

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

Hixon Development Company

3. ADDRESS OF OPERATOR

P.O. Box 2810, Farmington, New Mexico 87401

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

At surface

790' FNL, 790' FWL, Section 19, T25N, R12W

At proposed prod. zone

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

24 miles south of Farmington

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

1460'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160- 159.15

20. ROTARY OR CABLE TOOLS

Rotary

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

6443' GLE

22. APPROX. DATE WORK WILL START*

6-1-80

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
9"	7"	20#	90'	60 sacks
5"	2-7/8"	6.5#	1460'	175 sacks

It is planned to drill a slimhole shallow gas Pictured Cliffs test per the attached. Gas from this well has not been dedicated.



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

DATE 4-30-80

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REGULATIONS"

**NEW MEXICO OIL CONSERVATION COMMISSION
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.

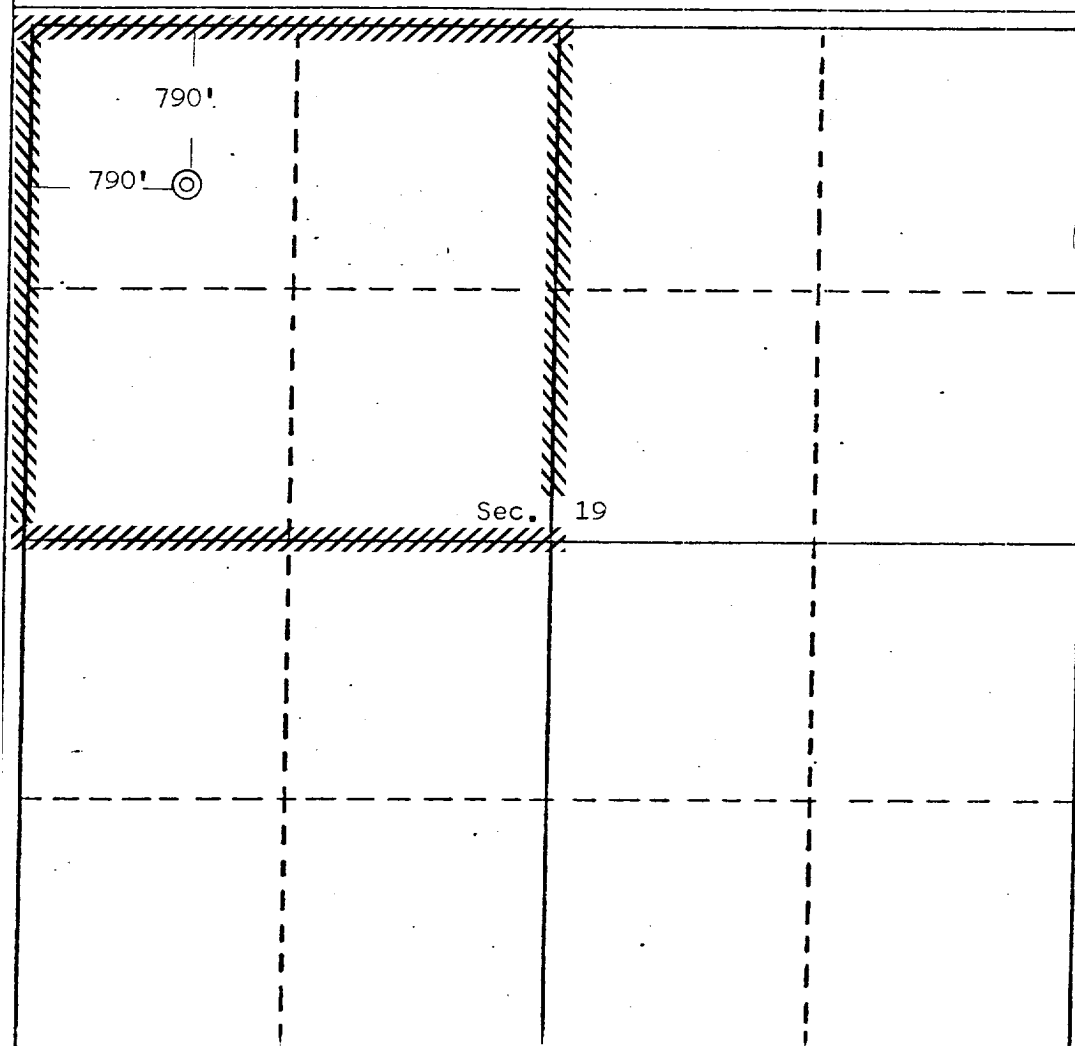
Operator Hixon Development Company			Lease Federal 19		Well No. 4
Unit Letter D	Section 19	Township 25 North	Range 12 West	County San Juan	
Actual Footage Location of Well: <div style="display: flex; justify-content: space-between;"> 790 feet from the North line and 790 feet from the West line </div>					
Ground Level Elev. 6443	Producing Formation Pictured Cliffs	Pool WAW-Fruitland-PC <u>Unde</u>	Dedicated Acreage: 159.15 160 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 one ownership lease

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.

Name
Aldrich L. Kuchera
Position
Petroleum Engineer
Company
Hixon Development Company

Date
February 25, 1980

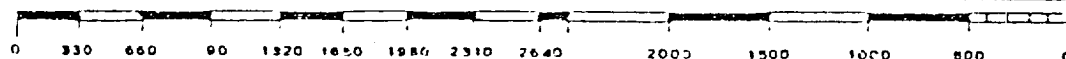
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
March 2, 1980

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenhoover
Certificate No. **5979**

Edgar L. Risenhoover, L.S.



APPLICATION FOR PERMIT TO DRILL

Hixon Development Company

Federal 19 Well No. 4

790' FNL, 790' FWL

Section 19, T25N, R12W

San Juan County, New Mexico

NTL-6 13 Point Requirement Outline is as follows:

1. Existing Roads - Refer to the attached topographic map. The location is adjacent to the Hixon Development Company operated Central Bisti Unit oil field. Existing well location roads in the vicinity of the Federal 19 No. 4 location are maintained by company construction vehicles.
2. Planned Access Roads - Refer to the attached maps.
3. Location of Existing Wells - A 1-mile radius map showing offset wells is attached.
4. Location of Existing and/or Proposed Facilities - The proposed well location is situated adjacent to a developed oil and gas field containing an extensive system of oil and gas gathering lines, water injection lines, disposal lines, power lines, fuel gas lines, etc.

Proposed facilities for the Federal 19 No. 4 well will consist of a well head assembly, meter house and an EPNG pipeline riser, i.e. a standard shallow gas well hookup. All lines will be buried 4' deep. The pipeline riser, well head, meter run and meter building will all be located on the proposed well pad schematic. The facility will not pose any problems for any livestock.

5. Location and Type of Water Supply - Water for drilling will be obtained from the NIIP.
6. Source of Construction Materials - Materials for the drilling pad will be obtained from the proposed well location, i.e. none will be hauled in.
7. Methods for Handling Waste Disposal - Any waste material incurred while drilling will be buried in the mud pits, i.e. 4' deep. Cuttings, drilling fluid, well circulation and stimulation fluids (if any) will be contained in the mud pits. The mud pits will be allowed to dehydrate and will be filled and contoured per regulations. Well site will be properly cleaned up after rigging down rotary tools.

8. Ancillary Facilities - Central Bisti Lower Gallup Unit existing facilities will be used.
9. Well Site Layout - Refer to attached plat.
10. Plans for Restoration of Surface - The mud pits will be back filled, area leveled and contoured, raked and waste materials disposed of by burying 4' deep. Revegetation will be carried out per any constructive stipulations.
11. Other Information - Refer to Archeological Report to be submitted.
12. Operator's Representative -

Aldrich L. Kuchera
Hixon Development Company
Petroleum Center Building
Suite 101
501 Airport Drive
Farmington, New Mexico 87401

Office (505) 325-6984
Home (505) 325-3448
13. Certification - See Attached.

APPLICATION FOR PERMIT TO DRILL
Hixon Development Company
Federal 19 Well No. 4
790' FNL, 790' FEL
Section 19, T25N, R12W
San Juan County, New Mexico

Other NTL-6 Pertinent Data is as follows:

1. Estimated Log Tops -

Ojo Alamo	164'
Kirtland	193'
Farmington	466'
Fruitland	1266'
Pictured Cliffs	1328'

2. Estimated Depths of Water, Oil and Gas -

Fresh Water - Water well drilling in this area show the Ojo Alamo to be dry.

Gas Sands - 466'-TD. Gas sands and 16,800 ppm NaCl water are dispersed from about 466' to TD.

3. Weight and Type of Mud to be Used -

Surface - 0-90'; drill with air. Should water be encountered an Aquagel/lime slurry will be mixed to a 40-50 sec/qt viscosity.

Production Hole - A Dextrid/Cellex low solids mud or equivalent will be used. Any hardness will be treated with soda ash. Mud weight and drilled solids will be controlled. Mud properties will be as follows:

Mud Weight - 8.4 - 8.8#/gallon
Viscosity - 34 - 45 sec/quart
Plastic Viscosity - 4 - 8 cps
Yield Value - 3 - 6#/100 sq ft
Fluid Loss - 8 - 12 cc's/API
pH - 8.3 - 8.5
Solids Content - 5-1/2% maximum
Annular Velocity - 120 FPM

Note: Bottom hole pressure gradient is 3.40#/gallon. Fracture gradient is 19.2#/gallon. We do not anticipate any drilling problems.

4. Open Hole Logs - Induction Electric Survey and Caliper Gamma Ray Compensated Neutron-Density.
5. Cased Hole Logs - Gamma Ray - CCL and Cement Bond Log.
6. Casing Program - Surface casing will be 90' 7" 20# J-55, 8rd, ST&C, Range 3, Smls, New casing.

Production casing will be 1460' 2-7/8" 6.5# J-55, 8rd, EUE, Range 1, Smls, New casing.

7. Cementing Program - Surface casing will be cemented to surface as follows: (1) break circulation with water (2) pump 60 sacks (300% excess Class B cement slurry with 2% CaCl (3) Drop wooden cement wiper plug and displace to casing shoe (4) WOC 12 hours.

Production casing will be cemented to surface as follows: (1) break circulation with mud (2) pump 20 bbl C-100 chemical wash (3) mix and pump 175 sacks Class B cement slurry with 2% CaCl (4) flush lines, drop Omega plug and displace plug with acetic acid and 2% KCl water (5) latch in plug with 2000 psi and WOC 48 hours or to a compressive strength of 1000 psi.

8. Drilling Hazards - are minimal in this area. High pressure zones, high temperatures, sour gas or other abnormal deviations are not expected.
9. Duration of Drilling Activity - will be about 15 days from spud date to completion.
10. Pressure Control Equipment - will be either of the two attached BOP schematics.
11. Casing Pressure Testing - Surface casing will be tested for 30 minutes to 500 psi before drilling out shoe. Production casing will be tested to 2000 psi after Omega plug latches. Both surface and production casing will be factory tested to API specifications and will be new.
12. In the event the well is a dry hole, it will be plugged with prior USGS approval and the drill site restored in accordance with pertinent regulations.

HIXON DEVELOPMENT COMPANY

P. O. BOX 2810

FARMINGTON, NEW MEXICO 8740

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 presently 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 Hixon Development Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions which it is approved.

Aldrich L. Kuchera
Aldrich L. Kuchera
Vice President

May 6, 1980

Date

Subscribed, Sworn to and Acknowledged before me this 6th day of May, 1980.

My Commission Expires: 7-25-83

Cindy Duncan

Notary Public - Cindy Duncan



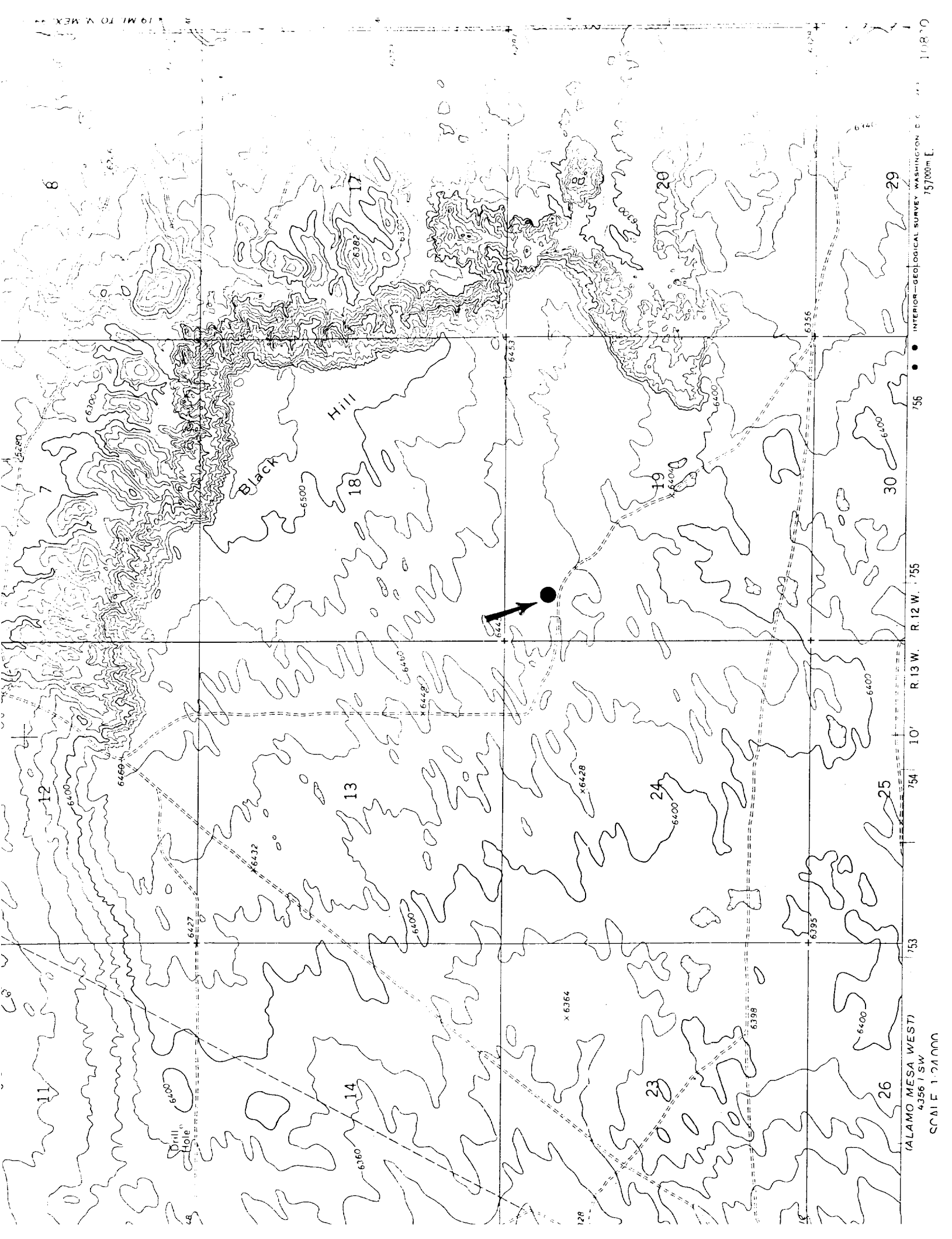
OFFICIAL SEAL

CINDY DUNCAN

NOTARY PUBLIC - NEW MEXICO

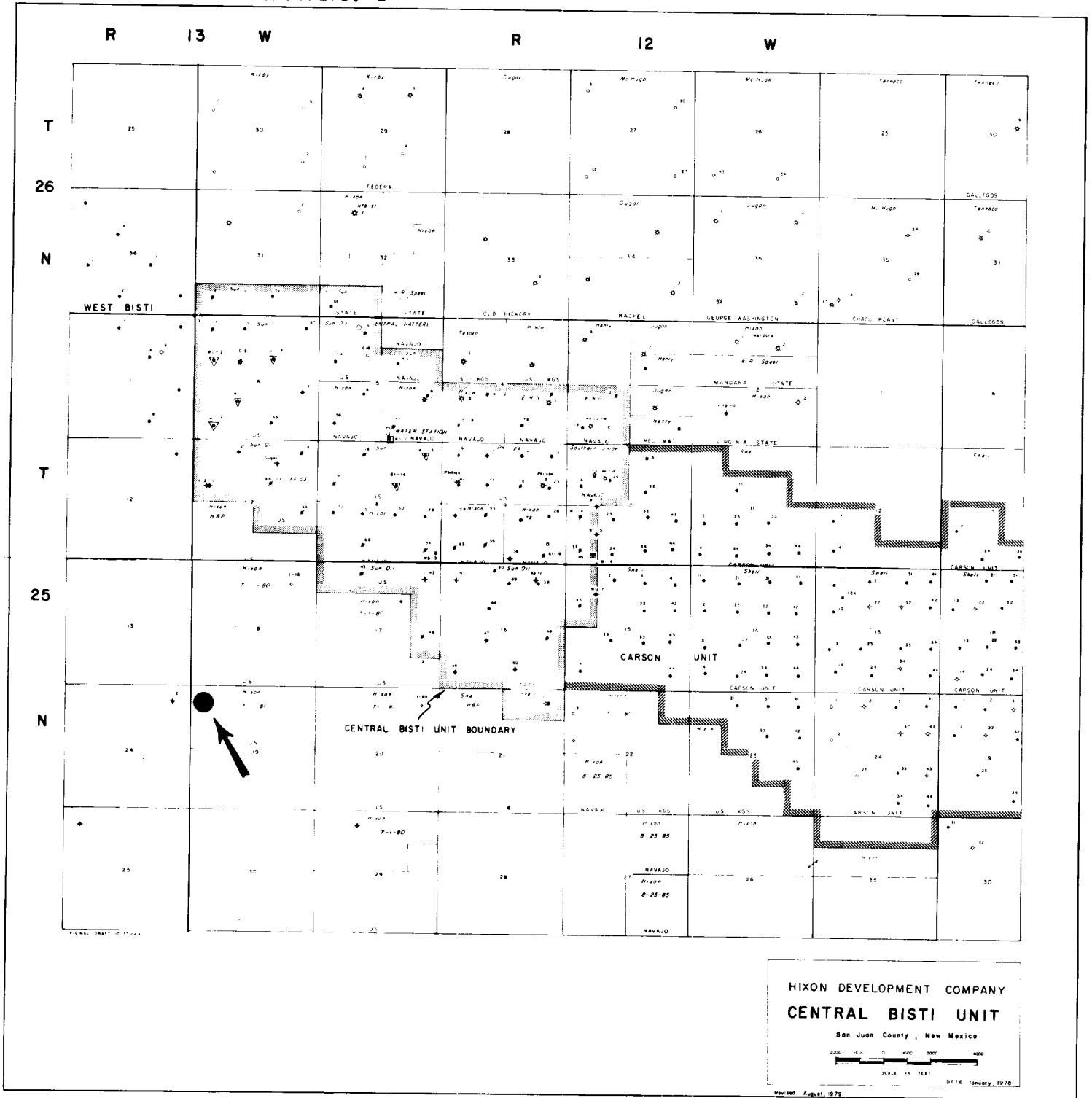
Notary Bond Filed with Secretary of State

My Commission Expires: 7-25-83

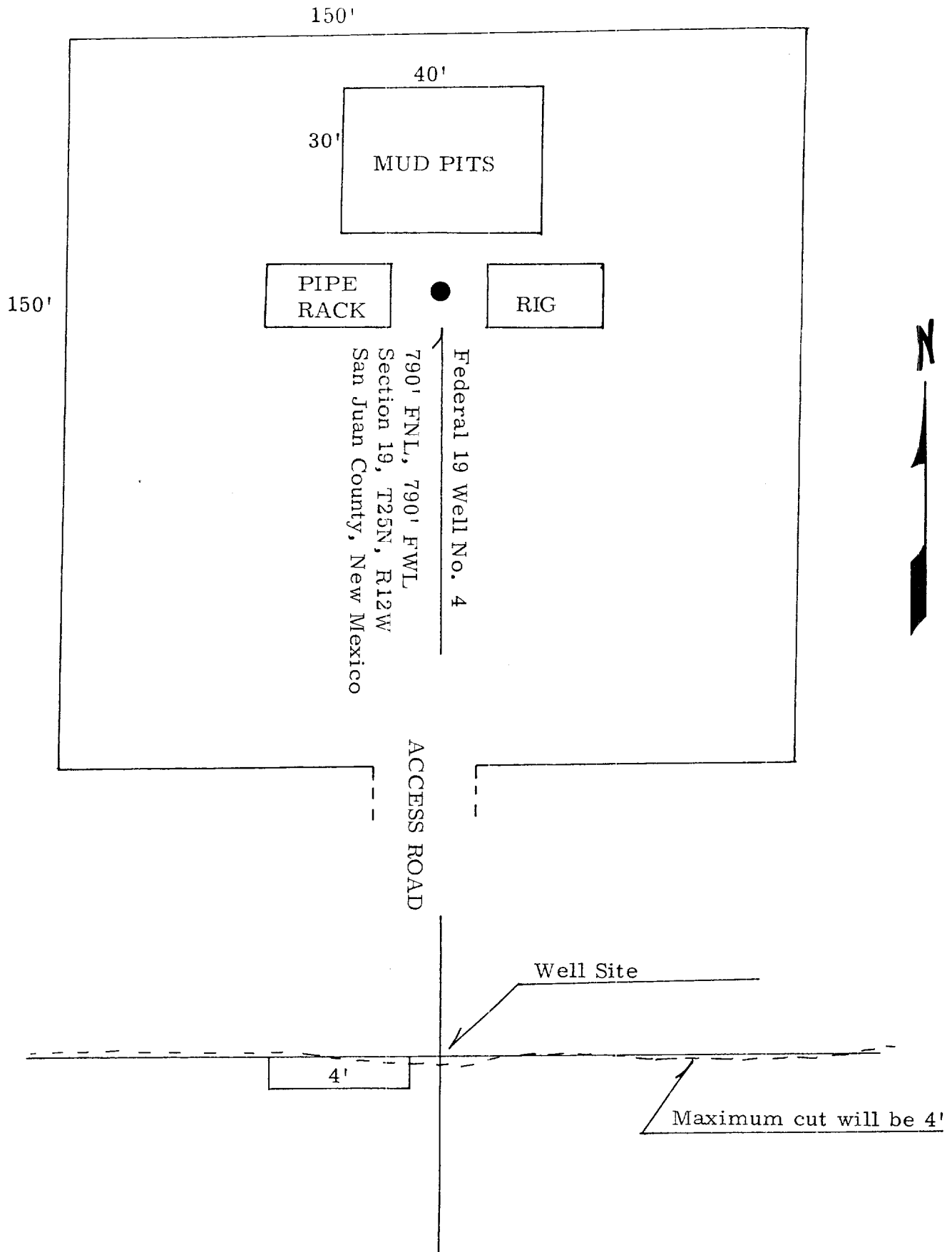


ALAMO MESA WEST
4356 / SW
SCALE 1:24,000
INTERIOR GEOLOGICAL SURVEY WASHINGTON D.C.
757000 E
1:18.0

Federal 19 Well No. 4



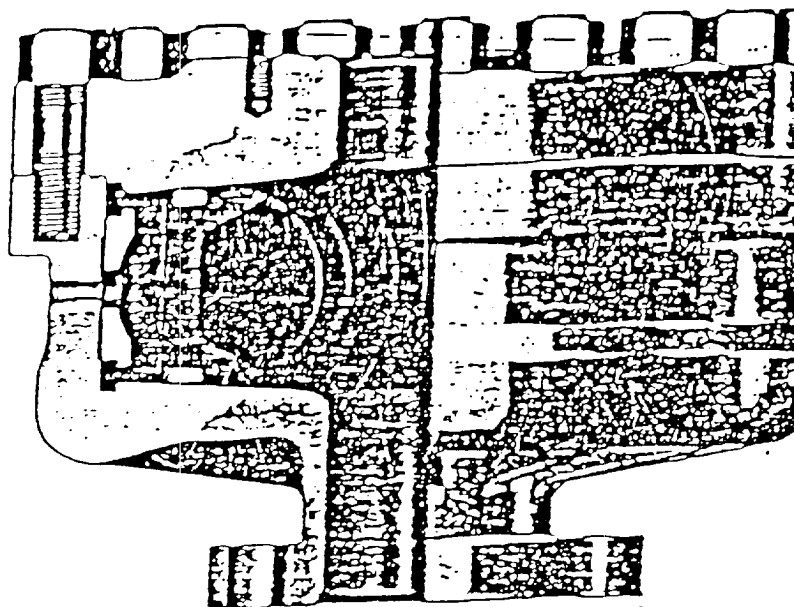
HIXON DEVELOPMENT COMPANY
DRILLING LOCATION PLAT
FEDERAL 19 WELL NO. 4



PROCEDURE

1. Run in after setting surface pipe and
pressure test to 1000 psi after drilling out
from under surface pipe.

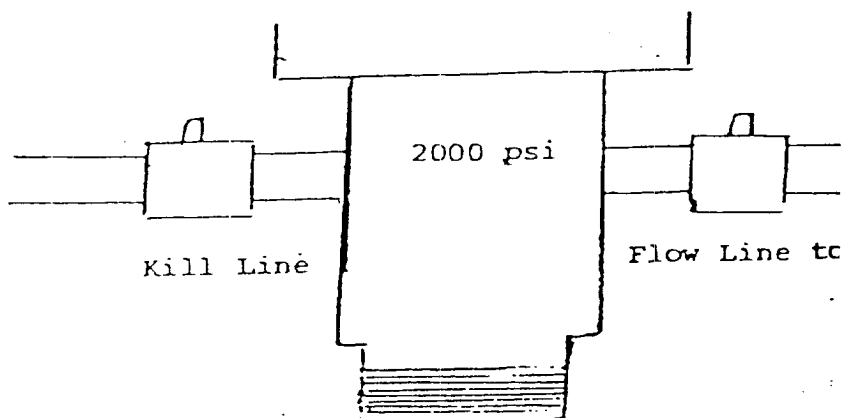
REGAN BLOWOUT PREVENTERS



The Regan Torus Blowout Preventer is used primarily on production and workover rigs for well control up to 3000 PSI working pressure

DESIGN FEATURES

- The Torus Preventer is designed for minimum height to facilitate its use with production and workover rigs.
- The rubber packer will conform to any object in the well bore. Sealing ability is not affected by minor damage to the inner bore.
- The packer will seal on open hole at full working pressure.
- The dual packer design increases the reliability of the preventer since the outer rubber is never exposed to the well bore. Under ordinary service, the outer packer is rarely replaced.



TORUS BLOWOUT PREVENTER PATENTED

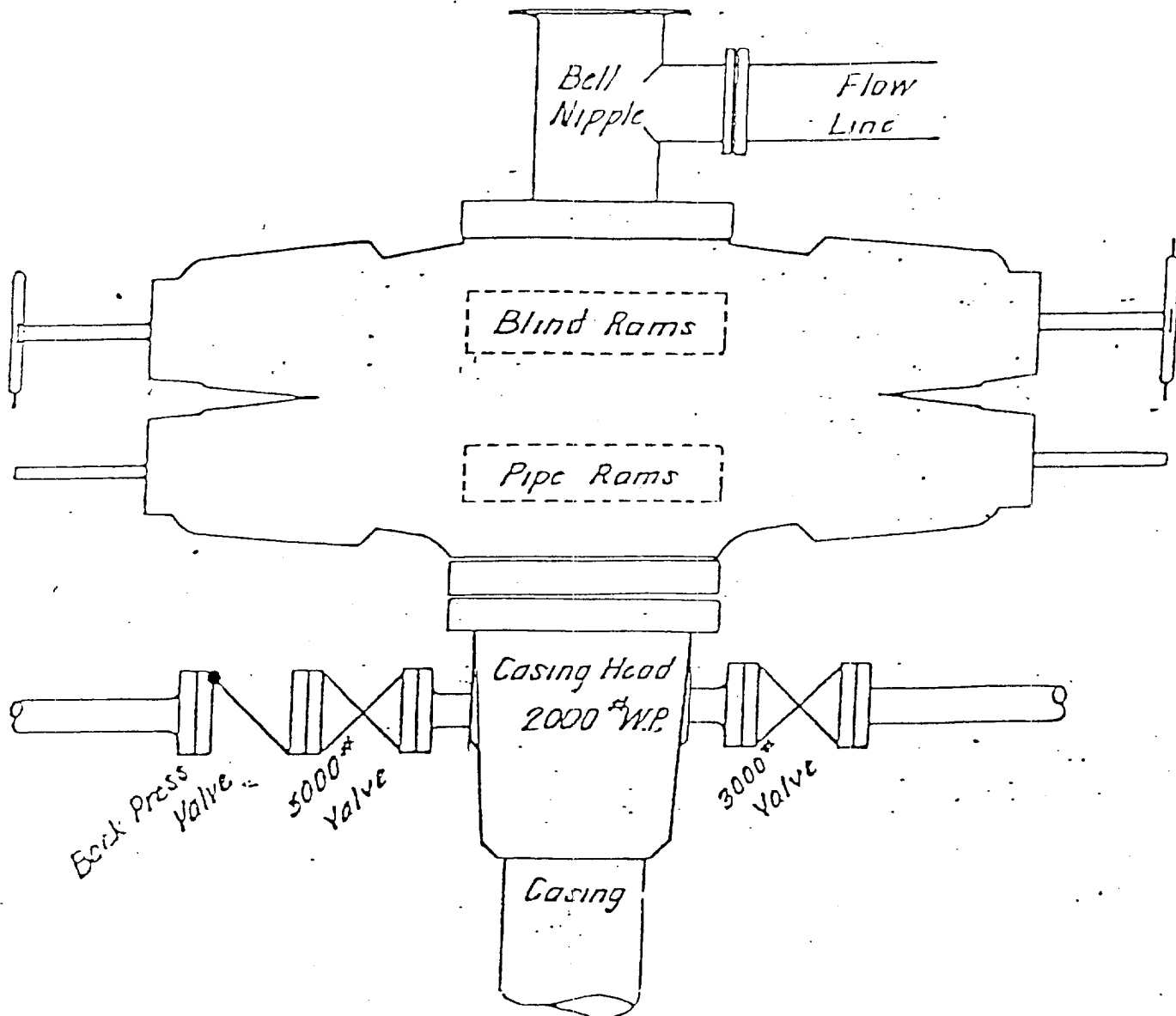
SPECIFICATIONS

Nominal Size	Test Pressure (psi)	DIMENSIONS (in.)			Weight (lb.)	End Flanges (I)	R/RX Ring Grooves	Side Outlet
		Outside Diameter	Thru Bore	Overall Height				
6	3000 6000	27 28 1/2	7 1/4 7 1/2	19 1/2 21 1/2	1360 1550	Nom. 6 Nom. 6	45 45	Nom. 2" L.P.

SCHEMATIC DIAGRAM

TESTING PROCEDURES

Install BOP after setting surface pipe and
pressure test to 1000 psi after drilling out
from under surface pipe.



Shaffer Double Gate Blow Out Preventer
3000 # W.P., 6000 # Test, Type E