

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE

FORM APPROVED
OMB NO. 1004-0136**EXPEDITED** *Right-of-Way*

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Koch Exploration Company *Burlington Resources*

3. ADDRESS AND TELEPHONE NO.

P.O. Box 489, Aztec, NM (505) 934-9111

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

At surface 985' ~~665'~~ FSL & 1755' FWL

At proposed prod. zone Same 1740'

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approx. 9 Miles NE of Aztec, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

425'

16. NO. OF ACRES IN LEASE

~~665~~

885

19. PROPOSED DEPTH

5700'

17. NO. OF ACRES ASSIGNED TO THIS WELL

313.89 S/2

20. ROTARY OR CABLE TOOLS

Rotary

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

6209 ~~6204~~ GR

22. APPROXIMATE DATE WORK WILL START*

10/1/2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8" J-55	36#	220' +/-	112
8 3/4"	7" J-55	23#	3300' +/-	410
6 1/4"	4 1/2" J-55	10.5#	5700'	216

See Attached

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

FRO 2102

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24

SIGNED:

Don J. Markiewicz

TITLE: Operations Manager

DATE:

7/20/01

(This space for Federal or State office use)

PERMIT NO.:

APPROVAL DATE:

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY: */s/ David J. Markiewicz*

TITLE:

AFM

DATE:

2/7/02

NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045 30746		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 28918	*Property Name WALKER KOCH		*Well Number 2C
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS, INC.		*Elevation 6209'

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	10	31-N	10-W		885	SOUTH	1740	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

*Dedicated Acres MV/S/320 DK:/313.89	*Joint or Infill	*Consolidation Code	*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

16 Reissued to Show Moved Location			
LOT 3		LOT 2	
LOT 4		LOT 7	
FD 3 1/4" BLM BC.1968		LOT 5	
LOT 9		LOT 8	
NM-014110		LOT 11	
LOT 10		LOT 12	
NM-014110		LOT 12	
FD 3 1/4" S 89-19-30 E		LOT 12	

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Peggy Cole
Signature

Peggy Cole
Printed Name
Regulatory Supervisor

Title
Date 12-10-01

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this 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 knowledge and belief.

11
Date of Survey
Signature and Seal of Professional Surveyor
8894
Certificate Number

NO NEW CONSTRUCTION

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

885' FSL, 1740' FWL, Sec. 10, T-31-N, R-10-W, NMPM

5. Lease Number
NM-014110

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number
Walker Koch 2C

9. API Well No.
30-045-

10. Field and Pool
Blanco MV/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

The location of the subject well has been moved. Attached is the revised C-102 plat, cut & fill diagram, and topo map.

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

Signed [Signature] Title Regulatory Supervisor Date 12/10/01
FSB

(This space for Federal or State Office use)

APPROVED BY [Signature] Title AFM Date 2/7/02

CONDITION OF APPROVAL, if any:

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.

NMOCB

submitted in lieu of Form 3160-5

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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

665' FSL, 1755' FWL, Sec. 10, T-31-N, R-10-W, NMPM

5. Lease Number
NM-014110

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number
Walker Koch #2C

9. API Well No.
30-045-

10. Field and Pool
Blanco MV/Basin DK

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

13. Describe Proposed or Completed Operations

The well name of the subject well has been changed from the Walker #2C to the Walker Koch #2C. Attached is the revised C-102 plat.
It is intended to add the Dakota formation to the subject well. The operations plan will be altered according to the attached.

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

Signed Debra Call Title Regulatory Supervisor Date 9/17/01
TLW

(This space for Federal or State Office use)

APPROVED BY Stephen M. Mason Title PE Date 2/7/02
CONDITION OF APPROVAL, if any:

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.

NMOCD

RECEIVED
2001 SEP 19 PM 4:57
OTW

OPERATIONS PLAN

Well Name: Walker Koch #2C
Location: 665' FSL, 1755' FWL, Sec 10, T-31-N, R-10-W
San Juan County, NM
Latitude 36° 54.28, Longitude 107° 52.20
Formation: Blanco Mesaverde/Basin Dakota
Elevation: 6204' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1466'	
Ojo Alamo	1466'	1516'	aquifer
Kirtland	1516'	2366'	gas
Fruitland	2366'	2996'	gas
Pictured Cliffs	2996'	3116'	gas
Lewis	3116'	3706'	gas
Intermediate TD	3216'		
Mesa Verde	3706'	4116'	gas
Chacra	4116'	4801'	gas
Massive Cliff House	4801'	4876'	gas
Menefee	4876'	5246'	gas
Massive Point Lookout	5246'	5626'	gas
Mancos	5626'	6546'	gas
Gallup	6546'	7249'	gas
Greenhorn	7249'	7306'	gas
Graneros	7306'	7362'	gas
Dakota	7362'	7664'	gas
Morrison	7664'		
TD	7710'		

Logging Program:

Cased hole - CBL-CCL-GR - TD to surface
Open hole - DIL/GR, Density & Neutron Porosity, Bulk Density/
Correction, Microlog, Temp - TD to minimum operations depth
Mudlog - 6800' to TD
Cores - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200- 3216'	LSND	8.4-9.0	30-60	no control
3216- 7312'	Air/N2	n/a	n/a	n/a
7312- 7710'	LSND	8.4-9.0	30-60	no control

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program (as listed, the equivalent, or better):

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3216'	7"	20.0#	J-55
6 1/4"	3116' - 7710'	4 1/2"	10.5#	J-55

Tubing Program:

0' - 7710' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 3000 psi minimum double gate BOP stack (Reference Figure #1).
After nipple-up prior to drilling out surface casing, rams and
casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 3000 psi minimum double gate BOP stack (Reference Figure #1).
After nipple-up prior to drilling out intermediate casing, rams
and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 3000 psi double gate BOP stack (Reference Figure #2).
After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 159 sx Class "B" cement with 1/4# celloflake/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/330 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx. Tail w/90 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent (966 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

See attached alternative intermediate lead slurry.

7" intermediate casing alternative two stage: Stage collar at 2266'. First stage: cement with 223 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent. Second stage: 264 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx (966 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1516'. Two turbolating centralizers at the base of the Ojo Alamo at 1516'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 458 sx 50/50 Class "G" Poz with 5% gel, 0.25# celloflake/sx, 5# gilsonite/sx, 0.1% retardant and 0.25% fluid loss additive, 0.15% dispersant, 0.1% antifoam agent (660 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

4 1/2" production casing alternative: Lead w/184 sx 9.5 PPG Litecrete Blend w/0.11% dispersant, 0.5% fluid loss. Tail w/169 sx Class G 50/50 poz w/5% gel, 0.25 pps celloflake, 5 pps gilsonite, 0.25% fluid loss, 0.15% dispersant, 0.1% retarder, 0.1% antifoam (707 cu.ft., 50% excess to cement 4 1/2" x 7" overlap).

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement float shoe on bottom with float collar spaced on top of float shoe.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.