

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY, CONSERVATION DIVISION

GEOHERMAL DRILLING PERMIT

Form Approved
Subject Bureau No.

The U.S. Geological Survey requires this form or other Supervisor approved form to be prepared and filed in triplicate with requisite attachments with the Supervisor. The Supervisor must approve this permit prior to any lease operation.

1a. TYPE OF WORK: DRILL NEW WELL (X) REDRILL () DEEPEN () PLUG BACK () DIRECTIONALLY DRILL () OTHER ()

1b. WELL TYPE: PRODUCTION () INJECTION () HEAT EXCHANGE () OBSERVATION () WATER SUPPLY () OTHER ()

1c. WELL STATUS: Thermal Gradient to be drilled

2. NAME OF LESSEE/OPERATOR: OXBOW POWER CORPORATION

3. ADDRESS OF LESSEE/OPERATOR: 200 S. Virginia Street Suite 450 Reno, NV 89501

13. LOCATION OF WELL:
At surface: NW 1/4 SE 1/4 Sec. 24 T13S R7 1/2 E
At proposed prod. name: see attached map (Site 1)

16. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE: 1/4 mile E to Sec. 19 (lease line)

17. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE: N/A

4. LEASE SERIAL NO.: OR-20492

5. SURFACE NUMBER: BLN () FS (X) Other ()

6. UNIT AGREEMENT NAME: N/A

7. WELL NO.: 77-24

8. PERMIT NO.:

9. FIELD OR AREA: Santiam Pass

10. SEC. T., R., S. & N.: Sec 24 T13S R7 1/2 E

11. COUNTY: Jefferson

12. STATE: Oregon

13. APPROX. STARTING DATE: August 1

14. ACRES ASSIGNED (WELL SPACING): 2 1/2 ac

15. ELEVATION: SURFACE (X) FINAL ()

16. REFERENCE DATUM: OR () NAV () SP () MD () BY ()

17. CASING OR PLUG () OTHER ()

18. DRILLING MEDIA AND CHARACTERISTICS: AIR (X) WATER () MUD () FOAM () OTHER ()

19. PROPOSED DEPTH MEASURED: 950 meters

20. ELEVATION: SURFACE (X) FINAL ()

21. EXISTING AND/OR PROPOSED CASING AND CEMENTING PROGRAM (List existing program first, followed by proposed program, and separate by a sufficient space to clearly distinguish the two programs):

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	COUPLING (Collars & threads)	GRADE	SETTING DEPTH (Top / Bottom)	QUANTITY OF CEMENT
SEE ATTACHED						

22. PROPOSED WORK SUMMARY:

SEE ATTACHED

23. (Use additional space on reverse side of form)

SIGNED: _____ TITLE: Manager Land & Environment DATE: 06/08/89

APPROVED BY: *Dennis L. Mustard* TITLE: _____ DATE: 7/23/89

CONDITIONS OF APPROVAL, IF ANY:
The June 1986 stipulations approved by the State Geologist are conditions of this permit.

This permit is required by law (30 U.S.C. 1023); regulations: 30 CFR 170.71; Federal Geothermal Lease Terms and Stipulations and other regulatory requirements. The United States Criminal Code (18 U.S.C. 1001) makes it a criminal offense to make a willfully false statement or representation to any Department or Agency of the United States as to any matter within its jurisdiction.