

PVZV2006539761

Working Interest Owners
Hardie LS 5B

Conoco Inc. 50%
Attn: Isabel Barron
600 North Dairy Ashford - DU-3076
Houston, TX 77079-1175

Amoco Production Company 50%
P.O. Box 3092
Houston, TX 77253

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

RECEIVED
BLM

99 MAR -5 AM 11:27

070 FARMINGTON, NM

1. Type of Well <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Designation and Serial No. SF-078416-A
2. Name of Operator AMOCO PRODUCTION COMPANY		6. If Indian, Alottee or Tribe Name
3. Address and Telephone No. P.O. BOX 3092 HOUSTON, TX 77253		7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 2530' FSL 1160' FWL Sec. 23 T 29N R 8W UNIT L		8. Well Name and No. HARDIE L S 5B
Attention: MARY CORLEY		9. API Well No. 300-045-29714
10. Field and Pool, or Exploratory Area BLANCO MESAVERDE		11. County or Parish, State SAN JUAN NEW MEXICO

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent <input checked="" type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input checked="" type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other SPUD & SET <input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)

MIRU Drilling unit. Spud a 12 1/4" surface hole on 1/5/99. Drilled to 294' & set 9 5/8" 36# surface casing @ 286'. CMT w/150 SXS CLS B CMT. Circ 25 SXS of good CMT to surface. CMT job witnessed by Keven Schnieder of BLM. Test CSG to 1200 PSI HI & 200 PSI LOW.

Drilled a 8 3/4" hole to 3257'. RU to run casing. Ran CSG to 1253'. Stuck CSG after circ. pmp water, airtreated mud & unload hole. Still stuck w/CSG @ 1253'. Jar on stuck CSG w/surface jars up & down - no movement. RU E-line & free point CSG @ base of surface pipe. Free point & back off 7th joint down @ 279'. Still had 24 joints left in hole. Jar on fish w/absolutely no movement up or down. TIH & cut CSG @ 367'. TOH lay dow cutter. TIH w/spear & catch fish @ 279'. Jar on 80' segment of CSG. No movement. REL spear & TOH. TIH w/pilot mill. Mill on 7" CSG fish F/279' T/290' on 1/9/99. Continue to mill F/290' T/385'. TOH w/worn mill. TIH w/spear fish jar - no movement. TOH w/spear. No free CSG - still stuck. RD wireline. Wait on new mill for cutting CSG.

TIH w/mill. Continue to Mill 7" CSG & circ for cleaning hole of iron cutting until removing all stuck CSG on 1/14/99. Lay down all fishing tools. Wash & circ & condition to 3257'. Waiting on CSG. 1/18/99 ran 5 1/2" 15.5# intermediate CSG to 3253'. CMT CSG w/461 SXS lead CLS B CMT, Tail w/150 SXS CLS B CMT & 37 BBLS of slurry & displaced floeet collar. Lost circ just prior to dropping plug. Entire displacement had no circ or CMT to surface. CBL to follow. Job witnessed by Keven Schnieder of BLM.

REPORT CONTINUED ON ATTACHMENT PAGE.

CMT. TAPS. BEHIND 7" CSG

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

Signed Mary Corley Title SR. BUSINESS ANALYST Date 03-02-1999

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

ACCEPTED FOR RECORD

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.

MAR 08 1999

* See Instructions on Reverse Side

OPERATOR

FARMINGTON FIELD OFFICE
BY SMV

SPUD & SET SUNDRY CONTINUED
HARDIE L S # 5B
3/2/99

1/20/99 begin drilling on 4 3/4" hole @ 3698'. On 1/23/99 reached a depth of 5046'. Unable to continue drilling. TOH for net bit. New bit would not drill. TOH leaving bit, bit sub & 5 drill collars in well. Top of fish @ Approx. 4900'. TIH to 4900', circ hole w/air to unload fluid - had none. TOH to 4396' w/open ended drill pipe. Mix & pump 55 SXS CMT plug for kick off around fish. TOH to 3227' - circ DP clean @ shoe after CMT job & WOC for plug set.

TIH - tag CMT @ 4420'. TOH w/drill string for directional tools. TIH to 4364' - circ @ 4364' to clear BHA & attempt to run survey tool. Tag CMT @ 4421'. Establish circ. Kick off CMT plug W/1.5 degree bent housing motor. Slide from 4421' to 4520', rotate to 4553'. Circ hole clean. 1/27/99 resume drilling. Drill to TD 5768'. Ran 3.5" 9.3# production liner to 5757' & hanger to 3015'. TOL @ 3015; BOL @ 5757'. CMT w/ 175 SXS CLS B CMT & displace to latch collar.

Rig released @ 3:00 hrs on 1/31/99.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.

SF-078416-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Hardie LS #5B

9. API WELL NO.

30-045-29714

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverde

11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 23 T 29N R 8W

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

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 ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. DENVR. ☐ Other ☐

2. NAME OF OPERATOR

Amoco Production Company

Attn: Mary Corley

3. ADDRESS AND TELEPHONE NO.

P.O. Box 3092 Houston, TX 77253 281-366-4491

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

2530' FSL & 1160' FWL

At top prod. interval reported below

At total depth

UNIT L

14. PERMIT NO.

DATE ISSUED

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

15. DATE SPUDDED

1/5/99

16. DATE T.D. REACHED

1/30/99

17. DATE COMPL. (Ready to prod.)

3/23/99

18. ELEVATIONS (OF RKB, RT, GR, ETC.)*

6428' GL

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

5768'

21. PLUG BACK T.D., MD & TVD

5670'

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

CABLE TOOLS

XX

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

Mesaverde

4690' - 5425'

25. WAS DIRECTIONAL SURVEY MADE

No

26. TYPE ELECTRIC AND OTHER LOGS RUN

TDT CBL

27. WAS WELL CORED

No

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36#	294'	12 1/4"	150 SXS CLS B to SURFACE	
5 1/2"	15.5#	3253'	8 3/4"	611 SXS CLS B LEAD & TAIL	
3 1/2"					

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
4 1/2"	3015'	5757'	300	

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 1/16"	5402'	

31. PERFORATION RECORD (Interval, size and number)

5240' - 5425' 3 JSPF, .340 inch diameter
36 shots4980' - 5139' 3 JSPF, .340 inch diameter
33 shots

4690' - 4913' 3 JSPF, .340 inch diameter

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5240' - 5425'	32508 gal wtr, 70% quality foam
4980' - 5139'	104400# 16/30 Arizona sand
4690' - 4913'	615 bbls wtr 70% qty foam **
	23362 qa l wtr 75000# 16/30 ***

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
3/4/99	Flowing	SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
3/22/99	12 HRS	3/4"	→	TRACE	3110	TRACE	

FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)
160	200	→				

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

TO BE SOLD

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct, and was obtained from all available records

SIGNED

TITLE

Senior Business Analyst

DATE

ACCEPTED FOR RECORD

*(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

BY SM WASHINGTON FIELD OFFICE

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	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
OJO ALAMO	2006'					
KIRTLAND	2224'					
FRUITLAND	2632'					
PICT. CLIFFS	3034'					
LEWIS SHALE	3262'					
CLIFF HOUSE	4608'					
MENEFEE	4834'					
POINT LOOKOUT	5262					
MANCOS	5638'					
ADDITIONAL FRAC DATA:						
** 73756# 10/30 Arizona sand						
*** Arizona sand						

HARDIE LS # 5B
COMPLETION SUBSEQUENT REPORT
3/23/99

2/1/99 MIRUSU & run TDT & CBL longs for perforating & CMT tops. NU TBG head - attempted to pressure test casing - test failed - waiting on rig (2/3/99).

2/17/99 MIRUSU. NU BOP & TIH PU 3 1/2" PKR & 1 1/4" Drill Pipe. Set PKR @ 3037' & pressure test below liner to 3000#. Held OK. Failed on the backside. TOH W/DP & PKR. TIH W/5 1/2" PKR & TBG. Set PKR @ 2996' & tested backside to 3000#. Held OK. Pump down TBG & est rate into liner top of 2 BPM @ 200#. Unseat PKR & SDFN.

TOH w/TBG & PKR. RU Schlumberger & run gauge ring to liner. TIH & shoot SQZ holes @ 4835' (4 holes). RU & set CMT retainer @ 4735'. TIH w/CMT retainer stringer & sting into retainers. SDFN.

Perf SQZ hole @ 4835'. Set CMT retainer @ 4470'. SQZ backside of 3 1/2" CSG up to liner top. WOC for 12 hrs. Pressure test liner top on 2/23/99 @ 3000# for 30 min. Held OK. Notified Jim Lovato w/BLM of results & he stated that we did not need to run CBL for another CMT top.

RU Dowell & pump 100 SXS of CMT to SQZ backside of 3 1/2" CSG up to liner top. SI w/500# on retainer. Sting out & TOH w/TBG & stinger. SI & WOC. RU & pressure test liner top SQZ to 3000# for 30 min. Held OK. TIH w/mill & TBG. Tag CMT @ 4306'. Clean out CMT stringers to CMT retainer @ 4765'. SDFN.

Drill CMT retainer & finish cleaning out to bottom. Clean out CMT to TPBD of 5670'. Circ hole clean & TOH w/TBG & bit. ND BOP & NU frac valve & frachead. RU & perf 1st stage @ 5240'; 5250'; 5265'; 5279'; 5293'; 5309'; 5319'; 5345'; 5354'; 8383'; 5403'; & 5425' with 3 JSPF (i.e. 5240.0', 5240.3', 5240.6', etc.) .340 inch diameter, total 36 shots. RU & tried to breakdown formation. Unable to break. Pressured up 3 times & would not break. ND frachead & NU BOP & RU to TIH w/TBG to spot acid. SDFN.

RU & spot 500 gallons of 7.5% acid & dropped 54 ball sealers. Formation broke 2480#. Had complete ball out. Run junk basket & recovered. 20 balls. RU & frac 1st stage w/32508 gallons of WTR & 70% quality foam & 104400# of 16/30 Arizona sand. ISIP 5# then vacuum. RU & set retrievable plug @ 5176' & pressure test. Test OK. SDFN.

Dump bail sand on top of BP. RU & perf 2nd stage @ 4980'; 4986'; 4993'; 5031'; 5037'; 5058'; 5065'; 5085'; 5124'; 5131'; & 5139' with 3 JSPF. .340 inch diameter, total 33 shots. RU & breakdown formation - broke @ 1750#. Dropped 50 ball sealers & had good ball action. RU & run junk basket & recovered 27 balls. RU & frac 2nd stage w/615 BBLS WTR & 70% quality N2 foam & 73,756# 16/30 Arizona sand. ISIP 417# 5 min SI 380#. SI well.

RU & set retrievable plug @ 4950' & pressure test to 3000#. Test OK. Dump bail sand on top of BP. RU & perf 3rd stage @ 4690'; 4720'; 4730'; 4754'; 4760'; 4767'; 4787'; 4826'; 4831'; 7868'; 4873'; 4896'; 4900'; & 4913' with 3 JSPF. .340 inch diameter, total 42 shots. RU & breakdown formation - broke @ 900#. Drop 63 ball sealers. Had complete ball out. Good ball action. RU & run junk basket & recovered 57 balls. SDFN. RU & frac 3rd stage w/23,362 gallons WTR & 75000# 16/30 Arizona sand. ISIP 1662#. SI well.

RU flowback tree & start flowback to clean out well with 1/4" choke for 6 hrs. FCP 0#. Upsize to 1/2" choke for 6 hrs. FCP 0#. Flowed well overnight to clean up sand. Flowed well to pit with a watchman & 1/4" choke - FCP 140#. ND frac head & NU BOP. TIH PU 2 1/16th TBG to clean off balls & sand off BP. Had trouble retrieving plug in TBG. SNFW. Left well SI.

TIH - work trying to pull TBG w/slickline - trouble working free due to sand that was pulled in when plug was equalized. Worked free & LD plug. Clean balls off BP by reverse circ. on top of plug. TOH w/ 2 1/16th TBG. RU & flowed well with watchman & 3/4" choke.

TIH w/retrieving head & 1 1/4 DP - latch onto BP @ 4950' & TOH. RU & flow both zones w/watchman & 3/4" choke - FCP 175#. TIH w/ 2 1/16" TBG & tag fill @ 5110'. Cleanout fill & frac balls off BP @ 5176'. TOH w/TBG. RU & flow well w/watchman & 3/4" choke. TIH w/ret. head & DP - clean off BP w/air. Latch onto BP & TOH w/DP & BP. RU & flow all 3 zones with 3/4" choke - FCP 200#.

TIH w/bit & DP & TBG - tag sand @ 5360'. Clean out sand to 5440'. PU TBG to liner & SI. Flow well to pit w/watchman & 3/4" choke - SICP 330# - FCP 230# - FTP 0#. Flow well for 12 hrs. Final PSI 230#. Flow well to pit w/watchman & 3/4" choke - SICP 380# - FCP 185#. Flow well for 12 hrs - final PSI 185#.

TIH back to bottom - finish cleaning out to 5555'. Circ. clean & TOH w/TBG & LD DP. SI well. TIH w/bridge plug & TBG. Set plug @ 2930' - pressure test OK & TOH. RU & run CBL long from 1680' to 100' - CMT top @ 732' - called Jim Lovato w/BLM & est need for remedial CMT. RU & shoot 2 SQZ holes @ 710'. RU & est circ. up bradenhead. RU & pump 300 SXS of CMT & circ 10 BBLS of CMT to surface. SI Well with 500#. SI to WOC overnight.

TIH w/bit & tag CMT @ 670'. Drill up CMT to 719' & pressure test to 1000#. Held OK. TOH w/bit & TBG. TIH w/2 3/8" work string & RU to LD. SIFN. TOH & LD workstring. RU & TIH with 2 1/16" production string - tagged sand fill @ 5430'. Circ out fill to 5555'. Pull up to liner & RU to flow well with 3/4" choke & watchman - FCP 240 Average for night.

Flow well overnight w/watchman & 3/4" choke - TIH & tagged fill @ 5510'. Clean out from 5510' to 5625'. PU into liner & RU to flow well w/watchman & 3/4" choke - FCP 180#. Flow well overnight. TIH & tagged 6520' of fill. LD extra TBG & land TBG @ 4702'. ND BOP & NU wellhead. Pull TBG choke & RU to flow test well.

Rig released @ 1300 hrs 3/20/99.

3/22/99 - 2/23/99 RU a 3/4" choke off casing and a 3/8" choke off TBG & flow for del. test. ICP 285 psi. FCP 200 psi. ITP 215 psi. FTP 160 psi. Run 12 hr. test. Gas 3110 MCF, trace oil, trace water.

TABULATION OF DEVIATION TEST

AMOCO PRODUCTION COMPANY

DEPTH	DEVIATION	DEPTH	DEVIATION
284'	0.250	4518'	0.750
792'	0.750	4364'	0.000
1333'	1.500	4818'	4.250
1860'	1.750	5356'	2.250
2358'	0.750	5744'	1.750
2884'	0.750		
3257'	0.750		
3761'	1.250		
3951'	1.000		

AFFIDAVIT

THIS IS TO CERTIFY that to the best of my knowledge, the above tabulation details the deviation test taken on AMOCO PRODUCTION COMPANY'S:

Hardie LS # 5B

2530' FSL & 1160' FWL; Sec. 23 T29N R8W

San Juan County, New Mexico

Signed:

Title:

SR. Business Analyst

THE STATE OF TEXAS)
) SS.
COUNTY OF HARRIS)

BEFORE ME, the undersigned authority, on this day personally appeared MARY CORLEY known to me to be SR. Business Analyst for Amoco Production company and to be the person who name is subscribed to the above statement, who being by me dully sworn on oath, states that she has knowle of the facts stated herein and that said statement is true and correct.

SUBSCRIBED AND SWORN to before me, a Notary Public in and for said County and State this 03rd day of March, 19 97.

[Signature]
Notary Public

My Commission Expires: 03/21/2001

