MEMO and ROUTE SLIP

WCR 2 Check for Well No. 4757-04 (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)

   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

- Pump replacement
- How come we didn't get WCR2? Is WCR2 capture yet?
  - I'm not sure. Kinda weird-
  - the PIP app date = 4/18/02,
  - which is = WCR2 date!
  - It had a variance in 1/30/02
  - too, to install pump prior
to PIP issuance. no problem
October 15, 2003

Mr. Tyler Smith
Kekaha Venture, Inc.
PMB 428 75-1027 Henry Street
Kailua-Kona, HI 96740

Dear Mr. Smith:

Well Completion Report for Well No. 4757-04

We received your Well Completion Report Part II for the Kaupulehu #4 Well (Well No. 4757-04) on June 20, 2003 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,

ERNEST Y.W. LAU
Deputy Director

RI:ss

c: Wai'eli Drilling
1. State Well No.: 4757-4  Well Name: Kaupulehu #4  Island: Hawaii
2. Address: Kaupulehu, Hawaii  Tax Map Key: 7-2-3:03
3. Pump Installation Company: Wai'eli Drilling & Development
4. Date Pump Installed: 6/16/03
5. PERMANENT PUMP INFORMATION (Attach pump specifications and rating curve)
   - Pump Type, Make, Serial No.: Sub, Crown, S/N 12774
   - Motor Type, H.P., Voltage, rpm: Sub, 240HP, 2550V, 3500 RPM
   - Type of flow meter: Turbine which measures in Gal/Min
   - Model Number: Water Specialties  Serial Number 02-02857-6
   - Pump type (check one):
     ☑ Deep Well Turbine  ☐ Rotary
     ☐ Submersible  ☐ Rotary-Displacement  ☐ Reciprocating
     ☐ Centrifugal  ☐ Rotary-Gear  ☐ Impulse
6. Method of flow measurement:
   - ☑ Flowmeter  ☐ Water Specialties  ☐ Make Same
   - ☐ 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:
   Replaced submersible motor only - Re-ran pump.

Pump Installation Contractor (print) Wai'eli Drilling  C-57/C-57a/A Lic. No. C-16543
Signature Dr. S. W.  Date 6/17/03
Permittee (print) Kekaha Ventures, Inc.
Signature  Date 6/17/03
Bench mark elevation surveyed to nearest 0.01 ft. = \[
\frac{915.16}{ft. \text{ mean sea level}}
\]

Elevation of top of chase tube \[
\frac{915.16}{ft. \text{ mean sea level}}
\]

Pump intake depth = \[
955.92\]

(referenced to bench mark)

\[
-40.76\]

Chase tube depth = \[
955.28\]

(referenced to bench mark)

\[
-40.12\]

If airline installed, bottom of airline elevation = \[
\frac{955.28}{ft. \text{ mean sea level}}\]

\[
-40.12\]
Mr. Tyler Smith  
Kekaha Venture Inc.  
PMB 428  
75-1027 Henry Street  
Kailua-Kona, HI 96740

Dear Mr. Smith:

Pump Installation Permit  
Kaupulehu #4 Well (Well No. 4757-04)

Thank you for your application for the Kaupulehu #4 Well. We acknowledge your application as complete on April 8, 2002.

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.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. 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 your water use report form is enclosed for your use.

Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

Finally, this letter is notice that we have accepted your Well Completion Report - Parts I & II as complete.

If you have any questions, please call 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.

Aloha,

GILBERT S. COLOMA-AGARAN  
Chairperson

Enclosure  
c: Waimea Water Services
PUMP INSTALLATION PERMIT
Kaupulehu #4 Well, Well No. 4757-0

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 Kaupulehu #4 Well (Well No. 4757-04) at Kaupulehu, Hawaii, TMK 7-2-003: 003, 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 550 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: April 8, 2002
Expiration Date: April 8, 2004

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: 5/24/02
Printed Name: C-57, C-57a, or A License #: C-16513

Installer’s Signature: _______________________________ Date: 5/30/2002
Printed Name: _______________________________

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
Waimea Water Services
PUMP INSTALLATION PERMIT

Kaupulehu #4 Well, Well No. 4757-04

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 Kaupulehu #4 Well (Well No. 4757-04) at Kaupulehu, Hawaii, TMK 7-2-003: 003, 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.

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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.

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Permittee's Signature: __________________________________________________________________________ Date: ________________________________________________________________________________
Printed Name: ________________________________________________________________________________ Firm or Title: _______________________________________________________________________

Installer's Signature: __________________________________________________________________________ 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
USGS
Department of Health/Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
Waimea Water Services
Mr. Tyler Smith  
Kekaha Venture Inc.  
PMB 428  
75-1027 Henry Street  
Kailua-Kona, HI 96740  

Dear Mr. Smith:  

Pump Installation Permit  
Kaupulehu #3 Well (Well No. 4757-03)  

Thank you for your application for the Kaupulehu #3 Well. We acknowledge your application as complete on March 18, 2002. 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.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. 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 your water use report form is enclosed for your use.

Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

Finally, this letter is notice that we have accepted your Well Completion Report - Parts I & II as complete.

If you have any questions, please call 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.

Aloha,

GILBERT S. COLOMA-AGARAN  
Chairperson

Enclosure  
c: Waimea Water Services
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 Kaupulehu #3 Well (Well No. 4757-03) at Kaupulehu, Hawaii, TMK 7-2-003: 003, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

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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: March 18, 2002
Expiration Date: March 18, 2004
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: 3/15/02
Printed Name: COLOMA SWIM, Firm or Title: Kahu'a Venture, Inc

Installer's Signature: ___________________________ C-57, C-57A, or A License #C16543 Date: 3/20/00
Printed Name: COLOMA, Firm or Title: WEI E.I. SERVICES LTD.

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
Wai'me'a Water Services
Administrative Rules,

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

PUMP INSTALLATION PERMIT
Kaupulehu #3 Well, Well No. 4757-03

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

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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.

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Expiration Date: March 18, 2004

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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: 5/28/02
Printed Name: Oly Johnson Firm or Title: Konahe Venture, Inc.

Installer's Signature: ___________________________ Date: 5/28/02
Printed Name: Dale Stroup C-57, C-57a, or A License #C16548
Firm or Title: Wai Ewi Hauling & Haul.

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
Waimea Water Services
Memo to file
From: Ryan Imata
Date: 5/14/02
Subject: Kaupulehu 4 Well (Well No. 4757-04)

Called Dale Stromquist of Wai‘eli Drilling 5/14/02 and asked him for new check for $40 for this well, since check bounced ($25 + $15 filing fee). He told me he would send one in right away.
## DEPARTMENT OF LAND AND NATURAL RESOURCES

**DATE:** 4/25/02

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**REMARKS:**

**LINE (1)** David Love Well (WCPA)

**LINE (2)** Well No. 4957-03 (PIPA)

**LINE (3)** Well No. 4757-04 (PIPA)
April 25, 2002

Mr. Tyler Smith
Kekaha Venture Inc.
PMB 428
75-1027 Henry Street
Kailua-Kona, HI 96740

Dear Mr. Smith:

Pump Installation Permit
Kaupulehu #3 Well (Well No. 4757-03)

Thank you for your application for the Kaupulehu #3 Well. We acknowledge your application as complete on March 18, 2002.

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.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. 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 your water use report form is enclosed for your use.

Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

Finally, this letter is notice that we have accepted your Well Completion Report - Parts I & II as complete.

If you have any questions, please call 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.

Aloha,

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosure

c: Waimea Water Services
PUMP INSTALLATION PERMIT
Kaupulehu #3 Well, Well No. 4757-03

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 Kaupulehu #3 Well (Well No. 4757-03) at Kaupulehu, Hawaii, TMK 7-2-003: 003, 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 550 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 within sixty (60) days before 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: March 18, 2002
Expiration Date: March 18, 2004

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
Waimea Water Services
DEPARTMENT OF LAND AND NATURAL RESOURCES

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TOTAL: 75.00

REMARKS:
LINE (1) David Love Well (WCPA)
LINE (2) Well No. 4957-03 (PIPA)
LINE (3) Well No. 4757-04 (PIPA)

STORMY INC.
75-5608 Hienaloli Kahului Rd., #17
Kailua-Kona, Hawaii 96740

PAY TO THE ORDER OF Dept. Land & Natural Resources

$75.00

First Hawaiian Bank
Kona Branch
74-5660 Palani Road
Kailua Kona, Hawaii 96740

DATE 7/6/02

For

[Signature]

DEP MAKES:

SOURCE/COST

...
Mr. Tyler Smith  
Kekaha Venture Inc.  
PMB 428  
75-1027 Henry Street  
Kailua-Kona, HI 96740

Dear Mr. Smith:

Pump Installation Permit  
Kaupulehu #4 Well (Well No. 4757-04)

Thank you for your application for the Kaupulehu #4 Well. We acknowledge your application as complete on April 8, 2002.

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.

The permittee, well operator, and/or well owner are responsible for all conditions of the permit. 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 your water use report form is enclosed for your use.

Except for the monthly water use report form, please provide copies of all the information in this packet to your pump installation contractor.

Finally, this letter is notice that we have accepted your Well Completion Report - Parts I & II as complete.

If you have any questions, please call 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.

Aloha,

GILBERT S. COLOMA-AGARAN  
Chairperson

Enclosure

c: Waimea Water Services
PUMP INSTALLATION PERMIT
Kaupulehu #4 Well, Well No. 4757-04

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 Kaupulehu #4 Well (Well No. 4757-04) at Kaupulehu, Hawaii, TMK 7-2-003: 003, 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.

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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 is not a commitment that the pump capacity permitted here or even some lesser amount is guaranteed in the future.

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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 (8) 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.

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Date of Approval: April 8, 2002
Expiration Date: April 8, 2004

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

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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
USGS
Department of Health/ Safe Drinking Water & Wastewater Branch
Hawaii Department of Water Supply
Waimanu Water Services
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE

FROM: RYAN BAUER,G.  
CHING, F.  
DANBARA, S.  
FUJII, N.  
HARDY, R.  
HIGA, D.  
HIRANO, E.  
ICE, C.  
IMATA, R.  
JINNAI, R.  
JIMURA, I.  
NATHIAS, T.  
NAKAMA, L.  
NAKANO, D.  
NISHIOKA, L.  
OHYE, M.  
SAKODA, E.  
SUBIA, S.  
SWANSON, S.  
UYENO, D.  
YODA, K.  

DATE: 4/22  
SUSPENSE DATE: 

TO:  
INIT.  
TO:  
INIT.  
FOR:  
PLEASE:  
1 Review & Comment  
2 Type Final  
3 Approval  
4 Information  
5 File  

See Me  

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**COMMISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR PERMIT ISSUANCE**

**FROM:** RYAN  
**DATE:** 4/22/**  
**TO:**  
**TO:**  
**INIT:**  
**INIT:**  
**FOR:**  
**PLEASE:**

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</table>

**WELL NUMBER:** 4757-03  
**WELL NAME:** Kaupulehu 3

**ATTACHMENTS FOR WELL CONSTRUCTION PERMIT:**

1. COVER LETTER
2. PERMIT (2x)
3. DOH COMMENTS
4. LAND DIV. COMMENTS
5. PUMP TEST
6. WCR FORM

**TO BE SENT TO APPLICANT**

**FOR OFFICE USE ONLY**

**ATTACHMENTS FOR PUMP INSTALLATION PERMIT:**

1. COVER LETTER
2. WER FORM
3. WUR FORM
4. DOH COMMENTS
5. LAND DIV. COMMENTS

**TO BE SENT TO APPLICANT**

**FOR OFFICE USE ONLY**
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN  DATE: 11-Apr-02  SUSPENSE DATE: ____________

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WELL NUMBER  4757-04  WELL NAME  Kaupulehu 4

☐ WELL CONSTRUCTION ☐ PUMP INSTALLATION ☐ BOTH

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. MLS PRINTOUT
7 CONTRACTOR VERIF. DCCA LICENSE SCREEN PRINTOUT
8 ALL INFO FILLED IN
9 BACKGROUND CHECK

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

INCOMPLETE ACTION DATES:

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<td>12/29/1999</td>
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</table>
April 5, 2002

Commission on Water Resource Management  
P.O. Box 621  
Honolulu, Hawaii 96809  
Attention: Ryan Imata

RE: Kaupulehu Well #4

Ryan, 

Here are the originals of the completion reports and application for permit on Kaupulehu Well #4 that were faxed to you on Monday 4/1/02. Included is a check for $25.00.

Also, we have not received the permit on the variance as of yet.

Please contact Dale, or Bob at the office if you have any questions.

Sincerely,  

Tiffany Forward  
Office Manager
MEMO and ROUTE SLIP

WCR 1 Check for Well No. 4757-04 (survey to regulation memo)

1. Pump Tests Check
   Glenn Bauer [initial] (initial)
   Yes No If no, describe deficiency
   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

2. Construction Check
   Mitch Ohye [initial] (initial)
   Yes No If no, describe deficiency
   data complete
   followed WCPI Stds
   well database updated

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

ATTACHMENTS FOR PUMP INSTALLATION PERMIT:
1 COVER LETTER
2 PERMIT (2x)
3 DOH COMMENTS
4 LAND DIV. COMMENTS
5 WCR 2 FORM
6 WUR FORM

not necessary – only WCP.
To be sent to applicant

4. Roy _______ (initial) check
5. Subia _______ (initial) finalize
6. Linnel _______ (initial) signature
7. Charley/Lenore/Ryan File
**MEMO and ROUTE SLIP**

**WCR 1 Check for Well No. 4757-03**  
(survey to regulation memo)

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Yes</th>
<th>No</th>
<th>If no, describe deficiency</th>
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<td>1.</td>
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<td>Glenn Bauer</td>
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<tr>
<td></td>
<td>Glenn Bauer</td>
<td>(initial)</td>
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<td>Pump Tests Check</td>
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<td>proposed pump cap o.k.</td>
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<td>Aquifer Pump Test:</td>
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<td>T &amp; S analysis attached</td>
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<td><strong>Well Interference:</strong></td>
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<td>estimated Steady-State</td>
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<td>drawdown at 1-mile radius is</td>
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<tr>
<td></td>
<td>analysis attached</td>
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</tr>
<tr>
<td></td>
<td>Stream Surface Water Impacted:</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

| 2.   | **Construction Check** | Mitch Ohye | | |
|      | Mitch Ohye | (initial) | | |
|      | Construction Check | | | |
|      | data complete | | | |
|      | followed WCPI Stds | | | |
|      | well database updated | | | |

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

**ATTACHMENTS FOR PUMP INSTALLATION PERMIT:**

1. COVER LETTER
2. PERMIT (2x)
3. DOH COMMENTS
4. LAND DIV. COMMENTS
5. WCR 2 FORM
6. WUR FORM
7. GIS MAP
8. PUMP CHECK
9. DATABASE PRINTOUT
10. GLENN'S WORKSHEET
11. WELL CHECK PRINT

| 4.   | Roy | (initial) | |
| 5.   | Subia | (initial) | finalize |
| 6.   | Linnel | (initial) | signature |
| 7.   | Charley/Lenore/Ryan | File | |

---

**Note:** The pump test result is marked as "no step test."
April 5, 2002

Commission on Water Resource Management
P.O. Box 621
Honolulu, Hawaii 96809
Attention: Ryan Imata

RE: Kaupulehu Well #4

Ryan,

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Also, we have not received the permit on the variance as of yet.

Please contact Dale, or Bob at the office if you have any questions.

Sincerely,

Tiffany Forward
Tiffany Forward
Office Manager
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT - PART I
Well Construction

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.state.hi.us/dlnr/cwrm/

1. State Well No.: 4757-4  
   Well Name: Kaupulehu #4  
   Island: Hawaii

2. Address: Kaupulehu  
   Tax Map Key: 7-2-3:03

3. Drilling Company: Wai'elei Drilling & Development

4. Drilling method used during construction:  
   ☐ Rotary  ☐ Percussion  ☐ Other (describe)

5. Date Well Construction (drilled, cased, grouted) completed: 2/15/02
   Attach Driller's Log (7/26/99 DL Form)
   In addition to the driller's log, if a geologic log was prepared, please submit with this form.

6. Was the subject well cored?  ☐ Yes  ☐ No

7. Initial water-level encountered 912.6 ft. below ground  
   Date and time of measurement: 2/21/02 10:00 a.m.

8. Step-Drawdown Test completed?  ☐ No  ☐ Yes  
   Attach Step-Drawdown Test form (12/17/97 SDPTD Form)

9. Constant Rate Aquifer Test completed?  ☐ No  ☐ Yes  
   Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)

Parameters prior to pump test:

10. Water-level: 912.6 (+2.56) ft. above msl  
    Date and time of measurement: 2/21/02 10:00 a.m.

11. Chloride: 240 ppm

12. Temperature: 71 °F
    Date and time of measurement: 2/21/02 10:00 a.m.

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


15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)

16. Remarks:

Licensed Driller (print)  
Cohale Stromquist  
C-57 Lic. No.  C-16543

Signature  
Date 3/29/2002

Surveyor (print)  
DONALD C. McINTOSH  
L.P.L.S. Lic. No.  4968 HAWAII

Signature  
Date 3/29/2002

Permittee (print)  
Kekaha Water Co.  
Signature  
Date 3/29/2002
### Solid Casing Material:

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<td>ASTM A139</td>
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<tr>
<td>And compliant with</td>
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<tr>
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<td>ASTM A242</td>
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</table>
Top of well E4.I 913.4'

TD: 10 1/2'

14" hole

10' open hole

Cement

Total 640' to surface

12 3/4" O.D. casing

Stev. Vol.

18.5 Yds. (stiff) + 0.29 Yds. (ft)

Total cement 18.8 Yds.

Top of gravel @ 50% less

Top of sand & cement @ 640'

Top of basket @ 650'

Lower basket @ 6600'

355' in. to lower basket

=7.5' from top of gravel

Shots 365 in.
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<th>Depths (ft)</th>
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<td>897 to 943</td>
<td>Soft (AgO @ 913, 49%)</td>
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Remarks:
## State of Hawaiʻi
**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 821, 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.state.hi.us/dlnr/cwrm/

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1. **State Well No.:** 4757-04  
   **Well Name:** Kaupulehu #4  
   **Island:** Hawaii

2. **Address:** Kaupulehu  
   **Tax Map Key:** 7-2-3:03

3. **Pump Installation Company:** Wai'el'i Drilling & Development

4. **Date Pump Installed:** 3/27/02

5. **PERMANENT PUMP INFORMATION**
   - **Pump Type, Make, Serial No.:** Turbine Crown S/N 12774 Rated Capacity: 550 gpm
   - **Motor Type, H.P., Voltage, rpm:** Submersible 200HP 3500
   - **Type of flow meter:** Turbine which measures in Gals

6. **Method of flow measurement:** Water Specialty
   - □ Flowmeter  
   - □ Weir*  
   - □ Open Pipe*  
   - □ Orifice*  
   - □ Other*, explain below
   - *attach schematic

7. **Other remarks/comments:**

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**Pump Installation Contractor (print):** Wai'el'i Drilling & Development
**Lic. No.:** C-57/C-57a/A  
**Signature:** [Signature]  
**Date:** 3/29/2002

**Permittee (print):** Kealani Loutona Inc.  
**Signature:** [Signature]  
**Date:** 3/29/2002

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WCR2 Form 5/2/00
9. AS-BUILT PUMP SECTION

(Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = 915.16 ft. mean sea level

Elevation of top of chase tube = 915.16 ft. mean sea level

Pump intake depth = 958.93 ft.
(referenced to bench mark)

Chase tube depth = 949.83 ft.
(referenced to bench mark)

If airline installed, bottom of airline elevation = -41.81 ft. mean sea level
ELEVATION CERTIFICATION
IRRIGATION WELL NO. 4

NANE'A GOLF CLUB
TMK: (3) 7-2-03:Por. 03

I CERTIFY that the following elevations were obtained upon the existing Well Structure as of March 25, 2002.

8X8 feet slab ....................... 914.67 feet
3X3 feet slab ...................................... 915.16 feet
1.1 feet wide metal cap .................. 915.18 feet

THIS CERTIFICATION made on March 25, 2002 is based upon the temporary bench mark on the concrete slab of Well #5 by R. M. Towill Corporation. The elevations are referenced to mean sea level and are recorded on March 25, 2002 in Field Book T35, Page 58 and in Job File 3178-02.

Kailua-Kona, Hawaii
Job No: 3178-02
April 3, 2002
APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) □ WELL OWNER: Kekaha Venture, Inc. Contact Person: Tyler Smith Phone: 887-0264
   Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740
   Fax: 887-0125
   E-mail: 

(b) □ LAND OWNER: Kamehameha Schools Contact Person: Rick Robinson Phone: 322-5300
   Mailing Address: 78-6831 Alii Dr. Suite 232, KAILUA-KONA, HI 96740
   Fax: 808-322-9446
   E-mail: RRobinson@KSB.EdU

(c) □ CONTRACTOR: Wai'eli Drilling Contact Person: Dale Stromquist Phone: 324-1420
   Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740
   Fax: 322-0928
   E-mail: 

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

2. WELL NAME: Kaupulehu #4 Island: Hawaii
   Address: Kaupulehu
   Tax Map Key: 7-2-3-03 Zone: Sec: 2 Tax: 0 0 0 0 0
   Plat Parcel: C-16543 (circle one: C-57, C-57/a, or A)

3. PROPOSED WORK: (check all that apply)
   □ Construct New Well
   □ Install New Pump
   □ Modify Existing Well
   □ Modify Pump
   □ Abandon/Seal
   *State Well No.: 4757-04 (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: 550 gallons per minute

6. PROPOSED USE: (check all that apply)
   □ Municipal (including hotels, stores, etc.) □ Industrial
   □ Domestic (individual, noncommercial water system)
   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? □ Yes □ No
   □ Irrigation (crop) □ Golf Course □ No. of Acres: 120
   □ Military
   □ Other (explain)

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 0.6 Million 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
   □ Required, date approved

   Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OECG at 586-4185
   □ Not Required
   □ Required, date published in OECG bulletin

   Special Management Area Permit (SMAP) To determine if a SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-8288; for Maui county, call 270-7235; on Kauai, call 241-6677.
   □ Not Required
   □ Required, date approved

9. REMARKS, EXPLANATIONS:

For Official use only:

Well Owner Kekaha Venture, Inc. Landowner Kamehameha Schools Contractor Wai'eli Drilling
Signature ______________________ ______________________ ______________________
Date 2-5-02 2-5-02 5-6-02

For official use only

Latitude __________________________ Aquifer System No. __________________________
Longitude __________________________ State Well No. __________________________
10. PROPOSED WELL SECTION

(please attach schematic different from diagram provided below)

915.16
Elevation at top of casing ____________ ft., m.s.l.

Hole Diameter: _______ in.

Minimum of 2 Radius & 4" thick concrete pad to contain benchmark surveyed to nearest 0.01 ft.

912.6
Ground Elevation: _______ ft., m.s.l.

Solid Casing (90% x Ground Elev. - Water Level Elev.)
Total Length: _______ ft.
Nominal Diameter: _______ in.
Wall Thickness: _______ in.
Bottom Elevation: _______ ft., m.s.l.

Open Casing: _______ Perforated _______ Screen
Total Length: _______ ft.
Nominal Diameter: _______ in.
Wall Thickness: _______ in.
Bottom Elevation: _______ ft., m.s.l.

note: Neither bentonite nor mud should be used in calculated mean station elevations.

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec 5L
- ASTM A53
- ASTM A139

Stainless Steel: compliant with (check one or more):
- ASTM A242
- Type E
- Type S
- Grade B
- Other

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

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/AWWA C200
- API Spec 5L
- ASTM A53
- ASTM A139

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

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
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

Rock or Gravel Packing:
Top Of Bskts: _______ ft.
Material:
- Crushed Basalt
- Rounded Gravel

Estimate Water Level Elevation: _______ ft., m.s.l.

Example: Estimated 2 ft. Water Level Elev. = Bottom Elevation of Well Limit = (Water Elevation - 2 ft. - Water Level Elev.) / 4

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 = (Water Elevation - 2 ft. - Water Level Elev.) / 4

- 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.

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

- Note: Neither bentonite nor mud should be used in calculated mean station elevations.

- It is recommended to use the top elevation of the well, which is the elevation of the water level, as this is the elevation at which the water will be accessed.

- 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.

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

- Open Hole: Diameter: _______ in.
- Length: _______ ft.
- Bottom Elevation: _______ ft., m.s.l.

- It is recommended to use the top elevation of the well, which is the elevation of the water level, as this is the elevation at which the water will be accessed.

- 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.

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

- Open Hole: Diameter: _______ in.
- Length: _______ ft.
- Bottom Elevation: _______ ft., m.s.l.

- It is recommended to use the top elevation of the well, which is the elevation of the water level, as this is the elevation at which the water will be accessed.

- 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.

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

- Open Hole: Diameter: _______ in.
- Length: _______ ft.
- Bottom Elevation: _______ ft., m.s.l.

- It is recommended to use the top elevation of the well, which is the elevation of the water level, as this is the elevation at which the water will be accessed.

- 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.

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

- Open Hole: Diameter: _______ in.
- Length: _______ ft.
- Bottom Elevation: _______ ft., m.s.l.
For non-salt water Basal Wells: PVC Plastic conforming to ASTM A53 or Schedule 40, Grade B.

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): ANSI/AWWA C200, API Spec. 5L, ASTM A53, ASTM A139
- Stainless Steel: (check one): ASTM A242, Type E, Type S, Grade B, Other
- ABS Plastic conforming to ASTM F480 and ASTM D1527: Schedule 40, Schedule 80
- PVC Plastic conforming to ASTM F490 and ASTM D1785 or ASTM D2241: 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/AWWA C200, API Spec. 5L, ASTM A53, ASTM A139
- Stainless Steel: (check one): ASTM A242, Type E, Type S, Grade B, Other
- ABS Plastic conforming to ASTM F480 and ASTM D1527: Schedule 40, Schedule 80
- PVC Plastic conforming to ASTM F490 and ASTM D1785 or ASTM D2241: 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

For non-salt water Basal Wells: Bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation: + Water Level Elev.)

Example: Estimated + 2 ft. Water Level Elev. + Bottom Elevation of Well Limit = (2 + 1.9) ft. = 3.9 ft.
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. This Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-225-0225. 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. (a) □ WELL OWNER: Kekaha Venture, Inc. Contact Person: Tyler Smith  
Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740  
Fax: 887-0125

(b) □ LAND OWNER: Kamehameha Schools  
Mailing Address: 78-643 Alii Dr. Suite 232, Kailua-Kona, HI 96740  
Fax: 808-322-9416

(c) □ CONTRACTOR: Wai‘ele Drilling  
Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740  
Fax: 322-0928

Signature ___________________________ ___________________________ ___________________________

For Official Use Only:

WCP/PA Form 92101

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

2. WELL NAME: Kaupulehu #4  
Island: Hawaii

Address Kaupulehu ___________________________ Tax Map Key: ___________________________  
Zone ___________________________ Sec. ___________________________  
Parc. ___________________________  

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 quad 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* □

*State Well No.: 4757-04  
(if unknown, please call Commission at 808-522-2525)

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

5. PROPOSED PUMPING RATE: 550  
gallons per minute  

6. PROPOSED USE: (check all that apply)

□ Municipal (including hotels, stores, etc.) □ Industrial  
□ Domestic (individual, noncommercial water system) □

□ Military

□ 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  
□ Irrigation (crop) Golf Course  
□ No. Of Acres: 120

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 Million  
gallons per day  
(b) METHOD OF FLOW MEASUREMENT: □ Flowmeter □ Open-pipe □ Weir □ Orifice □ 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 OEQC at 586-4185  
□ Not Required if required, date published in OEQC bulletin ___________________________

Special Management Area Permit (SMAP) To determine if an SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-6236; for Maui county, call 270-7235; on Keaau, call 241-6677.  
□ Not Required if required, date approved ___________________________

9. REMARKS, EXPLANATIONS: ___________________________

(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 permissible withdrawals and shall not guarantee the pump capacity or future use up to the permitted pump capacity; 5) if 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: Kekaha Venture, Inc.  
Signature ____________________________________________ Date ___________________________

Landowner: Kamehameha Schools  
Signature ____________________________________________ Date ___________________________

Contractor: Wai‘ele Drilling  
Signature ____________________________________________ Date ___________________________

For official use only  
Latitdue ___________________________ Aquifer System No. ___________________________  
Longitude ___________________________ State Well No. ___________________________
10. PROPOSED WELL SECTION
(See diagram for schematic)

**Solid Casing Material:**
- Carbon Steel: conforming to ASTM A424 (check one or more):
  - Type E
  - Type S
  - Grade B
- Stainless Steel: (check one):
  - ASTM A409 (product welding)
  - ASTM A312 (monitor welding)
- ABS Plastic conforming to ASTM F480 and ASTM D1527 (check one):
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and ASTM D785 or ASTM D2241 (check one):
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic (check one):
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Motor 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):
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A409 (producing welds)
  - ASTM A312 (monitor welding)
- ABS Plastic conforming to ASTM F480 and ASTM D1527 (check one):
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and ASTM D785 or ASTM D2241 (check one):
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic (check one):
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrally Cast Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Motor 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

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

\[
\text{Bottom Elevation of Well Limit} = \left(\frac{\text{Water Level Elevation} - 4.5}{4}\right) + 1.58 \text{ ft.}
\]

Example: Estimated Water Level Elevation = 2.0 ft.

\[
\text{Water Level Elevation} = \left(\frac{\text{Bottom Elevation of Well Limit} - 1.58 \text{ ft.}}{4}\right) + 4.5 \text{ ft.}
\]

*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 report and referenced to a benchmark which has been established by a surveyor licensed by the State.*
WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: Kaupulehu #4  Island: Hawaii
   Address: Kaupulehu
   Tax Map Key: 7 2 03
   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 quad map
   (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/Seal*

   *State Well No.: 4757-04 (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: 550 gallons per minute

6. PROPOSED USE: (check all that apply)
   - Municipal (including hotels, stores, etc.) ☐
   - Industrial ☐
   - Domestic (individual, noncommercial water system) ☐
   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? ☐ Yes ☐ No
   - Irrigation (crop) ☐
   - Golf Course ☐
   - No. of Acres: 120
   - Military ☐
   - Other (explain): ☐

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 Million gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
      - Flowmeter ☐
      - Open-pipe ☐
      - Water ☐
      - 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
   - Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEC at 586-4185

9. REMARKS, EXPLANATIONS:

   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) if 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.

   For official use only
   Latitude
   Longitude

   For official use only
   Aquifer System No.
   State Well No.

WCPIPA Form 82101
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Minimum of 2 Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft, whichever is less)

Ground Elevation 14.0 ft, msl*

Cement Grout 640 ft (min. 70% of distance from ground elevation to top of water surface or 500 ft, whichever is less)

Anular space between hole and casing (min 3")

3 in

Rock or Gravel Packing

Top Of Baskets

5 ft

Material:

Crushed Basalt

Rounded Gravel

Estimated Water Level:

Elevation: 2.56 ft, msl*

Total Depth:

1013 ft

Solid Casing:

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

Total Length: 972.5 ft

Nominal Diameter: 12 in

Wall Thickness: .375 in

Bottom Elevation: 57.34 ft, msl*

Open Casing & Perforated: Screen

Total Length: 40.5 ft

Nominal Diameter: 12 in

Wall Thickness: .375 in

Bottom Elevation: 97.84 ft, msl*

Note: Neither bentonite nor mud should be used in connection with drilled wells.

Open Hole:

Length: N/A ft

Diameter: N/A in

Bottom Elevation: N/A 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 = (Water Elevation - 41 x Water Level Elev) / 4

Example: Estimated 2 ft, Water Level Elev. = Bottom Elevation of Well Limit = (2 - 41 x 2) = 1.85 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 9 □ Other

Stainless Steel: (check one) □ ASTM A409 (produced wells) □ ASTM A312 (monitor wells)

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/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139

And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade 9 □ Other

Stainless Steel: (check one) □ ASTM A409 (produced wells) □ ASTM A312 (monitor wells)

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

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. WELL NAME:</td>
<td>Kaapulehu #4</td>
</tr>
<tr>
<td>Island:</td>
<td>Hawaii</td>
</tr>
<tr>
<td>Address:</td>
<td>Kaapulehu</td>
</tr>
<tr>
<td>Tax Map Key:</td>
<td>7 - 2 - 3 - 03</td>
</tr>
</tbody>
</table>

**PROPOSED WORK:**
- [x] Construct New Well
- [ ] Modify Existing Well
- [x] Install New Pump
- [x] Modify Pump
- [ ] Abandon/Seal

**CONSTRUCTION:**
- [x] Drilled
- [x] Dig
- [ ] Shaft
- [x] Tunnel

**CONSTRUCTION:**
- Is this well part of a battery of wells? [x] Yes [ ] No
- [x] Yes

**PUMPING RATE:**
- [ ] 550 gallons per minute
- [ ] Other

**PROPOSED USE:**
- [x] Municipal (including hotels, stores, etc.)
- [ ] Industrial
- [x] Domestic (individual, noncommercial water system)
- [x] Irrigation (crop)
- [x] Golf Course
- [ ] Other (explain)

**AMOUNT OF WITHDRAWAL:**
- [ ] 6 Million gallons per day
- [ ] Other

**METHOD OF FLOW MEASUREMENT:**
- [ ] Flowmeter
- [ ] Open Pipe
- [x] Well
- [ ] Orifice

**LEGAL REQUIREMENTS:**
- [ ] Not Required

**SIGNATURES:**
- WELL OWNER: Kekaha Venture Inc.
- LANDOWNER: Rick Robinson
- CONTRACTOR: Wai'ell Drilling

**FOR OFFICIAL USE ONLY:**
- Date: 2-5-02

**WCPA Form 92101**
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

```
915.16
Elevation at top of casing ______ ft., msl

912.6
Bottom Elevation: ____ ft., msl

Cement Grout: 640 ft.
(min. 75% 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 in.

Rock or Gravel Packing
Top of Bksts
5 in.
Material
[] Crushed Basalt
[] Rounded Gravel

Total Depth
1013 ft.

Hole Diameter: 19 in.

Minimum of 2 Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)
Ground Elevation: 914.04 ft., msl

Solid Casing:
- 90% x (Ground Elev - Water Level Elev)
  Total Length: 972.5 ft.
  Nominal Diameter: 12 in.
  Wall Thickness: .375 in.
  Bottom Elevation: -57.34 ft., msl

Open Casing:
- 6% Perforated
- Screen
  Total Length: 40.5 ft.
  Nominal Diameter: 12 in.
  Wall Thickness: .375 in.
  Bottom Elevation: -97.84 ft., msl

Solid Casing:
- Stainless Steel:
  [ASTM A249, Type E]
  [ASTM A249, Type S]
  [Other]
  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 D2296
    [ ] Centrifugally Cast Resin Pipe conforming to ASTM D2297
    [ ] 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:
- Stainless Steel:
  [ASTM A409, Type E]
  [ASTM A409, Type S]
  [Other]
  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 D2296
    [ ] Centrifugally Cast Resin Pipe conforming to ASTM D2297
    [ ] 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
```

* 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 shall not be deeper than 1/4 of aquifer thickness or:
- Bottom Elevation of Well Limit = (Water Elevation - 1/4 Water Level Elev)

Example: Estimated + 2 ft. Water Level Elev. --. - Bottom Elevation of Well Limit = (2 - 1/4(18.5)) = 16.5 ft.

For non-salt water Basal Wells - bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or:
  - Bottom Elevation of Well Limit = (Water Elevation - 1/4 Water Level Elev)

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

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 nonrefundable filing fee of $300 payable to the Dept of Land and Natural Resources. This 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/cwrm.

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

1. (a) ☐ WELL OWNER: Kekaha Venture, Inc Contact Person: Tyler Smith Phone: 887-0264
   Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740
   Fax: 887-0125

2. (b) ☐ LAND OWNER: Kamehameha Schools Contact Person: Rick Robinson Phone: 322-5300
   Mailing Address: 78-6831 Alii Dr, Suite 222, Kailua-Kona, HI 96740
   Fax: 808-322-9416

3. (c) ☐ CONTRACTOR: Waiʻele Drilling Contact Person: Dale Stromquist Phone: 324-1420
   Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740
   Fax: 322-0928

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

2. WELL NAME: Kaupulehu #4 Island: Hawaii
   Address: Kaupulehu
   (a) Tax Map Key: Zone: 3 Dec 3 03
      (b) A property tax map, showing well location referenced to established property boundaries
      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 boundary

3. PROPOSED WORK:
   ☐ Construct New Well
   ☐ Install New Pump
   ☐ Modify Existing Well
   ☐ Modify Pump
   ☐ Abandon/Seal

   State Well No. 4757-04
   "State Well No. "4757-04" (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:
   550 gallons per minute

6. PROPOSED USE:
   ☐ Municipal (including hotels, stores, etc.)
   ☐ Industrial
   ☐ Domestic (individual, noncommercial water system)
   ☐ Irrigation (crop)
   ☐ Golf Course
   ☐ No. of Acres: 120
   ☐ Military
   ☐ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 0.6 Million gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
      ☐ Flowmeter
      ☐ Open-pipe
      ☐ Orifice
      ☐ 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 OEQC at 586-4185
   ☐ Not Required
   ☐ If required, date published in OEQC bulletin ___________________
   Special Management Area Permit (SMA) To determine if an SMA is necessary, call Oahu, 527-5374; on Hawaii, 961-8288; for Maui county, call 270-7235; on Kauai, call 241-6077
   ☐ Not Required
   ☐ If required, date approved ___________________

9. REMARKS, EXPLANATIONS:

NOTE: Signing below indicates the signatories understand and warrant 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 attains 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 $100.00 per day.

Well Owner: Kekaha Venture, Inc (print legibly)
Signature: ________ Date: 2/5/02

Landowner: Kamanu Regency (print legibly)
Signature: ________ Date: 2/5/02

Contractor: Waiʻele Drilling (print legibly)
Signature: ________ Date: 2/15/02

For official use only
Latitute: Aquifer System No.
Longitude: State Well No.
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
- 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/AWWA C200 □ API Spec 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
- 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

* 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 = (Water Elevation - 1/4 x Aquifer Thickness) + 18.5 ft.

Example: Estimated + 2 ft. Water Level Elev. - Bottom Elevation of Well Limit = (2 ft. - 1/4 x 10 ft) + 18.5 ft.
TO:  Honorable Bruce S. Anderson, Director
     Department of Health
     Attention:  Dennis Tulang, Wastewater Branch
     William Wong, Safe Drinking Water Branch

FROM:  Timothy E. Johns, Chairperson
        Commission on Water Resource Management

SUBJECT:  Well Construction Permit / Pump Installation Permit Application for
           Kaupulehu 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and -4756-01)

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 April 10, 2000.

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.

R1: ss
Attachment(s)

RESPONSE:

[1] 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.

[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 plans 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 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.

[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 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.

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

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

[1] No comments/objections

Contact Person  William Wong
                  Phone:  586-4258

Signed:  William Wong
                  Date:  04/04/00
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 96801-3378. 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 stream or river bed, 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 Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Well Construction

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 96803. 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.state.hi.us/dln/wrm/.

1. State Well No.: 4757-4
   Well Name: Kaupulehu #4
   Island: Hawaii
2. Address: Kaupulehu
   Tax Map Key: 7-2-3:03
3. Drilling Company: Wai'eli Drilling & Development
4. Drilling method used during construction: ☐ Rotary ☐ Percussion ☐ Other (describe)
5. Date Well Construction (drilled, cased, grouted) completed: 2/15/02
   Attach Driller's Log (7/26/99 DL Form)
   In addition to the driller's log, if a geologic log was prepared, please submit with this form.
6. Was the subject well cored? ☐ Yes ☐ No
7. Initial water-level encountered 912.6 ft. below ground Date and time of measurement: 2/21/02
8. Step-Drawdown Test completed? ☐ No ☐ Yes
   Attach Step-Drawdown Test form (12/17/97 SDPTD Form)
9. Constant Rate Aquifer Test completed? ☐ No ☐ Yes
   Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)
Parameters prior to pump test:
10. Water-level: @ 912.6 (+2.56) ft. above msl Date and time of measurement: 2/21/02 10:00 a.m.
11. Chloride: 240 ppm Date and time of sampling: 2/21/02 10:00 a.m.
12. Temperature: 71 °F Date and time of measurement: 2/21/02 10:00 a.m.
13. Fill in the as-built section on the other side of this sheet.
15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)
16. Remarks:

Licensed Driller (print): Dale Stromquist C-57 Lic. No. C-16543
Signature
Date 3/24/02

Surveyor (print): Donald C. McIntosh L.P.L.S. Lic. No. 4968 HAWAI
Signature
Date 3/24/02

Permittee (print): Keokea Hartman
Signature
Date 3/24/02
13. AS-BUILT WELL SECTION

(Attach as-built if different from diagram provided below)

Elevation at top of casing (to nearest 0.01 ft.)

Ground Elevation: 914.01 ft., msl

Hole Diameter: 19 in.

Total Depth 1013 ft.

See As-Built Sketch

Solid Casing: (2.90% x (Ground Elev.-Water Level Elev))

Length: 972.5 ft.
Nominal Diameter: 12 in.
Wall Thickness: 0.375 in.
Bottom Elevation: -57.34 ft., msl

Open Casing: [ ] Perforated [ ] Screen

Length: 40.5 ft.
Nominal Diameter: 12 in.
Wall Thickness: 0.375 in.
Bottom Elevation: -97.84 ft., msl

Open Hole:
Length: N/A ft.
Diameter: N/A in.
Bottom Elevation: N/A ft., msl

Solid 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 A312 (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
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 wells) [ ] ASTM A312 (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
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WELL NUMBER:

Kapaaheu Field, Unit F-4 (4151-04)

DRILLER'S LOG (1/2/99 DL Form)

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>0.0</td>
<td>85% loose/sandy</td>
<td></td>
</tr>
<tr>
<td>85.0</td>
<td>80% mixed layers</td>
<td></td>
</tr>
<tr>
<td>130.0</td>
<td>198% mixed layers, mostly soft</td>
<td></td>
</tr>
<tr>
<td>198.0</td>
<td>30% mixed layers</td>
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<tr>
<td>205.0</td>
<td>23% soft/loose</td>
<td></td>
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<tr>
<td>236.0</td>
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<td></td>
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<tr>
<td>282.0</td>
<td>94% hard</td>
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<td>294.0</td>
<td>33% med/soft</td>
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<tr>
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<td>41% soft</td>
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<td>53% med/soft</td>
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<tr>
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Remarks: 
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<td>12.4</td>
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<td>920.2</td>
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<td>13.1</td>
<td>2</td>
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Table 1 (DPTD Form 12/17/97)
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<tr>
<th>Depth (ft)</th>
<th>Water Level (ft)</th>
<th>Density (lb/gal)</th>
<th>Specific Gravity</th>
<th>TDS (ppm)</th>
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T.D.S. = 6000 ppm
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<th>Actual Elapsed Time (min)</th>
<th>Depth (nearest 0.1 ft)</th>
<th>Drawdown (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (gpm) (at least 3 steps)</th>
<th>EC</th>
<th>Data in this Table Is for:</th>
<th>Temp</th>
<th>Press</th>
<th>Type</th>
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**Table 1 (SDPTD Form 12/17/87)**

**STEP-DRAWDOWN PUMP TEST DATA**

(not required for wells producing < 100,000 gpd or 70 gpm)

- **Pumped Well No.** 4757-01
- **Pumped Well Name**
- **Target Q**
- **Distance between Obs. & Pumped Well**
- **Reference pt. for depth to water**
- **Static Water Level @ start of test**
- **START TEST Date: 3/9/92**
- **Time of day:** 9:17
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 808-2225. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwm/

<table>
<thead>
<tr>
<th>1. State Well No.:</th>
<th>4757-04</th>
<th>Well Name:</th>
<th>Kaupulehu #4</th>
<th>Island:</th>
<th>Hawaii</th>
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<td>2. Address:</td>
<td>Kaupulehu</td>
<td>Tax Map Key:</td>
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<td>3. Pump Installation Company:</td>
<td>Wai‘eli Drilling &amp; Development</td>
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<td>4. Date Pump Installed:</td>
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<td>5. PERMANENT PUMP INFORMATION</td>
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<td>Type of flow meter:</td>
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<td>☑ Weir*</td>
<td>☑ Open Pipe*</td>
<td>☑ Orifice*</td>
<td>☑ Other*, explain below</td>
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<td>*attach schematic</td>
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<td>7. Fill in the as-built section on the other side of this sheet.</td>
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<td>Other remarks/comments:</td>
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Pump Installation Contractor (print) | Wai‘eli Drilling & Development |
Signature | Date 3/29/2002 |
Permittee (print) | Kukui Nootses, Inc. |
Signature | Date 3/29/2002 |

WCR2 Form 5/2/00
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

- **Bench mark elevation surveyed to nearest 0.01 ft. = 915.16 ft. mean sea level**

- **Elevation of top of chase tube = 915.16 ft. mean sea level**

- **Pump intake depth = 958.93 ft. (referenced to bench mark)**

- **Chase tube depth = 949.83 ft. (referenced to bench mark)**

- **If airline installed, bottom of airline elevation = -41.81 ft. mean sea level**
APPLICATION FOR PERMIT

Well Construction and/or Pump Installation

APPLICANT INFORMATION:

1. (a) WELL OWNER: Kekaha Venture, Inc. Contact Person: Tyler Smith Phone: 887-0264
   Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740
   Fax: 887-0125

   (b) LAND OWNER: Kamehamea Schools Contact Person: Rick Robinson Phone: 322-5500
   Mailing Address: 78-481 Alii Dr. Suite 272, Kailua-Kona, HI 96740
   Fax: 887-322-9444

   (c) CONTRACTOR: Wai'elli Drilling Contact Person: Dale Stromquist Phone: 324-1420
   Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740
   Fax: 322-0928

WELL & PUMP INFORMATION:

2. WELL NAME: Kaupulehu #4 Island: Hawaii
   Address: Kaupulehu
   Tax Map Key: 7 - 2 - 11 - 03
   Annot: (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 quad 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
   - Drilled
   - Dug
   - Shaft
   - Tunnel

   *State Well No.: 4757-04 (If unknown, please call Commission at 587-0225)

4. CONSTRUCTION:
   - Gallons per minute

5. PROPOSED PUMPING RATE:
   - Gallons per minute

6. PROPOSED USE:
   (check all that apply)
   - Municipal (including hotels, stores, etc.)
   - Industrial
   - Domestic (individual, noncommercial water system)
   - Other (specify)

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   - Gallons per day
   - Million gallons per day

8. LEGAL REQUIREMENTS:
   - Conservation District Use Permit (CDUP): To find out if a CDUP is necessary, call DLNR Land Division at 587-0414
   - Special Management Area Permit (SMAP): To determine if a SMAP is necessary, call DLNR to receive a SMAP
   - Environmental Impact Statement (EIS) or Environmental Assessment (EA): To determine if an EIS or EA is necessary, call DEQ at 585-4125
   - Other:

9. REMARKS, EXPLANATIONS:
   - For official use only

OTHER IMPORTANT INFORMATION:

NOTE: Signing below indicates the signatory 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 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 corrective 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 into compliance, and any work done while the permit is in suspension may result in fine of up to $1000/day.

For Official Use Only

Latitude: Aquifer System No.
Longitude: State Well No.

For Official Use Only:

WCPA Form 821501
10. PROPOSED WELL SECTION

Hole Diameter: 19 in
Elevation at top of casing: 915.16 ft. msl
Minimum of 2 Radius & 4" Thick Concrete Pad to contain benchmark surveyed to nearest 0.01 ft.
Ground Elevation: 914.01 ft. msl

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

For non-salt water Basal Wells - bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation + 1/4 Water Level Elevation) / 4

Example: Estimated + 2 ft. Water Level Elevation + Bottom Elevation of Well Limit = (2.6 ft. + 1.8 ft.) / 4 = 1.17 ft.

Solid Casing Material:
- Carbon Steel, API Spec. 5CT, ASTM A53, ASTM A139
- Stainless Steel, ASTM A403
- ABS Plastic, ASTM F480
- PVC Plastic, ASTM D2986
- Thermoset Plastic, ASTME 3296

Open Casing Material:
- Carbon Steel, API Spec. 5CT, ASTM A53, ASTM A139
- Stainless Steel, ASTM A403
- ABS Plastic, ASTM F480
- PVC Plastic, ASTM D2986
- Thermoset Plastic, ASTME 3296

Total Depth: 1013 ft.
Estimated Water Level Elevation: 912.6 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 shall not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation + 1/4 Water Level Elevation) / 4

Example: Estimated + 2 ft. Water Level Elevation + Bottom Elevation of Well Limit = (2.6 ft. + 1.8 ft.) / 4 = 1.17 ft.
Well Name:  Kaupulehu Irr. Well No. 4 (4757-04)
Date of Test: March 30, 2002
Date of Analysis: 03-Apr-02

Alternative way for determining T from step-drawdown data (Mink, per. comm)

\[ Q = \text{ft}^3/\text{d} \]
\[ \text{Q1 (gpm)} = 510 = 98175 \text{ ft}^3/\text{d} \]
\[ \text{Q2 (gpm)} = 350 = 67375 \text{ ft}^3/\text{d} \]

Set up two equations:

\[ s = 101 + nQ1^2 \]
\[ s = 2Q2 + nQ2^2 \]

\[ \text{Q2} = 67375 \text{ s2} = 5.56 \]
\[ \text{Q1} = 98175 \text{ s1} = 8.93 \]

Well Depth below sea level = 98

Radius of well (ft) = 0.5 = \( r \)

\[ n = s1 - \left( \frac{Q1}{Q2}\right)s2/Q1(Q1-Q2) = 2.7E-10 \]
\[ j = s/Q - nQ = 6.4E-05 \]

Laminar flow equation:

\[ s = jQ = 6.289839 \quad 70.43\% \quad \text{Head loss due to laminar flow} \]

Thiem Eq.

\[ T = \frac{1}{2}pj\ln(re/r) \]

\[ re = \text{Well Depth BSL} \times 1.6 = 156.8 \]

Therefore:

\[ T = \frac{1}{2}pj\ln(re/r) = 14279 \text{ ft}^2/\text{d} \]
March 15, 2002

CERTIFIED MAIL
DELIVERY CONFIRMATION
RETURN RECEIPT REQUESTED

Linnel T. Nishioka, Deputy Director
c/o Ryan Imata
Commission on Water Resource Management
PO Box 621
Honolulu, HI 96809

SUBJECT: Well Completion Report – Part II
Kaupulehu Well #3 (4757-03)
TMK: (3)-7-2-3:03

Dear Linnel:

Please find enclosed the Well Completion Report – Part II for Kaupulehu Well #3 (4757-03) for your files.

If you have any questions, please call me at (808) 885-5941.

Mahalo,

Stephen P. Bowles

SPB: mdc

Enclosures

cc: Tyler Smith, Kekaha Venture, Inc.  
C. Dale Stromquist, Wai`eli Drilling & Development
March 15, 2002

CERTIFIED MAIL
DELIVERY CONFIRMATION
RETURN RECEIPT REQUESTED

Linnel T. Nishioka, Deputy Director
c/o Ryan Imata
Commission on Water Resource Management
PO Box 621
Honolulu, HI 96809

SUBJECT: Well Completion Report – Part I
Kaupulehu Well #3 (4757-03)
TMK: (3)-7-2-3:03

Dear Linnel:

Please find enclosed the Well Completion Report – Part I for Kaupulehu Well #3 (4757-03) for your files.

If you have any questions, please call me at (808) 885-5941.

Mahalo,

Stephen P. Bowles

Enclosures

cc: Tyler Smith, Kekaha Venture, Inc.
    C. Dale Stromquist, Wai‘eli Drilling & Development
## WELL COMPLETION REPORT - PART I
### Well Construction

**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.state.hi.us/dlnr/cwrm/](http://www.state.hi.us/dlnr/cwrm/).

### 1. State Well No.: 4757-03  
Well Name: Kaupulehu #3  
Island: Hawaii
### 2. Address: Kaupulehu  
Tax Map Key: 7-2-3:03
### 3. Drilling Company: Wai'eli Drilling & Development
### 4. Drilling method used during construction:  
- Rotary
- Percussion
- Other (describe)

### 5. Date Well Construction (drilled, cased, grouted) completed: 10/10/01

In addition to the driller's log, if a geologic log was prepared, please submit with this form.

### 6. Was the subject well cored?  
- Yes  
- No

### 7. Initial water-level encountered: 883.5 ft. below ground  
Date and time of measurement: 9/12/01  
(month/day/year time)

### 8. Step-Drawdown Test completed?  
- No  
- Yes

Attach Step-Drawdown Test form (12/17/97 SDPTD Form)

### 9. Constant Rate Aquifer Test completed?  
- No  
- Yes

Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)

#### Parameters prior to pump test:

### 10. Water-level: 883.5 ft. above msl  
Date and time of measurement: 9/12/01  
(month/day/year time)

### 11. Chloride: 220 ppm  
Date and time of sampling: 9/12/01  
(month/day/year time)

### 12. Temperature: 71°F  
Date and time of measurement: 9/12/01  
(month/day/year time)

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

### 14. Attach plot plan and surveyor's stamped elevation report.

### 15. If a pump is not planned to be installed, please describe (below in the remarks section) how well is secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)

### 16. Remarks:

---

**Licensed Driller (print):** C. Dale Stromquist  
C-57 Lic. No. C-16543  
Signature  
Date 10/10/01

**Surveyor (print):** Donald C. McIntosh  
L.P.L.S. Lic. No. 4968 Hawaii  
Signature  
Date 2/1/01

**Permittee (print):** Ketane Venture, Inc.  
Signature  
Date February 02, 2002
**13. AS-BUILT WELL SECTION**  
(Please attach as-built if different from diagram provided below)

**Bench mark elevation:**
- 887.7 ft., msl*  
  (Survey to nearest 0.01 ft.)

**Cement Grout:** 860 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 in.

**Rock or Gravel Packing:**
- 80 ft.
  
  **Material:**
  - Crushed Basalt
  - Rounded Gravel

**Water Level Elevation:**
- +3.91 ft., msl*

**Elevation at top of casing:**
- 19 in.

**Hole Diameter:**
- 19 in.

**Minimum of 2’ Radius & 4” Thick Concrete Pad**
- 837.4 ft., msl

**Ground Elevation:**
- 899.98 ft., msl

---

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

**Length:**
- 899.52 ft.

**Nominal Diameter:**
- 12 in.

**Wall Thickness:**
- 3.75 in.

**Bottom Elevation:**
- -52.59 ft., msl

---

**Open Casing:**

**Length:**
- 40.48 ft.

**Nominal Diameter:**
- 12 in.

**Wall Thickness:**
- 3.75 in.

**Bottom Elevation:**
- -52.59 ft., msl

---

**Open Hole:**

**Length:**
- 60 ft.

**Diameter:**
- 10.63 in.

**Bottom Elevation:**
- -112.59 ft., msl

---

**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: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)

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 D3326
- FEP Fluorocarbon Tubing conforming to ASTM D3296

---

**Open 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: (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)

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

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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3326
- FEP Fluorocarbon Tubing conforming to ASTM D3296

---

*msl = mean sea level

**Total Depth 1000 ft.**
1. State Well No.: 4757-03  
   Well Name: Kaupulehu #3  
   Island: Hawaii

2. Address: Kaupulehu  
   Tax Map Key: 7-2-3:03

3. Pump Installation Company: Wai'eli Drilling & Development

4. Date Pump Installed: 1/8/02

5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: Sub. Crown SER# 12310  
   Rated Capacity: 550 gpm

   Motor Type, H.P., Voltage, rpm: Sub. 200 HP 2300V 3540 RPM

   Type of flow meter: Turbine  
   which measures in GPM

6. Method of flow measurement:
   - Flowmeter  
   - Manufacturer: Water Specialty  
   - Make:  
   - Size: 6"
   - Weir  
   - Open Pipe  
   - Orifice  
   - Other, explain below

7. *attach schematic

8. Other remarks/comments:

   - Fill in the as-built section on the other side of this sheet.
   - Other remarks/comments:

   

Pump Installation Contractor (print)  
Wai'eli Drilling C-57/C-57a/A Lic. No. C-16543

Signature  
Date 2/1/02

Permittee (print)  
Kekaha Venture, Inc.

Signature  
Date February 04, 2007

WCR2 Form 5/2/00
Bench mark elevation surveyed to nearest 0.01 ft. = 887.78 ft. mean sea level

Elevation of top of chase tube 888.1 ft. mean sea level

Pump intake depth = 915.28 ft. (referenced to bench mark)

Chase tube depth = 905 ft. (referenced to bench mark)

If airline installed, bottom of airline elevation = 903 ft. mean sea level

8791-03 KAUPULEHU 3
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<th>Notes</th>
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**Test Date:** Jan 10-11, 2002
 LICENSE SCREEN

[ Look up License Type Codes-> ]
Please click a link listed below to display the other screen.

***** GENERAL LICENSEE *****

LIC ID: CT-16543  Active/Inactive: ACTIVE
NAME: WAI'ELI DRILLING & DEVELOPMENT
TRADE NAME:
STATUS: CURRENT, VALID & IN GOOD STANDING
ENTITY: JOINT VENTURE
ORIG LIC DATE: 3/18/91
CLASS PREFIX: C
RESTRICTION:
BUSINESS ADDR:
MAILING ADDR: P O BOX 5685  KAILUA-KONA HI 96745
Click here to enter search criteria for prior complaints history ->
For prior complaints and disciplinary history, contact licensing and business information center at (808)587-3295.

<-Back  New Search->

EMPLEEES LIST| EMPLOYERS LIST | INSURANCE/BOND | LICENSE CLASS

Copyright 2000 Professional and Vocational Licensing Division

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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

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DATE: **13-Feb-02**  
SUSPENSE DATE: ____________

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**WELL NUMBER** 4757-03  
**WELL NAME** Kaupulehu 3

- **PUMP INSTALLATION**

**ATTACHMENTS FOR APPLICATION PROCESSING** - Both applicant & staff generated

1 TRANS. LETTER  
2 CWRM MAP  
3 APPL. FORM (3X)  
4 USGS MAPS (3X)  
5 PARCEL OWNER VERIF.  
6 MLS PRINTOUT  
7 CONTRACTOR VERIF.  
8 DCCA LICENSE SCREEN PRINTOUT  
9 ALL INFO FILLED IN

**FILE FOLDER:**

- MADE NEW FILE FOLDER, ATTACHED
- FILE FOLDER ALREADY MADE, IN FILE CABINET

**INCOMPLETE ACTION DATES:**

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H-6
WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: Kaupulehu #3

Address: Kaupulehu

Tax Map Key: 02-03-03

Zone: 2

Sec: 3

Parcel: 7

3. PROPOSED WORK:

- Construct New Well
- Install New Pump
- Modify Existing Well
- Modify Pump
- Abandon/Seal

*(State Well No.: 4757-03) (if unknown, please call Commission at 587-0225)

4. CONSTRUCTION:
- Drilled
- Dug
- Shaft
- Tunnel

Is this well part of a battery of wells? Yes

5. PROPOSED PUMPING RATE:
- 550
- gallons per minute

6. PROPOSED USE:
- Municipal (including hotels, stores, etc.)
- Industrial
- Domestic (individual, noncommercial water system)
- Irrigation (crop)
- Golf Course
- No. of Acres: 120

(b) METHOD OF FLOW MEASUREMENT:
- Flowmeter
- Open pipe
- Weir
- Office
- Other (explain)

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
- .6 million
- 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 OECG at 586-4185
- Not Required
- If required, date published in OECG bulletin

Special Management Area Permit (SMAP) To determine if an SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-8288; for Maui county, call 270-7235; on Kauai, call 241-6677.
- Not Required
- If required, date approved

9. REMARKS, EXPLANATIONS:

(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 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 to compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.)

Well Owner: Keleha Venture Inc. (print legibly)

Signature: __________________________

Date: __________________________

Landowner: Rick Robinson (print legibly)

Signature: __________________________

Date: __________________________

Contractor: Dale Stromquist (print legibly)

Signature: __________________________

Date: __________________________

For official use only: Aquifer System No. __________________________

State Well No. __________________________

WCPA Form 82/161
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Hole Diameter: 19 in.
Elevation at top of casing 889.98 ft., mast

Minimum of 2 Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.) 887.41 ft.
Ground Elevation: -52.59 ft., mast

Solid Casing (90° x (Ground Elev.-Water Level Elev))
Total Length: 899.52 ft.
Nominal Diameter: 12 in.
Wall Thickness: .375 in.
Bottom Elevation: -52.59 ft., mast

Open Casing: 8 ft. Perforated □ Screen
Total Length: 40.48 ft.
Nominal Diameter: 12 in.
Wall Thickness: .375 in.
Bottom Elevation: -52.59 ft., mast
note: Neither bentonite nor mud should be used in Annular space between hole and casing (min 3)

Solid Casing Material:
Carbon Steel: compliant with (check one or more) □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
Stainless Steel: (check one) □ Type E □ Type S □ Grade B □ Other
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
Thermoset Plastic: (check one) □ 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/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
Stainless Steel: (check one) □ Type E □ Type S □ Grade B □ Other
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Closed packed with: □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conformed to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

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 = (Water Elevation + Water Level Elev.) / 4

* 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 = (Water Elevation + Water Level Elev.) / 4
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

1. (a) □ WELL OWNER
   Kekaha Venture, Inc
   Contact Person: Tyler Smith
   Phone: 887-0264

   Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740
   Fax: 887-0125

2. (b) □ LAND OWNER
   Kamehameha Schools
   Contact Person: Rick Robinson
   Phone: 322-5300

   Mailing Address: 78-631 Alii Dr. Suite 232, Kailua-Kona, HI 96740
   Fax: 808-322-9440

3. □ CONTRACTOR
   Wailei Drilling
   Contact Person: Dale Stromquis
   Phone: 324-1420

   Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740
   Fax: 322-0928

WELL & PUMP INFORMATION:

(Will fill in the diagram on the back of the form.)

2. WELL NAME: Kaupulehu #3
   Island: Hawaii

   Address: Kaupulehu
   Tax Map Key: 7 2 3 03
   Attach: (a) 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 quad map
   (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/Seal
   □ Install New Pump
   □ Modify Pump

   *State Well No: 4757-03

4. CONSTRUCTION:
   □ Dug
   □ Dug
   □ Shaft
   □ Tunnel

   Is this well part of a battery of wells? □ Yes □ No (Please describe)

5. PROPOSED PUMPING RATE: 550 gallons per minute

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

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

   □ Irrigation (crop)
   □ Golf Course
   □ No. of Acres: 120
   □ Other (explain):

   □ Military

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 million gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
      □ Flowmeter □ Open-pipe □ Weir □ Orifice □ Other (explain)

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 567-0414
   □ Not Required
   □ If required, date approved

   Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEQC at 586-4185
   □ Not Required
   □ If required, date published in OEQC bulletin

   Special Management Area Permit (SMAP) To determine if an SMAP is necessary, on Oahu, call 527-5374; on Hawaii, call 961-2288; for Maui county, call 270-7235; for Kauai, call 241-6677.
   □ Not Required
   □ If required, date approved

9. REMARKS, EXPLANATIONS:

   (If more space is needed, please attach 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 2 years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 90 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
   Kekaha Venture, Inc.
   (print legibly)
   Signature
   Date

   Landowner
   Rick Robinson
   (print legibly)
   Signature
   Date

   Contractor
   Dale Stromquis
   (print legibly)
   Signature
   Date

   For official use only
   Aquifer System No.
   State Well No.

   WCPIA Form 921501
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

- Cement Grout: 860 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")
- Rock or Gravel Packing:
  - Crushed Basalt
  - Rounded Gravel
- Estimated Water Level Elevation: +43.91 ft, msl*

Solid Casing: (90% x (Ground Elev. - Water Level Elev.))
- Total Length: 899.52 ft
- Nominal Diameter: 12 in
- Wall Thickness: 0.375 in
- Bottom Elevation: -52.59 ft, msl*

Open Casing:
- Perforated
- Screen
- Material:
  - Crushed Basalt
- Diameter: 10.63 in
- Bottom Elevation: -112.59 ft, msl*

Open Hole:
- Length: 60 ft
- Diameter: 10.63 in
- Bottom Elevation: -112.59 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 = \( \frac{4}{3} \times \text{(Water Elevation - 41 ft Water Level Elevation)} \)

Example: Estimated + 2 ft. Water Level Elev. \( \rightarrow \) Bottom Elevation of Well Limit = \( \frac{4}{3} \times \left( 2 - \frac{41}{12} \right) = -18.5 \) ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): ☐ ANSI/AWWA C200 ☐ API Spec 5L ☐ ASTM A53 ☐ ASTM A139
- Stainless Steel: (check one):
  - 10 ASTM A409 (productions wells)
  - Type E ☐ ☐ Type S ☐ ☐ Grade B ☐ ☐ Other
- ABS Plastic conforming to ASTM F480 and ASTM D1527 (check one):
  - Schedule 40 ☐ ☐ Schedule 80 ☐ ☐ Schedule 120
- PVC Plastic conforming to ASTM F480 and ASTM D1785 or ASTM D2441 (check one):
  - Schedule 40 ☐ ☐ Schedule 80 ☐ ☐ Schedule 120
- Thermoset Plastic: (check one):
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrally Grouted Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Motor Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic Pressure Pipe conforming to AWWA C900
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200 ☐ API Spec 5L ☐ ASTM A53 ☐ ASTM A139
- Stainless Steel: (check one):
  - 10 ASTM A409 (productions wells)
  - Type E ☐ ☐ Type S ☐ ☐ Grade B ☐ ☐ Other
- ABS Plastic conforming to ASTM F480 and ASTM D1527 (check one):
  - Schedule 40 ☐ ☐ Schedule 80 ☐ ☐ Schedule 120
- PVC Plastic conforming to ASTM F480 and ASTM D1785 or ASTM D2441 (check one):
  - Schedule 40 ☐ ☐ Schedule 80 ☐ ☐ Schedule 120
- Thermoset Plastic: (check one):
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrally Grouted Resin Pipe conforming to ASTM D2997
  - Reinforced Plastic Motor Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic Pressure Pipe conforming to AWWA C900
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

1. (a) ☐ WELL OWNER: Keaka Venture, Inc. Contact Person: Tyler Smith Phone: 887-0264
Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740
Fax: 887-0125 E-mail: 
(b) ☐ LAND OWNER: Kamehameha Schools Contact Person: Rick Robinson Phone: 322-5300
Mailing Address: 78-681 Alii Dr. Suite 232, Kailua-Kona, HI 96740
Fax: 887-0246 E-mail: RRobinson@KSBE.EDU
(c) ☐ CONTRACTOR: Wai'ele Drilling Contact Person: Dale Stromquis Phone: 324-1420
Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740
Fax: 322-0928 E-mail: 

La'au Venture, Inc. 887-0264
Cashew Ventures, Inc. 887-0264

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

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

2. WELL NAME: Kaupulehu #3 Island: Hawaii
Address: Kaupulehu
Tax Map Key: Zone Sec Plat Parcel

3. PROPOSED WORK: (check all that apply)
☐ Construct New Well
☐ Modify Existing Well
☐ Install New Pump
☐ Modify Pump
☐ Abandon/Seal
*State Well No: 4757-03 (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: 550 gallons per minute

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 million gallons per day
(b) METHOD OF FLOW MEASUREMENT:
☐ Flowmeter ☐ Open-pipe ☐ Weir ☐ Orifice ☐ Other (explain)

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 567-0414
☐ Not Required If required, date approved
☐ Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEOC at 586-4185
☐ Not Required If required, date published in OEOC bulletin
☐ Special Management Area Permit (SMAP) To determine if a SMAP is necessary, call OEOC. For Maui county, 270-7235; on Kauai, 241-8677
☐ Not Required If required, date approved

9. REMARKS, EXPLANATIONS:

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 2 (two) years of the approval date; 2) the contractor shall submit to the Commission a well completion/bandonment 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 the application is not completed correctly, any permit may be suspended until the permit is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $1000/day.

For Official Use Only:

Well Owner: Keaka Venture, Inc. (print legibly)
Landowner: Rick Robinson (print legibly)
Contractor: Dale Stromquis (print legibly)
Signature: 
Signature: 
Signature: 
Date: 2-5-02
Date: 1-12-02
Date: 

Latitude: 21° 8' 56.00" N Aquifer System No. 98-672
Longitude: 155° 36' 34.76" W State Well No. 96740

WCPB Form 82161
**10. PROPOSED WELL SECTION** *(Please attach schematic if different from diagram provided below)*

**889.98 ft**

**Total Depth**

**1000 ft**

**Cement Group:**
850 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 in

**Rock or Gravel Packing:**
80 ft

- Crushed Basalt
- Rounded Gravel

**Estimated Water Level Elevation:**
+3.31 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 = (Water Elevation - 0.25 x Water Level Elevation)**

Example: 

**Estimated + 2 ft Water Level Elevation = Bottom Elevation of Well Limit**

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139

- Stainless Steel: compliant with (check one or more):
  - ASTM A243
  - Type E
  - Type B
  - Grade B
  - Other

- 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

- Thermoset Plastic (check one):
  - Centrifugally Cast Resin Pipe conforming to ASTM D2996
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM A243
  - 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/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139

- Stainless Steel: compliant with (check one or more):
  - ASTM A243
  - Type E
  - Type B
  - Grade B
  - Other

- 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

- 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

**Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.**
WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)

2. WELL NAME: Kaupulehu #3  
   Island: Hawaii  
   Address: Kaupulehu  
   Tax Map Key: 7 2 3 03  
   Zone:  
   Sec:  
   Plat:  
   Parcel:  

   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 quad 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*  

   *State Well No.: 4757-03  
   (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: 550 gallons per minute

6. PROPOSED USE:  
   (check all that apply)  
   ☐ Municipal (including hotels, stores, etc.)  
   ☐ Industrial  
   ☐ Domestic (individual, noncommercial water system)  
   ☐ Irrigation (crop)  
   ☐ Golf Course  
   ☐ No. of Acres: 120  
   ☐ Military  
   ☐ Other (explain):  

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 million gallons per day

   (b) METHOD OF FLOW MEASUREMENT:  
   ☐ Flowmeter  
   ☐ Open-pipe  
   ☐ Weir  
   ☐ Orifice  
   ☐ 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 OEC at 586-4185  
   ☐ Not Required  
   ☐ If required, date published in OEC bulletin  
   Special Management Area Permit (SMAP) To determine if an SMAP is necessary, call Oahu, call 527-5374; on Hawaii, call 961-6288; for Maui county, call 270-7235; on Kauai, call 241-6877  
   ☐ Not Required  
   ☐ If required, date approved

9. REMARKS, EXPLANATIONS:  

   (If more space is needed, please attach 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 two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/bandonment 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 into compliance and any work done while the permit is in suspension may result in fines of up to $1000/day.

Well Owner  
Kekaha Venture, Inc  
Signature  
Date

Landowner  
Rick Robinson  
Signature  
Date

Contractor  
C Dale Stromquist  
Signature  
Date

For official use only  
State Well No.  
Aquifer System No.
10. PROPOSED WELL SECTION

(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 = (Water Elevation - 1/4 Water Level Elevation))

Solid Casing Material:
- Carbon Steel: compliant with (check one or more) □ ANSIAWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one)
  □ ASME SA240 □ Type E □ Type S □ Grade B □ Other

ABS Plastic conforming to ASTM F480 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

Thermoset Plastic: (check one)
- Centrifugally Cast Resin Pipe conforming to ASTM D2996
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900
- 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) □ ANSIAWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one)
  □ ASME SA240 □ Type E □ Type S □ Grade B □ Other

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

PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one)
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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Hawaii Well Construction and Pump Installation Standards

Please refer to the Hawaii Well Construction and Pump Installation Standards to ensure that your as-built is in compliance with applicable standards.

* 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.
WELL & PUMP INFORMATION:

2. WELL NAME: Kaupulehu #3
   Island: Hawaii
   Address: Kaupulehu
   Tax Map Key: Zone Sec Plat Parcel
   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 quadr 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

   *State Well No.: 4757-03* (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: 550 gallons per minute

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

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

   □ Irrigation (crop)
   □ Golf Course
   □ No. of Acres: 120

   □ Military
   □ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 million gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   □ Flowmeter □ Open-pipe □ Weir □ Orifice □ 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
   □ Required, date approved __________

   Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OECG at 585-4185
   □ Not Required
   □ Required, date published in OECG bulletin __________

   Special Management Area Permit (SMAP) To determine if an SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-8288; for Maui county, call 270-7235; on Kauai, call 241-6677
   □ Not Required
   □ Required, date approved __________

9. REMARKS, EXPLANATIONS:

   □ More space needed, attach 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 two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion 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 comparative water rights and shall not guarantee the pump capacity or future use 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 to compliance, and any work done while the permit is in suspension may result in fines of up to $10,000/day.

   Well Owner: Kekeha Venture, Inc. Landowner: Kamehameha Schools Contractor: Wai'elei Drilling
   Signature: __________________________ Signature: __________________________
   Date: ______________ Date: ______________

   For official use only
   Latitudelongitude: Aquifer System No.
   State Well No.:
10. PROPOSED WELL SECTION

(please attach schematic if different from diagram provided below)

Minimum of 2 radius & 4" thick concrete pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 887.41 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 = (Water Elevation - 4 ft.) / 4

Example: Estimated Water Level: 899.98 ft., msl* 

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
Stainless Steel: (check one):
□ ASTM A420 (productio wells) □ ASTM A412 (monitor wells)
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/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
Stainless Steel: (check one):
□ ASTM A420 (production wells) □ ASTM A412 (monitor wells)
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

HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

to ensure that your as-built is in compliance with applicable standards

Elevation at top of casing 889.98 ft., msl*

Hole Diameter: 19 in

Elevation:
- Estimated Water Level 899.52 ft.
- Water Surface 1000 ft.
- Ground Elevation 887.41 ft., msl*
- Top of casing 899.98 ft., msl*
- Elevation at top of casing 889.98 ft., msl*
- String Elevation 889.98 ft., msl*

Cement Group 850 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 in

Rock or Gravel Packing:
80 ft.
Material:
□ Crushed Basalt
□ Rounded Gravel

Estimated Water Level:
+3.91 ft., msl*
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

1. (a) □ WELL OWNER  Kekaha Venture, Inc. Contact Person: Tyler Smith Phone: 887-0264
Mailing Address: PMB 428 75-1027 Henry St. Kailua-Kona, HI 96740
Fax: 887-0125 E-mail: 

(b) □ LAND OWNER Kamehameha Schools Contact Person: Rick Robinson Phone: 322-5300
Mailing Address: 76-1651 Alii Dr., Suite 232, Kailua-Kona, HI 96740
Fax: 867-9220-9446 E-mail: RROBINSON@KSBF.EDU 

(c) □ CONTRACTOR Waiʻele Drilling Contact Person: Dale Stromquis Phone: 324-1420
Mailing Address: 78-6740 Makolea St. Kailua-Kona, HI 96740
Fax: 322-0928 E-mail: Lic #: C-16543 (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: Kaupulehu #3 Island: Hawaii
Address: Kaupulehu
Tax Map Key: 7 2 03
Zone Sec Plat Parcel 0 1
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 quad map
(b) a property tax map, showing well location referenced to established property boundaries

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

*State Well No.: 4757-03 (If unknown, please call Commission at 587-0225)

4. CONSTRUCTION:
□ Dug □ Shaft □ Tunnel

Is this well part of a battery of wells? □ Yes □ No (Please describe)

5. PROPOSED PUMPING RATE: 550 gallons per minute

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

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

□ Irrigation (crop)
□ Golf Course □ No. of Acres: 120
□ Military □ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: .6 million gallons per day
(b) METHOD OF FLOW MEASUREMENT: □ Flowmeter □ Open-pipe □ War □ Orifice □ Other (explain):

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.

□ Not Required If required, date approved
Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OEC at 585-4185
□ Not Required If required, date published in OEC bulletin
Special Management Area Permit (SMAP) To determine if a SMAP is necessary: on Oahu, call 527-5374; on Hawaii, call 961-8289; for Maui county, call 270-7235; on Kauai, call 241-6677.
□ Not Required If required, date approved

9. REMARKS, EXPLANATIONS:

For Official Use Only:

For Official Use Only:

Remarks: [space for additional remarks]

For Official Use Only:

Signature: [space for official signature]

Date: [space for official date]

Applicant:

Well Owner: Kekaha Venture, Inc. (print legibly)

Landowner: Rick Robinson (print legibly)

Contractor: Dale Stromquis (print legibly)

Date: [space for official date]

For Official Use Only:

Latitude: [space for latitude]

Longitude: [space for longitude]

Aquifer System No.: [space for aquifer system number]

State Well No.: [space for state well number]

WCPRA Form B21.01
10. PROPOSED WELL SECTION

**Please attach schematic if different from diagram provided below**

**Solid Casing Material:**
- Carbon Steel: compliant with [check one or more]: □ ANSIAWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- And compliant with [check one]: □ ASTM A242 □ Type E □ Type S □ Grade B □ Other

**Stainless Steel:** (check one)
- □ ASTM A409 (produced welds)
- □ ASTM A312 (mirror welds)

**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 D3298
- □ FEP Fluorocarbon Tubing conforming to ASTM D3298

**Open Casing Material:**
- Carbon Steel: compliant with [check one or more]: □ ANSIAWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- And compliant with [check one]: □ ASTM A242 □ Type E □ Type S □ Grade B □ Other

**Stainless Steel:** (check one)
- □ ASTM A409 (produced welds)
- □ ASTM A312 (mirror welds)

**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 D3298
- □ FEP Fluorocarbon Tubing conforming to ASTM D3298

---

**Solid Casing Material:**
- Total Length: 899.52 ft
- Nominal Diameter: 12 in
- Wall Thickness: 0.375 in
- Bottom Elevation: -52.59 ft

**Open Casing:**
- Total Length: 40.48 ft
- Nominal Diameter: 12 in
- Wall Thickness: 0.375 in
- Bottom Elevation: -52.59 ft

---

* 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 = (Water Elevation - 4 x Water Level Elevation) / 4

Example: Estimated 2 ft. Water Level Elev. —> Bottom Elevation of Well Limit = (2 - 4 x 0.5) = -1.5 ft.

---

**For Carbon Steel:**
- Stainless
- Thermoset
- PVC
- Thermoset
- PVC

---

**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

- Solid Casing: 90% (Ground Elev.-Water Level Elev.)
  - Total Length: 899.52 ft
  - Nominal Diameter: 12 in
  - Wall Thickness: 0.375 in
  - Bottom Elevation: -52.59 ft

- Open Casing: □ Perforated □ Screen
  - Total Length: 40.48 ft
  - Nominal Diameter: 12 in
  - Wall Thickness: 0.375 in
  - Bottom Elevation: -52.59 ft

---

**Ground Elevation:**
- Elevation at top of casing: 889.98 ft, msl
- Bottom Elevation: -112.59 ft, msl

---

**Minumum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft) 887.41 ft**

---

**Please refer to the Hawai'i Well Construction and Pump Installation Standards to ensure that your as-built is in compliance with applicable standards.**
Waterloo Hydrogeologic
180 Columbia St. W.
Waterloo, Ontario, Canada
ph. (519)746-1798

Pumping Test No. Constant Rate
Well 4757-03
Discharge 126087.50 ft³/d

Transmissivity [ft²/d]: $4.26 \times 10^5$
Pumping Test No. Constant Rate | Test conducted on: January 10-11, 2002
---|---
Well 4757-03 | Kaupulehu Irr. Well No. 3
Discharge 126087.50 ft³/d | Distance from the pumping well 1.00 ft
Static water level: 883.00 ft below datum

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<thead>
<tr>
<th>Pumping test duration</th>
<th>Water level</th>
<th>Drawdown</th>
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<tbody>
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<td>[ft]</td>
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<tr>
<td>14</td>
<td>0.12500</td>
<td>890.99</td>
</tr>
</tbody>
</table>
ISLAND OF HAWAII
TOTAL IE: 2431
HYDROLOGIC UNITS
Sustalna ble V.1d
AqIM.
r
Code

Kaupulehu 3 Well
(Well No. 4757-03)

SCALE: 1" = 2000'

Well Location
MEMORANDUM

TO: CWRM

FROM: Dennis Takahashi
587-0347

SUBJECT: B & F Notice No. 346

For: TIFFANY FORWARD

Attached is a copy of a Notice for Adjustment Required for Returned Check and the actual returned check which was forwarded to our office by the Department of Budget and Finance, Treasury Management Branch. Any adjustment to deposits into an official State bank account is initially reported to B&F.

Fiscal will be responsible for adjusting official state records using the original of the notice.

Your office is responsible for the following checked items:

[ X ] Informing the maker of the check of the notice;
[ X ] Asking for a replacement cashiers check or cash;
[ X ] Collecting the $15.00 service fee;
[ ] Completing the bottom portion of this memo and returning or fax (587-0360) a copy to our office as soon as possible.

Call Lynne Masuyama at 587-0356 or me if you have any questions.

KAPULEHU #4 PERMIT

Schedule of Collection No: Schedule Date: 
Bank Deposit Amount: Bank Deposit Date: 
Completed By: Phone: 

______________________________ ________________________________
In accordance with the State Comptroller's Special Distribution Memorandum No. 1984-17, please prepare a Journal voucher (JV), SAFORM A-27, to reduce your account to which this receipt was credited. A copy of this notification should be attached to the JV that is submitted to the Accounting Division at the Department of Accounting and General Services (DAGS).

Please also collect applicable bad check charge as provided by law or your rules and regulations.

Form Fin-101 (Revised 03-2002)
Commission on Water Resource Management

<table>
<thead>
<tr>
<th>FROM: LINNEL</th>
<th>DATE: MAY - 9 2002</th>
<th>SUSPENSE DATE:</th>
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<td></td>
<td>NAKAMA, L.</td>
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<td>Signature</td>
<td>Review &amp; Comment</td>
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<tr>
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<td>NAKANO, D.</td>
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<td></td>
<td>YODA, K.</td>
<td></td>
<td>Cashier's Cheek</td>
<td></td>
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</tbody>
</table>

Note: There is a handwritten note stating, "plz. follow up - This is pretty bad to get an NSF for a $25 check."
May 21, 2002

TO: Anne Furuuchi, Fiscal Management Officer
    Fiscal Office

ATTN: Dennis Takahashi
    Fiscal Office

FROM: Linnel T. Nishioka, Deputy Director
    Commission on Water Resource Management

SUBJECT: B & F Notice No. 346 for Tiffany Forward (Well No. 4757-04)

Attached is the check for $40, which includes the replacement check and the $15 service fee. Ryan Imata of the Commission staff confirmed with Lynne Masuyama that the check is acceptable in lieu of a cashier's check or cash. Mr. Imata has also contacted the party who wrote the check and confirmed that there are sufficient funds for this check to clear.

If you have any questions, please contact Ryan Imata of Commission staff at 587-0255.

RI:ss
Attachment
M E M O R A N D U M

TO: CWRM

FROM: Dennis Takahashi
587-0347

SUBJECT: B & F Notice No. 346

For: TIFFANY FORWARD

Attached is a copy of a Notice for Adjustment Required for Returned Check and the actual returned check which was forwarded to our office by the Department of Budget and Finance, Treasury Management Branch. Any adjustment to deposits into an official State bank account is initially reported to B&F.

Fiscal will be responsible for adjusting official state records using the original of the notice.

Your office is responsible for the following checked items:

[X] Informing the maker of the check of the notice;

[X] Asking for a replacement cashiers check or cash;

[X] Collecting the $15.00 service fee;

[ ] Completing the bottom portion of this memo and returning or fax (587-0360) a copy to our office as soon as possible.

Call Lynne Masuyama at 587-0356 or me if you have any questions.

*****************************************************************

Other Collection (describe): KAUPULEHU #4 PERMIT

Schedule of Collection No: ______ Schedule Date: ______

Bank Deposit Amount: ______ Bank Deposit Date: ______

Completed By: ____________________ Phone: ______________
STATE OF HAWAI'I
DEPARTMENT OF BUDGET AND FINANCE
FINANCIAL ADMINISTRATIVE DIVISION
TREASURY MANAGEMENT BRANCH

NOTICE OF ADJUSTMENT REQUIRED FOR RETURNED CHECK

FIN 101 NO: 346
DATE: 5/7/2002
TO: DLNR
Agency: Fiscal Office
FROM: Dir of Fin
By: et

Depository Bank: FHB
Bank Account Number: 01-000497
Bank Account Title: Dir of Fin

Check Drawn On: Central Pacific Bank
Reason Returned: NSF
Check Number: 0121

TIFFANY FORWARD 514-94-1696
PH. 808-329-2345
75-5608 HINANOLI RD UNIT 17
KAILUA KONA, HI 96740

RETURNED NOT PAID
BECAUSE 2
Date
NSF ARR
Presented $0

Pay to the
Order of Dept. of Land and Natural Resources

$ 25
Dollars

Central Pacific Bank
1-800-544-9600 (Oahu) 1-800-342-8422 (Toll Free)

For Kaua'uhu 47 Permit Tiffany Forward

In accordance with the State Comptroller's Special Distribution Memorandum No. 1984-17, please prepare a Journal voucher (JV), SAFORM A-27, to reduce your account to which this receipt was credited. A copy of this notification should be attached to the JV that is submitted to the Accounting Division at the Department of Accounting and General Services (DAGS).

Please also collect applicable bad check charge as provided by law or your rules and regulations.

Form Fin-101 (Revised 03-2002)
STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

January 30, 2002
Honolulu, Oahu

PIA-Kona Limited Partnership
REQUEST FOR VARIANCE OF PUMP TEST STANDARDS
4757-03 & -04 (Well No. 4757-03 & -04)
Well Construction: 18/18-inch Casing Diameter, 1000/10 I 7-ft Deep Well
Pump Installation: 550/550 gpm for Irrigation use
TMK 7-2-003: 003, Kaupulehu, Hawaii

APPLICANT:
PIA-Kona Limited Partnership
P.O. Box 803
Kamuela, HI 96743

LANDOWNER:
Kamehameha Schools
567 South King Street
Honolulu, Hawaii 96813

DESCRIPTION:
Location: (See Exhibit 1) Dimensions: (See Exhibit 2)

BACKGROUND:
Well Construction Permits were issued for these two wells on April 19, 2000. The wells are currently under construction, and the Well Construction Permits are valid until April 19, 2002.

On February 8, 2000, the applicant submitted a Pump Installation Permit application for 550 gpm pumps for both wells.

Section 2.9 (b) of the Hawaii Well Construction and Pump Installation Standards (HWCPIS) specifies that a step drawdown test is required for any proposed pump pumping greater than 70 gpm. The step drawdown test is required to establish the efficiency of the well and to provide preliminary information on the yield, drawdown and salinity of the well. The specific requirements pertaining to the step drawdown tests can be found in Section 2.9 (b), which is attached as Exhibit 3.

Item 4
Section 2.9 (c) of the HWCPIS specifies that for a 550 gpm pump, a constant rate pump test of 48 hours is required. Constant rate pump tests are required to determine hydraulic properties of the aquifer, to identify nearby boundaries such as dikes in wells located in confined and semi-confined aquifers, or to determine any trend in salinity in wells located in aquifers affected by salt water intrusion. The specific requirements pertaining to the constant rate test can be found in Section 2.9 (c), which is attached as Exhibit 3.

Historically, these pump tests have been performed with temporary test pumps. The data from such tests were then used to size and design the final permanent pump. As a policy to enforce compliance, staff requires that pump tests are acceptably performed before the issuance of the pump installation permit for the permanent pump.

ISSUES/ANALYSIS:

The applicant is requesting a variance from the standards, to allow the installation of the permanent pump prior to the issuance of the pump installation permit for testing purposes. Refer to Exhibit 5.

Staff has found in the past that permanent pumps installed to run the pump test are sometimes incapable of being throttled down to produce noticeable differences in drawdown during the step-drawdown test.

However, if the applicant can comply with the pump test protocol using the permanent pump, there should be no problems associated with the installation of the permanent pump prior to the issuance of the pump installation permit.

RECOMMENDATION:

That the Commission:

1. Approve the applicant’s request for a variance to allow the installation of the permanent pumps prior to the issuance of the pump installation permits, with the following conditions:
   a. The pump tests shall be started within one week of the installation of the pumps or staff requests that the pump test be rerun. Otherwise, the pumps shall be removed.
   b. The applicant shall submit pump test results within one day of the completion of the pump tests.
   c. Staff will complete its analysis of pump results within one business day and issue pump installation permit if pump tests are satisfactory.
   d. In the event that pump tests are not satisfactory to Commission staff, the applicant shall rerun the pump tests in accordance with 1.a., b. and c. above until they are in compliance with standard pump test requirements.

Respectfully submitted,

LINNEL T. NISHIOKA
Deputy Director

Exhibit(s): 1. (Location Map)  
            2. (Proposed Well Section)  
            3. (Excerpt from Pump Standards)  
            4. (Standard Pump Installation Permit Conditions)  
            5. (Letter Requesting Variance)
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Minimum of 2" Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft) \(887.41\) ft

Ground Elevation = \(887.41\) ft, \(887.41\) ft

Solid Casing: (3 x 90% x (Ground Elev./Water Level Elev.))
- Total Length: \(889.98\) ft
- Nominal Diameter: \(12\) in.
- Wall Thickness: \(3.75\) in.
- Bottom Elevation: \(-12.11\) ft, \(-12.11\) ft

Open Casing: \(\frac{1}{2}\) Perforated
- Total Length: \(40.48\) ft
- Nominal Diameter: \(12\) in.
- Wall Thickness: \(3.75\) in.
- Bottom Elevation: \(-52.59\) ft, \(-52.59\) ft

Open Hole:
- Length: \(60\) ft
- Diameter: \(10.63\) in.
- Bottom Elevation: \(-112.59\) ft, \(-112.59\) ft

* The approximate elevation must be referenced to mean sea level (ma), at the time of application filing. Final elevations of wall 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 Wall Limit = \((\text{Water Elevation} - \frac{1}{4} \times \text{Water Level Elev.})\)

Example: Estimated = 2 ft, Water Level Elev. = \(\frac{1}{4}\) Bottom Elevation of Wall Limit = \((2 - \frac{1}{4} \times 2) = -1.5\) ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): \(\boxed{\text{ANSI/AWWA C200}}\) \(\text{API Spec. 5L}\) \(\text{ASTM A53}\) \(\text{ASTM A139}\)
- Stainless Steel: (check one):
  - ASTM A409 (production welds)
  - ASTM A312 (monitor welds)

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): \(\boxed{\text{ANSI/AWWA C200}}\) \(\text{API Spec. 5L}\) \(\text{ASTM A53}\) \(\text{ASTM A139}\)
- Stainless Steel: (check one):
  - ASTM A409 (production welds)
  - ASTM A312 (monitor welds)

**Thermoset Plastic** (check one):
- 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 D3298
**10. PROPOSED WELL SECTION**

(Please attach schematic if different from diagram provided below)

---

- **Hole Diameter:** 18 in.
- **Minimum of 2 Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)**

**Solid Casing:**
- **Total Length:** 959 ft.
- **Nominal Diameter:** 12 in.
- **Well Thickness:** 375 ft.
- **Bottom Elevation:** -42 ft.

**Open Casing:**
- **Total Length:** 41 ft.
- **Nominal Diameter:** 12 in.
- **Wall Thickness:** 375 ft.
- **Bottom Elevation:** -83 ft.

---

**Solid Casing:**
- **Material:** Without Crushed Gravel or Gravel Packing.
- **Casing:**
  - Compliant with the following standards:
    - ANSI/AWWA C200
    - API Spec. 5L
    - ASTM A53
    - ASTM A139
  - Also compliant with:
    - ASTM A242
    - Type S
    - Type 8
    - Grade 8
    - Other

**Open Casing:**
- **Material:**
  - Compliant with the following standards:
    - ANSI/AWWA C200
    - API Spec. 5L
    - ASTM A53
    - ASTM A139
  - Also compliant with:
    - ASTM A242
    - Type S
    - Type 8
    - Grade 8
    - Other

---

* * TO BE VERIFIED UPON COMPLETION (BEFORE PUMP INSTALLED) *
KAUPULEHU #4
WELL NO. 4757-04

- Junction Box TVSS
- 255 KVA Transformer
- Reduced Voltage Starter w/Relays
- 460V Utility Transformer

SURFACE DISCHARGE ELBOW: 6" - 125

CONDITIONS
U.S. GALLONS PER MINUTE: 550
TOTAL DYNAMIC HEAD: 980
LIQUID: Water
SPECIFIC GRAVITY: 1.0

MAXIMUM DIAMETER OF UNIT: 10 3/4 Shroud

COLUMN PIPE: 6 5/8 8rd. Galv. .280 Wall

SUBMERSIBLE CABLE SIZE: #4 4KV

PUMP MANUFACTURE: Crown
MODEL NUMBER: 8L 600 10 Stage
SUCTION STRAINER: STN STL

SUBMERSIBLE MOTOR MFG: Franklin Severe Se;
HP: 200 PHASE: 3 CYCLE: 60
VOLTAGE: 2300 RPM: 3500 49.4 AMP

CUSTOMER: Kekaha Venture Inc.
PROJECT: Kekaha Venture Inc.
PUMP DESIGNATION:

NOTE: DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED

CSN Shoe 1 1000'

EXHIBIT 2
2.9 Minimum Well Testing

(a) Purpose

Well testing is required when new wells are drilled or when existing wells are modified and have not been previously tested in accordance with the provisions of these Standards. Well testing shall normally consist of a short step-drawdown test and a long-term constant-rate test. Well testing is not mandatory for monitor wells. The purpose of well testing in the prescribed manner is to obtain hydrologic information needed to determine the well's performance and efficiency with regard to yield and drawdown; the well's trend with regard to drawdown, recovery, and salinity; and the nearby hydraulic properties of the aquifer.

(b) Step-Drawdown Tests

Step-drawdown tests are required to establish the efficiency of the well and to provide preliminary information on the yield, drawdown, and salinity (chloride content) of the well. Step-drawdown tests are not required for wells proposed for production of less than 100,000 gallons per day or 70 gallons per minute. The water level in the pumped well shall be measured at 15-minute intervals for 45 minutes prior to the initiation of the step-drawdown test in order to verify the pre-test static water levels. The step-drawdown test shall consist of pumping the well at progressively increasing fractions of the maximum discharge capacity proposed by the permittee or determined during well development. The minimum length of time for each discharge rate shall be one-half hour and the minimum number of discharge rates shall be 3, depending upon the maximum discharge capacity and the occurrence of observable changes in pumping water levels from one pumping rate to the next. The step-drawdown test shall begin with the lowest pumping rate and conclude with the highest rate. Pumping shall be continuous throughout the entire step-drawdown test. As a minimum, a water sample taken at the end of the test shall be tested for chloride content.

(c) Constant-Rate Tests

Constant-rate tests are required on all wells intended for production of ground water to determine the hydraulic properties of the aquifer, to identify any nearby hydrologic boundaries such as dikes in wells located in confined and semi-confined aquifers, or to determine any trend in salinity (chloride content) in wells located in aquifers affected by salt-water intrusion. The
constant-rate test shall not commence until the water level in the pumped well has fully recovered from the step-drawdown test. Prior to the start of the constant-rate test, the static water level in the pumped well shall be measured at 15-minute intervals for 45 minutes.

The pumping rate for the constant-rate test shall be an amount as determined by the results of the step-drawdown test or equal to the pump capacity proposed by the well owner/operator. Constant-rate tests shall be pumped continuously for a minimum period of time, as shown in Table 9.

Table 9. Minimum Test Period for Constant Rate Tests

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<th>Proposed Use of Well</th>
<th>Proposed Capacity (gpm)</th>
<th>Minimum Test Period (hours)</th>
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<td>96</td>
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<tr>
<td>County Water Supply</td>
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<td>96</td>
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</tbody>
</table>

The water discharged from a well during constant-rate tests shall be transported to a distance sufficient to prevent the pumped water from reaching the ground-water table and affecting the test results and shall be discharged in a manner that meets best management practices to eliminate erosion.

(d) Accuracy of Measurements

The rate of pumping shall be recorded in gallons per minute (gpm) and shall be maintained within ±30 gpm or ±10 percent of the designated rate, whichever is less. The depth to water shall be measured as accurately as possible, but in no case less accurate than to the nearest one-tenth of a foot. Time shall be measured as accurately as possible, but in no case less accurate than to the nearest minute. In observation wells, accuracy of measurement shall be no less than one-hundredth of a foot.

EXHIBIT 3
STANDARD PUMP INSTALLATION PERMIT CONDITIONS

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 4757-03 & -04 (Well No. 4757-03 & -04) at Kaupulehu, Hawaii, TMK 7-2-003: 003, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. 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 550/550 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 a monthly basis, on forms provided by the Commission (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 applicant shall complete and submit as-built drawings and Part II - (Permanent) Pump Installation Report of the Well Completion Report (attached) to the Commission within sixty (60) days after completion of work.

6. The applicant shall comply with all applicable laws, rules, and ordinances.

7. The pump installation permit application and staff submittal approved by the Commission at its January 30, 2002 meeting are incorporated into the permit by reference.

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 Commission upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Commission no later than three (3) months prior to the date the permit expires. If the commencement or completion 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 applicant 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 permittee, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

EXHIBIT 4
December 28, 2001

Gilbert S. Coloma-Agaran  
Chairperson  
Commission on Water Resource Management  
PO Box 621  
Honolulu, 96809

SUBJECT: Request for Variance of Pump Installation Protocol  
Wells Nos. 4757-03 and 4757-04

Dear Chairperson Coloma-Agaran:

As discussed at the December 19, 2001 meeting of the CWRM, I explained some of the circumstances and difficulties of pump installation permitting and testing procedures presented to our clients, primarily on Hawaii, where wells deeper than 800' to water are the rule. In the late 1980's, WWS, on behalf of its clients and for the purposes of gaining knowledge necessary to facilitate timely design and purchase of permanent pumping equipment, introduced a well testing procedure which involved installing submersible test pump equipment in the uncased pilot bore of deep, rotary drilled wells. It had became apparent that the deep, rotary or hammer drilled wells on Hawaii would dominate the well development scene. To facilitate the rapidly accelerating water development needs, a timely ordering of submersible pumping units was required and the trend was away from the expensive and complex line shaft, vertical turbine pumps.

It is now a matter of routine to insert a submersible test pump unit in the pilot bore of a new well for the purpose of establishing the yield and quality prior to reaming and casing. The designed pumps are then ordered and delivered to time with the completion of the cased well. This technique allows the well to be placed in service immediately and is part of the critical path program of private water purveyors.

The adopted CWRM testing protocol was originally instituted by the source developers, in particular government agencies, for the purpose of learning about the resource and well yield for purposes of pump design, primarily on Oahu. As groundwater development accelerated on neighbor islands, new techniques for the construction, testing and cleaning wells were created by the private sector. Beginning in the late 1980's, the submersible pump units became the pumps for deep wells. The testing protocol and sequence required by the CWRM is expensive and untimely in today's water development climate.
Chairperson Coloma-Agaran  
December 28, 2001  
Page 2 of 2

This request is for a variance from the order in which testing and pump installation approval is accomplished. By the time each of the subject wells is cased and grouted, the pilot bore will have been pumped and tested and the permanent pump will be on the site ready for installation. We are requesting permanent pump installation approval prior to well completion so that the permanent pump can be used to clean and test the well. Once the test results have been submitted to the CWRM with the Well Completion Report, the data can be reviewed, approved administratively as to completeness and the well can be placed immediately into service.

It is very costly for the water developer to install and remove a test pump for purely data collection. Use of a permanent pump is adequate. If damage to pump equipment occurs, such damage is the risk of the owner.

Sincerely,

Stephen P. Bowles

Attachments

cc: Linnel Nishioka, Deputy Director – CWRM  
Guy Lam - Kekaha Venture  
Dale Stromquist – Wai`elli Drilling & Development  
Roger Harris – PIA / Kamehameha Schools
facsimile transmittal

To: Attn: Ryan Imata - CWRM

From: Steve Bowles

Re: Variance Info - Well Nos. 4757-03 & 04

Date: January 7, 2002

Fax: (808) 587-0219

Pages: 8 including cover sheet

☐ Urgent  ☐ For Review  ☐ Please Comment  ☐ Please Reply  ☐ Please Recycle

message:

Ryan,

For your information, we have already mailed these to you but thought to fax you a copy as well.

Mahalo,

Steve
December 28, 2001

Gilbert S. Coloma-Agaran
Chairperson
Commission on Water Resource Management
PO Box 621
Honolulu, HI 96809

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Wells Nos. 4757-03 and 4757-04

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December 28, 2001  
Page 2 of 2

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Stephen P. Bowles

Attachments

cc: Linnel Nishioka, Deputy Director – CWRM  
Guy Lam - Kekaha Venture  
Dale Stromquist – Wai‘elii Drilling & Development  
Roger Harris – PIA / Kamehameha Schools
January 4, 2002

Gilbert S. Coloma-Agaran
Chairperson
Commission on Water Resource Management
PO Box 621
Honolulu, 96809

SUBJECT: Well Sections for Wells Nos. 4757-03 and 4757-04

Dear Chairperson Coloma-Agaran:

On December 28, 2001, we sent you a letter requesting a variance of pump installation protocol. Unfortunately, the attachments were incomplete. We are forwarding you completed well sections for Well Nos. 4757-03 and 4757-04. Please disregard the previous attachments and replace with these for your review.

We apologize for any inconvenience made to you.

Sincerely,

Stephen P. Bowles

Attachments

cc: Linnel Nishioka, Deputy Director – CWRM
    Guy Lam - Kekaha Venture, Inc.
    Dale Stromquist – Waï’eli Drilling & Development
    Roger Harris – PIA-Kona Limited Partnership
    Rick Robinson - Kamehameha Schools
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

HOLE DIAMETER: 18 in.

Elevation at top of casing: 889.98 ft.

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

GROUNDBEL ELEVATION: 887.41 ft.

Rock or Gravel Packing:

80 ft.

Material: Crushed Basalt & Rounded Gravel

Estimated Water Level Elevation: +3.9 ft.

Total Depth:

1000 ft.

Concrete Grout: 860 ft.

(error. 70% of distance from ground elevation to top of water surface or 600 ft, whichever is less.)

Annular space between bore and casing (min. 3"):

3 in.

Open Casing: 

Total Length: 40.48 ft.

Nominal Diameter: 12 in.

Wall Thickness: .375 in.

Bottom Elevation: -52.59 ft.

Pipe Material:

Solid Casing:

(type & Perforated or Screen)

Total Length: 899.52 ft.

Nominal Diameter: 12 in.

Wall Thickness: .375 in.

Bottom Elevation: -12.11 ft.

For non-salt water basal wells - bottom elevation of well shall not be deeper than 1/4 of aquifer thickness or,

Bottom Elevation of Water Limit = \( \frac{1}{4} \) aquifer thickness

Example: Estimated +2 ft. Water Level Elev. \( \frac{1}{4} \) of 8 ft. = -4.5 ft.

Open Casing:

Length: 60 ft.

Bottom Elevation: -112.59 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 A524
- A36
- Type E
- Type S
- Grade B
- Other

Stainless Steel: (check one):

- ASTM A403 (production welds)
- ASTM A312 (mirror welds)

ABS Plastic conforming to ASTM F680 and ASTM D1587: (check one)

- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F690 and ASTM D1785 or ASTM D2451: (check one)

- Schedule 40
- Schedule 80
- Schedule 120

Thermoset Plastic: (check one)

- Filament Wound Reinforced Pipe complying to ASTM D2998
- Reinforced Plastic Reinforced Plastic Pipe complying to ASTM D5517
- Glass Fiber Reinforced Plastic Pipe complying to AWWA C900
- PTFE Fluorocarbon Tubing complying to ASTM D3296
- FEP Fluorocarbon Tubing complying to ASTM D3296

Open 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 A403 (production welds)
- ASTM A312 (mirror welds)

ABS Plastic conforming to ASTM F680 and ASTM D1587: (check one)

- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F690 and ASTM D1785 or ASTM D2451: (check one)

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- PTFE Fluorocarbon Tubing complying to ASTM D3296
- FEP Fluorocarbon Tubing complying to ASTM D3296
KAUPULEHU #3
WELL NO. 4757-03

A Water Development Joint Venture
12/4/11

CONNECTIONS
U.S. GALLONS PER MINUTE: 550
TOTAL DYNAMIC HEAD: 960
LIQUID: Water
SPECIFIC GRAVITY: 1.0

MAXIMUM DIAMETER OF UNIT: 10 3/4 Shroud
8Kd. Short

SUBMERSIBLE CABLE SIZE: 4'-4KV

PUMP MANUFACTURE: Crown
MODEL NUMBER: 8L-600 10 Stage
SUCTION STRAINER: STR STL.

SUBMERSIBLE MOTOR MFG: Franklin Severe Duty
HP: 200 PHASE: 3 CYCLE: 60
VOLTAGE: 2300 RPM: 3500 49.4AMP

CUSTOMER: Kakaha Venture Inc.
PROJECT: Kaupulehu #3
PUMP DESIGNATION:

NOTE: DO NOT USE FOR CONSTRUCTION
UNLESS CERTIFIED

PO Box 5685 - 78-6740 Makaha Street
Kahului-Kona, Hawaii 96745
808-334-1430 - Fax 808-332-0928
10. PROPOSED WELL SECTION (Please sketch schematic if different from diagram provided below)

Elevation at top of casing: 919 ft. msl
Min. depth of water surface: 180.88857851 ft. msl
Ground Elevation: 917 ft. msl

- Solid Casing: (99% a) Epoxy Coated Water Level Elevation
  Total Length: 959 ft.
  Nominal Diameter: 12 in.
  Wall Thickness: 3.75 in.
  Bottom Elevation: -42 ft. msl

- Open Casing: (99% a) Epoxy Coated Water Level Elevation
  Total Length: 41 ft.
  Nominal Diameter: 12 in.
  Wall Thickness: 3.75 in.
  Bottom Elevation: -83 ft. msl

Note: Neither backfill nor mud should be used in backfill zone within 8 ft. of ground surface.

Solid Casing Material:
- Carbon Steel; compliant with (check one or more): ANSI/AWWA C200, API Spec. 5L, A53, A125, A333, A423, A578, A1239
- Stainless Steel; (check one): ASTM A270, A409 (production wells), A312, A150 (water wells)

PVC Plastic conforming to ASTM F490 and ASTM D1547 (check one): Schedule 40, Schedule 80, Schedule 120

Thermoplastic Plastic (check one):
- Fluorinated Ethylene Propylene (FEP) tubing conforming to ASTM D3298
- Fluorocarbon Tubing conforming to ASTM D3298
- Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950

Open Casing Material:
- Carbon Steel; compliant with (check one or more): ANSI/AWWA C200, API Spec. 5L, A53, A125, A333, A423, A578, A1239

- Stainless Steel; (check one): ASTM A409 (production wells), A312, A150 (water wells)

PVC Plastic conforming to ASTM F490 and ASTM D1547 (check one): Schedule 40, Schedule 80, Schedule 120

Thermoplastic Plastic (check one):
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* TO BE VERIFIED UPON COMPLETION (BEFORE PUMP INSTALLED)
KAUPULEHU #4
WELL NO. 4757-04

SURFACE DISCHARGE ELBOW: 6" - 125

CONDITIONS
U.S. GALLONS PER MINUTE: 550
TOTAL DYNAMIC HEAD: 980
LIQUID: Water
SPECIFIC GRAVITY: 1.0

MAXIMUM DIAMETER OF UNIT: 10 3/4 Shroud

COLUMN PIPE: 6 5/8 8rd. Galv. .280 Wall

SUBMERSIBLE CABLE SIZE: #4 4KV

PUMP MANUFACTURE: Crown
MODEL NUMBER: 8L 600 10 Stage

SUCTION STRAINER: STN STL

SUBMERSIBLE MOTOR MFG.: Franklin Severe Ser:
HP: 200 PHASE: 3 CYCLE: 60
VOLTAGE: 2300 RPM: 3500 49.4 AMP

CUSTOMER: Kekaha Venture Inc.
PROJECT: Kekaha Venture Inc.
PUMP DESIGNATION:

NOTE: DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED

CSN Shoe 1 1000'
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application form? Suppose to be WCR? Status of? I think I may have given 12/28 letter to Aman for comments.
January 4, 2002

Gilbert S. Coloma-Agaran  
Chairperson  
Commission on Water Resource Management  
PO Box 621  
Honolulu, 96809

SUBJECT: Well Sections for Wells Nos. 4757-03 and 4757-04

Dear Chairperson Coloma-Agaran:

On December 28, 2001, we sent you a letter requesting a variance of pump installation protocol. Unfortunately, the attachments were incomplete. We are forwarding you completed well sections for Well Nos. 4757-03 and 4757-04. Please disregard the previous attachments and replace with these for your review.

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Dale Stromquist – Wai‘eili Drilling & Development  
Roger Harris – PIA-Kona Limited Partnership  
Rick Robinson - Kamehameha Schools
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

**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 welds) □ 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
- Thermoseal Plastic: (check one) □ Filament Wound Resin Pipe conforming to ASTM D2996 □ Centrifugally Cast Pipe conforming to ASTM D2997 □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517 □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C960 □ 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/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
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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 ascent wells, bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Level - 4/5 x Water Level Elevation)

Example: Estimated + 2 ft. Water Level Elevation ----> Bottom Elevation of Well Limit = (2 - 4/5 x +3.91 ft.) = 11.5 ft.
10. PROPOSED WELL SECTION  (Please attach schematic if different from diagram provided below)

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: (check one):
  - ASTM A409 (production wells)
  - ASTM A179 (monitor wells)
- ABB Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2421): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2966
  - Centrifugally Cast Resin Pipe conforming to ASTM D2967
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM 3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
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  - ASTM A139
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  - ASTM A179 (monitor wells)
- ABB Plastic conforming to ASTM F480 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2421): (check one)
  - Schedule 40
  - Schedule 80
  - Schedule 120
- Thermoset Plastic: (check one)
  - Filament Wound Resin Pipe conforming to ASTM D2966
  - Centrifugally Cast Resin Pipe conforming to ASTM D2967
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM 3517
  - Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
  - PTFE Fluorocarbon Tubing conforming to ASTM D3296
  - FEP Fluorocarbon Tubing conforming to ASTM D3296

* TO BE VERIFIED UPON COMPLETION (BEFORE PUMP INSTALLED)
KAUPULEHU #4
WELL NO. 4757-04

Junction Box
TVSS

255 KVA
Transformer

Reduced
Voltage
Starter
w/Keltronics

460V
Utility
Transformer

12477V

SURFACE DISCHARGE ELBOW: 6" - 125

CONDITIONS
U.S. GALLONS PER MINUTE: 550
TOTAL DYNAMIC HEAD: 980
LIQUID: Water
SPECIFIC GRAVITY: 1.0

MAXIMUM DIAMETER OF UNIT: 10 3/4 Shroud

COLUMN PIPE: 6 5/8 8rd. Galv. .280 Wall

SUBMERSIBLE CABLE SIZE: #4 4KV

PUMP MANUFACTURE: Crown
MODEL NUMBER: 8L 600 10 Stage

SUCTION STRAINER: STN STL

SUBMERSIBLE MOTOR MFG: Franklin Severe Ser
HP: 200 PHASE: 3 CYCLE: 60
VOLTAGE: 2300 RPM: 3500 49.4 AMP

CUSTOMER: Kekaha Venture Inc.
PROJECT: Kekaha Venture Inc.
PUMP DESIGNATION:

NOTE: DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED
January 4, 2002

Gilbert S. Coloma-Agaran
Chairperson
Commission on Water Resource Management
PO Box 621
Honolulu, 96809

SUBJECT: Well Sections for Wells Nos. 4757-03 and 4757-04

Dear Chairperson Coloma-Agaran:

On December 28, 2001, we sent you a letter requesting a variance of pump installation protocol. Unfortunately, the attachments were incomplete. We are forwarding you completed well sections for Well Nos. 4757-03 and 4757-04. Please disregard the previous attachments and replace with these for your review.

We apologize for any inconvenience made to you.

Sincerely,

Stephen F. Bowies

Attachments

cc: Deputy Director – CWRM
    Guy Lam - Kekaha Venture, Inc.
    Dale Stromquist – Wai‘eli Drilling & Development
    Roger Harris – PIA-Kona Limited Partnership
    Rick Robinson - Kamehameha Schools
## WELL NUMBER:
8-4791-03 Kaipulehu Pia 3

### DRILLER'S LOG (77292 DL Form)

<table>
<thead>
<tr>
<th>Depths (ft)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 143</td>
<td>Red cinders &amp; blue rock</td>
<td>8/15</td>
</tr>
<tr>
<td>143 to 257</td>
<td>Blue rock w/litte red cinders</td>
<td>8/16</td>
</tr>
<tr>
<td>257 to 392</td>
<td>Med. Hard rock</td>
<td>8/20</td>
</tr>
<tr>
<td>392 to 516</td>
<td>Hard blue rock</td>
<td>8/21</td>
</tr>
<tr>
<td>516 to 600</td>
<td>Red cinder</td>
<td>8/22</td>
</tr>
<tr>
<td>600 to 682</td>
<td>Red Lava</td>
<td>8/23</td>
</tr>
<tr>
<td>682 to 772</td>
<td>Red/Brown rock</td>
<td>8/27</td>
</tr>
<tr>
<td>772 to 885</td>
<td>Hard AA Grey</td>
<td>8/28</td>
</tr>
<tr>
<td>885 to 947</td>
<td>Brown Sandstone</td>
<td>8/29</td>
</tr>
<tr>
<td>947 to 1000</td>
<td>Hard Grey Rock</td>
<td>8/30</td>
</tr>
</tbody>
</table>

### Remarks:

---
ELEVATION CERTIFICATION
For
IRRIGATION WELL No. 3
8. A139.03 KAUPULEHU - PI 3
NANEAGOLF CLUB
TMK: (3) 7-3:03:03

I CERTIFY that the following elevations were obtained upon the existing well site as of December 12, 2001:

8X8 feet slab.......................................................... 887.30 feet
3X3 feet slab.......................................................... 887.78 feet
1.1 feet wide metal cap............................................ 887.81 feet
Top of well bolt....................................................... 888.09 feet

THIS CERTIFICATION is based upon the temporary bench mark on the concrete slab of WEL.1.1 #5 by R. M. Towill Corporation. The elevations are referenced to Mean Sea Level and are recorded on December 12, 2001 in Field Book T48, Page14 and Job File 3178-01.

Donald C. McIntosh, L. P. L. S. #4968
Consultant-Planner-Developments

Kailua-Kona, Hawaii
Job No: 3178-01
December 13, 2001
Mr. Roger Harris  
PIA-Kona Limited Partnership  
P.O. Box 803  
Kamuela, HI 96743

Dear Mr. Harris:

Well Construction Permit  
Kaupulehu Irrigation 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and 4756-01)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) that authorize 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 13:

Special Conditions

1. Attached for your information is a copy of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities.

2. The depth of the well below sea level shall be in compliance with Section 2.2 of the Hawaii Well Construction and Pump Installation Standards.

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and 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. However, a permanent pump may be installed prior to the permanent pump installation permit issuance in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DEC-ADM98-G5, which states that:

"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 may be allowed prior to the final pump installation permit issuance. When required as a condition of the well construction permit, subsequent pumping tests shall validate the acceptability of the permanent pump. The permanent pump installed prior to final pump installation permit issuance is subject to removal if the testing shows that a smaller pump is required to reduce the potential of affecting neighboring wells and localized upconing at the applicant's well."
If you qualify and wish to take advantage of this ruling, please include a written request to install the permanent pump prior to final pump installation permit issuance when you return to us your signed well construction 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.

**IMPORTANT** - Drilling work shall not commence until a fully signed permit is returned to the Commission. Please provide all the information in this packet to your well drilling contractor. The permittee, well operator, and/or well owner are 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 starting from the permit approval date.

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

Aloha,

TIMOTHY E. JOHNS
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Kaupulehu Irrigation 3, 4 & 5 Wells, Well Nos. 4757-03, -04 and 4756-01

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 Kaupulehu Irrigation 3, 4 & 5 Wells (Well Nos 4757-03, -04 and 4756-01) at Kaupulehu, Hawaii, TMK 7-2-3: 03, subject to the Hawaii Well Construction & Pump Installation Standards (12/3/97) 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 and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The well construction permit shall be for construction and testing of the well only. A minimum 1½-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pumping test worksheet is attached). The permittee, well operator, and/or well owner 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, well operator, and/or well owner 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, well operator, and/or well owner shall stop work and contact the Department's Historic Preservation 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 cumulative water rights.

7. The following shall be submitted to the Chairperson within sixty (60) days after completion of work:
   b. Elevation (referred 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, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances; 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 (January 23, 1997; HWCP(S)). If the HWCP(S) are not followed and as a consequence, water is wasted or contaminated, a lien on the property may result.

10. The permit may be revoked by the Commission 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, well operator, and/or well owner 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, 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.

12. 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.

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

Date of Approval: April 19, 2000
Expiration Date: April 19, 2002

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 shall not commence work until I and the driller 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: ___________________________
Driller's Signature: ___________________________ C-57 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:
1. USGS
   Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
   Hawaii Department of Water Supply
WELL CONSTRUCTION PERMIT
Kaupulehu Irrigation 3, 4 & 5 Wells, Well Nos. 4757-03, -04 and 4756-01

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 Kaupulehu Irrigation 3, 4 & 5 Wells (Well Nos 4757-03, -04 and 4756-01) at Kaupulehu, Hawaii, TMK 7-2-3: 03, subject to the Hawaii Well Construction & Pump Installation Standards (12/23/97) which include but are not limited to the following conditions:

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   b. Elevation (referenced to mean sea level, msl) survey by a Hawaii-licensed surveyor.
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Permittee's Signature: __________________________
Printed Name: __________________________
Driller's Signature: __________________________
Printed Name: __________________________

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

Attachment:

USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
<table>
<thead>
<tr>
<th>Well No.</th>
<th>Well Name</th>
<th>Aquif Code</th>
<th>Owner/User</th>
<th>Year Drilled</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Type</th>
<th>Case Dia in.</th>
<th>Total Depth ft</th>
<th>Bottom Solid Casing</th>
<th>Bottom Perf Casing</th>
<th>Bottom of Hole</th>
<th>Static Head</th>
<th>Cl-</th>
<th>Temp</th>
<th>Specific Capacity</th>
<th>Capacity Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>4757-01</td>
<td>KAUPULEHU-PIA 1</td>
<td>80902</td>
<td>PIA-KONA LTD</td>
<td>1991</td>
<td>194754</td>
<td>1555744</td>
<td>PER</td>
<td>12</td>
<td>975</td>
<td>-29</td>
<td>-59</td>
<td>-127</td>
<td>2.8</td>
<td>250</td>
<td>16</td>
<td>IRR</td>
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<tr>
<td>4757-02</td>
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<td>-24</td>
<td>-112</td>
<td>6</td>
<td>86</td>
<td>IRR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PUBLIC RECORD DATA

TMK # 3-7-2-3-3

<table>
<thead>
<tr>
<th>Lessor:</th>
<th>B P BISHOP ESTATE TRUSTEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessee:</td>
<td>PIA-KONA LTD PARTNERSHIP</td>
</tr>
<tr>
<td>Tax Payer:</td>
<td>PIA SPORTS PROPERTIES</td>
</tr>
<tr>
<td>Tax Bill:</td>
<td>1501 FARM CREDIT DR, #2500, MCLEAN, VA 22102, USA</td>
</tr>
<tr>
<td>Assessed Value (99/00)</td>
<td></td>
</tr>
<tr>
<td>Land:</td>
<td>$2,368,900</td>
</tr>
<tr>
<td>Exemption</td>
<td>$0</td>
</tr>
<tr>
<td>Total Building:</td>
<td>$51,100</td>
</tr>
<tr>
<td>Size</td>
<td>7,835.08 ac</td>
</tr>
</tbody>
</table>

| Tenure: | Leasehold |
| Semi-Annual Tax: | $12,061.68 |
| Buildings: | 1 |
| Dwellings: | 0 |
| PITT Code: | 500 |
| Zoning: | A-20A |
| NBhood Code: | 7284 |

<table>
<thead>
<tr>
<th>SALES</th>
</tr>
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<tbody>
<tr>
<td>05/24/1984</td>
</tr>
<tr>
<td>05/01/1989</td>
</tr>
<tr>
<td>11/19/1990</td>
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<tr>
<td>KAUPULEHU DEVELOPMENTS</td>
</tr>
<tr>
<td>PIA-KONA LTD PARTNERSHIP</td>
</tr>
<tr>
<td>PIA-KONA LTD PARTNERSHIP</td>
</tr>
<tr>
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<tr>
<td></td>
</tr>
<tr>
<td></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.

http://webre.hawawa.../SearchTMK.asp?ACT=REQ&PAG...=15&REMAIN_FRAMES 4/19/00
**SECTION 1: WELL LOCATION INFORMATION**

<table>
<thead>
<tr>
<th>Island</th>
<th>HAWAII</th>
<th>Proposed Use</th>
<th>Irrigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>HUALALAI</td>
<td>Proposed Withdrawal</td>
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<tr>
<td>Aquifer Sector</td>
<td>KIHOLO</td>
<td>System Sustainable Yield</td>
<td>18</td>
</tr>
</tbody>
</table>

**SECTION 2: WELL SECTION DATA** (enter data in grey cells only)

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>Solid Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Elevation</td>
<td>Material</td>
</tr>
<tr>
<td>Cement Grout</td>
<td>Designation</td>
</tr>
<tr>
<td>Rock Packing</td>
<td>Length</td>
</tr>
<tr>
<td>Hole Diameter</td>
<td>Diameter</td>
</tr>
<tr>
<td>Total Depth</td>
<td>Wall Thickness</td>
</tr>
</tbody>
</table>

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

| SECTION 3: CHECKLIST** (values to check are shaded)**

**Well Depth**

| Theoretical Thickness of Aquifer | 205 ft. |
| 1/4 Aquifer Thickness           | 51.25 ft. |

Depth of Well below Sea Level | 60 ft. too deep (refer to HWCPIS Section 2.2)

**Well Casing**

<table>
<thead>
<tr>
<th>Minimum Wall Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
</tr>
<tr>
<td>County or Non-County</td>
</tr>
<tr>
<td>Minimum Thickness per standards</td>
</tr>
<tr>
<td>Wall Thickness Provided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Length of Solid Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% of ground to top of aerifer</td>
</tr>
<tr>
<td>Length of solid casig Provided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Casing Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM A53 okay (refer to HWCPIS Section 2.4 e)</td>
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<table>
<thead>
<tr>
<th>Annular Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the cell above reads #N/A, reference HWCPIS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depth of Grouting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculated Depth of Grouting</td>
</tr>
<tr>
<td>Depth of Grouting provided</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thickness of Annular Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5 in. okay (refer to HWCPIS Section 2.6 d)</td>
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<tr>
<td>Section</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Section 1: Well Location Information</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Section 2: Well Section Data</td>
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<tr>
<td>Section 3: Checklist</td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Well No.</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Well Name</td>
</tr>
<tr>
<td>Applicant</td>
</tr>
<tr>
<td>Date of Review</td>
</tr>
<tr>
<td>Reviewer</td>
</tr>
</tbody>
</table>

### SECTION 1: WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>Island</th>
<th>HAWAII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquifer System</td>
<td>HUALALAI</td>
</tr>
<tr>
<td>Aquifer Sector</td>
<td>KIHOLO</td>
</tr>
</tbody>
</table>

#### Proposed Use
- Irrigation

#### Proposed Withdrawal
- System Sustainable Yield: 0.5

### SECTION 2: WELL SECTION DATA

(enter data in grey cells only)

<table>
<thead>
<tr>
<th>Elevation at top of casing</th>
<th>Solid Casing</th>
</tr>
</thead>
<tbody>
<tr>
<td>563 ft., m.s.l.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Ground Elevation</th>
<th>Casing</th>
</tr>
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<tbody>
<tr>
<td>205 ft.</td>
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</table>

<table>
<thead>
<tr>
<th>Cement Grout</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rock Packing</th>
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<tbody>
<tr>
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</tbody>
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<table>
<thead>
<tr>
<th>Hole Diameter</th>
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<tr>
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<table>
<thead>
<tr>
<th>Total Depth</th>
<th></th>
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<tbody>
<tr>
<td>205 ft.</td>
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<table>
<thead>
<tr>
<th>Estimated Head</th>
<th>Calculated Aquifer Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>205 ft.</td>
<td>205 ft.</td>
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<table>
<thead>
<tr>
<th>County Water Supply (Y/N ?)</th>
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</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

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

**Well Depth**
- Theoretical Thickness of Aquifer: 205 ft.
- 1/4 Aquifer Thickness: 51.25 ft.

**Depth of Well below Sea Level**
- 60 ft. too deep (refer to HWCPIS Section 2.2)

**Well Casing**
- Minimum Wall Thickness
  - Material
    - County or Non-County: non-county
  - Minimum Thickness per standards: 0.313 in.
  - Wall Thickness Provided: 0.375 in. okay (refer to HWCPIS Section 2.4 c)
  - Minimum Length of Solid Casing: 787.5 ft.
  - 90% of ground to top of aquifer
  - Length of solid casing Provided: 870 ft. okay (refer to HWCPIS Section 2.4 d)
- Casing Material: ASTM A53 okay (refer to HWCPIS Section 2.4 e)
- Annular Space: If the cell above reads N/A, reference HWCPIS
- Depth of Grouting
  - Calculated Depth of Grouting: 500 ft.
  - Depth of Grouting provided: 620 ft. okay (refer to HWCPIS Section 2.6 c)
  - Thickness of Annular Space: 3.5 in. okay (refer to HWCPIS Section 2.6 d)
TO: Honorable Bruce S. Anderson, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

FROM: Timothy E. Johns, Chairperson
   Commission on Water Resource Management

SUBJECT: Well Construction Permit / Pump Installation Permit Application for
   Kaupulehu 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and -4766-01)

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 April 10, 2000.

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:

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 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.

For the applicant's information, a source of possible wastewater contamination is located near the proposed well (information attached).

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

No comments/objections

Contact Person: Lori N. Kajiwara
Phone: 506-4294

Signed: Lori N. Kajiwara
Date: 4/3/2000
REPORT ON INDIVIDUAL WASTE WATER SYSTEM

Property Owner: HELCO
TMK: 7-2-3:3
Lot Size: 1 ACRE

Address: KAUPULEHU

Builder/Contractor: S. W. GLOVER
Intended For: JAPAN

Owner's/Agents Mailing Address: P.O. Box 1027, Hilo, HI 96720

Building Permit No.: 941644

Number of Bedrooms: 2

DEPARTMENT OF HEALTH Sanitation Branch
P.O. Box 228
Kealakekua, HI 96750
Ph: 322-7011

NOTARY PUBLIC

Notary Public signature required if persons other than owner signs "Owner's Certification Statement"

Subscribed and sworn before me this 18th day of March 1995

Notary Public
Judicial Circuit, State of Hawaii
TO: Dean Y. Uchida, Administrator
    Land Division
FROM: Linnel T. Nishioka, Deputy Director
      Commission on Water Resource Management
SUBJECT: Well Construction / Pump Installation Permit Application for Waipio
         Kaupulehu 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and -4756-01)

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 with regard to the programs,
plans, and objectives specific to your division. Specifically, Item 9 on the application has been
added per your request concerning water lease/permits administered by your division. Please
respond by returning this cover memo form by April 10, 2000.

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:

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

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

X[X] Other comments: Original source of title is Land Commission Award
    No. 7715:10 issued between 1845 and 1855.

Contact Person: Gary Martin
Phone: 587-0421

Signed: Gary Martin
Date: MAR 31 2000
Mr. Roger Harris
PIA-Kona Limited Partnership
P.O. Box 803
Kamuela, HI 96743

Dear Mr. Harris:

Well Construction/Pump Installation Permit Application for
Well No. 4757-03, -04 and 4756-01

We acknowledge receipt, on February 16, 2000, of your completed well construction / pump installation permit application for the Kaupulehu Irrigation 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and 4756-01). 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 (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.

Sincerely,

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

FROM: Timothy E. Johns, Chairperson  
Commission on Water Resource Management

SUBJECT: Well Construction Permit / Pump Installation Permit Application for Kaupulehu 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and -4756-01)

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 April 10, 2000.

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.

RI: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.

[ ] 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.

[ ] 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 ____________________________ Phone: ____________________________

Signed: ____________________________ Date: ____________________________
TO: Dean Y. Uchida, Administrator  
Land Division  

FROM: Linnel T. Nishioka, Deputy Director  
Commission on Water Resource Management  

SUBJECT: Well Construction / Pump Installation Permit Application for  
Kaupulehu 3, 4 & 5 Wells (Well Nos. 4757-03, -04 and -4756-01)  

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 with regard to the programs, plans, and objectives specific to your division. Specifically, Item 9 on the application has been added per your request concerning water lease/permits administered by your division. Please respond by returning this cover memo form by April 10, 2000.

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.

RI:ss  
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: ___________________________
PAY

** Seventy-five and 00/100 **

DOLLARS $**75.00**

TO

THE

ORDER

OF

Department of Land and Natural Resources

**612113755226: 800010314F 0183**
## DEPARTMENT OF LAND AND NATURAL RESOURCES

### UAC OR ATTACHED WORKSHEET

**DATE:** 3/23/00

<table>
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<tr>
<th>F YR</th>
<th>APP</th>
<th>D</th>
<th>SRC/CTR</th>
<th>OBJ</th>
<th>COST</th>
<th>PH ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (HAND INPUT)</th>
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<td>1026 0752</td>
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<td>0</td>
<td>(1)</td>
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<td>G 00</td>
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**TOTAL:** 100.00

### REMARKS:

**LINE (1)** Well No. 5514-02 (WCPA/PIPA)

**LINE (2)** Well No. 4757-03, 04 & 4756-01 (WCPA/PIPA)

**LINE (3)**

**LINE (4)**

---

**SHAWNE O'NEILL**

RR 1, BOX 452

WAILUKU, HI 96793

**DATE:** 12/1/99

To the Order of **D. L. W.R.**

Twenty-five and 00/100 DOLLARS

*Seventy-five* and 00/100 DOLLARS

**TO THE ORDER OF**

Department of Land and Natural Resources

---

**TNWRE INC.**

**DBA TOM NANCE WATER RESOURCE ENGINEERING**

680 ALA MOANA BLVD., STE. 406

HONOLULU, HI 96813

**DATE:** February 7, 2000

**PAY**

*Seventy-five and 00/100* DOLLARS

**TO THE ORDER OF**

Department of Land and Natural Resources

---

**AI Bank of Hawaii**

**WARD PLAZA BRANCH**

HONOLULU, HI 96814

**DATE:** February 7, 2000

**PAY**

*Seventy-five and 00/100* DOLLARS

**TO THE ORDER OF**

Department of Land and Natural Resources
## 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</th>
<th>Pump Installation</th>
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</thead>
<tbody>
<tr>
<td>7/28/93</td>
<td>4859-01</td>
<td>Kaupulehu Resor</td>
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<td>WELL</td>
<td>8/10/93</td>
<td>3/2/94</td>
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<tr>
<td>6/8/94</td>
<td>4757-01</td>
<td>Kaupulehu Irr 1</td>
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<td>PUMP</td>
<td>6/8/94</td>
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<tr>
<td>12/1/94</td>
<td>4658-02</td>
<td>Kaupulehu 2</td>
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<td>PUMP</td>
<td>12/1/94</td>
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<tr>
<td>12/1/94</td>
<td>4658-01</td>
<td>Kaupulehu 1</td>
<td></td>
<td>PUMP</td>
<td>12/1/94</td>
<td>10/22/96 11/13/96</td>
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Tuesday, February 29, 2000
**PUBLIC RECORD DATA**

**TMK # 3-7-2-3-3**

<table>
<thead>
<tr>
<th>Lessor: B P BISHOP ESTATE TRUSTEES</th>
<th>Lessee: PIA-KONA LTD PARTNERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Payer: PIA SPORTS PROPERTIES</td>
<td>Tenure: Leasehold</td>
</tr>
<tr>
<td>Tax Bill: 1501 FARM CREDIT DR, #2500, MCLEAN, VA 22102 USA</td>
<td>Semi-Annual Tax: $12,061.68</td>
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<table>
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<th>Assessed Value (99/00)</th>
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<tr>
<td>$2,368,900</td>
<td>$0</td>
<td>7,835.08 ac</td>
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<tr>
<td>Total Building: $51,100</td>
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<td>0 sq ft</td>
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<tr>
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<tbody>
<tr>
<td>PITT Code: 500</td>
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<tr>
<td>Land Use: 0</td>
<td>Nbhood Code: 7284</td>
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<th>SALES</th>
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<tr>
<td>05/24/1984 AL-M KAUPULEHU DEVELOPMENTS</td>
</tr>
<tr>
<td>05/01/1989 AL PIA-KONA LTD PARTNERSHIP</td>
</tr>
<tr>
<td>11/19/1990 L PIA-KONA LTD PARTNERSHIP</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.
**Commission on Water Resource Management**

**Route Slip for New Applications**

**From:** Ryan Bauer, G. Ching, F. Fujii, N. Hardy, R. Higa, D. Hirano, E. Ice, C. Imata, R. Jinna, R. Kunimura, I.

**Date:** 2/22/00

**Suspense Date:**

<table>
<thead>
<tr>
<th>TO</th>
<th>INIT.</th>
<th>TO</th>
<th>INIT.</th>
<th>FOR</th>
<th>PLEASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAEUER, G.</td>
<td></td>
<td>LUM, A.</td>
<td></td>
<td>3 Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>3 Signature</td>
<td>1 Review &amp; Comment</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>4 Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>1</td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
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<tr>
<td>HIGA, D.</td>
<td>3</td>
<td>OHYE, M.</td>
<td></td>
<td></td>
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<tr>
<td>HIRANO, E.</td>
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<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
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<tr>
<td>ICE, C.</td>
<td></td>
<td>SUBIA, S.</td>
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<td>IMATA, R.</td>
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<td>SWANSON, S.</td>
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<tr>
<td>JINNAI, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WELL NUMBER:** 4757-03-04

**WELL NAME:** Kaupulehu 3, 4, 8, 5

**WELL CONSTRUCTION**

- [ ] 1 TRANS. LETTER
- [ ] 2 CWRM MAP
- [ ] 3 APPL. FORM (3X)
- [ ] 4 USGS MAPS (3X)
- [ ] 5 TAX MAPS (3X)
- [ ] 6 OWNER VERIF.
- [ ] 7 CONTRACTOR VERIF.

**FOLDER:**

- [ ] MAKE NEW FOLDER
- [ ] FOLDER ALREADY MADE

**INCOMPLETE APPLICATION DATES:**

**DATE**

**ACTION**

---

**Notes:**

Ryan looks ok but just realized older company owns at same WCR 23. See attached.

I called Tom and said to send it WCR 23 before we issue, but I said need process.

Actually, he said it's a different company.
<table>
<thead>
<tr>
<th>TO: BAUER, G.</th>
<th>INIT:</th>
<th>TO: LUM, A.</th>
<th>INIT:</th>
<th>FOR: 3 Approval</th>
<th>PLEASE: See Me</th>
<th>1 Review &amp; Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHING, F.</td>
<td>INIT:</td>
<td>FUJII, N.</td>
<td>INIT:</td>
<td>3 Signature</td>
<td>3 Signature</td>
<td>Take Action</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>INIT:</td>
<td>HIGA, D.</td>
<td>INIT:</td>
<td>4 Information</td>
<td>Type Draft</td>
<td>Type Final</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td>INIT:</td>
<td>ICE, C.</td>
<td>INIT:</td>
<td></td>
<td>2 Type Final</td>
<td>5 File</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td>INIT:</td>
<td>JINNAI, R.</td>
<td>INIT:</td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td>INIT:</td>
<td>YODA, K.</td>
<td>INIT:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WELL NUMBER_________________________WELL NAME_________________________

☐ WELL CONSTRUCTION ☐ PUMP INSTALLATION

1 TRANS. LETTER
2 CWRM MAP
3 APPL. FORM (3X)
4 USGS MAPS (3X)
5 TAX MAPS (3X)
6 OWNER VERIF.
7 CONTRACTOR VERIF.

☐ MAKE NEW FOLDER
☐ FOLDER ALREADY MADE
February 22, 2000

Mr. Roger Harris
PIA-Kona Limited Partnership
P.O. Box 803
Kamuela, HI 96743

Dear Mr. Harris:

We acknowledge receipt, on February 16, 2000, of your complete well construction / pump installation permit application for the Kaupulehu Irrigation 3, 4 & 5 Wells / Well Nos. 475-03, -04 and -06. 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 (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.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Re: ss
Ms. Linnel T. Nishioka - Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P. O. Box 621
Honolulu, Hawaii  96809

Dear Ms. Nishioka:

Well Construction Permit Applications for
Kaupulehu Irrigation Well Nos. 3, 4, and 5 in North Kona, Hawaii

On behalf of PIA Kona Limited Partnership, I am pleased to submit the enclosed Well Construction permit applications and filing fee for Kaupulehu Irrigation Well Nos. 3, 4, and 5 in North Kona, Hawaii. The three new wells are needed to provide irrigation supply for two new golf courses which will start construction later this year. One course will be located mauka of the irrigation wells and the other will be in the Hualalai Resort.

If you have any questions or need additional information, please feel free to call. Thank you for your assistance to this matter.

Sincerely,

Tom Nance

Enclosures

cc:  Roger Harris - PIA Kona  [Fax only]
APPLICATION FOR PERMIT

Well Construction or Pump Installation

1-18-00 00-04

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 3 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. (Also, please check our website at http://www.hawaii.gov/dlnr/dwrm/dwrm.hfml)

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

PIA-Kona Limited Partnership

1. (a) WELL OWNER: PIA-Kona Limited Partnership Contact Person: Roger Harris Phone: 808-885-4872
Mailing Address: P.O. Box 803 Kamuela, Hawaii 96743
Fax: 808-885-5721 E-mail: __________
(b) LAND OWNER: Kamehameha Schools Contact Person: Rick Robinson Phone: 808-322-5300
Mailing Address: 567 South King Street - Suite 200 Honolulu, Hawaii 96813
Fax: __________ E-mail: __________
(c) CONTRACTOR: To Be Competitively Bid Contact Person: Phone: __________
Mailing Address: ____________________________________________
Fax: __________ E-mail: __________ Lic #: __________

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

2. WELL LOCATION/NAME: Kaupulehu-3 Island: Hawaii
Address: ____________________________________________
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. PROPOSED WORK:

PROPOSED USE:

[ ] Drill New Well [ ] Modify Existing Well [ ] Abandon/Seal *
[ ] Deepen [ ] Redrill [ ] Replace Pump
[ ] Install New Pump [ ] Modify Pump
[ ] Well No.: ________ Be sure to complete and submit the well abandonment report upon completion of work.

4. CONSTRUCTION:

PROPOSED PUMP INFORMATION:

[ ] Dig [ ] Bored [ ] Driven [ ] Drill Well
[ ] Drilled [ ] Radial

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity:

Gallons per minute 550

Type: [ ] Deep Well Turbine [ ] Rotary [ ] Propeller [ ] Electric, rated horsepower: 200
[ ] Submersible [ ] Rotary-Displacement [ ] Reciprocating [ ] Gas
[ ] Centrifugal [ ] Rotary-Gear [ ] Impulse [ ] Other (explain): __________

6. PROPOSED USE:

MONOPLURALITY:
[ ] Municipal (including hotels, stores, etc.) [ ] Industrial
No. of Dwelling Units: __________
[ ] Domestic (individual, noncommercial water system) [ ] Other (explain): __________
No. of Acres: __________
[ ] Irrigation (crop) [ ] Golf Course [ ] Other (explain): __________
[ ] Military

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:

Gallons per day 500,000

(b) METHOD OF FLOW MEASUREMENT:

Flowmeter [ ] Open-pipe [ ] Weir [ ] Orifice [ ] Other (explain)

OTHER IMPORTANT INFORMATION:

8. PENDING ACTIONS: [ ] CDUA [ ] SMA [ ] EIS [ ] EA [ ] NONE [ ] Other (explain)

9. REMARKS, EXPLANATIONS: Three wells will be drilled to provide irrigation for two golf courses to be constructed later this year, one mauka of the wells and the other in the Hualalai Resort.

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 permit capacity or future use up to the permitted pump capacity.

PIA-Kona Limited Partnership

Well Owner: [Signature] Landowner: Kamehameha Schools
Contractor: [Signature]

Date 2-1-00 Date 2-1-00

Field Checked By __________________________ Longitude __________________________
Date __________________________ State Well No. __________________________

WCPIFORM (9/13/99)
11. PROPOSED WELL SECTION

Hole Diameter: 21 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 880 ft., msl"

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
- Material: Steel
- Material Standard: ASTM A53
- Length: 670 ft.
- Diameter: 12 in.
- Wall Thickness: 0.375 in.
- Bottom Elevation: -10 ft., msl"

Open Casing:
- Perforated
- Screen

Material:
- Material Standard: ASTM A53
- Length: 60 ft.
- Diameter: 6 in.
- Wall Thickness: 0.3125 in.
- Openings: 7 sq. in./L.F.
- Bottom Elevation: -50 ft., msl"

Open Hole:
- Length: 10 (Optional) ft.
- Diameter: 6 in.
- Bottom Elevation: 60 ft., msl"

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 = (Water Elevation - 4 x Water Level Elevation)

Example: Estimated + 2 ft. Water Level Elev. = Bottom Elevation of Well Limit = (2 - 4.1 x 0.01) = -18.5 ft.

* 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.

Solid Casing Material:

Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

Stainless Steel: (check one):
- ASTM A409
- ASTM A312

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

PVC Plastic conforming to ASTM F480 and (ASTM D1780 or ASTM D2241): (check one):
- Schedule 40
- Schedule 80

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:

Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

Stainless Steel: (check one):
- ASTM A409
- ASTM A312

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

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
1-18-00

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 261, 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. (Also, please check our website at: http://www.hawaii.gov/dlnr/dwrm/dwrm.html)

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

PIA-Kona Limited Partnership
Contact Person: Roger Harris
Phone: 808-885-4872
Mailing Address: P.O. Box 803 Kamuela, Hawaii 96743
Fax: 808-885-5721
E-mail: ___________

LANDOWNER:
Kamehameha Schools
Contact Person: Rick Robinson
Phone: 808-322-5300
Mailing Address: 567 South King Street - Suite 200 Honolulu, Hawaii 96813
Fax: ___________
E-mail: ___________

CONTRACTOR:
To Be Competitively Bid
Contact Person: ______________________
Phone: ______________________
Fax: ______________________
E-mail: ______________________

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

1. WELL INFORMATION:
(a) LOCATION/NAME: Kauepenehu-
Island: Hawaii
Owner: Kamehameha Schools
Address: ____________________________________________
Fax: 808-885-5721 E-mail: ___________

LOCATION/NAME: Kaupehu-4
Island: Hawaii
Owner: PIA-Kona Limited Partnership
Address: ____________________________________________
Fax: 808-885-5721 E-mail: ___________

WELL INFORMATION:
Kaupehu-4
Island: Hawaii
Owner: PIA-Kona Limited Partnership
Address: ____________________________________________
Fax: 808-885-5721 E-mail: ___________

2. WELL LOCATION/NAME: Kaupehu-4
Island: Hawaii
Owner: PIA-Kona Limited Partnership
Address: ____________________________________________
Fax: 808-885-5721 E-mail: ___________

3. PROPOSED WORK:
(Commut all that apply)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill New Well</td>
<td>Add new well to existing infrastructure</td>
</tr>
<tr>
<td>Deepen</td>
<td>Deepen an existing well to meet needs</td>
</tr>
<tr>
<td>Install New Pump</td>
<td>Install a new pump to meet needs</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td>Modify an existing well for future use</td>
</tr>
<tr>
<td>Redrill</td>
<td>Redrill an existing well to meet needs</td>
</tr>
<tr>
<td>Modify Pump</td>
<td>Modify the pump to meet needs</td>
</tr>
<tr>
<td>Abandon/Seal*</td>
<td>Abandon or seal an existing well to meet needs</td>
</tr>
<tr>
<td>Replace Pump</td>
<td>Replace an existing pump to meet needs</td>
</tr>
</tbody>
</table>

WELL INFORMATION:
Kaupehu-4
Island: Hawaii
Owner: PIA-Kona Limited Partnership
Address: ____________________________________________
Fax: 808-885-5721 E-mail: ___________

4. CONSTRUCTION:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bored</td>
<td>Bored well</td>
</tr>
<tr>
<td>Driven</td>
<td>Driven well</td>
</tr>
<tr>
<td>Radial</td>
<td>Radial well</td>
</tr>
</tbody>
</table>

5. PROPOSED PUMP INFORMATION:
Rated Pump Capacity: 550 gallons per minute
Powered by:
- Diesel
- Gas
- Electric, rated horsepower: 200
- Other (explain): ______________________

6. PROPOSED USE:
(Commut all that apply)

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal</td>
<td>Municipal (including hotels, stores, etc.)</td>
</tr>
<tr>
<td>Domestic</td>
<td>Domestic (individual, noncommercial water system)</td>
</tr>
<tr>
<td>Irrigation (crop)</td>
<td>Irrigation (crop)</td>
</tr>
<tr>
<td>Golf Course</td>
<td>Golf Course</td>
</tr>
<tr>
<td>Military</td>
<td>Military</td>
</tr>
</tbody>
</table>

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
500,000 gallons per day
(b) METHOD OF FLOW MEASUREMENT:
- Flowmeter
- Open-pipe
- Weir
- Orifice
- Other (explain): ______________________

OTHER IMPORTANT INFORMATION:

8. PENDING ACTIONS:
- CDUA
- SMA
- EIS
- EA
- NONE
- Other (explain): ______________________

9. REMARKS, EXPLANATIONS:
Three wells will be drilled to provide irrigation for two golf courses to be constructed later this year, one mauka of the wells and the other in the Hualalai Resort.

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 future use up to the permitted pump capacity.

PIA-Kona Limited Partnership
Well Owner ______________________
Signature ______________________
Date ______________________

Landowner Kamehameha Schools
Contactor ______________________
Signature ______________________
Date ______________________

Field Checked By ______________________
Longitude ______________________
Aquifer System Name ______________________
Date ______________________
Latitutde ______________________
State Well No. ______________________

WCPiform (9/13/99)
11. PROPOSED WELL SECTION

Solid Casing Material:
- Steel:
- Stainless Steel:
- ABS
- PVC

Open Casing Material:
- Stainless Steel:
- PVC Plastic

Minimum annular space between hole and casing ≥ 3"

Rock or Gravel Packing:
- None

Material:
- Crushed Basalt
- Rounded Gravel

Water Level Elevation: __ ft., msl*

Cement Grout: 650 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Total Depth: 980 ft.

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 = (Water Elevation - 0.25 x Water Level Elev.)

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - 0.25 x 2) = 1.5 ft.

* 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.

Solid Casing Material:
- 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
  - ASTM A312
- 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
- Thermoset Plastic: (check one):
  - Filament Wound Resin Pipe conforming to ASTM D2996
  - Centrifically Cast Resin Pipe conforming to ASTM D2997
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Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to assure that your construction plans are in compliance with all existing regulations.

Example:
- Elevation at top of casing 922 ft., msl*
- Hole Diameter: 21 in.
- Minimum of 2' Radius & 4" Thick Concrete Pad
- Ground Elevation: 920 ft., msl*

Thick Concrete Pad:
- Thk 3' Radius & 4" Thick Concrete Pad
- Elevation of 920 ft., msl*
- Diameter: 21 in.
- Wall Thickness: 0.375 in.
- Bottom Elevation: 920 ft., msl*

Water Level Elevation: __ ft., msl *

Minimum of 2' Radius & 4" Thick Concrete Pad

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to assure that your construction plans are in compliance with all existing regulations.

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- Wall Thickness: 0.375 in.
- Bottom Elevation: 920 ft., msl*

Water Level Elevation: __ ft., msl *

Minimum of 2' Radius & 4" Thick Concrete Pad

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