

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-078316-E Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP	7. Unit Agreement Name DK Needs CA NMNM-73203-MV	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Riddle C LS 9. Well Number 1C OIL CONS. DIV. DIST. 3	
4. Location of Well Surf: Unit N (SESW), 1129' FSL & 1322' FWL Bottomhole: Unit N (SESW), 710' FSL & 885' FWL Surf: Latitude: 36.85116° N (NAD83) Longitude: 107.82284° W Bottomhole: Latitude: 36.85006° N (NAD83) Longitude: 107.82433° W	10. Field, Pool, Wildcat Blanco MV / Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) N Sec. 31, T31N, R9W API # 30-045-35087	
14. Distance in Miles from Nearest Town 20 miles / Aztec	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 710'	17. Acres Assigned to Well 299.10 SW/4 - Sec. 30 & W/2 - Sec. 31	
16. Acres in Lease 372.50		
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 600' from Riddle C LS 4 (PC)		
19. Proposed Depth 7877'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6528' GL	22. Approx. Date Work will Start DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Crystal Tafoya</u> Crystal Tafoya (Regulatory Technician)	Date <u>1/11/2010</u>	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 presentations as to any matter within its jurisdiction for operations

Example Master Plan Type 3

Bond Numbers NMB-000015 and NMB-000089

BLM'S APPROVAL OR ACCEPTANCE OF THIS
NOTIFICATION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
NECESSARY PERMITS FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

NOTIFY AZTEC CCD 24 HRS.
PRIOR TO CASING & CEMENT

FEB 04 2010

HOLD C104 FOR

for Directional Survey
and "As Drilled" plat

NMOC

DISTRICT I
1626 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised October 12, 2005

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87506

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Bureau of Land Management ☐ AMENDED REPORT
Farmington Field Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35087	² Pool Code 71599/72319	³ Pool Name BASIN DAKOTA/BLANCO MESAVERDE
⁴ Property Code 38008	⁵ Property Name RIDDLE C LS	⁶ Well Number 1 C
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6528'

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
N	31	31N	9W	18	1129'	SOUTH	1322'	WEST	SAN JUAN

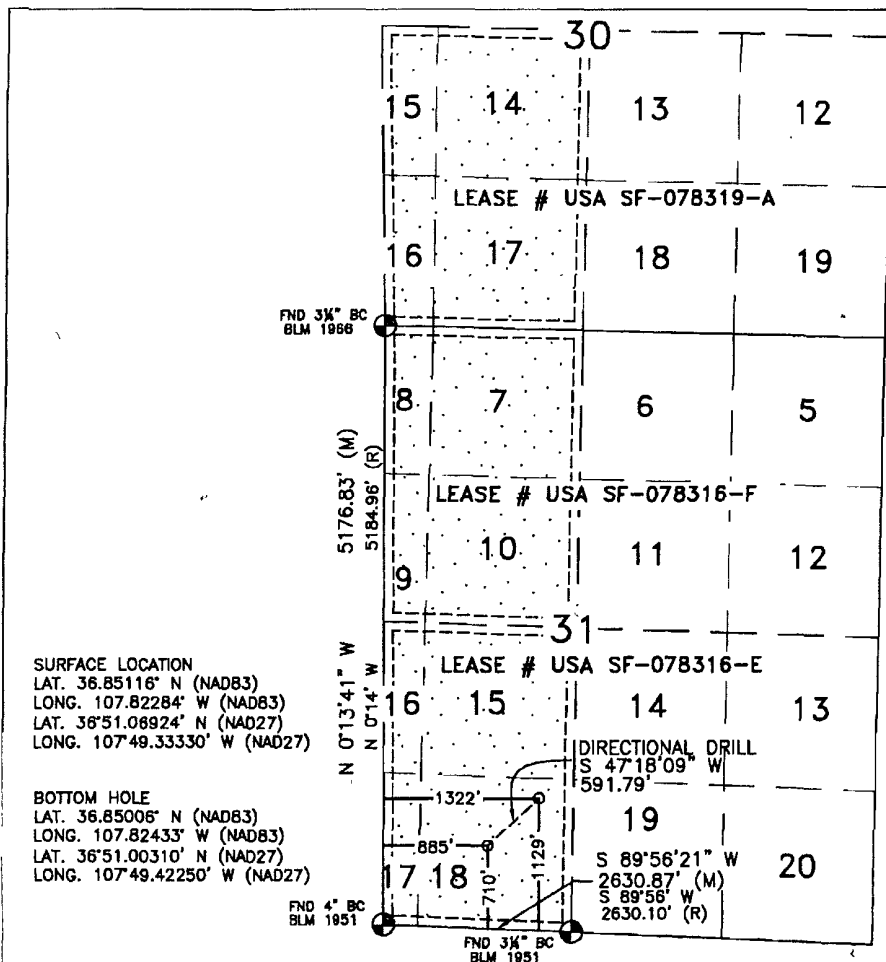
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	31	31N	9W	18	710'	SOUTH	885'	WEST	SAN JUAN

¹² Dedicated Acres 299.10 Acres SW/4-30 & W/2-31	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R - 35 - Mv only
---	-------------------------------	----------------------------------	---

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

18



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner or a compulsory pooling order heretofore entered by the division.

Crystal Tafoya 1/26/09
Signature Date

Crystal Tafoya 1-26-09
Printed Name

¹⁸ SURVEYOR CERTIFICATION

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.

AUGUST 1, 2008

Date of Survey

Signature and Seal of Professional Surveyor:

David R. Russell
DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
10201

DAVID RUSSELL

Certificate Number 10201

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

RIDDLE C LS 1C

DEVELOPMENT

Lease:		AFE #: WAN.CDR.8310		AFE \$: 1,726,503.42	
Field Name: SAN JUAN		Rig: H&P Rig 282		State: NM	County: SAN JUAN
Geologist:		Phone:		Geophysicist:	
Geoscientist:		Phone:		Prod. Engineer:	
Res. Engineer: McKee, Cory J		Phone: +1 505-326-9826		Proj. Field Lead:	
Primary Objective (Zones):					
Zone	Zone Name				
RON	BLANCO MESAVERDE (PRORATED GAS)				
FRR	BASIN DAKOTA (PRORATED GAS)				
Location: Surface Datum Code: NAD 27 Directional					
Latitude: 36.851156	Longitude: -107.822222	X:	Y:	Section: 31	Range: 009W
Footage X: 1322 FWL	Footage Y: 1129 FSL	Elevation: 6528	(FT)	Township: 031N	
Tolerance:					
Location: Bottom Hole Datum Code: NAD 27 Directional					
Latitude: 36.850056	Longitude: -107.823712	X:	Y:	Section: 31	Range: 009W
Footage X: 885 FWL	Footage Y: 710 FSL	Elevation:	(FT)	Township: 031N	
Tolerance:					
Location Type: Year Round		Start Date (Est.): 1/1/2010		Completion Date:	
				Date In Operation:	
Formation Data: Assume KB = 6543 Units = FT					
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT
Surface Casing	201	6342	☐		
OJO ALAMO	1924	4619	☐		
KIRTLAND	2063	4480	☐		
FRUITLAND	2732	3811	☐		Possible Gas
PICTURED CLIFFS	3270	3273	☐		
LEWIS	3350	3193	☐		
Intermediate Casing	3450	3093	☐		
HUERFANITO BENTONITE	3998	2545	☐		
CHACRA	4333	2210	☐		
UPPER CLIFF HOUSE	4931	1612	☐		Gas; Est. Top Perf - 4932 (1610)
MASSIVE CLIFF HOUSE	5018	1525	☐	172	Gas
MENEFEE	5116	1427	☐		
POINT LOOKOUT	5497	1046	☐		
MANCOS	5854	689	☐		
UPPER GALLUP	6797	-254	☐		
GREENHORN	7548	-1005	☐		
GRANEROS	7600	-1057	☐		
TWO WELLS	7651	-1108	☐	2750	Gas
PAGUATE	7749	-1206	☐		
UPPER CUBERO	7780	-1237	☐		
LOWER CUBERO	7797	-1254	☐		Est. Btm Perf - 7856 (-1314) based on offset wells

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

RIDDLE C LS 1C

DEVELOPMENT

ENCINAL	7847	-1304	☐	TD - 30' below T/ENCN; Possible Encinal completion depending on showing from mud log during drilling
Total Depth	7877	-1334	☐	6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 602 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:

Reference Type	Well Name	Comments
Production	Atlantic D Com A 2B	31N 10W 36 S2 NE SE
Production	Riddle C 5	31N 9W 31 SE
Production	Riddle C 4	31N 9W 31 NE SW SW
Production	Florence Federal 2-X	30N 9W 06 SW NE

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

Cased Hole GR / CBL

Mudlog from 100' above top of GRHN to TD - mudlogger will call TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
----------	-------	-----------	---------	----------------	---------

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Riddle C LS 1C
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 6543 0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico Wells	MD Reference:	RKB @ 6543 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Riddle C LS 1C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,942 3	5,854 0	Mancos		0 00		
3,358 1	3,270 0	Pictured Cliffs		0 00		
1,940 8	1,924 0	Ojo		0 00		
7,935 3	7,847 0	Encinal		0 00		
4,086 3	3,998 0	Huerfanto Bentonite		0 00		
5,019 3	4,931 0	Upper Cliffhouse		0 00		
5,106 3	5,018 0	Mass Cliffhouse		0 00		
5,204 3	5,116 0	Menefee		0 00		
7,636 3	7,548 0	Greenhorn		0 00		
2,802 6	2,732 0	Fruitland		0 00		
7,688 3	7,600 0	Graneros		0 00		
5,585 3	5,497 0	Point Lookout		0 00		
7,837 3	7,749 0	Paguate		0 00		
2,088 7	2,063 0	Kirtland		0 00		
4,421 3	4,333 0	Chacra		0 00		
7,885 3	7,797 0	Lower Cubero		0 00		
7,739 3	7,651 0	Two Wells		0 00		
3,438 3	3,350 0	Lewis		0 00		
6,885 3	6,797 0	Upper Gallup		0 00		
7,868 3	7,780 0	Cubero		0 00		

REFERENCE INFORMATION

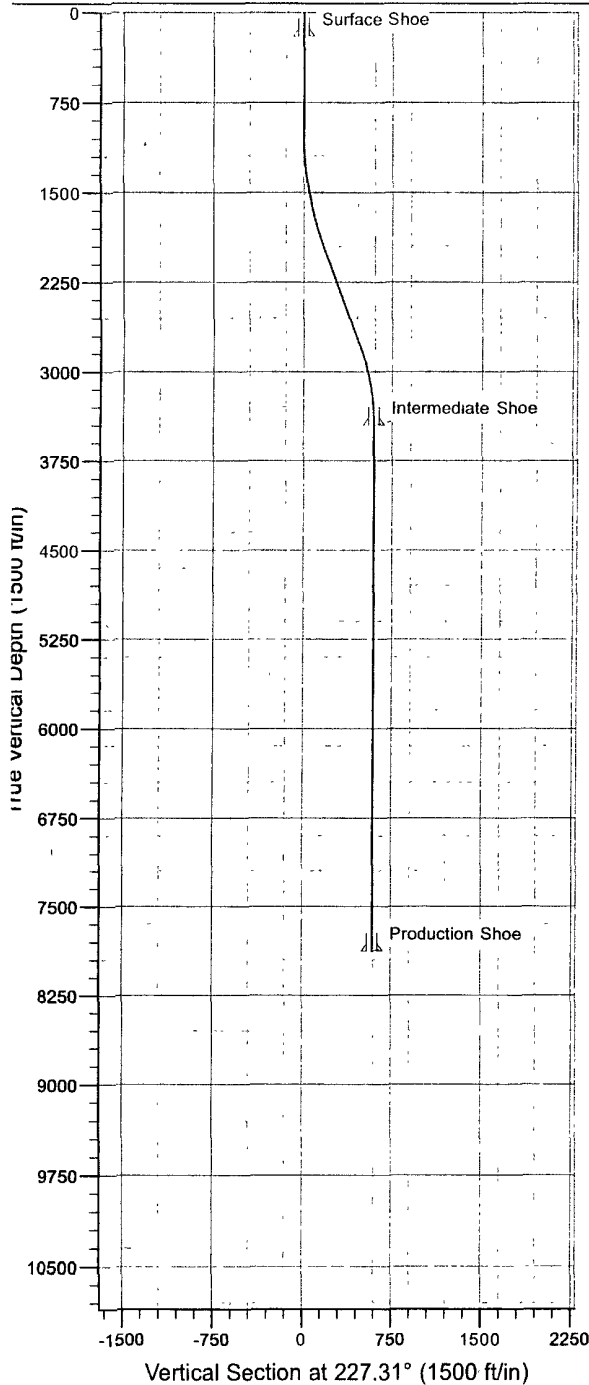
RKB @ 6543.0ft (Original Well Elev)
Ground Elevation 6528.0
Reference Lat: 36° 51' 4.154 N
Reference Long: 107° 49' 19.998 W

Project: San Juan Basin - New Mexico Wells
Site: Other Named Wells
Well: Riddle C LS 1C
Wellbore: Wellbore #1
Design: Plan #1



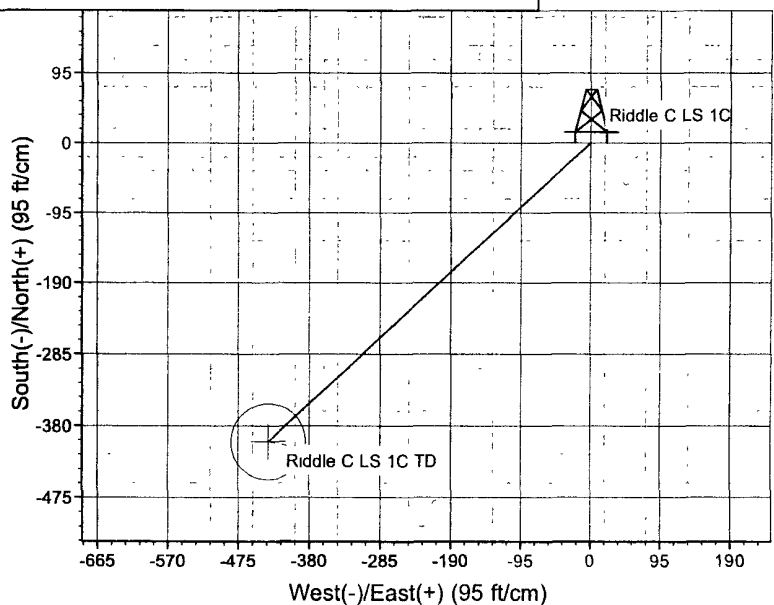
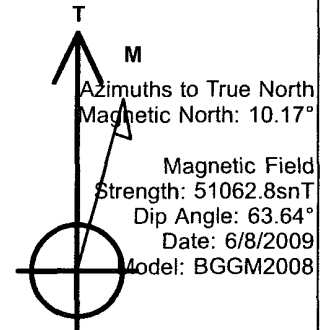
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	2020.6	20.41	227.31	1999.2	-122.0	-132.2	2.00	227.31	179.9	
4	2857.9	20.41	227.31	2783.9	-320.0	-346.9	0.00	0.00	471.9	
5	3538.3	0.00	0.00	3450.0	-401.3	-435.0	3.00	180.00	591.8	Riddle C LS 1C ICP
6	7965.3	0.00	0.00	7877.0	-401.3	-435.0	0.00	0.00	591.8	Riddle C LS 1C TD



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1785.0	1940.8	Ojo
1924.0	2088.7	Kirtland
2593.0	2802.6	Fruitland
3131.0	3358.1	Pictured Cliffs
3211.0	3438.3	Lewis
3859.0	4086.3	Huerfano Bentonite
4194.0	4421.3	Chacra
4792.0	5019.3	Upper Cliffhouse
4879.0	5106.3	Mass. Cliffhouse
4977.0	5204.3	Menefee
5358.0	5585.3	Point Lookout
5715.0	5942.3	Mancos
6658.0	6885.3	Upper Gallup
7409.0	7636.3	Greenhorn
7461.0	7688.3	Graneros
7512.0	7739.3	Two Wells
7610.0	7837.3	Paguate
7641.0	7868.3	Cubero
7658.0	7885.3	Lower Cubero
7708.0	7935.3	Encinal



BURLINGTON RESOURCES OIL & GAS COMPANY LP

RIDDLE C LS #1C
1129' FSL & 1322' FWL
LOCATED IN THE SE/4 SW/4 OF SECTION 31,
T31N, R9W, N M.P.M.,
SAN JUAN COUNTY, NEW MEXICO

DIRECTIONS

- 1) FROM HWY 550 & HWY 173 IN AZTEC, TRAVEL EAST ON HWY 173 FOR 12.7 MILES.
- 2) TURN LEFT AND TRAVEL 3.25 MILES
- 3) TURN LEFT AND TRAVEL 0.5 MILES TO A "Y" INTERSECTION.
- 4) STAY RIGHT AND TRAVEL UP HILL FOR 0.5 MILES TO THE FLAGGED ACCESS ON THE LEFT.
- 5) FOLLOW FLAGGING 366' TO WELL FLAG.

WELL FLAG LOCATED AT LAT. 36.85116° N, LONG. 107.82284° W (NAD 83).

JOB No.: COPC172
DATE: 04/24/08



Russell Surveying
1409 W. Aztec Blvd. #2
Aztec, New Mexico 87410
(505) 334-8637