

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

Conoco Inc. 5073

a. ADDRESS AND TELEPHONE NO

10 Desta Dr. Ste 430E, Midland, Tx. 79705-4500

915-686-5794

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

At surface

820' FNL & 1605' FWL

At proposed prod. zone

820' FNL & 1605' FWL

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

5. LEASE DESIGNATION AND SERIAL NO

SF 078194

6 IF INDIAN, ALLOTTEE OR TRIBE NAME

7 UNIT AGREEMENT NAME

8. FARM OR LEASE NAME WELL NO

LUDWICK LS #21M

9. API WELL NO

30-045-29565

10. FIELD AND POOL, OR WILDCAT  
AND SURVEY OR AREA

Blanco MV / Basin Dakota

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

Sec. 31. T30N. R10W

12 COUNTY OR PARISH

San Juan

13. STATE

NM

5. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drilg. unit line, if any)

16 NO OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

W/ 295.98  
320 W/ 295.98

8. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

7392

20. ROTARY OR CABLE TOOLS

Rotary

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

6086' GR

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

22. APPROX. DATE WORK WILL START\*

4/15/98

23

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55, 9-5/8"	36#	250'	135 sxs, circ.
8-3/4"	K-55, 7"	23#	2800'	335 sxs, circ.
6-1/4"	K-55, 4-1/2"	9.5#	7092'	470 sxs, toc @ 2600'

It is proposed to drill a vertical wellbore to the Blanco Mesaverde and Basin Dakota Pools. NOS was filed 2/21/98. The well will be drilled and equipped according to the following additional attachments:

1. Well Location & Acreage Dedication Plat (C-102).
2. Proposed Well Plan Outline.
3. Cementing Plan.
4. Blowout Preventer Hookup.
5. Surface Use Plan with Production Facility Layout.
6. Pipeline survey plat.

RECEIVED  
MAR 25 1998  
OIL CON. DIV.  
DIST. 3

This application includes ROW's for the well pad, access road and pipeline.

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

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

*[Signature]*

TITLE

Mike L. Mankin

Right-of-Way Agent

DATE

March 3, 1998

(This space for Federal or State office use)

MAR 23 1998

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/ Duane W. Spencer*

TITLE

DATE

MAR 23 1998

\*See Instructions On Reverse Side

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.

NMOC

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer 00, 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

*API Number <u>30-045-29565</u>		*Pool Code 72319 / 71599		*Pool Name BLANCO MESAVERDE / BASIN DAKOTA	
*Property Code <u>22398</u>		*Property Name LUDWICK LS			*Well Number 21M
*OGRID No. 005073		*Operator Name CONOCO, INC.			*Elevation 6086'

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
C	31	30N	10W		820	NORTH	1605	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

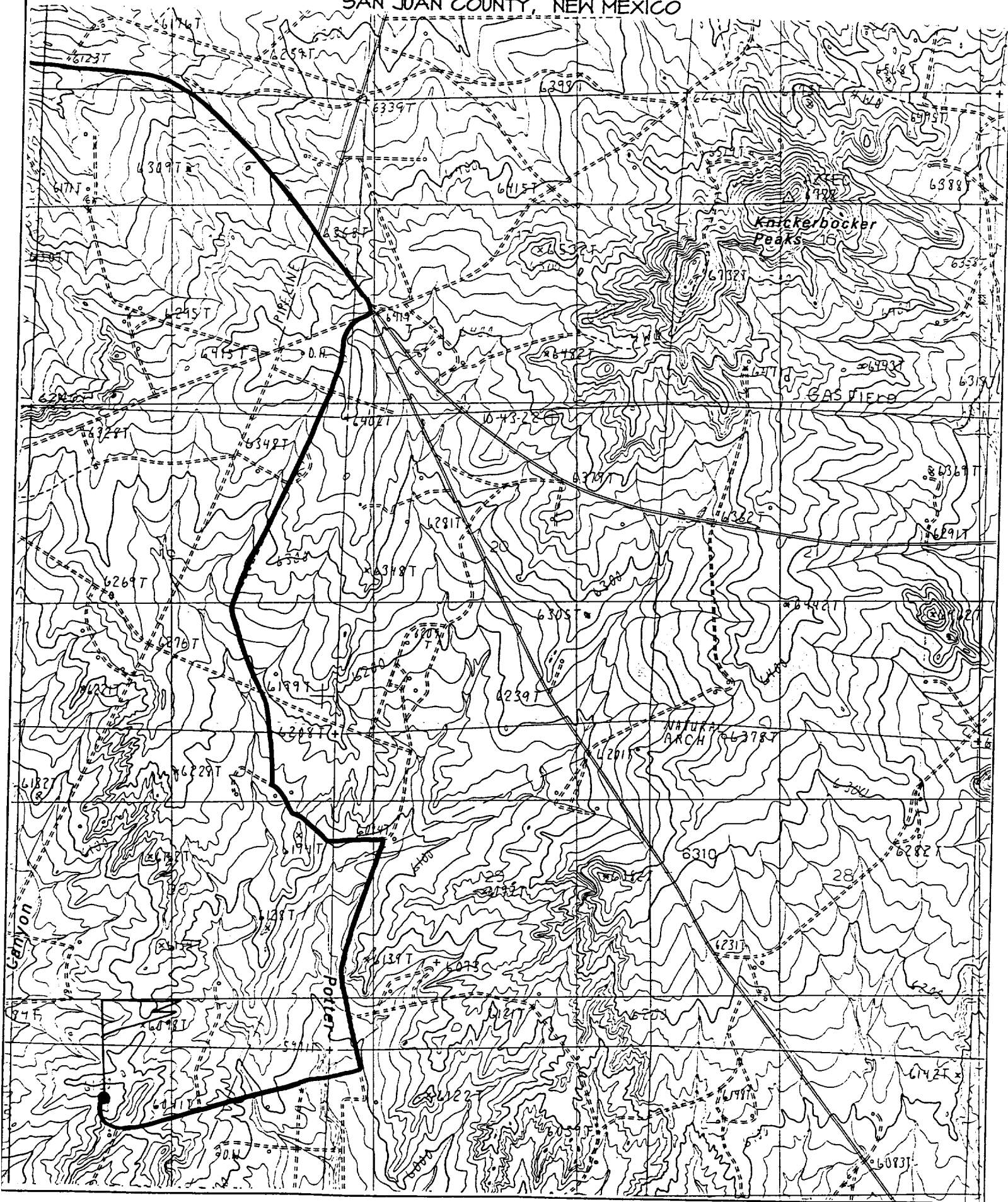
12 Dedicated Acres <u>295.98</u> <u>320</u>	13 Joint or Infill	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div>16</div> <div>1212.42'</div> <div>1303.50'</div> <div>820'</div> <div>1605'</div> <div>2618.22'</div> <div>8</div> <div>7</div> <div>9</div> <div>10</div> <div>11</div> <div>12</div> <div>13</div> <div>14</div> <div>15</div> <div>16</div> <div>17</div> <div>18</div> <div>19</div> <div>20</div> <div>2607.00'</div> <div>1156.32'</div> <div>1284.36'</div> <div>2644.62'</div> <div>5216.64'</div> <div>31</div> <div>RECEIVED</div> <div>MAR 25 1998</div> <div>OIL CON. DIV.</div> <div>DIST. 3</div>	<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div> <div><u>Mike L Mankin</u></div> <div>Signature</div> <div>Mike L. Mankin</div> <div>Printed Name</div> <div>Right-Of-Way Agent</div> <div>Title</div> <div><u>3-3-98</u></div> <div>Date</div> <div>18 SURVEYOR CERTIFICATION</div> <div>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.</div> <div>FEBRUARY 23, 1998</div> <div>Date of Survey</div> <div><u>NEALE C. EDWARDS</u></div> <div>Signature and Seal of Professional Surveyor</div> <div>NEALE C. EDWARDS</div> <div>NEW MEXICO</div> <div>6857</div> <div>6857</div> <div>Certification Number</div> <div>PROFESSIONAL SURVEYOR</div>
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CONOCO, INC. LUDWICK LS #21M

820' FNL & 1605' FWL, SECTION 31, T30N, R10W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



# PROPOSED WELL PLAN OUTLINE

WELL NAM **LUDWICK LS No. 21M**

EST. GL =

6086

LOCATION: **SEC 31, T-30N, R-10W, SAN JUAN CO., NM**

EST. KB =

6097

TVD IN 1000	MD	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING SIZE	DEPTH	FRAC GRAD. psi/ft	FORMATION PRESSURE PSI	MUD WT	TYPE	DAYS
0					12-1/4"	9-5/8" 30# K-55 ST&C @ 250'			NORMAL	8.4 - 8.8# SPUD MUD		1
					8-3/4"	CIRC CMT				8.4 - 9.0# GEL/WATER		
1		OJAM @ 1187' KRLD @ 1328'	POSSIBLE WATERFLOW							MAINTAIN MW AS LOW AS POSSIBLE		
2		FRLD @ 2140' PCCF @ 2500'	POSSIBLE GAS FLOW POSSIBLE LOST RETURNS POSSIBLE DIFFERENTIAL STICKING		8-3/4"	7" 23# K-55 LTC @ 2800' (special drift)				CONTROL FLUID LOSS PRIOR TO OJAM		5
3		CHRA			8-1/4"	CIRC CMT				AIR/AIR MIST/GAS		
4		CLFH/MV @ 4127' MENF @ 4221'	PROBABLE LOST RETURN IF FLUID IN HOLE					0.5	475 PSI 563 PSI			
5		PTLK @ 4803'										
6		GLLP @ 5992'										
7		GRHN @ 6729' GRRS DKOT @ 6885'	POSSIBLE WATERFLOW POSSIBLE OVERPRESSUR IN DEEP DAKOTA	CASED HOLE LOGS	8-1/4"	4-1/2" 9.5# K-55 LTC @ 7092'		0.5	715 PSI BHT = 175 deg F	AIR/AIR MIST/GAS		10
		T.D. @ 7092'				TOC @ 2600'						
		NOTE: PERMIT TO 7392'										

DATE **03/03/98** APPROVALS:

9:41 AM

PREPARED: Ricky Joyce/Ted Kelly  
 DRILLING ENGINEER

RES. ENGINEER

PROD. ENGINEER

GEOLOGIST

DRILLING MGR.

SF 078194