NMOCC COPY

Form 9-331 C
(May 1963)

SUBMIT IN T[illegible]ICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-22313

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

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

2. NAME OF OPERATOR
Gulf Oil Corporation

3. ADDRESS OF OPERATOR
P. O. Box 670, Hobbs, NM 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
660' FNL & 1980' FEL, Sec 5, T-18-S, R-25-E
At proposed prod. zone

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O. C. C.
ARTESIA, OFFICE

5. LEASE DESIGNATION AND SERIAL NO.
NM-9542-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Grynberg "A" Federal

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Undesignated Morrow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 5, T-18-S, R-25-E

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

12. COUNTY OR PARISH: Eddy
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
359

17. NO. OF ACRES ASSIGNED TO THIS WELL
320

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

19. PROPOSED DEPTH
8,400'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3602' GL

22. APPROX. DATE WORK WILL START*
10-15-77

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#	300'	circ
12 1/4"	8 5/8"	24#	1200'	Circ
7 7/8"	5 1/2"	17#	8400'	500 sacks

BOP: See drawing No. 4 attached

Mud Program: 0-300' fresh water spud mud
300' - 5200' fresh water with paper for seepage
5200' - 8400' Brine water polymer

Gas is not dedicated

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ARTESIA, NEW MEXICO

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 D. F. Berlin TITLE Assistant Area Production Manager DATE 9-2-77

(This space for Federal or State office use)

PERMIT NO. 10-4-77 APPROVAL DATE

DECLARED WATER BASIN

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
OCT [illegible] 1977
R. L. [illegible]
ACTING DISTRICT ENGINEER

THIS APPROVAL IS RESCINDED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS.
EXPIRES JAN - 6 197[illegible]

CEMENT BEHIND THE [illegible] CASING MUST BE CIRCULATED

NOTIFY [illegible] IN SUFFICIENT TIME TO WITNESS CEMENTING THE [illegible] CASING.

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the section

Operator: Gulf Oil Corp.		Lease: Grynberg "A" Fed.		Well No.: 1
Unit Letter: B	Section: 5	Township: 18 South	Range: 25 East	County: Eddy
Actual Footage Location: 660 feet from the North line and 1980 feet from the East line				
Ground Level Elev.: 3602.0	Producing Formation: Morrow	Pool: Undes. Morrow		Dedicated Acreage: 320 Acres

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

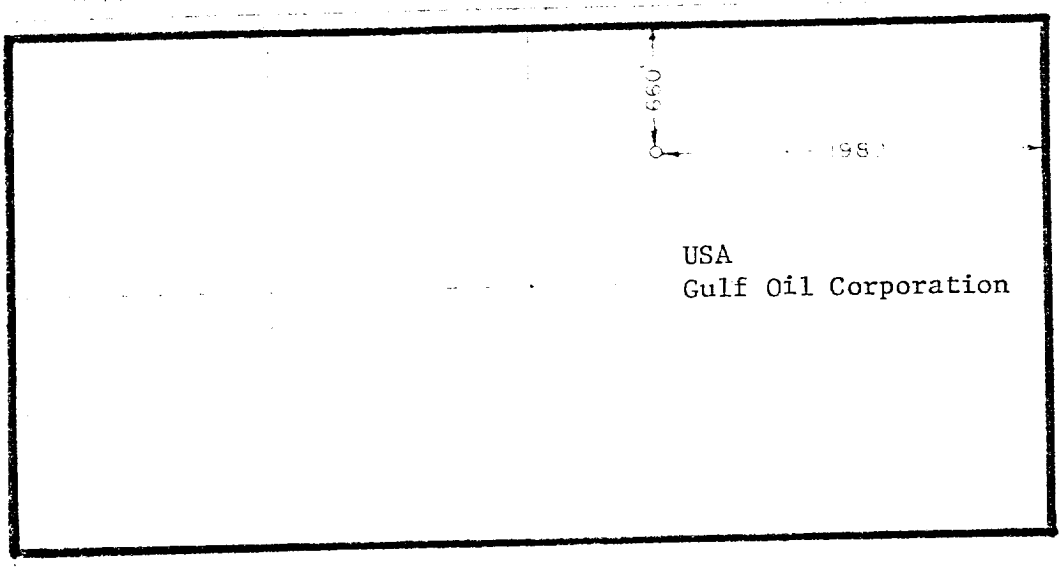
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests 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 necessary.)

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 interests, has been approved by the Commission.



USA
Gulf Oil Corporation

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ARTESIA, NEW MEXICO

ILLECIBLE

D. T. Berlin

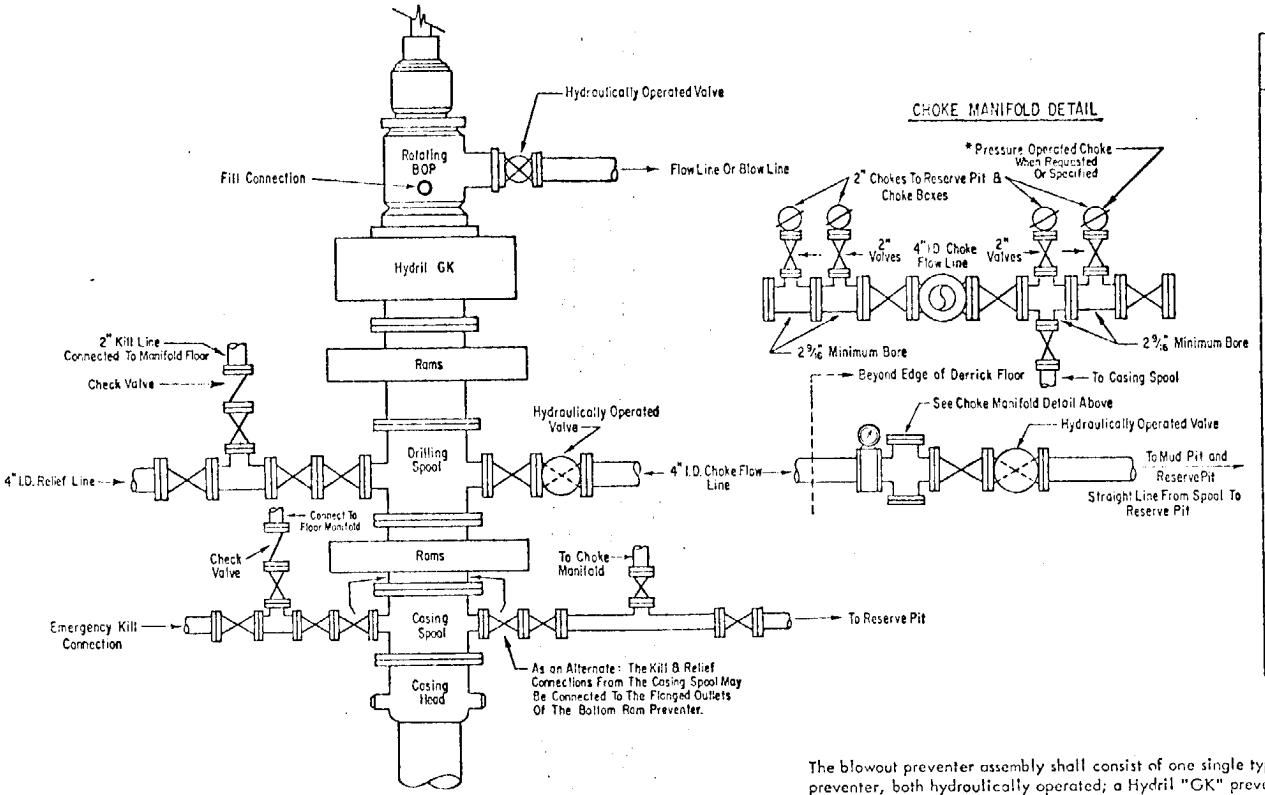
D. T. Berlin
Assistant
Area Production Manager

Gulf Oil Corporation

September 2, 1977

August 30, 1977

DRAWING NO. 4
Revised April, 1971



5000# PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP

ADDITIONS - DELETIONS - CHANGES SPECIFY

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.

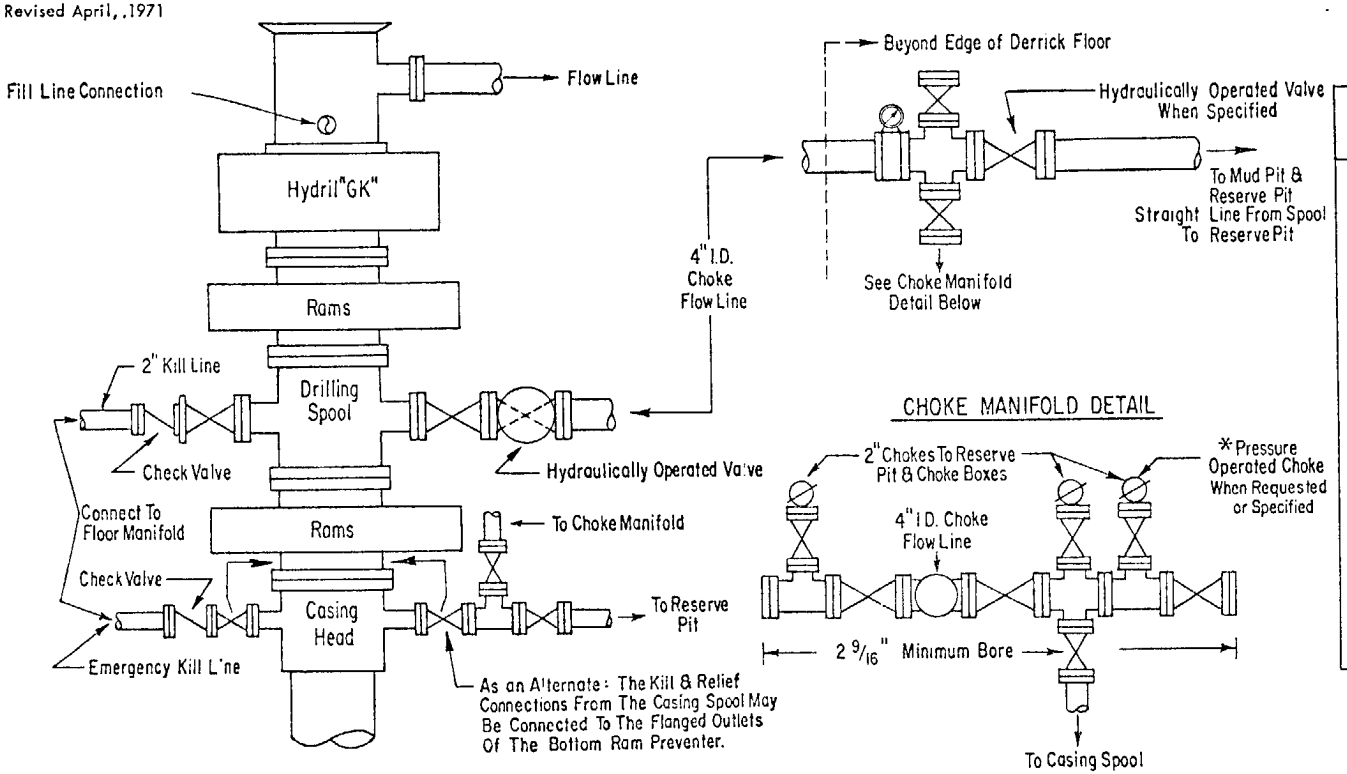
Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1)Multiple pumps, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its rated pressure within_____ minutes. Also, 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.

DRAWING NO. 3
Revised April, ,1971



ADDITIONS - DELETIONS - CHANGES SPECIFY

3000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydraulically operated; a Hydril "GK" 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 kill line, except when air or gas drilling. The substructure height shall be sufficient to install a rotating blowout preventer.

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, and choke lines are to be supported by metal stands and adequately anchored. The choke flow 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. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow 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.

Gulf Energy and Minerals Company-U.S.

SOUTHWEST DIVISION
HOBBS AREA

C. D. Borland
AREA PRODUCTION MANAGER

P. O. Box 670
Hobbs, NM 88240

August 31, 1977

Re: Application for Permit to Drill
Proposed Grynberg "A" Federal Well No. 1
Eddy County, New Mexico

U. S. Geological Survey
P. O. Box 1157
Hobbs, N.M. 88240

Gentlemen:

We are submitting the information requested in NTL-6 which should accompany application for permit to drill.

Well: Grynberg "A" Federal Well No. 1

1. Location: 660' FNL and 1980' FEL Section 5, T-18-S, R-25-E, Eddy County, New Mexico.

2. Elevation of Unprepared Ground: 3602' GL.

3. Geologic Name of Surface Formation: Quarternary Alluvium.

4. Type Drilling Tools: Rotary.

5. Proposed Drilling Depth: 8400'.

6. Estimated Top of Geologic Markers: San Andres 700', Glorieta 2000', Abo 4050', Wolfcamp 5200', Cisco Canyon 6350', Strawn 7500', Atoka 7910', Morrow 8175', Barnett 8350'.

7. Estimated Depth at which Anticipated Gas or Oil-Bearing Formations Expected:

   a. Wolfcamp 5200' - 5300'.
   b. Strawn 7500' - 7600'.
   c. Atoka 7910' - 8000'.
   d. Morrow 8190' - 8350'.

8. Casing Program and Setting Depths:

	Size	Weight	Grade	Setting Depth
Surface	13-3/8"	48#	H-40	300'
Intermediate	8-5/8"	24#	K-55	1200'
Production	5-1/2"	17#	K-55	8400'

9. Casing Setting Depth and Cementing Program:

   a. Surface casing will be 13-3/8" set at 300' and cemented with 200 sacks of Howcolite plus 200 sacks of Class C with 2% $CaCl_2$.

   b. Intermediate casing will be 8-5/8" set at 1200' and cemented with 450 sacks thickset with 3/4#/sk Gilsonite and 1/4#/sk floseal and 200 sacks Class C with 2% $CaCl_2$.

c. Production casing will be 5-1/2" set approximately 8400' and cemented with Class "H" with 4% gel and Class "H" neat with sufficient volumes to bring cement top to 5000'. Volumes to be determined by caliper log.

10. Pressure Control Equipment: The minimum specifications for pressure control equipment can be seen on the attached Drawing No. 3 of Gulf's blowout preventer hook-up for 3000 psi working pressure.

11. Circulating Media: 0 - 1200' fresh water spud mud; 1200 - 5200' brackish water; 5200 - 8400' salt water polymer with the folloeing properties: viscosity 32-37 sec.; water loss 20 cc's or less, weight 9.0 - 9.5 and 4% KCL. Heavier weight mud will be used if required by well conditions.

12. Testing Logging and Coring Programs:

a. Formation testing may be done at any depth where samples, drilling rate, or log information indicate a possible show of oil or gas.

b. Open hole logs will be run at total depth.

c. No cores are planned.

13. Abnormal Pressure or Temperature and Hydrogen Sulfide Gas: We do not anticipate any abnormal pressure or temperature; however, BOP's with remote control and choke manifold as shown on Drawing Nol 3 prior to drilling below intermediate casing.

The presence of hydrogen sulfide gas is not anticipated.

14. Anticipated Starting Date: Drilling Operations should start between October 1 and October 15, 1977.

15. Other Facets of the Proposed Operation: None

by: D. F. Berlin
C. D. BORLAND
Area Production Manager

Attachments
RLV/rm

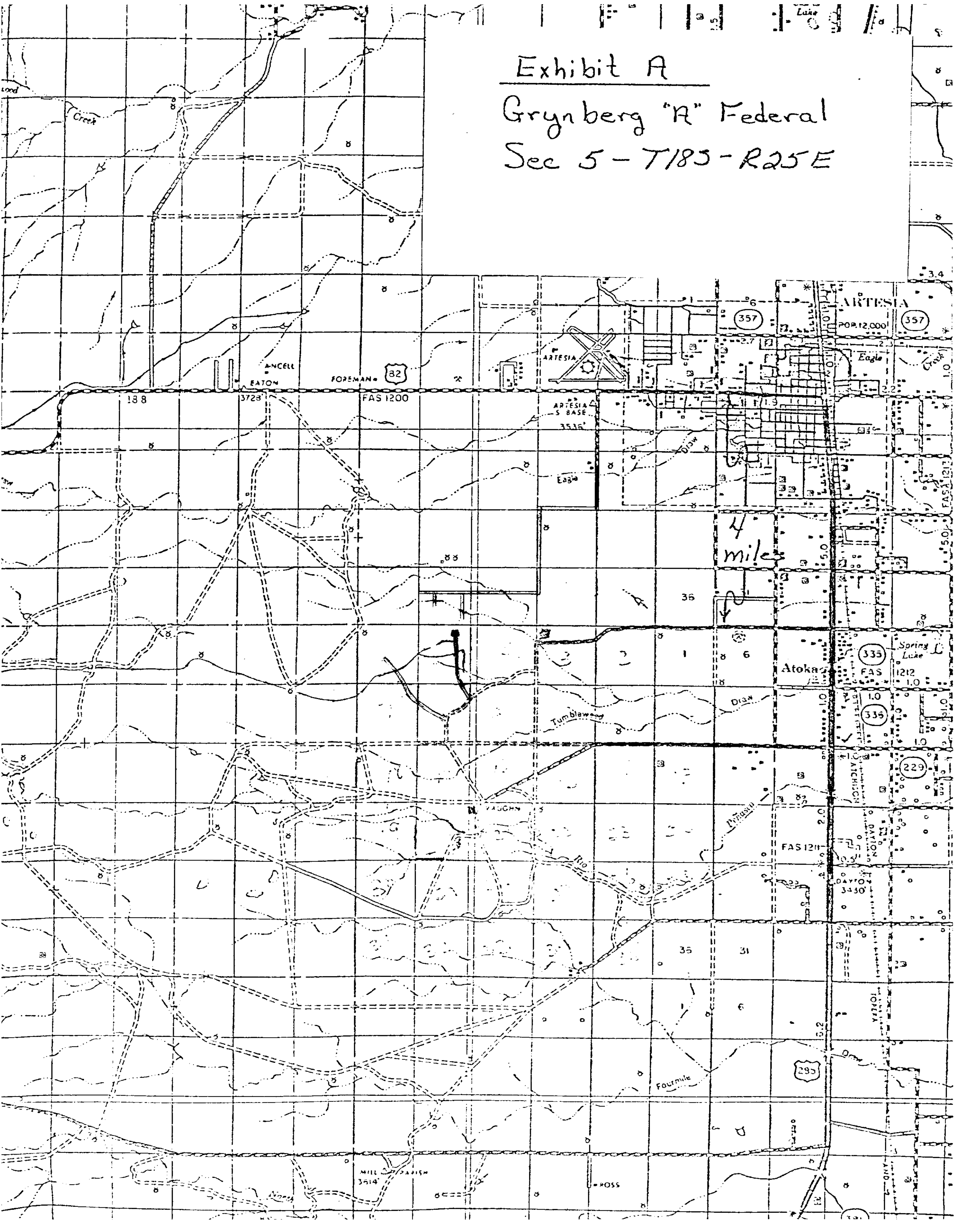
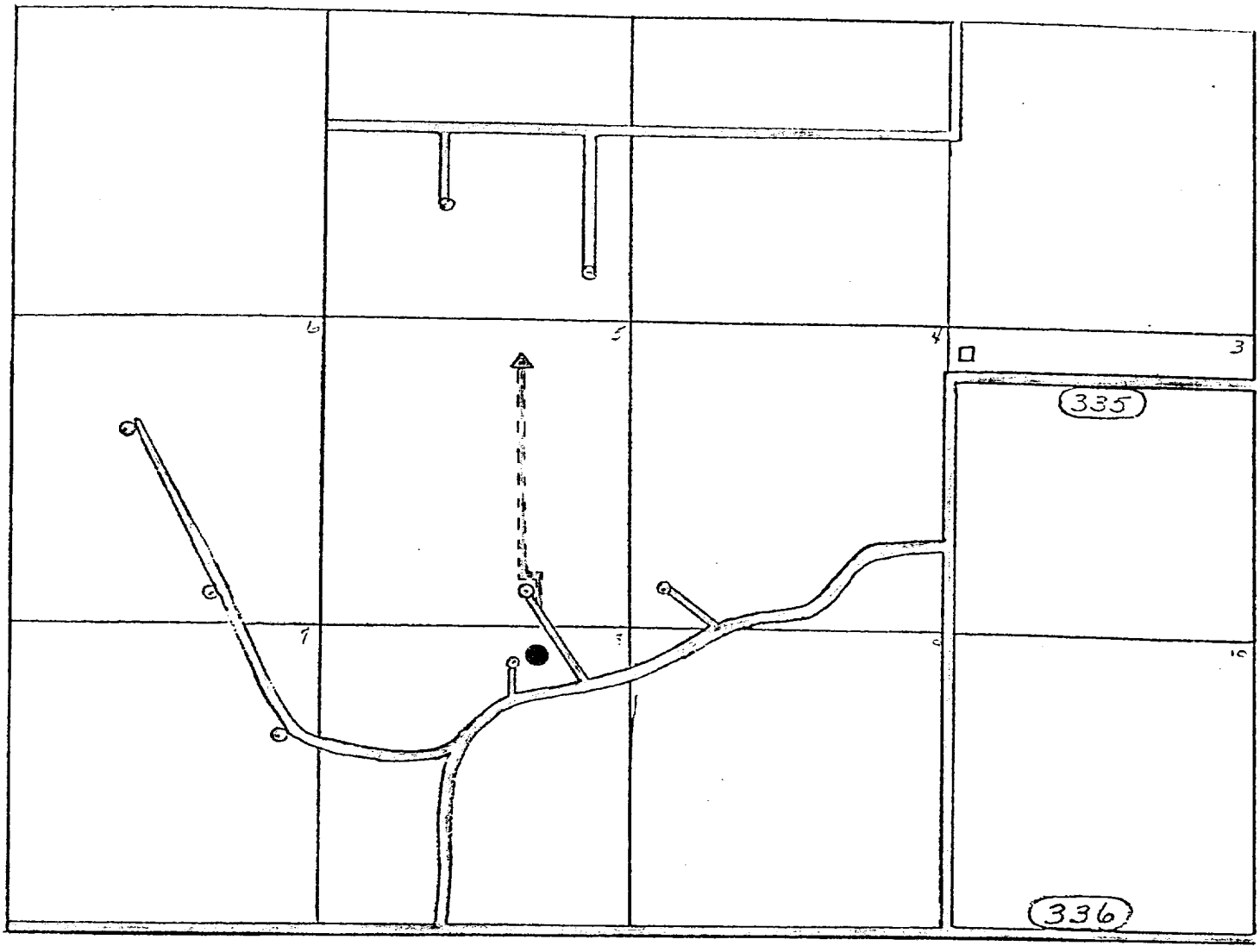


Exhibit A
Grynberg "A" Federal
Sec 5 - T18S - R25E
4 miles
ARTESIA
POP. 12,000
357
82
ANCELL
EATON
FOREMAN
ARTESIA
ARTESIA S BASE
3535'
3728'
188
FAS 1200
Eagle
Creek
Draw
36
1
6
Atoka
335
FAS 1212
Spring Lake
336
229
VAUGHN
Tumbleweed
Draw
Penasco
Rio
FAS 1211
DAYTON
3430'
35
31
285
Fourmile
MILL
PARISH
3614'
ROSS
ATCHISON
TOPEKA



Existing Roads —

Proposed New Access —

Roads to be Improved

Caliche Pit ●

Residence □

Exhibit B

Grynberg "A" Federal #1

Sec 5 - T18S - R25E

Gulf Oil Corp.