

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
10005 State Office Building Portland, Oregon 97201

API No. 36-045-90008

APPLICATION FOR PERMIT TO DRILL A GEOTHERMAL WELL

(To be accompanied by a \$100.00 permit fee for new wells only and a surety bond conditioned as provided by law.)

DATE 7/16/93

In compliance with rules and regulations pursuant to ORS 522 (Chapter 552 OL 1975) application is hereby made for permit to drill a geothermal well: Trans-Pacific Geothermal Corp.
(Company or Operator)

Well No. ESI-A-S in NE 1/4 of sec. 33, T. 18 S R. 45 E W.B.&M.,
Vale Field, Malheur County.

Survey Coordinates Approximately 223 ft S of N line, 2500 ft W of E line, Sec. 33

Elevation of ground above sea level is 2,510 (est) feet. All depth measurements are taken from top of ground surface, which is 0 feet above ground.

Lessee Trans-Pacific Geothermal Corp.

Address 1901 Harrison Street, Suite 1590, Oakland, CA 94612-3501

Lessor U.S. Bureau of Land Management

Address 1300 NE 44th Avenue, Portland, OR 97213

We propose to use the following strings of casing and to land or cement them as here in indicated: *Actual*

Size of hole	Size of casing	Weight in pounds per foot	Grade and type	New or second hand	Depth	Landed or cemented No. sacks cement
17-1/2"	13-3/8"	Steel conductor	K-55	New	± 30 ft.	Sufficient to circulate
12-1/4"	9-5/8"	36 lb/ft	K-55 Buttress	New	± 400 ft. <i>507'</i>	164 sacks
8-3/4"	7"	23 lb/ft	K-55 Buttress	New	± 2,000 ft.	401 sacks
6-1/4"	5"	15 lb/ft	K-55 Hydril FJ	New	± 5,000 ft.	Hung liner

Proposed Depth 5,000 ft. Objectives Geothermal exploration well

DOGAMI approved October 06, 1993.
Notify DOGAMI 24 hours prior to any blow-out prevention test. Attached are the October 1993 Stipulations to the permit, and October 6, 1993 letter with conditions to the permit.

by Dennis I. Olmstead
Dennis Olmstead, Petroleum Engineer

Trans-Pacific Geothermal Corp.

Company or Operator

By Jack Pigott *Vice President, Finance*
Position

Send communications regarding well to:

Name Jack Pigott

Address Trans-Pacific Geothermal Corp.

1901 Harrison St, #1590, Oakland, CA 94612-3501

NOTE: This permit expires 180 days from date of issue. Land use approval must be obtained from the county or city in which the drilling takes place. Issuance of this permit is not a finding of compliance with the Statewide Planning Goals or the acknowledged comprehensive plan.