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SUBMIT IN TRIPLICATE*

Form approved.
Budget Bureau No. 42-R1425.(Other inst' ons on
reverse)

30-015-22568

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Atlantic Richfield Company

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3. ADDRESS OF OPERATOR

P. O. Box 1710, Hobbs, New Mexico 88240

JUN - 2 - 1978

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

At surface

400' FNL & 1450' FEL (Unit letter B)

At proposed prod. zone

as above

O. C. C.
ARTESIA, OFFICE

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

approx 13 miles East of Artesia, N.M.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE

19. PROPOSED DEPTH

6300'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

rotary

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

3604.1' GR

22. APPROX. DATE WORK WILL START*

7/15/78

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8" OD	24# K-55	1000'	400 sx
7-7/8"	5-1/2" OD	15.5# K-55	6300'	1205 sx

Propose to drill an infill development well within the Empire Abo Unit area to more economically recover additional oil reserves and conserve reservoir pressure in accordance with Unit OGC Rules & Regulations - NSL 915.

Blowout Preventer Program attached.

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APR 21 1978

U.S. GEOLOGICAL SURVEY
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

TITLE Dist. Drlg. Supt.

DATE 4/17/78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

JUN 1 - 1978

APPROVED BY

TITLE

ACTING DISTRICT ENGINEER

DATE

JUN 1 - 1978

CONDITIONS OF APPROVAL, IF ANY:

THIS APPROVAL IS RESCINDED IF OPERATIONS
ARE NOT COMMENCED WITHIN 3 MONTHS.
EXPIRES SEP 1 - 1978

*See Instructions On Reverse Side

N MEXICO OIL CONSERVATION COMMISS
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
 Supersedes C-128
 Effective 1-1-65

All distances must be from the outer boundaries of the Section

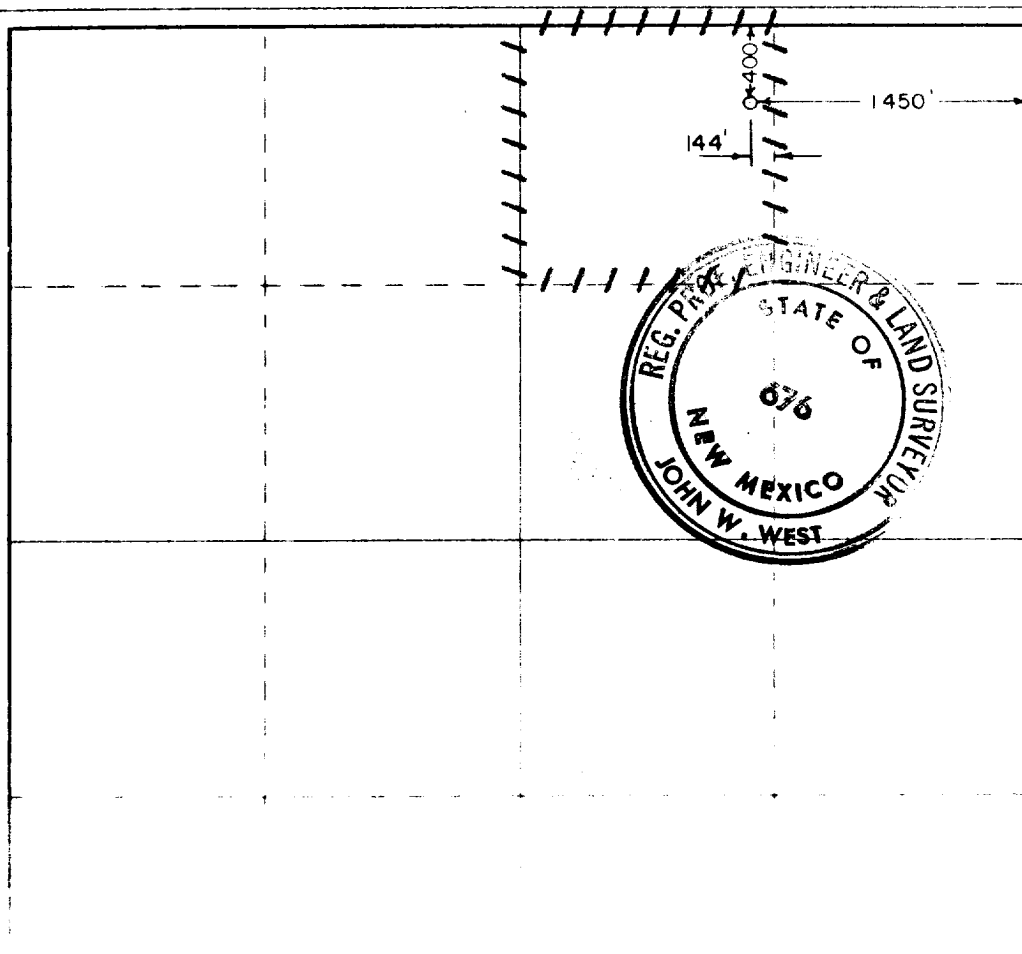
Operator Atlantic Richfield Co.			Lease Empire Abo Unit - M		Well No. 151
Tract Letter B	Section 11	Township 18 South	Range 27 East	County Eddy	
4. Well Location at Well: 400 feet from the North line and 1450 feet from the East line					
Ground Level Elev. 3604.1	Producing Formation Abo Reef		Designation Empire Abo		Dedicated Acreage 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership (show interests 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 Unitization

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.



CERTIFICATION

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

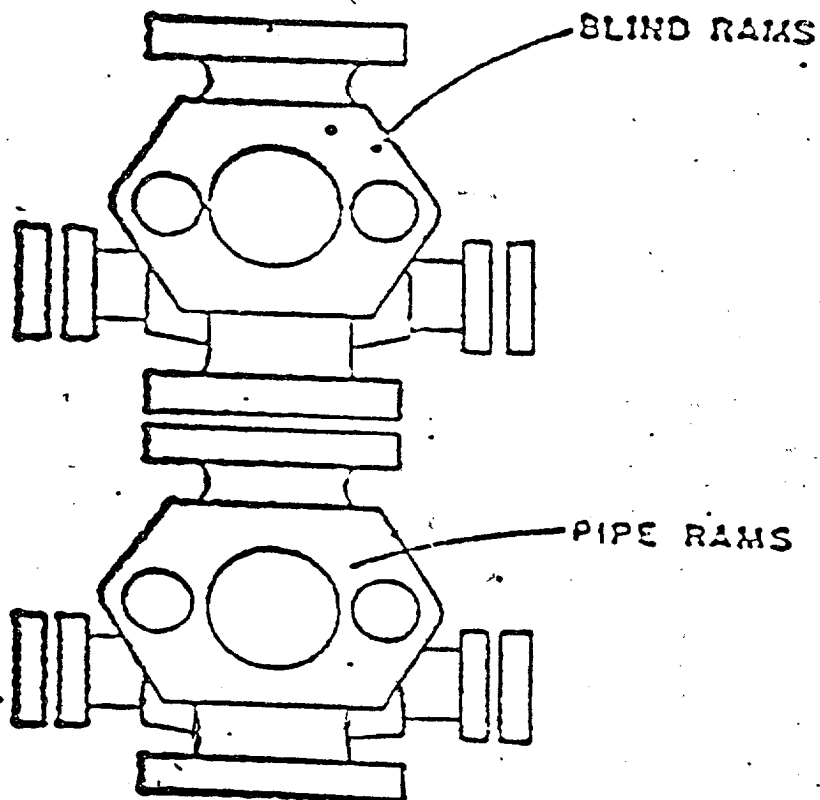
Signature: *[Signature]*
 Position: **Dist. Dir. Supt.**

For: **Atlantic Richfield Company**

Date: **4/17/78**

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

December 14, 1977



ATLANTIC RICHFIELD COMPANY
Blow Out Preventer Program

Lease Name Empire Abo Unit "M"

Well No. 151

Location 400' FNL & 1450' FEL
Sec 11-18S-27E Eddy County

BOP to be tested before installed on well and will be maintained in good working condition during drilling. All wellhead fittings to be of sufficient pressure to operate in a safe manner.

To supplement USGS Form 9-331-C, "Application for Permit to Drill, Deepen or Plugback", the following additional information is submitted:

Operator: Atlantic Richfield Company
Lease & Well No. "M" 151 Empire Abo Unit
Location: Unit letter B, 400' FNL & 1450' FEL
Section 11-18S-27E, Eddy County, New Mexico

1. See Form 9-331C.
2. See Form 9-331C.
3. The geologic name of the surface formation is:
Tertiary with some Triassic exposed.
4. See Form 9-331C.
5. See Form 9-331C.
6. The estimated tops of important geologic markers are:
Queen 930', San Andres 1865', Abo 6129'.
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected are:

Santa Rosa Water Formation	+ 300'	Brackish
Empire Yates Seven Rivers	+ 350'	Oil & Gas
Artesia Grayburg Queen SA	+ 930'	Oil & Gas
Abo Reef	+ 6129'	Oil & Gas
8. The proposed casing program including the size, grade and weight-per-foot of each string has been indicated on Form 9-331C. All strings of casing will be new.
9. See Form 9-331C for amount of cement. The type of cement and additives for the surface string will be 250 sx C1 C cont'g 4% gel, 6# salt, 2% CaCl, 1/4# flocele/sk followed by 150 sx C1 C cont'g 6# salt, 2% CaCl. The type of cmt and additives for the production string will be as follows: 1st stage 100 BFW w/2% KCL, 1 gal/1000 Mor-flo II, 10 bbls SAM-5 spacer, 25 BFW, 480 sx Howco C1 C, 2% CaCl. 2nd stage thru DV tool will be 50 BFW, 25 sx Thin cmt, 600 sx Howco Lite cont'g 8# salt/sk, 100 sx C1 C cmt cont'g 8# salt/sk.
10. The pressure control equipment is as follows:

Size: 10 x 900 API Series - Dbl ram w/hydraulic closing unit
Pressure Ratings or API Series: 3000# WP, 6000# T
Testing Procedures: Pressure up to 1500# before drilling out of casing
Testing Frequency: Upon installation, daily and on all trips
11. The types and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained will be as follows:

0	-	1000'	Spud Mud
1000	-	6075	Brackish Fresh Water
6075	-	6300'	Salt gel mud, 8.8#/gal, 30,000 sal, 35-50 Vis as needed, 9.5 PH will be maintained below surface pipe.

12. The auxiliary equipment to be used will consist of:

Kelly cocks and a sub on floor with full opening valve to be used when needed.
No mud logging to be performed.

13. The testing, logging and coring programs will be:

GR-DLL w/RXO, GR-Neutron, GR-CNL-FDC, Sonic VDL & tape logs for Coriband
Analysis. There will be no coring or Drill Stem testing.

14. No abnormal pressure or temperatures are expected to be encountered.

15. The starting date will be approximately 7/15/78 and will be completed
approximately 8/10/78.