

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0132
Expires: July 31, 2023

GEOHERMAL DRILLING PERMIT

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

1a. Type of Work: Drill New Well Redrill Deepen Plug Back Directionally Drill Other	7. Lease Serial No.	
1b. Well Type: Production Injection Heat Exchange Observation Water Supply Other	8. Surface Manager: BLM FS Other	
1c. Well Status:	9. Unit Agreement Name	
2. Name of Lessee/Operator	10. Well No.	11. Permit No.
3. Address of Lessee/Operator	12. Field or Area	
4. Location of Well At surface At proposed prod. Zone	13. Sec., T., R., B. & M.	
5. Distance from Proposed Location to Nearest Property or Lease Line	14. County	
6. Distance from Proposed Location to Nearest Well or Previously Applied for Well Location on this Lease.	15. State	
	16. Approx. Starting Date	
	17. Acres Assigned (Well Spacing)	

18. Drilling Media and Characteristics: Water Mud Foam Air Other	19. Proposed Depth Measured: True Vertical:	20. Elevations: Estimated Final Reference Datum: GR MAT DF KB RT Casinghead Flange Other
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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 <i>(Collars & Threads)</i>	GRADE	SETTING DEPTH Top Bottom	QUANTITY OF CEMENT

22. Proposed Work Summary

23.

Signed _____ Title _____ Date _____

(This space for Federal use)

Approved by _____ Title _____ Date _____

Conditions of Approval, if any:

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 make 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.

GENERAL INSTRUCTIONS

This form must be submitted for any application to drill for, test, extract, produce, dispose and/or utilize the actual geothermal resources on Federally leased land or lands covered by a unit or cooperative agreement.

SPECIFIC INSTRUCTIONS

Item 1C: Show the current status for existing wells: I=injecting, F=flowing, P=pumping, HE=heat exchange, SI=shut-in, WS=water supply, OB=observation, O=other (*explain*).

Item 7: Number the wells using the Modified Kettleman Well Numbering System (*see below*).

Item 15: Show the surface location coordinates from the nearest section corner or tract lines and if the well is to be directionally drilled, the proposed zone coordinates (*top and bottom*) from the surface location.

Item 19: Indicate reference datum from which measurement was made (*see item 20*).

Item 20: If the reference datum shown is not the graded mat, also show the measurement from the mat surface (*e.g., mat-to-derrick floor (DF) measurement, mat-to-rotary table (RT) measurement, mat-to-kelly bushing (KB) measurement, etc.*)

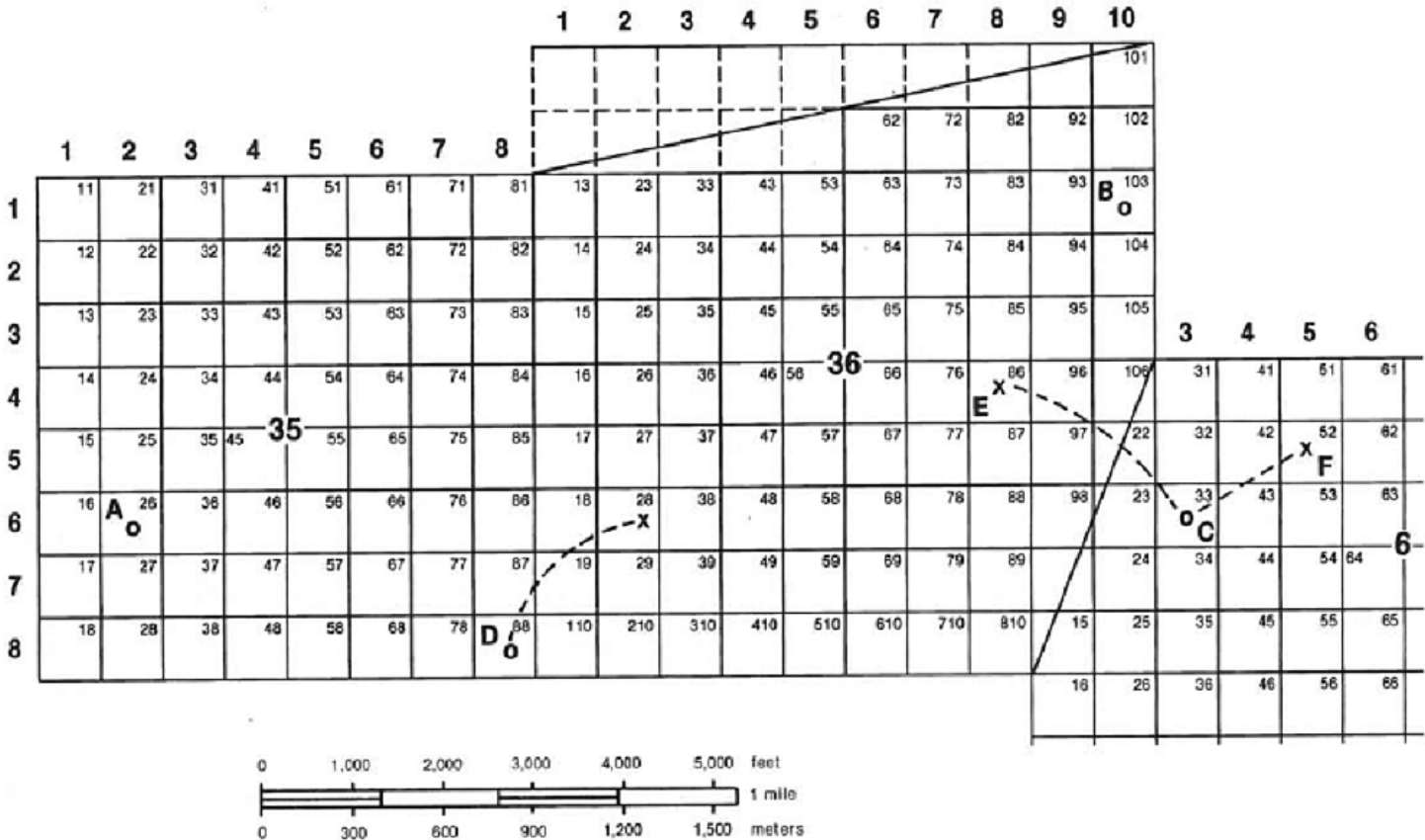
Item 21: For subsequent well work the latest well conditions along with all proposed additions and changes must be shown. To show current well conditions, either fill out this item or attach the latest completion report on the subject well.

Item 22: Summarize other pertinent existing data such as producing and injecting zones, type, size, density of perforations and perforated intervals, etc., in addition to the proposed work. Indicate reasons for changes undertaken.

PROCEDURE FOR NUMBERING GEOTHERMAL WELLS USING THE MODIFIED KETTLEMAN WELL NUMBERING SYSTEM

1. Subdivide the sections where the wells are to be located into 10-acre (660 feet x 660 feet) subdivisions. Number each horizontal and vertical subdivision starting in the northwest corner of each section with 1.1 and increasing to the east and south. A regular 640-acre section contains 64 subdivisions numbered from 11 to 88 (*vertical digit first followed by the horizontal digit*).
2. Number the first vertical well with the number of the 10-acre subdivision in which it is located followed by the section number. (*See examples "A", "B", and "C", below.*) If the first well is directionally drilled, number it with the subdivision number of its surface location, followed by the subdivision number in which the bottom of the completion interval lies and that section number (*if different from the surface section number*), and followed by the surface section number. (*See Example "D"*.)
3. Subsequent wells drilled from the same 10-acre surface location are numbered in the manner described above with an A, B, C, etc., added following the surface subdivision number. (*See Examples "E" and "F"*.)
4. For sections with irregular boundaries, align a 10-acre grid pattern North-South, running through the westernmost section point or line and East-West running through the northernmost section point or line. Number wells according to the 10-acre grid, subdividing as far as possible to the east and south.

Example A	26-35	Example D Directional	88(28-36)-35
Example B	103-36	Example E Directional	33A(86-36)-6
Example C	33-6	Example F Directional	33B(52)-6



NOTICES

The Privacy Act of 1974 and the regulations in 43 CFR 2.48(d) provide that you be furnished with the following information required by this application.

AUTHORITY: 30 U.S.C. 1001-1028; 43 CFR Part 3200.

PRINCIPAL PURPOSE: The BLM uses this information to evaluate the technical, safety, and environmental factors involved with geothermal resources on Federal geothermal leases.

ROUTINE USES: (1) The adjudication of the form. (2) Documentation for public information in support of notations made on land status, records for the management, disposal; and use of public lands and resources. (3) Transfer to appropriate Federal agencies when concurrence is required prior to granting a right in public lands or resources. (4) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the information is required to process the application. If all information is not provided, the application may be rejected.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow us to evaluate the technical, safety and environmental factors involved with geothermal resources on Federal geothermal leases.

The BLM will use this information to analyze and approve operations.

Response to this request is required to obtain or retain a benefit.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0132), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Washington D.C. 20240.