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Form 3160-3
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

070 FARMINGTON, NM

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF-046563
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name NA
2. Name of Operator Koch Exploration Company, LLC		7. If Unit or CA Agreement, Name and No. NA
3a. Address 20 East Greenway Plaza Houston, Texas 77046	3b. Phone No. (include area code) 713-544-4318	8. Lease Name and Well No. Thelma Com 33-1A
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SE/4, Sec. 33, T28N, R10W, 890' FSL & 1820' FEL At proposed prod. zone (Same)		9. API Well No. 230 045 31395
14. Distance in miles and direction from nearest town or post office* 7 miles Southeast of Bloomfield, NM		10. Field and Pool, or Exploratory Basin Fruitland Coal
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 890'	16. No. of Acres in lease 640	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 33. T28N, R10W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 3400'	19. Proposed Depth 2050'	12. County or Parish San Juan
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6217' GR	22. Approximate date work will start* available rig	13. State NM
24. Attachments		17. Spacing Unit dedicated to this well 320 E/2
		20. BLM/BIA Bond No. on file 400 GH. 0471
		23. Estimated duration 30 days

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. I, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Roy A. Ornelas</i>	Name (Printed/Typed) Roy A. Ornelas	Date Feb 07, '03
Title SR Engineer		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify the 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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on reverse)

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".

NMOC

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. 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 30-045-31395	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 19344	Property Name THELMA COM 33	Well Number IA
OGHD No. 12807	Operator Name KOCH EXPLORATION	Elevation 6217

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
0	33	28 N	10 W		890	SOUTH	1820	EAST	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	Joint or Infill	Consolidation Code	Order No.

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 5280.0'	N 89°40'49" W	Existing Well Thelma Com 33 #1 790' FNL & 1190' FEL API #30-045-28114	5267.12'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Lancee F. Harmon Printed Name Vice President - Land Title 12/11/02 Date
		SECTION 33 SF-046563		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. 9/20/02 Date of Survey Signature and Seal of Professional Surveyor:
N 0°03' W		890'	1820'	HENRY P. BROADHURST, JR. NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR

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UNITED STATES
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BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Koch Exploration Company, LLC

3. Address and Telephone No.

20 Greenway Plaza, Houston, Texas 77046

(713) 544-4318

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

S33, T28N, R10W (O)
890 FSL & 1820 FEL

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993
5. Lease Designation and Serial No. SF046563
6. If Indian, Allottee or Tribe Name NA
7. If Unit or CA, Agreement Designation NA
8. Well Name and No. Thelma Com 33 1A
9. API Well No.
10. Field and Pool, or Exploratory Area Basin Fruitland Coal
11. County or Parish, State San Juan County New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Supplement to APD
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Compelled Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Additional information to APD Drilling Program (already submitted).

See Attached.

I hereby certify that the foregoing is true and correct

Signed

Title Senior Engineer

Date

3-26-03

(This space for Federal or State office use)

Approved by

/s/ David J. Mankiewicz

Title

Date

APR 1 2003

Conditions of approval, if any:

Koch Exploration Company, LLC
Basin Fruitland Infill Well
Thelma Com 33-1A
S33 - T28N - R10W
Sundry Notice APD Supplement

Casing Program:

Hole Size	Grade, size of Casing	Weight per Foot	Setting Depth
12 1/4" Hole	8 5/8" J-55 ST&C	24.0#	150'
7 7/8" Hole	4 1/2" J-55 LT&C	10.5#	2,300'

Circulate 8-5/8" cement to surface - Volumes to be adjusted to new casings depths
Circulate 4-1/2" cement to surface - Volumes to be adjusted to new casing depths

100% excess on surface casing
50% excess on production casing

Centralizer Program:

Surface Casing: 3 Centralizers will be ran on the bottom 3 joints, starting at the shoe joint

Production Casing: 2 Centralizers will be ran on the bottom 2 joints, then every 10th joint thereafter or +/-400', and Centralizers to impact a swirling action will be placed just below and into the base of the Ojo Alamo.

Estimated Formation Tops:

San Jose	Surface
Ojo	1,219'
Kirtland Shale	1,321'
Fruitland Coal	1,957'
Pictured Cliff	2,169'
TD	2,300'

Estimated Formation Pressures:

Fruitland Coal	600 psi
Bottom Hole	200 psi

Estimated depths of useable water, salt water and oil/gas bearing formations:

Fresh/Useable Water	0' to 1,321'
Salt Water	1,321' to 1,957'
Oil and Gas	1,957' to 2,300'

THELMA COM 33 – 1A

Sec. 33-T28N-R10W, 890' FSL & 1820' FEL

San Juan Co., New Mexico

Lease SF 046563

Drilling Program

1) Geological name of surface formation -

Estimated tops of important geological markers:

San Jose	Surface
Ojo	928'
Kirtland Shale	1030'
Fruitland Coal	1666'
Pict. Cliffs	1902'
TD	2050'

2) Estimated depths at which oil, gas, water, and mineral bearing formation will be found:

Fresh Water	0' to 200'
Salt Water	201' to 1666'
Oil and Gas	1666' to 2050'

3) Pressure Control Equipment:

- a. 10-inch 900 series or 3,000 psi test double gate hydraulic with 4-1/2" pipe rams and 10-inch series 900 hydril above 10-inch series casinghead and cross spool with flanged outlets. See BOP diagram at **Exhibit F-1** for drawing of choke lines, kill lines and choke manifold. Procedures will include waiting on cement 12 hours, nipple up blowout preventer (BOP) assembly and test to 70% of yield of casing or 3,000 psi maximum. The production casinghead pressure rating will be 3,000 psi.
- b. Type of BOP rams: Blind rams and pipe rams are used as shown on the BOP diagram at **Exhibit F-1**. Occasionally, the position of the rams is reversed depending on the drilling contractor's methods.
- c. The choke manifold and header will have 2-inch choke outlets, a 2-inch straight through the line with 2-inch adjustable chokes installed. The inlet line will be a 2-inch line. All of the above are rated at 3,000 psi working pressure (WP). The choke manifold and header system will have manual control valves; no hydraulic valves will be installed. Casing testing procedure – Surface casing will be tested at 750 psi with 1,000 psi maximum after cementing in place and before drilling out of shoe. Intermediate and production casing will be tested to 3,000 psi after cementing in place and after drilling to the required depth.
- d. Hydraulic controls to close the BOPs are located on the rig floor; the hydraulic remote control is located in the bottom doghouse. There will be no manual controls on the BOP.

THELMA COM 33 – 1A

Sec. 33-T28N-R10W, 890' FSL & 1820' FEL

San Juan Co., New Mexico

Lease SF 046563

e. BOP testing procedures and frequency:

1. Hydril (3,000WP) will be tested to 70% of yield of casing or 3,000 psi maximum.
 2. Double ram BOPs will be tested to 70% of yield of casing or 3,000 psi maximum.
 3. BOPs will be tested upon installation, after casing is run and on each bit trip.
- f. Casinghead connections will be 2-inch; these outlets will usually be bull plugged during drilling operations. No pumping through these connections is allowed except in emergency to keep from wearing out the head.
- g. The drilling spool will be a series 900 3,000 psi WP with a 2-inch kill line and a 2-inch outlet.

4) Proposed Casing Program:

Surface Casing Program:

Surface Casing	8 5/8"	24.0#	J-55 STC	New
Production Casing	4 1/2"	10.5#	J-55 LTC	New

Proposed setting depth, amount and type of cement including additives:

8 5/8" Surface Casing – Surface to 150' – Cement with 100 sks type III (14.6 ppg, slurry yield 1.39 cf/sk) Cement + 2% bwoc Calcium Chloride + .25 lbs/sk Cello Flake + 59.2% Fresh Water. Volume: 138.1 cf., includes 100% excess.

4 1/2" Production Casing – Surface to 2050' –
Lead with 248 sks Premium Lite FM (12.1 ppg, slurry Yield 2.15 cf/sk) + 3% bwoc Calcium Chloride + .25 lb/sk Cello Flake + .4% bwoc FL-52 + 8% bwoc Bentonite + .4% bwoc Sodium Metasilicate + 3 lb/sk Pheno Seal + 116.1 % Fresh Water. Volume: 532.6 cf., includes 50% excess.
Tail with 103 sks Type III Cement (14.0 ppg, slurry Yield 1.54 cf/sk) + 2% bwoc Calcium Chloride + .25 lb/sk Cello Flake + .2% bwoc FL-52 + 68.9% Fresh Water. Volume: 157.4 cf., includes 50% excess

5) Mud Program:

0' – 150' – Spud mud and water treated with gel lime.

150' – 2050' – Lime mud, water and polymer.

THELMA COM 33 – 1A

Sec. 33-T28N-R10W, 890' FSL & 1820' FEL

San Juan Co., New Mexico

Lease SF 046563

6) Testing, Logging, and Coring Program:

No drill stem tests or cores will be taken.

Logging: Open hole – Triple Combo, 2,050' to surface or cased hole log as below.
Production Casing – First Run – Gamma Ray – Casing Collar Locator –
Cement Bond Log. (If cement circulates to surface, no CBL will be run.)
Second Run – Gamma Ray – Gas Spectrum Log; or Gamma Ray-DIL,
Density Neutron Porosity Caliper, if open hole log was not ran.

7) Expected Pressures –

Fruitland Fm. Underpressured

Bottom Hole Underpressured and low frac gradient

No abnormal pressures, temperature or poisonous gas anticipated.

8) Drilling Tools: 20 4-3/4" Drill Collars with 3-1/2" IF Connections
3-1/2" Drill Pipe with 3-1/2" IF Connections

Anticipated Spud Date: July 1, 2003

Anticipated Completion Date: July 31, 2003