

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
GEOTHERMAL DRILLING PERMIT**

FORM APPROVED
OMB NO. 1004-0132
Expires September 30, 1990

The Bureau of Land Management (BLM) requires this form or other BLM approved forms to be prepared and filed in triplicate with requisite attachments with the authorized officer. The authorized officer must approve this permit prior to any lease operation.

7. Lease Serial No. **OR 45505**

8. Surface Manager: BLM FWS Other

9. Use Agreement Name **Deschutes GDF**

10. Well No. **88-21 (28-22)** 11. Permit No. **050-95-07**

12. Field or Area **Newberry KGRA**

13. Sec., T., R., B. & M. **Sec. 21, T21S, R12E**

14. County **Deschutes**

15. State **Oregon**

16. Approx. Searing Date

17. Area Assigned (Well Spacing)

1a. Type of Work: Drill New Well Retrial Deepen Plug Back Directionally Drill Other

1b. Well Type: Production Injection Heat Exchange Observation Water Supply Other

1c. Well Status: **Not yet drilled**

2. Name of Lessee/Operator **C.E. Exploration**

3. Address of Lessee/Operator **34 NW First St., Ste. 302, Portland OR 97209**

4. Location of Well **At surface approx 1000'N & 200'W of SE corner Sec 21**
At proposed prod. zone

5. Distance from Proposed Location to Nearest Property or Lease Line **approx. 200'N of NSO boundary**

6. Distance from Proposed Location to Nearest Well or Previously Approved for Well Location on this Lease. **850'N & 75'W of Well 86-21**

18. Drilling Media and Characteristics: Air Water Mud Foam Other

19. Proposed Depth Measured: **10,000' ±**
True Vertical:

20. Elevations: Estimated Final
Reference Datum: GCR MAT DF KS RT
 Consistent Elevation Other

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 delineate the two programs)

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	COUPLING (Collars & Threads)	GRADE	SETTING DEPTH		QUANTITY OF CEMENT
					Top	Bottom	
36"	30"	.328 wall		X65	GL	85' ±	To surface
26"	20"	94#	Buttress	K-55	GL	800' ±	To surface
17½"	13-3/8"	68 & 72#	Buttress	K55/L80	GL	4500' ±	To surface
12½"	9-5/8"	36#	Slotted liner	K55	4300"	TD	

22. Proposed Work Summary

See attached drilling program. All operations will be completed in accordance with the Geothermal Resource Operation Orders, CECI's Plan of Operations and the revised Drilling and Testing procedures submitted to BLM in August, 1995.

23. **Dave McClain**
(Signature) Title **Project Manager** Date **09/20/95**

(This space for Federal use)

Approved by **Arnold L. Smith** Title **Assoc. Dist. Mgr.** Date **NOV 06 1995**

Comments or Approval, if Any:
Attached: 5 pages

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.