

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.

1a. Type of Work: <input checked="" type="checkbox"/> Drill New Well <input type="checkbox"/> Redrill <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Directionally Drill <input type="checkbox"/> Other		7. Lease Serial No. OR39013
1b. Well Type: <input type="checkbox"/> Production <input type="checkbox"/> Injection <input type="checkbox"/> Heat Exchange <input type="checkbox"/> Observation <input type="checkbox"/> Water Supply <input checked="" type="checkbox"/> Other Temperature Core Hole		8. Surface Manager: <input type="checkbox"/> BLM <input checked="" type="checkbox"/> FS <input type="checkbox"/> Other
1c. Well Status: N/A		9. Unit Agreement Name N/A
2. Name of Lessee/Operator California Energy Company, Inc.		10. Well No. CE-BH-7
3. Address of Lessee/Operator 601 California St., 10th Floor, San Francisco, CA 94108		11. Permit No.
4. Location of Well At surface 5040'E and 1820'S of NW Corner, Section 20 At proposed prod. zone		12. Field or Area Bend Highlands
5. Distance from Proposed Location to Nearest Property or Lease Line Approx. 1745' North of OR39013 lease boundary		13. Sec., T., R., B. & M. Sec. 20, T17S, R10E
6. Distance from Proposed Location to Nearest Well, or Previously Applied for Well Location on this Lease. None		14. County Deschutes
18. Drilling Media and Characteristics: <input checked="" type="checkbox"/> Air <input type="checkbox"/> Water <input checked="" type="checkbox"/> Mud <input type="checkbox"/> Foam <input type="checkbox"/> Other		15. State Oregon
19. Proposed Depth Measured: 5500' True Vertical:		16. Approx. Starting Date 07/01/90
20. Elevations: <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Final 6070' Reference Datum: <input checked="" type="checkbox"/> GR <input type="checkbox"/> MAT <input type="checkbox"/> DF <input type="checkbox"/> KS <input type="checkbox"/> RT <input type="checkbox"/> Casinghead Flange <input type="checkbox"/> Other		17. Acres Assigned (Well Spacing) N/A

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		QUANTITY OF CEMENT
					Top	Bottom	
Set 6-7' of 7-7/8"	8-5/8" conductor pipe (optional)	11.5#	8RD ST&C	K55	Surf.	6-7'	To Surface
Drill out cement plug and resume drilling	4-1/2"				Surf.	550'	To Surface
Reduce core size to 2.980" OD (NQ) as mandated by					3.782" OD (HQ) wireline coring system.		
					drilling conditions.		

22. Proposed Work Summary

Approximate Kettleman designation: 83-20

See attached Drilling and Coring Procedure.

23. David W. McClain Manager, Projects & Environmental Affairs 04/16/90
Signed Title Date

(This space for Federal use)

Approved by [Signature] Title Acting District Manager Date 5-23-90

Conditions of Approval, If Any: