

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well
GAS

2. Name of Operator

**BURLINGTON
RESOURCES**

OIL & GAS COMPANY

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

L 1850' FSL, 1090' FWL, Sec. 29, T-28-N, R-9-W, NMPM

5. Lease Number
NM-03541

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number
Hancock #6

9. API Well No.
30-045-07154

10. Field and Pool
Otero Chacra/
Basin Dakota

11. County and State
San Juan Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment

Type of Action

☐ Abandonment
☒ Recompletion
☒ Plugging Back
☐ Casing Repair
☐ Altering Casing
☐ Other -
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut off
☐ Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to recompleate the subject well to the Chacra formation according to the attached procedure. The Basin Dakota formation will be plugged and abandoned. Also attached is a new C-102 plat showing Chacra dedication.



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

Signed Jim Lovato (TL2) Title Regulatory Supervisor Date 11/6/01
no

(This space for Federal or State Office use)

APPROVED BY Jim Lovato Title _____ Date NOV - 8 2001
CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-07154		² Pool Code 82329/71599		³ Pool Name Otero Chacra/Basin Dakota	
⁴ Property Code 7076		⁵ Property Name Hancock			⁶ Well Number 6
⁷ OGRID No. 14538		⁸ Operator Name Burlington Resources Oil and Gas Company, LP			⁹ Elevation 5942' GR

¹⁰ Surface Location

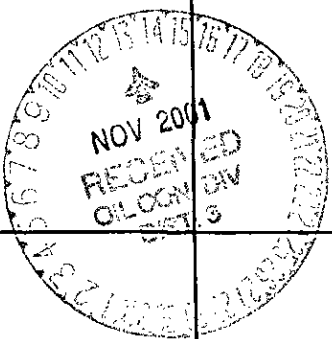

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	29	28N	9W		1850'	South	1090'	West	SJ

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres Cha - 160 DK-S/320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p> <p>Original plat from David Q. Vilven 4-25-62</p>				<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p></p> <p>Signature</p> <p>Peggy Cole</p> <p>Printed Name</p> <p>Regulatory Supervisor</p> <p>Title</p> <p>11-6-01</p> <p>Date</p>	
<p>1090'</p> <p>1850'</p>				<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyer:</p> <p>Certificate Number</p>	

HANCOCK #6

Graneros/Dakota Abandonment and Single-Stage Chacra Recompletion Procedure

1850' FSL, 1090' FWL

Unit L, Section 29, T028N, R009W

San Juan County, New Mexico

Latitude: 36 DEG, 37.832'

Longitude: 107 DEG, 49.015'

Summary:

Drilling mud recovery in 1996 prompted the recommendation that this wellbore be abandoned. The well has not produced since 1995, and is on the BLM demand list to be plugged and abandoned or restored to production by the end of 2001. The Lewis Shale Team plans to plug back from the Dakota and Graneros, and then recomplete in the Chacra. The Chacra will be hydraulically fracture stimulated in one stage with 200,000# 20/40 sand and a 75 quality, N₂ foamed, 20# linear gel. Foam is used to limit the fluid damage to the Chacra by reducing liquid volumes and by aiding in the liquid recovery during the flowback.

- **COMPLY WITH ALL NMOC, BLM, AND BR REGULATIONS.**
- **CONDUCT DAILY SAFETY MEETINGS FOR ALL PERSONNEL ON LOCATION.**
- **PLACE FIRE SAFETY EQUIPMENT IN STRATEGIC LOCATIONS.**
- **INSPECT LOCATION AND WELLHEAD, AND INSTALL RIG ANCHORS PRIOR TO RIG MOVE.**
- **DIG FLOWBACK PIT OR SET FLOWBACK TANK.**
- **SET AND FILL 3 400-BBL FRAC TANKS WITH 2% KCl WATER. TEST AND FILTER IF NECESSARY.**
- **ALL CEMENT VOLUMES USE 100% EXCESS OUTSIDE PIPE AND 50' EXCESS INSIDE PIPE.**
- **THE STABILIZING WELLBORE FLUID WILL BE 8.3 PPG, SUFFICIENT TO BALANCE ALL EXPOSED FORMATION PRESSURES.**

Equipment Needed:

3 -- 400-bbl frac tanks with 2% KCl water
1 -- 4-1/2" CIBP

2 -- 4-1/2" cement retainers
1 -- 4-1/2" retrievable packer

PROCEDURE:

1. **NOTE: THE FIRST PART OF THIS PROCEDURE SHOULD BE CHARGED TO THE P&A (244) AFE.** Prior to moving in rig, RU slickline and set a tubing plug as deep as possible in the tubing to prevent a plunger or any other equipment from surfacing. **NOTE: THE WELLFILE DOES NOT INDICATE IF THERE IS A SEATING NIPPLE IN THE TUBING.**
2. MIRU. Record and report SI pressures on tubing, casing, and bradenhead. Lay blowdown line and blow well down. Kill well with 2% KCl water. ND WH, NU BOP. Test and record operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
3. 204 jts 2-3/8", 4.7#, J-55 tubing set at **6359'**. PU additional joints of tubing and tag bottom, recording the depth. COTD should be at +/- **6550'**. TOO H with 2-3/8" tubing and stand back. Visually inspect tubing and replace bad joints as necessary. Check tubing for scale, and notify Production Engineer and Drilling Manager if it is present.
4. PU and TIH with 4-1/2" CIBP on 2-3/8" tubing. Include a seating nipple in the assembly so that the tubing can be pressure tested from as deep as possible. Set CIBP at **6362'**. Load hole with 2% KCl water and pressure test the casing and CIBP to 1000 psig. Report the results to the Production Engineer and Drilling Manager. **NOTE: THE RESULTS OF THE PRESSURE TEST MAY ALTER STEPS 5-9.** Drop a standing valve and pressure test the tubing to 2400 psig at surface. Replace any bad joints of tubing so that cement plugs will be placed at the proper locations. TOO H with tubing and stand back. Retrieve standing valve.
5. RU wireline. Run GR-CBL-CCL with 1000 psig from 150' below the deepest TOC (5520' by temperature survey) to 150' above the cement top (1900' by temperature survey). Contact Production Engineer and Drilling Manager to evaluate CBL and decide course of action. **NOTE: THE RESULTS FROM THE CBL MAY ALTER THE REMAINDER OF THE PROCEDURE, WHICH HAS BEEN WRITTEN USING CEMENT TOPS FROM TEMPERATURE SURVEYS AND AS IF THE CASING HELD PRESSURE IN STEP 4.** Pressure test the casing and

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CIBP to 3800 psig.

6. **PLUG 1: DAKOTA AND GRANEROS PERFORATIONS (6362' - 6262').** TIH with open-ended 2-3/8" tubing to 6362'. Mix and pump 12 sacks Class "B" neat cement and spot a balanced plug inside the casing and above the CIBP to abandon the Dakota and Graneros perforations. TOOH with tubing and stand back.
7. **PLUG 2: GALLUP TOP (5510' - 5410').** RU wireline. Correlate to GR-CBL-CCL and perforate 2 holes at 5510' using a 3-1/8" HSC gun loaded with HSC-3125-369 charges (15 gram, 0.45" perf diameter, 11.19" penetration). Establish rate and pressure into squeeze holes. PU and TIH with 4-1/2" Model "K-1" cement retainer on 2-3/8" tubing. Set retainer at 5460'. Mix and pump 51 sacks Class "B" neat cement and squeeze 39 sacks cement outside 4-1/2" casing, leaving 12 sacks inside casing to cover Gallup top. TOOH with tubing and stand back.
8. **PLUG 3: MESAVERDE TOP (3683' - 3583').** Perforate 2 holes at 3683' using a 3-1/8" HSC gun loaded with HSC-3125-369 charges (15 gram, 0.45" perf diameter, 11.19" penetration). Establish rate and pressure into squeeze holes. RD wireline. PU and TIH with 4-1/2" Model "K-1" cement retainer on 2-3/8" tubing. Set retainer at 3633'. Mix and pump 64 sacks Class "B" neat cement and squeeze 52 sacks cement outside 4-1/2" casing, leaving 12 sacks inside casing. Sting out of cement retainer and reverse circulate from 3533'. TOOH with tubing and stand back.
9. **NOTE: THE WORK FROM THIS POINT ON SHOULD BE CHARGED TO THE CAPITAL (249) AFE.** Perforate 1 hole at 2560' using a 3-1/8" HSC gun loaded with HSC-3125-302T charges (10 gram, 0.29" perf diameter, 16.64" penetration). Establish rate and pressure into squeeze holes. RD wireline. PU and TIH with 4-1/2" retrievable packer on 2-3/8" tubing. Set packer at 2260'. Mix and pump 150 sx Class "B" with 2% CaCl₂, and displace cement 4 bbls below packer (251'). Shut well in and WOC overnight.
10. Pressure test squeeze hole at 2560' to 500 psig and report results to Production Engineer and Drilling Manager. Release packer. TOOH with tubing and LD packer. PU and TIH with 3-7/8" bit on tubing and DO cement to the cement top at 3533'. Spot 16 bbls of 15% HCl* from 3533' to above the top perf. TOOH with tubing and LD bit.

***NOTE: ALL ACID TO CONTAIN THE FOLLOWING ADDITIVES PER 1000 GAL:**

1000 gal	15%	Hydrochloric acid
2 gal		Corrosion inhibitor
2 gal		Surfactant

11. RU wireline. Run GR-CBL-CCL with 500 psig from 3633' to 150' above the squeeze cement top. Contact Production Engineer and Drilling Manager to evaluate CBL and decide course of action. **NOTE: THE RESULTS FROM THE CBL MAY DEMAND ADDITIONAL SQUEEZE WORK.**
12. Perforate the Lewis interval with 3-1/8" Select-Fire guns loaded with HSC-3125-306T charges (12 gram, 0.3" perf diameter, 17.48" penetration). Shoot 60 holes 1 shot every 2' from the top down in 15% HCl* at the following depths and then RD wireline:

2610-3483' **NOTE: MORE SPECIFIC DEPTHS WILL BE SUPPLIED UPON REVIEW OF CBL.**

13. **NOTE: THE FINAL CEMENT BOND THROUGH THE CHACRA INTERVAL WILL DICTATE THE BREAKDOWN PROCEDURE. CONTACT PRODUCTION ENGINEER AND DRILLING MANAGER FOR BREAKDOWN PROCEDURE.**

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14. Fracture stimulate the Chacra at a constant downhole rate of 40 bpm with 75 quality N₂ foamed 20# linear gel and 200,000# 20/40 sand according to the attached frac schedule. Flush to 100' above the top perf with 75 quality N₂ foam. **NOTE: THE MAX TREATING PRESSURE IS 3800 PSIG.**
15. Record ISIP, 5, 10, and 15-minute shut-in pressures. Shut-in frac valve. RD ProTechnics. RD stimulation company and install flowback line above frac valve. Lay flowback line to dual-choke manifold and pit. Open well to pit in accordance with the flowback schedule listed in the table below. **NOTE: DO NOT SHUT WELL IN DURING FLOWBACK.** When schedule dictates a larger choke size, open ball valve upstream of adjustable choke and open adjustable choke on manifold to appropriate size from table and begin flowing through the adjustable choke. Close ball valve upstream of positive flow bean and change out flow bean to next larger size in table. Open ball valve upstream of positive flow bean and begin flowing. Close ball valve upstream of adjustable choke and close adjustable choke. **NOTE: FOLLOW THIS SCHEDULE TO UTILIZE A 24-HOUR FLOWBACK. IF WELL BEGINS TO SLUG OR MAKE LARGE AMOUNTS OF SAND TO SURFACE, DROP TO NEXT SMALLER CHOKE SIZE. IF WELL BEGINS TO TAPER OFF IN LIQUID PRODUCTION AND FLOW MOSTLY N₂, CHANGE TO NEXT LARGER CHOKE SIZE BEFORE TIME SCHEDULE DICTATES.**

10/64" Choke	Approximately 2 hrs.
12/64" Choke	Approximately 2 hrs.
14/64" Choke	Approximately 2 hrs.
16/64" Choke	Approximately 3 hrs.
18/64" Choke	Approximately 3 hrs.
20/64" Choke	Approximately 3 hrs.
22/64" Choke	Approximately 3 hrs.
24/64" Choke	Approximately 3 hrs.
32/64" Choke	Approximately 3 hrs.

16. ND WH isolation tool. PU and TIH with 3-7/8" mill on 2-3/8", 4.7#, J-55 tubing and CO to the cement top at 3533' with air/mist. When the well is sufficiently clean, gauge the Chacra interval for 1 hour, recording results every 15 minutes. A quickly dropping pitot gauge (unstable) over the 60 minutes may indicate liquid loading, and that further time should be spent cleaning up the Chacra interval. Further cleanup should be discussed with the Production Engineer and Drilling Manager. TOOH and LD mill.
17. TIH with an expendable check, a 1.78" ID seating nipple, one joint of 2-3/8", 4.7#, J-55 tubing, one 2' pup joint, and then half of the 2-3/8" production tubing. Run a broach on sandline to ensure that the tubing is clear. TIH with remaining 2-3/8" tubing. Replace any bad joints. CO to cement retainer with air/mist.
18. PU above the top Chacra perf and flow the well naturally, making short trips for cleanup when necessary. Discuss sand production with Production Engineer and Drilling Manager to determine when cleanup is sufficient.
19. Land tubing at 3425'. Broach the upper half of the production tubing. ND BOP and NU tree. Pump off expendable check. If well will not flow on its own, make swab run to seating nipple with rig's sandline. **NOTE: DURING CLEANOUT OPERATIONS THE RESERVOIR MAY BE CHARGED WITH AIR. AS A RESULT OF EXCESS OXYGEN LEVELS THAT MAY BE IN THE RESERVOIR AND/OR WELLBORE, CONTACT THE LEASE OPERATOR TO DISCUSS THE NEED FOR DETERMINING OXYGEN LEVELS PRIOR TO RETURNING THE WELL TO PRODUCTION.** SI well. RD and MOL. Return well to production.

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20. RU ProTechnics. Run Spectral GR tool across the Chacra from 3533' to 2410' RD ProTechnics.

Recommend:

T. Tom Loveland 11/1/01
Production Engineer

Approve:

Bruce W. Borge 11-2-01
Drilling Manager

Approved:

W.S. Smith 11/1/01
Lewis Team Supervisor

Approve:

Reggie Cole 11-2-01
Regulatory
sundry required

Production Engineer: Tom Loveland
Production Foreman: Steve Florez
Specialist: Terry Nelson
Lease Operator: Gracia Montoya

Office: 326-9771
Office: 326-9560

Pager: 326-8698
Pager: 326-8199
Pager: 326-8473
Pager: 326-8432

Home: 564-8571
Mobile: 320-0029
Mobile: 320-2503
Mobile: 320-4267

HANCOCK #6 - Proposed
1850' FSL, 1090' FWL
Unit L, Section 29, T028N, R009W
Latitude: 36 DEG, 37.832'
Longitude: 107 DEG, 49.015'
San Juan County, New Mexico

13-3/4" surface hole

9-5/8", 36#, J-55 casing set at 299'. Cmtd with 200 sx. TOC at surface by circ.

TOC at 1900' by temp svy.

DV tool at 2209'

2-3/8", 4.7#, J-55 tubing landed at 3425'

TOC at 3780' by temp svy.

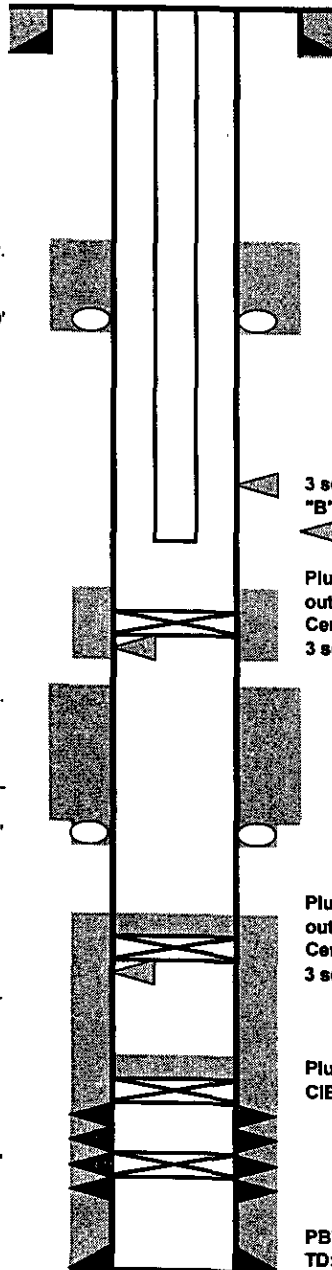
8-3/4" hole drilled to 4526'. Then drilled a 7-7/8" hole to TD.

DV tool at 4593'

TOC at 5520' by temp svy.

CIBP at 6550'

4-1/2", 10.5#, J-55 longstring set at 6653'. Cmtd with 1st stg: 270 sx cmt - TOC at 5520' by temp svy; 2nd stg: 240 sx cmt - TOC at 3780' by temp svy; 3rd stg: 110 sx cmt - TOC at 1900' by temp svy.



Formation Tops	
San Juan	
Nacimiento	600
Ojo Alamo	1044
Kirtland	1161
Fruitland	1836
Pictured Cliffs	2064
Huerfano Bentonite	
Navajo City Chacra	2610
Otero Chacra	
Otero Middle Bench	
Cliff House	3633
Menefee	3730
Point Lookout	4337
Mancos	4496
Gallup	5535
Greenhorn	6300
Graneros	6359
Dakota	6478

3 squeeze holes at 2560'. Sqz with 150 sx Class "B".

Proposed Lewis perms: 2610-3483' (60 holes).

Plug 3: 3683-3633'. Cmt with 52 sx Class "B" outside wellbore and 4 sx Class "B" inside. Cement retainer at 3633' 3 squeeze holes at 3683'

Plug 2: 5510-5410'. Cmt with 39 sx Class "B" outside wellbore and 12 sx Class "B" inside. Cement retainer at 5460' 3 squeeze holes at 5510'

Plug 1: 6362-6262'. Cmt with 12 sx Class "B". CIBP at 6362'

Graneros perforations: 6412-16' (8 holes).

Graneros & Dakota perforations: 6432-6614' (40 holes).

PBTD: 6630
 TD: 6654
 COTD: 3633'