Form 31:50-5 (June 1990)

Approved by \_\_\_\_\_\_\_\_ Conditions of approves, if any:

## UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED Budget Bureau No. 1004-0135

AREA MANAGER

Expires:	March	31.	1993	
Larra Davis		~	sel No	

SUBM	IIT IN TRIPLICATE	FAUnit or CA, Agreement Designation
Type of Well Oil Gas		8. Well Name and No.
Weil Other		Graham C WN Federal Com
Name of Operator  Arco Oil and Gas Company.	, a division of Atlantic Richfield Co.	9. API Weil No.
Address and Telephone No.		30-045-06672
1816 E. Mojave, Farmington, New Mexico 87401		10 Field and Pool. or Exploratory Area Blanco Mesa Vende and
Location of Well (Footage, Sec., T., R., M., or Survey	Description)	Blanco Pictured Cliffs 11. County or Parish, State
Unit H (SE NE) 1850' FNL	and 1165' FEL	*
Sec. 9, T27N, R8W		San Juan, New Mexico
CHECK APPROPRIATE BO	X(s) TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	X Abandonment	Change of Plans
	Recompletion	New Construction
Subsequent Report	Plugging Back	Non-Routine Fracturing
	Casing Repair	Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to injection
	Other	Dispose Water     Dispose Water
		Completion or Recompletion Report and Log form.)
Describe Proposed or Completed Operations (Clearly state give subsurface locations and measured and true vi	te all pertinent details, and give pertinent dates, including estimated date of start errical depths for all markers and zones pertinent to this work.)*	ng any proposed work. If well is directionally drilled.
give subsurface locations and measured and true vi	procedure for the subject well. Upon	
Attached is a plugging	procedure for the subject well. Upon his well.	

Title 18 U.S.C. Section 1001, makes at a crume for any person knowingly and willfully to make to any department or agency of the United States any raise, fictinous or fraudulent statements or representations as to any matter within its surradiction.

Tide

Plugging Procedure - Graham C Comm. # 1 ARCO NE. Sec. 9, T27N, R8W

Note: All cement plug volumes include excesses of 150 % for inside casing plugs; and 200 % for external.

Mud, 9.0 ppg, will separate all cement plugs.

#### Procedure:

- 1. MO RU; Blow well down; ND wellhead; NU BOPs.
- Pull out of hole with tubing and Brown Oil Tool Packer; inspect and tally tubing; LD packer and sliding sleeve.
- 3. Round trip 4-3/4" bit to 4200' to check casing gauge.
- 4. PU and RIH with 5-1/2" cement retainer and set at 4200'.
- 5. Plug #1 MV open hole interval from 4200' to 4750' with 83 sacks Class B neat cement; leave 6 sxs cement on top of CR.
- 6. POO cement then circulate hole and spot mud from 4150' to 3838', 7 bbls.
- 7. Plug #2 MV top from 3838' to 3738' with 17 sacks Class B cement.
- 8. P00 cement to 3688' and spot mud from 3688' to 2201', 34 bbls. Pull tubing up to 2201'.
- 9. Plug #3 PC perfs and top from 2201' to 2084' with 20 sacks Class B cement.
- 10. POO cement; WOC and then tag cement.
- 11. Spot mud from top of cement to 1925', 4 bbls; POOH to 1800'.
- 12. Rig up wireline unit and perforate squeeze holes at 1925'.
- 13. Plug #4 Fruitland top from 1925' to 1825' with 46 sacks cement, POO cement and squeeze 29 sacks outside casing.
- 14. WOC then tag cement. Spot mud from top of cement to 1230', 14 bbls.; POOH to 1100'.
- 15. Rig up wireline unit and perforate squeeze holes at 1230'.
- 16. Plug #5 Ojo Alamo top from 1230' to 1130' with 46 sacks cement, POO cement and squeeze 29 sacks outside casing.
- 17. WOC then tag cement. Spot mud from top of cement to 262', 20 bbls.; PBOH to 262'.

Plugging Procedure - Graham C Comm. # 1 ARCO NE, Sec. 9, T27N, R8W

- 18. Rig up wireline unit and perforate squeeze holes at 262'; establish circulation out bradenhead valve.
- 19. Plug #6 262' to surface with sufficient volume to circulate, approximately 83 sacks.
- 20. Cut off wellhead and install P&A marker; RD and move off.
- 21. Restore location and reseed per BLM stipulations.

#### UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA 1235 LA PLATA HIGHWAY FARMINGTON, NEW MEXICO 87401

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

Well: 1 Graham C WN Feel con

### CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
- 2. With the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 326-6201.
- 3. Blowout prevention equipment is required.
- 4. The following modifications to your plugging program are to be made (when applicable):

Relocate Ojo Alamo pluz as follows;

Perf @ 1448 (50' below base of Ojo Alamo)

Pluz from 1448-1310 inside & outside 5/2" Casing.

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

# 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.
- 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.

- 8. Within 30 days after plugging work is completed, file a Sundry Notice (Subsequent Report of Abandonment, Form 3160-5), in quintuplicate with Area Manager, Bureau of Land Management, 1235 La Plata Highway, Farmington, NM 87401. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date well was plugged.
- 9. All permanently abandoned wells are to be marked with a regulation marker (4" pipe extending 4' above the ground line) containing the information as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10. After plugging work is completed the surface is to be rehabilitated in accord with instructions from the Fluids Surface Management Section of the Farmington Resource Area Office.

All above are minimum requirements. The period of liability under the bond of record will not be terminated until the lease is inspected and surface work approved.

Please advise this office when the well location is ready for final inspection.

Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1.

You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.