

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

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 ☐	PLUG BACK ☐	DIFF. RESVR. ☐	Other _____
2. NAME OF OPERATOR						ARCO Oil and Gas Company, a Division of Atlantic Richfield Company	
3. ADDRESS OF OPERATOR						Suite 501, 1860 Lincoln St., Denver, Colo. 80295	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*						At surface 790' FSL & 1850' FEL, Sec. 20 (SW SE) (Unit 0)	
At top prod. interval reported below						Approx. same	
At total depth						Approx. same	
API #30-039-22007						14. PERMIT NO. DATE ISSUED	
Mr. Barrick						4/4/79	
15. DATE SPUDDED						16. DATE T.D. REACHED	
5/4/79						5/18/79	
17. DATE COMPL. (Ready to prod.)						18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	
6/4/79						6941' GL 6955' KB	
19. ELEV. CASINGHEAD						6941'	
20. TOTAL DEPTH, MD & TVD						21. PLUG, BACK T.D., MD & TVD	
7575'						7530'	
22. IF MULTIPLE COMPL., HOW MANY*						23. INTERVALS CEMENTED BY	
1						First 0-75' 5"	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*						25. WAS DIRECTIONAL SURVEY MADE	
Dakota A: 7169-7214' ; Dakota B: 7290-7296' ; Dakota C: 7378-7403'						No	
26. TYPE ELECTRIC AND OTHER LOGS RUN						27. WAS WELL CORED	
FDC/CNL/GR; DIL; CBL						No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
8-5/8"		24#		306'		12-1/4"	
5-1/2"		15.5 & 17#		7574'		7-7/8"	
29. LINER RECORD		30. TUBING RECORD		CEMENTING RECORD		AMOUNT PULLED	
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*	
None							
31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.		DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
Dak. "C": 7378-7403 w/2 jet shots/ft (52 holes).		7378-7403'		Sptd. 500 gals MCA acid to/		btm.	
Dak. "B": 7296-7290 w/4 jet shots/ft. (28 holes)		7290-7296'		32,000 gals wtr w/38,500# sd.			
(See reverse side---)				Sptd. 250 gals 15% MCA@7300'.			
				32,000 gals wtr w/38,500# sd.			
33. PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)				WELL STATUS (Producing or shut-in)	
6-1-79		Flowing				Producing	
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N. FOR TEST PERIOD	
6-4-79		24 hrs		Adj. Choke		OIL--BBL. GAS--MCF. WATER--BBL. GAS-OIL RATIO	
550#		1125#		220 BOPD		732 MCFD	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)		TEST WITNESSED BY		C. R. Thompson			
To be sold.							
35. LIST OF ATTACHMENTS							
2 each of #26 above; Daily Well History							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED		W. A. Walther, Jr.				TITLE Operations Manager	
W. A. Walther, Jr.						DATE 6-13-79.	

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement". Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			38. GEOLOGIC MARKERS			
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
No Cores and no Drill Stem Tests.						
31. (Cont'd from front side)			32. (Cont'd from front side)	Pictured Cliffs	2992'	
Dak. "A": 7214-7169'			65,408 gals wtr w/86,816# sd.	Chacra	3843'	
Greenhorn: 7140-7141'			Squeezed 82 sx cmt into formation. Left 8 sx cmt above perfs in csg.)	Mesaverde	4622'	
				Gallup	6212'	
				Greenhorn	7089'	
				Graneros	7153'	
				Dakota "A"	7168'	
				Dakota "B"	7287'	
				Dakota Silt	7340'	
				Dakota "C"	7372'	
				Burro Canyon	7452'	
				Morrison	7558'	

5/25/79	7530	PB - Prep to perf Dakota "C" zone. Rng cased hole logs. MI & RU Aztec Well Serv 5/24/79. RU & instl'd well head & BOP. Unload & tally tbq. PU 4-3/4" bit & 5-1/2" csg scraper. PU & run tbq to top cmt @ 3861'. Drld DV tool @ 3881'. Drld thru DV tool. PU & run tbq & tagged cmt @ 7460'. Drld & CO to 7530' PBTD. Circ f/30 min. POH w/tbg.
5/26/79	7530	PB - Repair Schl line & lubricator. Logged CBL w/GR correl. Reran w/1000# CP. Tstd csg & BOP to 4000#. WIH w/tbg. Sptd 500 gals MCA @ 7403'. Perf 2 shots per ft 7378-7403' CNL-FDC meas. Frac Dakota "C" perfs 7378-7403' w/8,000 gals pad, 7,000 gals w/ 1/2# sd/gal, 8,000 gals w/1# sd/gal, 14,000 gals w/ 1-1/2# sd/gal, 3,000 gals w/2# sd/gal & 7200 gals flush. Total frac 32,000 gals trtd wtr & 38,500# 20/40 sd. FBDP 1200#, ATP 2200# @ 40 BPM. Max IP 2400#. ISIP 1200#, 10 min SIP 1000#, 15 min SIP 950#. JC 1:15 a.m. WIH w/Bkr CIBP. At 2:30 a.m. Dwks brk fld & dropped block on lubricator & damaged Schl line. Repairs should be complete @ 10 a.m.
5/27/79	7530	PB - W0 repairs. Repaired Schl line. Set Bkr CIBP @ 7350'. WIH w/ 2-3/8" tbq opn ended & tstd csg to 4000#, held OK. Sptd 250 gals 15% MCA @ 7300'. POH w/tbg. Perf'd Dakota "B" 7296-7290' w/4 JSPF. Frac Dakota "B", FBDP 1600#. One truck brk dn while pmpg pad, repaired line. Pmpd 8000 pad. Strtd sd & 2nd truck brk dn. Displ'd sd out of perfs.
5/28/79	7530	PB - POH w/tbg & pkr. Repaired trucks @ 9:30 a.m. Frac "B" zone (7290-96) w/8000 gals pad, 7,000 gals w/ 1/2# sd/gal, 8,000 gals w/1# sd/gal, 14,000 gals w/ 1-1/2# sd/gal, 3,000 gals w/2# sd/gal & flushed w/7100 gals wtr w/1% KCl. Total frac 32,000 gals trtd wtr & 38,500# 20/40 sd. Max press 2600#, min press 2200#, avg press 2500#, rate 40 BPM. ISIP 1350#, 15 min SIP 1100#. JC 10:18 a.m. 5/27/79. Opnd to pit & flwd 120 BW & WIH w/tbg & 4-3/4" bit & cleaned 50' sd above CIBP @ 7350' & drld plug @ 7350' & pushed to 7440'. POH. Ran Bkr CIBP on WL, set @ 7265'. Perf 7140-41' w/4 jets. Ran HOWCO RTTS set @ 6945', loaded hole, tstd csg to 500#. FBDP 3500#, inj 5 BPM @ 3200#. Mixed 90 sx Cl "B" & displ'd 29 bbls @ 2600#. Staged 2 min - pmpd 1/4 bbls @ 3000#, 5 min 1/4 bbls @ 3500#. Held 3500# f/25 mins. Rel'd press, held OK. Left (8 sx) 1.6 bbls cmt above perfs in csg & squeezed 82 sx into fm. JC 5 a.m. 5/28/79.
5/29/79	7530	PB - Prep to perf Dakota "A" zone. 6-11 am, WOC. WIH w/tbg & 4-3/4" bit. Top cmt 7050'. Hard cmt 7050-7041'. CO to 7184'. POH. Tstd csg to 2000#, OK, 2 min; 2800#, OK, 5 min. \$319,040
5/30/79	7530	PB - Plg out of hole w/tbg & bit. 6 am, to 9:15 am, press csg to 2800# f/20 min, held OK. Perf'd "A" zone 7214-7169' w/1 jet/ft. FBDP 3000#. PI 18,000 gals pad, 10,000 gals w/ 1/2# sd; 12,000 gals w/1# sd; 34,000 gals w/ 1-1/2# sd; 9,408 gals w/2# sd; 7,000 gals flush. Total frac 65,408 gals & 86,816# sd. Frac fld contained 2#/1000 gals fric reducer, 15#/1000 fld loss add, 1% KCl, all 20/40 sd. ISIP 1300#, 15 min 1050#. Min TP 2400#, Max TP 2400# Avg TP 2450#. Rate throughout 45 BPM. JC @ 11:17 am, 5/29/79. Opn'd well to pit - est 4 BPM. At 1 pm, flw incr'd - making some sand. Flwd to pit until 7 pm. Est rec 850 BFW. Left to recover 1300 bbls f/"A" zone. At 7 pm, WIH w/ 4-3/4" bit. Circ sd & drld BP @ 7265'. Circ & CO to 7497'. Circ until 6 am, 5/30/79.
5/31/79	7530	PB - Prep to swb well. POH w/tbg & bit. RU & ran prod string tbq, 2-3/8" 8rd EUE 4.7# J-55 R-2 tbq, 1 jt opn ended, 1 jt 2-3/8" EUE API SN, 227 jts 2-3/8" EUE; total 228 jts tbq, landed @ 7167' RKB. Remove BOP. NU wellhead. RU to swb. Pld 1 run f/3000'. Well KO flwg to pit. Ran swb twice more. Cont'd to flow. At 9 pm, CP 240#. Making yellow oil & blwg over the pit. Shut well in. CP 540# @ 6 am, 5/31 opn'd to pit. Unloaded mostly oil f/30 min & died. Ran swb 1 time to 2000#. CP 500#. Will cont to swb & flw. Will try to turn through sep equip today. Est rec'd 1100 bbl frac fld. Lack est 2700 bbls.
6/01/79	7530	PB - Prep to tst well thru separator f/oil, H ₂ S & gas rate. 6-7 am, flwd well to pit. Well died. Pld 1 swb run f/2000'. 809 am, well flwd wtr to pit. 9-11 am, flwd wtr, 20% oil. Est 100 BFPH. SI 11:00 am. Conn'd well to sep, est rec of 300 BW. Total rec'd is 1300 bbls, 2400 BF yet to recover. 1:00 pm, CP 670#, 5:00 pm, CP 700#. 6:00 am, flwg thru sep, CP 1050#.
6/02/79	7530	PB - Tst'g, flw'g thru separator. Well flwd thru sep 24 hrs, prod'd 101 BO & lots of unmeasured wtr. FCP 1200#. Prod'd 500 MCF GPD. Sep press approx 300#. Left flwg thru prod'g equip. Rel compl unit @ 12:00 noon, 6/1/79.
6/03/79	7530	PB - Tstg. Last 24 hrs flwd thru prod sep. Made 250 BO & estimated 500 MCF gas, wtr not gauged.
6/04/79	7530	PB - Cont to flw f/test. In 24 hrs, flwd 279 BO (thru prod.equip.)
6-5-79	7530	PB - COMPLETED OIL WELL, 6/4/79, Dakota Fm. In 24 hrs flwd 220 BO, 43.6° API @ 60°F, 732 MCF, no show wtr. GOR 3327:1. Adjustable choke, TP 550#, CP 1125#. F/Dakota perfs: "A" 7169-7214'; "B" 7290-7296'; "C" 7378-7403'. LPP 7403'.

5/5/79	315	WOC, sd & sh. Spudded 5 p.m. 5/4/79. Ran 8 jts 8-5/8" 24# K-55 ST&C csg w/GS & baffle (309.85'), set @ 306' KB. Ran 3 cent, cmtd w/250 sx C1 "B" cmt + 2% CaCl ₂ & 1/4# flocele/sx. Cmt circ approx 6 bbls cmt. PD 12:30 a.m. 5/5/79. 1/2° @ 315'. 80 RPM, 18M#. Mud: 8.8#, vis 45. B#1, 12-1/4", HTC, OSCIG, made 315' in 5-1/4 hrs.
5/6/79	1270	Drig sd & sh. Tst blind rams & csg to 1000#, okay. RIH w/bit & tstd pipe rams to 1000#, okay. Drld flt clr @ 251'. 3/4° @ 661' & 1064'. 80 RPM, 10-20M#. Mud: 8.5#, vis 32, WL 8, FC 1/32, Sd 1/2%, salt 300, Ph 9, Pv 3, Yld 2, solids 2.2%, oil 7.0%. (B#2).
5/7/79	2170	Drig. 3/4° @ 1279' & 1618', 1° @ 1957'. 62 RPM, 20M#. Mud: 8.7#, vis 33, WL 8.8, FC 1/32, Sd 1/2%, salt 450, Ph 8, Pv 4, Yld 3, Gels 1/2, solids 3.7%, Ca 120%, oil 8%. B#2, 7-7/8", HTC, made 954' in 16-1/2 hrs. (B#3).
5/8/79	3155	Drig sd & sh. 1° @ 2269', 2581' & 2923'. 62 RPM, 20M#. Mud: 8.7#, vis 37, WL 6.0, FC 1/32, Sd 1/4%, salt 400, Ph 8.0, Pv 7, Yld 5, Gels 2/4, solids 3.0%, Ca 120%, oil 9%. B#3, 7-7/8", Sm., SOGH, made 990' in 23-1/4 hrs. (B#4).
5/9/79	3780	Drig sd & sh. 1° @ 3428' & 3767'. 60 RPM, 20M#. Mud: 8.8#, vis 38, WL 6, FC 1/32, Sd-tr, salt 500, Ph 8.0, Pv 7, Yld 6, Gels 2/4, solids 4-1/2%, Ca 120%, oil 9%. B#4, 7-7/8", Hughes, OSCIG, made 1168' in 25-1/2 hrs. (B#5).
5/10/79	4288	Drig sd & sh. 1° @ 4096' & 4174'. 62 RPM, 40M#. Mud: 8.7#, vis 47, WL 6.4, FC 2/32, Sd-tr, salt 600, Ph 8, Pv 11, Yld 9, Gels 4/8, solids 7.4%, Ca 100, oil 6-1/2%. B#5, 7-7/8", Hughes, J-22, made 746' in 24-1/2 hrs. (B#6).
5/11/79	4615	Drig sd & sh. 1/2° @ 4425'. 60 RPM, 40M#. Mud: 8.8#, vis 43, WL 5.6, FC 1/32, Sd-tr, salt 800, Ph 7.5, Pv 11, Yld 9, Gels 3/6, solids 4.5%, Ca 200%, oil 8%. B#6, 7-7/8", Sm., F-2, made 251' in 10-1/2 hrs. (B#7).
5/12/79	5040	Drig sd & sh. 22'/hr. No drag on trip. 1/2° @ 4792'. 55 RPM, 35M#. Mud: 8.7#, vis 40, WL 6.0. B#7, 7-7/8", Sm., DGTB, made 367' in 22-1/4 hrs. (B#8).
5/13/79	5515	Drig 22'/hr, sd & sh. 1/2° @ 5314'. 55 RPM, 40M#. Mud: 8.9#, vis 42, WL 4.8, FC 1/32, Sd-tr, salt 600, Ph 7.5, Pv 11, Yld 9, Gels 4/10, solids 5.2%, Ca 120, oil 8%. (B#8).
5/14/79	6030	Drig sd & sh. 1/2° @ 5748'. 55 RPM, 40M#. Mud: 8.8#, vis 41, WL 4.2, FC 1/32, Sd-tr, salt 600, Ph 8, Pv 8, Yld 6, Gels 2/5, solids 4.4%, Ca 120, oil 8%. (B#8).
5/15/79	6510	Drig sd & sh. 55 RPM, 35M#. Mud: 8.8#, vis 39, WL 6.2, FC 1/32, Sd-tr, salt 700, Ph 8.0, Pv 8, Yld 7, Gels 3/8, solids 5.9%, Ca 80%, oil 8%. (B#8)
5/16/79	6930	Drig 22'/hr, sd & sh. Pre-treated mud w/2% LCM, lost 50 bbls @ 6030', slow seep. 55 RPM, 38M#. Mud: 8.9#, vis 38, WL 8.4, FC 1/32, Sd-tr, salt 700, Ph 8.0, Pv 8, Yld 7, Gels 3/7, solids 5.8%, Ca 100, LCM 2%, oil 8%. (B#8).
5/17/79	7160	Drig sd & sh. 55 RPM, 38M#. Mud: 8.7#, vis 41, WL 6.4, FC 1/32, Sd-tr, salt 700, Ph 8.0, Pv 8, Yld 8, Gels 2/5, solids 3.7%, Ca 100, LCM 2%, oil 8%. B#8, 7-7/8", HTC, J-22, made 2310' in 11-3/4 hrs. (B#9). 1/4° @ 7102'.
5/18/79	7315	Drig Dakota. 50 RPM, 38M#. Mud: 8.8#, vis 50, WL 6, FC 1/32, Sd-tr, Ph 8, Pv 10, Yld 8, Gels 3/7, solids 4.5%, Ca 100, oil 7.5%. B#9, 7-7/8", HTC, H7LG, made 94' in 8-1/4 hrs. (B#10).
5/19/79	7575	Prep to short trip, Morrison. Last trip sml bridge @ 1100'. Bridge 6800-6900', took 2 hrs to CO. 55 RPM, 38M#. Mud: 9.0#, vis 80, WL 4.6, FC 2/32, Sd-tr, salt 700, Ph 8.5, Pv 22, Yld 23, Gels 6/14, solids 5, Ca 80, oil 9.5%. (B#10)
5/20/79	7575	TO to log. POH & attempted to run logs-stopped @ 5098'. WIH w/bit to 5600', no bridges, circ & POH. Attempted to log & tool stopped @ 2100'. WIH w/bit, sml bridge @ 2100', went to 7575 w/no other bridges. Circ & cond hole. Mud: 8.9#, vis 95, WL 6.0, FC 2/32, Sd-tr, salt 700, Ph 8.0, Pv 20, Yld 25, solids 4.8, Ca 100, oil 6%. B#10, 7-7/8", Sm., F-5, made 379' in 35-1/2 hrs.
5/21/79	7575	LD DCs, prep to run 5-1/2" csg. Ran logs. Rained all night, communications out, details to follow.
5/22/79	7575	TD - MORT. Ran 35 jts 17# K-55 ST&C, 153 jts 15.5# K-55 ST&C, GS & DF, total 188 jts (7582.88') landed @ 7574' KB. Cmtd 5-1/2" csg 1st stage w/500 gals mud flush, 10 BW, 300 sx 50/50 Poz, 4% gel, 6.5# gilsonite/sx, 3/4% CFR-2, 1/4% HB-4. Tailed in w/100 sx neat cmt. Displ'd w/88 BW, 92.5 BM, circ. Press'd to 1000#, bmpd plug w/1500#, flt held. PD 5 p.m. 5/21/79. 2nd stage cmtd w/500 gals mud flush, 10 BW, 300 sx 50/50 Poz, 4% gel, 6.5# gilsonite/sx, tailed in w/100 sx neat cmt. Displ'd w/93.5 BW, circ. Press'd to 600#. Closed DV tool 2500#. DV tool on top of jt #91 @ 3881'. Recip'd pipe while circ'g & cmt'g. Used 25 scratchers across Dakota, Greenhorn & Gallup. 14 Cent across Dakota, Greenhorn & Gallup every other clr. Cmt bskt on jts #89 & 90, cent on jts #90, 92, 94 & 96. Circ 2nd stage f/3 hrs. Displ'd w/82 BW. JC 8:45 p.m. 5/21/79. RR 12 MN 5/21/79.
5/23/79	7575	TD - WOC completion unit. Anchors will be set today.
5/24/79	7575	TD - WOC completion. MI frac tanks.