

GTHT - ____002____

**WELL
PC-2**

ATTACHMENT 6.A. OIL CONSERVATION DIVISION

2040-S. Pacheco
SANTA FE, NEW MEXICO 87501

Form G-103
Adopted 10-1-77
Revised 10-1-

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

| | |
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SUNDRY NOTICES AND REPORTS ON GEOTHERMAL RESOURCES WELLS

Federal Land Use

Agreement
5. Indicate Type of Lease
State ☐ Fee ☐
5.a State Lease No.

Do Not Use This Form for Proposals to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application For Permit -" (Form G-101) for Such Proposals.)

| | |
|--|---------------------------------------|
| 1. Type of well Geothermal Producer <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/> | 7. Unit Agreement Name Fenton Hill |
| 2. Name of Operator Los Alamos National Laboratory | 8. Farm or Lease Name |
| 3. Address of Operator P.O. Box 1663 Los Alamos, NM 87545 | 9. Well No. PC-2 |
| 4. Location of Well Unit Letter _____ 4,458 Feet From The East Line and 3,038 Feet From The North Line, Section 13 Township 19N Range 2E NMPM. | 10. Field and Pool, or Wildcat |
| 15. Elevation (Show whether DF, RT, GR, etc.) 8,635' | 12. County Sandoval |

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

| | |
|--|---|
| <p>NOTICE OF INTENTION TO:</p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input checked="" type="checkbox"/></p> <p>TEMPORARILY ABANDON <input type="checkbox"/></p> <p>PULL OR ALTER CASING <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/></p> <p>OTHER <input type="checkbox"/></p> | <p>SUBSEQUENT REPORT OF:</p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>COMMENCE DRILLING OPNS. <input type="checkbox"/> PLUG & ABANDONMENT <input type="checkbox"/></p> <p>CASING TEST AND CEMENT JOB <input type="checkbox"/></p> <p>OTHER _____</p> |
|--|---|

17. Describe Proposed or completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 203.

Set 7" bridge plug at 1,750' and set 100 linear foot cement plugs above and below bridge plug. Cut 7" casing at 1,400' and remove. Set 8-5/8" bridge plug at 1,350' and set 100 linear foot cement plugs above and below bridge plug. Cut 8-5/8" casing -ok at 1,050' and remove. Set 10-3/4" bridge plug at 1,000' and set 100 linear foot cement plugs above and below bridge plug. Fill hole with 9.5 ppg mud. Set 50 linear foot cement plug at surface. Cut off casings at 6' below ground level and weld plate with well name on top. Cover wellhead and restore location to original condition. See detailed prodedures and casing schematic attached.

It is estimated that this proposed work may start in late July, 1996.

CO₂ & H₂S @ 1825 -
Csg butt welded.

No
before
Shoe

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED

James D. Albright

TITLE

FES-9 GROUP LEADER

DATE

6/24/96

DISTRICT SUPERVISOR

ATTACHMENT 6.B.

Los Alamos National Laboratory
Fenton Hill Hot Dry Rock Test Site
Well Abandonment Procedure
Well: PC-2

ThermaSource, Inc.

5-21-96

Pertinent Well Data

1. Well Completed 12-21-84.
2. Total Depth is 1827'.
3. 16" Conductor set at 2', no cement information available.
4. 10-3/4", 28 ppf casing set at 1136', no cement information available except that 300 lbs of wheat was poured down annulus.
5. 8-5/8", 28.5 ppf casing set at 1453', casing was mudded in with no cement information available except that 400 lbs of wheat was poured down annulus.
6. 7", P-110 casing set at 1820' cement to undetermined levels in the annulus.
7. Aquifers encountered at 589' to 600', 630' to 645', 830' and 930' located behind 10-3/4" casing. Additional aquifers encountered at 1317-32' with static fluid level at 1317'.
8. Well blew out with H2S and CO2 from 1825'.

Time Sequence of Operations

- | | |
|---------|--|
| | 1. Move in rig and center same over well. |
| 6 hours | 2. Nipple up necessary blow out preventer stack on 8-5/8" casinghead. |
| 6 hours | 3. Pick up 2-3/8" tubing work string and 6-1/8" bit. Run in hole with bit to check for fill and bridges. |

ATTACHMENT 6.B. (cont'd)

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|---------|-----|--|
| 4 hours | 4. | Pick up 7" casing bridge plug and set same at 1750'. Mix and pump cement below plug and dump enough cement on top of bridge plug to fill 100 linear feet in 7" casing. |
| 6 hours | 5. | Trip out of hole and pick up internal 7" casing cutter. Run in hole to approximately 1400' and cut 7" casing. |
| 8 hours | 6. | Pull out of hole with casing cutter and pick up casing spear. Run in hole and engage 7" casing. Pull, retrieve and lay down 7" casing. |
| 4 hours | 7. | Pick up 7-7/8" bit and run in hole of 8-5/8" casing and check for fill and obstructions. |
| 3 hours | 8. | Trip out of hole and pick up 8-5/8" bridge plug and run in hole with same to 1350', approximately 50' above casing stub. Set plug at 1350'. |
| 4 hours | 9. | Mix and pump cement below bridge plug and dump enough cement on top of plug to fill 100 linear feet of 8-5/8" casing. Pull of cement and fill hole with heavy mud. |
| 6 hours | 10. | Trip out of hole and pick up 8-5/8" internal casing cutter. Cut 8-5/8" casing at approximately 1050'. Pull out of hole with cutter and attempt to pull top portion of 8-5/8" casing. |
| 8 hours | 11. | If successful in pulling 8-5/8" casing then run in hole with 9-7/8" bit and check for fill or obstruction. Trip out of hole and pick up 10-3/4" bridge plug and run in hole with same. Set bridge plug at 1000' (50' above casing stub). Mix and pump cement below plug and dump enough cement on top of plug to fill 100 linear feet of 10-3/4" casing. |
| | or | |
| 4 hours | | If unsuccessful in pulling 8-5/8" casing then run into hole with 8-5/8" bridge plug and set same in 8-5/8" casing above cut area. Mix and pump cement below 8-5/8" bridge plug until obtain pressure build up. Pull out of bridge |

ATTACHMENT 6.B. (cont'd)

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plug and dump enough cement on top of plug to
fill 100 linear feet of 8-5/8" casing.

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|---------|-----|--|
| 4 hours | 12. | Fill hole with heavy non-corrosive gel mud. |
| 2 hours | 13. | Set addition cement plug in casing hole from surface to 50'. |
| 4 hours | 14. | Cut and remove all casings 6' below ground level. Weld steel plate on top of casings with well number welded on top of same. |
| 2 hours | 15. | Cover wellhead and restore location to natural condition. |
| 4 hours | 16. | Rig down rig and move same off location. |
| | 17. | Release rig to next well. |

67 or 71 hours Total Time on Location

ATTACHMENT 6.C.

PC-2 WELLBORE SCHEMATIC
DATA DERIVED FROM D.MILES DAILY REPORTS

5/17/96

