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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2002 OCT -1 AM 11:30

070 FARMINGTON, NM

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM 20314	
b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. 28114	
2. Name of Operator Calpine Natural Gas Company		8. Lease Name and Well No. Roosevelt #2	
3A. Address c/o Walsh Engineering, 7415 E. Main, Farmington, NM 87402		9. API Well No. 30 045 31222	
3b. Phone No. (include area code) 505.327.4892		10. Field and Pool, or Exploratory Basin Fruitland Coal	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) A: surface 1890' FSL and 825' FWL A: proposed prod. Zone		11. Sec., T., R., M., or Blk. and Survey or Area L Section 22, T30N, R14W	
14. Distance in miles and direction from nearest town or post office* 4 miles west of Farmington, NM		12. County or Parish San Juan	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 825'		13. State NM	
16. No. of Acres in lease 480		17. Spacing Unit dedicated to this well W/2 320 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2500'		19. Proposed Depth 1365'	
20. BLM/BIA Bond No. on file		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5590' GL	
22. Approximate date work will start* October 2002		23. Estimated duration 2 weeks	

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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. | 6. Such other site specific information and/or plans as may be required by the authorized office. |

25. Signature <i>Paul C. Thompson</i>	Name (Printed/Typed) Paul C. Thompson, P.E.	Date 9/23/02
Agent		
Approved by (Signature) <i>David J. Mankiewicz</i>	Name (Printed/Typed)	Date NOV - 1 2002
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)

NMCOB

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

Form C - 102

☐ AMENDED REPORT

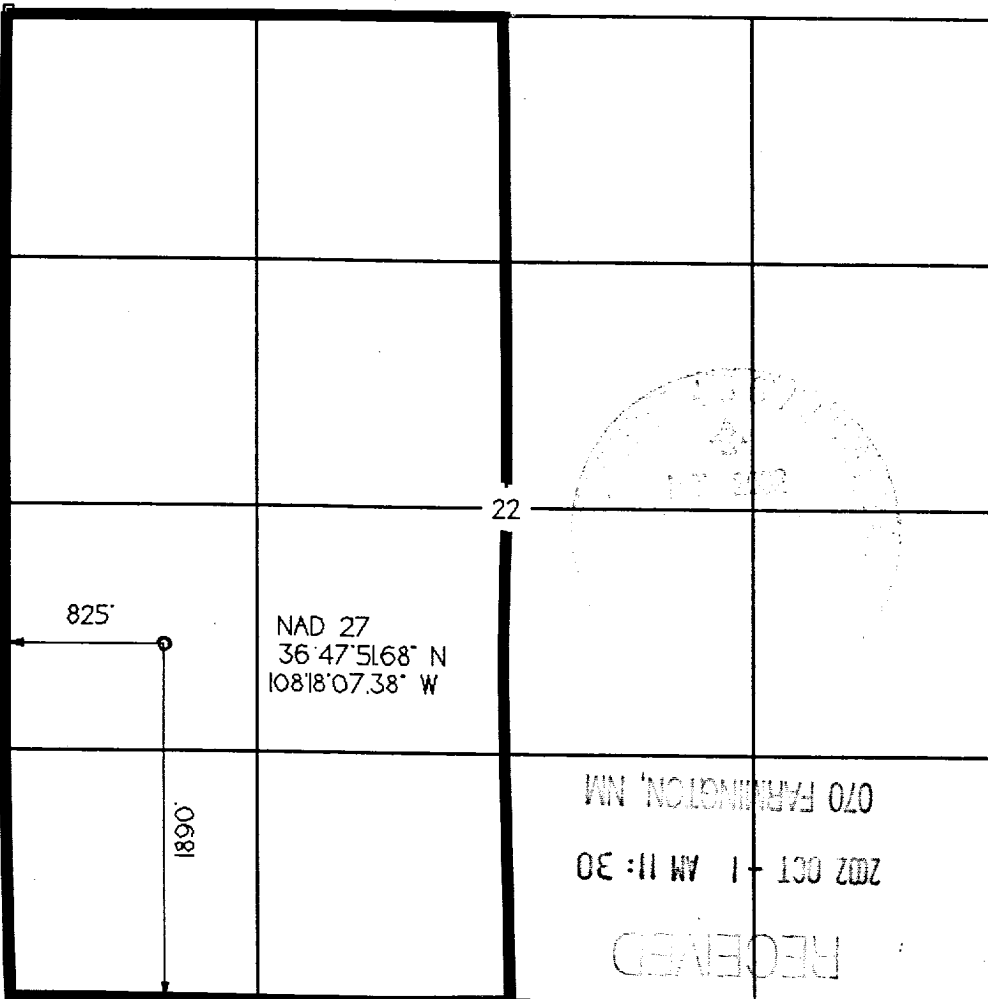
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045-31222	Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code 28114	Property Name ROOSEVELT	Well Number 2
OGRD No. 194807	Operator Name CALPINE NATURAL GAS	Elevation 5590'

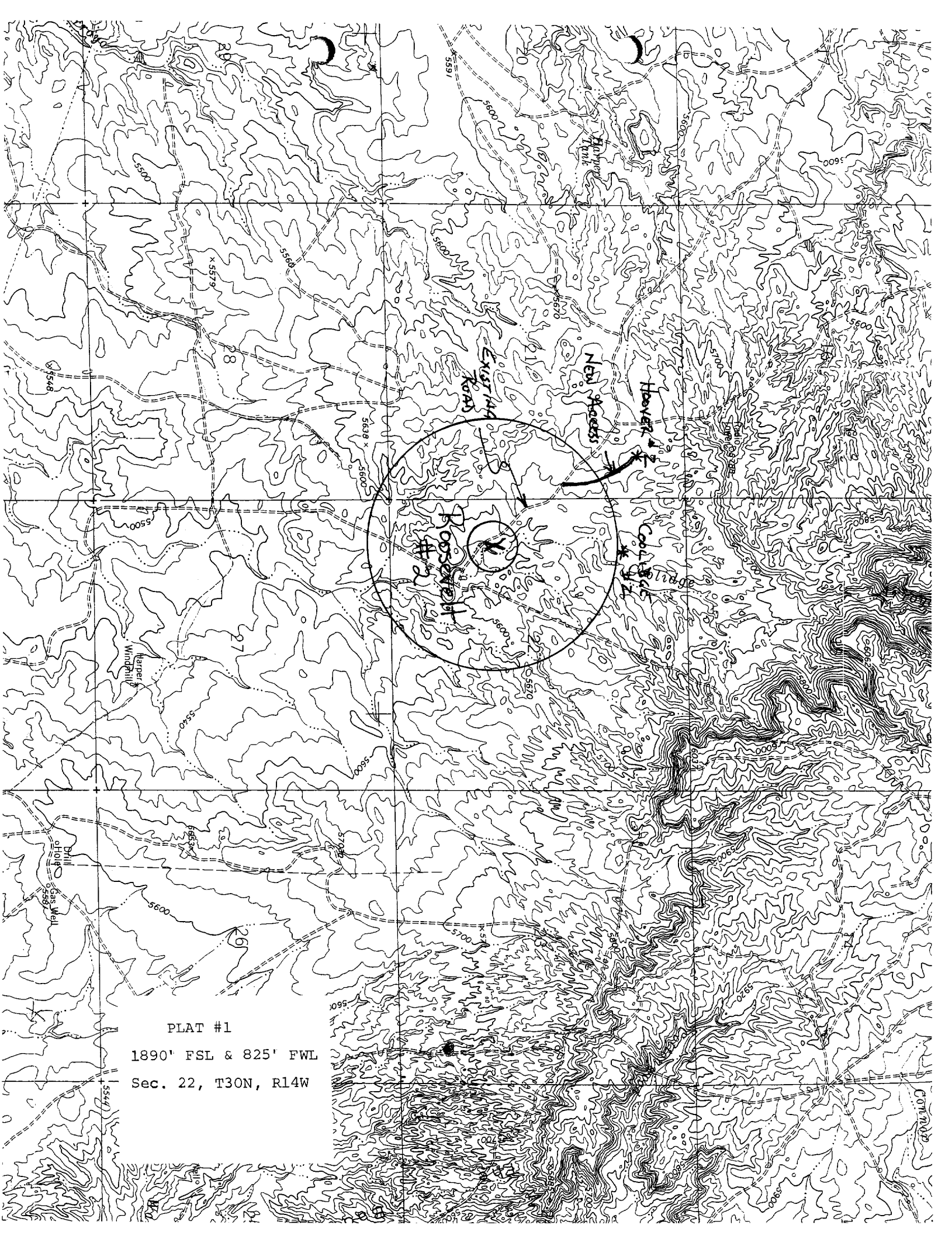
Surface Location									
UL or Lot L	Sec. 22	Twp. 30 N.	Rge. 14 W.	Lot Ltn.	Feet from > 1890'	North/South SOUTH	Feet from > 825'	East/West WEST	County SAN JUAN

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Ltn.	Feet from >	North/South	Feet from >	East/West	County
Dedication 320	Joint ? Y	Consolidation Com	Order No. Pending						

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	<i>Paul C. Thompson</i>
Printed Name	Paul C. Thompson
Title	Agent
Date	9/24/02
SURVEYOR CERTIFICATION I hereby certify that the well location 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	
27 MARCH 02	
Signature and Seal of Professional Surveyor	<i>Paul C. Thompson</i>
6844 REGISTERED LAND SURVEYOR	



PLAT #1
1890' FSL & 825' FWL
Sec. 22, T30N, R14W

CALPINE NATURAL GAS CORP.
OPERATIONS PLAN
Roosevelt #2

I. Location: 1890' FSL & 825' FWL Date: September 23, 2002
 Sec 22 T30N R14W
 San Juan County, NM

Field: Basin Fruitland Coal Elev: GL 5590'
Surface: Bureau of Land Management
Minerals: Federal NM 20314

II. Geology: Surface formation _ Ojo Alamo

<u>A. Formation Tops</u>	<u>Depths</u>
Fruitland	765'
Pictured Cliffs	1215'
Total Depth	1365'

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

Water and gas - 765' and 1215'.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H₂S 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.

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"	1365'	4-1/2"	10.5# K-55

B. Float Equipment:

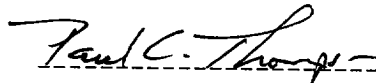
a) Surface Casing: None

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 110 sx (227 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% CaCl_2 (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG) Total cement volume is 286 cu.ft. (100% excess to circulate cement to surface).



Paul C. Thompson, P.E.