



N.M. Oil Cons. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

Form 3160-3  
(September 2001)

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM32636
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input 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 N/A
2. Name of Operator RAM Energy, Inc.		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 5100 E. Skelly Dr. - Ste 650 Tulsa, OK 74135	3b. Phone No. (include area code) 918/663-2800	8. Lease Name and Well No. Amoco "11" Federal No. 8
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 800' FEL & 545' FNL At proposed prod. zone same		9. API Well No. 30 015 27037 33056
14. Distance in miles and direction from nearest town or post office* 3 miles northeast of Loving, New Mexico		10. Field and Pool, or Exploratory East Loving Delaware
15. Distance from proposed* location to nearest property or lease line, ft. 545' N Line of E/2 (Also to nearest drig. unit line, if any)	16. No. of Acres in lease 320	11. Sec., T., R., M., or Blk. and Survey or Area Sec. 11, T23S, R28E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1500'	19. Proposed Depth 6350'	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3040' G.L.	22. Approximate date work will start* October 15, 2003	13. State NM
23. Estimated duration 12		17. Spacing Unit dedicated to this well 40 acres
24. Attachments CARLSBAD CONTROLLED WATER BASIN		20. BLM/BIA Bond No. on file

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 R. Frick	Date 9/3/03
Title Operations Manager		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 15 OCT 2003
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD 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.

APPROVAL FOR 1 YEAR

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)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

## DRILLING PROGRAM

WELL: RAM Energy, Inc., Amoco "11" Federal #8  
FIELD: East Loving Delaware  
CATEGORY: Development  
STATE: New Mexico  
COUNTY: Eddy  
LOCATION: 545' FNL & 800' FEL, Sec. 11, T-23-S, R-28-E  
ELEVATION (G.L.): 3040'

1. ESTIMATED FORMATION TOPS: (See Plat #1)

Salt	570'
Delaware	2590'
Cherry Canyon	3700'
Brushy Canyon	4750'
Bone Springs	6200'
Total Depth	6350'

There are no potential drilling problems.

Estimate Time to Drill and Evaluate: 10 days

Hole Size:

0' - 570'	-----	12-1/4"
570' - 6350'	-----	7- 7/8"

2. ESTIMATED DEPTH AT WHICH WATER, OIL OR GAS ARE EXPECTED TO BE ENCOUNTERED:

Water:	160' to 180'	
Oil, Gas:	Delaware	2590'
	Cherry Canyon	3700'
	Lower Brushy Canyon	6050'

3. BOP & ACCESSORY EQUIPMENT: (See Plat #2)

0 - 570': None  
570' - 6350'

1 set - 10" double ram 3000# W.P. BOP's  
3000# W.P. choke manifold

Wellhead Equipment:

8-5/8" sow X 11" 2000 psi casing head Larkin Model 92 or equivalent  
5-1/2" sow X 2-7/8" 2000 psi tubing head Larkin Model R or equivalent  
5000# single master valve

4. CASING PROGRAM: (See Plat #1)

Conductor Casing:

No conductor pipe will be used.

Surface Casing: WITNESS

0' - 570' ----- 8-5/8", 24#, J-55, ST&C

Production Casing:

0' - 6350' ----- 5-1/2", 15.5# & 17#, J-55, LT&C

ACCESSORY EQUIPMENT:

Surface Casing:

1 - 8-5/8" Texas Pattern Shoe  
1 - 8-5/8" Insert Float Collar  
1 - 8-5/8" x 12-1/4" Centralizer 3-5' above slips  
1 - 8-5/8" x 12-1/4" Centralizer next two joints  
1 - 8-5/8" Stop Ring

Note: Run shoe and insert collar 1 joint apart

Production Casing:

1 - 5-1/2" Float Shoe  
1 - 5-1/2" Float Collar  
2 - 5-1/2" Stop Rings

1 - 5-1/2" x 7-7/8" Centralizer 3 – 5' above shoe  
1 - 5-1/2" x 7-7/8" Centralizer around next collar  
1 - 5-1/2" x 7-7/8" Centralizer immediately below float collar  
1 - 5-1/2" x 7-7/8" Centralizer around next 2 collars  
1 - 5-1/2" x 7-7/8" Centralizer alternating collars for next 10 joints (5 centralizers)

Note: Run float shoe and float collar 2 joints apart

1 - 5-1/2" x 7-7/8" DV Tool @ 3350'  
1 - 5-1/2" x 7-7/8" Centralizer 1 joint above and below DV Tool

5. CEMENTING PROGRAM:

Surface Casing: (based on 100% excess) (circulated to surface)

Spacer: 10 bbls water

Lead Slurry:

350 sx. Class "C" + .25 pps Cello-Seal

Slurry Weight -----14.81 ppg.

Slurry Yield ----- 1.33 cu. ft./sx.

Water Ratio ----- 6.32 gal/sx

Production Casing:

1st Stage

Lead Slurry:

600 sx 50:50 POZ (Base "C") + 2% Gel + 0.40% TF-4 +

57% water + 0.3% CF-2 + 10 pps Gilsonite

Slurry Weight -----13.62 ppg

Slurry Yield ----- 1.33 cu. ft./sx.

Water Ratio ----- 5.75 gal/sx.

Tail Slurry:

150 sx. Class "C" + 0.2% TF-4 + .3% CF-14 + 56% water

Slurry Weight -----14.78 ppg

Slurry Yield ----- 1.33 cu.ft./sx.

Water Ratio ----- 6.32 gal/sx.

2nd Stage (DV Tool @ 3350') (based on 100% excess)

Lead Slurry:

820 sx. Pacemaker Lite (c) + 6% Gel + 10% salt + 105% water

Slurry Weight ----- 12.67 ppg

Slurry Yield ----- 2.03 cu.ft./sx.

Water Ratio ----- 10.97 gal/sx.

Tail Slurry:

100 sx. Class "C" + 0.2% CaCl<sub>2</sub> + 56% water

Slurry Weight ----- 14.78 ppg

Slurry Yield ----- 1.33 cu.ft./sx.

Water Ratio ----- 6.32 gal/sx.

6. MUD PROGRAM: (See Plat #1)

<u>Specifications</u>	<u>0 - 570'</u>	<u>570' - 6000'</u>	<u>6000' - 6350'</u>
Mud wt (ppg)	8.6 - 9.0	9.0 - 10.0	10.0
Vis (sec)	36 - 45	28 - 31	34 - 38
WL (ml)	N/C	N/C	15 or less
Type System	Gel-Fresh	Gel-Brine	Gel-Brine

Close Mud System: (See Plat #3)

A closed mud system will be used and cuttings and drill fluids will be disposed of as per Section 7 of the Multi-Point Surface Use Plot.

Casing Test:

Before drilling out test surface casing to 1500 psi.

Casing Seat Test:

After drilling out surface casing test to leak off or 11 ppg equivalent, whichever is less.

Deviation Specifications:

Maximum Deviation 5 deg.....1  
Maximum Rate of Change 1.5 deg/100'.....1

7. LOGGING & TESTING PROGRAM:

Open Hole: 570' to 6350'

First Run:

Dual Laterolog

Micro Laterolog

Gamma Ray Neutron

Second Run:

Densilog

Compensated Neutron

Gamma Ray Neutron

DST's: None planned

Mud Logging:

2000' to Total Depth

8. No abnormal pressures or temperatures are anticipated. H2S should not be encountered.
9. Anticipated Starting Date: October 15, 2003

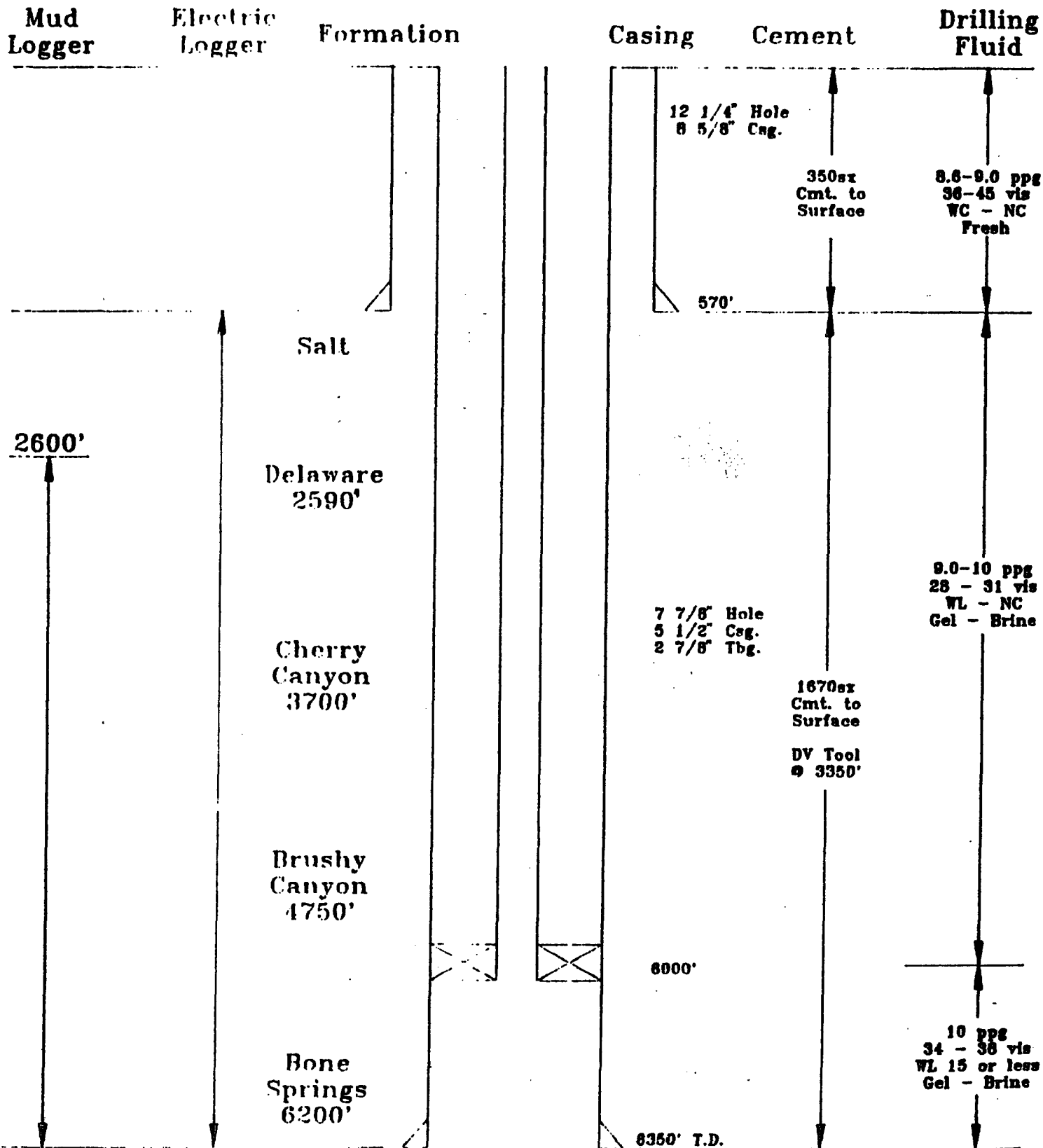
Multi-Point Surface Use Operating Plan  
RAM Energy, Inc.  
Amoco "11" Federal #8

This plan is submitted with form 3160-3, Applications for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, and the proposed construction. And the procedures to be followed in rehabilitation of the surface after completion of the operations, so that a complete appraisal can be made of the environmental affects associated with the operation.

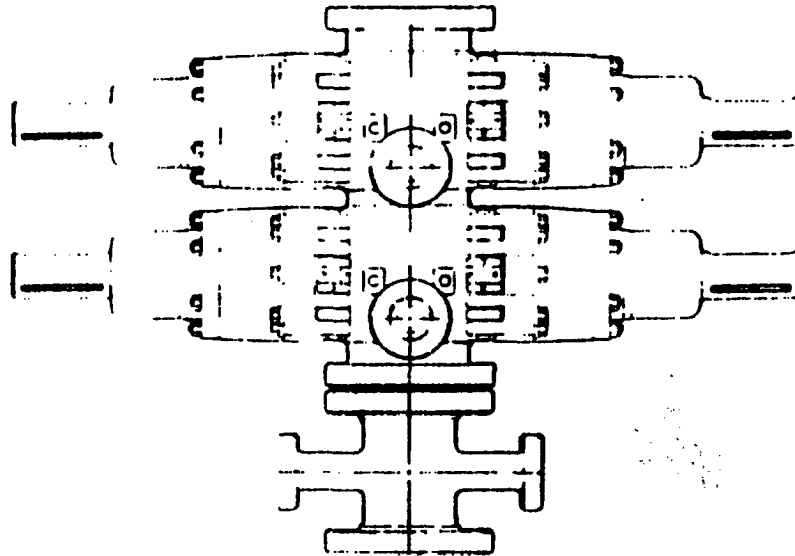
1. Existing Roads:

- A. Plat #4 is a portion of the USGS Carlsbad, N.M. regional map. The proposed location is situated approximately 3 miles Northeast of Loving, New Mexico, via the access route shown in red. Plat #5 is a portion of the USGS Loving, New Mexico map showing existing roads, and New roads to be constructed.

WELL: RAM Energy, Inc. Amoco "11" Federal #8  
 FIELD: East Loving Delaware  
 CATEGORY: Development  
 STATE: New Mexico  
 COUNTY: Eddy  
 LOCATION: 800'FEL & 545'FNL, Sec. 11, T-23-S, R-28-E  
 ELEVATION: (G.L.) 3040'



# BLOW OUT PREVENTION EQUIPMENT



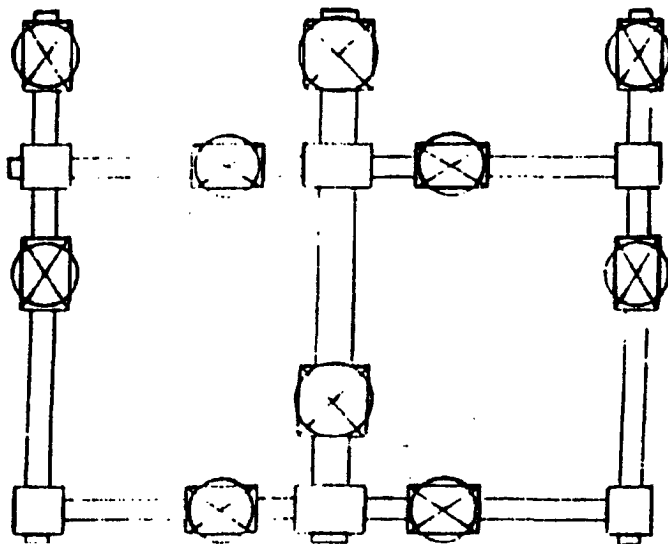
## BOP Stack

- 1 Rucker Shaffer "B" double ram  
10" - 3000 psi WP

## Closing Unit

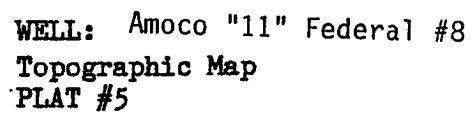
- Hydril model 80 three station accumulator
- Controls located in accumulator house and on rig floor

# CHOKE MANIFOLD



900 Series, 3000 psi WP





## DISTRICT I

1000 N. French Dr., Hobbs, NM 88240

## DISTRICT II

511 South First, Artesia, NM 88210

## DISTRICT III

1000 Rio Grande Rd., Aztec, NM 87410

## DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87503

## State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 5 Copies

## OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87504-2088

□ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name <b>AMOCO FEDERAL "11"</b>	Well Number <b>8</b>
OGRIID No.	Operator Name <b>RAM ENERGY, INC.</b>	Elevation <b>3048'</b>

## 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>A</b>	<b>11</b>	<b>23 S</b>	<b>28 E</b>		<b>545</b>	<b>NORTH</b>	<b>800</b>	<b>EAST</b>	<b>EDDY</b>

## 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

<p>Lot - N32°19'33.0"</p> <p>Long - W104°03'07.0"</p>		<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mike Kalsch</i></p> <p>Signature</p> <p><b>MIKE KALSCH</b></p> <p>Printed Name</p> <p><b>OP ENGR</b></p> <p>Title</p> <p><b>10/08/2003</b></p> <p>Date</p>
		<p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p><b>OCTOBER 01, 2003</b></p> <p>Date Surveyed</p> <p><i>[Signature]</i></p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><b>7977</b></p> <p>Certificate No. Gary A. Jones</p>