Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

Lease Serial No.			
JICARILLA	CONTR	ACT	#104

SUNDRY	NOTICES AND REP	PORTS ON W	/ELLS /	JICA	RILLA CONTRAC	T #105	
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.				6. If Ind	6. If Indian, Allottee or Tribe Name		
abandoned w	ell. Use Form 3160-3 (A	APD) for such	proposąls.	JICA	JICARILLA APACHE TRIBE		
SUBMIT IN TR	IPLICATE- Other instr	ructions on rev	erse side.	7. If Uni	or CA/Agreement, Na	ume and/or No.	
1. Type of Well Oil Well	Gas Well Other			8. Well i	Varge and No.		
2. Name of Operator PATINA S	SAN JUAN, INC.	,			NEY #1C		
3a Address		3b. Phone No. (inci	lude area code)		39-29257	·-···	
4. Location of Well (Footage, Sec.,		505-632-8056			and Pool, or Explorator Dakota/Blanco Me	•	
1700' FSL, 1680' FEL	•			11. Coun	ty or Parish, State		
J Sec 13 - T26N - R4W				RIO	ARRIBA CTY, NEV	W MEXICO	
12. CHECK A	PPROPRIATE BOX(ES) TO	INDICATE NAT	URE OF NOT	ICE, REPORT, O	OR OTHER DATA	· · · · · · · · · · · · · · · · · · ·	
TYPE OF SUBMISSION		Т	TYPE OF ACT	ION			
	Acidize	Deepen	Produc	ction (Start/Resume)	Water Shut-Of	er e	
Notice of Intent	Alter Casing	Fracture Treat	Reclar	,	Well Integrity		
Subsequent Report	Casing Repair	New Construction	n Recon	plete	Other CHG.	DRILLING	
_	Change Plans	Plug and Abando	nTempo	orarily Abandon	PLAN	S	
Final Abandonment Notice	Convert to Injection	Plug Back	Water	Disposal			
testing has been completed. Fit determined that the site is ready	, INC. REQUESTS A CHANG	filed only after all require TO THE DRILL	ING PLANS FOR RECO	ng reclamation, have t	een completed, and the		
14. I hereby certify that the fore Name (Printed/Typed)	going is true and correct	1					
JEAN M. MUSE		Title	REGULATO	RY/ENGINEERIN	G ТЕСН		
Signature	1128	Date		10/03/2005	· · · · · · · · · · · · · · · · · · ·		
	THIS SPACE FOR F	EDERAL OR	STATE OF	FICE USE			
Approved by			Title		Date	·	
Conditions of approval, if any, are a certify that the applicant holds legal which would entitle the applicant to	or equitable title to those rights in		Office				
Title 18 U.S.C. Section 1001 and Title States any false, fictitious or fraudule	43 U.S.C. Section 1212, make it a ent statements or representations a	crime for any person is to any matter within	knowingly and its jurisdiction.	willfully to make to a	ny department or agen	cy of the United	

(Instructions on page 2)

Jenney #1C General Drilling Plan Patina San Juan, Inc. Rio Arriba County, New Mexico

1. LOCATION:

Est. elevation: 6940'

NWSE of Section 13, T26N, R4W

Field: Blanco MV & Basin DK

Surface: Jicarilla

Minerals: Jicarilla contract ±/05

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

Surface formation – Nacimiento

<u>Formation</u>	Estimated Formation Top (Ft)
Fruitland	3215
Pictured Cliffs**	3578
Lewis	3810
Cliff House	5171
Menefee	5338
Point Lookout***	5663
Gallup	7267
Greenhorn	7658
Graneros	7717
Dakota ***	7743
TD	8100

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

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11" – 2,000 psi single ram (blind)
11" – 2,000 psi single ram (pipe)
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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	4010
Production	6.25	4.5	3710	8100

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% 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
100% excess (annulus)	147 cu ft
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:

165 sx of Type III cement plus additives

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

 2^{nd} Stage: (Stage tool at ± 2500 ')

Lead: 145 sx of Type III cement plus additives

Slurry weight: 12.0 ppg Slurry yield: 2.55 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

 3710' of 7" x 8 3/4" hole
 558 cu ft

 300' of 7" x 9 5/8" casing
 30 cu ft

 30% excess (annulus)
 185 cu ft

 Total
 802 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 @ ± 4010 ', 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 ft³/sx

Volume basis: 40' of 4 1/2" shoe joint

5 cu ft 4225' 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 40% excess (annulus) 183 cu ft Total 685 cu ft

Note:

- 1. Design top of cement is $\pm 3510^{\circ}$ (200' above the top of the 4.5" liner w/out drill pipe).
- 2. Intermediate casing $@ \pm 4010$ '.
- 3. Estimated TD @ ± 8100 ', estimated TOL @ ± 3710 ' (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 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:** October, 2005

Anticipated duration: 18 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 <u>(coo')</u> 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. <u>Location of Existing Wells:</u>

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 <u>3" or 4"</u> diameter buried steel pipeline that is <u>600</u>, will be constructed. The pipe-wall thickness will be <u>Schedule 40</u> and the wall strength is <u>1000</u> psi. The well will be connected to Williams Field Service's gathering system <u>on or at the edge</u> 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

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.

Plans for Restoration of Surface: 10.

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

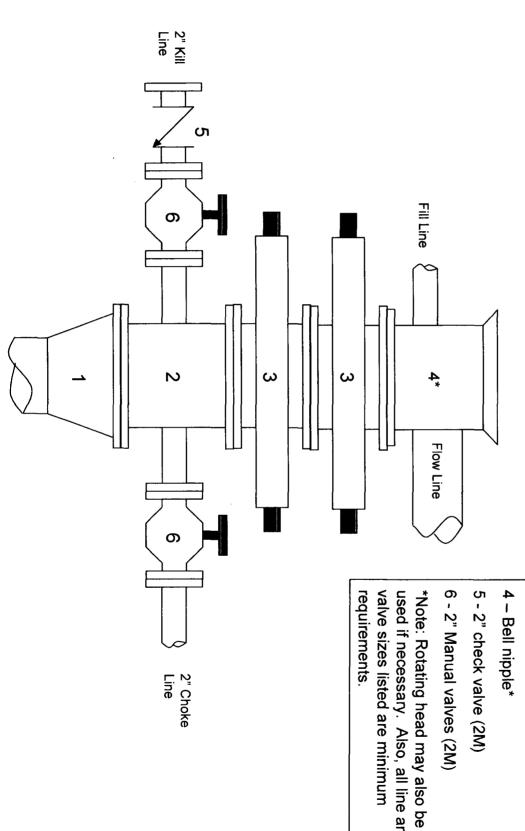
14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Patina San Juan, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to 18 U.S. Code 001 fore filing of a false statement.

 $\mathcal{O}\mathcal{S}$ October ,2005

Billie Maez

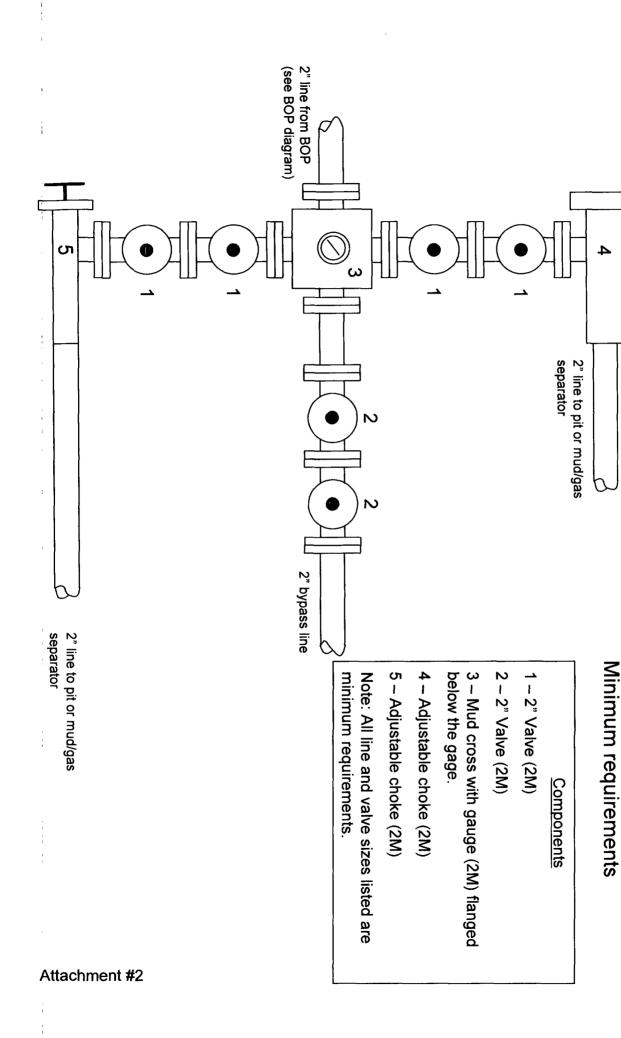
2000 psi BOP stack Jenney #1C Minimum requirements



Components

- 1 Wellhead 9-5/8" (2M)
- 2 Drilling spool 11" (2M)
- 3 A double or two single rams with blinds on bottom 11" (2M)
- used if necessary. Also, all line and

Attachment #1



2000 psi Choke Manifold

Jenney #1C