

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
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 ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____

2. NAME OF OPERATOR
BHP Petroleum (Americas), Inc.

3. ADDRESS OF OPERATOR
5847 San Felipe, Suite 3600, Houston, TX 77057

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1070' FSL & 1150' FWL (SW/SW)
At top prod. interval reported below
At total depth

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
UNIT AGREEMENT NAME
Gallegos Canyon Unit
LEASE NAME
Gallegos Canyon Unit

9. WELL NO.
387

10. FIELD AND POOL, OR WILDCAT
Basin Fruitland Coal

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Sec. 18-T29N-R12W

14. PERMIT NO. 30-045-28490 DATE ISSUED 12-24-90

15. DATE SPUDDED 1-13-91 16. DATE T.D. REACHED 1-16-91 17. DATE COMPL. (Ready to prod.) 2-28-91 18. ELEVATIONS (DF, RKB, RT, GB, ETC.)* 5523' GR 19. ELEV. CASINGHEAD 5523'

20. TOTAL DEPTH, MD & TVD 1575' 21. PLUG, BACK T.D., MD & TVD 1526' 22. INTERVALS DRILLED BY 23. INTERVALS DRILLED BY 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, (MD AND TVD)* 25. WAS DIRECTIONAL SURVEY MADE Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN SDL/DSN/DIGL/GR/Coal logs 27. WAS WELL CORED No

28. CASING RECORD (Report all strings set in well)

CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING—RECORD	AMOUNT PULLED
7"	20#	139' KB	8-3/4"	125 sx "B" + Additives	-0-
4-1/2"	10.5#	1570' KB	6-1/4"	50/50 POZ + Additives	-0-
				25 sx "B" + Additives	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	1470'	

31. PERFORATION RECORD (Interval, size and number)
1394' - 1424' @ 4 JSPF (30 holes @ .39" in diameter)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
1394-1424'	Frac dn csg w/ 21M gals 70 Q foam
2M# 40/70 Brady	sand & 9M# 20/40 Brady sand.
Refrac w/ 45M gals clean fluid, 30# cross link gel, 7M# 40/70 Brady sand & 77M# 20/40 Brady sand	

33.* PRODUCTION

DATE FIRST PRODUCTION WOPLC PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Pumping WELL STATUS (Producing or shut-in) SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4/9/91	24	3/8"	→	N/A	139	27	N/A

FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	WELL PRODUCTIVITY-API (CORR.)
---	41	→	N/A	139	27	N/A

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
Vented

35. LIST OF ATTACHMENTS

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

SIGNED Beverly Camen TITLE Production Technician DATE 6/7/91

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

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):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Fruitland Coal	1238.25	1413.75	

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Ojo Alamo Ss. Kirtland Sh Fruitland Fm Top Coal Base Coal Pictured Cliffs TD	Surface 170' 1135' 1238.25' 1413.75' 1427.00' 1575'	

BHP PETROLEUM (AMERICAS), INC.
GALLEGOS CANYON UNIT NO. 387
SEC. 18-T29N-R12W (SW/SW)
BASIN FRUITLAND COAL
SAN JUAN COUNTY, NEW MEXICO

WELL COMPLETION HISTORY

01/14/91- MIRU Spud well at 5:00 pm on 1/13/91. Drill 8-3/4" hole to 130' KB.

01/15/91- Depth 327' (197') Drill 8-3/4" hole to 144'. RU and run 3 jts 7" 20# K-55 8R R-3 ST&C csg and land at 139' KB. RU Western and cement with 125 sxs Class "B" with 3% CaCl and 1/4# sx Cello Seal. Obtained full returns with 6 bbl cement circulated to surface. Plug dn at 10:00 am on 1/14/91. WOC NU BOPE test csg & blind rams to 2000 psi, pipe rams to 1500 psi and annular to 500 psi. Drill out cement and drill 6-1/4" hole to 327'.

01/16/91- Depth 1575' (1248'). Work on rig. Drill 6-1/4" hole to 1575' with 2 surveys. 3/4" @ 640', 1-1/2" @ 1574'. Circulate and condition for logs. TOH. RU HLS and ran SDL/DSN/DIGL GR and Coal logs. RD HLS and TIH.

01/17/91- TD: 1575' Finish TIH Circ & cond. POH LD DP, RU and ran 38 jts 4-1/2" 10.5# J-55 8R R-3 ST&C csg and landed at 1570' KB. RU Western and cemented with 255 sxs 50/50 Poz, 2% Gel, 10% salt, 1/4# sx Cello Seal and tail in with 25 sx Class "B" with 1.2% CF-18 low fluid loss. Obtained full returns with 15 bbl cement circulated to surface. Bump plug, float held. Plug dn at 12:45 pm on 1/16/91. ND BOPE jet pits. Release rig at 4:45 pm on 1-16-91. WOCT.

02/27/91- TD: 1575' PBTD: 1526' Perfs 1394-1424' MIRU. PU bit and csg scraper on 2-3/8" tbg and tally in hole. Found PBTD at 1526'. Circ hole clean w/270 KCL and additives. Prssure tested csg and BOPE to 2500 psi. RU Electric Line and ran GR/CCL logs. Perf the Fruitland Coal from 1394-1424' KB w/3 1/8" premium charged 90° phased csg gun at 4 JSPF. No pressure to surface. RD Electric Line. All shots fired.

02/28/91- TD: 1575' PBTD: 1526' Perfs 1394-1424' 0 pressure on well. RU Western to fracture stimulate the Fruitland Coal dn 4-1/2" csg with 6,100 clean gal 20# gel 70 quality foam, 2000# 40/70 Brady sand and 9,000# 20/40 Brady sand. Job screened out with the 4 PPG on the perfs. No flush, max press 2900 psi, min 1000 ps, avg 2000 psi avg rate 15 BBP. Max sand conc 3 ppg. Load to recover 145 bbls. ISIP 2843 psi 15 min 2519 psi. TBLR 0 BLTR 145

03/01/91- TD: 1575' PBTD: 1526' Perfs 1394-1424' MIRU TIH w/tbg. Tag sand @ 850'. Circ hole clean w/2% KCL & additives to PBTD. pull up to 1426' & RU to swab. Swab back 40 bbl load, csg. pressure increased to 50 psi. SDFN. TBLR 40 BLTR 105

03/02/91- TD: 1575' PBTD: 1526' Perfs 1394-1424' 12 hour SITP 0 psi, SICP 265 psi. RU and ran swab, FL @ 300'. Swab back 20 bbl & well kicked off flowing. RD and left well flowing on a 3/8" pos choke. FTP 20 psi, FCP 100 psi. TBLR 60 BLTR 85

03/03/91- TD: 1575' PBTD: 1526'. 22 hrs flowing through a 3/8" pos choke. FTP 50 psi, FCP 130 psi. TBLR 160 BLTR +15

03/04/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' 24 hours flowing through a 3/8" pos choke. FTP 68 psi, FCP 131 psi. TBLR 210 BLTR +65

03/05/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' 24 hours flowing through a 3/8" pos choke. FTP 78 psi, FCP 135 psi. Recovered 50 bbl water with an estimated gas rate of 132 MCF/D. TBLR 260 BLTR +115

03/06/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' 20 hours flowing through a 3/8" pos choke. FTP 80 psi, FCP 135 psi. Recovered 40 bbl water with an est gas rate of 136 MCF/D. MIRU. Kill well w/2% KCL and additives. Check PBDT. Pull out of hole w/tbg. Shut well in. Waiting on frac crew. TBLR 300 BLTR +155

03/07/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' RU Western @ re-fracture the Fruitland Coal down 4 1/2" csg. w/44730 clean gal. fluid, 30# cross link gel, & 7000# 40/70 brady sand & 77000# 20/40 brady sand. Max. treating pressure 1470 psi, min. 550 psi, avg. 1000 psi. Average rate 15 BPM. ISIP 619 psi. Bled back to induce closure. 15 min. - 150 psi. Load to recover 1065 bbl. 4 hr SI pressure 0. TBLR 0 BLTR 1065

03/08/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' 0 pressure on well. TIH Tag w/tbg. sand @ 1110'. Circ clean w/2% KCL & add. to PBDT. PU & land tbg. w/45 jts. 2 3/8" 4.7# 8 RD J-55 EUE @ 1470' KB. w/sn @ 1437' ND BOPE. NU well head. RU to swab. Swab back 35 bbls. SDFN. TBLR 35 BLTR 1030

03/09/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' Swab well 9 hours and recovered 120 bbl water. Well kicking. Shut well in. TBLR 155 BLTR 910

03/10/91- TD: 1575' PBDT: 1526' Perfs 1394-1424' 14 hour SITP 0 psi, SICP 255 psi. Made one swab run and the well kicked off flowing. Well died in 30 min. Ran pump and rods. W/O pumping unit. TBLR 175 BLTR 890

03/11/91- TD: 1575' PBDT 1526' Perfs 1394-1424' Shut in. Waiting on pumping equipment. TBLR 175 BLTR 890

03/12/91- TD: 1575' PBDT 1526' Perfs 1394-1424' Shut in. Waiting on pumping equipment. TBLR 175 BLTR 890

03/13/91- TD: 1575' PBDT 1526' Perfs 1394-1424'. Set pump unit and started. TBLR 175 BLTR 890

03/14/91- TD: 1575' PBDT 1526' Perfs 1394-1424' Pumping unit down. Waiting on pump repair. TBLR 175 BLTR 890

03/15/91- TD: 1575' PBDT 1526' Perfs 1394-1424' MIRU TOH with pump and rods. Found pump full of coal fines and no rat-hole below tbg. Circ down to PBDT with 2% KCL and additives. Land tbg 1 jt up at 1438' KB with SN at 1405' KB. 44 jts in well. Put well back on pump. TBLR 175 BLTR 890

03/16/91- TD: 1575' PBDT 1526' Perfs 1394-1424' 10 hrs pumping recovered 3 bbl water with no gas to surface. TBLR 178 BLTR 887

03/17/91- TD: 1575' PBDT 1526' Perfs 1394-1424' 24 hrs pumping recovered 65 bbl water with FCP of 68 psi through a 1/4" pos choke. Estimated gas rate of 75 MCF/D. TBLR: 243 BLTR 822

03/18/91- TD 1575; PBDT 1526' Perfs 1394-1424' 24 hours pumping. Recovered 112 bbl water w/FCP of 68 psi through a 1/4"pos choke. Estimated gas rat of 75 MCF/D. TBLR 355 BLTR 710

03/19/91- TD 1575; PBDT 1526' Perfs 1394-1424' 24 hours pumping. Recovered 95 bbl water w/FCP of 68 psi through a 1/4"pos choke.

Estimated gas rat of 75 MCF/D. TBLR 450 BLTR 615
03/20/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 65 bbl water w/FCP of 18 psi through a 3/8"pos choke.
Estimated gas rate of 60 MCF/D. TBLR 515 BLTR 550
03/21/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 70 bbl water w/FCP of 21 psi through a 3/8"pos choke.
Estimated gas rate of 70 MCF/D. TBLR 585 BLTR 480
03/22/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 67 bbl water w/FCP of 23 psi through a 3/8"pos choke.
Estimated gas rate of 75 MCF/D. TBLR 652 BLTR 413
03/23/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 74 bbl water w/FCP of 28 psi through a 3/8"pos choke.
Estimated gas rate of 95 MCF/D. TBLR 726 BLTR 339
03/24/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 95 bbl water w/FCP of 35 psi through a 3/8"pos choke.
Estimated gas rate of 119 MCF/D. TBLR 821 BLTR 244
03/25/91- TD: 1575; PBTD: 1526' Perfs 1394' 1424' 24 hours
pumping, rec 77 bbl water w/FCP of 35 psi thru a 3/8" pos choke.
Est gas rate 119 MCF/D. TBLR 898 BLTR 167
03/26/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 80 bbl water w/FCP of 41 psi through a 3/8"pos choke.
Estimated gas rate of 139 MCF/D. TBLR 978 BLTR 87
03/27/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 65 bbl water w/FCP of 39 psi through a 3/8"pos choke.
Estimated gas rate of 132 MCF/D. TBLR 1043 BLTR 22
03/28/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 43 bbl water w/FCP of 40 psi through a 3/8"pos choke.
Estimated gas rate of 136 MCF/D. TBLR 1086 BLTR +21
03/29/91- TD 1575; PBTD 1526' Perfs 1394-1424' 24 hours pumping.
Recovered 57 bbl water w/FCP of 40 psi through a 3/8"pos choke.
Estimated gas rate of 136 MCF/D. TBLR 1143 BLTR +78
03/30/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 45 bbl wter w/FCP of 41 psi through a 3/8" choke.
Estimated gas rate of 139 MCF/D. TBLR 1188 BLTR +123
04/01/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 42 bbl wter w/FCP of 38 psi through a 3/8" choke.
Estimated gas rate of 129 MCF/D. TBLR 1272 BLTR +207
04/02/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 38 bbl wter w/FCP of 39 psi through a 3/8" choke.
Estimated gas rate of 133 MCF/D. TBLR 1310 BLTR +245
04/03/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 30 bbl wter w/FCP of 40 psi through a 3/8" choke.
Estimated gas rate of 136 MCF/D. TBLR 1340 BLTR +275
04/04/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 32 bbl wter w/FCP of 39 psi through a 3/8" choke.
Estimated gas rate of 133 MCF/D. TBLR 1372 BLTR +307
04/05/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 32 bbl wter w/FCP of 40 psi through a 3/8" choke.
Estimated gas rate of 136 MCF/D. TBLR 1404 BLTR +339
04/06/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 27 bbl wter w/FCP of 45 psi through a 3/8" choke.
Estimated gas rate of 153 MCF/D. TBLR 1431 BLTR +366
04/07/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 33 bbl wter w/FCP of 44 psi through a 3/8" choke.

Estimated gas rate of 150 MCF/D. TBLR 1464 BLTR +399

04/08/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 27 bbl wter w/FCP of 41 psi through a 3/8" choke.
Estimated gas rate of 139 MCF/D. TBLR 1491 BLTR +426

04/09/91- TD: 1575; PBTD 1526' Perfs 1294-1424' 24 hours pumping.
Recovered 27 bbl wter w/FCP of 41 psi through a 3/8" choke.
Estimated gas rate of 139 MCF/D. TBLR 1518 BLTR +453

04/10/91- TD: 1575; PBTD 1526' Perfs 1294-1424' Pulled water and
gas samples. Shut well in, waiting on pipeline connection. Last
report. TBLR 1518 BLTR +453