Form 3160-5 (November 1983) (Formerly 9-331)

This space for Federal or State office use)

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY .

UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN TRIPLICATES (Other instructions on reverse side)

Form approved. Budget Bureau No. 1004-0135 Expires August 31 1985

Dec. 15, 1984

DATE _

(Formerly 9-331)		TMENT OF TH EAU OF LAND MA		R verse side)		-20-603-		AL NO.
Do not use	SUNDRY NO	TICES AND R	EPORTS OF	N WELLS is to a different reservoir.		Navajo		S NAME
1.	Use "APPLI	CATION FOR PERSI	1 - (b) tues prop		-	UNIT AGREEMENT	_	
OK 📆 6.	AS - OTRES				НС	Horseshoe Gallup Uni		
2. NAME OF OPERA		l and Gas C	ompany, D	iv. of	3.	PARM OR LEASE N	FAME	
	Atlanti	c Richfield	Company			rseshoe (<u>Gallup</u>	<u>Uni</u> t
3. ADDRESS OF OPS	/0/-1/	th Street,	20	00017			290	
4. LOCATION OF WE	P O B	ox 5540. De	iance with any St	ate requirements.		PIELD AND POOL		=
See also space l At surface	LT below.)		الأنكا	ECELVE		Horse	shoe G	allup
See also space 17 below.) At surface Unit M, 312' FSL & 323' FWL, Sec. B3E CELY D						11. SEC., T., R., M., OR REK. AND SURVEY OR AREA		
				02030994		Sec. 33-3	1N-16W	
14. PERMIT YO.		15. SLEVATIONS (S	bow whether of	(AS) (CA)	12.	COUNTY OR PARI	EE 13. STA	.TZ
API#30-0	45-21926	5331' GF	(a) 4-	MING	Sa	an Juan	N.M	i .
16.	Check A	Appropriate Box T	o Indicate Nat	ture of Notice, Repor	t, or Other	Data		
	NOTICE OF INT	, .	1	, ,	AUBBREUTENT			
TEST WATER SI	8.UT-022	PCLL OR ALTER CASI	Ng -	WATER SHUT-OFF		REPAIRING		
PRACTURE TREA		MULTIPLE COMPLETE		PRACTURE TREATMEN	· 🗀	ALTERING	,—	
SHOUT OR ACID	128	ASANDON®	_	SECOTING OR ACIDIZI		*BYNDON?		_
REPAIR FELL		CHANGE PLANS		(Other) Work		see below		
Other/		nes esove Cleanie se	are all passinguit	Completion or letails, and give pertinen	Recompletion	Beport and Lug	form.;	
proposes wor	k. If well is direc	ctionally drilled, give	subsurface location	is and measured and true	vertical de	the for all mark	ers and son	es beig-
*Stimula	te present	Lower Gal	lup perfs	and addition	ally c	omplete		
Upper G	allup Sand	<u>i</u>						
Complete	d ctimulat	tion of pre	sent Lowe	r Gallup Perf	s and	additiona	ally	
complete	d the linne	er Gallup Sa	and as pe	r our Sunary	Notice	, and wor	- V _	
over pro	cedure, da	ated 11-19-	82, and a	pproved by th	ne BLM	on 12-14-	-82.	
Tested a	ind return	ed well to	productio	n.				
10	ached dai	ly workover	report f	or details.)				
(See all	ached dar.	ry workever	1070-0 -					
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TITLE District Prod. Sup't.

TITLE .

Horseshoe Gallup Unit. "B"

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2/24/83

MI RU PU. POOH rods & pump & 39 jts. 2 7/8" EUE 8R tbg. No signs of scale.

PU 4 3/4" OD bit & Baker model C-3, size 12B csg. scraper. RIH to PBTD at 1260'.

RU Nowsco and circulated hole. Returns mostly water w/ iron sulfide. Pumped total of 80 bbls; got clean returns. Broke circ. & POOH. LD bit & scraper.

RU Welex 4" guns & RIH. Perf'ed Lower Gallup f/ 1206'-42' w/ 2 jet SPF. POOH, RD.

Pumped 40 bbls water w/ 55 gal. S-271 scale inhib. w/ Nowsco unit. Displaced into perfs 1206'-42' w/125 bbls. water. Pumped 3-4 bpm at 350-400 psi. SI 30 min, then bled pressure.

PU Baker model C size 45B RBP on tbg. RIH to 1160' and set. POOH to 1135'. Tested plug & csg to 1280 psi w/ Nowsco unit, Spotted 500 gal. 15% HCI w/2gal. NAI-161 inhib., ½ gal. NNE-257 surfactant, 10# NIS-546 iron seq. POOH.

RU Welex 4' guns & RIH. Perfed Upper Gallup f/ 1114'-38' w/2 jet SPF. POOH, RD.

Displaced acid into perfs 1114'-38' w/28 bbls. water. Pumped 3 bpm at 300 psi. SFN.

2/25/83

RU Nowsco & broke down formation w/24 bbls. 2% KCl water, pumped 21 bpm at 300 psi. SD pumping for 2 min, ISIP 100 PSI. Frac'd down 5½" csg. w/ 10,000 gal. cross-linked 20#/1000 gal. and 27,800# 10/20 sand. Pumped as per fluid schedule:

BBLS.	PROP.	PROP.	RATE	PRESS.
48	Pad		22.5 bpm	580 psi
17	10/20	1 ppg	22.5 "	570 "
19	ti [*]	2 "	22.5 "	540 "
24	11	3 "	22.3 "	530 "
59	11	4 "	22.0 "	490 "
59	11	5 "	21.8 "	520 "
27	Flush		22.4 "	520 "

SD pumping. ISIP-300 psi.

After 5 min 230 10 " 210 15 " 200

RD Nowsco. Will allow gel to break overnight.

2/26/83

Bled csg., flowed a few gallons water. PU Baker size 3-5/8" Depck hydrostatic tubing bailer & RIH, tagged sand at 1100', CO to 1160', POOH to 1100'. Waited approx. 2 min. RIH again to 1160', could not detect fill-in. Latched & pulled Baker Model C, size 45B RBP. POOH.LD hyd. bailer & RBP.

Prepared to run pumping equipment. RIH w/ tbg. to 1200; tagged soft fill-in.

PU Baker hyd. tbg. bailer and RIH. CO to PBTD at 1260'. POOH. LD hyd. bailer.

Ran tbg. as follows:

1 jt. 2 7/8" EUE 8R J-55 6.5#	16.70
1 S.N. 2 7/8" EUE 8R	1.10
38 jts. 2 7/8" EUE 8R J-55 6.5#	1180.94
1 pup jt. 2 7/8" EUE 8R	8.10
1 jt. 2 7/8" EUE 8R	31.07
-	1237.91

2/26/83

RKB to THF

 $\frac{9.00}{1246.91}$

Ran rebuilt pump on same rod string:

1-2½ x 2 x 12 RWAC pump 48 7/8" x 25' plain rods 1-7/8" x 6' pony 1-7/8" x 8' 1-1½ x 16' P.R. w/ liner

Spaced pump and resumed pumping. RD PU.

Well back on production, 2/26/83.

Well Test 3/17/83: 21 BO, 288 BW, 24 hr. test.

FINAL REPORT