

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Please submit 4 copies  
on future submissions

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE

1. TYPE OF WELL

OIL GAS  
☒ WELL ☐ WELL ☐ OTHER

2. NAME OF OPERATOR

QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.

1331 SEVENTEENTH STREET, SUITE 800, DENVER, CO 80202 303-672-6900

4. LOCATION OF WELL (FOOTAGE, SEC., T., R., M., OR SURVEY DESCRIPTION)

1850' FSL 800' FWL Sec 34 T23N R7W NMPM

5. Lease Serial No.

NMNM-6682

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
Federal B #4

9. API Well No.

30-043-20340

10. Field and Pool, or Exploratory Area

Alamito Gallup

11. County, Parish, State

Sandoval, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize ☐ Deepen ☐ Production (Start/Resume) ☐ Water Shut-Off  
☐ Alter Casing ☐ Fracture Treat ☐ Reclamation ☐ Well Integrity  
☐ Casing Repair ☐ New construction ☐ Recomplete ☐ Other  
☐ Change Plans ☒ Plug and Abandon ☐ Temporarily Abandon  
☐ Convert to Injection ☐ Plug Back ☐ Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, A Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Plug and abandon per attached procedure.

SEE ATTACHED FOR  
COMPLETION OF PLUG AND ABANDON



14. I hereby certify that the foregoing is true and correct  
(Name (Printed Type))

Title Sr. Petroleum Engineer

Signature

Date

04-Apr-01

(This space for Federal or State office use)

Approved by

Title

PE

Date

5/18/01

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

ICFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

OPERATOR

if this is  
duplicate  
To SS

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# Plug & Abandonment Procedure

**Federal B-4**

**API – 30-043-20340**

**Alamito Gallup**

**1850' FSL 800' FWL Sec 34 T23N R7W NMPM**

**Sandoval County, New Mexico**

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures.

1. Install and test location rig anchors. Prepare blow pit. Comply with all NMOCD, BLM and Questar safety regulations. MI and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line. Blow down well, kill with water as necessary.
2. ND wellhead and NU BOP, test.
3. TOH and tally 2 3/8" tubing and visually inspect.
4. Run 3.625" gauge ring to determine max depth obtainable with CIBP.
5. **Plug #1 (Gallup perforations ( 4932, 4936, 4940, 5051, 5054, 5058, 5074.5, 5092, 5114, 5134, 5150) and top – 4880')**: TIH with tubing and 4 1/2" CIBP. Set CIBP at ± 4880' or at max obtainable depth. Load casing with water. Pressure test casing to 500 psi. If casing does not test, spot or tag subsequent plug as appropriate. Spot cement plug inside casing above the CIBP with enough cement to bring the top of the Gallup plug to <sup>4694'</sup> ~~4830'~~. TOH with tubing.
6. **Plug #2 (Mesaverde top, 2980')**: Perforate 3 squeeze holes at 3030'. TIH with w/ 2 3/8" work string to ±2930'. Establish rate into squeeze holes and place the Mesaverde plug from 3030' – 2930' inside and outside the 4 1/2" casing. TOH with tubing.
7. **Plug #3 (Pictured Cliffs and Fruitland tops, 1456' – 1232')**: Perforate 3 squeeze holes at 1500'. TIH with w/ 2 3/8" work string to ±1182'. Establish rate into squeeze holes and place the Pictured Cliffs/Fruitland plug from 1500' – 1182' inside and outside the 4 1/2" casing. TOH with tubing.
8. **Plug #4 (Kirtland and Ojo Alamo tops, 1099' – 938')**: Perforate 3 squeeze holes at <sup>1083'</sup> ~~1149'~~. TIH with w/ 2 3/8" work string to ±918'. Establish rate into squeeze holes and place Kirtland/Ojo Alamo plug from <sup>1083'</sup> ~~1149'~~ – <sup>918'</sup> ~~938'~~ inside and outside the 4 1/2" casing. TOH with tubing.
9. **Plug #5 (Nacimiento top, surface; 8 5/8" casing shoe at 142')**: Perforate 3 squeeze holes at 300'. Establish circulation out bradenhead valve. Mix and pump cement down the 4 1/2" casing from 300' to surface. Circulate good cement out bradenhead valve. Shut-in well and WOC.
10. ND BOP and cut off wellhead below surface casing. Install P&A marker to comply with regulations. RDMOSU, cut off anchors and restore location.

## Federal B-4

1850' FSL 800' FWL Sec 34 T23N R7W NMPM  
Sandoval County, New Mexico

GR: 6886'

Spud date: April 21, 1979

Schematic - not drawn to scale

### Surface Casing:

8-5/8" 24# @ 142',  
cmt w/ 100 sx Class B Cement, 2% CaCl<sub>2</sub>, 1/2 pps Flocele

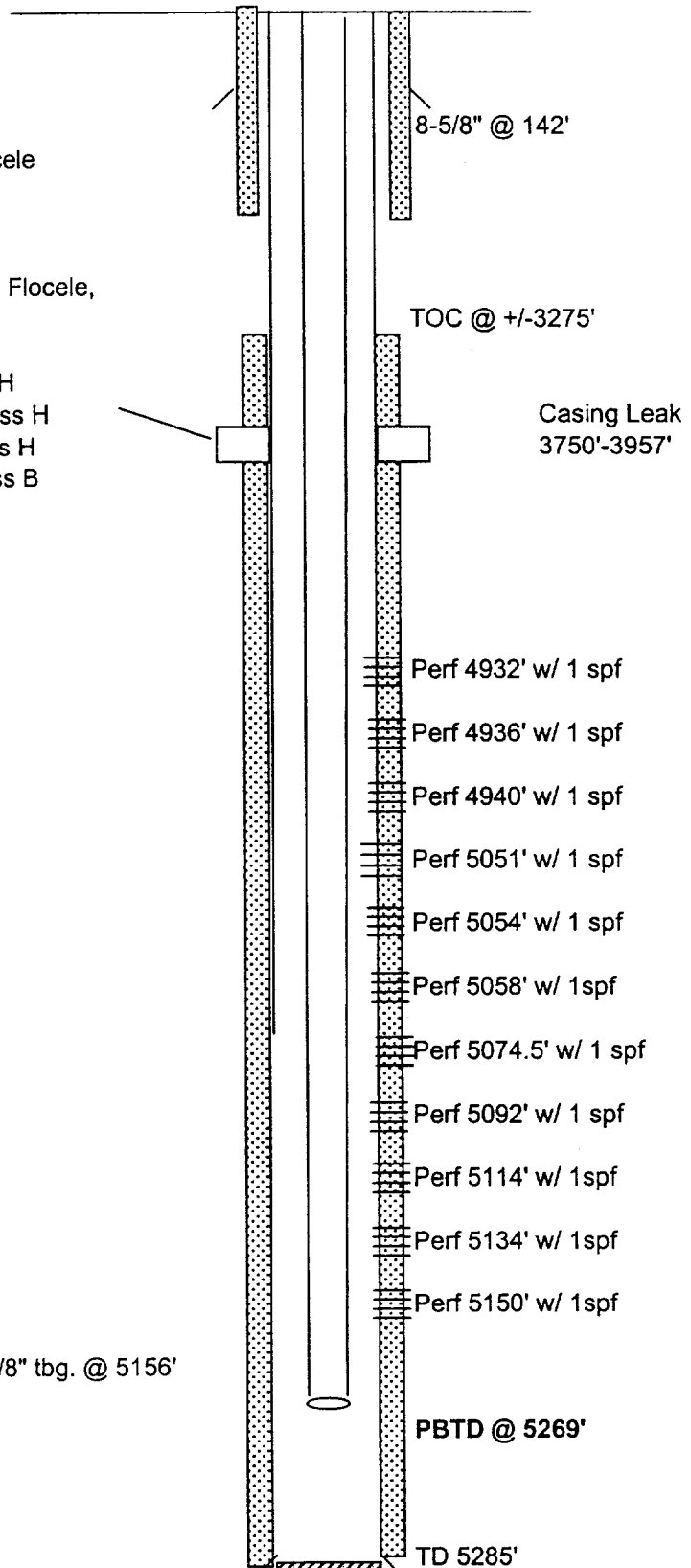
### Production Casing

4-1/2" 10.5# @ 5285',  
cmt w/ 175 sx Class B w/ 2% CaCl<sub>2</sub>, 8 pps salt, 1/2 pps Flocele,  
and 6 1/4 pps Gilsonite. TOC = 3275

Squeeze Job 9/82 on Leak @ 3768-83'. 300sks Class H  
Squeeze Job 5/88 on Leak @ 3892-3938'. 200 sks Class H  
Squeeze Job 10/88 on Leak @ 3910-35'. 100 sks Class H  
Squeeze Job 9/92 on Leak @ 3750'-3957'. 30 sks Class B

### Perforation Record

Depth	SPF
4932	1
4936	1
4940	1
5051	1
5054	1
5058	1
5074.5	1
5092	1
5114	1
5134	1
5150	1



## BLM CONDITIONS OF APPROVAL

The following surface rehabilitation Conditions of Approval must be complied with as applicable, before this well can be approved for final abandonment (see 43 CFR 3162.3-4). **Surface rehabilitation work shall be completed within one year of the actual plugging date. Notification for completion of this work can be submitted with a Sundry Notice.**

1. All fences, production equipment, purchaser's equipment, concrete slabs, deadman (anchors), flowlines, risers, debris and trash must be removed from the location.

2. Production pits will be closed according to the Unlined Surface Impoundment Closure Guidelines, as approved in the Environmental Assessment of December 1993. Any oil stained soils may be remediated on-site according to these guidelines or disposed of in an approved disposal facility.

3. The well pad will be shaped to the natural terrain and left as rough as possible. All compacted areas and areas devoid of vegetation shall be ripped to a minimum of 12" before seeding.

4. Access roads will be shaped to conform to the natural terrain and left as rough as possible to detour vehicular travel. Access will be ripped to a minimum of 12" in depth and waterbarred prior to seeding. All erosion problems created by the development must be corrected prior to acceptance of release. Waterbars should be spaced as shown below:

% Slopes	Spacing Interval
Less than 20%	200'
2 to 5%	150'
6 to 9%	100'
10 to 15%	50'
Greater than 15%	30'

All water bars should divert to the downhill side of the road.

5. All disturbed areas will be seeded with the prescribed certified seed mix (reseeding may be required).

6. Notify Surfacing Managing Agency seven (7) days prior to seeding so that they may be present for that option.

7. The period of liability under the bond of record will not be terminated until the lease is inspected and the surface rehabilitation approved.

Other SMA's may vary slightly in their restoration requirements. It is your responsibility, as the operator, to obtain surface restoration requirements from other SMA's. We need to be provided with a copy of these requirements. Any problems concerning stipulations received from other SMA's should be brought to us.

On private land, we should be provided with a letter from the fee owner stating that the surface restoration is satisfactory.

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
FARMINGTON FIELD OFFICE  
1235 LA PLATA HIGHWAY  
FARMINGTON, NEW MEXICO 87401**

Attachment to notice of

Re: Permanent Abandonment

Intention to Abandon:

Well: 4 Federal B

**CONDITIONS OF APPROVAL**

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. Mike Flanikan with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 599-8907.

3. The following modifications to your plugging program are to be made:

a) Bring the top of the Gallup plug to 4694'.

b) Place the Pictured Cliffs/Fruitland plug from 1547' - 1182' inside and out side the 4 ½" casing.

c) Place the Kirtland/Ojo Alamo plug from 1083' - 878' inside and out side the 4 ½" casing.

You are also required to place cement excesses per 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.

GENERAL REQUIREMENTS FOR  
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES  
FARMINGTON DISTRICT OFFICE

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Farmington District office, *Branch of Drilling & Production*.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured.

3.0 A tank or approved pit must be used for containment of any fluids from the wellbore during plugging operations and all unattended pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any constituent(s) of concern.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by: (1) tagging with the work string, or: (2) for cased holes only; pressuring to a minimum surface pressure of 500 PSI, with no more than a 10% drop during a 15-minute period.

5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.