November 1983) Formerly 9=331) DE	DEPARTMENT OF THE INTERIOR (Other Instructions on BUREAU OF LAND MANAGEMENT				8. LEASE DESIGNATION AND BREIAL NO.  14-20-603-4909		
SUNDRY NOTICES AND REPORTS ON WELLS  (Lio not use this form for proposals to drill or to deepen or plug back to a different reservoir.  Use "APPLICATION FOR PERMIT—" for such proposals.)					6. IF INDIAN, ALLOTTES OR TRIPS HAME		
	"APPLICATION FOR PERM	IT—" for such pr	oposala.)		/ajo		
OIL WELL OTHER  2. NAME OF OPERATOR					Horseshoe Gallup Unit		
ARCO OIL & GAS COMPANY, A Division of Atlantic Richfield 3. ADDRESS OF OPERATOR					Horseshoe Gallup 9. Wass No.		
1816 E. Mojave, Farmington, NM 8740]  1. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)					251 10. FIBLE AND POOL, OR WILDCAT		
See also space 17 below.) At surface	location clearly and in acco		Horseshoe Gallup 11. BBC, T, R, M, OR BLE. AND SURVEY OR AREA				
20	55 FSL, 2115 FWL			Sec. 2	2. T30N. R16W		
4. PERMIT NO.	15. BLEVATIONS	(Show whether av.	ET, CE, etc.)	12. 000	FTT OR PARISE 18. STATE		
		5593' ( <b>G</b> R)		I San C			
s. (	Theck Appropriate Box	To Indicate N	lature of Notice, Report	, or Other Da	ıta		
NOTIC	S OF INTENTIAL TO:		1	DRANGUNT EXPO	PRT OF:		
TEST WATER BEUT-OFF	PULL OR ALTER CA	SING	980-Tube extem	_	ALTERING CARING		
PRACTURE TREAT	MULTIPLE COMPLE	X	PRACTURE TREATMENT	11	VBVHDONMERL.		
SHOOT OR ACIDEES	CHANGE PLANS		(Other)				
		1 1	{NOTE: Meport	Lesgitz or marri	ts of multiple completion on Well spletion Report and Log form.)		
(Other)  17. DESCRIBE PROPOSED OR COMproposed work. If well near to this work.)  The subject A proposed Once pluggi	well will be plugging procedur	ugged upon	t details, and give pertinentions and measured and true  ARCO receiving Cohed for your rev	t dates, including the vertical depths  Co-Owner apview and ap	g estimated date of starting a for all markers and somes per		
(Other)  17. DESCRISE PROPOSED OR COMproposed work. If well nent to this work.)  The subject	well will be plupaing procedur	ugged upon	t details, and give pertinentions and measured and true  ARCO receiving Cohed for your rev	t dates, including vertical depths  Co-Owner apview and ap	g estimated date of starting a for all markers and somes per		
(Other)  17. DESCRISE PROPOSED OR COMproposed work. If well near to this work.)  The subject A proposed Once pluggi	well will be plupling proceduring is complete, i	ugged upon re is attac reseeding v	t details, and give pertinentions and measured and true  ARCO receiving Cohed for your rev	t dates, including vertical depths to-Owner apriew and apriew and apriew BLM  SE	g estimated date of starting a for all markers and sones per		
The subject A proposed Once pluggi standards.	well will be plugging proceduring is complete, i	SEE ATT	Completion or 1 t details, and give pertinent thous and measured and true  ARCO receiving Cohed for your rev will be completed.	t dates, incloding vertical depths to-Owner apriew and apriew and apriew BLM  SECOIL O	proval.  proval.  proval.  proval.  proval.  proval.  proval.		
The subject A proposed Once pluggi standards.	well will be pluplinging proceduring is complete, in	SEE ATT	Completion or 1 t details, and give pertinent those and measured and true  ARCO receiving Cohed for your rev will be completed.	t dates, incloding vertical depths to-Owner apriew and apriew and apriew BLM  SECOIL O	proval.  proval.  proval.  proval.  proval.  proval.  proval.		
The subject A proposed Once pluggi standards.	well will be pluplinging proceduring is complete, in	SEE ATT	Completion or 1 t details, and give pertinent thous and measured and true  ARCO receiving Cohed for your rev will be completed.	t dates, incloding vertical depths to-Owner apriew and apriew and apriew BLM  SECOIL O	proval.  proval.  proval.  proval.  proval.		
The subject A proposed Once pluggi standards.	well will be plupling proceduring is complete, in	SEE ATT	Completion or 1 t details, and give pertinent thous and measured and true  ARCO receiving Cohed for your rev will be completed.	t dates, incloding vertical depths to-Owner apriew and apriew and apriew BLM  SECOIL O	proval.  proval.  proval.  proval.  proval.  proval.  proval.		

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 United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

HORSESHOE			 	
SPUDDED: 03/13/61	WELLBORE IN IT:		 TVSP:	30N RG: 16W
COMPLETION DATE: 03/27/61				
GL: 5593' KB: 5599'				
TUBING: DATE LAST PULLED: 08/02/65			4 JTS: (86')	FACE CASING; 8-5/8" 28# J-55 SET @ 94' W/100 s mt, Circulated to
51 JTS: 2-3/8" 8RD j-55 1 SEATING NIPPLE 1 MUD ANCHOR	1579.76' .80' 8.10' 1588.66' 6.00'			500# for 30 minute
	{		PROD	UCTION CASING:
			(1645') SET	1/2" 15.5 J-55 @ 1651' W/50 sx 50 sx Pozmix.
RODS:				for 30 minutes. BY TEMPERATURE
DATE LAST PULLED: 07/31/70	-		5521 @ 12	
RODS & PUMP PULLED OUT AND MOVED YARD.	то	) }		
			PERF	ORATION:
		\{\begin{align*} \cdot \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	1568'-15	96' W/2spf
PUMP:				
DATE LAST PULLED:				

PUMP DEPTH:\_

TD: \_\_\_\_\_1651'

PBD:\_

1617'

## HORSESHOE GALLUP UNIT PRODUCING WELLS PLUGGING AND ABANDONMENT PROCEDURE

- 1) Move pumping unit off location.
- 2) MIRU. Pull rods and downhole pumping equipment.
- 3) RIH below the bottom perforation w/tbg. open ended. Pump sufficient cement inside casing to cover top perforation by 50°.
- 4) POH w/tbg. GIH w/wireline and perforate casing as specified by New Mexico Oil Commission. Number of shots should be sufficient to allow cement squeeze. POH w/wireline. GIH w/tbg. open ended. Squeeze cement to provide plug inside and outside of casing to surface.  $\int e \int e^{-\frac{\pi}{2}} dx \, dx$
- 5) POH w/tbg. Cut casing one foot below ground level. Weld a blind flange to casing, and weld a dry hole marker on blind flange. Fill hole and move off.
- 6) Rehabilitate location and access road using stipulations supplied by the Bureau of Land Management.

## BUREAU OF LAND MANAGEMENT 1235 La Plata Highway Farmington, New Mexico 87401 Phone (505) 327-5344

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

Well: 251 Horseshoe Gally Un. t

## CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
- 2. <u>Gill Blackerd</u> with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 327-5344.
- 3. Blowout prevention equipment is required.
- 4. The following modifications to your plugging program are to be made (when applicable):

## GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON RESOURCE AREA

1. Secure prior approval either on a Sundry Notice (Form 3160-5) or verbally from the Fluids Drilling & Production Section at this office before changing the approved plugging program.

40 € (3<sup>2</sup> × 1 × 2 × 1 × 1 × 1

- 2. Plugging equipment used shall have separate mixing and displacement pumps and a calibrated tank to assure proper displacement of plugs. The Operator is responsible for providing all measuring devices needed to assure proper measurement of materials being used.
- 3. A proper tank or pit will be used to contain all fluids pumped from the well during plugging operations. Unattended pits are to be fenced.
- 4. All cement plugs are to be placed through tubing (or drillpipe) and shall be a minimum of 100 feet in length with 50% excess inside casing or 100% excess when plug is set in open hole or squeezed into perforations. 15.6%/gal slurry weight is to be used when using class B neat cement or when CaCl<sub>2</sub> is used. Use the recommended slurry weight of other type cements when they are used (Class C, Pozzolan etc.).
- 5. Any cement plugs placed when well is not full of fluid, or when well may be taking fluid, (i.e. across perfs-unless bridge plug or retainer is used, across bad csg., or fresh water formations) will be tagged (touched) after cement has set to verify proper location.
  - 5a. Testing The first plug below the surface plug shall generally be tested by either tagging the plug with the working pipe string, or pressuring to a minimum pump (surface) pressure of 1000 psig, with no more than a 10 percent drop during a 15-minute period (cased hole only). If the integrity of any other plug is questioned, it must be tested in the same manner. Also, any cement plug which is the only isolating medium for a fresh water interval or a zone containing a valuable mineral deposit should be tested by tagging with the drill string.
- 6. Mud must be placed between plugs. Plugging mud is to be made up with a minimum of 15 lbs/bbl of sodium bentonite, and a nonfermenting polymer.

  Minimum consistency of plugging mud must be 9 lbs/gal and with a minimum viscosity of 50 sec/qt. Fresh water is to be utilized for mixing mud.
- 7. Following the placement of a cement plug, the withdrawl rate for at least the length of the cement plug shall not exceed 30 ft/min, in order to minimize the contamination of the plug.