

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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 OIL AND GAS CORPORATION**

3a. Address  
**5802 US HIGHWAY 64, FARMINGTON, NM 87401**

3b. Phone (include area code)  
**505-632-8056**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**1270' FNL and 2280' FWL  
Sec 5 - T26N - R4W**

FORM APPROVED  
OMB No. 1004-0135  
Expires: January 31, 2004

5. Lease Serial No.  
**Jicarilla Contract #119**

6. If Indian, Allottee, or Tribe Name  
**Jicarilla Apache Tribe**

7. If Unit or CA. Agreement Designation

8. Well Name and No.  
**HOYT #1B**

9. API Well No.  
**30-039-29256**

10. Field and Pool, or Exploratory Area  
**Basin Dakota/Blanco Mesa Verde**

11. County or Parish, State  
**Rio Arriba, New Mexico**

12. CHECK APPROPRIATE BOX(S) 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"/> Altering 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 recompleat horizontally, give subsurface locations and measured and true vertical depths or pertinent markers and sands. Attach the Bond under which the work will performed or provide the Bond No. on file with the 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 recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notice shall be filed only after all requirements, including reclamantion, have been completed, and the operator has determined that the site is ready for final inspection.)

**PATINA OIL & GAS CORPORATION REQUESTS A CHANGE TO THE APPROVED DRILLING PLAN.  
THE REVISED DRILLING PLAN AND WELL PLAT ARE ATTACHED.**

2005 JUN 14 PM 11:44  
RECEIVED  
OTO FARMINGTON NM

14. I hereby certify that the foregoing is true and correct.

Name (Printed/ Typed)

**JEAN M. MUSE**

Title

**REGULATORY/ENGINEERING TECH**

Signature

Date

**JUNE 10, 2004**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

**Isi Adrienne Brumley**

Title

**Pet. Eng  
FFO**

Date

**6/21/05**

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 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 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)

NMOC

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code	*Pool Name
		72319 \ 71599	BLANCO MESAVERDE \ BASIN DAKOTA
*Property Code	*Property Name		*Well Number
	HOYT		1B
*GRID No.	*Operator Name		*Elevation
	CORDILLERA ENERGY, INC.		7233'

<sup>10</sup> Surface Location

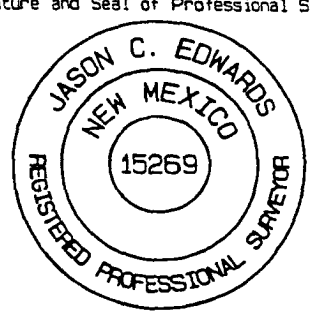
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	5	26N	4W		1270	NORTH	2280	WEST	RIO ARriba

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
326.82 Acres - (N/2)	Y		

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

<sup>16</sup> 1379.40' LOT 4 2280' 1320.00' 2640.00'	LOT 3 1270' 5280.00'	LOT 2 1372.80' 1320.00'	LOT 1 1372.80' 1320.00'	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <u>Paul C. Thompson</u> Signature <u>PAUL C. THOMPSON</u> Printed Name <u>AGENT</u> Title <u>8/6/03</u> Date
				<sup>18</sup> 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: JUNE 26, 2002 Signature and Seal of Professional Surveyor  <u>JASON C. EDWARDS</u> Certificate Number 15269

**Hoyt #1B  
General Drilling Plan  
Patina San Juan, Inc.  
Rio Arriba County, New Mexico**

**1. LOCATION:**

Est. elevation: 7233'  
SESE of Section 5, T26N, R4W

Field: Blanco MV & Basin DK  
Surface: Jicarilla Apache Tribe  
Minerals: Jicarilla contract #119

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

Surface formation – San Jose

<u><i>Formation</i></u>	<u><i>Estimated Formation Top (Ft)</i></u>
Fruitland	3684
Pictured Cliffs**	3976
Lewis	4262
Cliff House	5648
Menefee	5782
Point Lookout***	6122
Gallup	7342
Greenhorn	8108
Graneros	8174
Dakota ***	8195
TD	8525

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	4450
Production	6.25	4.5	4150	8525

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
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: 5,000 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 Fruitland Coal. 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% CaCl<sub>2</sub>, 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 ft<sup>3</sup>/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% CaCl<sub>2</sub> for top out purposes.

### 7" Intermediate Casing:

1<sup>st</sup> Stage:

165 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft<sup>3</sup>/sx

2<sup>nd</sup> Stage: (Stage tool at ±2500')

Lead: 175 sx of Type III cement plus additives

Slurry weight: 12.0 ppg

Slurry yield: 2.55 ft<sup>3</sup>/sx

Tail: 60 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft<sup>3</sup>/sx

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4150' of 7" x 8 ¾" hole	625 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>205 cu ft</u>
	Total	889 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 @ ±4450', cement stage tool @ ±2500'.

**4 1/2" Production casing:**

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

Slurry weight: 12.5 ppg

Slurry yield: 1.78 ft<sup>3</sup>/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	4075' of 4 1/2" x 6 1/4" hole	420 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>40% excess (annulus)</u>	<u>182 cu ft</u>
	Total	684 cu ft

**Note:**

1. Design top of cement is  $\pm 3950'$  (200' above the top of the 4.5" liner w/out drill pipe).
2. Intermediate casing @  $\pm 4450'$ .
3. Estimated TD @  $\pm 8525'$ , estimated TOL @  $\pm 4150'$  (300' overlap).
4. 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 a LSND mud from the base of surface casing to intermediate TD. 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 <sub>2</sub> 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: June, 2005**

Anticipated duration: 18 days