

RESOURCE AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, & GEOTHERMAL RESOURCES

No. PG399-007
DISTRICT G-3

REPORT ON PROPOSED GEOTHERMAL OPERATIONS

Mr. Bruce Kendall, Owner
GOLDEN HAVEN HOT SPRINGS
1173 Lake Street
Calistoga, CA 94515

Santa Rosa, California
August 17, 1999

Your proposal to convert to injection well "Golden Haven Spa" 1
API No. 055-90061, Section 36, T. 9N, R. 7W, M.D. B. & M., Calistoga field,
Dated 8/9/99, received 8/11/99, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT THIS WELL SHALL CONFORM TO THE PROVISIONS OF OUR REPORT ON PROPOSED GEOTHERMAL OPERATIONS (PG398-02) DATED FEBRUARY 19, 1998. A COPY IS ATTACHED.

NOTE:

OUR REPORT ON PROPOSED GEOTHERMAL OPERATIONS (PG398-02) WAS ISSUED IN ERROR TO WELL "GOLDEN HAVEN SPA" 1, API 005-90061. THE WELL REPORT SHOULD HAVE BEEN ISSUED FOR WELL "GOLDEN HAVEN SPA" 2, API 055-90135.

G3-18

note
055-90135
JGA

Cc: DOGGR-Sacramento Geothermal Headquarters
Dept. of Water Resources, Central District
Dept. Of fish & Game, Region 3
CRWQCB-San Francisco Bay Region 2
Napa County Dept. of Environmental Management.

William F. Guerard, Jr.
State Oil and Gas Supervisor

By *Kenneth F. Stelling*
Kenneth F. Stelling
Geothermal District Engineer

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after completion, suspension, or abandonment. OGG111 (9/86/DWRR/1M)

**REWORK/SUPPLEMENTARY NOTICE
GEOTHERMAL WELL**

Submitted in compliance with Section 3724, Division 3, Chapter 4, Public Resources Code

Operator <u>Golden Haven Spa</u>		Well Designation <u>Golden Haven Spa #1</u>			
Field or GRA <u>Calistoga</u>		County <u>Napa</u>	Sec. <u>36</u>	T <u>9N</u>	R. <u>7W</u> B.&M. <u>MD</u>
Name (Person submitting report - print or type) <u>Bruce Kendall</u>		Street Address <u>1713 Lake St.</u>			
Title (Agent or officer of company) <u>owner</u>	City <u>Calistoga</u>	State <u>CA.</u>	Zip Code <u>94575</u>		
Signature <u>Bruce Kendall</u> <u>Ph. 707 942 4133</u>		Date <u>8/9/99</u>	Telephone Number <u>707 942 4133</u>		

The present condition of the well is as follows:

1. Total depth: 103 meters. 338 ft.

2. Complete casing record, including plugs:

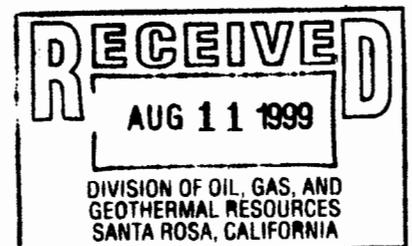
20.32 m (8 in.) Landed 41.2 m (145 ft) Cemented
31.09 m (102 ft.) TD 103 m (338 ft.)

3. Last produced: current, 19

(Production in kg/hr. or gal. /min.)

The proposed work is as follows:

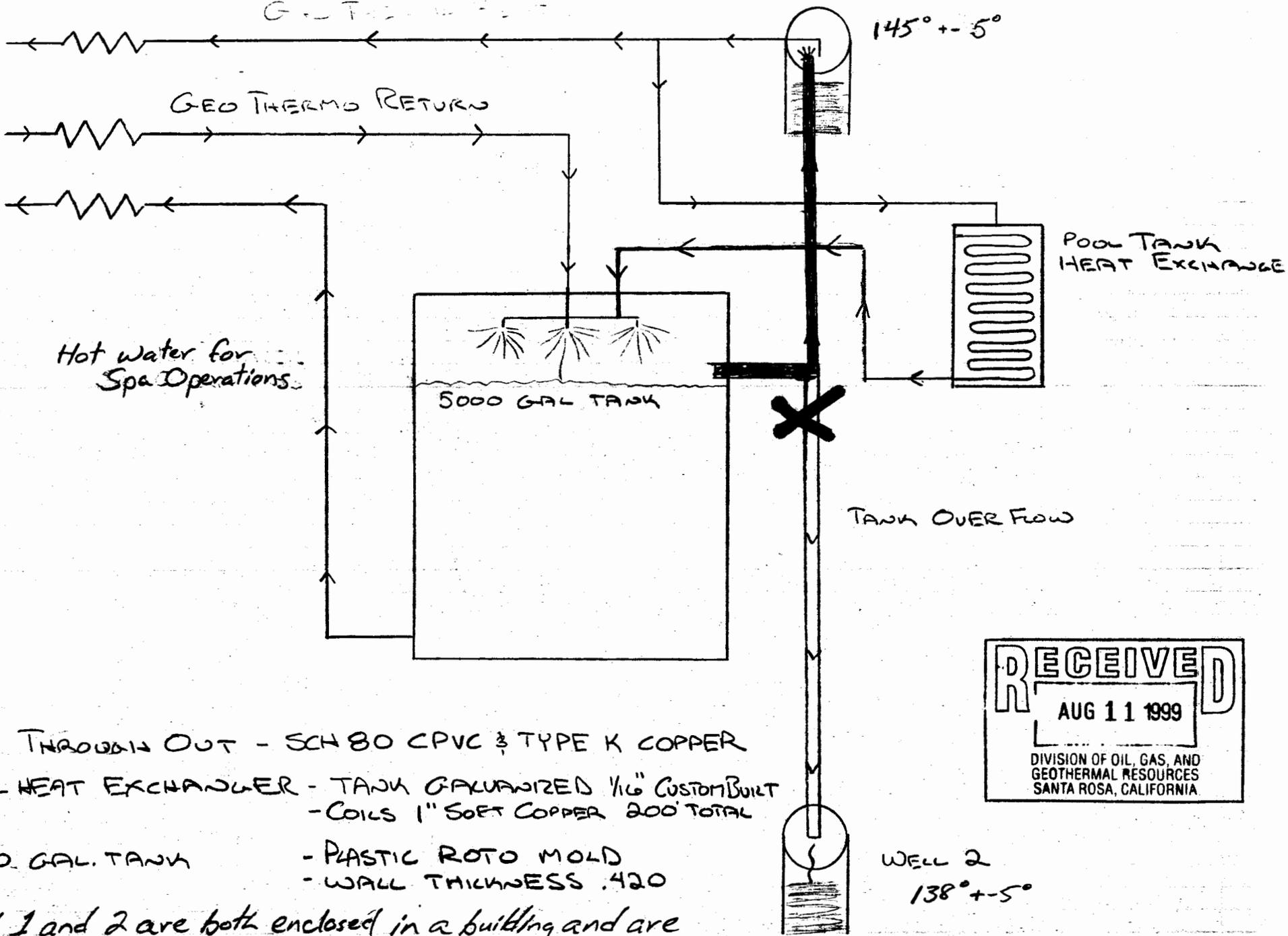
Inject water back into the source well (#1) instead of Well #2.
- See attached Diagram -



GEO THERMO WATER SUPPLY
MOTEL ROOMS, RADIANT HEAT
POOL FACILITY, SPA OPERATIONS

WELL 1
GEO THERMO WATER

145° ± 5°



Hot water for
Spa Operations

5000 GAL TANK

Pool Tank
HEAT EXCHANGE

TANK OVER FLOW

RECEIVED
 AUG 11 1999
 DIVISION OF OIL, GAS, AND
 GEOTHERMAL RESOURCES
 SANTA ROSA, CALIFORNIA

PIPE THROUGH OUT - SCH 80 CPVC & TYPE K COPPER

POOL HEAT EXCHANGER - TANK GALVANIZED 1/16" CUSTOM BUILT
- COILS 1" SOFT COPPER 200' TOTAL

5000 GAL. TANK

- PLASTIC ROTO MOLD
- WALL THICKNESS .420

Well 1 and 2 are both enclosed in a building and are
26 1/2 feet apart.

WELL 2
138° ± 5°

RESOURCE AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES

No. PG398-02
District G-3

Report on Proposed Geothermal Operations

Mr. Bruce Kendall, Owner
GOLDEN HAVEN HOT SPRINGS

1713 Lake Street
Calistoga, CA 94515

Santa Rosa, California
February 19, 1998 *KFS*

Your proposal to convert to injection well "Golden Haven Spa" ² _✓
API No. 055-~~900617~~ Section 36 T. 9N, R. 7W, M.D., Calistoga field,
90135 KFS Geothermal Resource Area, Napa County,
dated, 1/9/98 received 2/13/98 has been examined in conjunction with
records filed in this office.

(A) THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED:

1. Injection shall be through tubing and packer below approximately 30.56 meters (100 feet).
2. Water with any beneficial use shall be protected from degradation And waste at all times.
3. A monthly statement shall be filed with this Division (in duplicate) on our form OGG110-I, showing the amount of fluid injected, pressure required and sources of injection fluid.
4. An analysis of the fluid being injected and/or the formation fluids shall be submitted upon request.
5. Injection shall cease if any evidence of damage is observed or upon written notice from this Division.
6. Any usable waters will be protected by the 20.32cm (8-in.) casing cemented from 31.09 meters (102 ft.) to surface.
7. Sufficient surveys to confirm that the injection fluid is confined to intended zone of injection should be run within 30 days after a well has been placed on injection. Also, sufficient surveys to re-evaluate the injection profile shall be run at least two years or as requested. The running of all surveys shall be witnessed by an Engineer from this Division.
8. An accurate, operating pressure gauge or chart shall be maintained at the wellhead at all times.

A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after completion, suspension, or abandonment. OGG111(9/86/DWRR/1M)

Mr. Bruce Kendall, Owner
GOLDEN HAVEN HOT SPRINGS

"Golden Haven Spa" 1 (Inj.) Permit (Continued)
February 19, 1998
Page 2 of 2

(B) THIS DIVISION SHALL BE NOTIFIED:

1. Before altering the proposed program, suspending operations, or placing any cement plugs. Additional requirements will be outlined at that time.

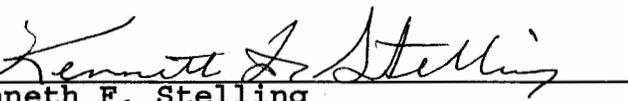
NOTE:

1. Call Santa Rosa Division of Oil, Gas, & Geothermal Resources for field engineer. 24-hour answering service (707) 576-2385.

G3-18

cc: DOGGR-Sacramento Geothermal Headquarters
Bureau of Land Management-Ukiah District
Dept. of Water Resources, Central District
Dept. of Fish & Game, Region 3
CRWQCB-San Francisco Bay Region (2)
Napa County Planning Dept.

William F. Guerard, Jr.
State Oil and Gas Supervisor

By 
Kenneth F. Stelling
Geothermal District Engineer

**REWORK/SUPPLEMENTARY NOTICE
GEOTHERMAL WELL**

Submitted in compliance with Section 3724, Division 3, Chapter 4, Public Resources Code

KP
2

Operator <u>Golden Haven Spa</u>		Well Designation <u>Golden Haven Spa #2</u>				
Field or GRA <u>Calistoga</u>		County <u>Napa</u>	Sec. <u>36</u>	T. <u>9N</u>	R. <u>7W</u>	B.&M. <u>MD</u>
Name (Person submitting report - print or type) <u>Bruce Kendall</u>		Street Address <u>1713 Lake St.</u>				
Title (Agent or officer of company) <u>OWNER</u>	City <u>Calistoga</u>	State <u>CA.</u>	Zip Code <u>94515</u>			
Signature <u>Bruce Kendall</u>		Date <u>1/9/98</u>	Telephone Number <u>707-942-4133</u>			

The present condition of the well is as follows:

- Total depth: 103 meters. 338 ft.
- Complete casing record, including plugs:

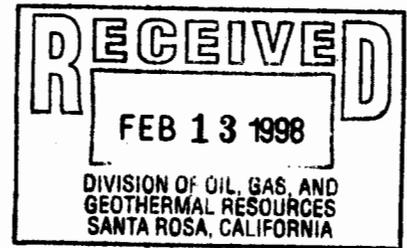
20.32 m (8 in.) Landed 41.2 m (145 ft.) Cemented
31.09 m (102 ft.) TD 103 m (338 ft.)

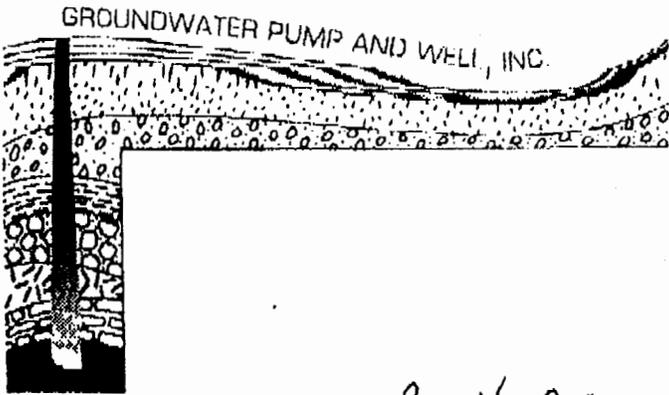
- Last produced: _____, 19____

(Production in kg/hr. or gal. /min.)

The proposed work is as follows: See attached:

- Drillers report dated 5/18/78
- Visual Well log dated 12/1/97
- Diagram of the injection system.
- Chemical Analyses dated 7/3/91
- Location Map
- Letter describing the injection system dated 12/12/97
- Letter to adjacent well owners dated 12/12/97
- Various Correspondence.





707-433-3419 FAX 707-433-9421
 P.O. BOX 1489, HEALDSBURG, CA 95440

FAX COVER SHEET

STATE LIC.
 #630428

Water Well
 Drilling/
 Consultation

Pump Sales
 & Installation

Diesel Pumps
 Portable &
 Stationary

Storage
 Tanks
 500 to
 2 Mil. Gal.

Water Well
 Redevlopment
 Swabbing/
 Jetting

Well Repair
 & Liners

DATE: 2-4-98

TO: Ken Stelling

FROM: Rox Foster Sr

REGARDING: Liner & Insert

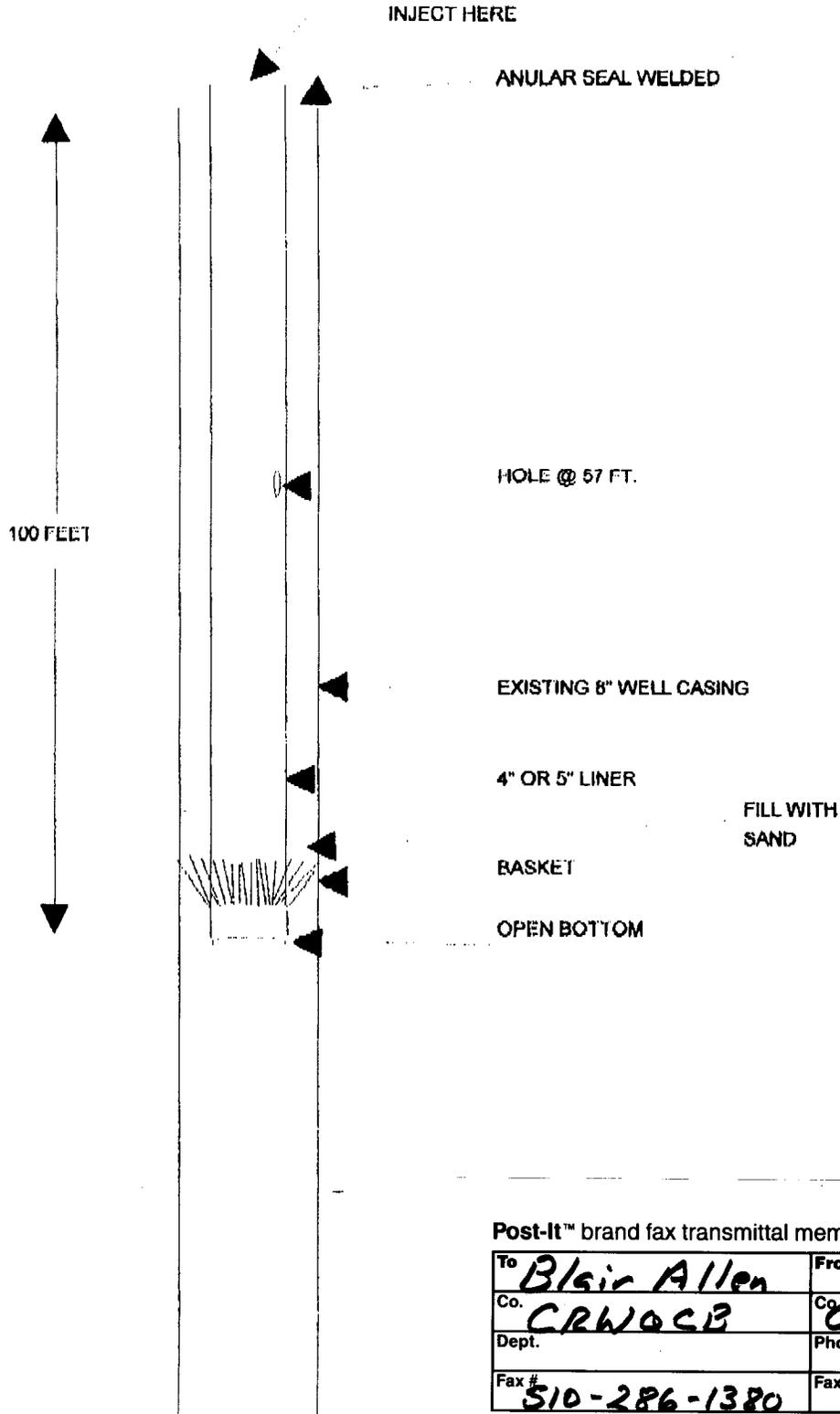
REMARKS: Please call to discuss

This fax consists of 2 pages including this cover page.
 Please call our office @ 707-433-3419 if there was trouble with
 this transmission. Thank You!

Sheet1

3-Feb-98

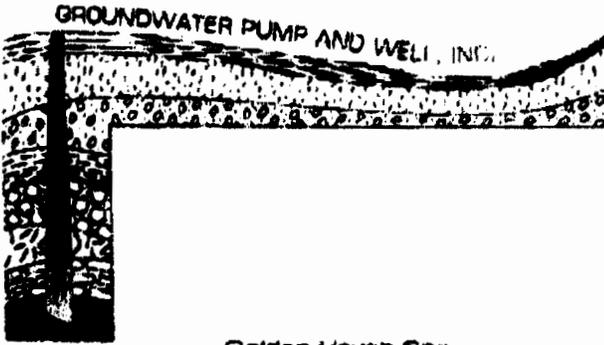
GOLDEN HAVEN LINER INSERT



Post-It™ brand fax transmittal memo 7671 # of pages > 1

To	Blair Allen	From	Ken Stalling
Co.	CRWOCB	Co.	CA Geothermal
Dept.		Phone #	707-576-2385
Fax #	510-286-1380	Fax #	707-576-2611

2



707-433-9415 FAX 707-433-9421
P.O. BOX 1488, HEALDSBURG, CA 95448

STATE LIC.
#830428

Water Well
Drilling/
Consultation

Pump Sales
& Installation

Diesel Pumps
Portable &
Stationary

Storage
Tanks
500 to
2 Mil. Gal.

Water Well
Reclamation
Sweeping/
Jetting

Well Repair
& Liners

Golden Haven Spa

12/1/97

Attn: Bruce Kendal

Report on well:

(Down hole video was performed on November 25, 1997

We found that the well was in reasonably good condition, however there was some build up on the casing, (normal for this area). We did not see any visible perforations down to 144' where we encountered a pipe sticking up

There is a small hole at 57 ft., 1" wide by 1-1/2" long.

Temperature recorded by owner, 138 degrees at 231 feet.

Pump setting was 231' feet.

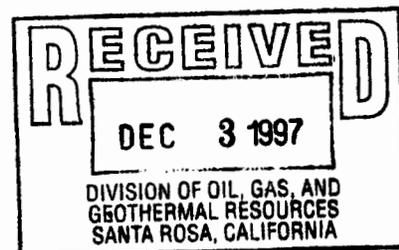
Total depth of the well, is estimated to be 230 plus feet. Due to the pipe obstruction on the well, we were not able to video the well to the full depth of the well.

If you have any questions, please call me at (707) 433-3419.

Sincerely,

Ronald A. Foster Sr.

See enclosed report

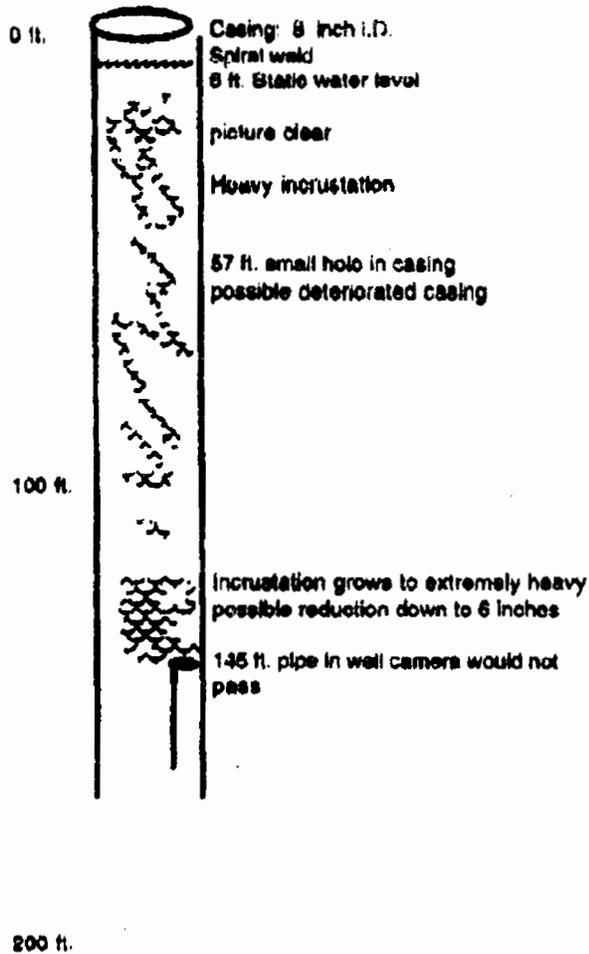


Water Well Technology, Inc.

VISUAL WELL LOG

Golden Haven well # 2

Nov. 25, 1997, Groundwater Pump
Location: Calistoga Ca.



WELL INFORMATION:

EVALUATION FROM VIDEO SURVEY:

Casing:
Steel casing to 145 ft.
Casing has a visible hole worn through at 57 ft. Possible deteriorated casing can not tell with the heavy incrustation on casing.

Perforations Visible:
None visible

Incrustation levels:
Heavy incrustation and grows to extremely heavy below 115 ft.

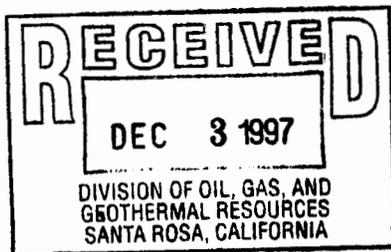
Notes:
Camera internal temperature
71 F @ 17 ft.
74 F @ 33 ft.
77 F @ 49 ft.
84 F @ 58 ft.
89 F @ 72 ft.
94 F @ 97 ft.
98 F @ 124 ft.
101 F @ 141 ft.

Recommendations:

If you have any questions regarding this report please call. 1(800) 961-9355

Water Well Technology, Inc.

Robert John Guardino



P.O. Box 519 Fair Oaks, CA 95628
(800) 961-WELL (916)961-2558 Fax (916) 961-1773
Contractors lic. #79113

