

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2008

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Koch Exploration Company, LLC PO Box 489, Aztec, NM 87410		² OGRID Number 12807
³ Property Code 18433	⁴ Property Name Aggie State 32	⁵ API Number 30 - 045 - 35021
⁹ Proposed Pool 1 71629		⁶ Well No 1B
⁹ Proposed Pool 1		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no B	Section 32	Township 29N	Range 09W	Lot Idn	Feet from the 1073	North/South line North	Feet from the 1916	East/West line East	County San Juan
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⁸ Proposed 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
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Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 6009'
¹⁶ Multiple N	¹⁷ Proposed Depth 2540'	¹⁸ Formation Basin Fruitland Coal	¹⁹ Contractor	²⁰ Spud Date 09/15/2009

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	8 5/8"	24.0#	160'	112	Surface
6 3/4"	4 1/2"	10.5#	2540'	303	Surface

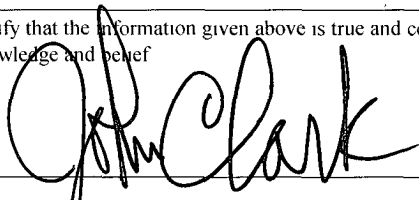
²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

We intend to drill a new gas well, as approved under Division Order No. R-13132. Please see attached Drilling Program for Blowout Prevention Program.

RCVD SEP 21 '09
OIL CONS. DIV.
DIST. 3

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature



Printed name

John Clark

Title

District Superintendent

E-mail Address

clark23j@kochind.com

Date

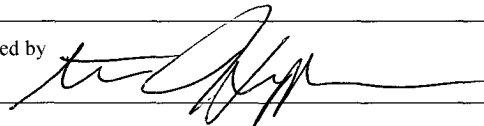
9-18-09

Phone

(505) 334-9111

OIL CONSERVATION DIVISION

Approved by



Title

DEPUTY OIL & GAS INSPECTOR, DIST. 3

Approval Date

SEP 24 2009

Expiration Date

SEP 24 2011

Conditions of Approval Attached ☐

SEP 24 2009

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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, N.M. 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35021	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 18433	⁵ Property Name AGGIE STATE 32	⁶ Well Number IB
⁷ OGRID No. 12807	⁸ Operator Name KOCH EXPLORATION	⁹ Elevation 6090

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
B	32	29 N	9 W		1073	NORTH	1916	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

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13132 infill pilot
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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 S 89°32'16" W 2617.51'	S 89°31'57" W 2622.81'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <u>Donald L. Johnson</u> 7/8/09 Printed Name: <u>Donald L. Johnson</u>
2551.81' N 1°56'21" E	NAD 83 LAT: 36.6865683° N LONG: 107.8023713° W SECTION 32 AGGIE STATE 32 #1	2574.59' N 2°32'11" E
2552.88' (R)	AGGIE STATE 32 #1A	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. Date of Survey: <u>6/17/09</u> Signature and Seal of Professional Surveyor: <u>Marshall W. Linden</u> 17078 17078 Certificate Number
N 1°56' E N 89°56' W	5188.92' (R)	N 2°34' E

Aggie State 32 1B

Surface: S32 T29N R09W, 1073' FNL & 1916' FEL

San Juan Co., New Mexico

Lease #E-6513

Drilling Program**1) Geological name of surface formation -**

Estimated tops of important geological markers:

San Jose	Surface
Ojo	1345'
Kirtland Shale	1450'
Fruitland Coal	2090'
Pictured Cliffs	2440'
TD	2540'

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

Useable Water	0' to 1450'
Salt Water	1450' to 2090'
Oil and Gas	2090' to 2540'

3) Pressure Control Equipment:

- a. 10-inch 900 series or 2,000 psi test double gate hydraulic with 4-1/2" pipe rams 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 600 psi maximum. The production casinghead pressure rating will be 5,000 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 1,500 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 600 psi maximum for 30 minutes, after cementing in place and before drilling out of shoe. Production casing will be tested to 3,800 psi for 30 minutes, after drilling to the required depth, and after cementing in place.
- d. The BOPS are hydraulic controlled.
- e. BOP testing procedures and frequency:

BOP tests will be performed using an appropriately sized test plug. The test will be performed and recorded using a test pump, calibrated test gauges, and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test of 250 psi held for five minutes and a high pressure test of 2,000 psi for ten minutes as described in Onshore Order No. 2.
- 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.

Aggie State 32 1B

Surface: S32 T29N R09W, 1073' FNL & 1916' FEL

San Juan Co., New Mexico

Lease #E-6513

- g. The drilling spool will be a series 900 2,000 psi WP with a 2-inch kill line and a 2-inch outlet.

4) Proposed Casing Program:

Surface Casing Program:	<u>Hole Size</u>				<u>Depth</u>
Surface Casing	12 1/4"	8 5/8"	24.0#	J-55 STC	New @ 160'
Production Casing	6 3/4"	4 1/2"	10.5#	J-55 LTC	New @ 2540'

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

8 5/8" Surface Casing – Surface to 160' – Cement with 112 sks Class B (15.60 ppg, yield 1.18 cf/sk) Cement + 3% Calcium Chloride + 1/4 lbs/sk. Celloflake, volume: 132.16 cf., includes 100% excess or equivalent cement dependent on availability. Centralizers will be run on bottom 3 joints starting at the shoe joint.

4 1/2" Production Liner – Surface to 2540' - Lead cement with 250 sks. Premium Lite FM + 3% Calcium Chloride + 1/4 lb/sk Cello Flake + 5 lb/sk LCM-1 + 8% Bentonite (wt. 12.1 ppg, yield 2.12) volume: 530.0 cf., includes 50% excess. Tail with 53 sks. Type III cement + 1/4 lb/sk Cello Flake + 3 lb sk LCM-1 (wt 14.6 ppg, yield 1.37) volume: 72.61 cf., includes no excess or equivalent cement dependent on availability. Centralizers will be run 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.

5) Mud Program:

Mud will be used as designed by Mud Company engineer during drilling process. See attached mud program (**Exhibit E**).

6) Testing, Logging, and Coring Program:

No drill stem tests, cores, will be taken, a CBL log will be run if cement does not circulate to surface on intermediate casing, and an Open hole log will be run before running casing.

7) Expected Pressures –

Fruitland Fm. 200 psi

Bottom Hole 200 psi

No abnormal pressures, temperature or poisonous gas anticipated.

8) Drilling Tools: 2 - 5 3/4" Drill Collars with 3-1/2" IF Connections
3-1/2" Drill Pipe with 3-1/2" IF Connections
Or Contractor Specific**Anticipated Spud Date:** November 15, 2009**Anticipated Completion Date:** December 15, 2009

Aggie State 32 1B

Surface: S32 T29N R09W, 1073' FNL & 1916' FEL

San Juan Co., New Mexico

Lease #E-6513**Mud Program:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0'- 160'	Spud Mud/Water treated with gel lime	8.4-9.0	40-50	no control
160'- 2540'	Lime mud/Water/Polymer.	8.4-9.0	30-60	no control

Circulating media will be contractor dependent.

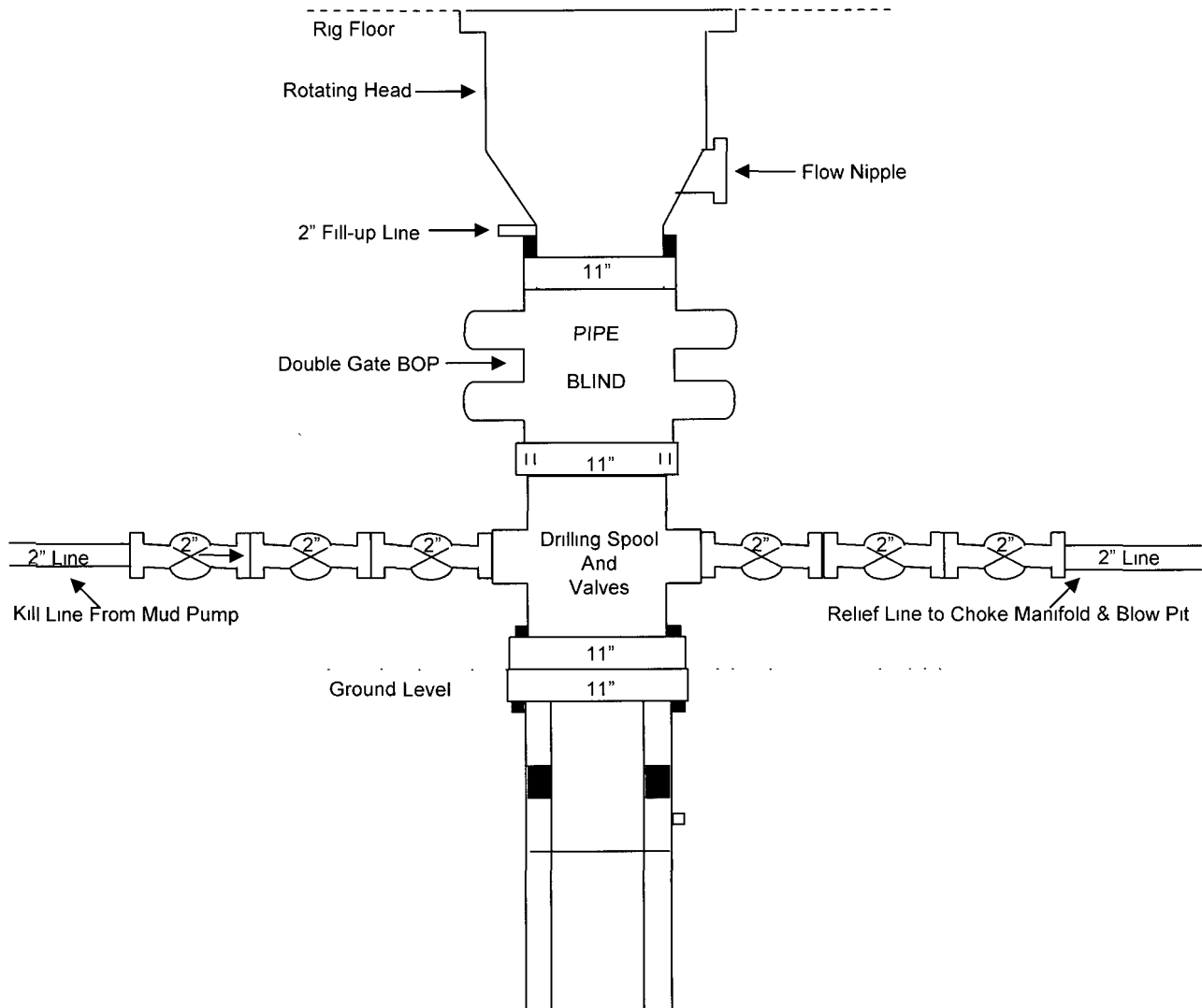
Alternate Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0'- 160'	Spud Mud/Water treated w/ gel lime/Air/Air Mist	8.4-9.0	40-50	no control
160'- 2540'	LSND/Clear Water	8.4-9.0	30-60	no control

Circulating media will be contractor dependent.

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

DRILLING RIG 2000 psi System

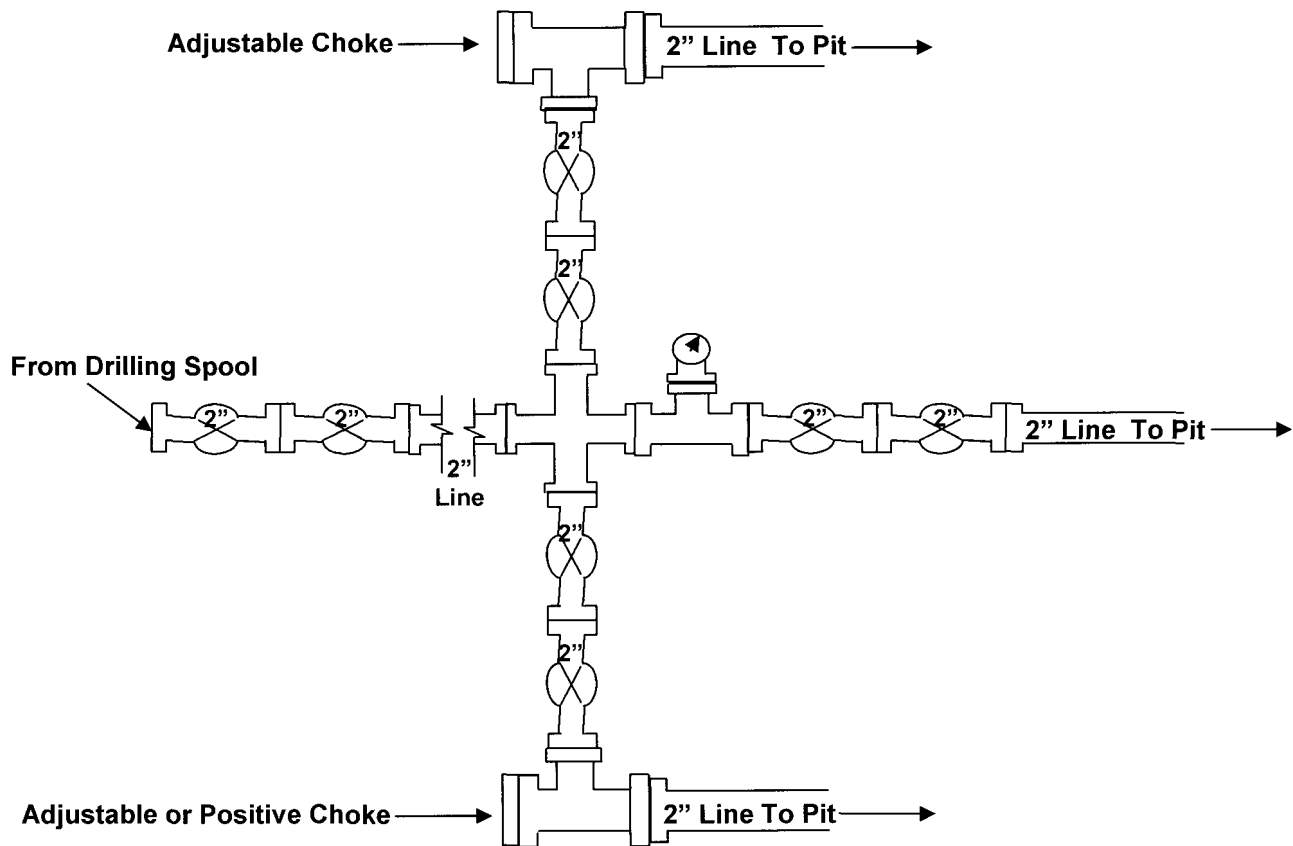


11" Bore (10" Nominal). 2000 psi working pressure minimum double Gate BPO to be equipped with blind and pipe rams. A rotating head On the top of the rams. All BOP equipment is 2000 psi working pressure.

NOTE: A floor safety valve and upper kelly cock with handle will be available.

EXHIBIT F-1

Drilling Rig Choke Manifold Configuration 2000 psi System



2000 psi working pressure equipment with two chokes.