and pit lining will be removed in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled with 120 days after abandonment.

B. The disturbed area will be revegetated and reseeded during the proper growing season with a seed mixture of native grasses as recommended by the BLM.

C. Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time the rig is removed, the reserve pit will be fence on the rig (fourth) side to prevent livestock or wildlife from becoming entrapped. The fencing will remain in place until the pit area is cleaned and leveled. No oil will be left on the surface of the fluid in the pit.

D. Upon completion of the proposed operations, should the proposed well be productive, the reserve pit area will be treated as outlined above within the same prescribed time. The caliche from an area of the original drillsite not needed for production operations or facilities will be removed and used for construction of thicker pads or firewalls for the tank batter installation. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drillsite will be used to recontour the pit area and unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The wellsite and lease are located entirely on Federal surface.

12. Other Information:

A. The topography around the wellsite is rolling terrain with vegetation of sagebrush and native grass. The vegetation cover consists of prairie grasses and flowers. Wildlife in the area includes those typical of semiarid desert land.

B. The soils are clayey sand over caliche base.

C. There is no permanent or live water in the immediate area.

D. There are no residences and other structures in the area.

E. The land in the area is used primarily for grazing purposes.

F. An archaeological study has been conducted for the location and access road. The report has been submitted separately.

13. Lessee's and Operator's Representative:

Tom Golden
PO Box 1210
Graham, Texas 76450
Phone Number: (940) 549-3292 – office
(940) 521-1045 – cellular
(940) 549-3690 – home

14. Certification:

I hereby certify that I, or persons under my direct supervision have inspected the proposed drillsite which currently exists; that the statements made in the plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Echo Production, Inc. and its contractors and sub-contractors in conformity with the plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 USC 1001 for the filing of a false statement.

ECHO PRODUCTION, INC.

Tom Golden
Operations Manager

DATE: January 7, 2000

EXHIBIT "A"

EQUIPMENT DESCRIPTION

All equipment should be at least 3,000 psi WP or higher unless otherwise specified.

1. Bell nipple
2. Hydril bag type preventer
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 3"and one 2"(minimum) outlet.
5. 2"(minimum) flanged plug or gate valve.
6. 2"x 2"x 2"(minimum) flanged.
7. 3"gate valve.
8. Ram type pressure operated blowout preventer with pipe rams.
9. Flanged type casing head with one side outlet.
10. 2" threaded (or flanged) plug or gate valve. Flanged on 5000# WP, threaded on 3000# WP or less.
11. 3" flanged spacer spool.
12. 3"x 2"x 2"x 2" flanged cross.
13. 2" flanged plug or gate valve.
14. 2" flanged adjustable choke.
15. 2" threaded flange.
16. 2" XXH nipple.
17. 2" forged steel 90˚Ell.
18. Cameron (or equal) threaded pressure gauge.
19. Threaded flange.
20. 2" flanged tee.
21. 2" flanged plug or gate valve.
22. 2 1/2" pipe, 300' to pit, anchored.
23. 2 1/2" SE valve.
24. 2 1/2" line to steel pit or separator.

NOTES:

1). Items 3,4 and 8 may be replaced with double ram type preventer with side outlets between the rams.

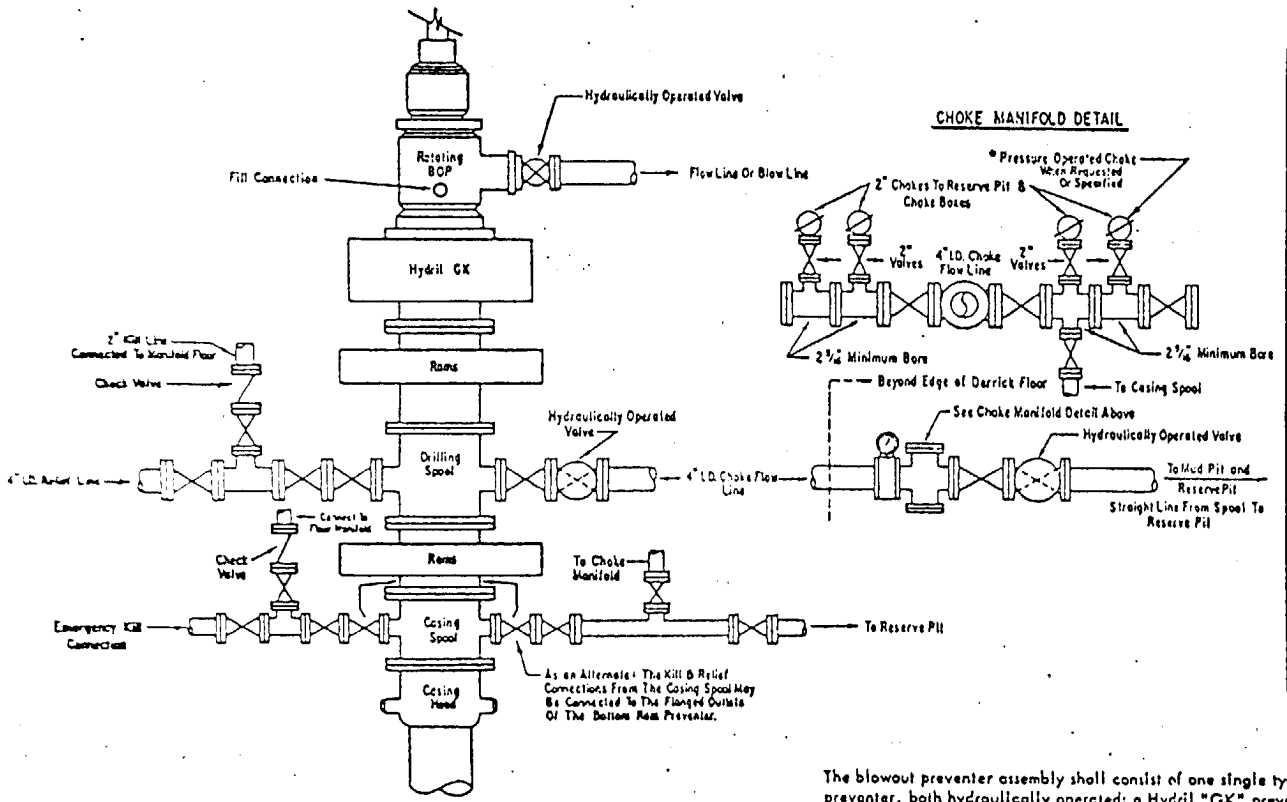
2). The two valves next tho the stack on the fill and kill line to be closed unless drill string is being pulled.

3). Kill line is for emergency use only. This connection shall not be used for filling.

4). Replacement pipe rams and blind rams shall be on location at all times.

5). Only type U, LSW and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.

6). Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.



3000# PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP

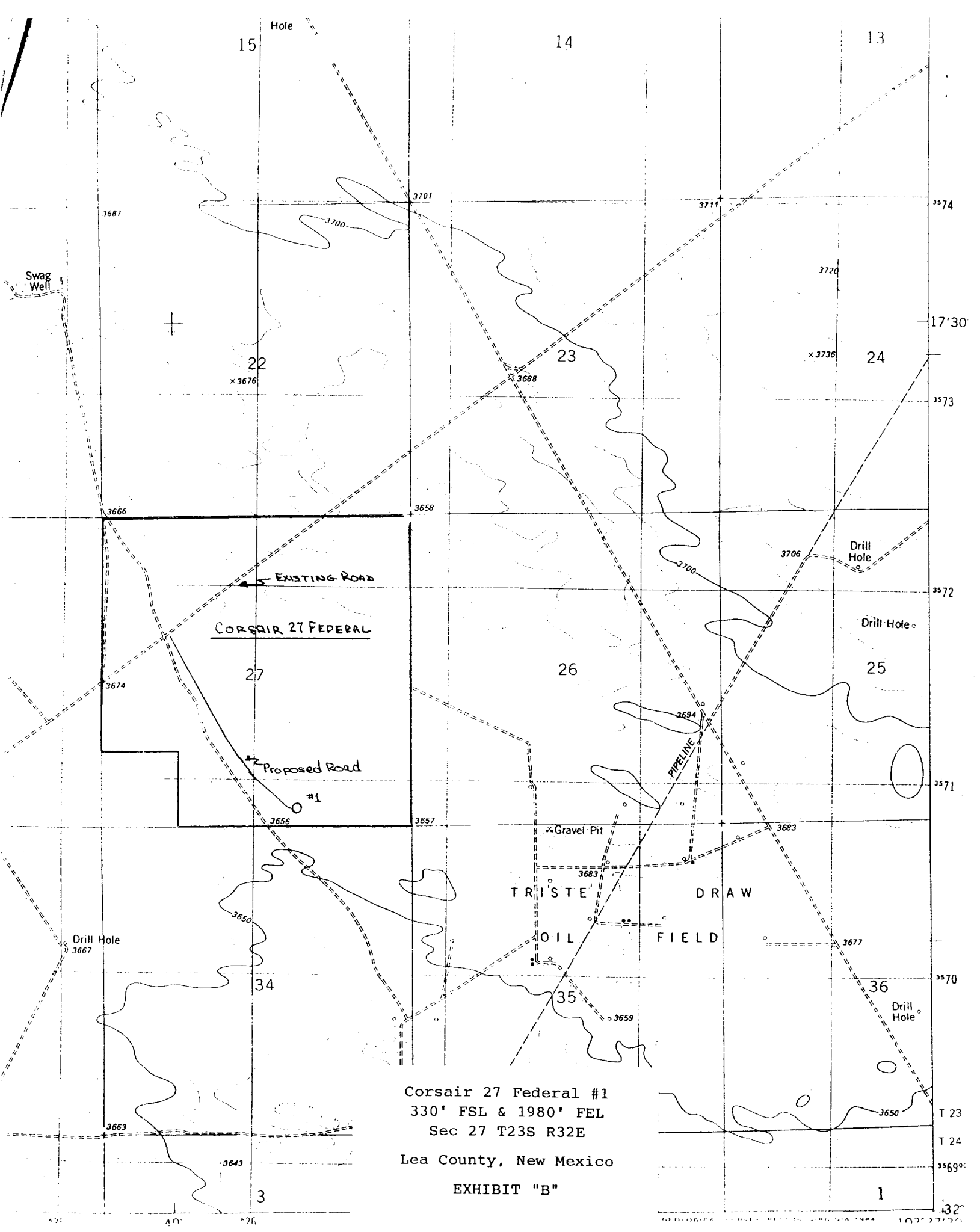
The blowout preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram preventer, both hydraulically operated; a Hydril "GK" preventer; a rotating blowout preventer; valves; chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and 4-inch I.D. relief line, except when air or gas drilling. All preventer connections are to be open-face flanged.

Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1) Multiple pumps, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its rated pressure within_____ minutes. Also, the pumps are to be connected to the hydraulic operating system which is to be a closed system. (2) Accumulators with a precharge of nitrogen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-operated devices simultaneously within_____ seconds, after which the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least_____ percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities.

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to ram preventers. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways and stairways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow line valves and relief line valves connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

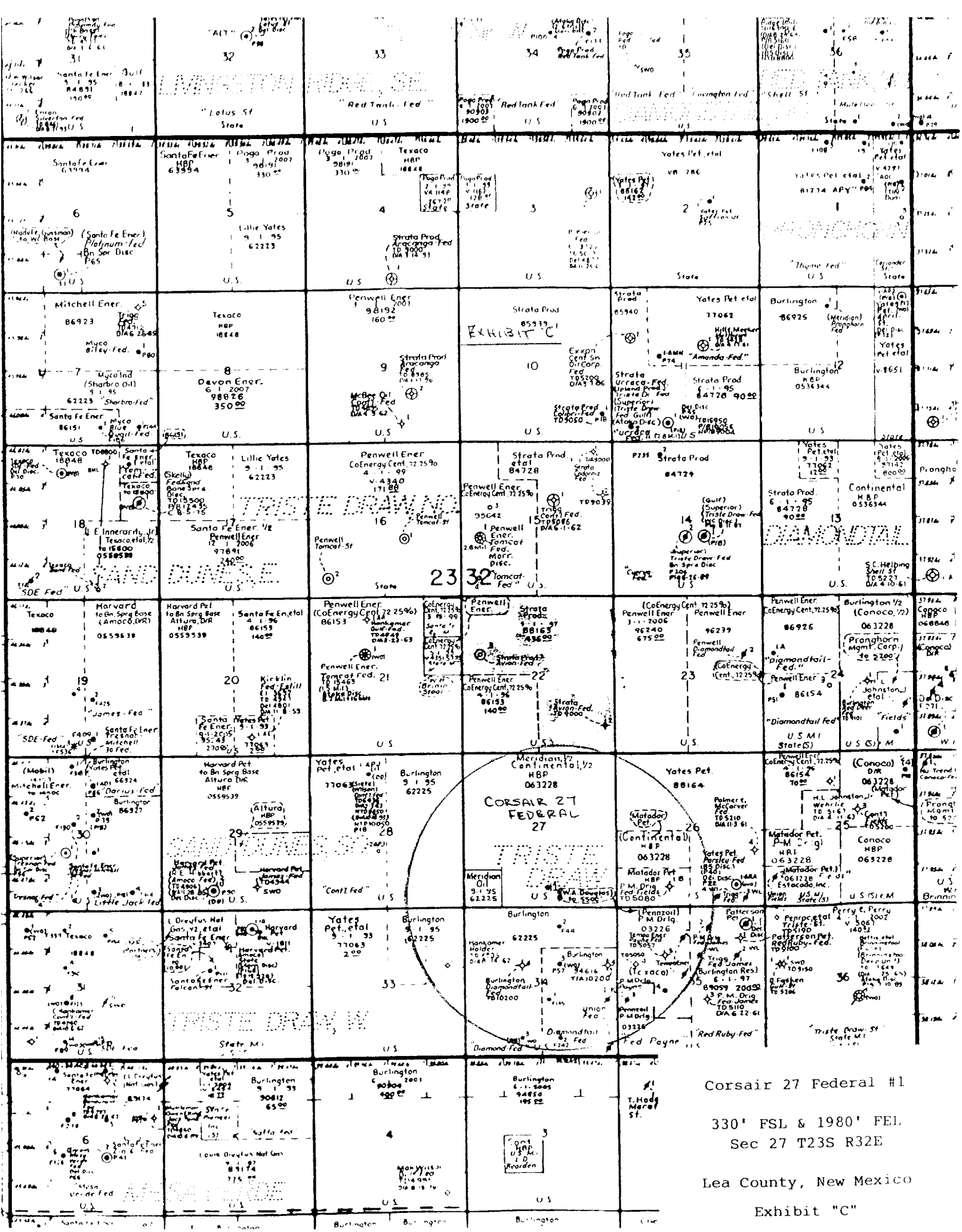
* To include derrick floor mounted controls.

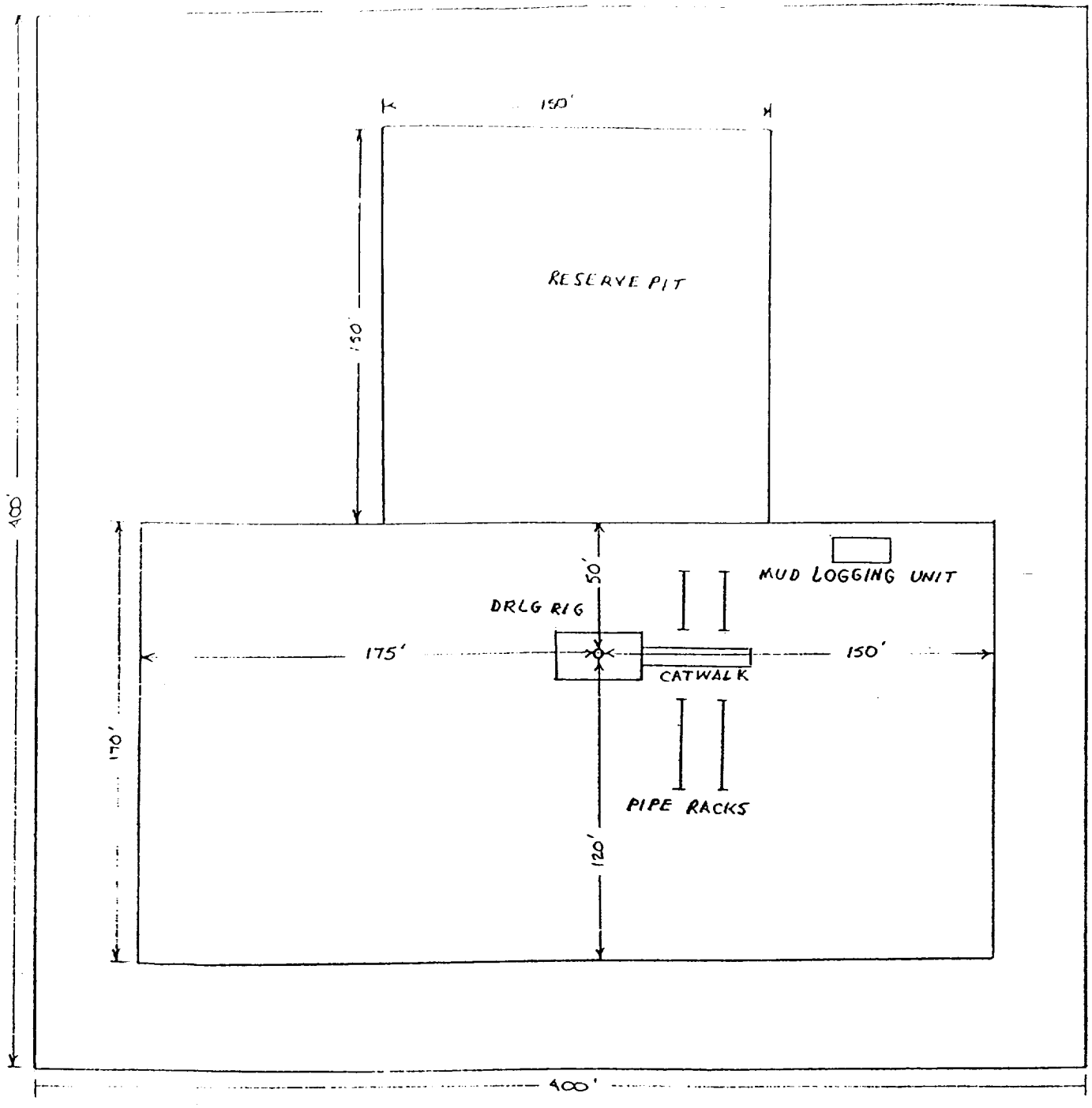


Corsair 27 Federal #1
330' FSL & 1980' FEL
Sec 27 T23S R32E

Lea County, New Mexico

EXHIBIT "B"


CORSAIR 27 FEDERAL
27
Corsair 27 Federal #1
330' FSL & 1980' FEL
Sec 27 T23S R32E
Lea County, New Mexico
Exhibit "C"



ECHO PRODUCTION, INC.

DRILLING RIG LAYOUT PLAN

CORSAIR 27 FEDERAL #1
330' FSL & 1980' FEL
Sec 27 T 23S R 32E
Lea County, New Mexico

EXHIBIT "D"

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Operator Name: ECHO PRODUCTION, INC.
Street or PO Box: PO Box 1210
City, State: Graham, Texas
Zip Code: 76450

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM- LC 063228 (Corsair 27 Federal)

Legal Description of Land: All of Sec 27 T23S R32E except SW/4 of SW/4

Formation(s) (if applicable): Delaware

Bond Coverage: (State if individually bonded or another's bond)
Statewide Bond - Echo Production, Inc.

BLM Bond File No.: NM 2692

Authorized Signature: Tom Gold

Title: Operations Manager

Date: January 7, 2000

ELF 7/12/22

ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOGS
WILL BE RELEASED