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**ADMINISTRATIVE  
ORDER**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**BETTY RIVERA**

Cabinet Secretary

*Administrative Order No. GIW-16*

**Lori Wrotenberg**

Director

**Oil Conservation Division**

THE APPLICATION OF LOS ALAMOS NATIONAL  
LABORATORIES FOR ONE GEOTHERMAL INJECTION WELL,  
SANDOVAL COUNTY, NEW MEXICO

## ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 503 of the New Mexico Oil Conservation Division Rules and Regulations, Geothermal Resources, Los Alamos National Laboratories made application on July 10, 2002 for authority to complete for injection purposes into a geothermal reservoir its Fenton Hill Hot Dry Rock Geothermal Energy Test Site Well No. EE-2A located in Unit G, Section 13, Township 19 North, Range 2 East, NMPM, Sandoval County, New Mexico.

### THE DIRECTOR FINDS THAT:

- (1) The application has been duly filed pursuant to the provisions of Rule 503 of the Geothermal Resources Rules and Regulations.
- (2) There are no other owners of geothermal leases within a one-half mile radius of the proposed injection well.
- (3) All the requirements of Rule 503 have been complied with.
- (4) The proposed injection well is in the interest of conservation and will prevent waste and protect correlative rights and that the subject well is cased and cemented and shall be equipped in such a manner as to prevent danger to natural resources including geothermal resources, useable underground water supplies and surface resources.
- (5) The proposed geothermal injection well should be approved.

### IT IS THEREFORE ORDERED THAT:

- (1) The applicant herein, Los Alamos National Laboratory, is hereby authorized to complete its Fenton Hill Hot Dry Rock Geothermal Energy Test Site Well No. EE-2A, located in Unit G, Section 13, Township 19 North, Range 2 East, NMPM, Sandoval County, New Mexico, in such a manner as to permit the injection of fluids into the altered PreCambrian Phase II reservoir through the open-hole interval located from 10,770 feet to 12,020 feet.

(2) Injection shall be through 7" casing and surface injection pressure shall not exceed 3000 psi.

(3) Monthly injection for the above-described well shall be filed with the Division in accordance with Rule 210 of the Geothermal Resources Rules and Regulations.

(4) Surveillance of the above-described well shall be conducted as required by Rule 505 of the Geothermal Rules and Regulations to ensure that all injected fluids are being confined to the intended zone of injection.

IT IS FURTHER ORDERED THAT:

Jurisdiction of this cause is hereby retained by the Division for such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or the protection of correlative rights, and for the protection of natural resources and the environment. Upon failure of the applicant to comply with any requirement of this order, the Division may terminate the authority hereby granted.

APPROVED AT Santa Fe, New Mexico on this 10<sup>th</sup> day of July, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

*Lori Wrotenbery* *REJ*  
LORI WROTENBERY  
Director

LW/REJ



BRUCE KING  
GOVERNOR

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION



POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

*Administrative Order No. GIW-11*

**THE APPLICATION OF LOS ALAMOS NATIONAL  
LABORATORIES FOR ONE GEOTHERMAL  
INJECTION WELL, SANDOVAL COUNTY, NEW MEXICO.**

**ADMINISTRATIVE ORDER OF  
THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 503 of the New Mexico Oil Conservation Division Rules and Regulations, Geothermal Resources, Los Alamos National Laboratories made application on July 8, 1991 for authority to complete for injection purposes into a geothermal reservoir its Fenton Hill Hot Dry Rock Geothermal Energy Test Site Well No. EE-3A located in Unit G, Section 13, Township 19 North, Range 2 East, NMPM, Sandoval County, New Mexico.

**THE DIRECTOR FINDS THAT:**

- (1) The application has been duly filed pursuant to the provisions of Rule 503 of the Geothermal Resources Rules and Regulations.
- (2) There are no other owners of geothermal leases within a one-half mile radius of the proposed injection well.
- (3) All the requirements of Rule 503 have been complied with.
- (4) The proposed injection well is in the interest of conservation and will prevent waste and protect correlative rights, and that the subject well is cased and cemented and shall be equipped in such a manner as to prevent danger to natural resources including geothermal resources, useable underground water supplies and surface resources.
- (5) The proposed geothermal injection well should be approved.

**IT IS THEREFORE ORDERED THAT:**

- (1) The applicant herein, Los Alamos National Laboratory, is hereby authorized to complete its Fenton Hill Hot Dry Rock Geothermal Energy Test Site Well No. EE-3A, located in Unit G, Section 13, Township 19 North, Range 2 East, NMPM, Sandoval County, New Mexico, in such a manner as to permit the injection of fluids into the altered PreCambrian Phase II reservoir through the open-hole interval located from 11,436 feet to 12,107 feet.

(2) Injection shall be through the 4-1/2" and 5-1/2" tubing and surface injection pressure shall not exceed 4500 psi.

(3) Monthly injection for the above-described well shall be filed with the Division in accordance with Rule 210 of the Geothermal Resources Rules and Regulations.

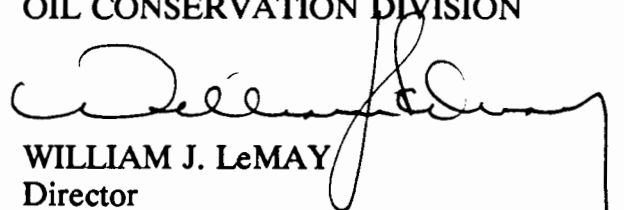
(4) Surveillance of the above-described well shall be conducted as required by Rule 505 of the Geothermal Resources Rules and Regulations to ensure that all injected fluids are being confined to the intended zone of injection.

**IT IS FURTHER ORDERED THAT:**

Jurisdiction of this cause is hereby retained by the Division for such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or the protection of correlative rights, and for the protection of natural resources and the environment. Upon failure of the applicant to comply with any requirement of this order, the Division may terminate the authority hereby granted.

APPROVED at Santa Fe, New Mexico on this 2nd day of December, 1991.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LeMAY  
Director

WJL/REJ/ag

THE APPLICATION OF UNION OIL COMPANY  
OF CALIFORNIA FOR THREE GEOTHERMAL  
INJECTION WELLS, SANDOVAL COUNTY,  
NEW MEXICO.

ADMINISTRATIVE ORDER  
OF THE  
OIL CONSERVATION COMMISSION

Under the provisions of Rule 503 of the New Mexico Oil Conservation Commission Rules and Regulations, Geothermal Resources, Union Oil Company of California made application on August 20, 1975, for authority to complete for injection purposes into a geothermal reservoir its Baca Location Wells Nos. 5, 12, and 14, located, respectively, in Unit L of Section 13, Unit N of Section 23, and Unit B of Section 14, all in Township 19 North, Range 3 East, NMPM, Sandoval County, New Mexico.

The Secretary-Director of the Commission finds:

- (1) That application has been duly filed pursuant to the provisions of Rule 503 of the Geothermal Resources Rules and Regulations.
- (2) That there are no other owners of geothermal leases within a one-half mile radius of the proposed injection wells.
- (3) That all the requirements of Rule 503 have been complied with.
- (4) That the proposed injection wells are in the interest of conservation and will prevent waste and protect correlative rights, and that each of the subject wells is cased and cemented and shall be equipped in such a manner as to prevent danger to natural resources including geothermal resources, useable underground water supplies and surface resources.
- (5) That the proposed geothermal injection wells should be approved.

IT IS THEREFORE ORDERED:

- (1) That the applicant herein, Union Oil Company of California, is hereby authorized to complete its Baca Location Well No. 5, located in Unit L of Section 13, its Baca Location Well No. 12, located in Unit N of Section 23, and its Baca Location Well No. 14, located in Unit B of Section 14, all in Township 19 North, Range 3 East, NMPM, Sandoval County, New Mexico, in such a manner as to permit the injection of fluids into the Bandelier Tuff formation as follows:

Baca Location Well No. 5:  
open-hole interval from 4,400 feet  
to 6,600 feet

Baca Location Well No. 12:  
slotted liner in the interval from  
3,540 feet to 6,460 feet

Baca Location Well No. 14:  
open-hole interval from 3,074 feet  
to 5,780 feet.

(2) That monthly injection reports for each of the above-described wells shall be filed with the Commission in accordance with Rule 210 of the Geothermal Resources Rules and Regulations.

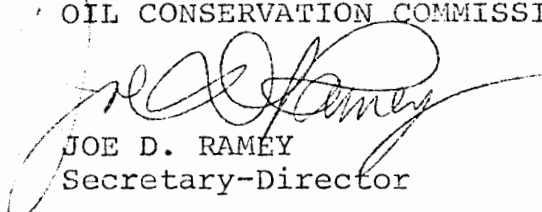
(3) That surveillance of each of the above-described wells shall be conducted as required by Rule 505 of the Geothermal Resources Rules and Regulations to ensure that all injected fluids are being confined to the intended zone of injection.

IT IS FURTHER ORDERED:

That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or the protection of correlative rights, and for the protection of natural resources and the environment; upon failure of the applicant to comply with any requirement of this order, the Commission may terminate the authority hereby granted.

APPROVED at Santa Fe, New Mexico, on this 21st day of October, 1975.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



JOE D. RAMEY  
Secretary-Director

S E A L



*Risk Reduction & Environmental Stewardship Division  
Water Quality & Hydrology Group (RRES-WQH)*

PO Box 1663, MS K497

Los Alamos, New Mexico 87545

(505) 667-7969/Fax: (505) 665-9344

Date: October 2, 2002

Refer to: RRES-WQH: 02-362

OCT - 7 2002

Mr. Roy E. Johnson  
Senior Petroleum Geologist  
District IV Supervisor  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**SUBJECT: SUNDRY NOTICE FOR THE PLUGGING AND ABANDONMENT OF FENTON HILL GEOTHERMAL WELL EE-2A**

Dear Mr. Johnson:

As required under New Mexico Oil Conservation Division Rule 202, Form C-103, *Sundry Notices and Reports on Wells*, must be filed within 30 days of completion of geothermal well plugging and abandonment. To fulfill your Division's requirement, enclosed are three (3) copies of Form C-103 for the recently completed plugging and abandonment of Fenton Hill geothermal well EE-2A. Included with the Sundry Notice for EE-2A are the following supporting documents: (1) Cement Job Report, (2) Cementing Laboratory Report, (3) Cement Plug No.1 Tagging Graph, and (4) Casing Schematic of EE-2A prior to abandonment.

Plugging and abandonment operations at EE-2A were conducted by BJ Services, Inc., Farmington, New Mexico, on September 10-13, 2002. A bottom cement plug was installed from 10,870 ft. to 9,300 ft. and subsequently tagged at 9,650 ft. Corrosion inhibitor and four additional deep cement plugs were installed at the specified depth intervals. A sixth and final plug was installed from 89 ft. to the surface. The only tasks remaining to complete abandonment of EE-2A are removal of the wellhead and the installation of a nameplate; this work is scheduled for October-November 2002.

Please contact me at (505) 667-7969 should you have any questions regarding this information.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Bob Beers'.

Bob Beers  
Water Quality & Hydrology Group



BB/am

Enclosures: a/s

Cy: W. Price, NM OCD, Santa Fe, New Mexico, w/enc.  
J. Peterson, Santa Fe National Forest, Jemez Ranger District, Jemez Springs, NM, w/enc.  
C. Linn, Santa Fe National Forest, Santa Fe, New Mexico, w/enc.  
L. Gordon, NM OSE, Santa Fe, New Mexico, w/enc.  
F. Oneyear, BLM, Santa Fe, New Mexico, w/enc.  
J. Vozella, DOE/OLASO, w/enc., MS A316  
G. Turner, DOE/OLASO, w/enc., MS A316  
J. Holt, ADO, w/enc., MS A104  
P. Weber, EES-DO, w/enc., MS D446  
J. Hansen, EES-DO, w/enc., MS D446  
M. Fehler, EES-11, w/enc., MS D443  
J. Thomson, EES-11, w/enc., MS D443  
S. Archuleta, P-FM, w/enc., MS D459  
B. Ramsey, RRES-DO, w/enc., MS J591  
K. Hargis, RRES-DO, w/enc., MS J591  
D. Stavert, RRES-EP, w/enc., MS J978  
S. Rae, RRES-WQH, w/enc., MS K497  
D. Rogers, RRES-WQH, w/enc., MS K497  
D. McInroy, RRES-R, w/enc., MS M992  
T. Rust, RRES-R, w/enc., MS M992  
P. Wardwell, LC-ESH, w/enc., MS A187  
RRES-WQH File, w/enc., MS K497  
IM-5, w/enc., MS A150