Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

DONE AO OF EA	MANAGEMENT	\wedge
SHNDRY NOTICES A	ND REPORTS ON WELLS	5. Lease Designation and Serial No.
		SF-080112
• •	or to deepen or reentry to a different reservoir. R PERMIT - " for such proposals	8. If Indian, Allottee or Tribe Name
		7. If Unit or CA, Agreement Designation
. Type of Well		
Oil Gee Other		8. Well Name and No.
A mana Braduction Company	Attention:	Riddle Com 9
Amoco Production Company J. Address and Telephone No.	Patty Haefele	3004525017
P.O. Box 800, Denver, CO 8020	01 (303) 830-4988	10. Field and Pool, or Exploratory Area
Location of Well (Footage, Sec., T., R., M., or Survey Descripti	ion)	Blanco Mesaverde
1730' FSL 1050' FWL	Sec. 17 T 28N R 8W Unit L	11. County or Parish, State
		San Juan New Mexico
2. CHECK APPROPRIATE BOX	((s) TO INDICATE NATURE OF NOTICE	, REPORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	ON
Notice of Intent	Abandonment Recompletion	Change of Plans
	Plugging Back	New Construction Non-Routine Frecturing
Subsequent Report	Casing Repair	Water Shut-Off
	Altering Casing	Conversion to Injection
Final Abandanment Nation		
subsurface locations and measured and true vertical depths for	Other (Note Recorportinent details, and give pertinent dates, including estimated date of s	Dispose Water Report results of multiple completion on Well Completion or mpletion Report and Log form.) tarting any proposed work . If well is directionally drilled, give
Describe Proposed or Completed Operations (Clearly state all p subsurface locations and measured and true vertical depths for	Other (Note Recorpertinent details, and give pertinent dates, including estimated date of some pertinent to this work.)*	Dispose Water : Report results of multiple completion on Well Completion or mpletion Report and Log form.) tarting any proposed work. If well is directionally drilled, give the Mesaverde formation per the attached
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Mesaverale & Ma Chi See Instructions on Reverse Side

District 1 PO Bex 1986, Hobbs, NM 88241-1980 District II 811 South First, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aziec, NM 87410 District IV

1730

OIL CONSERVATION DIVISION

2040 South Pacheco

State Lease - 4 Copies

State Lease - 3 Copies

Fee Lease - 3 Copies Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department Well Name & Mo. Chy Form C-102 Instructions on back

Signature and Seal of Professional Surveyer:

Original on file

3950 Certificate Number Fee Lease - 3 Copies

		WE	LL LC	CA HO	N AND A	ACI	REAGE DEDI	CATION P	LAT		
API Number 2				¹ Pool Cod		³ Pool Name					
30-045-25017 7233				72319		Blanco Mesaverde					
* Property Code					³ Property Name					* Well Number	
980	No.	Riddle Com 9					9				
000778			. D. 1		•	Operator Name * Elevation					
000776)	Amocc	Progu	uction C		ace	Location ·			57:	24'
UL or lot no.	Section	Township	Range	Let Ida	Feet from		North/South line	Feet from the	East/West II		
	17	28N	8W		1730		South	1050	West		County
	<u> </u>	1,		tom Hole		on I	f Different Fro		west		San Juar
/L or lot no.	Section	Towaship	Range	Let Ida	Feet from		North/South line	Feet from the	East/West &		C
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DIST. 3

SJOET Well Work Procedure

Wellname:

Riddle Com 9

Version:

#1

Date:

Jan. 21, 1996

Budget:

Major Cash

Workover Type:

Recompletion

Objectives:

- 1. Check for and eliminate casing leaks.
- 2. Repair Bradenhead.
- 3. Recomplete the Point Lookout, Menefee, and Cliffhouse in one frac.
- 4. Establish gas rates and shut-in pressures on the MV.
- Place well on production and commingle MV with existing DK.

D 41		
Pertinent	Intorm	ation.
I CI LIIICIIL	111101111	auo

Location:

1730' FSL, 1050' FWL, L17-28N-8W

Horizon:

DK

County:

San Juan

API #:

30-045-25017

State:

New Mexico Federal # SF-080112 Engr: Phone: Mark Rothenberg W--(303)830-5612

Lease: Well Flac:

979020

H--(303)696-7309

P--(303)553-6448

Economic Information:

APC WI:

75%

DK Prod. Before:

70 MCFD

Estimated Cost:

\$170,000

DK Anticipated Prod:

70 MCFD

Payout:

4.9 years

MV Anticipated Prod.:

200 MCFD

PV15:

\$33.9M

Total Anticipated Prod.:

270 MCFD

NOTE: Bradenhead costs not included in economics due to DRA account.

Formation Tops: (Estimated formation tops)

Nacimento:

Menefee:

3830

Oio Alamo:

Point Lookout:

Kirtland Shale:

Mancos Shale:

4297

Fruitland:

Gallup:

4558 5521

Pictured Cliffs:

Greenhorn:

6272

Lewis Shale:

Graneros: Dakota:

6339 6383

Chacra: Cliffhouse:

3732

Morrison:

Bradenhead Test Information:

Test Date:

9/5/92 Tubing:

590 Casing: 590

BH: 35

Time

CSG INT CSG

5 min

10 min

15 min

Comments: Had steady flow of clear water Wellname: Riddle Com #9

Page 2 1/22/96

Suggested Procedure:

1. Check location for anchors. Install if necessary. Test anchors.

- 2. MIRUSU. Record DK SITP and CPs. Blow down well. Kill only if necessary with water.
- 3. NDWH. NUBOP.
- 4. TOH with 2 3/8" tubing.
- 5. RIII with tbg and RBP, set RBP at 4700'. Circulate hole clean, spot 10' of sand on RBP and pressure test casing to 1500#. Isolate any leaks found and contact Denver. DO NOT repair any leaks before running CBL.
- 6. Run CBL/CCL/GR from 4700 to surface to determine condition of cement behind pipe. Relay CBL info to Mark Rothenberg in Denver (continuous fax # 303-830-4264) to verify if remedial cement squeezes will be needed prior to any frac treatment (Note: if cement squeezes are needed, also repair BH as mentioned in step 11 and frac down fracstring).
- 7. Correlate GR to Schlumberger Induction-GR log (11/3/81) for depth control. Perf select fire 58 shots at:

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3736, 3746, 3752, 3801, 3803, 3809, 3811, 3819, 3821, 3826, 4055, 4078, 4222, 4224, 4234 4236, 4238, 4300, 4302, 4304, 4306, 4308, 4310, 4312, 4314, 4316, 4318, 4320, 4322, 4331 4340, 4342, 4344, 4352, 4356, 4358, 4360, 4367, 4369, 4371, 4373, 4375, 4384, 4386, 4388 4390, 4392, 4394, 4402, 4406, 4435, 4437, 4439, 4441, 4470, 4513, 4531, 4552
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- 8. Frac well according to attached frac procedure, NOTE: THIS FRAC WILL HAVE BALLS DROPPED DURING FRAC.
- 9. Flow well back as soon as possible to tank on a 1/4" choke for 8 hours, then increase choke to 1/2". Establish and record gas, water, oil rates and producing and shut-in TP and Cps. Obtain water and gas samples.
- 10. RIH with bit and scraper for 4.5" csg and c/o sand to RBP at 4700'. Retreive RBP and TOOH.
- 11. RIH with the and RBP and set at depth determined from CBL and repair BH according to best practice procedure #3.
- 12. THI with 2 3/8" production string, tag for fill and clean out if necessary, and land at 6550' (1/2 mule shoe on btm and a SN 1 JT off btm). RDMOSU
- 13. Place well on production.

Note: Since this procedure invloves recompletion and DRA expenditures, please be sure to label all invoices accordingly so that costs can be accounted for properly.

Proc. #3

Riddle com #9

1. Contact Federal or State agency prior to starting repair work.

RECEIVED BIM CAIL FOOM

- 2. Catch gas and/or water sample off of bradenhead and casing, and have analyzed.
- 3. Install and/or test anchors.

070 Personal CN, NM

- 4. MIRUSU. Check and record tubing, casing and bradenhead pressures.
- 5. Blow well down, kill well if necessary with 2% KCL.
- 6. Nipple down well head, nipple up and pressure test BOP's.
- 7. Trip in the hole and tag PBTD, check for fill, trip and tally out of hole with tubing checking condition of tubing.
- 8. Trip in the hole with bit and scraper for the intermediate casing and trip in to the top of the liner. Trip out of the hole with bit and scraper. Trip in hole with second bit and scraper and run from the top of the liner to the top of the perforations. A seating nipple and standing valve may be run in order to pressure test the tubing.
- 9. Trip in the hole with RBP and PKR. Set RBP 50-100 ft. above perforations. Trip out of hole one joint and set PKR and pressure test RBP to 1500 psi. Release PKR, spot sand on RBP and pressure test csg to 1000 psi. If no leak is found, trip out of hole with PKR and skip to step 11.
- 10. Trip out of hole isolating leak in liner, if any. If a liner leak is found, establish injection rate and check for circulation around liner top. Also, determine if there is a leak above the top of the liner. Trip out of hole with PKR.
- 11. Determine from well file and history, the interval a CBL needs to be run between the RBP and the surface. If a CBL is needed, run CBL over the interval necessary under 1000 psi and report results to Denver. Different size CBL tools may be required in the liner versus the intermediate casing.
- 12. If there are no casing leaks, skip to step 14.
- 13. If there is a leak in the liner <u>and</u> a leak above the top of the liner, trip in hole with a RBP that fits the liner and a PKR that fits the intermediate casing. Set RBP 30-60' below the top of the liner. Release PKR and trip out of hole isolating leak in the intermediate casing.
- 14. Based on the location of the leak, if any, and the results of the CBL, perforate casing if necessary with 4 JSPF and circulate dye if possible to determine cement volume. Depending on the depth of the hole and circulating pressure, a PKR or a cement retainer may be needed.
- 15. Mix and pump sufficient cement (class B or equivalent with two hour setting time) to circulate to surface, if circulation to surface is possible. Shut bradenhead valve and attempt to obtain a squeeze pressure and WOC.
- 16. Trip out of hole. Trip in the hole with bit and scraper and drill out cement and pressure test casing. Re-squeeze leaks if casing fails pressure test.

- 17. If cement is not circulated to the surface, it may be necessary to run another CBL (and/or temperature survey 8-10 hours after cementing) and repeat steps 14 thru 16.
- 18. Trip in the hole with retrieving head for RBP, circulate sand off of RBP and trip out of hole with plug.
- 19. If there is a leak in the liner top, trip in hole with a PKR. If there is no leak in the liner top, skip to step 22.
- 20. Mix and pump sufficient cement (class B or equivalent with two hour setting time) to squeeze liner top. Attempt to obtain a squeeze pressure and WOC.
- 21. Trip in the hole with bit and scraper and drill out cement and pressure test casing. Resqueeze leak if liner top fails pressure test.
- 22. If there is a second RBP in the liner, trip in the hole with a retrieving head, circulate sand off of the RBP and trip out of hole with the plug.
- 23. If there is a leak in the liner or squeeze work is required based on the CBL, perforate casing, if necessary with 4 JSPF. Trip in hole with a cement retainer and set above the leak or perforations.
- 24. Mix and pump sufficient cement (class B or equivalent with two hour setting time) and attempt to obtain a squeeze pressure and WOC.
- 25. Trip in the hole with bit and scraper and drill out cement and pressure test casing. Resqueeze leaks if casing fails pressure test.
- 26. Trip in the hole with retrieving head for RBP set in the liner, circulate sand off of RBP with 2% KCL and trip out of hole with plug.
- 27. Trip in hole with a sawtooth collar and/or bailer and clean out to PBTD and trip out of hole.
- 28. Trip in the hole with the production string (1/2 mule shoe on bottom and a seating nipple one joint off bottom), land tubing to original depth. Nipple down BOP's, nipple up well head.
- 29. Swab well in and put well on production.
- 30. Rig down move off service unit.
- 31. Take final bradenhead pressures and log date/pressures in CRWS.