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Form 3160-3
(September 2001)

070 Farmington, NM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF-077383A
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input checked="" 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 20E. Greenway Plaza Houston, Texas 77046	3b. Phone No. (include area code) (713) 544-4318	8. Lease Name and Well No. Picayune 28-1A
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NW/4, Sec. 28, T28N, R10W, 1385 FNL & 1968 FWL At proposed prod. zone		9. API Well No. 3004531446
10. Field and Pool, or Exploratory Basin Fruitland Coal		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 28, T28N, R10W P
12. Distance in miles and direction from nearest town or post office* 6 Miles Southeast of Bloomfield, NM		12. County or Parish San Juan
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1385'	16. No. of Acres in lease 640	17. Spacing Unit dedicated to this well 320 W/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 450'	19. Proposed Depth 2340'	20. BLM/BIA Bond No. on file 400 GH. 0471
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6193 GR	22. Approximate date work will start* Available Rig	23. Estimated duration 30 Days
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) John Clark	Date March 12, 2003
Title District Superintendent		
Approved by (Signature) 	Name (Printed/Typed) David J. Mankiewicz	Date APR - 7 2003
Title 1/s/ David J. Mankiewicz	Office	

Application approval does not warrant or certify 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 3165.4DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOCD

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, 1984

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-31446	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 18436	⁵ Property Name PICAYUNE 28	⁶ Well Number 1A
⁷ OGHD No. 12807	⁸ Operator Name KOCH EXPLORATION	⁹ Elevation 6193




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
F	28	28 N	10 W		1385	NORTH	1968	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		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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

<div>16</div> <div>N 89°54' W</div> <div>5280.0'</div> <div>1968'</div> <div>1385'</div> <div>SECTION 28</div> <div>Existing Well Picayune 28-1</div> <div>1187' FSL & 1025' FWL API #30-045-28110</div> <div>N 89°46'58" W</div>	<div>5273.4'</div> <div>5280.0'</div> <div>APR 2003</div> <div>5268.85'</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>Signature </div> <div>Printed Name Lance F. Harmon</div> <div>Title Vice President - Land</div> <div>Date 12/11/02</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>Date of Survey 10/31/02</div> <div>Signature </div> <div></div> <div>Certification PROFESSIONAL SURVEYOR</div>
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PICAYUNE 28-1A

Sec. 28-T28N-R10W, 1385' FNL & 1968' FWL

San Juan Co., New Mexico

Lease SF 077383-A

Drilling Program

1) Geological name of surface formation -

Estimated tops of important geological markers:

San Jose	Surface
Ojo	1157'
Kirtland Shale	1299'
Fruitland Coal	1817'
Pict. Cliffs	2210'
TD	2340'

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

Fresh/Useable Water	0' to 1299'
Salt Water	1299' to 1817'
Oil and Gas	1817' to 2340'

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.

PICAYUNE 28-1A

Sec. 28-T28N-R10W, 1385' FNL & 1968' FWL

San Juan Co., New Mexico

Lease SF 077383-A

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 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	12 1/4" hole	8 5/8"	24.0#	J-55 STC	New
Production Casing	7 7/8" hole	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. Three (3) centralizers will be run on the bottom 3 joints, starting at the shoe joint. *Circulate cement to surface*

4 1/2" Production Casing – Surface to 2340' – *Circulate cement*
Lead with 293 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: 629 cf., includes 50% excess.
Tail with 97 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: 148 cf., includes 50% excess. Two (2) centralizers will be run on the bottom two joints, then every 10th joint thereafter or (+ or -) 400' and turbolators to impact a swirling action will be placed just below and into the base of the Ojo Alamo.

5) Mud Program:

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

150' – 2340' – Lime mud, water and polymer.