

Permit Comments

Operator: EOG RESOURCES INC , 7377**Well: MACKENZIE 13 FEE #002H**

30-015-34315

User Name	Comment	Comment Date
MFRANCIS	Bryan, This is the second well on 320 acre project area that I sent you plat on previously. Drilling,Mud and Casing Program will be mailed. H2S letter and C-144 will also be sent. Please advise if you have any Questions, Thanks, Mike Francis	8/15/2005



August 17, 2005

VIA HAND DELIVERY

Mr. Michael E. Stogner
Oil Conservation Division
Energy, Minerals and Natural Resources Department
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RECEIVED
AUG 22 2005
OCD-ARTESIA

Re: Application of EOG Resources, Inc. for approval of a second horizontal wellbores on a standard 320-acre gas spacing unit, Lea County, New Mexico.

Dear Mr. Stogner:

In response to your e-mail of August 2nd, I am enclosing copies of two Well Location and Acreage Dedication Plats for the horizontal wells that EOG Resources, Inc. is proposing to drill in the W/2 of Section 13, Township 16 South, Range 24 East, NMPM, Eddy County, New Mexico. As you will recall, Bryan Arrant believes that Rule 104 does not authorize a second horizontal wellbore on this unit.

Rule 104 allows two wells on a standard deep gas spacing unit. However, it requires that the infill well be located on the quarter section not containing the original well. Since the first horizontal wellbore traverses both quarter sections in this spacing unit, the question is whether or not this wellbore precludes the drilling of the second well unless an exception to this rule is first obtained. Horizontal drilling technology seems to me to be forcing the amendment, of certain spacing and production rules. For example, spacing units are combined for single horizontal well "project areas" / "producing areas," and allowable limits are amended for wells that develop multiple units. Other questions are presented where multiple laterals are proposed from a single vertical wellbore, and now multiple horizontal wellbores are being proposed on a single spacing unit.

It appears to me that in the near future the Division is going to have a number of requests for multiple horizontal wellbores on a single spacing unit and therefore your guidance on how to proceed will be helpful to both the Division and to operators.

Very truly yours,

William F. Carr
Enclosures

cc: Rick Lanning, EOG Resources, Inc.
Bryan Arrant, OCD, Artesia

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

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102

Revised August 15, 2000

Submit to Appropriate District Office

State Lease - 4 copies

Fee Lease - 3 copies

RECEIVED

AUG 17 2005

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION

¹ API Number		² Pool Code		³ Pool Name	
				Collins Ranch wolfcamp	
⁴ Property Code		⁵ Property Name			⁶ Well Number
		MACKENZIE "13" FEE			2H
⁷ OGRID No.		⁸ Operator Name			⁹ Elevation
7377		EOG RESOURCES, INC.			3584'

¹⁰ Surface Location

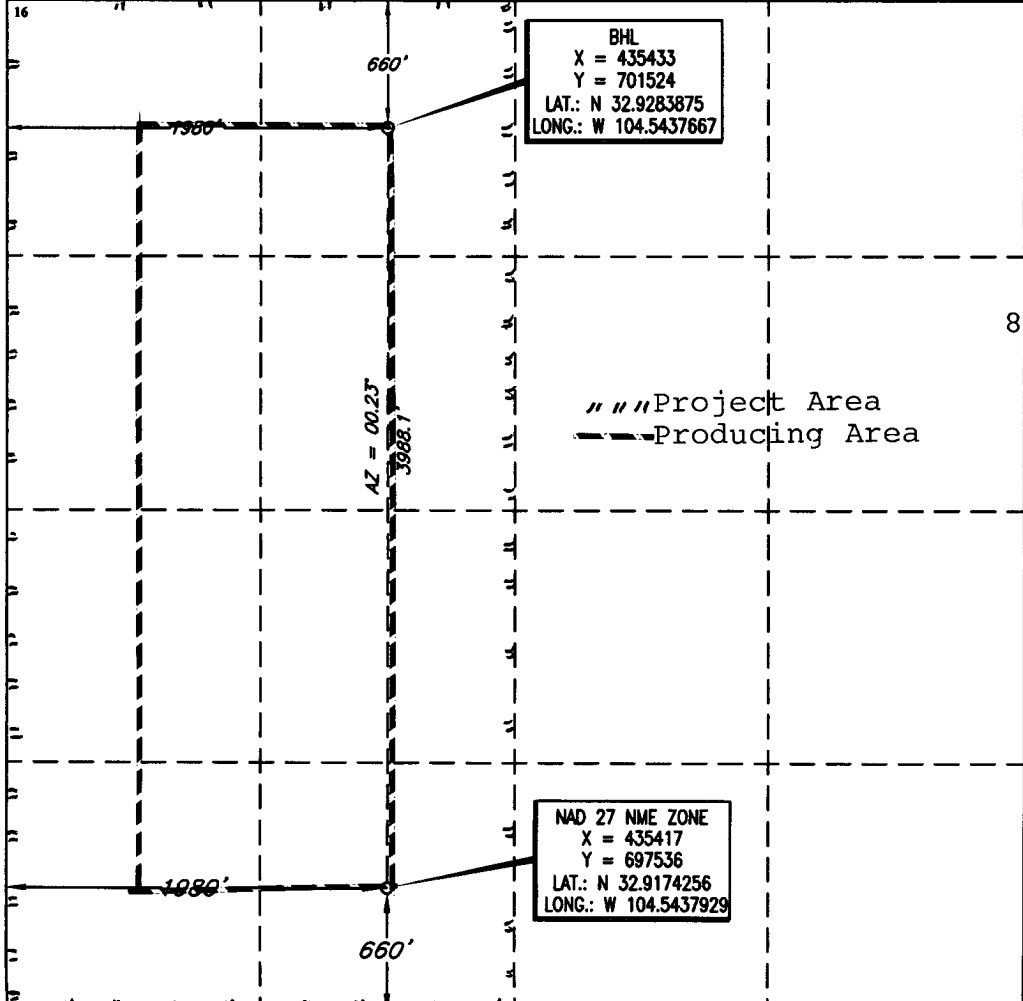
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	13	16 SOUTH	24 EAST, N.M.P.M.		660'	SOUTH	1980'	WEST	EDDY

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
C	13	16 SOUTH	24 EAST, N.M.P.M.		660'	NORTH	1980'	WEST	EDDY

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Mike Francis</i> Signature Mike Francis Printed Name Agent Title 8/15/2005 Date ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plot 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. Date of Survey Signature of Professional Surveyor V. LYNN BEZNER NO. 7920 <i>V. Lynn Bezner</i> Certificate Number V. L. BEZNER R.P.S. #7920 JOB #105204 / 101 SE / E.U.O.
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EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3600

August 15, 2005

State of New Mexico Energy, Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

To Whom It May Concern:

I am writing to request a waiver for the inclusion of an H₂S Contingency Plan for the MacKenzie 13 Fee #2H. The current plan is to complete this well in the Wolfcamp, which is sweet, and I do not anticipate encountering any H₂S bearing formations during drilling operations.

Sincerely,

Jason LaGrega
Drilling Engineer

RECEIVED

AUG 17 2005

GOB-ARTEDIA

Permit Information:

Well Name: MacKenzie 13 Fee #2H

Location:

SL 660' FSL & 1980' FWL, Section 13, T-16-S, R-24-E, Eddy Co., N.M.

BHL 660' FNL & 1980' FWL, Section 13, T-16-S, R-24-E, Eddy Co., N.M.

Casing Program:

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	900'	11"	8-5/8"	32#	J-55	Surface
Production	8,474'	7-7/8"	5 1/2"	17#	P-110	Surface

Cement Program:

Depth	No. Sacks	Slurries:
900'	300	Lead: Class C + 5% D44 + 4% D20 + 0.25 pps D29 + 2% S1
	200	Tail: Class C + 2% S1 + 0.25 pps D29
8,474'	350	Lead: 50:50 Poz C + 6% D44 + 10% D20 + 0.25 pps D29
	250	Tail: Class C + 200% D151 + 0.4% D13 + 0.5% D112 + 0.15 gps D604AM + 0.05 gps D47 + 1.5% D153

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 950'	Fresh - Gel	8.6-8.8	28-34	N/c
950' – 4,400'	Cut Brine	8.8-9.2	28-34	N/c
4,400' – 5,000'	Cut Brine	8.8-9.2	28-34	10-15
4,400' – 8,474'	Polymer (Lateral)	9.0-9.4	40-45	10-25

EOG Resources Inc

Planning Report

Company: EOG Resources
Field: Thames
Site: MacKenzie 13 Fee #2H
Well: MacKenzie 13 Fee #2H
Wellpath: Lateral

Date: 8/15/2005 **Time:** 12:49:25 **Page:** 1
Co-ordinate(NE) Reference: Site: MacKenzie 13 Fee #2H, Grid North
Vertical (TVD) Reference: SITE 3602.0
Section (VS) Reference: Well (0.00N,0.00E,0.23Azi)
Plan: Plan #1

Field: Thames

Map System:US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: igrf2000

Site: MacKenzie 13 Fee #2H

Site Position:	Northing:	697536.00 ft	Latitude:	32 55	2.736 N
From: Map	Easting:	435417.00 ft	Longitude:	104 32	37.649 W
Position Uncertainty:	0.00 ft		North Reference:		Grid
Ground Level:	3584.00 ft		Grid Convergence:		-0.11 deg

Well: MacKenzie 13 Fee #2H

Slot Name:

Well Position:	+N/-S	0.00 ft	Northing:	697536.00 ft	Latitude:	32	55	2.736 N
	+E/-W	0.00 ft	Easting :	435417.00 ft	Longitude:	104	32	37.649 W
Position Uncertainty:		0.00 ft						

Wellpath: Lateral

Drilled From:	Surface
Tie-on Depth:	0.00 ft
Above System Datum:	Mean Sea Level
Declination:	9.03 deg
Mag Dip Angle:	60.89 deg
+E/-W	Direction
ft	deg

Current Datum:	SITE	Height	3602.00	ft
Magnetic Data:	8/15/2005			
Field Strength:	49702	nT		
Vertical Section:	Depth From (TVD)		+N/-S	
	ft			
	4600.00		0.00	

Plan: Plan #1

Date Composed: 8/15/2005
Version: 1
Tied-to: From Surface

Principal: Yes

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4268.00	0.00	0.00	4268.00	0.00	0.00	0.00	0.00	0.00	0.00	
4868.04	90.00	0.23	4650.00	382.00	1.53	15.00	15.00	0.00	0.23	
4894.62	90.80	0.23	4649.82	408.57	1.64	3.00	3.00	0.00	-0.01	
8474.33	90.80	0.23	4600.00	3987.91	16.00	0.00	0.00	0.00	0.00	
8474.42	90.80	0.23	4600.00	3988.00	16.00	3.00	2.98	0.16	3.06	BHL

Survey

[illegible]

EOG Resources Inc

Planning Report

Company: EOG Resources
Field: Thames
Site: MacKenzie 13 Fee #2H
Well: MacKenzie 13 Fee #2H
Wellpath: Lateral

Date: 8/15/2005 **Time:** 12:49:25 **Page:** 2
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Vertical (TVD) Reference: SITE 3602.0
Section (VS) Reference: Well (0.00N,0.00E,0.23Azi)
Plan: Plan #1

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
4268.00	0.00	0.00	4268.00	0.00	0.00	0.00	0.00	0.00	0.00	Keeper Cone
4300.00	4.80	0.23	4299.96	1.34	0.01	1.34	15.00	15.00	0.00	Keeper Cone
4400.00	19.80	0.23	4397.39	22.58	0.09	22.58	15.00	15.00	0.00	Keeper Cone
4500.00	34.80	0.23	4486.00	68.31	0.27	68.31	15.00	15.00	0.00	Keeper Cone
4600.00	49.80	0.23	4559.75	135.42	0.54	135.42	15.00	15.00	0.00	Keeper Cone
4700.00	64.80	0.23	4613.63	219.32	0.88	219.32	15.00	15.00	0.00	Keeper Cone
4800.00	79.79	0.23	4643.96	314.31	1.26	314.32	15.00	15.00	0.00	Keeper Cone
4868.04	90.00	0.23	4650.00	382.00	1.53	382.00	15.00	15.00	0.00	Keeper Cone
4894.62	90.80	0.23	4649.82	408.57	1.64	408.58	3.00	3.00	0.00	Keeper Cone
4900.00	90.80	0.23	4649.74	413.95	1.66	413.95	0.00	0.00	0.00	Keeper Cone
5000.00	90.80	0.23	4648.35	513.94	2.06	513.94	0.00	0.00	0.00	Keeper Cone
5100.00	90.80	0.23	4646.96	613.93	2.46	613.94	0.00	0.00	0.00	Keeper Cone
5200.00	90.80	0.23	4645.57	713.92	2.87	713.93	0.00	0.00	0.00	Keeper Cone
5300.00	90.80	0.23	4644.17	813.91	3.27	813.92	0.00	0.00	0.00	Keeper Cone
5400.00	90.80	0.23	4642.78	913.90	3.67	913.91	0.00	0.00	0.00	Keeper Cone
5500.00	90.80	0.23	4641.39	1013.89	4.07	1013.90	0.00	0.00	0.00	Keeper Cone
5600.00	90.80	0.23	4640.00	1113.88	4.47	1113.89	0.00	0.00	0.00	Keeper Cone
5700.00	90.80	0.23	4638.61	1213.87	4.87	1213.88	0.00	0.00	0.00	Keeper Cone
5800.00	90.80	0.23	4637.22	1313.86	5.27	1313.87	0.00	0.00	0.00	Keeper Cone
5900.00	90.80	0.23	4635.82	1413.85	5.67	1413.86	0.00	0.00	0.00	Keeper Cone
6000.00	90.80	0.23	4634.43	1513.84	6.07	1513.85	0.00	0.00	0.00	Keeper Cone
6100.00	90.80	0.23	4633.04	1613.83	6.48	1613.84	0.00	0.00	0.00	Keeper Cone
6200.00	90.80	0.23	4631.65	1713.81	6.88	1713.83	0.00	0.00	0.00	Keeper Cone
6300.00	90.80	0.23	4630.26	1813.80	7.28	1813.82	0.00	0.00	0.00	Keeper Cone
6400.00	90.80	0.23	4628.87	1913.79	7.68	1913.81	0.00	0.00	0.00	Keeper Cone
6500.00	90.80	0.23	4627.48	2013.78	8.08	2013.80	0.00	0.00	0.00	Keeper Cone

EOG Resources Inc

Planning Report

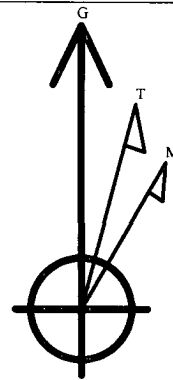
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Wellpath: Lateral

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Plan: Plan #1

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6600.00	90.80	0.23	4626.08	2113.77	8.48	2113.79	0.00	0.00	0.00	Keeper Cone
6700.00	90.80	0.23	4624.69	2213.76	8.88	2213.78	0.00	0.00	0.00	Keeper Cone
6800.00	90.80	0.23	4623.30	2313.75	9.28	2313.77	0.00	0.00	0.00	Keeper Cone
6900.00	90.80	0.23	4621.91	2413.74	9.68	2413.76	0.00	0.00	0.00	Keeper Cone
7000.00	90.80	0.23	4620.52	2513.73	10.09	2513.75	0.00	0.00	0.00	Keeper Cone
7100.00	90.80	0.23	4619.13	2613.72	10.49	2613.74	0.00	0.00	0.00	Keeper Cone
7200.00	90.80	0.23	4617.73	2713.71	10.89	2713.73	0.00	0.00	0.00	Keeper Cone
7300.00	90.80	0.23	4616.34	2813.70	11.29	2813.72	0.00	0.00	0.00	Keeper Cone
7400.00	90.80	0.23	4614.95	2913.69	11.69	2913.71	0.00	0.00	0.00	Keeper Cone
7500.00	90.80	0.23	4613.56	3013.68	12.09	3013.70	0.00	0.00	0.00	Keeper Cone
7600.00	90.80	0.23	4612.17	3113.67	12.49	3113.69	0.00	0.00	0.00	Keeper Cone
7700.00	90.80	0.23	4610.78	3213.66	12.89	3213.68	0.00	0.00	0.00	Keeper Cone
7800.00	90.80	0.23	4609.39	3313.65	13.29	3313.67	0.00	0.00	0.00	Keeper Cone
7900.00	90.80	0.23	4607.99	3413.64	13.70	3413.66	0.00	0.00	0.00	Keeper Cone
8000.00	90.80	0.23	4606.60	3513.63	14.10	3513.65	0.00	0.00	0.00	Keeper Cone
8100.00	90.80	0.23	4605.21	3613.62	14.50	3613.64	0.00	0.00	0.00	Keeper Cone
8200.00	90.80	0.23	4603.82	3713.61	14.90	3713.63	0.00	0.00	0.00	Keeper Cone
8300.00	90.80	0.23	4602.43	3813.59	15.30	3813.63	0.00	0.00	0.00	Keeper Cone
8400.00	90.80	0.23	4601.04	3913.58	15.70	3913.62	0.00	0.00	0.00	Keeper Cone
8474.42	90.80	0.23	4600.00	3988.00	16.00	3988.03	0.00	0.00	0.00	Keeper Cone

Field: Thames
 Site: MacKenzie 13 Fee #2H
 Well: MacKenzie 13 Fee #2H
 Wellpath: Lateral
 Plan: Plan #1



Azimuths to Grid North
 True North: 0.11°
 Magnetic North: 9.15°

Magnetic Field
 Strength: 49702nT
 Dip Angle: 60.89°
 Date: 8/15/2005
 Model: igr2000

