

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐  
b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ **Recomplete in Gallup & Commingale w/Dak. prod.**

2. NAME OF OPERATOR ARCO Oil and Gas Company, Div. of Atlantic Richfield Company

3. ADDRESS OF OPERATOR 707 - 17th Street,

P. O. Box 5540, Denver, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface SW SW, 890' FSL & 700' FWL

At top prod. interval reported below Appx. same

At total depth Appx. same

API #30-039-21959

14. PERMIT NO. DATE ISSUED  
Mr. Millenbach 2/17/84

15. DATE SPUDDED 12-4-78 16. DATE T.D. REACHED - 17. DATE COMPL. (Ready to prod.) 1-9-85 (Recompl.) 18. ELEVATIONS (DF, RKR, RT, GR, ETC.)\* 6933' GR; 6947' KB 19. ELEV. CASINGHEAD 6933'

20. TOTAL DEPTH, MD & TVD 7675' 21. PLUG BACK T.D., MD & TVD 7559' (CIBP) 22. IF MULTIPLE COMPL., HOW MANY? See Below 23. INTERVALS DRILLED BY -- 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* Dakota perms, 7262-7492' (Prior to Recompl.); 6295-6414' OA. Added Lower Gallup perms, 6450-6504'; Added Upper Gallup perms, /

25. WAS DIRECTIONAL SURVEY MADE -- 26. TYPE ELECTRIC AND OTHER LOGS RUN CBL(6822-6100') 27. WAS WELL CORDED No.

CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	LOGS SET	CEMENTING RECORD	AMOUNT PULLED
(No Change)					

LINER RECORD				TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	DEPTH SET (MD)	PACKER SET (MD)
(No change-none)					2-3/8"	7269'

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
Added Lower Gallup perms: 6450-6504' (1 shot/2 ft); Added Upper Gallup perms 6295-6357' (1 shot/4 ft); 6358-6370' (1 shot/ft); 6371-6414' (1 shot/4 ft)		DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
		6450-6504'	100 gals 15% HCl; 1000 gals 15% HCl; 60,400 gals wtr w/ 54,900# 20/40 sd.
		6295-6357'	100 gals 15% HCl; 2,000 gals 15% HCl
		6295-6414'	136,414 gals HCl wtr/121,382 #/sd.

33. PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
9-7-84		Pump - 1-1/2" insert				Prod.	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
1-9-85	24	Adjustable		47	114	40	2425:1
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)	
(140# line press.)			47	114	40	42.5° @ 60° F	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) To be sold

35. LIST OF ATTACHMENTS (See attached daily report for details of Recompletion)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Stephen Rose TITLE Dist. Prod. Supt. DATE 1-16-85

\*(See Instructions and Spaces for Additional Data on Reverse Side)

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.

OPERATOR

Instructions: Prepare and submit the "Initial Report" on the first Wednesday after a well is spudded or workover operations are started.  
Daily work prior to spudding should be summarized on the form giving inclusive dates only.

Prop.Code: 69-45015

District Rocky Mtn.	County or Parish Rio Arriba	State New Mexico
Field West Lindrith-Gallup/Dakota	Lease or Unit Tonkin	Well no. 3
Auth. or W.O. no. AFE #639761	Title Recompl.to Gallup & Commingle w/Dakota Prod.	

API#30-039-21959

Operator ARCO Oil and Gas Company	A.R.Co's W.I. 100%	
Spudded or W.O. begun Recompl., 8/16/84	Date 8/16/84	Hour --
Prior status if a W.O. Dakota prod.		

Date and depth  
as of 8:00 a.m.

Complete record for each day reported

I  
8/17/84

**TONKIN #3** West Lindrith, AFE#639761, Action WS #7 AOGC  
API #30-039-21959. Loc: 890' FSL & 700' FWL, Sec. 17-24N-3W, Rio Arriba Co., New Mexico. Prop Code: 69-45015. Elev: 6933' GL. ARCO Lee #S-NM-4, Fed Lee #SF-080472-A. Previously completed as a Dakota Oil Well in 1978 (Perfs: 7262-7492' OA). Objective: Blk sqz Gallup, frac, tst, recomplete in Gallup & Dakota.  
TD: 7675' PBD: 7577' - Prep to kill well. (5-1/2" @ 7634')  
~~MI NU 8/16/84~~ Repair road to loc. MI frac tks & 2% KCL wtr. MI misc equip.  
(AC \$3M) (AFE \$176M) (Recompletion) Elledge

8/18 - 3  
8/20

TD: 7675' PBD: 6822' - Prep to perf Gallup.  
Killed well w/90 bbl 2% KCL dwn tbq. NU BOPs. POH w/2-3/8" tbq. RIH w/4-3/4" bit & scrpr, tag fill @ 7559', 18' fill. POH. Set CIBP @ 6822'. Ran CBL @ 6822'-6100' w & w/o 1100# - good bond across Gallup. Pmp 5 gal snd on top CIBP. SDFN & Sunday.  
(AC \$15M) (AFE \$176M) (Recompletion) Elledge

8/21 4

TD: 7675' PBD: 6822' - Prep to POH w/pkr (5-1/2" @ 7634')  
2% KCL wtr  
RIH w/OE 2-3/8" tbq to 6575', chngover to 2% KCL. Tst csg 3500#. Perf lwr Gallup 6450-6504' 1 sht/2 ft. RIH w/Retrievamatic pkr to 6363', spot 100 gal 15% HCl, set pkr. Acid lwr Gallup w/1000 gal 15% HCL + add using 42 ball sealers. Strt pmpg - no brkdw. Before acid hit perfs - 4 BPM @ 2200#. After acid hit perfs - 3 BPM @ 1200# increasing to 3000# w/good ball action. Balled out @ 3000# w/7 bbls acid in tbq. Surged off balls & disp remaining acid - 2-1/2 BPM @ 1100#. ISI 350#. Rel'd pkr, RIH to 6575' to knock off balls. POH 11 std & SDFN.  
(AC \$24M) (AFE \$176M) (Recompletion) Elledge

8/22 6

TD: 7675' PBD: 6822' - Prep to tag fill (5-1/2" @ 7634')  
Fin POH w/pkr. Frac lwr Gallup 6450'-6504' w/1% KCL wtr & 20-40 sd as foll: 13,000 gal pad, 5800 gal 0.5 ppg, 10,000 gal 1.0 ppg, 16,000 gal 1.5 ppg, 9000 gal 2.0 ppg, 6600 gal flush. Max 1600 psi, min 1180 psi, avg 1310 psi. Avg rate 42 BPM. ISIP 510 psi dropping to 410 psi after 15 mins. Total load to rec - 1445 bbls. SIFN.  
(AC \$51M) (AFE \$176M) (Recompletion) (Total of 54,900 # 20-40 sd.) Elledge

8/23 6

TD: 7675' PBD: 6822' - Prep to perf upper Gallup (5-1/2" @ 7634')  
Lwr Gallup SICP @ AM was 125 psi & flwd back 50 bbl load wtr in 2 hrs. No show of oil. TIH w/notched collar, tagged top of fill (sand) @ 6620' & CO to CIBP @ 6822'. Lost approx 120 BW into fnt. TOH & SDFN. Total load to rec'd in this zone 1567 BF.  
(AC \$54M) (AFE \$176M) (Recompletion) Elledge

8/24 7 TD: 7675' PBD: 6822' - RIH w/pkr (5-1/2" @ 7634')  
SICP 75 psi, bled off - no fluid. Perf Upr Gallup 6295-6357' 1 shot/4 ft, 6358-6370' 2 spf, 6371-6414' 1 shot/4 ft. No well response after shooting, FL @ 360'. Set retrievable BP @ 6440'. Dmp 5 gal snd dwn csg. RIH w/retrievematic pkr. SDFN.  
(AC \$60M) (AFE \$176M) (Recompletion) Elledge

8/25-8/27 10 TD: 7675' PBD: 6822' - Prep to CO to lwr CIBP @ 6822'. (5-1/2" @ 7634')  
Lwr'd tbq & tagged sd @ 6435'. Set pkr @ 6430'. Tstd BP to 2900 psi. Rel'd & moved pkr to 6395' & sptd 100 gal, 15% HCl f/6295-6293'. Set pkr @ 6145'. RU Newsco & acidized w/2000 gal 15% HCl w/add & 80 ball sealers. Pmpd @ 5.7 BPM @ 2000 psi. Gd ball action & balled off to 3000 psi w/7 bbl acid left in tbq. Surged balls & put acid away @ 5 BPM, 1500 psi. ISIP 600 psi. Total load 78 bbls. Rel'd pkr & lwr'd to 6424'. POH w/pkr. Frac'd upper Gallup perfs (6295-6414') w/136,414 gal, 20# gelled 1% KCl H<sub>2</sub>O w/add & 132,382# 20/40 sd. Ran out of H<sub>2</sub>O w/2#/gal going dn hole - bbl counter reading 20% less than being pmpd. Sd in perfs 121,382#. Total load 3,248 bbls. Avg inj 45 BPM, avg TP 1200 psi, ISIP 360 psi, 15 min SI 300 psi. Total load f/both zones 4893 bbls. SION. RIH w/retr hd & 118 jts tbq (3693'). Tagged soft sd fill @ 3960'. Rev circ to CO. Bridges to 5640', solid sd f/5640-6440'. Latched onto top of retr BP @ 6440' & TOH. SD f/Sunday.  
(AC \$105M) (AFE \$176M) (Recompletion) Elledge

8/28 11 TD: 7675' PBD: 6822' - No report. (5-1/2" @ 7634')  
(AC \$117M) (AFE \$176M) (Recompletion) Elledge

8/29 12 TD: 7675' PBD: 6802' - Prep to land tbq & swab (5-1/2" @ 7634')  
SICP & SITP @ 0 psi in a.m. & FL @ surf. Made 18 swb runs in 9 hrs & rec'd 246 bbls load wtr. Final FL @ 1000'. 4591 bbls load wtr yet to recover. Lwr'd tbq & tagged sand @ 6802'. PU to 6200' & SDFN.  
(AC \$119M) (AFE \$176M) (Recompletion) Elledge

8/30 13 TD: 7675' PBD: 6802' - Swabbing. (5-1/2" @ 7634')  
Land 2-3/8" tbq @ 6209'. ND BOPs. NU tree. ~~MADE 22 RUNS IN 6 HRS. REC'D 92 BLW - NO OIL OR GAS. FINAL FL 1800'. 4499 BLW LEFT TO RECOVER. SDFN.~~ 8/29/84.  
RU swb unit. FL @ 1000'. Made 22 runs in 6 hrs, rec'd 92 BLW - no oil or gas. Final FL 1800'. 4499 BLW left to recover. SDFN.  
(AC \$122M) (AFE \$176M) (Recompletion) Elledge

8/31 TD: 7675' PBD: 6802' - Swabbing. (5-1/2" @ 7634')  
Ran swb - FL # 1300'. Made 39 runs in 9-1/2 hrs. Rec'd 205 bbl load wtr. No oil ro gas & no snd. Final FL @ 2300'. Final CP = 0 psi. 4294 bbls load yet to rec. SI & SDON.  
(AC \$123M) (AFE \$176M) (Recompletion) Elledge

9/1 - 9/4 TD: 7675' PBD: 6802' - Prep to run pmp & rods (5-1/2" @ 7634')  
SICP & SI TP = 0. FL @ 1900'. Made 38 runs in 10 hrs. Rec 210 bbls load wtr & 10 bbls oil, final FL @ 3300'. Last 3 hrs runs slightly gassy. Final CP = 0. Final oil cut 4%. 4084 bbls yet to recover. SDFN. SICP = 75 psi, SITP = 100 psi. Bled tbq - no flw. Ran swab, init FL @ 2600'. Made 31 runs in 10 hr, rec 10 bbls oil, 170 bbls wtr. Final FL @ 3800'. Final CP 100 psi. All runs gas cut. Final oil cut 8% w/5% avg f/day. 3914 bbls load to recover. SDFS & holiday. Turned over to production dept.  
(AC \$126M) (AFE \$176M) (Recompletion) Elledge

9/5 TD: 7675' PBD: 6802' - Prep to run rods (5-1/2" @ 7634')  
 Set pmpg unit.  
 (AC \$126M) (AFE \$176M) (Recompletion) Elledge

9/6 TD: 7675' PBD: 6802' - Running rods (5-1/2" @ 7634')  
 MI RU Flint wrkvr rig. Chng out tbgnd. PU 16' x 2" x 1-1/2" Harveston  
 Fisher pmp. Run 141 3/4" x 25' rods. SDFN.  
 (AC \$126M) (AFE \$176M) (Recompletion) Wright

9/7 TD: 7675' PBD: 6802' Pmpg well (5-1/2" @ 7634')  
 Fin running 3/4" x 7/8" rods. Spaced out pmp. Began pmpg @ 1730 hrs,  
 9/6/84 w/8-74" strokes/min.  
 (AC \$126M) (AFE \$176M) (Recompletion) Wright

9/8 - 9/10 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 46 BO, 320 BW, 0 gas, over three-day period. 3594 bbls loaded wtr to  
 recover assuming 320 BW as loaded wtr.  
 (AC \$126M) (AFE \$176M) (Recompletion) Wright

9/11 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 24 BO, 80 BW, no tst on gas (WO orifice plate). 3514 BLW to recover  
 assuming 80 BW as load wtr.  
 (AC \$126M) (AFE \$176M) (Recompletion) Wright

9/12 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 20 BO, 80 BW, 30 MCF gas. 3434 bbls to recover assuming 80 bbls as  
 load wtr.  
 (AC \$126M) (AFE \$176M) (Recompletion) Wright

9/13 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 18 BO, 60 BW, 30 MCF gas. 3374 bbls to recover assuming 60 BW was  
 LW.  
 (AC \$140M) (AFE \$176M) (Recompletion) Wright

9/14 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 10 BO, 43 BW, 35 MCF gas. 3331 bbls to recover assuming 43 BW was  
 LW.  
 (AC \$140M) (AFE \$176M) (Recompletion) Wright

9/15 - 9/17 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Over 3-day period, pmpd 33 BO, 208 BW, 135 MCF gas. 3123 BLW to recover  
 assuming 208 BW was LW.  
 (AC \$140M) (AFE \$176M) (Recompletion) Wright

9/18 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 13 BO, 70 BW, 45 MCF gas. 3053 BLW to recover assuming 70 BW was LW.  
 (AC \$140M) (AFE \$176M) (Recompletion) Wright

9/19 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 10 BO, 48 BW, 57 MCF gas. 3005 BLW to recover assuming 48 BW was LW.  
 (AC \$140M) (AFE \$176M) (Recompletion) Wright

9/20 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
 Pmpd 5 BO, 20 BW, 60 MCF (est.) gas. 2985 BLW to recover assuming 20 BW was  
 LW. Low prod because El Paso SI wells to wrk on gathering lines.  
 (AC \$140M) (AFE \$176M) (Recompletion) Wright

9/21 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 3 BO, 20 BW, 65 MCF (est) gas. 2965 BLW to recover assuming 20 BW was  
LW. El Paso still wrkg on gathering lines.  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

9/22-9/24 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 23 BO, 46 BW, 99 MCF gas over 3 day period. 2919 BLW to recover  
assuming 46 BW was LW.  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

9/25 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 5 BO, 12 BW, 26 MCF gas. 2907 BLW to recover assuming 12 BW was LW.  
Fan belt brk - only a partial day pmpg.  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

9/26 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 0 BO, 0 BW, 16 MCF gas. Well was dn all day f/engine repairs. 2907  
BLW to recover.  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

9/27 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 15 BO, 8 BW, 16 MCF gas, 2899 BLW to recover. Well put back on @ 1500  
hrs 9/26/84.  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

9/28 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 19 BO, 15 BW, 20 MCF gas. 2884 BLW to recover assuming 15 BW is LW.  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

9/29 - 10/1 TD: 7675' PBD: 6802' - Pmpg well (5-1/2" @ 7634')  
Pmpd 33 BO, 40 BW, 51 MCF gas over three-day period. 2844 BLW to recover  
assuming 40 BW is LW. (Data f/report until final prod test received.)  
(AC \$140M) (AFE \$176M) (Recompletion) Wright

(Cont'd.) - next page

12/26/83 1 TD: 7675' PBD: 6802' - Prep to CO paraffin.  
MI RU CU 12/26/84 w/pmp & mud tk. Pull rods & pmp. PU parr knife on SL &  
run to 1100'. SDON.  
(AC \$143M) (AFE \$176M) (Recompletion) Wright

12/27 2 TD: 7675' PBD: 6802' - Prep to mill out BP.  
Ran paraffin knife on rods to 3150'. POH. Run paraffin knife on sd line to  
2450'. POH. Kill well. NU BOPs. TOH w/ 2-3/8" tbg. SDON.  
(AC \$145M) (AFE \$176M) (Recompletion) Wright

12/28 3 TD: 7675' PBD: 6802' - Prep to mill out BP.  
Ran paraffin knife on rods to 3150'. POH. Run paraffin knife on sd line to  
2450'. POH. Kill well. NU BOPs. TOH w/ 2-3/8" tbg. SDON.  
(AC \$145M) (AFE \$176M) (Recompletion) Wright

12/29-31 4 TD: 7675' PBD: 7559' - Cont RIH w/rods.  
PU Bkr mill & jk bskt. RIH & tag BP @ 6802'. RU pwr swivel & pmpd 238 bbl  
KCl wtr w/o circ. Found 20' sd on CIBP. Milled pkr loose & pmpd 160 bbls  
KCl wtr w/o sd returns. POH. MU saw tooth clr on 2-3/8" tbg & RIH to  
6800'. Rev'd 80 bbls KCl wtr into tbg. Pushed CIBP to 7559'. POH. PU Bkr  
TAC and 4' perf sub & TIH to 7269'. ND BOPs & set TAC w/10M# tension. Tbg  
set on donut. NU wellhd. PU 16' x 1-1/2" x 2" pmp & RIH on ten (10) 25',  
3/4" rods. SDFN.  
(AC \$152M) (AFE \$176M) (Recompletion) Wright

1/1-2/85 5 TD: 7675' PBD: 7559' - Pmpg well.  
Ran 184 3/4" rods, 95 7/8" rods, 1 7/8" pony rod & 1 1-1/4" polished  
rod. Rel'd & RD Bayless WS. Commenced pmpg well. Made 62 BW, 0 BO in 18  
hrs.  
(AC \$153M) (AFE \$176M) (Recompletion) Wright

1/3/85 TD: 7675' PBD: 7559' - Pmpg well.  
Prod'd 5 BQ, 67 BW & 26 MCF gas in 24 hr period.  
(AC \$154M) (AFE \$176M) (Recompletion) Wright

1/4 TD: 7675' PBD: 7559' - Pmpg well.  
Prod'd 23 BO, 40 BW & 32 MCF gas in 19 hrs. Dn 5 hrs du to frozen fuel gas  
line.  
(AC \$154M) (AFE \$176M) (Recompletion) Wright

1/5-7 TD: 7675' PBD: 7559' - Pmpg well.  
Prod'd ~~96 BO, 158 BW~~ & 277 MCF gas over 3-day period.  
(AC \$154M) (AFE \$176M) (Recompletion) Wright

1/8 TD: 7675' PBD: 7559' - Pmpg well.  
Prod'd 47 BO, 25 BW & 92 MCF gas over last 24 hrs.  
(AC \$154M) (AFE \$176M) (Recompletion) Wright

1/9/85 (PBD 7559')  
7675' TD./AFE #639761. FINAL REPORT - COMPLETED PMPG OIL WELL (RECOMPLETION)  
1/9/85. Prod'd 47 BO, 40 BW & 114 MCF gas f/24 hrs. Perfs: Dakota  
7262-7492', Lwr Gallup 6450-6504', Upper Gallup 6295-6414'. LPP  
7492'. (Est. oil qvty. 42.5° @ 60° F.)  
(AC \$154M) (AFE \$176M) (Recompletion) Wright