WELL ELEVATION
WELL # 1120-27

OWNER: DEBORAH FORESTER

T.M.K.(4)4-9-011:09-E

BENCHMARK USED: + ON ABUTMENT OF WAIKALUA BRIDGE UPSTREAM SIDE HAVING AN ELEVATION OF 247.47' M.S.L. INFORMATION PROVIDED BY STATE HIGHWAYS DIVISION.
WELL ELEVATION
WELL # 1120-27

OWNER: DEBORAH FORESTER

T.M.K.(4)-9-011:09-E

BENCH MARK USED: + ON ABUTMENT OF WAIKALUA BRIDGE UPSTREAM SIDE HAVING AN ELEVATION OF 247.47 M.S.L. INFORMATION PROVIDED BY STATE HIGHWAYS DIVISION.
Ms. Deborah Forester  
P.O. Box 867  
Kilauea, HI 96754

Dear Ms. Forester:

Well Completion Report for Well No. 1120-27

We have received your Well Completion Report Part II for the Kaakaanui Well (Well No. 1120-27) and acknowledge that it is complete. Thank you for your attention to this matter.

If you have any questions, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

LN:ss

c: Steve Goldberg, Oasis Water Systems, Inc.
**PART II.** (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: Oasis Water Systems
21. Name of person performing work: Barry Simmons
22. Date Pump Installation Completed: 6-13-98

23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: Single Stage Deep Motor
   - Motor type, H.P., Voltage, rpm: Franklin - 4HP - 240 V/8 - 3450 RPM
   - Depth of Pump Intake Setting: 360 ft. below surface, which elevation is 288' A.S.L. ft.
   - Depth to bottom of pipeline: None ft. below, which elevation is ft.
   - Pumping Head is 120 ft. Type of flow meter:都将, which measures in gal.

24. As-built drawings attached? Yes X No
25. Other remarks/comments: (See below)

Pump Installation Contractor (print) Barry W. Simmons C-57 Lic. No. C014638
Signature: Barry W. Simmons Date: 6-17-98

Applicant (print): 
Signature: 
Date: 

---

8. (cont'd) DRILLER'S LOG (cont'd):

<table>
<thead>
<tr>
<th>Dates</th>
<th>Rock Description, Remarks, Water Level Depth (ft.)</th>
<th>Water Level Depth (ft.) Rock Description, Remarks</th>
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<td>37.7</td>
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19. & 25. Remarks: Good Straight hole, Cleared up before Casing went into hole. Developed 4 am. 35 6pm. Clean dealt.

---

*6/20/98 Steve Applied said work was done as a "conventional" WET/HT, per theoretical design allows pump installations < 70 rpm. Forester signed front page only (Part I) after work done under PECs I + II.*
PUMP INSTALLATION PERMIT
Kaakaanui Well, Well No. 1120-27

In accordance with the Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-165, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the installation of a pump for the well located in the State of Hawaii. The pump installation is subject to the following conditions:

1. The pump installation permit shall be for installation of a 20 gpm capacity, or less, pump in the well.

2. The permittee shall maintain and operate the pump in accordance with the Hawaii Administrative Rules and the proposed well and pump installation standards.

3. The permittee shall provide and maintain an approved meter or other appropriate means for measuring and reporting withdrawals and well flow rates, and appropriate devices or means for measuring chloride concentrations and temperature. These data shall be measured monthly and reported to the Commission on an annual basis, on forms provided by the Chairperson.

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 cumulative water rights. The permittee is 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 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 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 is incorporated into this permit by reference and is 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 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 must apply for a well abandonment permit in accordance with §13-166-12(6) 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: April 13, 1999
Expiration Date: April 13, 2001

for: TIMOTHY E. JOHNS, 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 do not hold a valid permit until the pump installer has 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: 4/18/99
Printed Name: Deborah L. Forester Firm or Title: ___________________________

Installer’s Signature: ___________________________ Date: 4-19-99
Printed Name: Barry W. Simmonds Firm or Title: Oasis Water Systems Inc.

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

Attachments
Department of Health/ Safe Drinking Water & Wastewater Branch
Nalili Department of Water Supply
Steve Goldberg
Ms. Deborah Forester  
P.O. Box 867  
Kilauea, HI 96754

Dear Ms. Forester:

Pump Installation Permit  
Kaakaanui Well (Well No. 1120-27)

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

[NONE]

We received your Well Completion Report - Part II on July 21, 1998. This letter is notice that we have accepted your Well Completion Report – Parts I and II as complete. However, please validate your pump installation permit by signing and have the contractor sign both permit originals and returning one for our files.

If you have any questions, please call the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Aloha,

Enclosure
PUMP INSTALLATION PERMIT

Kaakaanui Well, Well No. 1120-27

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 Kaakaanui Well (Well No. 1120-27) at Kiluea, Kauai, TMK 4-8-011:009E. 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 20 gpm capacity, or less, pump in the well.

3. The permittee 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 an annual 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 is 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 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 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 is incorporated into this permit by reference and is 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 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 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: April 13, 1999
Expiration Date: April 13, 2001

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 do not hold a valid permit 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
Kauai Department of Water Supply
Steve Goldberg
### WCR 1 Check for Well No. 1120-27
(survey to regulation memo)

#### 1. Pump Tests Check

- **Glenn Bauer** (initial)

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<tr>
<th>Step-Drawdown Test:</th>
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<th>No</th>
<th>If no, describe deficiency</th>
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<tbody>
<tr>
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<tr>
<td>followed WCPI Stds</td>
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<tr>
<td>analysis attached</td>
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</tr>
<tr>
<td>proposed pump cap o.k.</td>
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<td>☐</td>
<td></td>
</tr>
</tbody>
</table>

- **Aquifer Pump Test:**
  - acceptable ☐ ☐
  - 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

#### 2. Construction Check

- **Mitch Ohye** (initial)

<table>
<thead>
<tr>
<th>data complete</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
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<td>followed WCPI Stds</td>
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</table>

04/09/99
### WELL COMPLETION REPORT

**State of Hawaii**  
COMMISSION ON WATER RESOURCE MANAGEMENT  
Department of Land and Natural Resources  

**WELL COMPLETION REPORT**

(Check Appropriate Box)  
☐ Well Construction  
☐ (Permanent) Pump Installation

**Instructions:** Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

1. **State Well No.:** 1120-27  
   **Well Name:** Kaakaanui  
   **Island:** Kauai

2. **Location/Address:** Kilauea, HI  
   **Tax Map Key:** 4-9-11:009E

### PART I. WELL CONSTRUCTION REPORT

3. **Drilling Company:** Oasis Water Systems  
4. **Name of driller who performed work:** Barry Simmons  
5. **Type of rig/construction:** Rotary  
6. **Date(s) Well Construction and pump tests (if any) completed:** 6-12-98
7. **GROUND ELEVATION** (referenced to mean sea level, msl):  
   Well Bench Mark (description/location): Coppola  
   Elevations (msl): 281.80

8. **DRILLER’S LOG:** Please attach geologic log (if available or if required by permit)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
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</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td>Top Soil</td>
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<tr>
<td>4 to 30</td>
<td>Brown Clay Sediment</td>
</tr>
</tbody>
</table>

(If more space is needed, continue on back.)

9. **Total depth of well below ground:** 409 ft.
10. **Hole size:** 8 3/4 inch dia. from 0 ft. to 400 ft. below ground
11. **Casing installed:** 10 in. I.D. x 0.40 in. wall solid section to 380 ft. below ground
   10 in. I.D. x 0.40 in. wall perforated section to 409 ft. below ground

12. **Casing Material/Slot Size:**
13. **Initial water level:** 102 ft. below ground  
    **Date and time of measurement:** 6-13-98
14. **Initial chloride:** 56 ppm  
    **Date and time of sampling:** 2-22-98
15. **Initial temperature:** 72° F  
    **Date and time of measurement:** 2-22-98
16. **PUMPING TESTS:** Reference Point (R.P.) used: Top of casing, which elevation is 281.80 ft.
   (1) Step-Drawdown Test Date 6-15-98
   - Start water level 280 ft. below R.P.
   - End water level 280 ft. below R.P.
   (2) Long-term Aquifer Test Date NA
   - Start water level
   - End water level

17. **Aquifer Pump Test Procedures data & graphs (1/96 LTAT Form) attached?** Yes X No
18. **As-built drawings attached?** Yes X No
19. **Other remarks/comments:** (On back of this form)

**Well Drilling Contractor (print):** Barry W. Simmons  
**License No.:** C-57

**Signature**

**Surveyor (print):**  
**License No.:**

**Signature**

**Applicant (print):** Deborah Forester  
**Signature**
### PART II. (PERMANENT) PUMP INSTALLATION REPORT

<table>
<thead>
<tr>
<th>Water Level (ft.)</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks</th>
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</thead>
<tbody>
<tr>
<td>20.2 to 224</td>
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</tr>
<tr>
<td>224 to 275</td>
<td>Red Clay, Caramel, Black Rock</td>
<td></td>
</tr>
<tr>
<td>275 to 325</td>
<td>Black Rock, Steaks Sand (2nd zone)</td>
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<tr>
<td>325 to 355</td>
<td>Black Rock (Upper)</td>
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<tr>
<td>355 to 397</td>
<td>Clay, Rock, Steaks</td>
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</tr>
<tr>
<td>397 to 402</td>
<td>Black Rock</td>
<td></td>
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</tbody>
</table>

8. (cont'd) DRILLER'S LOG (cont'd):

19 & 25. Remarks: Good straight hole, cleaned up before casing.
1- Drill out existing casing to 400 feet - with 9" button bit
2- Drill 14" dia. bore hole to 100 foot (70% of 135' - first water bearing rock)
   3½" of grouted space around all sides of casing
3- Recase to 400 feet with 6" pvc sch.40
4- Gravel pack from 100' to 400'

Diagram:
- 6" PVC Sch 40
- 14½ Dia Bore Hole
- Cement Grout
- Water Bearing Rock
- Gravel Pack
- 8⅞ Dia Bore Hole
WELL ELEVATION
WELL # 1120-27

OWNER: DEBORAH FORESTER
T.M.K.(4)4-9-011:09-E

PETER N. TAYLOR
LICENSED PROFESSIONAL LAND SURVEYOR
No.9149
FEB. 01 1999
MEMORANDUM FOR THE RECORD

FROM: Lenore Nakama

SUBJECT: Modification of 1120-27

Glenn Bauer & Mitchell Ohye visited Well No. 1120-27 on Tuesday 2/23/99 to inspect the modified well (see pictures). Well was sampled and results will be reported after analysis. Temperature was 72°F. Pump Q = 20 gpm. Met Steve Goldberg & Bob Layer (Forrester's husband) at well site.

Contacted Steve Goldberg on 2/26/99 to request submittal of as-built for the modified well. Steve said that the well was modified exactly according to the proposed well section (faxxed on 11/9/98); therefore, we can accept the proposed well section as the as-built. Informed him that we still need an elevation survey before we can issue pump installation permit (although the pump has already been installed in the well per Declaratory Rule DEC-ADM98-G5). Once PIP issued, he needs to submit WCR Part II. Done, submitted 7/21/98.
1120-27 Forester Well
Mr. Steve Goldberg  
Oasis Water Systems, Inc.  
P.O. Box 535  
Kilauea, HI 96754

Dear Mr. Goldberg:

Proposed Well Construction Modification  
Kaakaanui Well (Well No. 1120-27)

We have reviewed your second proposed alternative, transmitted to us via facsimile on November 9, 1998 (attached), to modify Well No. 1120-27 to address our concerns, specifically, the inadequate grouting of the well. We find that the attached proposed modification adequately addresses our concerns regarding the long-term maintenance of the water resource and well water quality.

You may proceed with the modification work under the initial well construction permit for Well No. 1120-27, that was approved on July 21, 1997 (since that permit does not expire until July 21, 1999), rather than submit a new application to modify the well. If you choose to apply for a new permit, please do so within the next sixty (60) days.

Please notify us in writing at least two (2) weeks prior to the start of the modification work. We would like to send an inspector to the well site to monitor the modification work.

If you have any questions, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141 (Kauai), extension 70218.

Sincerely,

TIMOTHY E. JOHNS  
Deputy Director

LN:ss  
Attachment  
c: Deborah Forester
Fax Transmittal 2 pages total

State of Hawaii
Water Commission
November 6 1998
Fax # 808  587-0219

Dear Lenore,

Re: Koakaanui Well 1120-27

Enclosed drawing for modifying this well
I am in Florida and can be reached at 305 651-4695 between 9am to 5pm. eastern standard time.

Thanks for your help.

Sincerely,
Steve Goldberg
Vice President
Oasis Water Inc.
PROPOSED COMPLIANCE FOR KAAKANUI WELL NO. 1120-27

1. Drill out existing casing to 400 feet - with 2" button bit
2. Drill 14" dia. bore hole to 100 foot (70% of 135' - first water bearing rock)
   3½" of grouted space around all sides of casing
3. Recase to 400 feet with 6" pvc sch. 40
4. Gravel pack from 100' to 400'

---

Steve Goldberg
V.P. Oasis Water Inc.
Nov. 6 1998
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<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
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<td>UYENO, D.</td>
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<tr>
<td>YODA, K.</td>
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<td>Approval</td>
<td>See Me</td>
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Please review Steve Solders' solution to this problem. Finally, we should discuss the issue idea and any other solutions you may come up with.
Mr. Steve Goldberg  
Oasis Water Systems, Inc.  
P.O. Box 535  
Kilauea, HI 96754

Dear Mr. Goldberg:

Well Construction Deficiencies  
Kaakaanui Well (Well No. 1120-27)

We have reviewed your proposed alternative to modify Well No. 1120-27 to address our concerns; specifically, the inadequate grouting of the well. However, we do not believe that your proposed solution is sufficient to protect the well and the ground water resource from contamination in the long term. Without adequate grouting, ground water contamination from the surface may still occur even with a larger concrete pad with deep footings.

As stated in our letter of July 31, 1998, the major construction problems with Well No. 1120-27 are:

- Only about 30 ft. of annulus was grouted, the rest was gravel-packed. The Hawaii Well Construction and Pump Installation Standards (January, 1997) state that 70% of the distance to water or 500 ft., whichever is less, needs to be grouted. For this well, there should be 154 ft. of grout. Adequate grouting will prevent contamination of your well water and the aquifer from surface related contamination.

- The annular space is only about an inch, which does not meet the minimum 3-inch requirement.

The above requirements were specifically stated in the well construction permit as Special Condition 3 and 4. Barry Simmons, the licensed driller for Oasis Water Systems, Inc., signed the permit on June 12, 1998, thereby accepting the standard and special conditions and responsibility for compliance.

The Commission’s major responsibility is to protect the ground water resource. Should contamination occur and other wells are affected, the Commission may be liable for not enforcing the minimum well construction standards. There are two wells directly downgradient from Well No. 1120-27 and nine wells somewhat downgradient in Moloaa Valley. In addition, there are four other wells (adjacent and upgradient) within 1,500 ft. These wells are the sole source of drinking and irrigation water and the County water system does not service this area.
Given this set of circumstances, we offer two possible solutions: 1) seal the well and redrill a new well, or 2) pull the casing (if possible), redrill, recase, and regrout Well No. 1120-27. Please note that, in either case, permits from the Commission would be required.

We have enclosed the appropriate permit application form. Please submit completed applications within sixty (60) days of this letter's date to either: 1) abandon/seal the old well and drill a new well, or 2) to modify the existing well. Failure to do so may result in fines of up to $1000 per day.

If you have any questions, please contact Glenn Bauer of the Commission staff at 587-0263 or toll-free at 274-3141 (Kauai), extension 70263.

Sincerely,

TIMOTHY E. JOHNS
Deputy Director

Enclosure
Dear Glen,

Enclosed drawing of a alternative to comply with the problem of not having a sufficient depth of grout in the Debra Forester well.

Please review and call me with your option.
Thank you for your time.

Sincerely,
Steve Goldberg
Oasis Water inc.
6" slab to meet all county codes

2-4" layers of compacted sand w/ 2-6 mil moisture barriers separating the sand
Date: 8/26/98  
Sender: Glenn Bauer  
To: Roy Hardy, Eric Hirano, Tim Johns, Lenore Nakama, Mitchell Ohye, Ed Sakoda  
Priority: Normal  
Subject: Well 1120-27 (Kaakaanui Well) Kauai

I spoke with Steve Goldberg of Oasis Drilling re this well. On July 31, 1998 we sent a letter to Ms. Deborah Forester concerning non-compliance with regard to Special Conditions 3 and 4 in the well construction permit.

According to Goldberg, Oasis Drilling never saw the Special Conditions that were sent on July 21, 1997 to Forester. However, Barry Simmons the Oasis driller, did sign the well construction permit which specifically states in Item 12 that the Special Conditions are "incorporated by herein by reference". The date of his signature was June 12, 1998. Simmons should have been on notice of these conditions at that time and should have relayed this fact to Goldberg.

The major problems with this well are: 1) Only 30 ft. of annulus was grouted, the rest was gravel packed. The Well Construction Standards state that 70% of the distance to water or 500 ft. whichever is less needs to be grouted. For this well it should be 154 ft. of grout. 2) the annular space is only about an inch rather than the 3" requirement.

Goldberg states that the Foresters have no money to drill a new well (at $70/ft). I told him that our major concern was protection of the aquifer. Our other concern is to protect the Commission from lawsuit if contamination occurs and that others are affected. There are two wells directly down gradient from the Forester well and nine wells somewhat down gradient in Moloaa Valley. There are four other wells within 1,500 ft. (adjacent and up gradient) of the Forester well. All of these wells are for domestic use and agriculture. The County water system does not service these people.

His suggestion for remediation is to construct a much larger concrete pad around the well with deep footings. The theory is that this will prevent contamination. I told him to put that suggestion into a letter, but I thought there would still be possibility for contamination. He also suggested that they put a 4" liner into the existing well, gravel pack, cement the annulus. I told him that I thought the grout would bridge and there would not be a sufficient grout seal.

Short of sealing the well or pulling the casing (probably not possible because of the PVC casing), redrilling, recasing and regrouting, there is another way to deal with this problem. Under the Rules, Section 13-168-14 (d) allows us to give notice to the owner to fix the well to our standards in a reasonable time. If not, then the Commission can step in repair and put a lien on the property until the cost is paid. Tim—can we put a lien on the property without spending money? That is, hang this albatross of a well onto their deed so that if they sell the land, the well has to be repaired prior to sale, or if there is evidence of contamination then the well has to be repaired immediately (either by us or them). The latter solution is scary because remediation of the of all of the other sources would be part of the solution. That would be kind of like the Del Monte problem in Kunia.

I think we need to discuss further. Goldberg is calling back on Friday morning. I will probably be in the Grand Jury deliberations tomorrow. In any case, I'll have Goldberg write us a letter with his plan of action. Perhaps we can respond with the fact that his driller signed the permit indicating Special Conditions and the lien possibility.
§13-168-14 Well construction and pump installation standards. (a) The minimum standards referenced in this section, shall be such as to ensure the safe and sanitary maintenance and operation of wells, the prevention of waste, and the prevention of contamination of ground water aquifers. The standards for well construction specified in Volume I, Part III, section 5, of the publication entitled Water System Standards, State of Hawaii, 1985, adopted by the counties and as may be amended are hereby incorporated by reference.

(b) The minimum standards for the installation of pumps and pumping equipment shall also provide for the installation of devices to measure the amount of ground water being withdrawn from the wells. Standards specified in the American Water Works Association Standards (ANSI/AWWA E101-77), and as may be amended are hereby incorporated by reference.

(c) The well construction and pump installation standards referenced in this section shall serve as minimum guidelines and shall be subject to review and modification by the commission.

(d) If any well construction or pump installation standard is violated and as a consequence ground water is wasted or any well is contaminated, the commission, after giving notice of the defect to the owner of the land on which the well is located and giving such owner a reasonable time to correct the defect, may itself correct the defect and charge the land owner for the cost of such correction. Such cost constitutes a lien on the land until paid. The lien may be foreclosed in any court of competent jurisdiction, and in such foreclosure suit, the court shall allow the commission reasonable attorney's fees. [Eff. MAY 27, 1988] (Auth: HRS §174C-8) (Imp: HRS §174C-82, 174C-86)
Ms. Deborah Forester  
P.O. Box 867  
Kilauea, HI 96754  

Dear Ms. Forester:

Well Completion Report for Well No. 1120-27

We have received your Well Completion Report Parts I & II for the Kaakaanui Well (Well No. 1120-27). However, matters which must be addressed before we accept your Well Completion Report Part I as complete are as follows:

1. Elevation (referenced to mean sea level) survey by a Hawaii-licensed surveyor (see attached sample).
2. As-built sectional drawing of the well.
3. Plot plan and map showing the exact location of the well.
4. Reason(s) for non-compliance with Special Condition 3 of your well construction permit, which states:

"To prevent surface contamination, the annular space of the well must be sealed with grout from the ground surface to a minimum depth of 500 feet or 70% of the vertical distance between the ground surface and the top of the aquifer selected for exploration, long-term monitoring, or development, whichever depth is less."

5. Reason(s) for non-compliance with Special Condition 4 of your well construction permit, which states:

"The annular space of wells to be grouted must be a minimum of three inches all around the casing to permit effective placement of grout with a tremie pipe having a minimum diameter of 1 ¼ inches. Should casing with collars be used, the drilled hole shall be increased to provide a minimum three-inch annular space at the collars."
The above special conditions are minimum standards for all water wells. Be advised that the Hawaii Well Construction and Pump Installation Standards (January, 1997) provides:

"If any well construction or pump installation standard is violated and as a consequence ground water is wasted or any well is contaminated, the commission, after giving notice of the defect to the owner of the land on which the well is located and giving such owner a reasonable time to correct the defect, may itself correct the defect and charge the land owner for the cost of such correction. Such cost constitutes a lien on the land until paid. The lien may be foreclosed in any court of competent jurisdiction, and in such foreclosure suit the court shall allow the commission reasonable attorney's fees."

Please respond to the above item(s) within sixty (60) days of this letter's date. Failure to do so may result in fines of up to $1000 per day.

We note that you have also submitted Well Completion Report Part II, for the installation of a permanent pump. Both our July 21, 1997 cover letter, which transmitted the permit document, and Standard Condition 2 of your well construction permit clearly state that no permanent pump shall be installed until a pump installation permit has been approved and issued.

We will not issue a pump installation permit until we accept Well Completion Report Part I. Declaratory Ruling DEC-ADM98-G5, which was issued by the Commission on July 14, 1998, allows permanent pump installation for capacities between 0-70 gpm and where the proposed use is for private individual needs in non-ground-water management areas prior to the final pump installation permit issuance. Pursuant to this declaratory ruling, we may issue your pump installation permit when items 1 through 5 are resolved.

If you have any questions, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141 (Kauai), extension 70218.

Sincerely,

TIMOTHY E. JOHNS
Deputy Director

LN:ss
Attachment
### WCR 1 Check for Well No. 1120-27
(survey to regulation memo)

1. **Pump Tests Check**  
   Glenn Bauer _______(initial)  
   
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step-Drawdown Test:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>acceptable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>followed WCPI Stds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>analysis attached</td>
<td></td>
<td></td>
</tr>
<tr>
<td>proposed pump cap o.k.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
   
   | Aquifer Pump Test: |   |   |
   |   acceptable |   |   |
   |   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 |

2. **Construction Check**  
   Mitch Ohye _______(initial)  
   
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>data complete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>followed WCPI Stds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>wellphys.dbf updated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>welaplic.dbf updated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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7/27/98

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1. **Construction Documentation**  
   1. AGA Valve Sticks  
      1 Unit  
      0.94 IA  
      1/4 Turn

---

4. Bottom Valve should be 8" aluminum  
   60 8-32  7 1/4" down  
   1 3/4" nose
1. **Pump Tests Check** (special condition of PIP? Yes/No) Glenn Bauer (initial if yes)
   - Yes No
   - If no, describe deficiency

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

   **Aquifer Pump Test:**
   - acceptable □ □
   - 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

2. **Pump Installation Check** Mitch Ohye (initial)
   - Yes No
   - If no, describe deficiency

   - data complete □ □
   - followed WCPI Stds □ □
   - wellphys.dbf updated □ □
   - welaplic.dbf updated □ □
PART II.  (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: Oasis Water Systems
21. Name of person performing work: Barry Simmons
22. Date Pump Installation Completed: 6-13-98
23. PUMP INSTALLATION:
   Pump Type, Make, Serial No.: Stainless Steel Deep Motor
   Motor type, H.P., Voltage, rpm: Franklin 2HP-340V/60-3450 rpm
   Depth of Pump Intake Setting: 360 ft. below surface, which elevation is 392' ASL
   Depth to bottom of airline: None ft. below, which elevation is ft
   Pumping Head is 120 ft. Type of flow meter: ___________ which measures in ___________
24. As-built drawings attached: Yes ___ No ___
25. Other remarks/comments: (See below)

Pump Installation Contractor (print) Barry W. Simmons C-57 Lic. No. C51458
Signature: ____________________________ Date: 6-17-98

Applicant (print) ____________________________
Signature: ____________________________ Date: ____________________________

8. (cont'd) DRILLER'S LOG (cont'd):

<table>
<thead>
<tr>
<th>Dates (ft.)</th>
<th>Water Level</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks,</th>
<th>Dates (ft.)</th>
<th>Water Level</th>
<th>Depth (ft.)</th>
<th>Rock Description, Remarks,</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3 to 234</td>
<td>to</td>
<td>Black Rock, Steaks Sand (2nd zone)</td>
<td>to</td>
<td>to</td>
<td>Black Rock</td>
<td></td>
<td>to</td>
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<tr>
<td>234 to 374</td>
<td>to</td>
<td>Red Clay, Clay, Black Rock</td>
<td>to</td>
<td>to</td>
<td></td>
<td></td>
<td>to</td>
</tr>
<tr>
<td>275 to 325</td>
<td>to</td>
<td>Freshwater Rock, Steaks Sand (2nd water zone)</td>
<td>to</td>
<td>to</td>
<td></td>
<td></td>
<td>to</td>
</tr>
<tr>
<td>325 to 355</td>
<td>to</td>
<td>Black Rock, Limestone</td>
<td>to</td>
<td>to</td>
<td></td>
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<td>to</td>
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<tr>
<td>355 to 377</td>
<td>to</td>
<td>Clay, Rock, Gravel</td>
<td>to</td>
<td>to</td>
<td></td>
<td></td>
<td>to</td>
</tr>
<tr>
<td>377 to 402</td>
<td>to</td>
<td>Black Rock</td>
<td>to</td>
<td>to</td>
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<td></td>
<td>to</td>
</tr>
</tbody>
</table>

Water Level: 1190-27 Forester

19. & 25. Remarks: Good Straight hole, Cleared up before casing went into hole, Developed in an 898 386pm, Clear & Clear


## WELL COMPLETION REPORT

(Check Appropriate Box) ☑ Well Construction  ☐ (Permanent) Pump Installation

**Instructions:** Please print or type and submit completed report within 30 days after well completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted. For assistance call the Commission Regulation Branch at 587-0225, or 1-800-468-4644 Extension 70225.

### 1. State Well No.: 1120-27  Well Name: Kaaakanui  Island: Kauai

### 2. Location/Address: Kilauea, HI  Tax Map Key: 4-9-11:009E

### PART I. WELL CONSTRUCTION REPORT

<table>
<thead>
<tr>
<th>3. Drilling Company:</th>
<th>Oasis Water Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Name of driller who performed work:</td>
<td>BARRY W. SIMMONS</td>
</tr>
<tr>
<td>5. Type of rig/construction:</td>
<td>Rotary Trench</td>
</tr>
<tr>
<td>6. Date(s) Well Construction and pump tests (if any) completed:</td>
<td>6-12-98</td>
</tr>
<tr>
<td>7. GROUND ELEVATION (referenced to mean sea level, msl):</td>
<td>290.4 ft.</td>
</tr>
<tr>
<td>Well Bench Mark (description/location):</td>
<td>Elevation(msl):</td>
</tr>
<tr>
<td>8. DRILLER’S LOG: Please attach geologic log (if available or if required by permit)</td>
<td></td>
</tr>
<tr>
<td>Depths (ft.)</td>
<td>Rock Description, Water Level, Dates, etc.</td>
</tr>
<tr>
<td>0 to 4</td>
<td>Top Soil</td>
</tr>
<tr>
<td>4 to 15</td>
<td>Brown Clay Sediment</td>
</tr>
<tr>
<td>15 to 160</td>
<td>Basalt Mudrock, 1st horizon, 6-8-98</td>
</tr>
<tr>
<td>(If more space is needed, continue on back.)</td>
<td></td>
</tr>
<tr>
<td>9. Total depth of well below ground:</td>
<td>410 ft.</td>
</tr>
<tr>
<td>10. Hole size:</td>
<td>8-3/4 inch dia. from 0 ft. to 4 ft. below ground</td>
</tr>
<tr>
<td></td>
<td>8-3/4 inch dia. from 4 ft. to 40 ft. below ground</td>
</tr>
<tr>
<td></td>
<td>8-3/4 inch dia. from 40 ft. to 400 ft. below ground</td>
</tr>
<tr>
<td>11. Casing installed:</td>
<td>10 in. I.D. x .040 in. wall solid section to 300 ft. below ground</td>
</tr>
<tr>
<td></td>
<td>10 in. I.D. x .040 in. wall perforated section to 400 ft. below ground</td>
</tr>
<tr>
<td>Casing Material/Slot Size:</td>
<td>.035</td>
</tr>
<tr>
<td>12. Annulus:</td>
<td>Grouted from +1 ft. below ground to 30 ft. below ground</td>
</tr>
<tr>
<td></td>
<td>Gravel packed from 30 ft. below ground to 400 ft. below ground</td>
</tr>
<tr>
<td>13. Initial water level:</td>
<td>220 ft. below ground</td>
</tr>
<tr>
<td>Date and time of measurement:</td>
<td>6-13-98</td>
</tr>
<tr>
<td>14. Initial chloride:</td>
<td>NA ppm</td>
</tr>
<tr>
<td>Date and time of sampling:</td>
<td></td>
</tr>
<tr>
<td>15. Initial temperature:</td>
<td>NA °F</td>
</tr>
<tr>
<td>Date and time of measurement:</td>
<td></td>
</tr>
<tr>
<td>16. PUMPING TESTS: Reference Point (R.P.) used:</td>
<td>Top of casing, which elevation is 290.4 ft.</td>
</tr>
<tr>
<td>(1) Step-Drawdown Test Date 6-15-98</td>
<td></td>
</tr>
<tr>
<td>Start water level</td>
<td>220 ft. below R.P.</td>
</tr>
<tr>
<td>End water level</td>
<td>260 ft. below R.P.</td>
</tr>
<tr>
<td>(2) Long-term Aquifer Test Date NA</td>
<td></td>
</tr>
<tr>
<td>Start water level</td>
<td></td>
</tr>
<tr>
<td>End water level</td>
<td></td>
</tr>
<tr>
<td>17. Aquifer Pump Test Procedures data &amp; graphs (1/9/96 LTAT Form) attached?</td>
<td>Yes X No</td>
</tr>
<tr>
<td>18. As-built drawings attached attached?</td>
<td>Yes X No</td>
</tr>
<tr>
<td>19. Other remarks/comments:</td>
<td>(On back of this form)</td>
</tr>
<tr>
<td>Well Drilling Contractor (print):</td>
<td>BARRY W. SIMMONS</td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Surveyor (print):</td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Applicant (print):</td>
<td>Deborah Forester</td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
</tbody>
</table>

---

**State of Hawaii**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**Department of Land and Natural Resources**

**WELL COMPLETION REPORT**

**State Well No.: 1120-27**
**Well Name: Kaaakanui**
**Island: Kauai**

**Location/Address: Kilauea, HI**
**Tax Map Key: 4-9-11:009E**

**Drilling Company:** Oasis Water Systems

**Name of driller who performed work:** BARRY W. SIMMONS

**Type of rig/construction:** Rotary Trench

**Date(s) Well Construction and pump tests (if any) completed:** 6-12-98

**GROUND ELEVATION (referenced to mean sea level, msl):** 290.4 ft.

**Well Bench Mark (description/location):**

**DRILLER’S LOG:** Please attach geologic log (if available or if required by permit)

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, Dates, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td>Top Soil</td>
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<td>4 to 15</td>
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</tr>
<tr>
<td>15 to 160</td>
<td>Basalt Mudrock, 1st horizon, 6-8-98</td>
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</tbody>
</table>

**Total depth of well below ground:** 410 ft.

**Hole size:**

- 8-3/4 inch dia. from 0 ft. to 4 ft. below ground
- 8-3/4 inch dia. from 4 ft. to 40 ft. below ground
- 8-3/4 inch dia. from 40 ft. to 400 ft. below ground

**Casing installed:**

- 10 in. I.D. x .040 in. wall solid section to 300 ft. below ground
- 10 in. I.D. x .040 in. wall perforated section to 400 ft. below ground
- Casing Material/Slot Size: .035

**Annulus:**

- Grouted from +1 ft. below ground to 30 ft. below ground
- Gravel packed from 30 ft. below ground to 400 ft. below ground

**Initial water level:** 220 ft. below ground

**Date and time of measurement:** 6-13-98

**Initial chloride:** NA ppm

**Date and time of sampling:**

**Initial temperature:** NA °F

**Date and time of measurement:**

**PUMPING TESTS:**

- Reference Point (R.P.) used: Top of casing, which elevation is 290.4 ft.
- (1) Step-Drawdown Test Date 6-15-98
- Start water level 220 ft. below R.P.
- End water level 260 ft. below R.P.
- (2) Long-term Aquifer Test Date NA
- Start water level
- End water level

**Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached:** Yes X No

**As-built drawings attached:** Yes X No

**Other remarks/comments:** (On back of this form)

**Well Drilling Contractor (print):** BARRY W. SIMMONS

**Signature:**

**Surveyor (print):**

**Signature:**

**Applicant (print):** Deborah Forester

**Signature:**

---

**State of Hawaii**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**Department of Land and Natural Resources**

**WELL COMPLETION REPORT**

**State Well No.: 1120-27**
**Well Name: Kaaakanui**
**Island: Kauai**

**Location/Address: Kilauea, HI**
**Tax Map Key: 4-9-11:009E**

**Drilling Company:** Oasis Water Systems

**Name of driller who performed work:** BARRY W. SIMMONS

**Type of rig/construction:** Rotary Trench

**Date(s) Well Construction and pump tests (if any) completed:** 6-12-98

**GROUND ELEVATION (referenced to mean sea level, msl):** 290.4 ft.

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**DRILLER’S LOG:** Please attach geologic log (if available or if required by permit)

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<td>15 to 160</td>
<td>Basalt Mudrock, 1st horizon, 6-8-98</td>
</tr>
</tbody>
</table>

**Total depth of well below ground:** 410 ft.

**Hole size:**

- 8-3/4 inch dia. from 0 ft. to 4 ft. below ground
- 8-3/4 inch dia. from 4 ft. to 40 ft. below ground
- 8-3/4 inch dia. from 40 ft. to 400 ft. below ground

**Casing installed:**

- 10 in. I.D. x .040 in. wall solid section to 300 ft. below ground
- 10 in. I.D. x .040 in. wall perforated section to 400 ft. below ground
- Casing Material/Slot Size: .035

**Annulus:**

- Grouted from +1 ft. below ground to 30 ft. below ground
- Gravel packed from 30 ft. below ground to 400 ft. below ground

**Initial water level:** 220 ft. below ground

**Date and time of measurement:** 6-13-98

**Initial chloride:** NA ppm

**Date and time of sampling:**

**Initial temperature:** NA °F

**Date and time of measurement:**

**PUMPING TESTS:**

- Reference Point (R.P.) used: Top of casing, which elevation is 290.4 ft.
- (1) Step-Drawdown Test Date 6-15-98
- Start water level 220 ft. below R.P.
- End water level 260 ft. below R.P.
- (2) Long-term Aquifer Test Date NA
- Start water level
- End water level

**Aquifer Pump Test Procedures data & graphs (1/9/96 LTAT Form) attached:** Yes X No

**As-built drawings attached:** Yes X No

**Other remarks/comments:** (On back of this form)

**Well Drilling Contractor (print):** BARRY W. SIMMONS

**Signature:**

**Surveyor (print):**

**Signature:**

**Applicant (print):** Deborah Forester

**Signature:**

---
PART II. (PERMANENT) PUMP INSTALLATION REPORT

20. Pump Installation Company: Oasis Water Systems

21. Name of person performing work: Bobby Simmons

22. Date Pump Installation Completed: 6-13-98

23. PUMP INSTALLATION:
   - Pump Type, Make, Serial No.: Shadus Steel Deep Motor
   - Motor type, H.P., Voltage, rpm: Franklin - 2 HP - 240 V - 3450 RPM
   - Depth of Pump Intake Setting: 340 ft. below surface, which elevation is 288' A.S.L.
   - Depth to bottom of airline: None ft. below, which elevation is ft.
   - Pumping Head is 120 ft. Type of flow meter: Est., which measures in Gal.

24. As-built drawings attached: Yes

25. Other remarks/comments: (See below)

Pump Installation Contractor (print) Bobby W. Simmons C-57 Lic. No. C21458
Signature ........................................... Date 6-17-98

Applicant (print) ...........................................
Signature ........................................... Date ...........................................

8.(cont'd) DRILLER'S LOG (cont'd):

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<th>Dates (ft)</th>
<th>Water Level (ft)</th>
<th>Rock Description, Remarks</th>
<th>Dates (ft)</th>
<th>Water Level (ft)</th>
<th>Rock Description, Remarks</th>
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<td>Red Clay (Sands)</td>
<td>Rocks &amp; Rubble</td>
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19. & 25. Remarks: Good Straight hole, Cleaned up before Casing Went into hole, Developed in an est. 38 GPM Clean Clear
WELL CONSTRUCTION PERMIT

Kaakaanui Well, Well No. 1120-27

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 construction and testing of Kaakaanui Well (Well No. 1120-27) at Kilauea, Kauai, TMK 4-9-011:009E, 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 of 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 authorized by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pump testing worksheet is attached). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

3. In basal ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the basal ground water unless otherwise authorized by the Chairperson.

4. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.

5. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and contact the Department’s Historic Preservation Division (587-0045) immediately.

6. The proposed well construction 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 construct the well shall not constitute a determination of correlative water rights.

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other data.

8. The permittee shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97).

10. 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 well construction 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 notice of the proposed action and an opportunity to be heard.

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

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

Date of Approval: July 21, 1997
Expiration Date: July 21, 1999

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. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee’s Signature: 
Printed Name: Deborah Forester Firm or Title: 
Driller’s Signature: 
Printed Name: Barry W. Simmons (RME) License #: C-21458 Date: 6-12-98 Firm or Title: Oasis Water Systems

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

Attachment c:
USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Kauai Department of Water Supply
### Table 1: Long-Term Aquifer Test Data

**Pumped Well No.** 1120 - 27  
**Pumped Well Name** KAAKAIWI  
**Target Q** 20 gpm  
**Observation well no.** N/A  
**Distance between Obs. & Pumped Well** N/A ft.  
**Reference pt. for depth to water** 367 ft. msl  
**Static Water Level @ start of test** 320 ft. msl  

**Water level measurements by:**  
- [ ] steel tape  
- [x] pressure transducer  
- [ ] airline

**START TEST**  
- **Date:** 6/15/96  
- **Hour of day:** 8:00 AM  
- **Flow Meter Reading Start:**

| Suggested elapsed time t (min) | Actual elapsed time t (min) | Depth to water (nearest 0.01 ft) | Drawdown (unadjusted to nearest 0.01 ft) | Pumping rate Q (gpm) | EC (μmhos) | Cl (mg/l) | Temp. °F or °C | Data in this table is for:  
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**Remarks:**  
- [ ] Well Reached  
- [ ] Pumping Level  
- [ ] Holding Level  
- [ ] Stopping Test
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<th>Recovery (unadjusted to nearest 0.01 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (µhos)</th>
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**END TEST**  Date: **6-15-98**  Hour of day: **12:10 p.m.**

**ADDITIONAL REMARKS:**

Persons in charge of pump test (print): **BARRY SIMMONS**

Signature: **BARRY SIMMONS**

The signature above indicates that the data reported on this form is accurate and true to the best of the person's knowledge who operated this aquifer test.

CWRM LTAT Form 1/9/96
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<th>Actual elapsed time (min)</th>
<th>Depth to water (nearest 0.01 ft)</th>
<th>Drawdown (unadjusted to nearest 0.01 ft)</th>
<th>Pumping rate Q (gpm)</th>
<th>EC (µhos)</th>
<th>Temp. ° F or ° C</th>
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<td>10000</td>
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<td></td>
<td>Use same ending drawdown figure as start for recovery</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>Max possible duration, water level or quality did not stabilize for any 24 period</td>
<td></td>
</tr>
</tbody>
</table>

Begin recovery data next page
Flow meter reading at end of pumped period: __________________________ gals
Pumping Test No. Long-Term
2-1120-27
Discharge 18.00 U.S. gal/min

Transmissivity \( \text{ft}^2/\text{d} \): \( 2.14 \times 10^1 \)
### Pumping Test No. Long-Term

Test conducted on: June 15, 1998

Kaakaa Nui Well

Discharge 18.00 U.S.gal/min

Distance from the pumping well 1.00 ft

Static water level: 220.00 ft below datum

<table>
<thead>
<tr>
<th>Pumping test duration</th>
<th>Water level [ft]</th>
<th>Drawdown [ft]</th>
</tr>
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<tbody>
<tr>
<td>[d]</td>
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<tr>
<td>1 0.00139</td>
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<tr>
<td>16 0.06944</td>
<td>260.00</td>
<td>40.00</td>
</tr>
</tbody>
</table>
Ms. Deborah Forester  
P.O. Box 867  
Kilauea, Hawaii 96754  

Dear Ms. Forester:

Well Construction Permit  
Kaakaanui (Well No. 1120-27)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) which authorizes well construction activities but excludes installation work for your permanent pump. As part of the Chairperson’s approval, the following special conditions were added and are part of your permit under Permit Condition 12:

Special Conditions

1. The wall thickness of well casing shall be selected in accordance with good design practices applied with due consideration to conditions at the site of the well and shall be sufficient to withstand anticipated formation and hydrostatic pressures imposed on the casing during its installation, grouting, well development, and use. The minimum wall thickness of carbon-steel casings in wells shall conform to Hawaii Well Construction and Pump Installation Standards (January, 1997) and the AWWA standards for water wells (ANSI/AWWA A100-90), as may be amended.

2. The well shall be constructed with a casing string having a minimum length of solid casing equal to 90 percent of the depth measured from the ground surface to the top of the selected aquifer. A section of perforated or screen casing may or may not be included at the bottom of the solid casing string.

3. To prevent surface contamination, the annular space of the well must be sealed with grout from the ground surface to a minimum depth of 500 feet or 70% of the vertical distance between the ground surface and the top of the aquifer selected for exploration, long-term monitoring, or development, whichever depth is less.

4. The annular space of wells to be grouted must be a minimum of three inches all around the casing to permit effective placement of grout with a tremie pipe having a minimum diameter of 1½ inches. Should casing with collars be used, the drilled hole shall be increased to provide a minimum three-inch annular space at the collars.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (1/23/97) and any special conditions performed under this permit. Please note that special conditions may simply highlight application deviations from the Standards.

The well owner is responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction 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.
To validate your permit, please sign and have the contractor sign both permit originals and return one for our files. Also, copies of the aquifer pump test worksheet and the well completion report form are enclosed for your use. Please provide all the information in this packet to your well drilling contractor. Be advised that the drilling work must be done by a Hawaii-licensed contractor (C or C-57 license). Failure to comply with this requirement may result in fines or other enforcement action.

Also attached for your information is a copy of the Department of Health’s review comments.

If you have any questions, please call the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Aloha,

MICHAEL D. WILSON
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Kaakaanui Well, Well No. 1120-27

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-158, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Kaakaanui Well (Well No. 1120-27) at Kilauea, Kauai, TMK 4-9-011:009E, 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 of 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 authorized by this permit commences.

2. The well construction permit shall be for construction and testing of the well only. A minimum one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pump testing worksheet is attached). The permittee shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

3. In basal ground water, the depth of the well may not exceed one-fourth (1/4) of the theoretical thickness (41 times initial head) of the basal ground water unless otherwise authorized by the Chairperson.

4. The permittee shall incorporate mitigation measures to prevent construction debris from entering the aquatic environment, to schedule work to avoid periods of high rainfall, and to revegetate any cleared areas as soon as possible.

5. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee shall stop work and contact the Department's Historic Preservation Division (587-0045) immediately.

6. The proposed well construction 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 construct the well shall not constitute a determination of correlative water rights.

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
   c. As-built sectional drawing of the well.
   d. Plot plan and map showing the exact location of the well.
   e. Complete pumping test records, including time, pumping rate, drawdown, chloride content, and other data.

8. The permittee shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97).

10. 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 well construction 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 notice of the proposed action and an opportunity to be heard.

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

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

Date of Approval: July 21, 1997
Expiration Date: July 21, 1999

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. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: ___________________________ Date: ____________

Printed Name: ___________________________ Firm or Title: ___________________________

Driller's Signature: ___________________________ 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.

Attachment c:

USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Kauai Department of Water Supply
### SECTION 1: WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Island</th>
<th>KAUAI</th>
<th>Proposed Use</th>
<th>#VALUE!</th>
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</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>######</td>
<td>Proposed Withdrawal</td>
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<tr>
<td>Aquifer Sector</td>
<td>######</td>
<td>System Sustainable Yield</td>
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### SECTION 2: WELL SECTION DATA  (enter data in grey cells only)

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<tr>
<th>Elevation at top of casing</th>
<th>Solid Casing</th>
<th>3460 ft., m.s.l.</th>
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<tr>
<td>Ground Elevation</td>
<td>Material</td>
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<tr>
<td>Cement Grout</td>
<td>Designation</td>
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<tr>
<td>Rock Packing</td>
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<tr>
<td>Hole Diameter</td>
<td>Diameter</td>
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<tr>
<td>Total Depth</td>
<td>Wall Thickness</td>
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</table>

<table>
<thead>
<tr>
<th>Estimated Head</th>
<th>Casing</th>
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</thead>
<tbody>
<tr>
<td>Calculated Aquifer Thickness</td>
<td>Material</td>
<td></td>
</tr>
<tr>
<td>County Water Supply (Y/N ?)</td>
<td>Designation</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 3: CHECKLIST  (values to check are shaded)

- **Well Depth**
  - Theoretical Thickness of Aquifer: 3403 ft.
  - 1/4 Aquifer Thickness: 850.8 ft.
- **Depth of Well below Sea Level**: -278 ft., okay
- **Well Casing**
  - Minimum Wall Thickness: 0.280 in.
  - Wall Thickness Provided: 0.000 in., too small
- **Minimum Length of Solid Casing**
  - 90% of ground to top of aquifer: 175.5 ft.
- **Length of solid casing Provided**: 0 ft., too shallow
- **Casing Material**: Sch 40, okay
- **Annular Space**: If the cell above reads #N/A, reference HWCPIS
- **Depth of Grouting**
  - Calculated Depth of Grouting: 136.5 ft.
  - Depth of Grouting provided: 20 ft., not enough
  - Thickness of Annular Space: 0 in., too small
TO: Honorable Lawrence Miike, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

FROM: Michael D. Wilson, Chairperson
   Commission on Water Resource Management

SUBJECT: Well Construction Permit Application
          Kaakaanui (Well No. 1120-27)

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 July 26, 1997.

Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lenore Nakama of the Commission staff at 587-0218.

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (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 [] not located near the proposed well site (information attached).

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

[] No comments/objections

Contact Person: Lori N. Kajiwara
Phone: 586-4294
Signed: Lori N. Kajiwara
Date: 7-9-97
IWS DATA PROFILE --- COUNTY OF KAUA'I

TMK #: 4-09-011:009  FILE #: 3262-
OWNER: GOLDBERG STEVE
LOT LOCATION: LARSONS BEACH ROAD KILAUEA
REMARK:

********** DATES **********
SUBMIT DATE:   11/19/96     PLAN APPROVAL DATE: 11/26/96
REVIEWED BY: JT           INSPECTION DATE:  01/24/97
SYSTEM APP'D DATE:  02/19/97

***** TECHNICAL DATA *****
TREATMENT TYPE: SEPTIC TANK     DISPOSAL Via: BED
USE FOR: 1 BEDROOM     DESIGNED BY: PETER TAYLOR
PERCOLATION: 25 min/in     CAPACITY:  1250 gal.

PRESS ANY KEY TO CONTINUE.
TO: Honorable Lawrence Miike, Director  
Department of Health  
Attention: Dennis Tulang, Wastewater Branch  
William Wong, Safe Drinking Water Branch  

FROM: Michael D. Wilson, Chairperson  
Commission on Water Resource Management  

SUBJECT: Well Construction Permit Application  
Kaakaanui (Well No. 1120-27)  

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LN:ss  
Attachment(s)  

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (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, §11-20-9.

X 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.

X 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.

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

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

[ ] No comments/objections

Contact Person: Bill Wong  
Phone: 586-4258

Signed: Bill Wong  
Date: 7/1/97
Ms. Deborah Forester
P.O. Box 867
Kilauea, HI 96754

Dear Ms. Forester:

Well Construction / Pump Installation Permit Application for Well No. 1120-27

We acknowledge receipt, on May 14, 1997, of your completed well construction / pump installation permit application for the Kaakaanui Well (Well No. 1120-27). You can expect your application to be processed within ninety (90) days from this date.

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 may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

We note that you have indicated that you will be drilling the well yourself as an owner-builder. However, be advised that Section 1.6 of the Hawaii Well Construction & Pump Installation Standards (January 1977) states:

"All work required in the construction, modification, or sealing of wells shall be performed by well drillers (with a C-57 license) or general contractors (with a C license) licensed by the Hawaii Department of Commerce and Consumer Affairs, Division of Professional and Vocational Licensing.

All work required in the installation of pumps and pumping equipment shall be performed by well drillers with a C-57 license, pump installers with a C-57a license, or general contractors with an A license."

To expedite the process, we have been accepting applications for processing without the contractor’s signature; however, we will require your licensed contractor to sign the permit document prior to beginning any work.

If you have any questions about your permit application, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Sincerely,

RAE M. LOUI
Deputy Director

LN:ss
TO: Honorable Lawrence Milke, Director
Department of Health
Attention: Dennis Tulang, Wastewater Branch
William Wong, Safe Drinking Water Branch

FROM: Michael D. Wilson, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction Permit Application
Kaakaanui (Well No. 1120-27)

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Please find a map, attached, to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Lenore Nakama of the Commission staff at 587-0218.

LN:ss
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (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.

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

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

[ ] No comments/objections

Contact Person: ___________________________ Phone: ___________________________

Signed: ___________________________ Date: ___________________________
**APPLICATION FOR PERMIT**

- **Well Construction**
- **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 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.

1. **APPLICANT:** (circle primary contact a, b, or c)
   - (a) **WELL OWNER**
     - **Name:** Deborah Forster
     - **Address:**
     - **Contact Person:** Same
     - **Phone:** 808-828-1110
   - (b) **LANDOWNER**
     - **Name:** Same as (a)
     - **Address:**
     - **Contact Person:**
     - **Phone:**
   - (c) **CONTRACTOR**
     - **Name:** Owner-Build
     - **Address:**
     - **Contact Person:**
     - **Phone:** Contractor’s C-57 License No.

2. **WELL LOCATION/NAME:**
   - **Address:** Kaaanui, 7200 E. Koolau Rd
   - **Island:** Kauai
   - **Tax Map Key:** H-1 4/9/61/092

   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1"=24,000), and (b) a property tax map, showing well location referenced to established property boundaries.

3. (a) **PROPOSED WORK:**
   - Drill New Well
   - Deepen
   - Modify Existing Well
   - Redrill
   - Abandon/Seal
   - Install New Pump
   - Modify Pump
   - Replace Pump

   * Be sure to complete and submit well abandonment report upon completion of work.

4. **PROPOSED WORK INFORMATION:**
   - **Rated Pump Capacity:** 20
   - **Motor:**
   - **Pump:**
     - Deep Well Turbine
     - Rotary
     - Submersible
     - Centrifugal
     - Reciprocating
     - Propeller
     - Radial
     - Impulse
     - Diesel
     - Gas
     - Electric, rated horsepower:

   If Pump Replacement, Existing Pump Capacity:

5. **PROPOSED USE:**
   - Municipal (including hotels, stores, etc.)
   - Industrial
   - Domestic (individual, noncommercial water sys.)
   - Irrigation (crop)
   - Farm
   - Military
   - Other:

6. (a) **PROPOSED AMOUNT OF WITHDRAWAL:**
   - Gallons per day

   (b) **METHOD OF FLOW MEASUREMENT:**
   - Flow-meter
   - Open pipe
   - Orifice Plate
   - Weir

7. **PENDING ACTIONS:**
   - CDUA
   - SMA
   - EIS
   - EA
   - None
   - Other (explain)

8. **REMARKS, EXPLANATIONS:**

   ![Diagram or drawing]

I 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 30 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 cumulative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

**Well Owner:**[Signature]

**Land Owner:**[Signature]

**Contractor:**[Signature]

3/20/77

For Official Use Only:

- **Date Received**
- **Date Accepted**
- **Field Checked**
- **Date**
- **Longitude**
- **Latitude**
- **Aquifer System Name**
- **State Well No.**

4 Nov 96 WCPI Form
9. PROPOSED WELL SECTION

Elevation at top of casing: 260 ft., msl.

Cement Grout: 20 ft.

Rock Packing: __ ft.

Hole Diameter: __ in.

Total Depth: __ ft.

Ground Elevation: 278 ft., msl

Casing: Perforated Screen
Material: PVC
Length: __ ft.
Diameter: __ in.
Wall thickness: SCH 40 __ in.
Openings: __ in., L.T.F.

Open Hole: __ ft.

"Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports."
Ms. Deborah Forester
P.O. Box 867
Kilauea, HI 96754

Dear Ms. Forester:

Well Construction / Pump Installation Permit Application for Kaakaanui Well

We have received your well construction / pump installation permit application and filing fee for the Kaakaanui Well. However, your application is incomplete. Please complete the highlighted items on your original well construction / pump installation permit application, which we are returning to you (attached). Do not forget to fill in the proposed well section on the back of the application. A copy of your application has been made for our record.

We note that you have indicated that you will be drilling the well yourself as an owner-builder. However, be advised that Section 1.6 of the Hawaii Well Construction & Pump Installation Standards (January 1977) states:

"All work required in the construction, modification, or sealing of wells shall be performed by well drillers (with a C-57 license) or general contractors (with a C license) licensed by the Hawaii Department of Commerce and Consumer Affairs, Division of Professional and Vocational Licensing.

All work required in the installation of pumps and pumping equipment shall be performed by well drillers with a C-57 license, pump installers with a C-57a license, or general contractors with an A license."

To expedite the process, we have been accepting applications for processing without the contractor's signature; however, we will require your licensed contractor to sign the permit document prior to beginning any work.

Upon receipt of your completed original application, we will accept your application as complete and you can then expect your application to be processed within ninety (90) days.

If you have any questions about your permit application, please contact Lenore Nakama of the Commission staff at 587-0218 or toll-free at 274-3141, extension 70218.

Sincerely,

RAE M. LOUI
Deputy Director

LN:ss
Enclosure (Original well construction/pump installation permit application)
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REMARKS:

LINE (1) Kaakaanui well (WCPA/PIPA)
LINE (2)
LINE (3)
APPLICATION FOR PERMIT

APPLICATION FOR PERMIT

1. APPLICANT: (circle primary contact a, b, or c)
(a) WELL OWNER

(b) LANDOWNER

(c) CONTRACTOR

2. WELL LOCATION: NAME: KAAKAANII, PUNOE, KOOLAU EA

3. (a) PROPOSED WORK:

- Drill New Well
- Deepen
- Install New Pump
- Modify Existing Well
- Redrill
- Modify Pump
- Abandon/Seal
- Replace Pump

(b) WELL TYPE:

- Dug
- Bored
- Driven
- Drilled
- Radial

4. PROPOSED PUMP INFORMATION:

- Rated Pump Capacity: ___________ gallons per minute

5. PROPOSED USE:

- Municipal (including hotels, stores, etc.)
- Domestic (individual, noncommercial water sys.)
- Irrigation (crop)
- Other:

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:

- 5,000 gallons per day

(b) METHOD OF FLOW MEASUREMENT:

- Flow-meter
- Open-pipe
- Orifice Plate
- Weir

7. PENDING ACTIONS:

- CDS
- SMA
- EIS
- EA

8. REMARKS, EXPLANATIONS:

(If more space is needed, continue on back)

I 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 30 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 reuse up to the permitted pump capacity.

Well Owner: ________________________________ Landowner: ________________________________ Contractor: ________________________________

Signature: ____________________________ Date: ____________

Signature: ____________________________ Date: ____________

Signature: ____________________________ Date: ____________

For Official Use Only:

Date Received __________________________
Date Accepted __________________________
Field Checked By __________________________
Date __________________________

Longitude __________________________
Latitude __________________________

Aquifer System Name: __________________________
State Well No. __________________________

Signature: ____________________________ Date: ____________

4 Nov 96 WCRI Form
9. PROPOSED WELL SECTION

Elevation at top of casing

Cement Grout

Rock Packing

Hole Diameter

Total Depth

Ground Elevation

Solid Casing:
- Material
- Length
- Diameter
- Wall thickness
- Perforated
- Screen
- Material
- Length
- Diameter
- Wall thickness
- Openings
- Open Hole

*Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.