March 24, 2004

Mr. Ernest Y.W. Lau, Deputy Director
State of Hawai‘i
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

HĀWĪ WELL NO. 1 (WELL NO. 7449-02)
WELL COMPLETION REPORT, PART II
HĀWĪ, NORTH KOHALA, ISLAND OF HAWAI‘I

Enclosed are one copy each of the Pump Specifications and the Pump Rating Curve, which are required for the Pump Installation Permit for the subject well.

We will abide by your directive to conduct a pump test for the subject well, should the need arise in the future.

Please contact Mr. Owen Nishioka of our Engineering Division at 961-8070, extension 259, if you have any questions.

Sincerely yours,

Milton O. Pavao, P.E.
Manager

ON: dfg

Encs. - Pump Specifications (3 sheets), Pump Rating Curve (1 sheet)

copy – (w/encs.) DWS Operations Division

... Water brings progress...
PUMP DATA SHEET
Goulds Turbine 60 Hz

**Selection file:** (untitled)
**Catalog:** TURB60.MPC v 1.5.4

**Fluid:** Water
- Temperature: 60 °F
- SG: 1
- Viscosity: 1.122 cP
- Vapor pressure: 0.2568 psi
- Atm pressure: 14.7 psi

**Piping:**
- System: ---
- Suction: --- in
- Discharge: --- in

--- Design Curve ---
- Shutoff Head: 1088 ft
- Shutoff dP: 471 psi
- Min Flow: - US gpm
- BEP: 86% eff
  - @ 788 US gpm
- NOL Pwr: 205 bhp
  - @ 1195 US gpm

--- Max Curve ---
- Max Pwr: 205 bhp
  - @ 1195 US gpm

--- Data Point ---
- Flow: 700 US gpm
- Head: 910 ft
- Eff: 85.1%
- Power: 189 bhp
- [PSh: 8.9 ft

--- Performance Evaluation ---

<table>
<thead>
<tr>
<th>Flow US gpm</th>
<th>Speed rpm</th>
<th>Head ft</th>
<th>Pump %eff</th>
<th>Power bhp</th>
<th>NPSHr ft</th>
<th>Motor kW</th>
<th>Hrs/yr</th>
<th>Cost $/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>840</td>
<td>1770</td>
<td>811</td>
<td>85.5</td>
<td>201</td>
<td>11.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>700</td>
<td>1770</td>
<td>910</td>
<td>85.1</td>
<td>189</td>
<td>8.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>560</td>
<td>1770</td>
<td>967</td>
<td>81.3</td>
<td>168</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>420</td>
<td>1770</td>
<td>990</td>
<td>71.5</td>
<td>147</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>280</td>
<td>1770</td>
<td>996</td>
<td>55.9</td>
<td>125</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FROM: ERNIE</td>
<td>DATE: APR - 1 2004</td>
<td>SUSPENSE DATE: 7/4/952</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TO: ANAKALEA, P.</td>
<td>INIT.</td>
<td>TO: LAU, E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MATHIAS, T.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>YOSHINAGA, M.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acceptable WER2?

Is this okay Mitch?
April 23, 2004

Mr. Milton Pavao
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

Well Completion Report for Well No. [redacted]

We received your Well Completion Report Part II for the Hawi Well 1 (Well No. 7449-02) on April 1, 2004 and acknowledge that it is complete.

If you have any questions, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai), extension 70255.

Sincerely,

W. Roy Handy

ERNEST Y.W. LAU
Deputy Director

RI:ss
Per phone conversation w/ Owen, Ernie, Glenn & me on 3/2/04.

No need pump test. Score one for non-measurement management. Hopefully, well will be in same condition when pump test is run in the future.
March 15, 2004

Mr. Milton Pavao
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

Attn: Mr. Owen Nishioka

Dear Mr. Pavao:

Well Completion Report Part II for Well No. 749

This letter is to confirm a conversation between myself, Glenn Bauer and Ryan Imata of the Commission staff, and Owen Nishioka of your Department on March 2, 2004. We had previously requested that a pump test be conducted in accordance with our standards. However, upon review, because of the proximity of the well to Hawi Well No. 2 (Well No. 7349-01), the nature of the usage (700 gpm being used from either well but not both pumps running simultaneously), and the lack of production wells currently being used downgradient of the Hawi Well, we will stay enforcement of your Pump Test requirements at this time.

However, in the event that additional wells are developed in the area, conflicts arise with existing wells, or we need the information, we may ask you to conduct a pump test in the future.

Finally, please submit the pump specification and rating curve, which is required under special condition 3 of your Pump Installation Permit.

If you have any questions, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), extension 70255.

Sincerely,

[Signature]

ERNEST Y.W. LAU
Deputy Director

RI:ss
February 20, 2004

Mr. Milton Pavao
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

Well Completion Report Part II for Well No. [Redacted]

We have received your Well Completion Report Part II for the Hawi Well No. 1 (Well No. 7449-02). However, matters which must be addressed before we accept your report as complete are as follows:

1. Please attach the pump test results, which are required under special condition 2 of your Pump Installation Permit.

2. Please attach the pump specification and rating curve, which is required under special condition 3 of your Pump Installation Permit.

Please respond to the above item(s) within thirty (30) days of this letter's date. Failure to do so may result in fines of up to $1000 per day.

If you have any questions, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), extension 70255.

Sincerely,

               W. Roy Furphy

ERNEST Y.W. LAU
Deputy Director

RI:ss
MEMO and ROUTE SLIP

WCR 2 Check for Well No. 7449-02 (survey to regulation memo)

1. **Pump Tests Check** (special condition of PIP? Yes/No)
   Glenn Bauer (initial if yes)

   **Step-Drawdown Test:**
   - followed WCPI Stds
   - analysis attached
   - proposed pump cap o.k.

   **Aquifer Pump Test:**
   - followed WCPI Stds
   - T & S analysis attached

   **Well Interference:**
   - estimated Steady-State drawdown at 1-mile radius is __________ ft.
   - analysis attached

   **Stream Surface Water Impacted:**
   - If yes, identify most probable stream

   **Geology Code for Well Index:**

2. **Pump Installation Check**
   Mitch Ohye (initial)

   **Yes** | **No** | **If no, describe deficiency**
   --- | --- | ---
   - data complete
   - followed Special Cond & Elev.
   - well database updated

3. Charley/Lenore/Ryan (initial) take action based on above analysis

4. Roy (initial) check

5. Subia (initial) finalize

6. Dean (initial) signature

7. Charley/Lenore/Ryan File
February 5, 2004

Mr. Ernest Lau, Deputy Director
State of Hawai‘i
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

HAWI WELL NO. 1 (WELL NO. 7449-02)
WELL COMPLETION REPORT

Enclosed, for your files, is a copy of the Well Completion Report as required of the approved Pump Installation Permit for the subject well.

If you have any questions, please contact Mr. Owen Nishioka at (808) 961-8070, extension 259.

Sincerely yours,

[Signature]
Milton D. Pavao, P.E.
Manager

ON: dfg
Enc.

copy – (w/enc.) Mr. Clyde Young, DWS Operations Division
(w/enc.) Mr. Glenn Tomiyoshi, Isemoto Contracting Company, Ltd.

...Water brings progress...
State of Hawaii  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  
WELL COMPLETION REPORT - PART II  
Pump Installation  

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. 
For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the 
Regulation Branch at 587-0225. For updates to this form or additional information, please visit our website at 
http://www.hawaii.gov/dlnr/cwm/  

1. State Well No.: 7449-02  
Well Name: HAWI WELL #1  
Island: HAWAII  

2. Address: AKONI PULE HIGHWAY (HWY 270)  
Tax Map Key: 5-5-02:89  

3. Pump Installation Company: BEYLIK DRILLING, INC.  

4. Date Pump Installed: 4-29-03 (TESTED 10-22-03)  

5. PERMANENT PUMP INFORMATION (Attach pump specifications and rating curve)  

- Pump Type, Make, Serial No.: VIT-GOULD11CMC-14, SN: 456255  
- Rated Capacity: 700 gpm at head of: 910 ft.  
- Motor Type, H.P., Voltage, rpm: VHS GE, 250 HP, 460V, 30, 1785 RPM  
- Type of flow meter: ULTRASONIC which measures in GALLONS  
- Model Number: DF868  
- Serial Number:  

6. Method of flow measurement:  
- Flowmeter  
- Manufacturer  
- Make  
- Size  
- Weir  
- Open Pipe  
- Orifice  
- Other*, explain below*  
- attach schematic  

7. Fill in the as-built section on the other side of this sheet.  

8. Attach photograph of well and concrete pad clearly showing benchmark on concrete pad.  

9. Other remarks/comments:  


<table>
<thead>
<tr>
<th>Pump Installation Contractor (print)</th>
<th>BEYLIK DRILLING, INC.</th>
<th>C-57/C-57a/A Lic. No. AC-21896</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>DWIGHT HO, GENERAL MANAGER</td>
<td>Date 10-31-03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permittee (print)</th>
<th>Milton Pavao</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Date 13064</td>
</tr>
</tbody>
</table>
9. AS-BUILT PUMP SECTION
(Please attach as-built if different from diagram provided below)

Bench mark elevation
surveyed to nearest 0.01 ft. = 542.4 ft. mean sea level

8-7449-02 HAWAI

Elevation of top of chase tube
________ ft. mean sea level

Pump intake depth = -21.75 ft.
(referenced to bench mark)

Chase tube depth = ______ ft.
(referenced to bench mark)

If airline installed,
bottom of airline elevation = -9.1 ft. mean sea level
February 25, 2002

Mr. Gilbert S. Coloma-Agaran, Chairperson
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809

HAWI WELL NO. 1 (WELL NO. 7449-02)
PUMP INSTALLATION PERMIT

Enclosed for your files is a completed original of the approved Pump Installation Permit for the subject well.

We are retaining the other approved Pump Installation Permit original for our Department’s files.

Please call Mr. Owen Nishioka of our Engineering Division at (808) 961-8070, extension 259, should you have any questions.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

ON: jkh

Enc.

copy – (w/enc.) DWS Operations Division (Mr. Clyde Young)
(w/enc.) Isemoto Contracting Co., Ltd. (G. Tomiyoshi)

...Water brings progress...
WELL NUMBER 749902
WELL NAME Hami 1 well

**WELL CONSTRUCTION**

ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 PUMP TEST
4 DOH COMMENTS
5 LAND DIV. COMMENTS
6 WCR FORM
7 USGS MAP
8 PARCEL CHECK
9 DATABASE PRINTOUT
10 WELL CHECK PRINT

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

**PUMP INSTALLATION**

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 DOH COMMENTS
4 LAND DIV. COMMENTS
5 WCR FORM
6 WUR FORM
7 USGS MAP
8 PARCEL CHECK
9 DATABASE PRINTOUT
10 GLENN'S WORKSHEET

TO BE SENT TO APPLICANT

FOR OFFICE USE ONLY

They returned Italeri's well by fax to Roy when I was on vacation.

Please see edits.
January 31, 2002

Mr. Milton Pavao
Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, HI 96720

Dear Mr. Pavao:

Pump Installation Permit
Hawi Well No. 1 (Well No. 7449-02)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) that authorize permanent pump installation work for your well(s). As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 11:

Special Conditions

1. If the elevation benchmark needs to be altered, the permittee, well operator, and/or well owner shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

2. Pump tests shall be run in accordance with the Hawaii Well Construction and Pump Installation Standards, and the results shall be turned in with the Well Completion Report Part II.

3. Please enclose the pump specification and rating curve for the installed pump with the Well Completion Report.

4. Attached for your information are copies of Department of Health comments. Please note the comments related to testing procedures and cesspool proximity.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. This includes ensuring that the pump installation contractor submits a completed Part II of the Well Completion Report form (enclosed) within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign and have the contractor sign both permit originals and return one for our files. A copy of the Well Completion Report (Part II) and a copy of your water use report form are enclosed for your use.
IMPORTANT - Pump installation shall not commence until a fully signed permit is returned to the Commission. Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

If you have any questions, please call Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000, extension 70255.

Aloha,

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosures
PUMP INSTALLATION PERMIT
Hawi Well No. 1, Well No. 7449-02

Note: This permit shall be prominently displayed at the site until the work is completed

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Hawi Well No. 1 (Well No. 7449-02) at Hawi, Hawaii, TMK 5-5-002: 089, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 700 gpm rated capacity, or less, pump in the well.

3. The permittee, well operator, and/or well owner shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chemical content and temperature. These data shall be measured monthly and reported to the Commission on a monthly basis, on forms provided by the Chairperson (attached).

4. The proposed use shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to pump water from a well shall not constitute a determination of correlative water rights. The permittee, well operator, and/or well owner are notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The permittee, well operator, and/or well owner shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Chairperson within sixty (60) days after completion of work.

6. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

8. The permit may be revoked if work is not started within six (6) months after the date of approval of if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

9. If the well is not to be used it must be properly capped. If the well is to be abandoned then the permittee, well operator, and/or well owner must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

10. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assignees, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

11. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

Date of Approval: December 12, 2001
Expiration Date: December 12, 2003

GILBERT S. COLOMA-AGARAN, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day starting from the permit date of approval.

Permittee's Signature: ____________________________ Date: __________
Printed Name: ____________________________ Firm or Title: ____________________________

Installer's Signature: ____________________________ C-57, C-57a, or A License #: ____________________________ Date: __________
Printed Name: ____________________________ Firm or Title: ____________________________

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.

Attachments:
c: USGS
Department of Health/ Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
PUMP INSTALLATION PERMIT

Hawi Well No. 1, Well No. 7449-02

Note: This permit shall be prominently displayed at the site until the work is completed

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Hawi Well No. 1 (Well No. 7449-02) at Hawi, Hawaii, TMK 5-5-002: 089, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, Hl 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The pump installation permit shall be for installation of a 700 gpm rated capacity, or less, pump in the well.

3. The permittee, well operator, and/or well owner shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and water levels, and appropriate devices or means for measuring chlorides and temperature. These data shall be measured monthly and reported to the Commission on a monthly basis, on forms provided by the Chairperson (attached).

4. The proposed use shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to pump water from a well shall not constitute a determination of correlative water rights. The permittee, well operator, and/or well owner are notified and by this provision understands that the quantity of water taken from the well could be reduced by the Commission in the future. This permit is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

5. The permittee, well operator, and/or well owner shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Chairperson within sixty (60) days after completion of work.

6. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

7. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

8. The permit may be revoked if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

9. If the well is not to be used it must be properly capped. If the well is to be abandoned then the permittee, well operator, and/or well owner must apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.

10. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

11. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

Date of Approval: December 12, 2001
Expiration Date: December 12, 2003

GILBERT S. COLOMA-AGARAN, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day starting from the permit date of approval.

Permittee's Signature: [Signature]
Date: 12/21/02

Printed Name: Milton D. Pavao
Firm or Title: Manager, Department of Water Supply

Installer's Signature: [Signature]
Date: 12/21/02

Printed Name: GLEN R. DAVIS
Firm or Title: BEYLIK DRILLING, INC.

Please sign both copies of this permit, return one to the Chairperson, and retain the other for your records.

Attachments

USGS
Department of Health/ Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
Date: DEC 13, 2001

To: RyanJimata

Phone: 587-0255

From: Lori

planning/design section

Message:
Hawi Well No.1 7449-02
(3) 5-5-2 8:09

sent via messenger 12.10.2001
(great that system isn't really fast either, Sumy)

Lori

as of April 18, 2001 MailinSheet.wpd L8
TO:          Honorable Bruce S. Anderson, Director  
              Department of Health  
              Attention: Dennis Tulang, Wastewater Branch  
                                   William Wong, Safe Drinking Water Branch  
                                   Dr. Keith Kawakoe, Hazardous Evaluation and Emergency Response  
                                   Alec Wong, Clean Water Branch

FROM:      Gilbert S. Coloma-Agaran, Chairperson  
            Commission on Water Resource Management

SUBJECT:  Pump Installation Permit Application  
           Hawai'i Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by December 14, 2001. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

Risky  
Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-203.

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and is therefore not subject to Title 11, Chapter 20, Rules Relating to Potable Water Systems. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable supply with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

For the applicant's information, a source of possible wastewater contamination is [ ] not located near the proposed well site

An NPDES permit is required.

Other relevant DOH rules/regulations, information, or recommendations are attached.

No comments/objections

Contact Person: Leilani Kajiwara  
Phone: 506-4244

Signed: Leilani Kajiwara  
Date: 12/10/2001
As the engineer performing the final inspection, I submit the above information and the "As-built" as drawn on the back of this form. I also submit the following statement:

- The cesspool has been installed in strict accordance with the plans submitted and approved by DOH.
- The noted changes to the approved plans have been made, and the cesspool installed is acceptable to me.
- The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

Engineer's Signature and Date: 

H. Choate
4-18-98
Property Owner: BRUCE D. TUCKER
Project Address: NUIU LI RD HAU'I District: NORTH KOHALA
Engineer: H. CHAEW Contractor: Norman Sekai
Distance from Building: 40' Distance from Property Line: 62'
Diameter (Clear): 6' Depth (Clear): 13'
No. Feet to Water Table: 215' Ground Slope: Flat 57'
Type of Lining: None Reinforced Concrete Cover: YES
Distance from Finished Ground to Top of Cover (Feet): 11
Date Inspected by Engineer: 11-15-99 No. of bedrooms: 2

As the engineer performing the final inspection, I submit the above information and the "As-Built" as drawn on the back of this form. I also submit the following statement:

The cesspool has been installed in strict accordance with the plans submitted and approved by DOH.

The noted changes to the approved plans have been made, and the cesspool installed is acceptable to me.

The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

Engineer's Signature and Date: H. CHAEW, 11-16-99

14 APR 99: NEW RBC DWELLING
REMARKS
Property Owner: JOHN SULLIVAN

Project Address: KAUNAKAI HOMESTEADS  District: NORTH KOHALA

Engineer: 2. WEYGARDT, P.E. Contractor: TIMBERDECKS BC 9173

Distance from Building: 49'1" Distance from Property Line: 26'4"

Disaster (Clear) Feet: 6'5" Depth Feet: 13'

No. Feet to Water Table: 7'25" Ground Slope: 26'5.5"

Type of Lining: UNREINFORCED Reinforced Concrete Cover: 2" CIP PLATE

Distance from Finished Ground to Top of Cover (Feet): 1

Date Inspected by Engineer: 2/15/99 No. of Rainrooms: 13

As the engineer performing the final inspection, I affirm the above information and the "As-Built" as shown on the back of this card. I also submit the following statement:

X

The cesspool has been installed in strict conformity with the plans submitted and approved by DOH.

The noted changes to the approved plans made, and the cesspool installed is acceptable to me.

The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

Engineer's Signature and Date: C. D. 3/29/99
STATE MESSENGER

Date:  12/11/2001

To:    Commission on Water Resource Management  
       Department of Land and Natural Resources  
       State of Hawaii

Attention:  Ryan Imata  
            Commission Staff Member

From:    Wastewater Branch  
         Department of Health  
         State of Hawaii

Attention:  Lori Kajiwara  
            Planner, Planning/Design Section  
            Phone (808) 586-4294  Fax (808) 586-4300  
            Email: lkajiwara@eha.health.state.hi.us

Subject:  Well Construction/Pump Installation Permit Application  
          Response

STATE MESSENGER
TO: Honorable Bruce S. Anderson, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
              William Wong, Safe Drinking Water Branch
              Dr. Keith Kawaoaka, Hazardous Evaluation and Emergency Response
              Alec Wong, Clean Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson
      Commission on Water Resource Management

SUBJECT: Pump Installation Permit Application
         Hawi Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your department. Please respond
by returning this cover memo form by December 14, 2001. If we do not receive comments or a
request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this
permit application, request additional information, or request additional review time, please contact
Ryan Imata of the Commission staff at 587-0255.

R:\kgy
Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people
at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year
or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical
presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source
increases to meet the public water system definition then Director of Health approval is required prior to implementation.

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and
backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by
clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention
devices should be routinely inspected and tested.

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

For the applicant's information, a source of possible wastewater contamination [ ] is not located near the proposed well site
(information attached).

An NPDES permit is required.

Other relevant DOH rules/regulations, information, or recommendations are attached.

No comments/objections

Contact Person: Leni N. Kajiwara
                 Phone: 586-4294

Signed: Leni N. Kajiwara
        Date: 12/10/2001
Property Owner: Mike Lillie

Project Address: North Kohala

Engineer: H. Chave

Distance from Building: 16'  Distance from Property Line: 34'

Diameter (Clear) Feet: 6'  Depth Feet: 12'

No. Feet to Water Table: >15  Ground Slope: Flat

Type of Lining: None  Reinforced Concrete Cover: Yes

Distance from Finished Ground to Top of Cover (Foot): 1

Date Inspected by Engineer: 4-12-98  No. of bedrooms: 2

As the engineer performing the final inspection, I submit the above information and the "As-built" as drawn on the back of this card. I also submit the following statement:

X  The cesspool has been installed in strict accordance with the plans submitted and approved by DOH.

The noted changes to the approved plans have been made, and the cesspool installed is acceptable to me.

The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

Engineer's Signature and Date: H. Chave  4-18-98

06 OCT 97 = NEW 2BR DWGINS

REMARKS
As the engineer performing the final inspection, I submit the above information and the "As-buil" as drawn on the back of this card. I also submit the following statement:

The cesspool has been installed in strict accordance with the plans submitted and approved by DOH.

The noted changes to the approved plans have been made, and the cesspool installed is acceptable to me.

The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

Engineer's Signature and Date: H. Chavez, 11-16-99
As the engineer performing the final inspection, I submit the above information and the "As-builts" as drawn on the back of this card. I also submit the following statement:

The cesspool has been installed in strict accordance with the plans submitted and approved by DOH.
The noted changes to the approved plans have been made, and the cesspool installed is acceptable to me.
The construction of the cesspool is not in accordance with the approved plans and I do not accept the changes made to the plans designed by me.

Engineer's Signature and Date: R.O. 3/9/79
EXISTING CESSPOOL INFORMATION CARD

TMK: (3) 5-5-8:24
Lot No.

Property Owner: STATE OF HAWAII

Project Address: P.O. Box 9279 Kapaau
District: NORTH KOHALA

Engineer: Jim Russell
Contractor: Metzler Contractor

Distance from Building: 50'
Distance from Property Line: 1,000 plus

Diameter (Clear) Feet: 12'
Depth Feet: 25'

No. Feet to Water Table: 0
Type of Lining: None

Distance from Finished Ground to Top of Cover (Feet): 2'

Distance from cover to liquid in cesspool: 25'

Date cesspool last pumped:

Date Inspected by Engineer/Contractor: 10/1/95

As the engineer/contractor performing the inspection, I submit the above information and the plot plan as drawn on the back of this card. I also submit that the existing cesspool is functioning, has not been pumped within the last twelve months, and does not discharge directly into the groundwater table.

Engineer's/Contractor's Signature and License Number: PVT 0004204, Date: 10/5/95

[Diagram of cesspool location and boundaries]
TO:             Honorable Bruce S. Anderson, Director
                Department of Health
                Attention: Dennis Tulang, Wastewater Branch
                William Wong, Safe Drinking Water Branch
                Dr. Keith Kawoaka, Hazardous Evaluation and Emergency Response
                Alec Wong, Clean Water Branch

FROM:            Gilbert S. Coloma-Agaran, Chairperson
                Commission on Water Resource Management

SUBJECT:         Pump Installation Permit Application
                Hawi Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your department. Please respond
by returning this cover memo form by December 14, 2001. If we do not receive comments or a
request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this
permit application, request additional information, or request additional review time, please contact Ryan
Imata of the Commission staff at 587-0255.

Risky
Attachment(s)

RESPONSE:

1] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people
at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply

1] This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year
or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical
presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source
increases to meet the public water system definition then Director of Health approval is required prior to implementation.

1] If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and
backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and not
by on-site labeling of non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention
devices should be routinely inspected and tested.

1] It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

1] For the applicant's information, a source of possible wastewater contamination (see map) is not located near the proposed well site
information attached.

1] An NPDES permit is required.

1] Other relevant DOH rules/regulations, information, or recommendations are attached.

1] No comments/objections

Contact Person: Alec Wong  Phone: 2464-309
Signed: Olu Wong  Date: 12/10/01
The Department of Health, Clean Water Branch has the following comments:

1. **For Well-Drilling Activities**

   Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules, Title 11, Chapter 55, Appendix I, effective September 22, 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4920 or P.O. Box 3378, Honolulu, Hawaii 98801-3378. Inquiries may be directed to the Clean Water Branch at (808) 586-4309 or by fax at (808) 586-4352.

2. **For Well Pump Testing**

   The discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a storm drain, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

   JS/cr
STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAI'I 96829

DECEMBER 3, 2001

TO:
Honorable Bruce Anderson, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alic Wong, Clean Water Branch

FROM:
Gilbert S. Coloma-Agaran, Chairperson
Commission on Water Resource Management

SUBJECT: Pump Installation Permit Application
Hawaii Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by December 14, 2001. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

Risk:
Attachment(s):

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well is used for drinking, the owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. If a future plan for use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable apt with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices shall be routinely inspected and tested.

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

For the applicant's information, a source of possible wastewater contamination [] is [] not located near the proposed well site (information attached).

An NPDES permit is required.

Other relevant DOH rules/regulations, information, or recommendations are attached.

No comments/objections

Contact Person: Bill Wong
Phone: 586-4258

Signed: Bill Wong
Date: 12/6/01
The Department of Health, Safe Drinking Water Branch has the following additional comments for the Pump Installation Permit Application for the Hawi Well No. 1 (Well No. 8-7449-02 Hawaii):

Please be advised that the Department of Health has experienced drinking water and groundwater contamination by submersible pumps containing mercury. Specifically, the failure of the seals of the pumps allowed mercury to leak out into the well shaft resulting in contamination of the well and the water served by the well. If you intend to install a submersible pump, please review your pump specifications to be sure that the submersible pump(s) you propose to use does not contain materials which could result in either groundwater contamination or drinking water contamination.
TO: Harry Yada, Acting Administrator  
Land Division
FROM: Linnel T. Nishioka, Deputy Director  
Commission on Water Resource Management
SUBJECT: Pump Installation Permit Application  
Hawi Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application which includes a request for a pump installation permit.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. **Please respond by returning this cover memo form by December 14, 2001.** If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

RESPONSE:

[X] A water lease/permit is not required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no.

[ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.

[ ] No objections

[ ] Other comments:

Contact Person: Gary Martin  
Phone: 587-0421

Signed: Gary Martin  
Date: DEC 5, 2001
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 3-Oct-01
SUSPENSE DATE: ___________

TO: LUM, A.  ___________
     NAKAMA, L.  ___________
     NAKANO, D.  ___________
     NISHIOKA, L. ___________
     OHYE, M.  ___________
     SAOKA, E.  ___________
     SUBIA, S.  ___________
     SWANSON, S. ___________
     UYENO, D.  ___________
     YODA, K.  ___________

PLEASE:
1. Review & Comment
2. Type Final, label new file folder
3. Approval
4. Signature
5. Take Action
6. Type Draft acknowledge letter
7. File
8. Xerox __ copies
9. Send check back OK done
   12/7/01

WELL NUMBER 7449-02
WELL NAME Hawai 1 - REPLACING 400 AM W/ 700 AM

ATTACHMENTS FOR APPLICATION PROCESSING - Both applicant & staff generated
1. TRANS. LETTER
2. CWRM MAP
3. APPL. FORM (3X)
4. USGS MAPS (3X)
5. TAX MAPS (3X)
6. PARCEL OWNER VERIF.
7. CONTRACTOR VERIF.
8. ALL INFO FILLED IN
9. BACKGROUND CHECK

FOLDER:
• MADE NEW FILE FOLDER, ATTACHED
• FILE FOLDER ALREADY MADE, IN FILE CABINET

INCOMPLETE ACTION DATES:
DATE ACTION

Please make copy of attached pump installation permit to return to DFS.
Mr. Milton Pavao  
Hawaii County Department of Water Supply  
345 Kekuanaoa Street, Suite 20  
Hilo, HI 96720

Dear Mr. Pavao:

Pump Installation Permit Application for Well No. 7449-02

We have received your Pump Installation permit application for the Hawai Well No. 1 (Well No. 7449-02). However, we will not accept your application as complete until you submit the signed permit for the Halekii Well.

As a courtesy to you, we will begin processing the permit but won't issue the permit until the signed permit for the Halekii Well is returned to us.

For your information, the process of constructing a well is normally regulated and permitted in two (2) steps. First, a well construction permit is issued for drilling and testing purposes only. Based upon information provided by you through a Well Completion Report Part 1 (Well Construction), a pump installation permit (upon completed application) may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at 587-0255 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai) extension 70255.

Sincerely,

[Signature]

LINNEL T. NISHIOKA  
Deputy Director
TO: Honorable Bruce S. Anderson, Director
    Department of Health
    Attention: Dennis Tulang, Wastewater Branch
              William Wong, Safe Drinking Water Branch
              Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
              Alec Wong, Clean Water Branch

FROM: Gilbert S. Coloma-Agaran, Chairperson
      Commission on Water Resource Management

SUBJECT: Pump Installation Permit Application
          Hawi Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application.

We would appreciate your comments on the captioned application for any conflicts or
inconsistencies with the programs, plans, and objectives specific to your department. Please respond
by returning this cover memo form by December 14, 2001. If we do not receive comments or a
request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this
permit application, request additional information, or request additional review time, please contact Ryan
Imata of the Commission staff at 587-0255.

R:ky
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

[ ] This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

[ ] If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

[ ] It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

[ ] For the applicant's information, a source of possible wastewater contamination [ ] is [ ] is not located near the proposed well site (information attached).

[ ] An NPDES permit is required.

[ ] Other relevant DOH rules/regulations, information, or recommendations are attached.

[ ] No comments/objections

Contact Person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
TO: Harry Yada, Acting Administrator  
Land Division
FROM: Linne1 T. Nishioka, Deputy Director  
Commission on Water Resource Management
SUBJECT: Pump Installation Permit Application  
Hawi Well No. 1 (Well No. 7449-02)

Transmitted for your review and comment is a copy of the captioned well application which includes a request for a pump installation permit.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by December 14, 2001. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

R:ky  
Attachment(s)

RESPONSE:

[ ] A water lease/permit is required of this applicant and an application for such will be requested by our division.

[ ] A water lease/permit is not required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no. ____________________________________________________________________________

[ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.

[ ] No objections

[ ] Other comments:

Contact Person: ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
**PUBLIC RECORD DATA**

<table>
<thead>
<tr>
<th>Taxkey</th>
<th>Subdiv/Condo</th>
<th>Property</th>
<th>Tnr Address</th>
<th>Owner/Lessee</th>
<th>Beds</th>
<th>Baths</th>
<th>Land area</th>
<th>Living area</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5-5-2-89</td>
<td>Kaauhulu</td>
<td>Homesteads</td>
<td>G</td>
<td>WATER COMM/COUNTY OF</td>
<td>0</td>
<td>0</td>
<td>15,394</td>
<td>sqft</td>
</tr>
</tbody>
</table>

This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
### Well Background Check

<table>
<thead>
<tr>
<th>Approved Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Type</th>
<th>Well Construction Issued</th>
<th>Signed</th>
<th>WCR1 Accept</th>
<th>Pump Installation Issued</th>
<th>Signed</th>
<th>WCR2 Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>7345-04</td>
<td>Makapala Obs A</td>
<td>Hawaii DWS</td>
<td>PUMP</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6428-02</td>
<td>Honokaa Explorat</td>
<td>Hawaii DWS</td>
<td>WELL</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6734-03</td>
<td>Kukuhaele Explo</td>
<td>Hawaii DWS</td>
<td>WELL</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4708-03</td>
<td>Kaiie Mauka Ex</td>
<td>Hawaii DWS</td>
<td>BOTH</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7345-05</td>
<td>Makapala Explor</td>
<td>Hawaii DWS</td>
<td>BOTH</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4708-02</td>
<td>Kaiie Mauka</td>
<td>Hawaii DWS</td>
<td>PUMP</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7449-02</td>
<td>Hawi 1</td>
<td>Hawaii DWS</td>
<td>PUMP</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/17/1982</td>
<td>3657-01</td>
<td>Holualoa</td>
<td>WELL</td>
<td></td>
<td>4/17/1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/14/1987</td>
<td>3603-01</td>
<td>Olaa 3</td>
<td>WELL</td>
<td></td>
<td>4/14/1987</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/14/1987</td>
<td>3606-02</td>
<td>Pilhonua B</td>
<td>WELL</td>
<td></td>
<td>4/14/1987</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Wednesday, October 03, 2001*
<table>
<thead>
<tr>
<th>Approved Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Type</th>
<th>Well Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WCR1: 6/25/1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Accept: 6/25/1999</td>
</tr>
<tr>
<td>2/12/1999</td>
<td>3857-04</td>
<td>Waiaha-DWS</td>
<td>AC-05058</td>
<td>WELL</td>
<td>Issued: 2/19/1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hawaii DWS</td>
<td></td>
<td></td>
<td>Signed: 3/6/2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WCR1: 5/22/2001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Accept: 6/18/2001</td>
</tr>
<tr>
<td>7/20/1999</td>
<td>2987-01</td>
<td>Keonepoko Iki</td>
<td>AC-05058</td>
<td>WELL</td>
<td>Issued: 7/23/1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hawaii DWS</td>
<td></td>
<td></td>
<td>Signed: 3/1/2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>WCR1: 9/25/2000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Accept: 7/9/2001</td>
</tr>
</tbody>
</table>

Pump Installation

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></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>
<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>

Wednesday, October 03, 2001
PAYABLE THROUGH
FIRST HAWAIIAN BANK
HONOLULU, HAWAII

**004278**  004278  004278

DEPARTMENT OF WATER SUPPLY, COUNTY OF HAWAII, HILO, HAWAII 96720  4248  SOH LAND & NATURAL RESOURCES

<table>
<thead>
<tr>
<th>REF. DATE</th>
<th>REFERENCE</th>
<th>DESCRIPTION</th>
<th>NET AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/27/01</td>
<td>FILE FEE 9/28/01</td>
<td>PUMP INSTALLATION PERMIT FOR HAWI WELL NO. 1 UPGRADE</td>
<td>25.00</td>
</tr>
</tbody>
</table>

TOTAL 25.00
October 1, 2001

State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

PUMP INSTALLATION PERMIT—HAWI WELL NO. 1 UPGRADE (7449-02)

We are enclosing the original and five copies of the application for Pump Installation Permit for our Hawi Well No. 1. Enclosed also is our check in the amount of $25.00 for the filing fee.

This permit is for the replacement of an existing 400-gallons-per-minute (gpm) pumping unit with a new 700-gpm pumping unit. The essential purpose of this upgrade project is to provide a standby backup well pumping source. Our existing Hawi Well No. 2 is outfitted with a 700 gpm. With the completion of this project, either of our wells would serve as the backup standby pumping source.

There is an urgency for the successful completion of this upgrade project. These two wells are the only two active water sources providing water to our Hawi service area. The current average daily usage consumption is around 640,000 gallons per day. A continuous 24-hour output of Hawi Well No. 1 is around 576,000 gallons per day. In the event that there is a pumping unit malfunction to our Hawi Well No. 2, our department would be in a predicament.

Your prompt processing and subsequent approval of the subject pump installation permit will be appreciated. If there are any questions, please contact Mr. Gary Kawasaka at 961-7238.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

GK:dms

Encs.

...Water brings progress...
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

☐ Well Construction and/or ☐ Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 5 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225. For further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwm.

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) ☐ WELL OWNER:
   Water Board, County of Hawaii
   Contact Person: Milton Pavao, Manager
   Phone: (808) 961-8050
   Fax: (808) 961-8657
   Mailing Address: 345 Kekuanoa Street, Suite 20 Hilo, Hi 96720
   E-mail: dw@hawaiidws.org

(b) ☐ LAND OWNER:
   Water Board, County of Hawaii
   Contact Person: Milton Pavao, Manager
   Phone: (808) 961-8050
   Fax: (808) 961-8657
   Mailing Address: 345 Kekuanoa Street, Suite 20 Hilo, Hi 96720
   E-mail: dw@hawaiidws.org

(c) ☐ CONTRACTOR:
   Contact Person:
   Phone:
   Mailing Address:
   Fax:
   E-mail:

   Lic #: (circle one: C-57, C-57a, or A)

WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: Hawai Well No. 1
   Island: Hawaii
   Address: Hawai, N. Kohala, Hawaii
   Tax Map Key: Zone: 5 Sec: 5 Plat: 02 Parcel: 89
   Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadrant (b) a property tax map, showing well location referenced to established property boundaries

3. PROPOSED WORK:
   (check all that apply)
   ☐ Construct New Well
   ☐ Modify Existing Well*
   ☐ Abandon/Sell*
   ☐ Install New Pump*
   ☐ Modify Pump*
   State Well No.: 7449-02
   (if unknown, please call Commission at 587-0225)

4. CONSTRUCTION:
   ☐ Drilled
   ☐ Dug
   ☐ Shaft
   ☐ Tunnel
   Is this well part of a battery of wells? ☐ Yes ☐ No (Please describe)

5. PROPOSED PUMPING RATE:
   700 gallons per minute

6. PROPOSED USE:
   (check all that apply)
   ☐ Municipal (including hotels, stores, etc.)
   ☐ Industrial
   ☐ Domestic (individual, noncommercial water system)
   ☐ Irrigation (crop)
   ☐ No. of Acres:
   ☐ Other (explain):
   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? ☐ Yes ☐ No

7. PROPOSED AMOUNT OF WITHDRAWAL:
   640,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   ☐ Flowmeter ☐ Open-pipe ☐ Weir ☐ Office ☐ Other (explain)

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.
   Conservation District Use Permit (CDUP) To find out if a CDUP is necessary, call DLNR Land Division at 587-0414
   ☐ Not Required If required, date approved
   * Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OESC at 586-4185
   ☐ Not Required If required, date published in OESC bulletin
   Special Management Area Permit (SMAP) To determine if an SMAP is necessary: on Oahu, call 527-6374; on Hawaii, call 961-6286; for Maui county, call 270-7235; on Kauai, call 241-6677.
   ☐ Not Required If required, date approved

9. REMARKS, EXPLANATIONS: We are proposing to install a standby pump (back-up) to our existing
   Hawai Well No. 2 with pump capacity of 700 GPM.

(Note: Signing below indicates the signatories understand and swear that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.)

Well Owner Water Board, County of Hawaii (print legibly)
Signature ____________________________
Date ____________________________

Landowner Water Board, County of Hawaii (print legibly)
Signature ____________________________
Date ____________________________

Contractor (print legibly)
Signature ____________________________
Date ____________________________

For official use only
Latitude ____________________________
Longitude ____________________________
Aquifer System No. ____________________________
State Well No. ____________________________

WCPPLA Form 8/21/01
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

<table>
<thead>
<tr>
<th>Hole Diameter: 16 in.</th>
</tr>
</thead>
</table>

Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 541.4 ft, msl*

Elevation at top of casing 542.01 ft, msl*

Cement Grout: 350 ft
(min. 70% of distance from ground elevation to top of water surface or 500 ft, whichever is less.)

Annular space between hole and casing (min.3")

2 in.

Rock or Gravel Packaging:

1 ft.

Material:
- Crushed Basalt
- Rounded Gravel

Total Depth 591 ft

≥ 90% (Ground Elev. - Water Level Elev.)

Solid Casing: (≥ 90% x (Ground Elev. - Water Level Elev.))

Total Length: 521 ft
Nominal Diameter: 12 in.
Wall Thickness: __________ in.
Bottom Elevation: 21.01 ft, msl*

Open Casing: perforated

Total Length: 60 ft
Nominal Diameter: 12 in.
Wall Thickness: __________ in.
Bottom Elevation: -38.99 ft, msl*

note: Neither bentonite nor mud should be used in saturated zone during drilling

Open Hole:

Length: 10 ft
Diameter: 9 in.
Bottom Elevation: -48.99 ft, msl*

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Well Limit = \( \frac{\text{Water Elevation} - 41 \times \text{Water Level Elev.}}{4} \)

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = \( \frac{2 - 41 \times (2)}{4} \) = -18.5 ft

Solid Casing Material:

Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):
- ASTM A409 (production well)
- ASTM A312 (monitor well)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:

Carbon Steel: compliant with (check one or more):
- ANSI/WWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):
- ASTM A409 (production well)
- ASTM A312 (monitor well)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296
State of Hawai‘i

COMMISSION ON WATER RESOURCE MANAGEMENT

Department of Land and Natural Resources

APPLICATION FOR PERMIT

☐ Well Construction  and/or  ☐ Pump Installation

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawai‘i 96806. Application must be accompanied by 5 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 887-0225. For further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwrm.

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. ☐ WELL OWNER: Water Board  County of Hawai‘i  Contact Person: Milton Pavao, Manager  Phone: (808) 961-8050
   Mailing Address: 345 Kekuanono Street, Suite 20  Hilo, HI 96720
   Fax: (808) 961-8657  E-mail: dwswa@hawaiidws.org

(b) ☐ LAND OWNER: Water Board, County of Hawai‘i  Contact Person: Milton Pavao, Manager  Phone: (808) 961-8050
   Mailing Address: 345 Kekuanono Street, Suite 20  Hilo, HI 96720
   Fax: (808) 961-8657  E-mail: dwswa@hawaiidws.org

(c) ☐ CONTRACTOR: Contact Person: Phone: 
   Mailing Address: 
   Fax: 
   E-mail: 
   Lic #: (circle one: C-57, C-57a, or A)

WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: Hawai‘i Well No. 1  Island: Hawai‘i
   Address: Hawai‘i, N. Kohala, Hawai‘i Tax Map Key: 5 5 02 89
   Zone: 5  Sec: 5  Plat: 02  Parcel: 89
   Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadrangle map
   (b) a property tax map, showing well location referenced to established property boundaries

3. PROPOSED WORK: (check all that apply)
  ☐ Construct New Well  ☑ Install New Pump*
   ☐ Modify Existing Well*
   ☐ Modify Pump*
   ☐ Abandon/Seal*

4. CONSTRUCTION:
   ☐ Drilled  ☐ Dug  ☐ Shaft  ☐ Tunnel
   (if unknown, please call Commission at 887-0225)
   Is this well part of a battery of wells? ☐ Yes  ☐ No (Please describe)

5. PROPOSED PUMPING RATE: 700 gallons per minute

6. PROPOSED USE: (check all that apply)
   ☐ Industrial
   ☐ Municipal (including hotels, stores, etc.)
   ☐ Domestic (individual, noncommercial water system)
   ☐ Irrigation (crop)
   ☐ Military

   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? ☐ Yes  ☐ No

   ☐ No. of Acres:
   ☐ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 640,000 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: ☐ Flowmeter  ☐ Open-pipe  ☐ Weir  ☐ Office  ☐ Other (explain):

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.
   Conservation District Use Permit (CDUP) To find out if a CDUP is necessary, call DLNR Land Division at 887-0414
   ☐ Not Required
   ☐ Required, if necessary, date approved ________

   Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEQC at 887-4185
   ☐ Not Required
   ☐ Required, if necessary, date published in OEQC bulletin ________

   Special Management Area Permit (SMAP) To determine if a SMAP is necessary: on Oahu, call 527-6187; on Hawai‘i, call 961-8288; for Maui, call 270-7235; on Kauai, call 241-6077.
   ☐ Not Required
   ☐ Required, if necessary, date approved ________

9. REMARKS, EXPLANATIONS: * We are proposing to install a standby pump (back-up) to our existing Hawai‘i Well No. 2 with pump capacity of 700 GPM.

   (If more space is needed, please attach an additional sheet)

NOTE: Signing below indicates the signatories understand and swear that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within 30 days of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $100.00/day.

Well Owner/Contractor (print legibly)

Signature: ___________________________

Date: ___________________________

Landowner/Contractor (print legibly)

Signature: ___________________________

Date: ___________________________

For official use only

Latitude ___________________________

Longitude ___________________________

Aguer System No. ___________________________

State Well No. ___________________________

WCPIPA Form 8/21/01
10. PROPOSED WELL SECTION

Hole Diameter: 16 in

Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 541.4 ft, msl*

Cement Grout: 350 ft
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Annular space between hole and casing (min.3.3):
2 in.

Rock or Gravel Packing:
1 ft
Material:
□ Crushed Basalt
□ Rounded Gravel

Total Depth
591 ft

Estimated Water Level
Elevation:
5.15 ft, msl*

Solid Casing: (≥ 90% x (Ground Elevation - Water Level Elevation))
Total Length: 521 ft
Nominal Diameter: 12 in
Wall Thickness: 21.01 in
Bottom Elevation: -38.99 ft, msl*

Open Casing: □ Perforated □ Screen
Total Length: 60 ft
Nominal Diameter: 12 in
Wall Thickness: in
Bottom Elevation: -48.99 ft, msl*

Open Hole:
Length: 10 ft
Diameter: 0 in
Bottom Elevation: -48.99 ft, msl*

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = \( \frac{1}{4} \times (\text{Water Elevation} - \text{Estimated Water Level Elevation}) \)

Example: Estimated + 2 ft. Water Level Elev. --- Bottom Elevation of Well Limit = \( \frac{1}{4} \times (2 - 51.15) \) = 18.5 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
□ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more):
□ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one):
□ ASTM A409 (production wells) □ ASTM A512 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one):
□ Schedule 40 □ Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):
□ Schedule 40 □ Schedule 80 □ Schedule 120
Thermostet Plastic: (check one):
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifically Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorcarbon Tubing conforming to ASTM D3296
□ FEP Fluorcarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more):
□ ANSI/WWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more):
□ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one):
□ ASTM A409 (production wells) □ ASTM A512 (monitor wells)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one):
□ Schedule 40 □ Schedule 80
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):
□ Schedule 40 □ Schedule 80 □ Schedule 120
Thermostet Plastic: (check one):
□ Filament Wound Resin Pipe conforming to ASTM D2996
□ Centrifically Cast Resin Pipe conforming to ASTM D2997
□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorcarbon Tubing conforming to ASTM D3296
□ FEP Fluorcarbon Tubing conforming to ASTM D3296

Open Hole:
Length: 10 ft
Diameter: 0 in
Bottom Elevation: -48.99 ft, msl*

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.