

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.

1. oil ☒ gas ☐  
well well other
2. NAME OF OPERATOR ARCO Oil and Gas Co., Div.  
of Atlantic Richfield Company
3. ADDRESS OF OPERATOR 707 - 17th Street,  
P.O. Box 5540, Denver, Colo. 80217
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17  
below.) Unit J,  
AT SURFACE: 2540' FSL & 2570' FEL, Sec. 30  
AT TOP PROD. INTERVAL: Appx. same  
AT TOTAL DEPTH: Appx. same
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,  
REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

TEST WATER SHUT-OFF  
FRACTURE TREAT  
SHOOT OR ACIDIZE  
REPAIR WELL  
PULL OR ALTER CASING  
MULTIPLE COMPLETE  
CHANGE ZONES  
ABANDON\*

SUBSEQUENT REPORT OF:

RECEIVED

DEC 10 1982

(NOTE: Report results of multiple completion or zone  
change on Form 9-330.)

U. S. GEOLOGICAL SURVEY  
FARMINGTON, N. M.

U. S. GEOLOGICAL SURVEY  
OIL AND GAS OPERATIONS  
REGION

NOV 22 1982

GRAND JUNCTION, COLORADO

(other) Stimulate present Lower Gallup perfs and additionally complete  
Upper Gallup Sand

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

ARCO Oil and Gas Co. desires to re-perforate and acidize the Lower Gallup perforations in the subject well; and attempt additional completion by perforating and fracing the Upper Gallup Sand.

Attached is the planned Workover Procedure and a GR-Compensated Formation Density Log, showing the proposed re-perforations in the Lower Gallup and the proposed perforations in the Upper Gallup Sand.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED S. C. Rose TITLE Dist. Prod. Supt. DATE November 19, 1982

APPROVED

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL \_\_\_\_\_

JAMES F. SIMS  
DISTRICT ENGINEER

\*See Instructions on Reverse Side

11/10/82

Workover Procedure:

1. MIRU. Pull rods, pump and tbg. Note what kind of scale is present. Clean out hole to PBTD w/casing scraper.
2. RIH w/casing perforating gun and perf opposite Lower Gallup f/1360-82' ELM w/2 0.5" JET SPF (44 shots) Use premium quality deep penetrating charges.
3. Run tbg and spot 500 gal 15% HCl. POH w/tbg. Displace acid into perfs. Do not overdisplace. Acid to contain surfactant and iron sequestering agent.
4. Wait one hour, then swab acid back.
5. Mix 1 drum of S-271 scale inhibitor with 40 bbls of water and displace into perforations w/125 bbls of water.
6. Set retrievable bridge plug @  $\pm$  1300' w/wireline. Pressure test plug and csg to 2000 psi.
7. RIH w/csg perforating gun and perf opposite Upper Gallup f/1246-76' w/2 0.5" Jet SPF (60 shots).
8. RIH w/tbg and spot 500 gal 15% HCl. Acid to contain surfactant. Pull tbg and rig up to frac down 5-1/2 csg.
9. Breakdown Upper Gallup formation with 1000-2000 gallons of pre-pad of slickwater, establishing a rate of 20 BPM. Shut-down for 2-minutes to obtain ISIP.
10. Frac down 5-1/2" casing at 20 BPM at approximately 1000 psi using 8000 gal low-residue cross-linked 20#/1000 gal gel and 21,200 pounds 10/20 sand. Frac fluid to contain 2% KCl, 2 gal/1000 gal non-emulsifier, and appropriate breakers.

Remarks:

- a. Internal yield for 5-1/2" 14# J-55 csg is 4270 psig and capacity is 1.025 gal/ft.
- b. Bacteriacide to be added to tank water at .25 gal/1000 gal prior to treatment.
- c. Radioactive sand to be added starting with 1 ppg stage.
- d.  $HHP = .0245 \times 1000 \times 20 = 490$ .
- e. Service Company to test fluid gelling and gel breaker agents prior to treatment.

Fluid Schedule

<u>Gals</u>	<u>Bbls</u>	<u>Prop</u>	<u>Prop Conc</u>	<u>Prop Wt.</u>	<u>Fluid</u>
2,000	48	Pad	---	---	Low Residue Cross Linked Gel
700	17	10/20	1 ppg	700#	"
800	19	10/20	2 ppg	1600#	"
900	21	10/20	3 ppg	2700#	"
1,800	43	10/20	4 ppg	7200#	"
1,800	43	10/20	5 ppg	9000#	"
1,275	30	Flush	---	---	2% KCl Water
9,275	268			21,200#	

11. Allow sufficient time for gel to break. Clean out sand to bridge plug.
12. Retrieve bridge plug. Run radioactive tracer log for post-frac survey.
13. Run pumping equipment, put well on test. (Upper and Lower Gallup commingled production).

Well Data:

Location: 2540' FSL, 2570' FEL, Section 30-31N-16W  
San Juan County, New Mexico

Elevation: GL-5546' KB-5557'  
Log measured from KB

Casing: 5-1/2" 14# J-55 set @ 1427' KB, cemented w/80 sx  
BJ-lite and 90 sx CL 'B'

Perfs: 1364-82' ELM(Lower Gallup)

Tubing:	1 Jt 2-7/8" EUE 8rd 6.5# J-55	28.94
	1 SN 2-7/8" EUE 8rd J-55	1.10
	42 Jts 2-7/8" EUE 8rd 6.5# J-55	1308.26
	1 Jt Sub 2-7/8" EUE 8rd J-55	5.75
	1 Jt Sub 2-7/8" EUE 8rd J-55	8.09
		<u>1352.14</u>
	RKB to tbg head collar	11.50
		<u>1363.64</u>

TD: 1427'

PBTD: 1398'

HSGU #286  
GR-Compensated Formation  
Density Log

