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FORM 3160-5  
(June 1990)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED 070 Farmington, NM  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reenter a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well

Oil ☐ Well Gas ☒ Well Other ☐

2. Name of Operator

Calpine Natural Gas Company L.P.

3. Address and Telephone No.

1200 17th Street, Suite 770, Denver, CO 80202

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

1830' FSL & 780' FEL Sec. 22-T30N-14W

5. Lease Designation and Serial No.

NM 20314

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Roosevelt SWD #1-X

9. API Well No.

30-045-31448

10. Field and Pool, or Exploratory Area

Blanco Mesa Verde

11. County or Parish, State

San Juan County, New Mexico

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☒ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state pertinent details, and give pertinent dates including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Attached please find proposed completion procedure.

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

Signed Hugo Cartaya Hugo Cartaya

Title Production Manager

Date 03/31/03

(This space for Federal or State official use)

Approved by Adam Lovato

Title \_\_\_\_\_

Date APR 15 2003

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

\*See Instructions on Reverse Side

NMCCD

**Completion Prognosis for  
Calpine Natural Gas  
Roosevelt SWD #1**

Location: SE/4 Sec 22 T30N R14W  
San Juan County, NM  
Field: Blanco Mesa Verde  
Surface: BLM  
Minerals: BLM

Date: March 31, 2003  
Elev: 5657' GL  
KB: 5669'  
PBSD: 3965' KB

**Objective:** Complete Blanco Mesa Verde as a SWD well.

**Procedure:**

1. MIRU completion rig. PU and RIH with tubing and bit. Drill cement to PBSD at 3965' KB.
2. Pressure test casing to 2500#.
3. Set and fill eight frac tanks. Fill with City water.
4. Rig up Halliburton and pressure test casing to 2500 psi.
5. Rig up wireline truck. Run CBL and GR/CCL from PBSD to top of cement. Perforate Point Lookout (3735-3830). Depths refer to the open hole logs from Roosevelt #1 offset well. Total of 29 (0.36") holes.
6. Install 6" X 3000# flange to the top of the BOP and swedge back to a 4" 10-02 connection. Rig up Halliburton frac crew. Ball off Point Lookout with 1000 gal of 15% HCl and 50 ball sealers. Maximum pressure is 2500 psi. TIH with junk basket and retrieve balls.
7. Fracture with 50,000# of 20/40 Brady sand in slick water. Injection rate is 60 BPM and expected treating pressure is 2000 psig. Max treating pressure is 2500 psig. Treat with the following schedule if pressure permits:

Stage	Fluid Vol. ( Bbls.)	Sand Vol. (lbs.)
Pad	300	0
0.5 ppg 20/40	238	5,000
1.0 ppg 20/40	238	10,000
1.5 ppg 20/40	238	15,000
2.0 ppg 20/40	238	20,000
Flush	60	0
Total	1,312	50,000

8. Rig up Wireline and set 4-1/2" CIBP at 3500'.
9. Perforate Cliff House with 29 (0.40") holes (2802-2895). Depths refer to the open hole logs from Roosevelt #1 offset well.
10. Ball off with 1000 gal of 15% HCl and 66 ball sealers. Maximum pressure is 2500 psi. TIH with junk basket and retrieve balls.
11. Fracture with 50,000# of 20/40 Brady sand in slick water. Injection rate is 60 BPM and expected treating pressure is 2000 psig. Max treating pressure is 2500 psig. Treat with the following schedule if pressure permits:

Stage	Fluid Vol. ( BBl.s.)	Sand Vol. (lbs.)
Pad	300	0
0.5 ppg 20/40	238	5,000
1.0 ppg 20/40	238	10,000
1.5 ppg 20/40	238	15,000
2.0 ppg 20/40	238	20,000
Flush	44	0
Total	1,312	50,000

12. Close blind rams and rig down the frac crew. Flow well back to the pit through a ½" choke.
13. TIH with 3-7/8" bit on 2-3/8" EUE work string tubing and reverse circulate out sand to CIBP at 3500' KB. Drill CIBP and reverse circulate out sand to PBTB or at least 4000'. TOH and lay down work string and bit.
14. Rig up wireline and perforate injection zones at 4 spf with (0.50") holes.
15. TIH with Weatherford 4-1/2" plastic lined packer with on/off tool and "F" profile nipple on 2-7/8" plastic lined tubing. Circulate annulus with packer fluid and biocide, prior to setting the packer. Set the packer at approximately 2760' or within 50' of the top perf.
16. ND BOP and install master valve. Rig down and release the rig.
17. Set injection facilities. Run MIT test witness by the NMOCD. Start injecting.