

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0132
Expires: September 30, 1993

GEOHERMAL SUNDRY NOTICE

The Bureau of Land Management (BLM) requests 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 operations.

6. Lease Serial No. OR-45505	
7. Surface Manager: <input type="checkbox"/> BLM <input checked="" type="checkbox"/> FS <input type="checkbox"/> Other	
8. Unit Agreement Name Deschutes	
9. Well No. NBC 86-21	10. Permit No.
11. Field or Area Newberry KGRA	
12. Sec., T., R., B. & M. Sec 21, T21S, R12E MDB&M	
13. County Deschutes	
14. State Oregon	

1a. Well Type: Production Injection Heat Exchange Observation Other

1b. Well Status: **Plugged and abandoned**

2. Name of Lessee/Operator
CE Exploration / CalEnergy Operating Corporation

3. Address of Lessee/Operator
950 W. Lindsey Road, Calipatria, CA 92233

4. Location of Well or Facility
App 1000 ft N & 200 ft W of SW cor Sec 21, T21S R12E

5. Type of Work

<input type="checkbox"/> Change Plans	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Site and Road Construction	<input type="checkbox"/> Fracture Test	<input type="checkbox"/> Multiple Complete
<input type="checkbox"/> Construct New Production Facilities	<input type="checkbox"/> Shoot or Acidize	<input checked="" type="checkbox"/> Abandon
<input type="checkbox"/> Alter Existing Production Facilities	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Other

15. Describe Proposed Operations (Use this space for well activities only. See instructions for current well conditions on reverse)

See attached well history and well schematic for plug and abandonment operation.
See attached geothermal well completion report for the original well.

16. Describe Proposed Operations (Use this space for all activities other than well work)

17. I hereby certify that the foregoing is true and correct

Signed *Joe Hickory* Title Resource Coordinator Date 11-21-99
(This space for Federal use)

Approved by _____ Title _____ Date _____
Conditions of Approval, if any: _____

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.

(Instructions on reverse)

WELL HISTORY - GEOTHERMAL

Operator CE Exploration	Well Name and Number Newberry Crater 86-21
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Field Newberry Crater	County Deschutes	State Oregon	UTM E637810, N4844489, Zone 10
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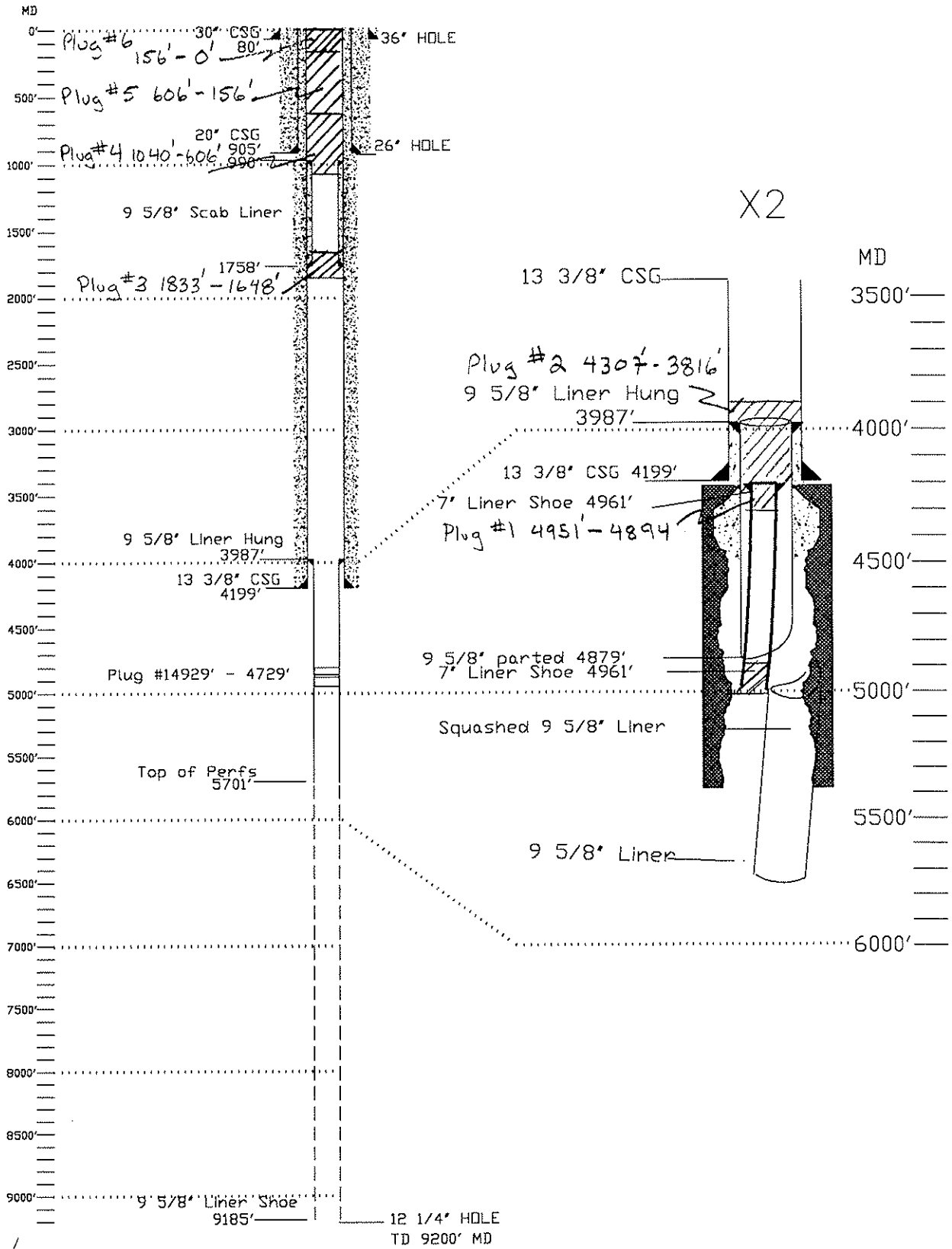
DATE	HISTORY
10/13/1999	Move Halliburton onto the well site and rig up the coil tubing unit and the pump truck. Bleed off gas pressure from 395 psi down to 263 psi, (170 ppm CO ₂ , 3.5 ppm H ₂ S). Pressure test the coil tubing units blind and pipe rams to 1000 psi. Pump 248 bbls of water and 45 bbls of 9.6# mud down the coil tubing, tubing at 4951', initial pressure 800 psi, final pressure 310 psi. <u>Spot 287 linear foot cement plug at 4951'</u> , cement - 11 bbls (57 cu/ft) 35 sks of Class "G" cement with 40% SF and .65% CFR-3, 1.61 yield, calculated top 4664', CIP at 20:00. Pull up to 4651', pump 5 bbls water while pulling out of the hole with the coil tubing. Purge the coil tubing with N ₂ , drain the well head tree, secure the well. All operations witnessed and approved by BLM representative (Dennis Simontacchi).
10/14/1999	Check pressure on the well (1000 psi). Run in with the coil tubing, <u>tag the 1st cement plug at 4894'</u> , set 4,000 lbs. on the cement plug. Spot 614 linear feet (23.5 bbls) of 9.6#, 36 viscosity mud from 4894' to 4280'. <u>Spot 523 linear foot cement plug at 4307'</u> , cement - 48.5 bbls (250 cu/ft) 155.5 sks of Class "G" cement with 40% SF and .65% CFR-3, 1.61 yield, calculated top 3740', CIP at 10:50. Pull up to 1000', pump 15 bbls of water to clear the coil tubing. Wait on cement 4 hrs. Run in the hole, <u>tag the 2nd cement plug at 3816'</u> , set 4,000 lbs. on the cement plug. Spot 1983 linear feet (293.5 bbls) of 9.6#, 36 viscosity mud from 3816' to 1833'. <u>Spot 150 linear foot cement plug at 1833'</u> , cement - 22.5 bbls (116 cu/ft) 72 sacks of Class "G" cement with 40% SF and .65% CFR-3, 1.61 yield, calculated top 1683', CIP at 19:20. Pull up to 1000', pump 15 bbls of water while pulling coil tubing. While pumping the cement plug the well pressured up to 900 psi, bleed off to 350 psi, instant shut in pressure 550 psi. Pressure up to 800 psi, shut in the well. Purge the coil tubing with N ₂ , drain the well head tree, secure the well. All operations witnessed and approved by BLM representative (Dennis Simontacchi).
10/15/1999	Thaw out the well head valve and the pump lines. Bleed off the well head pressure from 256 psi to 171 psi, shut in pressure 172 psi. Run in the hole with coil tubing, <u>tag the cement plug at 1648'</u> , set down 4K. Spot 46 bbls of 9.6# mud spacer from 1648' to 1040'. <u>Spot 400 linear foot of cement from 1040' to 640'</u> . Cement - Class "G" with 40% SF, .65% CFR-3, 58 bbls, 15.6#, 1.61 yield. Wait on cement (4 hrs), run in and <u>tag the plug at 606'</u> . Check the 13 3/8" annulus pressure, "0" psi, pump down the inside, no pressure communicating to the 13 3/8" annulus. <u>Spot 450 linear foot cement plug</u> . Cement - Class "G" with 40% SF, .65% CFR-3, 80 bbls, 15.6#, 1.61 yield. Pump pressure climbed to 5200 psi at .5 b/m, go to water displacement. Pull out of the hole, had cement in the coil tubing, remove the coil centralizer, drain up and shut down. All operations witnessed and approved by BLM representative (Dennis Simontacchi).
10/16/1999	Wait on the cement bulk truck, 2 1/2hrs. Wellhead pressure 0 psi, open well to pit no fluid or gas to surface, shut-in well. Pressure cement plug to 550 psi, bleed off to 190 psi in 10 min, the top 3" valve had a slight leak. Run in the hole, <u>tag the cement plug at 156'</u> , set down 3K. <u>Spot 156 linear foot cement plug from 156' to surface</u> . Rig down the Halliburton

equipment, cut off the well head, weld a cap on the 13 3/8" and 20" casing with the well name and number. Back fill and level off around the well head. All operations witnessed and approved by BLM representative (Dennis Simontacchi). Re-install all of the drainage water bars on the access roads as per forest service instructions.

Name	Title	
Joe Hickey	Resource Coordinator	
Address	City	Zip Code
950 W. Lindsey Road	Calipatria	92233
Telephone Number	Signature	Date
(760) 348-4000	<i>Joe Hickey</i>	11-21-99

Abandonment Profile NEWBERRY 86-21

SPUD 8/29/95
 COMPLETION 11/11/95
 MD 9200', TVD 8867', SSD -2597'



approved.
Schnick
 23-Nov-99

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FILE COPY

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

GEOHERMAL WELL COMPLETION REPORT

The Bureau of Land Management (BLM) requires this form or other BLM-approved forms to be prepared and filed in duplicate with requisite attachments with the authorized officer within 30 days after completion of permitted operations.

4. Lease Serial No.
OR-45505
5. Surface Manager: BLM FS
 Other

1a. Well Type: Production Injection Disposal Water Supply Observation
 Cold Heat Exchange Other

6. Unit Agreement Name
Deschutes

1b. Completion: New Workover Deepened Plugback Redrill
 Recompleted Drilled & Abandoned Other

7. Well No. 86-21
8. Permit No. GDP050-95--

2. Name of Lessee/Operator
C E EXPLORATION

9. Field or Area
Newberry KGRA

3. Address of Lessee/Operator
34 N W First Ave., Suite 302, Portland, Oregon 97209

10. Sec., T., R., B. & M.
Sec 21, T21S, R12E

18. Location of Well
At Surface: App 1000' N & 200' W of SE corner Sec 21, T21S, R12E
At Top of Production Zone:
At Total Depth: From surface location V.S. 2137.80 S 668.23 E 2034.1

11. County
Deschutes

12. State
Oregon

19. Total Depth
Measured 9200' True Vertical: 8819.77'

13. Spud Date 8-29-95 Date T.D. Reached 10-28-95

14. Completion Date (Ready to produce)
11-11-95

20. Plugback Total Depth
Measured: True Vertical:

15. Directionally Drilled Intervals
1022' to 9200'

21. Elevation: Estimated Final 6260'
Reference Datum: GR MAT DF KB RT Casinghead Flange Other

16. Surveyed Intervals
30' to 90'

22. Drilling Media: Air Water Mud Foam Other
List Characteristics:
Mud drill from surface to 9200'

17. Core Size and Intervals

23. Log Type & Intervals Ran Schlumberger FMS-Temp & G R Logs from 9198' to 4196'
Ran Schlumberger DIL-LTD-CNL & G R Logs from 4196' to 8900'. Ran Dialog Calliper 0'-4199'

24. CASING RECORD

Size	Weight	Grade	Collars & Threads	Depths Set		Hole Size	Cementing Record (slurry volume)
				Top	Shoe		
30"	118.65#		welded	surface	80	36"	260 d/f slur
20"	94#	K-55	buttress	surface	905	26"	2506 c/f
13 3/8"	72#	L-80 - K-55	buttress	surface	4199	17 1/2"	5539 c/f

25. LINER RECORD

Size	Weight	Grade	Collars & Threads	Top	Bottom	Perforated Intervals	Cementing Record (slurry volume)
7"	26#	K-55	buttress	4180	4961	None	

26. TUBING RECORD

Size	Weight	Grade	Depth Set	Packer Depth

27. Cement Squeeze, Acid, Fracture, etc. (detail type, amount, intervals)

28. PERFORATION RECORD

Type	Total No.	Density (No./ft)	Size	Intervals

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.

See Attachment

30. Well Status: Producing Shut-In Suspended Injection Disposal Heat Exchange Abandoned Water Supply Other

31. Do you consider the well to be commercial? Yes No Explain:

Well has not been tested commercial

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: Lester Brassfield Title Drilling Superintendent Date 5/20/96

(Continued on reverse)

* 7" liner added to original completion form, where it was left off.

Alexander Shriener Manager Geothermal Resources
22-Nov-99