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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SE 078199

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Houck Gas Com "A"

9. WELL NO.

1A

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverde

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

NW/4 NW/4 Section 6,
T-29-N, R-9-W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

1. OIL ☐ GAS ☒ OTHER ☐
WELL WELL

2. NAME OF OPERATOR

ALCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR

501 Airport Drive Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1020' ENL x 790' FWL, Section 6, T-29-N, R-9-W

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

5742' GL, 5755' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

ABANDON* ☐

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) Spud & Set Casing ☒

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

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

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.)*

Spudded 13 3/4" hole on 10/5/77 and drilled to 276'. Set 9 5/8" 32.3# H-40 casing at 274' with 300 sx Class "B", 2% CaCl₂ cement. Tested to 600 psi for 30 minutes; held OK.

Drilled an 8 3/4" hole to 2670'. Set 7" 23# K-55 and 7" 20# K-55 casing at 2670', ran 20 bbls chemical wash ahead of 430 sx Class "B", 50:50 Poz, 6% gel, 2 lbs. medium Tuf Plug per sx. Followed with 100 sx Class "B", 2% CaCl₂. Circulated good cement. Pressure tested up to 1000 psi; held OK.

Drilled a 6 1/4" hole to a total depth of 4752'. The 4 1/2" 10.5# K-55 casing liner was set from 2464-4752', ran 20 bbls chemical wash and cement with 200 sx Class "B" 50:50 Poz, 6% gel, 2 lbs. medium Tuf Plug per sx and 0.2% friction reducer. Followed with 75 sx Class "B" 50:50 Poz, 6% gel. Reversed out 10 bbls good cement. Rig released 10/11/77.



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

SIGNED

[Signature]

TITLE Area Adm. Supervisor

DATE

11/10/77

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

RECEIVED

NOV 14 1977

*See Instructions on Reverse Side

U.S. Geological Survey
Farmington, N.M.

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

<u>DEPTH</u>	<u>DEVIATION</u>
276'	1/4°
807'	3/4°
1279'	1°
1781'	1°
2253'	1-1/4°
2670'	1-1/4°
3178'	1-1/4°
3669'	1-1/2°
4154'	1-3/4°

A F F I D A V I T

THIS IS TO CERTIFY that to the best of my knowledge the above tabulation details the deviation tests taken on AMOCO PRODUCTION COMPANY'S Houck Gas Com "A" 1A located at 1020' FNL x 790' FWL, Section 6, T-29-N, R-9-W, San Juan County, New Mexico.

Signed [Signature]
Title Area Adm. Supervisor

THE STATE OF NEW MEXICO)) SS.
COUNTY OF SAN JUAN)

BEFORE ME, the undersigned authority, on this day personally appeared E. E. Svoboda known to me to be Area Adm. Supvr. for Amoco Production Company and to be the person whose name is subscribed to the above statement, who, being by me duly sworn on oath, states that he has knowledge 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 eleventh day of January, 1978.

Glenn P. Brown
Notary Public

My Commission Expires: December 28, 1979

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)Form approved.
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

SF 078199

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Houck Gas Co "A"

9. WELL NO.

1A

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverde

11. SEC., T., R., M., OR BLK. AND

SURVEY OF AREA
NE/4 NW/4 Section 6,
T-29-N, R-9-W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER	14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 5742' GL, 5755' KB
2. NAME OF OPERATOR AMOCO PRODUCTION COMPANY		
3. ADDRESS OF OPERATOR 501 Airport Drive Farmington, NM 87401		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1020' FNL x 790' FNL, Section 6, T-29-N, R-9-W		

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

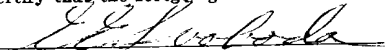
WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐Completion ☒(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

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.)*

Drilled out 25' of cement to PBD of 4719'. Pressure tested casing to 3900 psi; held OK.
Perforated 3818-26, 3891-3901, 3917-39, 3933-59, 4019-39, 4053-56, 4061-64, 4075-89, 4122-24, 4132-34, 4161-63, 4168-71, 4186-88, 4194-4201, 4228-35, 4284-87, 4303-36, 4327-31, 4341-45, 4365-69, 4381-87, 4417-25, 4446-50, 4479-83, 4521-35, 4544-51, 4564-71, 4581-4602, 4635-41. Sand-water fraced in three stages with 255,200 lbs. sand and 140,990 gallons frac fluid consisting of 1% KCL, 20% gel and 1 gallon surfactant per 1000 gallons water. 2-3/8" tubing set at 4631'.

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

SIGNED



TITLE

Area Admin. Supervisor

DATE

1/11/78

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

*See Instructions on Reverse Side



RECEIVED

JAN 12 1978

U.S. Geological Survey
Geological Field

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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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.

5. LEASE DESIGNATION AND SERIAL NO.

SF 078199

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Houck Gas Com "A"

9. WELL NO.

1A

10. FIELD AND POOL, OR WILDCAT

Blanco Mesaverde

11. SEC., T., R., M., OR BLOCK AND SURVEY
OR AREANE/4 NW/4 Section 6,
T-29-N, R-9-W12. COUNTY OR
PARISH

San Juan

13. STATE

NM

14. PERMIT NO.

DATE ISSUED

15. DATE SPUEDDED

16. DATE T.D. REACHED

17. DATE COMPL. (Ready to prod.)

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

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

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

22. IF MULTIPLE COMPL.,
HOW MANY*23. INTERVALS
DRILLED BY

ROTARY TOOLS

CABLE TOOLS

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

25. WAS DIRECTIONAL
SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORRED

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	32.3	274'	13-3/4"	300 sx	
7"	23, 20	2670'	8-3/4"	530 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4-1/2"	2464'	4752'	275		2-3/8"	4631'	None

30. TUBING RECORD

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3818-4089'	116,800# SN & 64,240 gal frac fluid
4122-4387'	58,000# SN & 32,100 gal frac fluid
4417-4641'	80,400# SN & 44,650 gal frac fluid

31. PERFORATION RECORD (Interval, size and number)

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

33.*

DATE FIRST PRODUCTION

PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)

WELL STATUS (Producing or
shut-in)

DATE OF TEST

HOURS TESTED

CHOKE SIZE

PROD'N. FOR
TEST PERIOD

OIL—BBL.

GAS—MCF.

WATER—BBL.

GAS-OIL RATIO

FLOWING PRESS.

CASING PRESSURE

CALCULATED
24-HOUR RATE

OIL—BBL.

GAS—MCF.

WATER—BBL.

OIL GRAVITY API (CORR.)

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

TEST WITNESSED BY

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

E. E. Hookoda

TITLE Area Adm. Supervisor

DATE

1/11/78

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

U.S. GEOLOGICAL SURVEY
FEDERAL GOVERNMENT

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.)

Perforations Cont'd

4521-35, 4544-51, 4564-71, 4581-4602, 4635-41.

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Pictured Cliffs	2271'		
Messaverde	3903'		

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 12/28/77				
Company Amoco Production Company				Connection EL PASO NATURAL GAS COMPANY					
Pool Blanco				Formation Mesaverde				Unit	
Completion Date 12/28/77		Total Depth 4752		Plug Back TD 4719		Elevation 5742		Farm or Lease Name Houck Gas Com "A"	
Csg. Size 7.000	Wt. 23	d 6.366	Set At 2670	Perforations: From 4122 To 4641		Well No. 1A			
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 4631	Perforations: From Open To Ended		Unit C	Sec. 6	Twp. 29	Rge. 9
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At None		County San Juan		
Producing Thru Tubing		Reservoir Temp. °F @		Mean Annual Temp. °F		Baro. Press. - P _a		State New Mexico	
L	H	Gg .65	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI	7 days						684		794		
1.	2.375	0.750					200		580	60	3 hrs.
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.365		212	1.000	.9608	1.021	2572
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 696	P _c ² 484415	(1) $\frac{P_c^2}{P_c^2 - R_w^2} = \mathbf{3.6163}$	(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = \mathbf{2.6224}$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		592	350464	133952
2				
3				
4				
5				

Absolute Open Flow 6745 Mcfd @ 15.025		Angle of Slope @ _____
Remarks: 4.5" 10.5# Liner Set 2464'-4752'		

Approved By Commission:	Conducted By: T. M. Oliver	Calculated By: TMO/WRB	Checked By: J. L. Krupka
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