

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

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

2. Name of Operator **PATINA SAN JUAN, INC.**

3a. Address
5802 US HIGHWAY 64 FARMINGTON, NM 87402

3b. Phone No. (include area code)
505-632-8056

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

**835 FSL, 1945 FEL
O Sec 25 - T31N - R13W**

5. Lease Serial No.
NMSF078464

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
CAIN FEDERAL #3

9. API Well No.
30-045-32605

10. Field and Pool, or Exploratory Area
Basin Dakota/Basin Fruitland Coal

11. County or Parish, State
RIO ARriba CTY, NEW MEXICO

12. CHECK APPROPRIATE BOX(ES) 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"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

PATINA SAN JUAN PROPOSES TO MAKE CHANGES TO THE DRILLING PLAN AS FOLLOWS:

WELL COMPLETION : IN THE BLANCO MESA VERDE AND BASIN FRUITLAND COAL FORMATIONS.

CHANGE OF CASING AND CEMENTING REQUIREMENTS PER ATTACHED DRILLING PLAN.

RECEIVED
APR 20 PM 2 39
FARMINGTON NM

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

JEAN M. MUSE

Title **REGULATORY/ENGINEERING TECH**

Signature

[Signature]

Date

04/20/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by *[Signature]*
Conditions of approval, if any, are attached. Approval of this notice 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.

Title

Pet. Eng

Date

4/27/05

Office

FFO

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 page 2)

88MOCD

**Cain Federal #3
General Drilling Plan
Patina San Juan, Inc.
San Juan County, New Mexico**

1. LOCATION:

Elevation: 5935'
SWSE of Section 25, T31N, R13W
San Juan, New Mexico

Field: Basin Fruitland Coal & Basin DK
Surface: BLM
Minerals: NMSF-078464

2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):

Surface formation – Nacimiento

<u>Formation</u>	<u>Estimated Formation Top (Ft)</u>
Fruitland***	1537
Pictured Cliffs**	2225
Cliff House**	3769
Menefee	3931
Point Lookout**	4552
Gallup	5903
Greenhorn	6600
Graneros	6657
Dakota ***	6711
TD	7050

Legend: * Freshwater bearing formation
 ** Possible hydrocarbon bearing formation
 *** Probable hydrocarbon bearing formation
 # Possible H2S bearing formation

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

3. PRESSURE CONTROL EQUIPMENT:

BOP equipment will be tested to its rated working pressure or 70-percent of the internal yield of the surface casing, but not to exceed 1,000 psi. See attachments for BOP and choke manifold diagrams.

Production Hole BOP Requirements and Test Plan

11" – 2,000 psi single ram (blind)

11" – 2,000 psi single ram (pipe)

Test as follows:

a) Pipe rams:	1,000 psi (High)	250 psi (low)
b) Choke manifold:	1,000 psi (High)	250 psi (low)
c) Choke lines:	1,000 psi (High)	250 psi (low)

All ram type preventers and related equipment will be hydraulically tested at nipple-up. They will also be retested in either of the following events:

- A pressure seal is broken.
- 30 days have elapsed since the last successful test of the equipment.

Furthermore, BOP's will be checked daily as to mechanical operating condition. All ram type preventers will have hand wheels, which will be operative and accessible at the time the preventers are installed. See attached Exhibit for details on the BOP equipment.

AUXILIARY EQUIPMENT:

- a) Manually operated kelly cock (upper and lower)
- b) Full opening manually operated safety valves in the full open position, capable of fitting all drill stem connections.

4. CASING DESIGN:

Hole Data				
Interval	Bit Size (Inches)	Casing Size (Inches)	Top (Ft)	Bottom (Ft)
Surface	13.50	9.625	0	300
Intermediate	8.75	7.0	0	4990
Production	6.25	4.5	4690	7050

Casing Data							
OD (Inches)	ID (Inches)	Weight (Lbs/Ft)	Grade	Thread	Collapse (psi)	Burst (psi)	Min. Tensile (Lbs)
9.625	8.921	36.0	J55	STC	2,020	3,520	394,000
7.000	6.366	23.0	L80	LTC	3,830	6,340	435,000 442,000
4.5	4.276	11.6	N80	LTC	6,350	7,780	223,000

MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.00

TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot

Maximum anticipated reservoir pressure: 2,500 psi

Maximum anticipated mud weight: 9.0 ppg

Maximum surface treating pressure: 3,750 psi

Float Equipment:

Surface Casing: Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

Intermediate Casing: Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and nine centralizers spaced every joint above the float collar. Stage tool above the Cliffhouse formation. One centralizer below stage tool and one centralizer above stage tool.

Production Casing: 4 1/2" whirler type cement nosed guide shoe and a float collar on top of bottom joint with centralizers over potential hydrocarbon bearing zones.

CEMENTING PROGRAMS:

9-5/8" Surface casing:

245 sx Type III cement with 2% CaCl₂, ¼#/sx cellofakes. 100% excess to circulate cement to surface. WOC 12 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg
Slurry yield: 1.27 ft³/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 13-1/2" x 9-5/8" annulus	147 cu ft
	<u>100% excess (annulus)</u>	<u>147 cu ft</u>
	Total	311 cu ft

Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl₂ for top out purposes.

7" Intermediate Casing:

1st Stage:

180 sx of Type III cement plus additives

Slurry weight: 13.0 ppg
Slurry yield: 2.00 ft³/sx

2nd Stage: (Stage tool at ±3200')

Lead: 255 sx of Type III cement plus additives

Slurry weight: 12.5 ppg
Slurry yield: 2.24 ft³/sx

Tail: 60 sx of Type III cement plus additives

Slurry weight: 13.0 ppg
Slurry yield: 2.00 ft³/sx

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4990' of 7" x 8 ¾" hole	750 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>240 cu ft</u>
	Total	1049 cu ft

Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.
3. Intermediate TD @ ±4990', cement stage tool @ ±3200'.

4 1/2" Production casing:

210 sx of 50/50 Type III/POZ cement plus additives

Slurry weight: 12.5 ppg

Slurry yield: 1.76 ft³/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	2060' of 4 1/2" x 6 1/4" hole	211 cu ft
	300' of 4 1/2" x 7" casing overlap	33 cu ft
	200' above 4.5" liner (without drill pipe)	44 cu ft
	<u>30% excess (annulus)</u>	<u>73 cu ft</u>
	Total	366 cu ft

Note:

1. Design top of cement is ±4490' (200' above the top of the 4.5" liner w/out drill pipe).
2. Estimated TD @ ±7050', estimated TOL @ ±4690' (300' overlap).
3. Actual cement volumes to be based on caliper log plus 30%.

5. MUD PROGRAM:

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The intermediate hole will be drilled with water until mud up at about 3100 ft. From mud up point to intermediate casing depth (±4990'), it will be drilled with a LSND mud. Anticipated mud weight ranges from 8.5 – 9.2 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

The production hole will be drilled with air or air/mist to TD.

Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

No chrome-based additives will be used in the mud system.

6. EVALUATION PROGRAM:

Mud logger: From base of surface casing to TD.

Testing: No DST is planned

Coring: None Planned

Electric logs: Intermediate Hole:

1) DIL-GR-SP: TD to base of surface casing.

2) LDT-CNL-GR-CAL-PE: TD to base of surface casing

Production Hole:

1) No open hole logs

2) Cased hole resistivity & porosity logs

7. ABNORMAL PRESSURE AND TEMPERATURE:

H ₂ S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	175° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

8. ANTICIPATED STARTING DATE: May, 2005

Anticipated duration: 16 days

MULTI-POINT SURFACE USE PLAN

1. Existing Roads:

All existing roads used to access the proposed location are shown on attached plat #1 and shall be maintained in the same or better condition than presently found.

2. Planned Access Roads:

Approximately 1000' of new access road will be built for this well. The existing access road will be maintained to at least the current condition, and will be upgraded where necessary to provide uninterrupted access to the proposed well.

3. Location of Existing Wells:

Attached map (Plat #1) shows existing wells within a one mile radius of the proposed well.

4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated.

A 4" diameter buried steel pipeline that is +/-1000' will be constructed. The pipe-wall thickness will be Schedule 40 and the wall strength is 1000 psi. The well will be connected to Williams Field Service's gathering system on or at the edge of the well pad. The pipeline ROW will be cross-country to avoid numerous archaeological sites. The pipeline will not be used to transport gas to drill the well.

To protect livestock and wildlife any tanks will be enclosed by a dike and a fence.

5. Water Supply:

Water for drilling and completion operations will be produced water and hauled by truck from surrounding wells or fresh water from the nearest facility with appropriate water quality.

6. Source of Construction Materials:

No additional construction materials will be required to build the proposed location.

7. Methods for Handling Waste Disposal:

The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be fenced on three sides prior to drilling and the fourth side when drilling rig is moved off location. The reserve pit will be allowed to dry, and materials remaining in the reserve pit buried. The reserve pit will be back-filled, leveled and contoured so as to prevent any materials being carried into the watershed. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.

All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped

in an approved land fill upon completion of operations.

Portable toilets will be provided and maintained during drilling operations. See Plat #3 for location.

8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. The gas pipeline is described on Plat #4.

9. Well Site Layout:

A cross section of the drill pad with approximate cuts, fills, and pad orientation is attached as Plat #2. Location of drilling equipment, rig orientation, and access road approach is also attached as Plat #3.

10. Plans for Restoration of Surface:

When the well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate seed mixture.

If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted the color designated by the surface managing agency.

11. Surface ownership:

The surface ownership is: Bureau of Land Management

12. Other Information:

Refer to the Environmental Assessment (EA) and the archaeological report for a description of the soil characteristics and information about the flora and fauna of the area.

13. Lessee's or Operator's Representative:

Billie Maez
Patina San Juan, Inc.
5802 U. S. Highway 64
Farmington, New Mexico 87401
Phone: (505) 632-8056