N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240

Form 3160-3
(July 1989)
(formerly 9-331C)

CONTACT RECEIVING OFFICE FOR NUMBER OF COPIES REQUIRED
(Other instructions on reverse side)

30-025-32137

BLM Roswell District
Modified Form No.
NM060-3160-2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

5. LEASE DESIGNATION AND SERIAL NO.: NM-77058

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Cercion Federal

2. NAME OF OPERATOR: Strata Production Company

3a. Area Code & Phone No.: 505-622-1127

9. WELL NO.: ~~#7~~ 8

3. ADDRESS OF OPERATOR: P. O. Box 1030, Roswell, New Mexico 88202-1030

10. FIELD AND POOL, OR WILDCAT: East Livingston Ridge Delaware

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: ~~1800'~~ 1700' FNL & 990' FWL
At proposed prod. zone: Unit E

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 22-22S-32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 35 miles east of Carlsbad, New Mexico

12. COUNTY OR PARISH: Lea — 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
1650'	640.00	40.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
450'	8750'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3678' GR — Carlsbad Controlled Water Basin

22. APPROX. DATE WORK WILL START*: June 10, 1993

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#	H-40	8 RD ST&C	600'	Circ to surface
11"	8 5/8"	24# & 32#	J-55	8 RD ST&C	4460'	200' in surf csg
7 7/8"	5 1/2"	17#	J-55	8 RD LT&C	8750'	600' above uppermost ~~pay zone~~ HYDROCARBON BEARING ZONE

Strata Production Company proposes to drill to a depth sufficient to test the Delaware formation. If productive, 5 1/2" 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:

Location and Elevation 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

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 Carol J. Garcia — TITLE Production Supervisor — DATE 4/30/93

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS — TITLE AREA MANAGER — DATE JUL 7 1993

CONDITIONS OF APPROVAL, IF ANY:

Approval Subject to General Requirements and Special Stipulations Attached

*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

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised 1-1-89

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
STRATA PRODUCTION	CERCION FEDERAL	~~#~~ 8

Unit Letter	Section	Township	Range	County
E	22	22 SOUTH	32 EAST NMPM	LEA COUNTY, NM

Actual Footage Location of Well:
1700 feet from the NORTH line and 990 feet from the WEST line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3693.	DELAWARE	LIVINGSTON RIDGE DELAWARE EAST	40.00 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

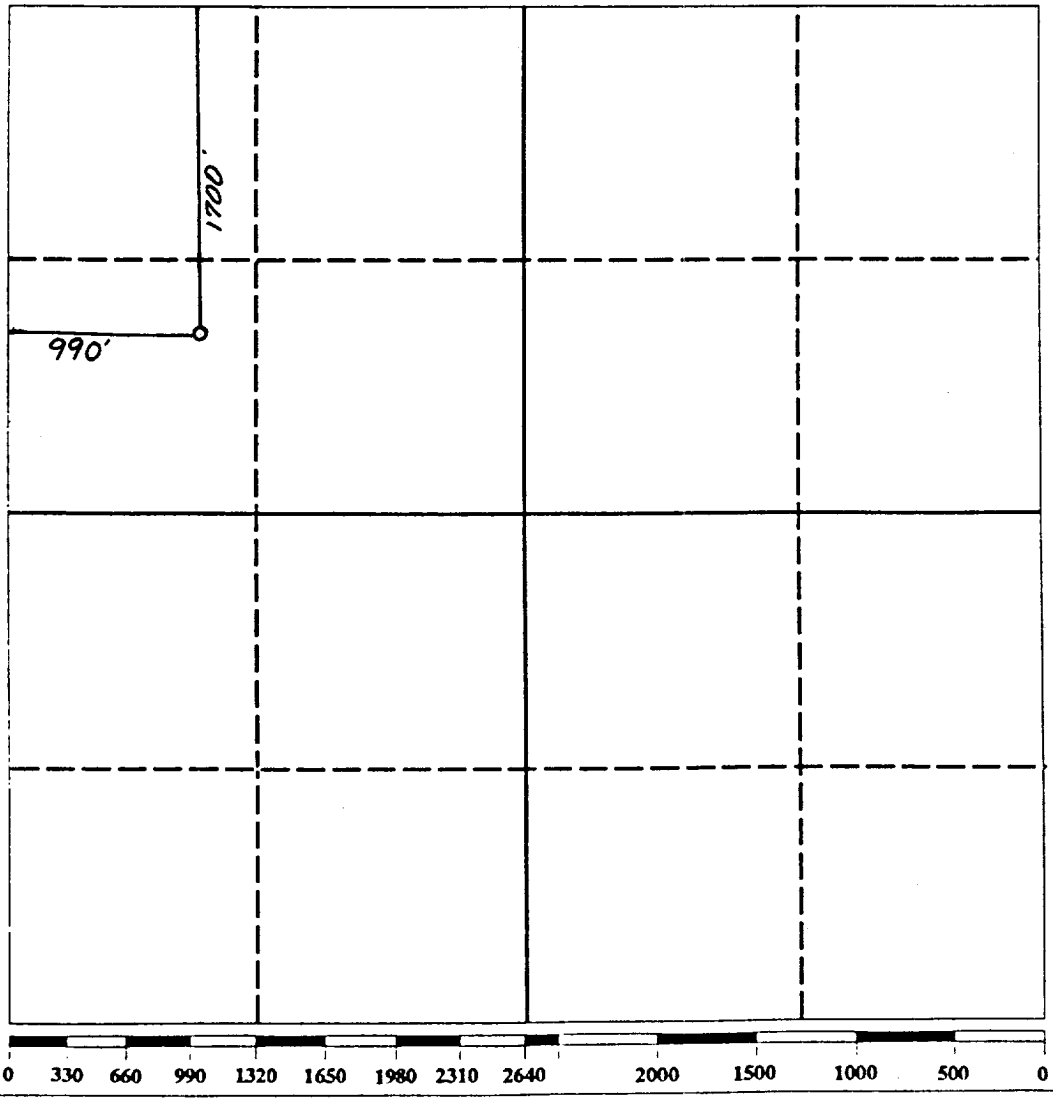
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.?

☐ Yes ☐ 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 neccessary. _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-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 in true and complete to the best of my knowledge and belief.

Signature
Carol J. Garcia

Printed Name
Carol J. Garcia

Position
Production Supervisor

Company
Strata Production Company

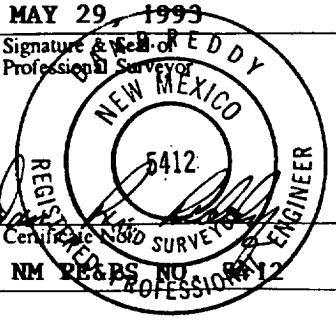
Date
June 3, 1993

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
MAY 29, 1993

Signature & Seal of Professional Surveyor



Certificate No. NM REG. PS NO. 5412

HOLE PROGNOSIS
APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
CERCION FEDERAL ~~#7-Y~~ 3 WELL
1800' FNL & 990' FWL
SECTION 22-22S-32E
LEA COUNTY, NEW MEXICO

In conjunction with form 3160-3, Application for Permit to Drill, Strata Production Company 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. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Geologic Markers:

Rustler	870'	Lamar	4720'
Top of Salt	1020'	Bone Spring	8610'
Base of Salt	4410'	T.D.	8750'

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

Surface	150'	Fresh Water
Delaware	4720' - 8750'	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 which contain commercial quantities of oil and/or gas will have cement circulated across the zone by inserting a cementing stage tool into the 5 1/2" production casing which will be run at TD.

4. Casing Program:

Hole Size	Interval	OD Csg	Weight, Grade, Jt. Cond, Type
17 1/2"	0-600'	13 3/8"	48#, H-40, ST&C, New
11"	0-4460'	8 5/8"	24# & 32#, J-55, ST&C, New
7 7/8"	0-TD	5 1/2"	17#, J-55, LT&C, New

Cementing Program:

Surface Casing:	13 3/8" casing will be set at approximately 600' and cemented with approximately 650 sacks of Halliburton Premium Plus cement with 2% CaCL, 5# Gilsonite and 1/4# Flocele per sack. The amount could 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 4460' and cemented with approximately 1200 sacks of HalcoLite (Halliburton Lite cement) with 10# salt and 1/4# Kwikseal per sack, and 400 sacks Premium Plus with 5# salt. The amount could be adjusted dependent upon fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.
Production Casing:	If appropriate, 5 1/2" casing will be set at Total Depth. Strata utilizes cement in sufficient quantities to bring the cement into the 8 5/8" intermediate casing. This is normally completed in two (2) stages. The first stage is normally 600 sacks 50/50 Poz with 5# salt and 1/4# Flocele per sack. The second stage normally consists of 500 sacks of 50/50 Poz with 5# salt and 1/4# Flocele per sack.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown 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 1/2" 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).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP), and choke lines and choke manifold with 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

0' to 600'	Native mud consisting of fresh water and native muds are used for drilling purposes.
600' to 4460'	Brine water purchased from commercial sources will be utilized.
4460' to 6400'	Brine and fresh water purchased from commercial sources will be utilized. Salt gel will be used to build viscosity.
6800' to TD	Brine and fresh water with salt gel and starch will be used to maintain a viscosity of approximately 31 and a water loss of 15 to 25.

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

7. 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.

8. Testing, Logging and Coring Program:

Two (2) man Mudlogging unit will be on location from top of Delaware to TD for logs including DLL/MSFL, CNL/Density, Gamma Ray and Caliper.

Mudlogging unit will be employed from approximately 4700' (Top of Delaware) to 8750' (Total Depth). The Dual Laterolog will be run from TD back to the intermediate casing and the Compensated Neutron/Density Log will be run from TD back to surface. In some cases, Strata may elect to run rotary sidewall cores from selected intervals from approximately 4700' to 8750' dependent upon logging results.

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

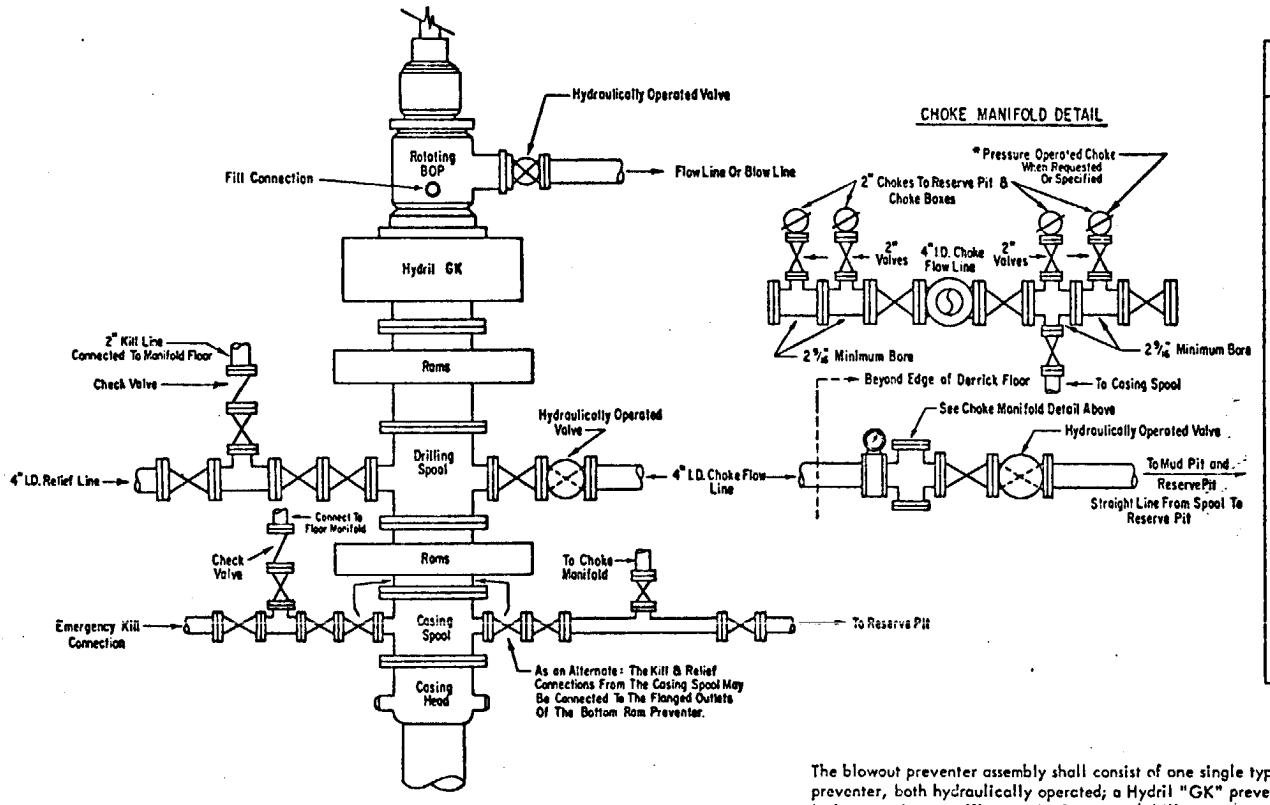
No abnormal pressures or temperatures are anticipated.

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

Strata has drilled and completed fourteen (14) wells in the immediate area. To date, Hydrogen Sulfide was encountered on the Lechuza Federal #4 during drilling operations. All precautions were followed. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide alarm on the drilling rig would be activated. All personnel have had 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.

10. 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 June 10, 1993. Once commenced, the drilling operation should be finished in approximately 25 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.



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 closure, 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.