



CALPINE

PKRV0309228200

DRC SWD

4/16/03

CALPINE NATURAL GAS L.P.

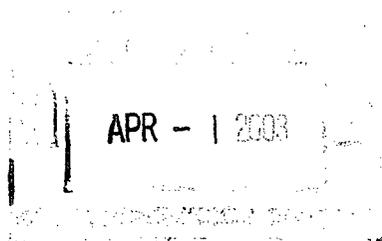
TABOR CENTER

1200 17TH STREET, SUITE 770

DENVER, COLORADO 80202

720.359.9144

720.359.9140 (FAX)



March 31, 2003

State of New Mexico
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

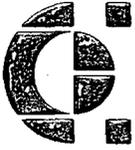
State of New Mexico
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Gentlemen:

Enclosed please find an application for authorization to inject water into the Roosevelt SWD #1, API No. 30-045-31448. This well will serve as a replacement to the proposed SWD well Roosevelt #1 API No. 30-045-26458 which failed to pass the pressure test requirements. We are requesting that the application be approved administratively. Please feel free to call me if you have any questions.

Sincerely

Hugo Cartaya
Production Manager



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DENVER, COLORADO 80202
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March 31, 2003

Bureau of Land Management
1235 La Plata Hwy
Suite A
Farmington, New Mexico 87401

Richardson Operating Company
1700 Lincoln
Suite 1700
Denver, Colorado 80203

Dugan Production Corp.
709 E. Murray Drive
Farmington, New Mexico 87401

Gentlemen:

Enclosed please find a copy of the application to complete the Roosevelt SWD #1 API No. 30-045-31448, Section 22-T30N-R14W as a water disposal well. This well will serve as a replacement to the previously proposed SWD well, Roosevelt #1 API No. 30-045-26458 which failed to pass the pressure test requirements. Please feel free to call me if you have any questions.

Sincerely,

Hugo Cartaya

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance XX Disposal _____ Storage
Application qualifies for administrative approval? XX Yes _____ No

II. OPERATOR: Calpine Natural Gas

ADDRESS: 1200 17th Street, Ste. 770, Denver, Colorado 80202

CONTACT PARTY: Hugo Cartaya PHONE: 720-946-1302

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes XX No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review, which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Hugo Cartaya TITLE: Production Manager

SIGNATURE: Hugo Cartaya DATE: 3/31/03

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Supplement to State of New Mexico C-108

V. See attached map

VI. Wells within Area of Review

- a) Coolidge #1
- b) Operator: Calpine Natural Gas
- c) 950' FNL and 1190' FEL Section 22, T30N, R14W
- d) Producer of natural gas from Dakota formation (Perfs. 5912-6021)
- e) Drilled and completed March of 1985
- f) TD: 6187'; PBTD: 6139'
- g) Status: Shut-In – Proposed to be recompleted into Fruitland Coal and Pictured Cliffs formations.

VII. Operating Data

- a) Proposed Average Injection Rate: 2000 BWPD
- b) Maximum Injection Rate: 2400 BWPD
- c) Closed System with injection water placed into a series of 400 Bbl. tanks and then filtered into a suction tank and then pumped into the well.
- d) Proposed Average Injection Pressure: < 450 psig
- e) Maximum Injection Pressure: +/- 560 psig
- f) Water Source will be Fruitland Coal and Pictured Cliffs production and is compatible with receiving formation. Offset well in Section 15, T30N, R14W water from Fruitland Coal has TDS= 3970 ppm. Offset well Morton #1 in Section 23-30N-14W from the Pictured Cliffs has TDS=9315 ppm.
- g) Will swab in and obtain water sample during Recompletion and analyze water at that time.

VIII. Geologic Data of Injection Zone

- a) Formation Name: Point Lookout and Cliff House
- b) Description: Sandstone interspersed with shales
- c) Thickness: 873' from 3672- 4055' KB (Pt. Lookout) and 2799' - 3672' KB (Cliff House)
- d) Point Lookout will be perforated 3735-3830'. Cliff House will be perforated 2802' - 2895'.
- e) Aquifers with water above Cliff House will be Fruitland Coal and Pictured Cliffs with TDS +/- 3900 ppm.
- f) No aquifers below Cliff House/Point Lookout with water less than 10,000 ppm.

- This interval may include Monahoe - Should be 2799-2950 as per State App.

IX. Stimulation Program

- a) If required after injection testing it is proposed that the Point Lookout and Cliff House will be fracture stimulated with 50,000# of sand each..

X. No logs will be run since the well is a direct offset of Roosevelt #1 (within 50').

XI. Not applicable.

*CA - 2800 - 2950
P.L - 3720 - 3830*

XII. Calpine Natural Gas has examined available engineering and geologic data and has found no evidence of open faults or hydrologic connections between the proposed disposal zones and any underground sources of drinking water.

XIV. Attached is a copy of the certified mail to the owner of the surface and to each leasehold operator within one half mile of the well location. Attached is a copy of the proof of publication.

INJECTION WELL DATA SHEET

OPERATOR: Calpine Natural Gas

WELL NAME & NUMBER: Roosevelt SWD #1

WELL LOCATION: 1830' FSL & 780' FEL NESE I 22 30N 14W
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

(See Attached)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 ¼"

Casing Size: 8 5/8" 32#

Cemented with: 175 sx.

or 207 ft³

Top of Cement: Surface

Method Determined: Visual

Intermediate Casing

Hole Size: _____

Casing Size: _____

Cemented with: _____ sx.

or _____ ft³

Top of Cement: _____

Method Determined: _____

Production Casing

Hole Size: 7 7/8"

Casing Size: 5 ½", 15.5#

Cemented with: 790 sx.

or 1240 ft³

Top of Cement: Surface

Method Determined: Visual

Total Depth: 4010' KB

Injection Interval

_____ 2802 _____ feet to _____ 3830 Proposed Perforated

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8"

Lining Material: Plastic

Type of Packer: Weatherford Plastic Lined

Packer Setting Depth: 2752'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? Yes No

If no, for what purpose was the well originally drilled? _____

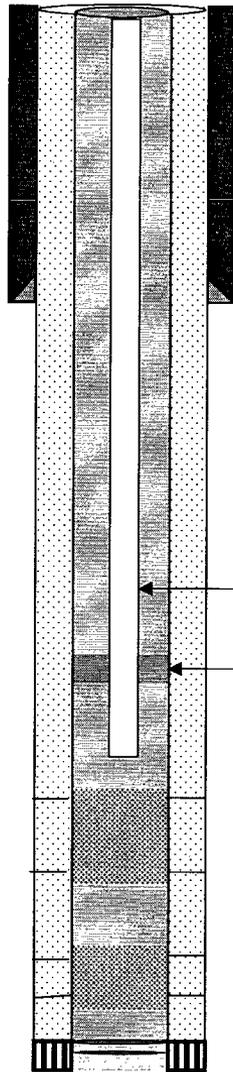
2. Name of the Injection Formation: Point Lookout and Cliff House

3. Name of Field or Pool (if applicable): Blanco Mesaverde

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Fruitland Coal Depth 1260-1272. Pictured Cliffs 1272-1970 (Estimated from offset well).

ROOSEVELT SWD #1



Surface

Casing 213' 8 5/8" 32#
 Cement w/ 175 sx. Class B

Production

Casing 0-4010' KB 5-1/2" 15.5# J-55 LT&C
 Cement w/

Lead 120 sx. (349 cuft) Class B 3% SMS, 10#/sk gilsonite and 1/2#/sk flocele
 Tail 670 sx. (891 cuft) Class B 50-50 Poz 5#/sk gilsonite and 1/4#/sk flocele @% CaCl2.

2 7/8" Tubing

Weatherford plastic lined @ 2752' with on/off tool

Cliff House Perforations

Pt. Lookout Perforations

PBTD 3,965'
 TD 4,015'

Surface Location 1830'FSL & 780' FEL NESE Sec 22 T30N R14W

Field Basin Dakota
 County San Juan
 State New Mexico
 API No. 30-045-31448
 Lease No. NM-20314
 G.L. Elevation 5657'
 K.B. Elevation 5669'

AFFIDAVIT OF PUBLICATION

Ad No. 47550

STATE OF NEW MEXICO County of San Juan:

CONNIE PRUITT, being duly sworn says:
That she is the Advertising Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):
Friday, March 7, 2003.

And the cost of the publication is \$39.77

Connie Pruitt

ON 3-11-03 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

Jimmy Beck
My Commission Expires April 2, 2004.

COPY OF PUBLICATION

Notification of Intent to
convert well to water disposal

Contact party:
Calpine Natural Gas
1200 17th Street
Suite 770
Denver, Colorado 80202
Attention: Hugo Cartaya
(720) 946-1302

**Well Name and Legal
Description:**
Roosevelt SWD #1
1830' FSL & 780' FEL
Section 22, Township 30N,
Range 14W
San Juan County, New
Mexico

The intended purpose is to
drill and complete the
Roosevelt SWD #1 as a salt-
water disposal well.

Formation Name and Depth:
Point Lookout 3735-3830 and
Cliff House 2802-2895

Maximum injection rate is
proposed to be 1400 BWPD.

Maximum injection pressure is
proposed to be 900 psig.

Interested parties must file
their objections or requests for
hearing with the Oil
Conservation Division, 1220
South St. Francis Drive, New
Mexico 87505 within 15 days.

Legal No. 47550, published in
The Daily Times, Farmington,
New Mexico, Friday, March 7,
2003.