

GEOHERMAL WELL COMPLETION REPORT

The U.S. Geological Survey requires this form or other Supervisor approved form to be prepared and filed in duplicate with requisite attachments with the Supervisor within 30 days after completion of permitted operations.

| 1a. WELL TYPE: PRODUCTION () INJECTION () DISPOSAL () WATER SUPPLY () OBSERVATION (X) COLD () HEAT EXCHANGE () OTHER () | | | | | | 4. LEASE SERIAL NO. OR-41595 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------|------------------|-------------------|-------------------|-----------|--|-------------------------------------|------------------|-------------------|-------------------|-------------------------|-------------------------------------|-------------------------------------|-----------|------|-----------------------------------|-----------|--------|-----------|--|--|--|---------------|--|--|--|--|--|--|------------|--|--|--|--|--|--|--|--|--|
| 1b. COMPLETION: NEW (X) WORKOVER () DEEPENED () PLUGBACK () REDRILL () RECOMPLETED () DRILLED & ABANDONED () OTHER () | | | | | | 5. SURFACE MANAGER: BLM () FS () Other () | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. NAME OF LESSEE/OPERATOR GEO Newberry Crater, Inc. | | | | | | 6. UNIT AGREEMENT NAME Newberry Volcano Flank | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. ADDRESS OF LESSEE/OPERATOR 61419 South Highway 97, Suite A, Bend, OR 97702 | | | | | | 7. WELL NO. N-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18. LOCATION OF WELL At Surface: 3600' West and 2750' North of SW corner of S25, T22S, At Top of Production Zone: R12E At Total Depth: | | | | | | 8. PERMIT NO. OR-920-85-DNF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19. TOTAL DEPTH Measured: 4550' True Vertical: Not surveyed | | | | | | 9. FIELD OR AREA Newberry Volcano 00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20. PLUGBACK TOTAL DEPTH Measured: N/A True Vertical: | | | | | | 10. SEC. T., R., B. & M. S25, T22S, R12E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21. ELEVATION: ESTIMATED (X) FINAL () 5840' REFERENCE DATUM: GR (X) MAT () DP () KB () RT () CASINGHEAD FLANGE () OTHER () | | | | | | 11. COUNTY Deschutes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22. DRILLING MEDIA: AIR () WATER () MUD (XX) FOAM () OTHER () List Characteristics: | | | | | | 12. STATE Oregon | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23. LOG TYPE & INTERVALS BHC Acoustic Fraclog (1788-4538'); BHL Acoustilog Gamma Ray (1788-4538)'; Caliper Log (1786-3427) and (462-1250)'; Differential Temperature log (0-4540)'; Gamma Ray (0-4544)'; Induction Log (0-4540)'; and (480-1250)' | | | | | | 13. SPUD DATE DATE T.D. REACHED 8-23-85 11-1-85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24. CASING RECORD | | | | | | 14. COMPLETION DATE (Ready to produce) N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Size</th> <th>Weight</th> <th>Grade</th> <th>Collars & Threads</th> <th>Depths Set Top</th> <th>Hole Size</th> <th>Cementing Record (slurry volume)</th> </tr> </thead> <tbody> <tr> <td>4.5"</td> <td>10.7 #/ft</td> <td>A-53</td> <td>Diamond Dreill</td> <td>surf 468'</td> <td>5-5/8"</td> <td>25 cu ft.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Flush Joint 3</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Threads in</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | Size | Weight | Grade | Collars & Threads | Depths Set Top | Hole Size | Cementing Record (slurry volume) | 4.5" | 10.7 #/ft | A-53 | Diamond Dreill | surf 468' | 5-5/8" | 25 cu ft. | | | | Flush Joint 3 | | | | | | | Threads in | | | | 15. DIRECTIONALLY DRILLED INTERVALS N/A | | | | | |
| Size | Weight | Grade | Collars & Threads | Depths Set Top | Hole Size | Cementing Record (slurry volume) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | Flush Joint 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Threads in | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25. LINER RECORD | | | | | | 16. SURVEYED INTERVALS None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Size | Weight | Grade | Collars & Threads | Top | Bottom | Perforated Intervals | Cementing Record (slurry volume) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26. TUBING RECORD | | | | | | 27. CEMENT SQUEEZE, ACID, FRACTURE, ETC. (detail type, amount, intervals) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Size</th> <th>Weight</th> <th>Grade</th> <th>Depth Set</th> <th>Packer Depth</th> </tr> </thead> <tbody> <tr> <td>1.9" O.D. 1.516 I.D.</td> <td>2.9#/ft</td> <td>J-55</td> <td>4542'</td> <td></td> </tr> </tbody> </table> | | | | | | Size | Weight | Grade | Depth Set | Packer Depth | 1.9" O.D. 1.516 I.D. | 2.9#/ft | J-55 | 4542' | | Filled hole with abandonment mud. | | | | | | | | | | | | | | | | | | | | | | | |
| Size | Weight | Grade | Depth Set | Packer Depth | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 28. PERFORATION RECORD | | | | | | 29. ATTACHMENTS & PREVIOUS SUBMITTALS: List all reports, surveys, tests and logs, not listed in item 23, which have resulted from drilling and completion operations. List relevant previously furnished data with date of submittal referenced. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Type</th> <th>Total No.</th> <th>Density (No./ft)</th> <th>Size</th> <th>Intervals</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> | | | | | | Type | Total No. | Density (No./ft) | Size | Intervals | | | | | | | | | | | 30. WELL STATUS: PRODUCING () SHUT-IN () SUSPENDED () INJECTION () DISPOSAL () HEAT EXCHANGE () ABANDONED () WATER SUPPLY () OTHER (XX) Temperature Observation | | | | | | | | | | | | | | | | | | |
| Type | Total No. | Density (No./ft) | Size | Intervals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 31. DO YOU CONSIDER THE WELL TO BE COMMERCIAL? EXPLAIN: | | | | | | 32. I hereby certify the information on this report and the attached information is complete and accurate according to the best of my knowledge. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGNED: <u>Cliff Walkey</u> TITLE <u>Projects Coordinator</u> DATE <u>4-6-87</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

This report is required by law (30 U.S.C. 1023); regulations: 30 CFR 270.37, 30 CFR 270.73; Federal Geothermal Lease Terms and Stipulations and other regulatory requirements. Failure to report in a timely prescribed manner can result in shutting down operations, suspension and or recommendation of cancellation of lease (30 U.S.C. 1011, 30 CFR 270.80, 43 CFR 3244.3). 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.