

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

5. Lease Serial No.

NMSF-0078888

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

Rosa Unit

8. Lease Name and Well No.

369A

9. API Well No.

30-039-29781

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area

F Section 11. 31N. 4W

12. County or Parish

Rio Arriba

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other

☒ Single Zone ☐ Multiple Zone

2. Name of Operator

Williams Production Company, LLC

3a. Address

P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

(505) 634-4208

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface Lot F: 2420' FNL & 2585' FWL

At proposed prod. zone Lot P: 10' FSL & 10' FEL

14. Distance in miles and direction from nearest town or post office*

approximately 34 miles northeast of Blanco, New Mexico

15. Distance from proposed*

location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)

10'

16. No. of Acres in lease

2,560.00

17. Spacing Unit dedicated to this well

320.0 acres E/2

18. Distance from proposed location*

to nearest well, drilling, completed, applied for, on this lease, ft.

50'

19. Proposed Depth

7621

20. BLM/BIA Bond No. on file

UT884Z UTO 899

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

7018 GR

22. Approximate date work will start*

June 1, 2006

23. Estimated duration

1 month

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.

2. A Drilling Plan.

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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Name (Printed/Typed)

Date

Larry Higgins

01-31-06

Title

Drilling COM

Approved by (Signature)

Name (Printed/Typed)

Date

Title

Office

Application approval does not warrant or certify that 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)

Williams Exploration and Production Company, LLC, proposes to drill a directional well to develop the Basin Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the USDA Forest Service, Carson National Forest, Jicarilla Ranger District.

This location has been archaeologically surveyed by La Plata Archaeological Consultants. Copies of their report have been submitted directly to the Carson National Forest.

This APD is also serving as an application to obtain a pipeline right-of-way. An associated pipeline tie of 90.00 feet would be required for this location.

HOLD C104 FOR Directional Survey

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29781		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 369A
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 7018'

10 Surface Location

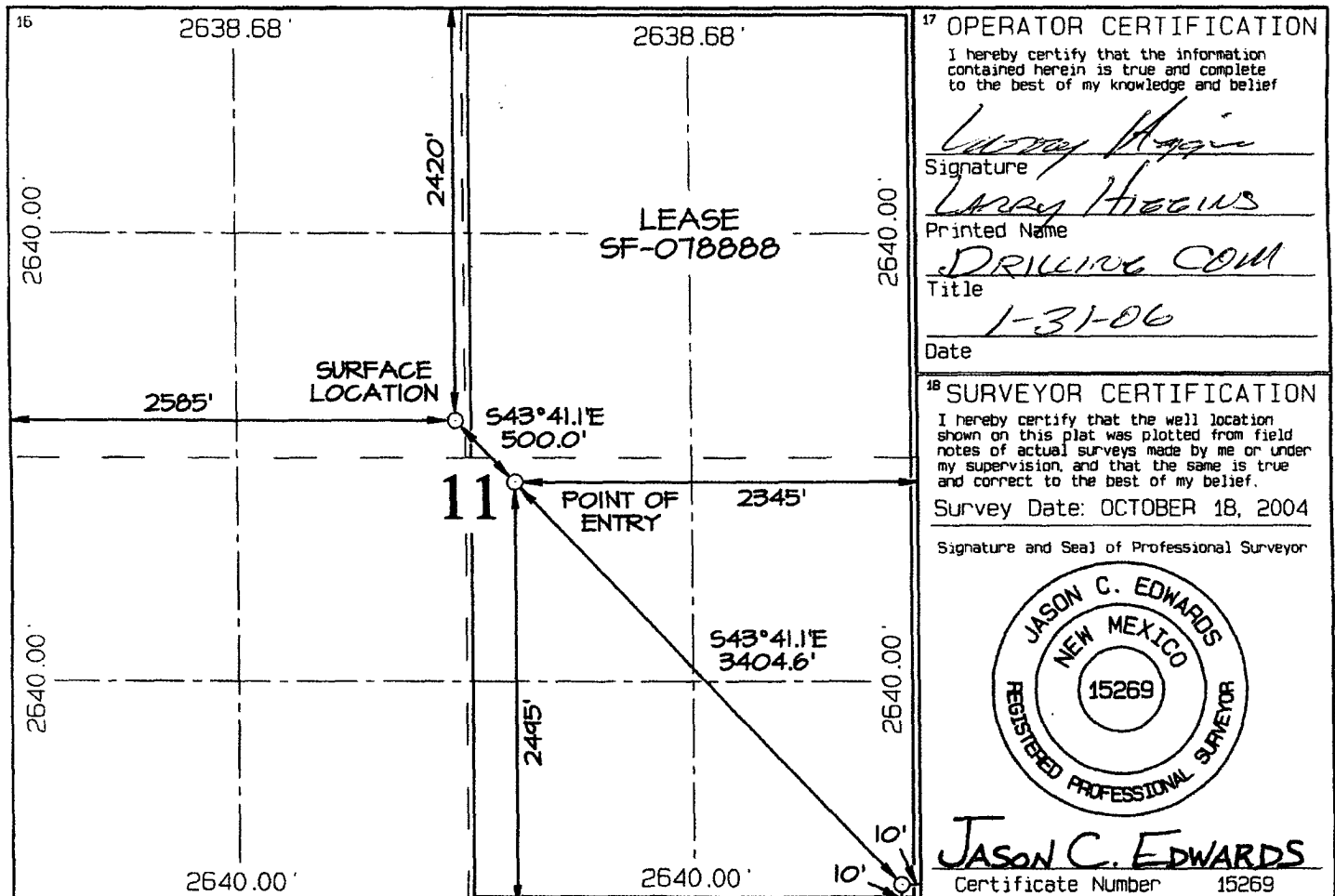
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	11	31N	4W		2420	NORTH	2585	WEST	RIO ARriba

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
P	11	31N	4W		10	SOUTH	10	EAST	RIO ARriba

12 Dedicated Acres 320.0 Acres - (E/2)	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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



Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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

Form C-103
May 27, 2004

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

WELL API NO.

5. Indicate Type of Lease FEDERAL X
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
NMSF-0078888

7. Lease Name or Unit Agreement Name

Rosa

8. Well Number **369A**

9. OGRID Number
120782

10. Pool name or Wildcat
Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator

Williams Production Company, LLC

3. Address of Operator

POB 640, Aztec, NM

4. Well Location

Unit Letter **F** : **2420** feet from the **N** line and **2585** feet from the **W** line

Section **11** Township **31N** Range **04W** NMPM County **Rio Arriba**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

7018' GR

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type **Drilg/Completion** Depth to Groundwater **>100 ft** Distance from nearest fresh water well **>1000 ft** Distance from nearest surface water **>500 ft**

Pit Liner Thickness: **12** mil Below-Grade Tank: Volume **bbbls** Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Drilling/Completion pit to be located approximately 50 to 75 feet from well head. Pit multi-use drilling and completion to avoid additional site disturbance and pit will be considered out of service once production tubing set. Pit to be constructed, operated and closed in accordance with NMOCD guidelines and Williams procedures.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Michael K. Lane TITLE EH&S Specialist DATE 01/31/06

Type or print name **Michael K. Lane** E-mail address: **myke.lane@williams.com** Telephone No. **505-634-4219**

For State Use Only

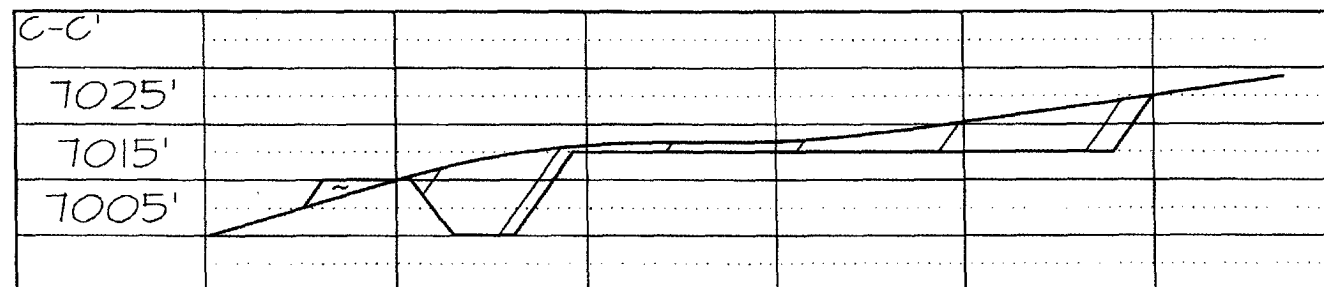
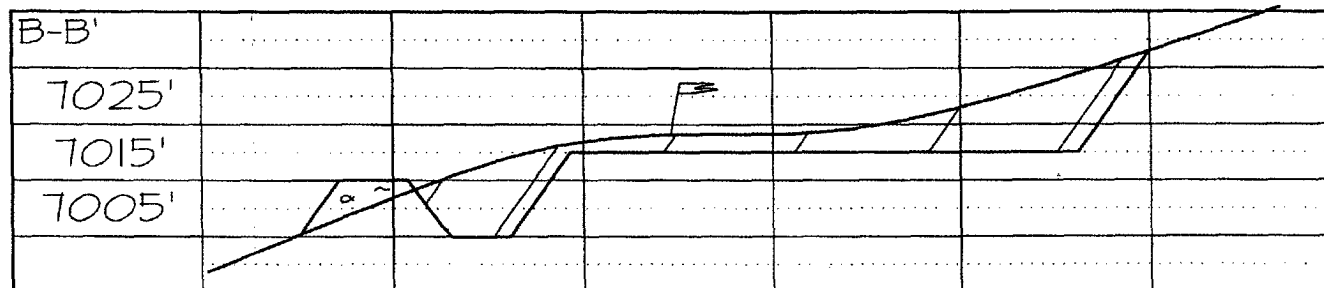
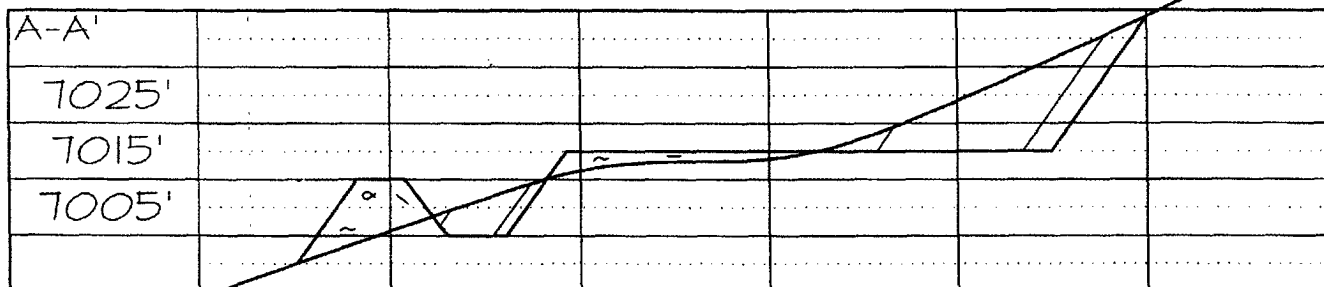
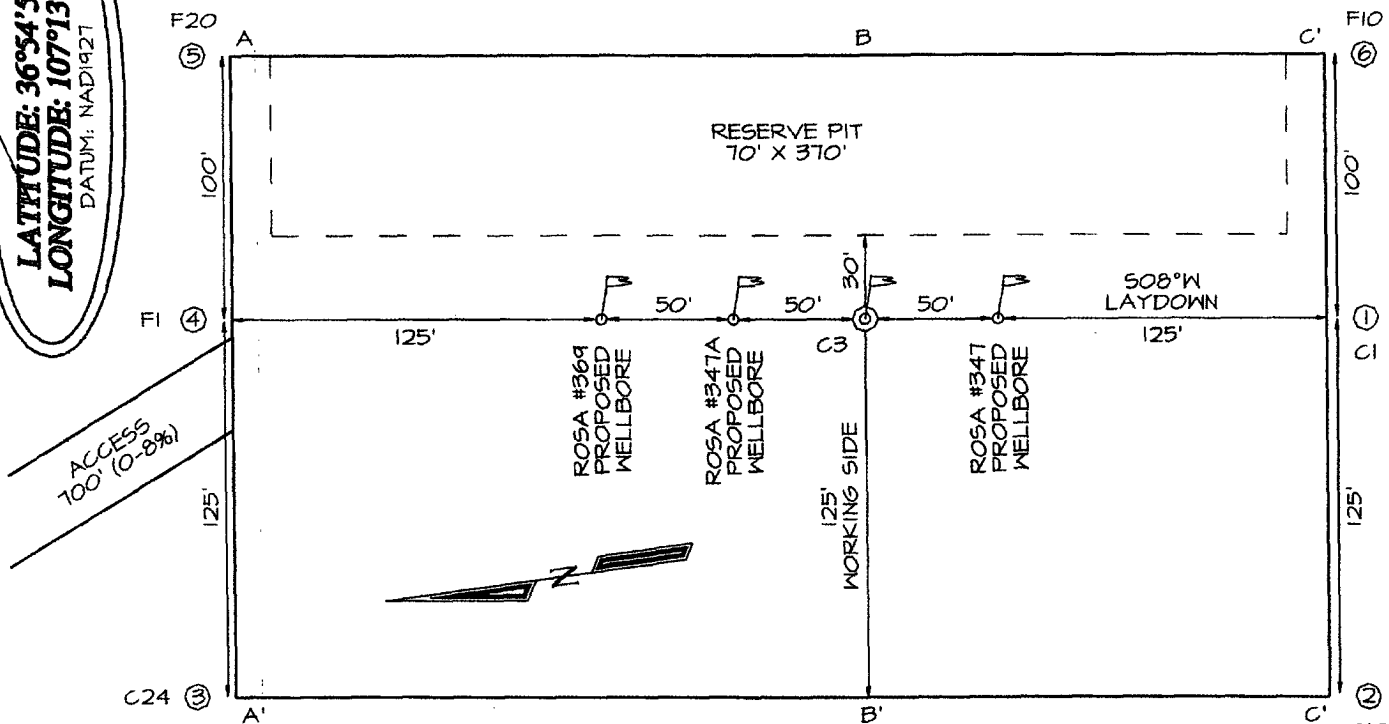
APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE MAY 25 2006

Conditions of Approval (if any):

WILLIAMS PRODUCTION COMPANY ROSA UNIT #369A
2420' FNL & 2585' FWL, SECTION 11, T31N, R4W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 7018'

LATITUDE: 36°54'53"
 LONGITUDE: 107°13'26"
 DATUM: NAD1927

PLAT #1





WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

<u>DATE:</u>	2/2/2006		
<u>WELLNAME:</u>	Rosa #369A	<u>FIELD:</u>	Basin Fruitland Coal
<u>SURF LOCATION:</u>	SENW Sec. 11-31N-4W Rio Arriba, NM	<u>SURFACE:</u>	Forest
<u>BH LOCATION</u>	SESE Sec 11-31N-4W		
<u>ELEVATION:</u>	7,018' GR	<u>MINERALS:</u>	Federal
<u>TOTAL DEPTH:</u>	7,621'	<u>LEASE #</u>	SF-078888

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

		TVD	MD			TVD	MD
San Jose		Surface	Surface		Top Coal	3,877	3,992
Nacimiento		2,152	2,152		Top Target Coal	3,907	4,093
Ojo Alomo		3,327	3,327		Bottom Target Coal	3,922	
Kirtland		3,447	3,447		Base Coal	3,922	
Fruitland		3,682	3,692		Picture Cliffs	N/A	
					TD	3,914	7,621

B. LOGGING PROGRAM: none

C. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

- A. **MUD PROGRAM:** Clear water with benex to 7" casing point. Treat for lost circulation as necessary. Expect 100% returns prior to cementing. Notify Engineering of any mud losses.
- B. **Drilling Fluid:** Horizontal section will be drilled with Calcium Chloride water.
- C. **MUD LOGGING PRORAM:** Mud logger will be on location from 500' above Ojo Alamo to TD of intermediate casing. Then from drillout of intermediate casing to TD.
- D. **BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS

A. CASING PROGRAM:

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH(MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	12-1/4"	+/- 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 4,079'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3,436-7,621'	4-1/2" perfed	10.5# K-55

***Note: All casing depths are measured depths.**

B. FLOAT EQUIPMENT:

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (**NTL-FRA 90-1**).
3. **PRODUCTION LINER:** 4-1/2" perforated liner with guide shoe on bottom.

Williams Production Company, LLC
Well Control Equipment Schematic for 2M Service

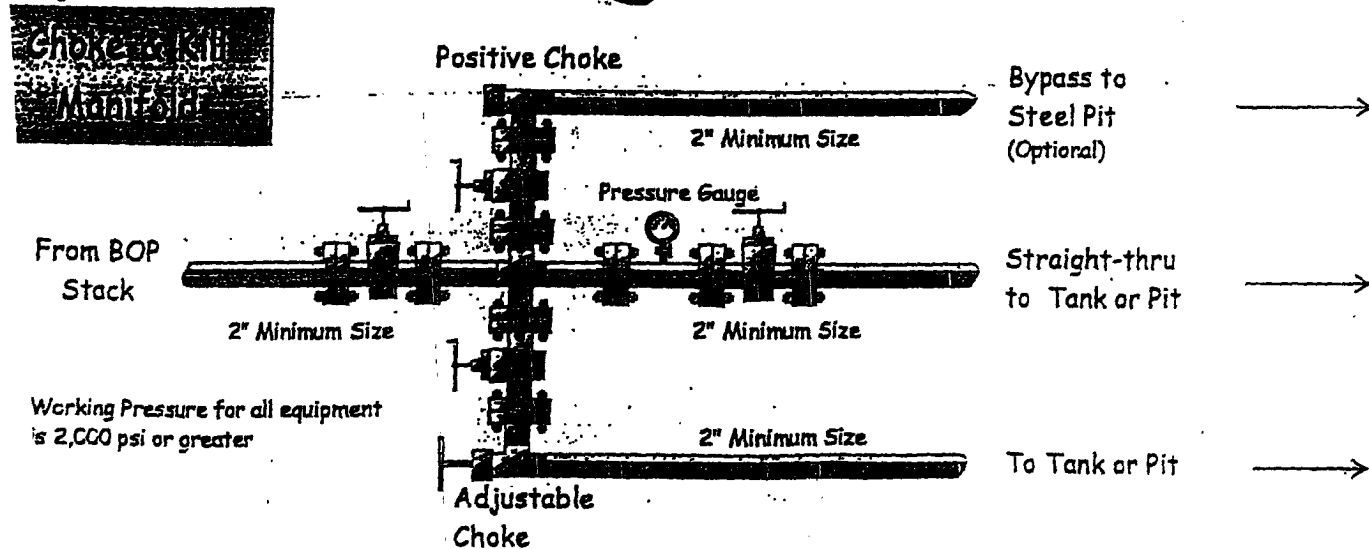
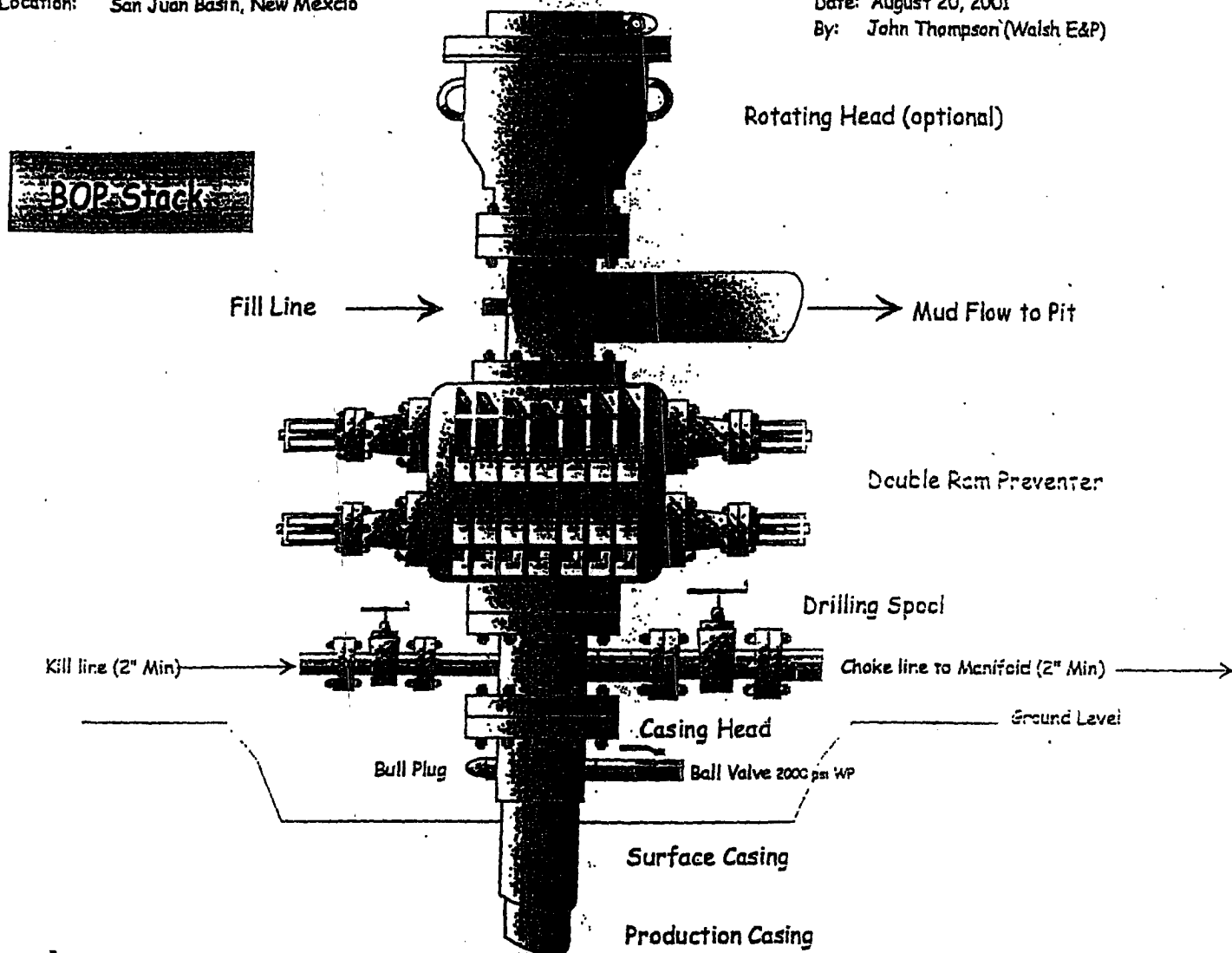
Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)



New Mexico
Rio Arriba County
Sec. 11-T31N-R04W
Rosa Unit #369A
Plan 011806

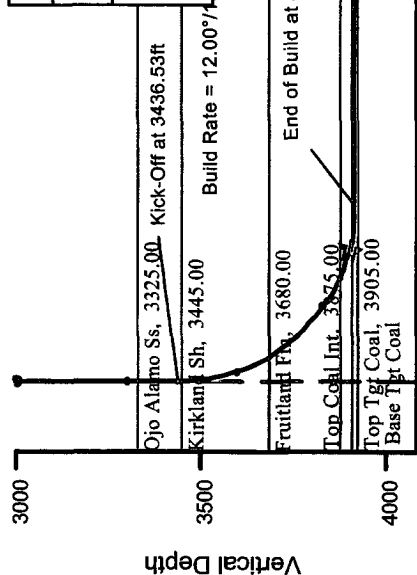
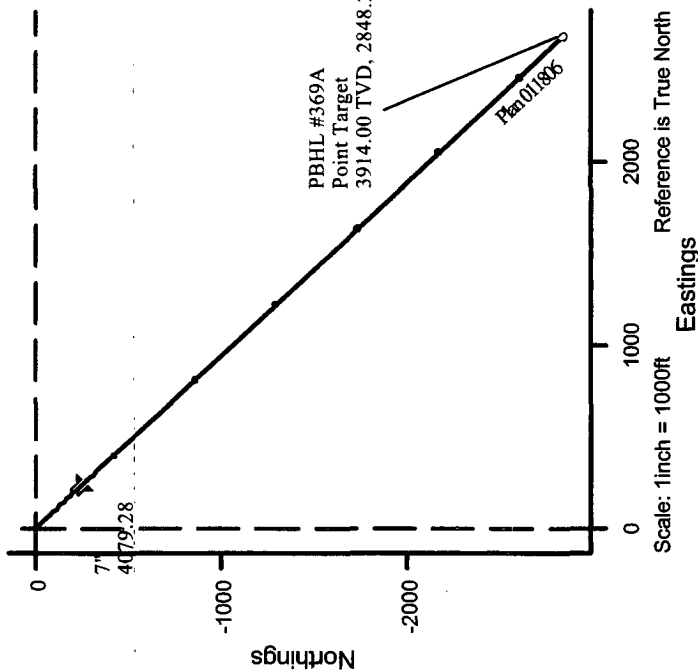
Rosa Unit #369A Surface Location

RKB Elevation: 7030.00ft above Mean Sea Level
Ref. NW Cor Sec 11: 2420.00 S, 2585.00 E
Ref. Global Coordinates: 2152742.73 N, 678156.87 E
Ref. Geographical Coordinates: 36° 54' 52.5056" N, 107° 13' 26.1232" W



Plan 011806 Bottom Hole Location

Ref. RKB(7018'+12'KB): 3914.00ft
Ref. Structure: 3902.00ft
Ref. Mean Sea Level: -3116.00ft
Ref. Wellhead: 2848.25 S, 2682.74 E (True North)
Ref. NW Cor Sec 11: 5268.00 S, 5268.00 E (True North)
Ref. Global Coordinates: 2149911.68 N, 680857.75 E
Ref. Geographical Coordinates: 36° 54' 24.3401" N, 107° 12' 53.0915" W



Plan 011806 Proposal Data

Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Eastings	Vertical Section	Dogleg Rate
Kick-Off Point	0.000	0.000	0.00	0.00 N	0.00 E	0.00	0.00
Hold Angle	0.000	0.000	3436.53	0.00 N	0.00 E	0.00	0.00
Total Depth	90.000	136.714	3913.99	347.57 S	327.37 E	477.46	12.00
	90.000	136.714	3914.00	2848.25 S	2682.74 E	3912.75	0.00

End of Build at 4186.53ft

Hold Angle at 90.000°

Plan 011806

PBHL #369A

Point Target

3914.00 TVD, 2848.25 S, 2682.74 E

Scale: 1 inch = 500ft

Vertical Section

Section Azimuth: 136.714° (True North)

Point Target

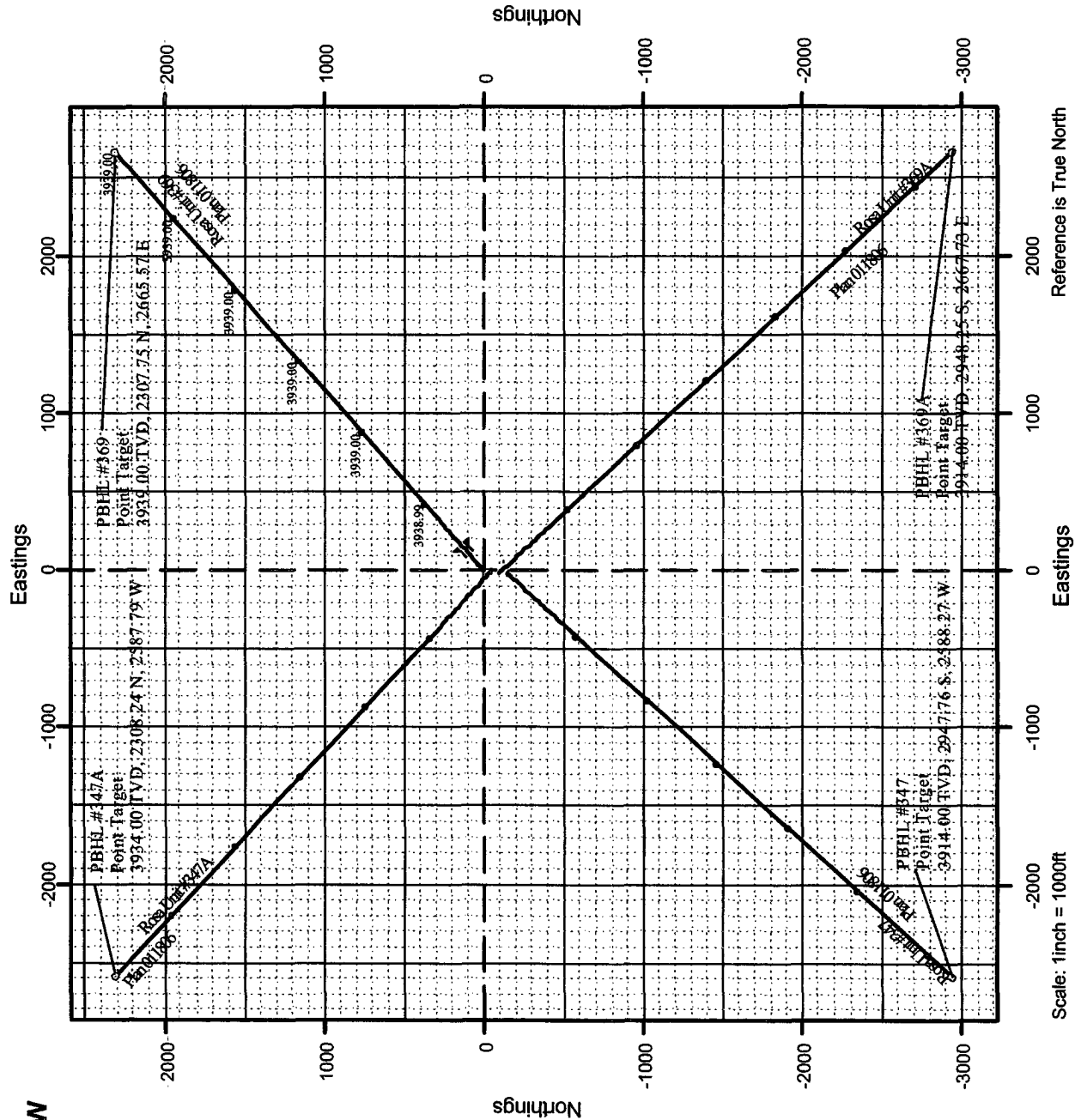
3914.00 TVD, 2848.25 S, 2682.74 E

Prepared by: Dennis Cook

Date/Time: 19 January, 2006 - 10:38

Approved:

New Mexico
Rio Arriba County
Sec. 11-T31N-R04W
Rosa Unit #369
Plan 011806



GENERAL ROSA DRILLING PLAN

Rosa Unit boundaries:

T31N, R4W: all except sections 32-36

T31N, R5W: all except sections 1 & 2

T31N, R6W: all except sections 6,7,18,20, & 27-36

T32N, R6W: sections 32-36

FORMATION	LITHOLOGY	WATER	GAS	OIL/COND	OVER-PRES	LOST CIRC
Nacimiento	Interbedded shales, siltstones and sandstones	Possible	Possible	No	No	No
Ojo Alamo	Sandstone and conglomerates with lenses of shale	Fresh	No	No	No	No
Kirtland	Shale W/interbedded sandstones	No	Possible	No	No	No
Fruitland	Inter, SS, SiltSt, SH & Coals w/carb, SS, SiltSt, SH	Yes	Yes	No	Possible	Possible
Pictured Cliffs	Massive Sandstone w/thin interbedded shales	Possible	Yes	Possible	No	Possible
Lewis	Shale w/thin interbedded sandstones and siltstones	No	Possible	No	No	No
Cliff House	Transgressive sandstones	Possible	Yes	No	No	No
Menefee	Sandstones, carb shales and coal	Possible	Yes	No	No	No
Point Lookout	Regressive coastal barrier sandstone	Possible	Yes	Possible	No	Yes
Mancos	Marine shale and interbedded sandstone	No	Possible	Possible	No	Possible
Upr Dakota	Marine sand and shales	No	Yes	Possible	No	Possible
Lwr Dakota	Fluvial sands, shales, & coal	Possible	Yes	Possible	No	Possible

DRILLING

Potential Hazards:

1. There are no overpressured zones expected in this well.
2. No H₂S zones will be penetrated while drilling this well.

Mud System:

1. Surface - The surface hole will be drilled with a low-solids, non-dispersed system with starch and lost circulation material as needed. Expected mud weights will be in the 8.4 to 9.0 lb per gal range. Viscosities will be in the 30 to 60 sec/qrt range as needed to remove drill cuttings.
2. Intermediate - The intermediate hole will be drilled with clear water and Benex to TD where the well will be mudded up to log and run casing. The mud system will be low-solids, non-dispersed with mud weights in the 9 to 10 lb per gal range as needed to control the well. Viscosities will be in the 45 to 55 range as needed to support any weight material. The weight material will consist of Barite.
3. Production - The well will be drilled using air from the intermediate casing point to TD. For Fruitland Coal wells, the coal section will be drilled with air/mist.