Form 3160-3 (August 1999)

FORM APPROVED OMB No. 1004-0135

UNITED STATES 2002 SEP 2				: 54 Expires Nov	vember 30, 2000	
DEPARTMENT OF THE INTERIOR				5. Lease Serial No.	<u>-</u> -	
BUREAU OF LAND M	NM NM	26357				
APPLICATION FOR PERMIT	TO DRILL C	OR REENTER		6. If Indian, Allottee	or Tribe Name	
1a. Type of Work: X DRILL	7. If Unit or CA Agr	eement, Name and No.				
				, , , , , , , , , , , , , , , , , , , ,	<i>₹8/11</i>	
f b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other	and the same of	8. Lease Name and Well No.				
	וא	Single Zone	Multiple Zone	7 1	ton #3	
2. Name of Operator Calpine Natural G	as Compar	4807		9. API Well No. 30.045	-3/2/5	
3A. Address		No. (include area co	de)	10. Field and Pool, or Exploratory Haufenki		
c/o Walsh Engineering, 7415 E. Main, Farmington, NM 874		505.327.48	392	PWW Mounds Pietarad Cliffe		
4. Location of Well (Report location clearly and in accordance v	vith any State re	equirements.*)		11. Sec., T., R., M., o	or Blk, and Survey or Area	
At surface 1810' FNL and 925' FWL				F		
At proposed prod. Zone					, T30N, R14W	
14. Distance in miles and direction from nearest town or post offi 3 miles west of Far	12. County or Parish	13. State				
15. Distance from proposed*		Acres in lease	17. Spacing Unit de	San Juan	NM	
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	10. 110. 01	640	17. Spacing Omit de	160 acres NW	ia	
18. Distance from proposed location* to nearest well, drilling, completed,	19. Propos		20. BLM/BIA Bond			
to nearest well, drilling, completed, applied for, on this lease, ft.	1580'					
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approx	ximate date work wi	ll start*	23. Estimated duration		
5736' GL		October 2	002	2 weeks		
	24.	Attachments				
The following, completed in accordance with the requirements of	Onshore Oil an	d Gas Order No. 1, s	hall be attached to the	is form:		
1. Well plat certified by a registered surveyor.		4. Bond to co	ver the operations ur	iless covered by an exist	ing bond on file (see	
2. A Drilling Plan.	·					
3. A Surface Use Plan (if the location is on National Forest System	m Lands, th	5. Operator cer	rtification.			
SUPO shall be filed with the appropriate Forest Service Office.	on and/or plans as may b	e required by the				
		authorized o	office.			
25. Signat ure	Na	ame (Printed/Typed)			Date	
lant. /homes-		Paul	C. Thompson,	P.E.	9/19/02	
Title						
Approved by (eignature)	Lite	Agent				
Approved by Jaguarare)	i INZ	ame (Printed/Typed)		/	Date	
Title Title	Off	fice Varac	10wnsen	,	10/23/02	
Pet Phy.		FA	9			
Application approval does not warrant or certify that the applicant	holds legal or e	equitable title to thos	se rights in the subject	t lease which would entit	le 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)

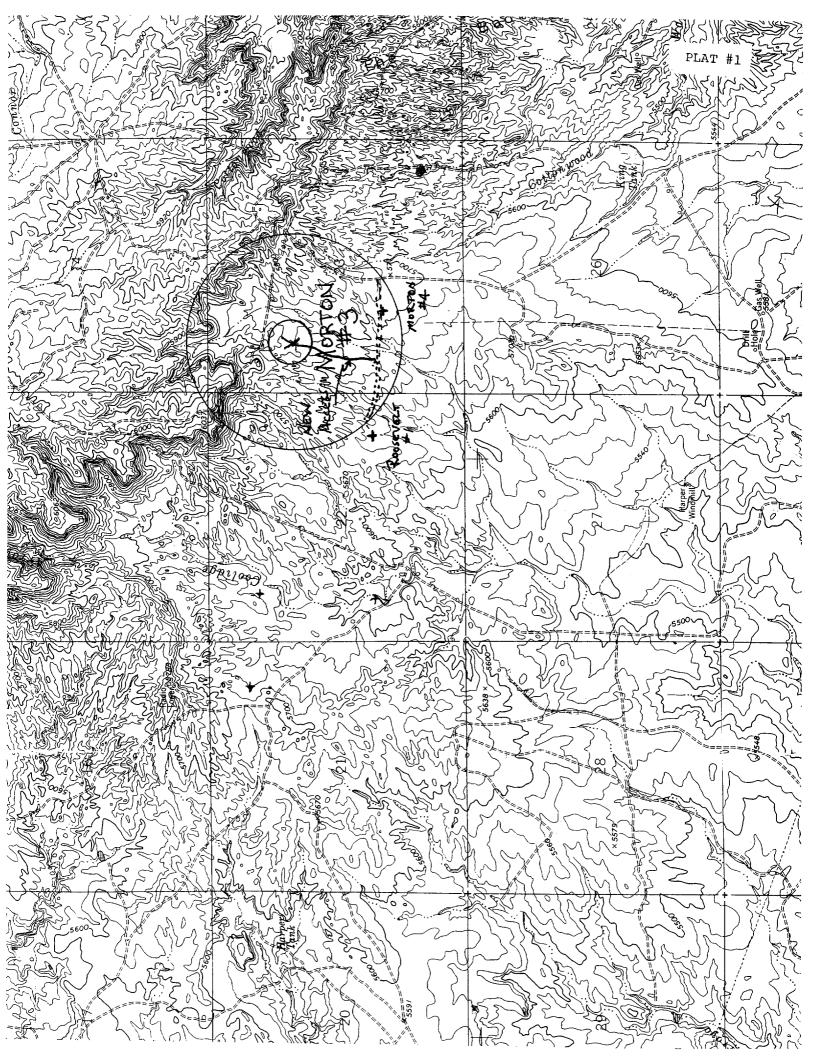
Form C - 102

State of New Mexico Energy. Minerals & Mining Resources Department OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe. NM 87505

MENDED REPORT

ESTERED LAND SUR

Property Name Property Name MORTON OGED No. OGED No. Operator Name CALPNE NATURAL GAS Serfore Location CALPNE NATURAL GAS Serfore Location East/West E 23 30 N. 14 W. 1810 Botton Hole Location if Different From Surfoce U. or Lot Sec. Tep. Rgs. Lot the Feet Irran North/South Feet Irran Surfoce U. or Lot Sec. Tep. Rgs. Lot the Feet Irran North/South Feet Irran East/West Dedication Order No. Wal Allowable MILL Assiched to this Completion Unit. All INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIMSON OPERATOR CERTIFICATION I have been a province of the information on this plot are plotted from field on the plot of fire field on this plot are plotted from field on the plot are plotted from f		<u> </u>		WEL	L LOCAT	TON AND A	CREAGE [EDICATION	I PLAT	
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CALPINE NATURAL GAS CORP. OPERATIONS PLAN Morton #3

Date: September 19, 2002

Elev: GL 5736'

I. Location: 1810' FNL & 925' FWL

Sec 23 T30N R14W

San Juan County, NM

Field: Twin Peaks Pictured Cliffs

Surface: Bureau of Land Management

Minerals: Federal NM 26357

II. Geology: Surface formation Nacimiento

Α.	Formation Tops	Depths
	Fruitland	816′
	Pictured Cliffs	1428'
	Total Depth	1580 '

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 816' and 1428'.

- B. Logging Program: Induction/GR and density logs at TD.
- C. No over pressured zones are expected in this well. No H_2S zones will be penetrated in this well. Max. BHP = 600 psig.

III. Drilling

- A. Contractor:
- B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits (#1 and #2) for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

Morton #3 Operations Plan Pg #2

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# K-55
6-1/4"	1580 ′	4-1/2"	10.5# K-55

- B. Float Equipment:
- a) Surface Casing: None
- b) Production Casing: 4-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every other joint from the top of the well.

V. Cementing:

Surface casing: 7" - Use 50 sx (59 cu. ft.) of Cl "B" with 2% $CaCl_2$ (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. Lead with 130 sx (268 cu.ft) of Cl "B" with 2% metasilicate. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). Tail with 50 sx (59 cu.ft.) of Cl "B" with 2% CaCl₂ (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG) Total cement volume is 327 cu.ft. (100% excess to circulate cement to surface).

Paul C. Thompson, P.E.

Paul C. Thomas

Calpine Natural Gas Company Well Control Equipment Schematic for 2M Service

