EXHIBIT 1: Location Map

Vacationland #1 through #4 Wells
Well Nos. 2979-02 through -05

SCALE: 1" = 2000'

Well Location
<table>
<thead>
<tr>
<th>FROM:</th>
<th>ERNIE</th>
<th>DATE:</th>
<th>SUSPENSE DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO:</td>
<td>INIT.</td>
<td>TO:</td>
<td>INIT:</td>
</tr>
<tr>
<td>ANAKALEA, P.</td>
<td>____</td>
<td>LAU, E.</td>
<td>____</td>
</tr>
<tr>
<td>BAUER, G.</td>
<td>____</td>
<td>MATHIAS, T.</td>
<td>____</td>
</tr>
<tr>
<td>CHING, F.</td>
<td>____</td>
<td>NAKAMA, L.</td>
<td>____</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td>____</td>
<td>NAKANO, D.</td>
<td>____</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td>____</td>
<td>OHYE, M.</td>
<td>____</td>
</tr>
<tr>
<td>GOODING, K.</td>
<td>____</td>
<td>SAKODA, E.</td>
<td>____</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>____</td>
<td>SUBIA, S.</td>
<td>____</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td>____</td>
<td>SWANSON, S.</td>
<td>____</td>
</tr>
<tr>
<td>ICE, C.</td>
<td>____</td>
<td>UYENO, D.</td>
<td>____</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td>____</td>
<td>YODA, K.</td>
<td>____</td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td>____</td>
<td>YOSHINAGA, M.</td>
<td>____</td>
</tr>
</tbody>
</table>
September 13, 2001

Ms. Ardythe Harms  
14-4196 Keaau-Pahoa Road  
Pahoa, HI 96778

Dear Ms. Harms:

Special Management Area Use Permit Assessment Application (SMAA 01-25)  
Applicant: Ardythe Harms  
Request: Establishment of a water well to serve an existing single family dwelling  
TMK: 1-4-67: 38, Vacationland Subdivision, Kapoho Puna Hawaii

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.

The requested use is exempt from the definition of “development” by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN  
Planning Director

PF:pak  
p:\wpwin60\czm\SMAA\2001\SMAA01-25
Ms. Ardythe Harms
Page 2
September 13, 2001

cc: Long Range Planning
    Mr. Jeff Darrow, Ministerial Division
Ms. Ardythe Harms  
14-4196 Keaau-Pahoa Road  
Pahoa, HI 96778  

Dear Ms. Harms:  

Special Management Area Use Permit Assessment Application (SMAA 01-26)  
Applicant: Ardythe Harms  
Request: Establishment of a water well to serve an existing single family dwelling  
TMK: 1-4-70: 15, Vacationland Subdivision, Kapoho Puna Hawaii  

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.  

The requested use is exempt from the definition of “development” by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.  

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.  

Sincerely,  

CHRISTOPHER J. YUEN  
Planning Director  

PF:pak  
p:\wpwin60\czm\SMAA\2001\SMAA01-26
cc: Long Range Planning
    Jeff Darrow, Ministerial Division
September 13, 2001

Ms. Ardythe Harms
14-4196 Keau-Pahoa Road
Pahoa, HI 96778

Dear Ms. Harms:

Special Management Area Use Permit Assessment Application (SMAA 01-28)  
Applicant: Ardythe Harms  
Request: Establishment of a water well to serve an existing single family dwelling  
TMK: 1-4-70: 28, Vacationland Subdivision, Kapoho Puna Hawaii

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.

The requested use is exempt from the definition of “development” by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

PF:pak
p:\wpwin60\czm\SMAA\2001\SMAA01-28
September 13, 2001

Ms. Ardythe Harms
14-4196 Keau-Pahoa Road
Pahoa, HI 96778

Dear Ms. Harms:

Special Management Area Use Permit Assessment Application (SMAA 01-27)
Applicant: Ardythe Harms
Request: Establishment of a water well to serve an existing single family dwelling
TMK: 1-4-70: 27, Vacationland Subdivision, Kapoho Puna Hawaii

This is to acknowledge receipt of your Special Management Area Use Permit Assessment Application for the establishment of a water well to serve an existing single family dwelling in the Vacationland Subdivision in Kapoho.

The requested use is exempt from the definition of “development” by Planning Commission Rule No. 9 regarding the Special Management Area, as the water well will serve an existing single family dwelling on the property. While further review against the Special Management Area rules and regulations will not be required, all other applicable Zoning and Building Code requirements must be satisfied.

If you have any further questions, please contact Phyllis Fujimoto or Jeff Darrow of this office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

PF: pak
p:\wpwin60\czm\SMAA\2001\SMAA01-27
<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>BAUER, G.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJI, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>X</td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox ___ copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td>Last person - trash</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td>X</td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
August 13, 2001

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

VACATIONLAND WATERLINE
TAX MAP KEY: 1-4-067:039; 1-4-070:015, 027, AND 028

This is in response to your letter of July 24, 2001, regarding the subject waterline. First for your information, the applicant, Ms. Ardyth Harms, also owns several other parcels in addition to the one mentioned above either individually or with others.

The following are in response to the items in your letter:

1. The 5/8-inch meter being charged to Ms. Ardyth Harms was installed in 1993.

2. The existing water system servicing the Vacationland Subdivision has additional capacity.

3. The 5/8-inch meter is located on the Pohiki-Kapoho Road.

4. Yes, there is sufficient capacity in the Department of Water Supply’s system to serve Ms. Harms’ residences as well as the entire Vacationland Subdivision.

5. The facilities charge for a 1-inch meter to service Ms. Harms’ residences is $10,875.00. The temporary deposit for the installation of the meter is $1,400.00. Should the installation cost be more than the deposit, then she would be assessed the overage. However, should the installation cost be less than the deposit, then a refund would be owed to Ms. Harms.

6. The only other requirement would be the execution by Ms. Harms of the Department’s “Policy & Conditions for Water Service (Premises not within service limits of the Department).” This agreement simply notifies the applicant that the meter does not front the parcel.

...Water brings progress...
If you have any further questions, please contact Mr. Glenn Ahuna of our Water Resources and Planning Branch at 961-8070, extension 260.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

GGA:jh
TO: Ms. Anne Furuuchi  
Fiscal Management Officer  
FROM: Linnel T. Nishioka  
Deputy Director  
SUBJECT: Refund Check for Ardythe Harms

We would like to request a check for $3972.00 to be made to Ardythe Harms.

The reason for the check is that the Commission has recently reduced a fine of $5672.00 (imposed at the May 16, 2001 Commission Meeting) to $1700.00 (imposed at the August 15, 2001 Commission Meeting) against Ms. Harms.

Ms. Harms paid the fine of $5672 on May 30, 2001. Therefore, she is due a refund of $3972.00, which is equal to $5672.00 less $1700.00.

If you have any further questions or require additional information, please contact Ryan Imata of the Commission Staff at 587-0255.
Kathy - did she pay the $5,672 already? Didn't know. Need to route checks to Reg branch before depositing. Thanks. OK by.

Kathy/Ryan - Do we need to refund her? I so need to
Ref: 2979-02 through -05.act2

Ms. Ardythe Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

Dear Ms. Harms:

Notice of Action
Fine Reconsideration
Vacationland #1 through #4 Wells (Well Nos. 2979-02 through -05)

This letter serves as your official notice of action taken by the Commission on Water Resource Management (Commission) on the subject application. By a unanimous vote of the Commission at their meeting on August 15, 2001, the Commission reduced your fine to $1700.00. Staff will contact you about issuing a refund check in the amount of $3972.00, which is calculated as the fine your originally paid, $5672.00, less the new fine of $1700.00.

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
<table>
<thead>
<tr>
<th>F YR</th>
<th>APP</th>
<th>D</th>
<th>SRC/ OBJ</th>
<th>COST</th>
<th>CTR</th>
<th>PROJECT</th>
<th>PH</th>
<th>ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (WANG INPUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>01</td>
<td>226</td>
<td>G</td>
<td>1564</td>
<td>0792</td>
<td>--------</td>
<td></td>
<td></td>
<td>(1) $5,672.00</td>
<td>Turner Drilling (Ck #1033)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2) $5,672.00</td>
<td>Gary B. Harms (Cashier's Check-BOH Ck #20275104)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL</td>
<td>$11,344.00</td>
</tr>
</tbody>
</table>

REMARKS: LINE (1) Violation for Vacation Land 1 to 4 Wells (Well Nos. 2979-02 to 05)
LINE (2) " " "
LINE (4) " " "
05/31/01 #0052* CHEC 11344.00
STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

August 15, 2001
Honolulu, Oahu

Ms. Ardythe Harms
RECONSIDERATION OF FINES
Vacationland #1 through #4 Wells (Well No. 2979-02 through -05)
Kapoho, Hawaii

APPLICANT/LANDOWNER:
Ardythe Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

BACKGROUND:

This submittal was prepared in response to the Commission’s request to verify information provided by Ardythe Harms at the Commission’s meeting on July 18, 2001.

The Department of the Attorney General has confirmed that the Commission does not have provisions for reconsideration of fines and that an applicant’s remedy is either to request a contested case hearing at the time of the meeting or to file a legal action. However, we are bringing this back to the Commission because at the time of the May 16, 2001 meeting, although it is clear that Ms. Harms was aware of the May 2001 meeting, staff neglected to send a copy of the agenda that advises applicants of their legal rights and a copy of the submittal. Therefore, staff feels that a reconsideration is warranted in this very limited circumstance. Staff will explore the feasibility and desirability of having a reconsideration process for enforcement actions with the Department of the Attorney General.

Vacationland water system

Vacationland is a private subdivision located in Kapoho on the Big Island. Prior to 1993 (approximately), all of the domestic water for the subdivision was supplied by catchment systems. In 1993, 15 homeowners had Department of Water Supply (DWS) meters installed along Red Road, with 15 individual lines connecting from the meters to the homes. Ardythe Harms was one of these 15 owners.
While Ms. Harms had only 1 meter, she serviced multiple parcels via this meter. The initial installation of a meter for Ms. Harms assumed that she would be using the water for a single parcel. Upon DWS discovery of the multiple services, DWS requested that Ms. Harms pay the appropriate facilities charge to use the meter for multiple services.

In the meantime, it was discovered that some of the 15 water lines connecting the 15 meters to the parcels within the subdivision were constructed insufficiently and soon failed. Apparently Ms. Harms’ connection continues to this day to service her 16 units.

As a result, the Kapoho Kai Water Association (KKWA) was formed to install a single large meter from the DWS line along Red Road and a single private distribution line throughout the community. Ms. Harms was originally one of the users who had paid $5000 for each service connection to her 16 residences from this system for a total of $80,000.

According to the KKWA, the KKWA refunded Ms. Harms $80,000 for the total amount that she initially paid for the 16 connections and told her she wouldn’t be allowed to participate in the use of the water line.

Construction of the KKWA system began in the Fall of 2000 and was completed in April of 2001.

Violation

In December of 2000, staff received information that drilling was occurring in the Vacationland area. Staff verified that no permits were issued in this area, and Division of Conservation and Resource Enforcement assisted staff in determining what drilling activities occurred.

Staff confirmed that four wells were drilled and four pumps were installed without permits at the end of 2000. Ms. Harms contracted with Turner Drilling and Pump to do this work. This was occurring during the construction of the KKWA system.

Commission action

On May 16, 2001, the Commission found Ms. Harms and Turner Drilling in violation of various rules for the construction of the wells and installation of the pumps.

Staff recommended that the fine for the driller should be $5672, and the fine for the applicant should be $800. The original justification for these fines can be found in Exhibit 1. The reason staff recommended a larger fine for Turner Drilling was that Turner previously obtained 2 Well Construction and Pump Installation permits and should have known that permits were required. Staff felt that because Ms. Harms had not obtained permits before, that Turner was the more responsible party.

The Commission decided that the fine levied on Ms. Harms should equal the fine on Turner Drilling. The Commission required Ms. Harms and Turner Drilling to pay a fine of $5672 each and ordered the applicant to seal the illegal wells.


Request by Ms. Harms for reconsideration

On June 1, 2001, staff received a letter from Ms. Harms requesting reconsideration of her fines (attached as Exhibit 2). While staff included her request in the submittal on July 18, 2001, the Commission felt that the request should be addressed and noticed in a separate submittal.

Application for new wells

On May 25, 2001, Ms. Harms and Turner Drilling applied for replacement wells to be drilled in the immediate proximity of each of the four wells previously drilled. Staff felt that these
applications should be taken to the Commission for action, due to the previous Commission action. At the July 18, 2001 Commission meeting, Ms. Harms made several statements:

a) She claimed that she could have a meter installed on Red Road, but the associated cost would be $5000 per connection. Since she had 8 units that were duplexes, the total cost would be 8 x 2 x $5000 = $80,000.

b) She claimed she had no alternatives to wells because the association would not allow her to connect to the association system. Also, because other new resident connections had been made to the system that now filled the system’s capacity, she was further prevented from connecting to the KKWA system even if she paid them the $80,000.

c) DWS could not supply water because there was no available meter.

d) She also claimed that DWS would require her to be in compliance with building codes in order to make any kind of connections.

The Commission approved the issuance of Well Construction and Pump Installation Permits for these four new wells at the July 18, 2001 meeting.

SMA requirement

The above well construction permits were submitted on May 25, 2001. Prior to the acceptance of the permit applications, on March 22, 2001, staff specifically explained to Naomi Turner of Turner Drilling that the County Planning Department was to be contacted regarding SMA requirements. Item 8 on the permit application specifically asks whether an SMA permit was required. In her application, Ms. Harms stated that no SMA permit was required.

Additionally, on May 16, 2001, Ms. Harms sent a letter to the Commission specifically stating that she herself had gone down to the County Planning office and was advised that no permit was required. (Exhibit 3).

Because the Commissioners asked for a more detailed analysis of the application, staff researched whether SMA, CDUP, EIS and EA were required. When staff called the County of Hawaii’s Planning Department, we were immediately informed that Ms. Harms’ properties were located in an SMA zone, and that either an exemption or a minor SMA permit were required from the County. Therefore, the representation made on the application itself and in Ms. Harms’ letter were not correct.

Special Management Area permits are issued by the county and are critical because §205A-29(b), HRS, states that: “[n]o agency authorized to issue permits pertaining to any development within the special management area shall authorize any development unless approval is first received in accordance with the procedures adopted pursuant to this part.”

Therefore, the Commission is not legally able to issue the Well Construction Permits for these four wells. Staff has sent a letter to Ms. Harms stating that her permits are in suspension until SMA issues are resolved. Staff will reactivate the permits upon notification that the SMA process is complete. Staff has done similar suspension actions administratively in a few other cases.

Information from DWS and KKWA

Staff requested additional information from both the Department of Water Supply (DWS) and the Kapoho Kai Water Association to substantiate claims made by Ms. Harms at the Commission meeting on July 18, 2001.

a) cost of connecting to DWS system

Regarding item a), in which Ms. Harms claimed the cost for connection would be $80,000, there are three possible cost scenarios based on DWS comments:
1) If Ms. Harms were to use the existing Red Road meter and water line to her parcels, the cost would be $10,875, which represents the facilities charge according to the DWS. DWS states that this service continues to this day and there has been no collection of the facilities charge.

2) If Ms. Harms were allowed to connect to the KKWA system, the charge would be $5000 x 16 units = $80,000.

3) If Ms. Harms were to install a new meter and new water line to her 16 units (assuming her existing line were in a state of disrepair), the cost would be the $10,875 facilities charge, $1500 for installation of a new meter, plus approximately $50/ft. x 5000 ft. = $250,000, for a total charge of approximately $262,375.

b) Ms. Harms would not be allowed to connect to the KKWA meter

This is true to the extent that she is not currently allowed to connect to the system, because all 50 connections that the KKWA meter can supply are currently servicing other users. However, there is some question as to whether or not Ms. Harms could have connected to the system at the beginning of the project when there was capacity available to accommodate her. The KKWA claims that DWS would not supply the entire project unless Ms. Harms paid her outstanding bill of approximately $3000. The DWS claims that there is no outstanding $3000 bill, and that they would have preferred Ms. Harms to be on the KKWA system. DWS said they do not know why KKWA did not let Ms. Harms on the system earlier. Therefore, it is unclear why Ms. Harms was not allowed to participate in this alternative.

c) Ms. Harms claimed that DWS could not supply water to her properties because there was no available meter.

This is incorrect, DWS has an available meter for her use on Red Road for the charges as set forth in a) 1) and a) 3) above. She would also have to resolve any outstanding monies owed, if any, to DWS before they would install the meter for her use.

d) Ms. Harms claim that DWS would require her to be in compliance with building codes

Staff contacted DWS who said that the properties to be serviced would have to comply with plumbing codes in order for Ms. Harms to be allowed service from DWS. DWS said that they have no building permit prerequisites to allowing DWS service other than compliance with plumbing codes since her plumbing would be connected to the KKWA system which services other users.

STAFF ANALYSIS

Staff feels that while Ms. Harms represented that she had no other alternatives in drilling the four wells, she could have either: a) resolved her differences with the DWS and could have been allowed to share in the cost of the KKWA distribution line when the line was originally installed; or b) installed her own distribution line after paying facilities charges. However, because the KKWA distribution line is currently servicing the maximum amount of users, Ms. Harms does not have a way to now participate in the KKWA system. For Ms. Harms to connect to the DWS system, she would probably incur a cost between $10,875 and $262,375. Although normally alternatives to well construction activities are not a consideration in the permit approval process, unless surface water impacts are involved, these alternative issues are pertinent to the reconsideration of fines due to good faith issues.

In the May 2001 submittal, staff felt that Turner Drilling was the more responsible party in obtaining the permits and therefore originally recommended a fine of $800. The Commission determined that Ms. Harms should be the same fine as Turner Drilling of $5,672. Staff’s initial recommendation was made prior to this more detailed analysis and the discovery of certain inconsistencies and discrepancies in Ms. Harms’ representations to the Commission. In discussion between staff and Glenn Ahuna of DWS, Glenn said that he told Ms. Harms over a
year ago that if she wanted to develop wells, that permits were required from the Commission. Staff has had numerous similar referrals from Mr. Ahuna in the past.

RECOMMENDATION:

Staff recommends that the Commission considers all the facts and circumstances and determines whether a reduction in fine is warranted. reduce fine to $1700.

Respectfully submitted,

LINNEL T. NISHIOKA
Deputy Director

Exhibit(s):

1. (Original Fine Schedule)
2. (Letter from Ms. Harms dated June 1, 2001)
3. (Letter from Ms. Harms dated May 16, 2001)
## FINES FOR APPLICANT

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Finding of violation (min. $250)</th>
<th>Occurring in WMA (min. $250)</th>
<th>Repeat violation (min. $250)</th>
<th>Gravity component</th>
<th>Mitigative component</th>
<th>TOTAL DAILY FINES</th>
<th>Start date</th>
<th>End date</th>
<th>Complain within 30 days (yes/no)</th>
<th>Total duration of violation</th>
<th>Alternate settlement</th>
<th>Subtotal fine for one incident</th>
<th>No. of incidents</th>
<th>Subtotal fines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Well Construction Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>$900</td>
<td>$100</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55 yes</td>
<td>1</td>
<td>$100</td>
<td>4</td>
<td>$400</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>No Pump installation Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>$900</td>
<td>$100</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55 yes</td>
<td>1</td>
<td>$100</td>
<td>4</td>
<td>$400</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>No Well Completion Reports completed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>$900</td>
<td>$100</td>
<td>2/18/2001</td>
<td>4/18/2001</td>
<td>59 no</td>
<td>59</td>
<td>$0</td>
<td>8</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Annular space violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>$900</td>
<td>$100</td>
<td>12/22/2000</td>
<td>2/13/2001</td>
<td>55 yes</td>
<td>1</td>
<td>$0</td>
<td>1</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Concrete pad violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>$900</td>
<td>$100</td>
<td>12/22/2000</td>
<td>4/6/2001</td>
<td>107 yes</td>
<td>1</td>
<td>$0</td>
<td>4</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Flowmeter not installed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>$900</td>
<td>$100</td>
<td>12/22/2000</td>
<td>4/6/2001</td>
<td>107 yes</td>
<td>1</td>
<td>$0</td>
<td>4</td>
<td>$0</td>
<td></td>
</tr>
</tbody>
</table>

### TOTAL FINES

**$500**

### NOTES

<table>
<thead>
<tr>
<th>A</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Description - description of the violation, see submittal text for specific rules violated</td>
</tr>
<tr>
<td>C</td>
<td>Finding of violation (min. $250) - where there is a violation, there is a minimum daily fine of $250</td>
</tr>
<tr>
<td>D</td>
<td>Occurring in WMA (min. $250) - When the violation is in a designated Water Management Area, there is a minimum additional daily fine of $250</td>
</tr>
<tr>
<td>E</td>
<td>Repeat violation (min. $250) - When the violator has committed violations in the past, there is a minimum additional daily fine of $250</td>
</tr>
<tr>
<td>F</td>
<td>Gravity component - allows for the increase of the daily fine</td>
</tr>
<tr>
<td>G</td>
<td>Mitigative component - allows for the decrease of the daily fine</td>
</tr>
<tr>
<td>H</td>
<td>TOTAL DAILY FINES - the sum of the values in columns C through G</td>
</tr>
<tr>
<td>I</td>
<td>Start date - the date where calculation of daily fines begins (date of notice of violation, or permit approval, or permit fully signed, or violation occurred, or CWRM order)</td>
</tr>
<tr>
<td>J</td>
<td>End date - the date of the end of the violation or latest CWRM meeting or completed permit application</td>
</tr>
<tr>
<td>K</td>
<td>No. of days - calculated between start and end dates</td>
</tr>
<tr>
<td>L</td>
<td>Compliance within 30 days (yes/no) - if the applicant complies with the Commission's staff notice of violation requirements within 30 days</td>
</tr>
<tr>
<td>M</td>
<td>Total duration of violation - if there was compliance with staff notice of violation within 30 days, the duration shall be one (1) day. If there was no compliance with staff notice of violation within 30 days, the duration shall be the total days of the violation.</td>
</tr>
<tr>
<td>N</td>
<td>Alternate settlement (yes / no) - an alternate settlement in lieu of the daily fine was recommended</td>
</tr>
<tr>
<td>O</td>
<td>Subtotal fine for one incident - per incident fine</td>
</tr>
<tr>
<td>P</td>
<td>No. of incidents - of violation that occurred for this investigation</td>
</tr>
<tr>
<td>Q</td>
<td>Subtotal fines - the subtotal of fines, calculated by multiplying (per incident fine) * (no. of incidents)</td>
</tr>
</tbody>
</table>

### EXHIBIT 1: Fine Schedule
8. Ms. Ardythe Harms RECONSIDERATION OF FINES, Vacationland #1 through #4 Wells (Well No. 2979-02 through -05), Kapoho, Hawaii

PRESENTATION OF SUBMITTAL: Ryan Imata

RECOMMENDATIONS:

Staff recommends that the Commission considers all the facts and circumstances and determines whether a reduction in fine is warranted.

Commissioner Richards stated that a mistake was made in his judgment of the violation. He felt that the Commission should have an appeal policy.

Commissioner Anderson suggested that the fine be reduced from $5,872 to a one-time fine of $1,700 ($800 – original fine violation plus $900 – mitigative component).

MOTION: (RICHARDS/ANDERSON)
To approve the submittal as amended.
UNANIMOUSLY APPROVED AS AMENDED.

ADDED ITEM:

Maui Meadows Homeowner Association, c/o James Williamson, Vice President,
Petition for Ground Water Management Area Action, Iao Aquifer System, Wailuku, Maui

PRESENTATION OF SUBMITTAL: Linnel Nishioka

RECOMMENDATION:

That the Commission:

A. Extend the 60-day chairperson recommendation deadline to accommodate and gather comments from the various county agencies as required by law.

B. The chairperson shall make a recommendation on the issue of continuance of the designation process for this petition at the Commission’s November meeting.

MOTION: (NOBRIGA/RICHARDS)
To approve the submittal.
UNANIMOUSLY APPROVED.

Deputy Director Nishioka recognized Ryan Imata for the work he had completed on some very difficult submittals and commended him on providing thorough and detailed factual investigations and findings.
August 13, 2001

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

VACATIONLAND WATERLINE
TAX MAP KEY: 1-4-067:039; 1-4-070:015, 027, AND 028

This is in response to your letter of July 24, 2001, regarding the subject waterline. First for your information, the applicant, Ms. Ardyth Harms, also owns several other parcels in addition to the one mentioned above either individually or with others.

The following are in response to the items in your letter:

1. The 5/8-inch meter being charged to Ms. Ardyth Harms was installed in 1993.

2. The existing water system servicing the Vacationland Subdivision has additional capacity.

3. The 5/8-inch meter is located on the Pohiki-Kapoho Road.

4. Yes, there is sufficient capacity in the Department of Water Supply’s system to serve Ms. Harms’ residences as well as the entire Vacationland Subdivision.

5. The facilities charge for a 1-inch meter to service Ms. Harms’ residences is $10,875.00. The temporary deposit for the installation of the meter is $1,400.00. Should the installation cost be more than the deposit, then she would be assessed the overage. However, should the installation cost be less than the deposit, then a refund would be owed to Ms. Harms.

6. The only other requirement would be the execution by Ms. Harms of the Department’s “Policy & Conditions for Water Service (Premises not within service limits of the Department).” This agreement simply notifies the applicant that the meter does not front the parcel.

...Water brings progress...
Ms. Linnel Nishioka
Page 2
August 13, 2001

If you have any further questions, please contact Mr. Glenn Ahuna of our Water Resources and Planning Branch at 961-8070, extension 260.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

GGA:jh
August 8, 2001

Dear Mr. Crozier:

We are currently investigating claims that Ms. Ardythe Harms has made to the Commission with respect to her ability to develop water sources for her parcels in the Vacationland community. For reference, the parcels that Ms. Harms wishes to develop water for are: 1-4-67: 39, 1-4-70: 27, 1-4-70: 28, and 1-4-70: 15. We would like to inquire about the water system that the association has developed from the Department of Water Supply meter into the Vacationland development. Specifically:

1. When was the system developed, and who participated in the cost of the system? 
   (Begun approx 16 months ago, cost shared by participants.
2. Is the system currently running at the maximum capacity (determined either by the meter or system losses within the system)? Yes, 90 meters
3. Does the system extend to areas adjacent to Ms. Harms’ properties? Yes, whole subdivision
4. Is the association willing to allow Ms. Harms to connect to the system, and what would be the associated cost to her? Not possible due to all possible meters sold.

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).

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
<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>BAUER, G.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td>Last person - trash</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fedex to: James Crozier  
14-4939 Kapoho-Kai Drive  
Pahoa, HI 96778
August 8, 2001

Jim Crozier
Kapoho Kai Water Association
RR2 Box 4022
Pahoa, HI 96778

Dear Mr. Crozier:

Vacationland Waterline

We are currently investigating claims that Ms. Ardythe Harms has made to the Commission with respect to her ability to develop water sources for her parcels in the Vacationland community. For reference, the parcels that Ms. Harms wishes to develop water for are: 1-4-67: 39, 1-4-70: 27, 1-4-70: 28, and 1-4-70: 15. We would like to inquire about the water system that the association has developed from the Department of Water Supply meter into the Vacationland development. Specifically:

1. When was the system developed, and who participated in the cost of the system?

2. Is the system currently running at the maximum capacity (determined either by the meter or system losses within the system)?

3. Does the system extend to areas adjacent to Ms. Harms' properties?

4. Is the association willing to allow Ms. Harms to connect to the system, and what would be the associated cost to her?

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).

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
July 26, 2001

2979-06 association inquiry

Jim Crozier
Kapoho Kai Water Association
RR2 Box 4033
Pahoa, HI 96778

Dear Mr. Crozier:

Vacationland Waterline

We are currently investigating claims that Ms. Ardythe Harms has made to the Commission with respect to her ability to develop water sources for her parcels in the Vacationland community. For reference, the parcels that Ms. Harms wishes to develop water for are: 1-4-67: 39, 1-4-70: 27, 1-4-70: 28, and 1-4-70: 15. We would like to inquire about the water system that the association has developed from the Department of Water Supply meter into the Vacationland development. Specifically:

1. When was the system developed, and who participated in the cost of the system?

2. Is the system currently running at the maximum capacity (determined either by the meter or system losses within the system)?

3. Does the system extend to areas adjacent to Ms. Harms' properties?

4. Is the association willing to allow Ms. Harms to connect to the system, and what would be the associated cost to her?

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).

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
July 24, 2001

Ms. Ardythe Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

Dear Ms. Harms:

Upon further review, Commission staff has discovered that information you provided on the application for these wells stating that a Special Management Area (SMA) Permit was not required was false. An SMA permit may be required. Before we can continue the process for the issuance of your permit, you will need to obtain and submit documentation from the County of Hawaii Planning Department that states that your SMA permit is either exempt or has been issued. We legally cannot issue any permits until the SMA permitting process is complete. Do not drill any wells or install any pumps until you resolve the SMA process, submit documentation to the Commission, and obtain Commission concurrence.

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Ref:2979-06a.ack

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

Vacationland #1a through #4a Wells

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

Sincerely,

LINNEL T. NISHIOKA
Deputy Director
Mr. Milton Pavao  
Department of Water Supply  
County of Hawaii  
345 Kekuanaoa St. Suite 20  
Hilo, HI 96720  

Dear Mr. Pavao:

Vacationland Waterline

We are currently investigating claims that Ms. Ardythe Harms has made to the Commission with respect to her ability to develop water sources for her parcels in the Vacationland community. For reference, the parcels that Ms. Harms wishes to develop water for are: 1-4-67: 39, 1-4-70: 27, 1-4-70: 28, and 1-4-70: 15. We would like to inquire about the Department of Water Supply meter into the Vacationland development. Specifically:

1. When was the meter installed, and who is charged for the use of the water?
2. Is the system currently running at the maximum capacity?
3. Where is the meter located?
4. Is there sufficient capacity in the DWS system to accommodate both Ms. Harms' connections and the Association's needs?
5. What would be the cost for Ms. Harms to have a meter and connections for her four parcels?
6. Are there any other requirements that would have to be met prior to the parcels receiving water e.g. structure changes/approvals/modifications?

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).

Sincerely,

[Signature]
LINNEL T. NISHIOKA  
Deputy Director

Ricky
From the desk of
LINNEL T. NISHIOKA

7/24/01

Milton,

Can I ask you a big favor, could your staff get a response to us in the next two weeks? The Commission wanted the answers by the next Commission Meeting. Your assistance is greatly appreciated—yes, call if there are any questions—

Thanks,

Linnel
<table>
<thead>
<tr>
<th>FROM:</th>
<th>DATE:</th>
<th>SUSPENSE DATE:</th>
</tr>
</thead>
</table>

<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>BAUER, G.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td>Last person - trash</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FACSIMILE TRANSMITTAL

To: Gillman Chu  
Company: Office of the Ombudsman  
Fax Number: 587-0773  
Phone Number: 587-0770

From: Ryan Imata  
Date: July 12, 2001  
Pages Including Header: 10  
Subject: Ardythe Harms

Notes/Comments:

Gillman – I’m sending you all of the pages for the minutes for your reference. You can reach me at 587-0255 if you have any questions.
May 18, 2001

Ref: 2979-02.act

Ms. Ardythe B. Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

Dear Ms. Harms:

Notice of Action
Application for After-the-Fact Well Construction & Pump Installation
Vacation Land 1 to 4 Wells (Well Nos. 2979-02 to 05)
Kalapana Aquifer System, Hawaii

This letter serves as your official notice of the action taken by the Commission on Water Resource Management (Commission) on the subject applications. By a unanimous vote of the Commission at their meeting on May 16, 2000, the Commission:

A. Found you and driller in violation of the various rules and standards according to Exhibit 4.

B. Imposed a fine of $5,672 on Ardythe Harms, and $5,672 on Turner Drilling and Pump as summarized in Exhibit 4. For the violations under recommendation A.

C. Denied the issuance of after-the-fact Well Construction Permits for the Vacationland #1 through #4 Wells (Well Nos. 2979-02 to 05).

D. Denied the issuance of an after-the-fact Pump Installation Permit.

E. Ordered the applicant and driller to file an application and seal all four (4) wells within 60 days.

F. Suspend any current, pending or future applications until the fines are paid and the applicant/driller completes the permit process for these four wells.

If you have any questions, please contact Roy Hardy at 587-0274.

Sincerely,

[Signature]
LINNEL T. NISHIOKA
Deputy Director

RH:ky
c. Turner Drilling
MINUTES
FOR THE MEETING OF THE
COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: May 16, 2001
TIME: 9:00 am
PLACE: DLNR Board Room
Kalanimoku Bldg.

Chairperson Gilbert S. Coloma-Agaran called the meeting of the Commission on Water Resource Management to order at 9:13 a.m.

The following were in attendance:

MEMBERS: Mr. Gilbert S. Coloma-Agaran, Dr. Bruce Anderson, Mr. Robert Giral, Mr. Brian Nishida, Mr. David Nobriga, Mr. Herbert Richards, Jr.

STAFF: Ms. Linnel Nishioka, Mr. Roy Hardy, Mr. Ed Sakoda, Mr. Eric Hirano, Mr. Dean Nakano, Mr. Ryan Imata, Ms. Lenore Nakama, Mr. Glenn Bauer, Mr. Dean Uyeno, Ms. Faith Ching

COUNSEL: Dawn Shigezawa

OTHERS: Bert Hatton, George Hiu, Karen Piltz, Bert Kuioka, Chester Lao, Naomi Kuwaye, Gordon Tribble, Frank and Naomi Turner

All written testimonies submitted at the meeting are filed in the Commission office and are available for review by interested parties.

1. Minutes of the April 18, 2001 meeting

Commissioner Richards stated that the comment he made at the April 18, 2001 meeting on Item 5 on Punahou School’s submittal be added to the minutes. He clarified that if Punahou School accepts the alternative of capturing and using the lily pond overflow water that is draining into Makiki Stream then Punahou School will not be liable for the change in flow in Makiki Stream and an amendment to interim instream flow standards will not be required.

MOTION: (RICHARDS/GIRALD)
To approve the minutes as amended.
UNANIMOUSLY APPROVED AS AMENDED.

Approved by Commission on Water Resource Management at the meeting held on Jun 20, 2001 (amended)
2. **Old Business/Announcements by Deputy Director Linnel Nishioka**

Deputy Director gave an update summary of this past legislative session. The Governor signed the existing use bill (SB 1163).

The Governor did not make appointments during this session. At this point Commissioners Girald and Nobriga have agreed to stay on until the Governor makes the appointments. It is anticipated that the Governor will make interim appointments sometime during the fourth quarter of this year.

The Commission was able to obtain new monies over the next 2 years, $232,000. This includes 2 positions, equipment and a vehicle. Over the next biennium the Commission also received $250,000 to do aquatic biological studies so that baseline studies for the Interim Instream Flow Standards (IIFS) can be established. This amount is in the Aquatic Resources budget because they have the manpower and expertise to carry out the program. The Commission has received continued funding out of the special land and development fund for the 2 hydrologist positions. Lastly, grants for federal funding are currently being obtained from the State Civil Defense and the Bureau of Reclamation, Washington, D.C. The Commission is anticipating obtaining approximately $210,000 for emergency drought relief and $50,000 to $100,000 to start the drought planning program.

Deputy Director Nishioka stated that on May 24, she would be briefing the Land Board on Waiahole. This briefing will take place on Maui.

Commissioner Nishida stated that he was able to participate in the meeting of the drought council and complimented staff on an extremely well done presentation.

3. **Waiahole Ditch Combined Contested Case Hearing, Establish a Committee to Recommend Funding Amounts for Studies and Monitoring Activities and to Coordinate and Set Up the Mechanism for the Collection, Accounting, and Distribution of Funds**

**PRESENTATION OF SUBMITTAL:** Mr. Edwin Sakoda

**RECOMMENDATIONS:**

1. That the Commission authorizes the establishment of the Funding Committee as proposed in the submittal.

2. The Funding Committee shall make findings and recommendations guided by the Waiahole Decision and Order, Section F.9, page 10, and the Supreme Court Decision, Section III.I, pages 150 to 155.

3. The Funding Committee shall submit findings and recommendations to the Commission by August 31, 2001, or as otherwise determined by the Chairperson of the Commission.

Commissioners Nishida and Richards recused themselves from Item No. 3.
Commissioner Anderson stated that he was not sure what the scope of work is and a logical process is to first determine what needs to be done, basically scope out the work (sampling, monitoring, etc.) and address the issues. He is concerned more about the process than the funding.

Deputy Director Nishioka stated that staff is working with the Division of Aquatic Resources in establishing a scope of work and the entire budget. When this is completed, a package will be presented to the Funding Committee who will make a recommendation to the Commission. The Commission will determine and make the decision on the proper scope of work and amounts for the project.

MOTION: (NOBRIGA/GIRALD)  
To approve the submittal.  
UNANIMOUSLY APPROVED.

4. City and County of Honolulu, Department of Design and Construction Application for a Stream Channel Alteration Permit (SCAP-OA-322), Temporary Support Bridge to Jet Grouting Rig, Kawainui Stream, Kailua, Oahu (TMK 4-2-01:01)  

RECOMMENDATIONS:  
That the Commission approve a stream channel alteration permit to the City and County of Honolulu, Department of Design and Construction, for the construction of a temporary support bridge and jet grouting operation at Kawainui Stream (TMK: 4-2-01:1) Kailua, Oahu. This project is subject to our standard conditions for stream channel alteration permits in Exhibit 5.

PRESENTATION OF SUBMITTAL: Mr. Edwin Sakoda  
MOTION: (NOBRIGA/RICHARDS)  
To approve the submittal.  
UNANIMOUSLY APPROVED.

5. Del Monte Fresh Produce (Hawaii) Inc., APPLICATION FOR A WATER USE PERMIT, Kunia Well & Basal Well (Well No. 2703-01 & 02), TMK 9-2-005:002, Future (Agricultural) Use for 1,000 mgd, Ewa-Kunia Ground Water Management Area, Oahu  

PRESENTATION OF SUBMITTAL: Mr. Roy Hardy  
RECOMMENDATIONS:  
Staff recommends that the Commission defer action on this application to the next regular meeting on Oahu.
Commissioner Nishida recused himself from Item No. 5.

It was moved and seconded to defer Item No. 5 to the June 20, 2001 Commission meeting.

MOTION TO DEFER: (NOBRIGA/RICHARDS)
Deferred to June 20, 2001
UNANIMOUSLY APPROVED TO DEFER.

6. Ms. Ardith Harms / Turner Drilling and Pump, AFTER-THE-FACT WELL CONSTRUCTION / PUMP INSTALLATION PERMIT APPLICATIONS, Vacationland #1 through #4 Wells (Well No. 2979-02 through -05), Kapoho, Hawaii

PRESENTATION OF SUBMITTAL: Mr. Ryan Imata

AMENDED RECOMMENDATIONS:

That the Commission:

A. Find the applicant and driller in violation of the various rules and standards according to Exhibit 4.

B. Impose a fine of $800 $5,672 on Ardith Harms, and $5,672 on Turner Drilling and Pump as summarized in Exhibit 4. For the violations under recommendation A.

C. **Approve** Deny the issuance of after-the-fact Well Construction Permits for the Vacationland #1 through #4 Wells (Well Nos. 2979-02, 2979-03, 2979-04 and 2979-05). after the fine is paid, subject to standard conditions in Exhibits 5 & 6, and the following special conditions:

1. The well should not be used for drinking water unless it is properly tested and treated.

2. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.

D. **Approve and issue** Deny the issuance of an after-the-fact Pump Installation Permit. upon submission and acceptance of the aquifer pump test forms required in Well Construction Standard Condition 6e (Exhibit 5), subject to the Standard Pump Installation Conditions in Exhibit 6.

E. **Approve** the request for a variance of Hawaii Well Construction and Pump Installation Standards Section 2.6(d), from 3" to 2 1/2".
E. Seal all four (4) wells within sixty (60) days according to the Well Construction Standards; file an abandonment application. Suspend any current, pending or future applications until the fines are paid and the applicant/driller completes the permit process for these four wells complies with this Commission order.

Commissioner Anderson stated that according to Department of Health regulations residents in this area would be denied permits to drill wells for drinking water that are within 1,000 feet of a cesspool. He is concerned about giving approval to use the well, even with the fine, given the potential impacts on the adjacent property owners.

Commissioner Girald is concerned about the long-term impact if the Commission imposes a fine but yet approves this permit. He felt that if drillers are licensed, they should be more responsible in obtaining the necessary permits.

Commissioner Nishida is concerned about the integrity of the wells itself and the possibility of ground-water contamination. He does not feel comfortable that these wells are properly designed and constructed ground water wells.

Mr. Frank Turner of Turner Drilling apologized for the drilling and stated that he would like to correct the problem by abandoning and sealing the wells. They are not in use at this time and not hooked up or supplying water to anyone. One of the wells has a pump with an RO filter system but is also not hooked up and not being used. He stated that he should have known better and was very sorry for the mistake.

Chair Agaran asked if there was any interest that the Commission enters into executive session to confer with legal counsel on this item.

MOTION: (RICHARDS/NOBRIGA)
At 10:17 am the Commission went into Executive Session to confer with legal counsel.

The meeting was resumed at 10:50 am.

MOTION: (RICHARDS/GIRALD)
To approve the submittal as amended.
UNANIMOUSLY APPROVED AS AMENDED.


Mr. Ryan Imata of the Commission staff stated that staff is recommending deferral to the June 20, 2001 meeting in order to discuss alternative settlements with the Board of Water Supply (BWS).
Deputy Director Nishioka further said that BWS expressed interest in converting the Kaluanui III Well to a deep monitoring well as an alternative penalty. She stated that an error in the submittal resulted in a last minute notice to BWS that the well could not be converted to a monitoring well but may require substantial drilling to deepen the well and BWS may need more time to discuss the matter and it may significantly affect the cost.

Mr. Bert Kuioka of the Water Resource Planning Unit of BWS stated that staff recommendation is acceptable, but requested to the Commission to return to the BWS for further discussions.

MOTION TO DEFER: (ANDERSON/RICHARDS)
Deferred to June 20, 2001.
UNANIMOUSLY APPROVED TO DEFER

8. The Estate of James Campbell REVOCATION/MODIFICATION OF WATER USE PERMIT NO. 231 TO WUP NO. 570, Pump 12 (Well No. 4057-07), TMK 5-6-6:18, Existing/Future Agriculture Use for 0.300 mgd, Koolauloa Ground Water Management Area, Oahu

PRESENTATION OF SUBMITTAL: Mr. Ryan Imata

AMENDED RECOMMENDATIONS:

Staff recommends that the Commission:

1. Find Campbell Estate in violation of their water use permit WUP No. 231 for overpumping their allocation.

2. Assess a fine of $4,275 to Campbell Estate based on the violation in recommendation 1.

3. Revoke WUP No. 231.

4. Approve the issuance of Water Use Permit No. 570 to the Estate of James Campbell for the total reasonable and beneficial use of 300,000 gallons per day of brackish water for agricultural use from Pump 12 (Well No. 4057-07), subject to the standard water use permit conditions listed in Attachment B and the following special conditions:

   a) Should an alternate permanent source of water be found for this use, then the Commission reserves the right to revoke this permit, after a hearing.

   b) In the event that the tax map key at the location of the water use is changed, the permittee shall notify the Commission in writing of the tax map key change within thirty (30) days after the permittee receives notice of the tax map key change.
5. Have Campbell Estate report to the Commission in 60 days actions that they are taking to better monitor their water systems and a schedule for implementing the changes in their water use and identify probable overpumping.

TESTIMONIES:

Commissioner Nobriga made a strong statement to the fact that an experienced driller was laxed in obtaining proper permits, Board of Water Supply (BWS) installed a pump without a permit, and Campbell Estate admitted to overpumping, and both BWS and Campbell are knowledgeable about the Water Code so there is really no excuse for their non-compliance.

TESTIMONY BY APPLICANT:

Mr. Bert Hatton of Campbell Estate admitted that a mistake was made. Mr. Hatton stated that he is fairly new to the Estate and at the time he was hired, the Estate was going through a change of staff.

MOTION: (GIRALD/RICHARDS)
To approve the submittal.
UNANIMOUSLY APPROVED.

Commissioner Richards seconded the motion for discussion purposes.

In discussion, Commissioner Anderson shared Commissioner Nobriga's frustration that these problems are continuing. He stated that he has not had the opportunity to discuss with staff the rationale behind the reduction of the fines. He feels that $4,275 is not much of a deterrent. He is concerned about the circumstance that caused the oversight on Campbell Estate.

Commissioner Richards stated that in testimonies given today people admitted to their mistakes. He wants to make sure that the fines are an adequate amount.

Commissioner Anderson suggested what staff could pursue as part of this action would be to require Campbell Estate to return to the Commission to report on how they might better monitor their water system and thereby determine compliance with the current conditions.

Commissioner Nobriga continued by stating that the Commission is accepting too many excuses, a better monitoring system should be implemented to prevent overpumpage and the water use reporting needs to be closely monitored.

Commissioner Girald feels that all the criteria that are used as the base of the fine are reasonable to a certain point. He has a concern about having applicants come before the Commission and give explanation as to why a violation occurred. He feels the Commission can be sympathetic to a point, but responsible monitoring should be implemented. He stated that the major users of water wells understand the seriousness and the predicament that they
place on the Commission. He does not want to be a “rubber stamp Commission”. The Commission is charged with a serious responsibility that should be kept in mind.

Deputy Director Nishioka stated that one priority of the Commission is the ability to have a better enforcement program. One of the problems that have continued is the lack of staffing, which has significantly affected staff’s ability to enforce the Water Code regulations across the State, and that overpumping is occurring throughout the State. Getting the Penalty Policy in place will start a more rigorous enforcement process. Another issue the staff will be working on during the summer is an enforcement policy on how staff can better enforce these violations.

MOTION: (ANDERSON/RICHARDS)
To approve the submittal as amended.
APPROVED AS AMENDED WITH 1 OPPOSITION (NOBRIGA).

9. Other Business

Commissioner Richards commented on the articles that appeared in the May 2001 issue of Environment Hawaii. He would like staff to reply to the articles. He pointed out that policing is not the only job of the Commission. We are looking out after the resources. Staff’s reply should point out what the Commission is planning to do. We need to lead the way and come up with policies.

Commissioner Nishida suggested that at the next legislative session, the Commission elicit the help from the agriculture board, etc. to obtain appropriate funding so that the agriculture water plan can be developed. He feels this is an extension of being able to make policy decisions.

Commissioner Anderson suggested that we may want to develop a strategic plan. There are various policy issues such as water reclamation and other water management issues that the Commission may want to explore and encourage. One way to pursue these policies would be a strategic plan. This would not be a part of the water plan, but something the Commission can use to measure actions by.

Commissioner Nobriga expressed his dissatisfaction about experienced drillers, well known entities, and government entities not complying with the Water Code.

Commissioner Girald stated that he feels that it is important for staff to make sure that all permits are in compliance with the Water Code. He also feels that staff should monitor the water usages closely. If these things are not done, then more and more people will not be in compliance with the Code. He feels that the efforts that are being made now are proper. He said that the standard water use permit conditions are very clear and explicit. If people cannot respect that, then he feels that it is incumbent on this Commission to take the violation in a serious manner. He said that maybe our penalties should not be so lenient. Mitigating factors were used to bring down the fines to be more reasonable to make a point but he stated that maybe a stronger point should be made instead. Commissioner Girald
stated that the Commission is charged with the responsibility of managing the resource and once it is damaged it becomes irreparable; we cannot allow this to continue. He is in agreement with the direction staff is taking in enforcement and compliance.

Chairperson Agaran asked for a motion to adjourn.

(RICHARDS/NOBRIGA)

This meeting was adjourned at 12:30 pm.

Respectfully submitted,

FAITH F. CHING
Secretary

APPROVED AS SUBMITTED:

LINNEL T. NISHIOKA
Deputy Director
### WCR 1 Check for Well No. 2979-02

#### 1. Pump Tests Check
- **Glenn Bauer** (initial)
- **Yes** ☐ **No** ☐

**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)
- **Yes** ☐ **No** ☐

**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

---

#### 4. Roy (initial) check
5. Kathy (initial) finalize
6. Linnel (initial) signature
7. Charley/Lenore/Ryan File
Ms. Ardythe Harms
14-4196 Kapoho
Pahoa, HI 96778

Dear Ms. Harms:

Well Completion Report for Well No. 2979-02 through -05

We received your Well Completion Report Part I for the Vacationland #1 though #4 Wells (Well No. 2979-02 through -05) on July 10, 2001, 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).

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Rl:ky
C. Turner Drilling
Thank You
As Possible
Ryan

Please refer to

Frank Turner

Thank you.

I would like to get this up and running as soon as possible.

Please call if you have any questions.

Thank you for your time and trouble.

I put some notes on these completion reports to help me understand better.

I finished up.

I can not explain why this started to drop out so low.

Shallow well is 13 total feet, and was in these wells. However well A, the water level is 14 ft. MSL, 10' above the bench mark.

Only well 3 is above MSL for storage.

All wells were measured before noon.

Start water level are below msl.

Of measurement wells at -4 ft.

Using the bench mark as a point.

[Signature]

Ryan
**WELL COMPLETION REPORT - PART I**

**Well Construction**

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions:</td>
<td>Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management. For more information, visit our website at <a href="http://www.state.hi.us/dlm/cwrmm/">http://www.state.hi.us/dlm/cwrmm/</a>.</td>
</tr>
</tbody>
</table>

1. **State Well No.:** 2979-02  
   **Well Name:** Vacation Land H1  
   **Island:** Hawaii

2. **Address:** Kahakole RD Pahoa Hi  
   **Tax Map Key:** 1-4-67-39

3. **Drilling Company:** Turner Drilling

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

5. **Date Well Construction (drilled, cased, grouted) completed:** 12-20-00  
   **Attach Driller's Log (12159 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**  
   **Date and time of measurement:** 12-20-00 AM
     - 10' ft. below ground

8. **Step-Drawdown Test completed?**  
   - No  
   - Yes  
   **Attach Step-Drawdown Test form (12/15/97 SDPTD Form)**

9. **Constant Rate Aquifer Test completed?**  
   - No  
   - Yes  
   **Attach Constant Rate Aquifer Test form (12/15/97 CRPTD Form)**

10. **Parameters prior to pump test:**  
    - Water-level: 4.23' Below Sea Level  
    - Date and time of measurement: 12-20-00 AM
    - ft. above msl

11. **Chloride:** 250 ppm  
    **Date and time of sampling:** 12-20-00 AM

12. **Temperature:** 70° °F  
    **Date and time of measurement:** 12-20-00 AM

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:**  
   - Water Level Static @ 10' BELOW Bench mark Elevation  
   - If 5.77 is msl, water level is 4.23 BELOW msl  
   - WATER LEVEL DID NOT COME UP, THIS WELL PUMPED DRY @ 10' BELOW Ground

---

**Licensed Driller (print):** Frank Turner  
**C-57 Lic. No.:** 22957  
**Signature:** [Signature]  
**Date (Corrected on):** 7-7-01

**Surveyor (print):**  
**L.P.L.S. Lic. No.:**  
**Signature:**  
**Date:**

**Permittee (print):**  
**Signature:**
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing 5.77 ft., msl (to nearest 0.01 ft.)

Bench mark elevation: 5.77 ft., msl* (Survey to nearest 0.01 ft.)

Hole Diameter: 12 in.

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation: 5.44 ft., msl

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

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM 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 B □ Other
Stainless Steel: (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 D3296 □ FEP Fluorocarbon Tubing conforming to ASTM D3296

Solid Casing: (≥ 90% x (Ground Elev - Water Level Elev))
Length: 15' > 2' ABOVE GROUND < ft.
Nominal Diameter: 6 in.
Wall Thickness: .188 in.
Bottom Elevation: - 7.56 ft. below ft., msl

Total Depth - 5.44 ft. = - 7.56 ft. Bottom Elevation

Open Hole: Length: _____ ft.
Diameter: _____ in.
Bottom Elevation: _____ ft., msl

*msl = mean sea level
<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Well No.</td>
<td>2979-03</td>
</tr>
<tr>
<td>Well Name</td>
<td>Vacation Land #2</td>
</tr>
<tr>
<td>Island</td>
<td>Hawaii</td>
</tr>
<tr>
<td>Address</td>
<td>Kula Dr, Paia, Hi</td>
</tr>
<tr>
<td>Tax Map Key</td>
<td>1-4-70-27</td>
</tr>
<tr>
<td>Drilling Company</td>
<td>Turner Drilling</td>
</tr>
<tr>
<td>Drilling method used during construction</td>
<td>Rotary</td>
</tr>
<tr>
<td>Date Well Construction completed</td>
<td>12-22-00</td>
</tr>
<tr>
<td>Initial water-level encountered</td>
<td>10 ft. below ground</td>
</tr>
<tr>
<td>Date and time of measurement</td>
<td>12-22-00 AM</td>
</tr>
<tr>
<td>Step-Drawdown Test completed</td>
<td>No</td>
</tr>
<tr>
<td>Constant Rate Aquifer Test completed</td>
<td>No</td>
</tr>
<tr>
<td>Water-level</td>
<td>1.44 ft. above msl</td>
</tr>
<tr>
<td>Date and time of measurement</td>
<td>12-22-00 AM</td>
</tr>
<tr>
<td>Chloride</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Date and time of sampling</td>
<td>12-22-00 AM</td>
</tr>
<tr>
<td>Temperature</td>
<td>70 °F</td>
</tr>
<tr>
<td>Date and time of measurement</td>
<td>12-22-00 AM</td>
</tr>
<tr>
<td>Remarks</td>
<td>Water level is measured from Bench Mark. Elevation at 1.44, static water is 1.44 above msl</td>
</tr>
<tr>
<td>Licensed Driller</td>
<td>Frank Turner</td>
</tr>
<tr>
<td>Signature</td>
<td>C-57 Lic. No. 22597</td>
</tr>
<tr>
<td>Permittee (print)</td>
<td>Date CORRECTED 7-7-01</td>
</tr>
</tbody>
</table>

For Official Use Only:

RESERVED

D1 JUL 10 A9:53

WCR1 Form 8/29/00
13. AS-BUILT WELL SECTION

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

Elevation at top of casing: 13.44 ft., msl

(to nearest 0.01 ft.)

Hole Diameter: ____________ in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: ____________ ft., msl

Minimum of 2' Radius & 4" Thick Concrete Pad

Bench mark elevation:

11.44 ft., msl

(Survey to nearest 0.01 ft.)

Cement Grout: R 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:

Material: 

- Crushed Basalt
- Rounded Gravel

Water Level Elevation:

1.4 ft., msl

(Above)

STATION 10 ft. from Bench mark

Solid Casing:

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

Length: ____________ ft.

Nominal Diameter: ____________ in.

Wall Thickness: ____________ in.

Bottom Elevation: ____________ ft., msl

Open Casing:

Open Casing: (check one):

- Perforated
- Screen

Length: ____________ ft.

Nominal Diameter: ____________ in.

Wall Thickness: ____________ in.

Bottom Elevation: ____________ ft., msl

Open Hole:

Length: ____________ ft.

Diameter: ____________ in.

Bottom Elevation: ____________ 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 Steel: (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 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 B □ Other

Stainless Steel: (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 D3296

□ FEP Fluorocarbon Tubing conforming to ASTM D3296
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 Resources 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 808-222-8. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dln/cwm/.

<table>
<thead>
<tr>
<th>1. State Well No.</th>
<th>2929-04</th>
<th>Well Name</th>
<th>Vacation Land #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Address</td>
<td>Malaie St</td>
<td>Pahoa Hi</td>
<td>Tax Map Key: 1-4-70-15</td>
</tr>
<tr>
<td>3. Drilling Company</td>
<td>Turner Drilling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Drilling method used during construction:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑ Rotary</td>
<td>☑ Percussion</td>
<td>☑ Other (describe)</td>
<td></td>
</tr>
<tr>
<td>5. Date Well Construction (drilled, cased, grouted) completed: 12-21-00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attach Driller's Log (1/25/99 DL Form)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Was the subject well cored?</td>
<td>☑ Yes</td>
<td>☑ No</td>
<td></td>
</tr>
<tr>
<td>7. Initial water-level encountered: 13 ft. below ground</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date and time of measurement: 12-21-00 AM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Step-Drawdown Test completed?</td>
<td>☑ No</td>
<td>☑ Yes</td>
<td></td>
</tr>
<tr>
<td>Attach Step-Drawdown Test form (12/17/97 SDPTD Form)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Constant Rate Aquifer Test completed?</td>
<td>☑ No</td>
<td>☑ Yes</td>
<td></td>
</tr>
<tr>
<td>Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Water-level: 1.85 ft. above msl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date and time of measurement: 12-21-00 AM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Chloride: 250 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date and time of sampling: 12-21-00 AM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Temperature: 70°F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date and time of measurement: 12-21-00 AM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Fill in the as-built section on the other side of this sheet.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Remarks: WATER LEVEL MEASURED FROM BENCH MARK ELEVATION @ 12.15. STATIC MEASURED 1' FROM BENCH MARK, WATER LEVEL IS 1.85 BEL OW MSL.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Licensed Driller (print): FRANK TURNER  
C-57 Lic. No. 22597  
Signature:  
Date: CORRECTED 7-7-01

Surveyor (print):  
L.P.L.S. Lic. No.  
Signature:  
Date: 

Permittee (print):  
Signature:  
Date: 

WCR1 Form 8/29/00
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation: _________________ (Survey to nearest 0.01 ft.)

Elevation at top of casing: _________________ ft., msl
(to nearest 0.01 ft.)

Hole Diameter: __________ in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: _________________ ft., msl

Cement Grout: __________ 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"): __________ in.

Rock or Gravel Packing: _________________ ft.

Material: □ Crushed Basalt □ Rounded Gravel

Water Level Elevation: _________________ ft., msl

STATIC 14' FROM BENCH MARK

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one): □ ASTM A409 (production wells) □ ASTM 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 B □ Other
Stainless Steel: (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 D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

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

Length: __________________ ft.
Nominal Diameter: __________ in.
Wall Thickness: __________ in.
Bottom Elevation: __________________ ft., msl

Open Casing: □ Perforated □ Screen

Length: __________ ft.
Nominal Diameter: __________ in.
Wall Thickness: __________ in.
Bottom Elevation: __________________ ft., msl

Open Hole:

Length: __________ ft.
Diameter: __________ in.
Bottom Elevation: __________________ ft., msl

*msl = mean sea level
WELL COMPLETION REPORT - PART I

1. State Well No.: 2979-05
2. Well Name: Vacation Land # 9
3. Island: Hawaii
4. Drilling Company: Turner Drilling
5. Drilling method used during construction: Rotary
6. Date Well Construction (drilled, cased, grouted) completed: 12-22-00
7. Initial water level encountered: 18 ft. below ground
8. Step-Drawdown Test completed?: Yes
9. Constant Rate Aquifer Test completed?: No
10. Water-level: 1.99 ft. above sea level
11. Chloride: 250 ppm
12. Temperature: 70 °F
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: Drilled through Blue Basalt until 18' hit water and static came up to 14' below bench mark elevation. 12/01.
   Water level +1.99 MLS below sea level.

Licensed Driller (print) Frank Turner
Signature
C-57 Lic. No. 22597
Date

Surveyor (print)
L.P.L.S. Lic. No.
Date

Permittee (print)
Signature
Date
13. AS-BUILT WELL SECTION (Please attach as-built 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 □ Grade B □ Other
- Stainless Steel: (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 □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517 □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950 □ 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 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 □ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517 □ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950 □ FEP Fluorocarbon Tubing conforming to ASTM D3296

**Diagram Details:**
- Elevation at top of casing: 14.01 ft., msl
- Hole Diameter: 12 in.
- Minimum of 2' Radius & 4' Thick Concrete Pad
- Ground Elevation: 11.68 ft., msl
- Solid Casing: (≥ 90% x (Ground Elev - Water Level Elev))
  - Length: 27'
  - Nominal Diameter: 6 in.
  - Wall Thickness: 0.188 in.
  - Bottom Elevation: -13.32 ft., msl
- Open Casing: □ Perforated □ Screen
  - Length: □ ft.
  - Nominal Diameter: □ in.
  - Wall Thickness: □ in.
  - Bottom Elevation: □ ft., msl

**Material Details:**
- Rock or Gravel Packing: □ Crushed Basalt □ Rounded Gravel
- Water Level Elevation: -1.99 ft., msl*

*msl = mean sea level

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

FROM: ____________________________  DATE: 1-10-01  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>BAUER, G.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>Xerox ______ copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Last person - trash</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature:

Initials: ok
ABANDONMENT REPORT

All completed reports within 30 days after sealing completion to the Commission on Water Valley 96809. An as-built drawing of the well and chemical analysis should also be submitted.

1. Name: Vacation Land
2. Island: Hawaii
3. Tax Map Key: 1-9-67-39

Contractor's C-5r License No.: 22541

4. Name of driller who performed work: Frank Turner
5. Type of Rig/Construction: Rotary
6. Date of well sealing completion: May 22-01

(NOTE: Report must be submitted within 30 days after this completion date)

Finished Grade Elevation: 5.77 ft.
Casing Diameter: 6 in.

Check Material Used
Grout Seal: [ ] Cement
[ ] Sand/Cement Ratio

Total Measured Depth: 15 ft.

Measured Depth of Blank Casing: 15 ft.
Measured Depth of Perforated Casing: 0 ft.
Measured Depth of Open Hole: 0 ft.

Remarks: CORRECTED REPORT, WELL SEALED TO FINISH GRADE. NOT TOP OF CASING.

(Correction to: Casing cut @ finished grade)

For Driller's Use:
Job Name: 
Job No: 

For Official Use:
Well No: 
Longitude: 
Latitude: 

Original on May 22-01

8/1/06 ABANDONMENT FORM

Frank Turner, Dr. Turner, Dilling
Owner

Date Corrected Report: July 6-01

Signature: 

Hawaii-SSION ON WATER RESOURCE MANAGEMENT:
Department of Land and Natural Resources

I used the casing elevation on the original permits; but I cut off casing so the corrected readings measured from finished grade elevation.

THANKS.

Ryan.
WELL ABANDONMENT REPORT

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

1. State Well No. 2979-03, Well Name: Vacation Land #2
2. Location/Address: Lava De Pahoa Hi
3. Contractor: Turner Drilling by Frank Turner
4. Contractor’s C-57 License No.: 22597
5. Name of driller who performed work: Frank Turner
6. Type of Rig/Construction: Rotary
7. Date of well sealing completion: May 22-01

(Note: Report must be submitted within 30 days after this completion date)

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

---Diagram---

Finished Grade Elevation: 1144 ft
Casing Diameter: 6 in

Check Material Used
Grout Seal: C of Cement
Sand/Cement Ratio: 1

Total Measured Depth: 21 ft

Measured Depth of Blank Casing: 21 ft

Measured Depth of Perforated Casing: 0 ft

Measured Depth of Open Hole: 0 ft

Remarks: CORRECTED REPORT, SEEED TO FINISHED GRADE, NOT TOP OF CASING. Casing cut @ Finished Grade

Contractor (print): Frank Turner
Title: Owner
Signature: Frank Turner

Date: Corrected Report, July 6-01

For Diller’s Use: Job Name: Job No. 
For Official Use: Well No. 

Latitude: 
Longitude: 

8/15/95 ABANDON.PMF Form
## WELL ABANDONMENT REPORT

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

1. **State Well No.**: 2979-04  
   **Well Name**: Vacation Land #3  
   **Island**: Hawaii  
   **Tax Map Key**: 1-4-70-15

2. **Location/Address**: Male St Pahoa Hi

3. **Contractor**: Turner Drilling

4. **Contractor’s C-57 License No.**: 22597

5. **Name of driller who performed work**: Frank Turner

6. **Type of Rig/Construction**: Rotary

7. **Date of well sealing completion**: May 22-01

(NOTE: Report must be submitted within 30 days after this completion date)

---

### Diagram

- **Casing Diameter**: 6 in.
- **Finished Grade Elevation**: 12.15 ft.
- **Check Material Used**
  - **Grout Seal**: 5C Cement
  - **Sand/Cement Ratio**: /

- **Total Measured Depth**: 21 ft.
- **Measured Depth of Blank Casing**: 21 ft.
- **Measured Depth of Perforated Casing**: 2 ft.
- **Measured Depth of Open Hole**: 2 ft.

### Remarks:
CORRECTED REPORT SENT TO FINISHED GRADE NOT TOP OF CASING

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

---

**Contractor (print)**: Frank Turner  
**Title**: Owner

**Signature**: Frank Turner

**Date**: May 23-01

**Original Corrected To July 6-01**

---

**For Driller’s Use:**
- **Job Name**:  
- **Job No.**:  

**For Official Use:**
- **Well No.**:  
- **Longitude**:  
- **Latitude**:  

---

8/15/95 ABANDON.PMF Form
**WELL ABANDONMENT REPORT**

**Instructions:** Please print or type and submit completed report within 30 days after sealing completion to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. An as-built drawing of the well and chemical analysis should also be submitted.

For assistance call the Commission Regulation Branch at 587-0225.

1. **State Well No.:** 2979-05  **Well Name:** Vacation Land #4  **Island:** Hawaii  
   **Tax Map Key:** 1-4-30-28
2. **Location/Address:** Corner of Lahilia & Holili
3. **Contractor:** Turner Drilling by Frank Turner
4. **Contractor's C-57 License No.:** 21597
5. **Name of driller who performed work:** Frank Turner
6. **Type of Rig/Construction:** Rotary
7. **Date of well sealing completion:** May 22-01
   (NOTE: Report must be submitted within 30 days after this completion date)

---

<table>
<thead>
<tr>
<th>Casing Diameter</th>
<th>6 in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished Grade Elevation</td>
<td>12.01 ft</td>
</tr>
<tr>
<td>Check Material Used</td>
<td></td>
</tr>
<tr>
<td>Grout Seal:</td>
<td>5% Cement</td>
</tr>
<tr>
<td>□ Sand/Cement Ratio</td>
<td></td>
</tr>
<tr>
<td>Total Measured Depth</td>
<td>27 ft</td>
</tr>
<tr>
<td>Measured Depth of Blank Casing</td>
<td>37 ft</td>
</tr>
<tr>
<td>Measured Depth of Perforated Casing</td>
<td>37 ft</td>
</tr>
<tr>
<td>Measured Depth of Open Hole</td>
<td>37 ft</td>
</tr>
</tbody>
</table>

**Remarks:** CORRECTED REPORT 7 WELL SEALED AT FINISHED GRADE PER TOP OF CASING  
(Caseing cut & Finished Grade

---

**Contractor (print):** Frank Turner  **Title:** Turner Drilling  **Date:** CORRECTED REPORT July 6-01  
**Owner:**  
**Signature:** Frank Turner  **Date (ORIGINAL):** May 23-01

---

**For Driller's Use:**  
**Job Name:**  
**Job No.:**  
**For Official Use:**  
**Well No.:**  
**Longitude:**  
**Latitude:**

8/15/05 ABANDON PMF Form
Ryan Imata

This is the form you sent back with Andy. Messy but signed by Ms. Harms.

Thank you.

Frank Turner

---

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

The sealing shall be completed within two (2) years.

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

Date of Approval: May 18, 2001
Expiration Date: None

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: ____________________________ Firm or Title: ____________________________ Date: ____________
Printed Name: ____________________________ Contractor's Signature: ____________________________ License # 22592 Date: ____________ Firm or Title: Owner
Printed Name: ____________________________ Date: ____________ Firm or Title: ____________________________

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

Attachment:

USGS
Department of Health/Water, Waste Water, and Clean Water Branches
Hawaii Department of Water Supply
Turner Drilling
URGE MGT ID: 8085870219
 PAGE 5/6

TRUCTION PERMIT TO ABANDON SEAL

Land 1 to 4, Well No. 2979-02 to 05

Resources, Commission on Water Resource Management's Administrative Rules, Section 12-17, this document permits the abandonment/sealing of Vacation Land 1 to 4.

Thi document permits the abandonment/sealing of Vacations Land 1 to 4, 10 Filili, Maili St., and Kahooka Rd., Hawaii, TMK 1-4-067-027, 023, 39, subject to the

Secretary's (12/31/97) which include but are not limited to the following conditions:

been determined by the department or voluntarily declared by the owner or operator to be

subject to the Hawaii Well Construction & Regs. (HWCRS). If the HWCRS are not followed and as a consequence water is wasted or

The sealing shall be completed within two (2) years

the well with cement in a manner approved by the commission.

d) shall be submitted to the Commission on Water Resource Management within sixty (60)

Date of Approval: May 18, 2001
Expiration Date: None

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: _______________  Date: _______________

Printed Name: _______________  Firm or Title: _______________

Contractor's Signature: _______________  License #: _______________  Date: _______________

Printed Name: _______________  Firm or Title: _______________

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

Attachment

To, Ryan Imata

This is a clean copy faxed to me by Roy Hardy on May 21, 01
Signed by Ms. Harris

days after completion of the work.

5. The permittee shall comply with all applicable laws, rules, and ordinances.

6. The sealing shall be completed within two (2) years

7. Special conditions in the attached cover transmittal letter are incorporated herein by reference.
To: Frank Turner / Andy Rouse
Company: Turner Drilling
Fax Number: 982-8255

From: Ryan Imata
Date: July 5, 2001
Pages Including Header: 13
Subject: Vacationland Wells

Notes/Comments:

Please confirm all of the circled values. Many numbers do not make sense.
Call me at 587-0255 if you have any questions.

Ryan
WELL ABANDONMENT REPORT

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

1. State Well No. 2979-02
2. Location/Address: Kilauea Rd, Pahoa, Hi
3. Contractor: Turner Drilling
4. Contractor's C-57 License No.: 512697
5. Name of driller who performed work: Frank Turner
6. Type of Rig/Construction: Rotary
7. Date of well sealing completion: May 22-01

(NOTE: Report must be submitted within 30 days after this completion date)

Finished Grade Elevation: 7.77 ft

Shows as 5.77' on WCR

Check Material Used:
Grout Seal: Cement
Sand/Cement Ratio: _/

Total Measured Depth: 15 ft

Measured Depth of Blank Casing: 15 ft

Measured Depth of Perforated Casing: 0 ft

Measured Depth of Open Hole: 0 ft

Remarks: Casing cut @ Finished Grade

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

Contractor (print): Frank Turner
Signature: ________________
Title: Owner
Date: May 23-01

For Driller's Use: ________________
Job Name: ________________
Job No.: ________________

For Official Use: ________________
Well No.: 2979-02
Longitude: 154.49.21
Latitude: 19.29.42

8/19/05 ABANDON.PMF Form
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: __ ft., msl* (to nearest 0.01 ft.)

Minimum of 2' Radius & 4' Thick Concrete Pad

Solid Casing: (≥ 90% Ground Elevation)

Open Casing: □ Perforated □ Screen

Open Hole:

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 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 D2341): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120

Thermoplast Plastic: (check one)
□ Filament Wound Resin Pipe conforming to ASTM D2986
□ Centrifugally Cast Resin Pipe conforming to ASTM D2987
□ 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 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 D2341): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120

Thermoplast Plastic: (check one)
□ Filament Wound Resin Pipe conforming to ASTM D2986
□ Centrifugally Cast Resin Pipe conforming to ASTM D2987
□ 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

*msl = mean sea level
WELL ABANDONMENT REPORT

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

1. State Well No. 2979-03 Well Name Vacuum Land No. 2
2. Location/Address Haun Dr, Pahoa, HI
3. Contractor Turner Drilling
4. Contractor’s C-57 License No. 22591
5. Name of driller who performed work Frank Turner
6. Type of Rig/Construction Rotary
7. Date of well sealing completion May 22-01

(NOTE: Report must be submitted within 30 days after this completion date)

Finished Grade Elevation 13.44 ft. Shows us 11.44' on WCR

Check Material Used

Grout Seal: [ ] Cement
[ ] Sand/Cement Ratio

Casing Diameter 6 in.

Measured Depth of Blank Casing 21 ft.

Total Measured Depth 21 ft.

Measured Depth of Perforated Casing 0 ft.

Measured Depth of Open Hole 0 ft.

Remarks: Casing Cut & Finished Grade

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

Contractor (print) Frank Turner Title Owner
Signature Frank Turner Date May 22-01

For Driller’s Use: Job Name Job No.

For Official Use: Well No. 2979-03

Longitude 154 49 24 Latitude 19 29 42
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 12 ft, msl

Hole Diameter: 12 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 12 ft, msl

Minimum of 2' Radius & 4" Thick Concrete Pad

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

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

Length: [ ]
Nominal Diameter: [ ] in.
Wall Thickness: [ ] in.
Bottom Elevation: [ ] ft, msl

Open Casing: [ ] Perforated [ ] Screen

Length: [ ] ft.
Nominal Diameter: [ ] in.
Wall Thickness: [ ] in.
Bottom Elevation: [ ] ft, msl

Open Hole:

Length: [ ] ft.
Diameter: [ ] in.
Bottom Elevation: [ ] ft, msl

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 or more): [ ] ASTM A242 [ ] Type E [ ] Type S [ ] Grade B [ ] Other
Stainless Steel: (check one): [ ] ASTM A403 (production welds) [ ] ASTM A312 (monitor welds)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one): [ ] Schedule 40 [ ] Schedule 80 [ ] Schedule 120
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one): [ ] Schedule 40 [ ] Schedule 80 [ ] Schedule 120
Thermoplastic: (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 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): [ ] ANSIAWWA 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 (monitor welds)
ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one): [ ] Schedule 40 [ ] Schedule 80 [ ] Schedule 120
PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one): [ ] Schedule 40 [ ] Schedule 80 [ ] Schedule 120
Thermoplastic: (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 C950
[ ] PTFE Fluorocarbon Tubing conforming to ASTM D3296
[ ] FEP Fluorocarbon Tubing conforming to ASTM D3296
WELL ABANDONMENT REPORT

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

1. State Well No. 9979-04   Well Name: Vacation Land #3
2. Location/Address: Mail St, Pahoa, Hi
3. Contractor: Turner Drilling
4. Contractor's C-57 License No. 72537
5. Name of driller who performed work: Frank Turner
6. Type of Rig/Construction: Rotary
7. Date of well sealing completion: May 22-01

(Note: Report must be submitted within 30 days after this completion date)

Finished Grade Elevation 14.15 ft.
Casing Diameter 6 in.

Check Material Used
Grout Seal: X Cement
□ Sand/Cement Ratio:

Total Measured Depth 15 ft.

Measured Depth of Blank Casing 21 ft.
Measured Depth of Perforated Casing 0 ft.
Measured Depth of Open Hole 0 ft.

Remarks: Casing cut at finished grade
(if more space is needed, continue on back.)

Contractor (print): Frank Turner

Signature: Frank Turner

Title: Owner
Date: May 23-01

For Driller's Use:
Job Name: 
Job No: 

For Official Use:
Well No: 9979-04
Longitude: 194 49 22
Latitude: 19 29 47
<table>
<thead>
<tr>
<th>Date</th>
<th>4-23-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>John Doe</td>
</tr>
<tr>
<td>License No.</td>
<td>12345</td>
</tr>
</tbody>
</table>

- **Date:** 4-23-01
- **Name:** John Doe
- **License No.:** 12345
13. AB-BUILT WELL SECTION
(Please attach as-built if different from diagram provided below)

Elevation at top of casing (to nearest 0.01 ft)

Hole Diameter: 12 in.

Minimum of 2" Radius & 4" Thick Concrete Pad
Ground Elevation: 20 ft, rmal

Solid Casing: (≥ 90% x [Ground Elev. - Water Level Elev])
Length: 120 ft.
Nominal Diameter: 2 3/8 in.
Wall Thickness: 1 1/8 in.
Bottom Elevation: 98 ft, rmal

Open Casing: □ Perforated □ Screen
Length: □ ft.
Nominal Diameter: □ in.
Wall Thickness: □ in.
Bottom Elevation: □ ft, rmal

Open Hole:
Length: □ ft.
Diameter: □ in.
Bottom Elevation: □ ft, rmal

Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSHAWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A322 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (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 D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSHAWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A322 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (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 D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296
WELL ABANDONMENT REPORT

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

1. State Well No. 2979-05 Well Name: Vacation Land #4
2. Location/Address: Corner of Kawainui & Mokulei
3. Contractor: Turner Drilling
4. Contractor’s C-57 License No.: 22599
5. Name of driller who performed work: Frank Turner
6. Type of Rig/Construction: Rotary
7. Date of well sealing completion: May 22-01

(NOTE: Report must be submitted within 30 days after this completion date)

Checks Material Used
Grout Seal
Cement
Sand/Cement Ratio

Finished Grade Elevation: 14.01 ft
Casing Diameter: 6” in

Shows as 12.01 on WCR

Measured Depth of Blank Casing: 27 ft
Total Measured Depth: 27 ft
Measured Depth of Perforated Casing: 0 ft
Measured Depth of Open Hole: 0 ft

Remarks: CASING CUT A ELEVATION OF GROUND SEE PULSES
(If more space is needed, continue on back.)

Contractor (print): Frank Turner
Signature: Frank Turner
Title: Owner
Date: May 23-01

For Official Use:
Well No.: 2979-05
Longitude: 194 49 26
Latitude: 19 29 45

For Driller’s Use:
Job Name:
Job No.:
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing:

Hole Diameter:

Minimum of 2.5 ft. Radius & 4" Thick Concrete Pad

Ground Elevation:

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

Solid Casing:

Nominal Diameter:

Wall Thickness:

Bottom Elevation:

Open Casing:

Nominal Diameter:

Wall Thickness:

Bottom Elevation:

Open Hole:

Solid Casing Material:

- Carbon Steel: compliant (check one or more): ANSI/AWWA C20
- Stainless Steel: (check one): ASTM A409
- ABS Plastic: (check one): Schedule 40
- PVC Plastic: (check one): Schedule 40
- Thermoset Plastic: (check one)

Open Casing Material:

- Carbon Steel: compliant (check one or more): ANSI/AWWA C20
- Stainless Steel: (check one): ASTM A409
- ABS Plastic: (check one): Schedule 40
- PVC Plastic: (check one): Schedule 40
- Thermoset Plastic: (check one)
June 22, 2001

Ms. Ardythe Harms
14-4196 Kapoho
Pahoa, HI 96778

Dear Ms. Harms:

Well Construction/Pump Installation Permit Application for Well Nos. 2979-06 through -09

We have received your Well Construction/Pump Installation permit applications and filing fee for the Vacationland #1 through #4 Wells (Well Nos. 2979-06 through -09). However, you must turn in the Well Abandonment Reports for the original Vacationland #1 through #4 Wells (Well Nos. 2979-02 through -05) before we can accept your new applications as complete.

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

If you have any questions about your permit applications, 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,

LINNEL T. NISHIOKA
Deputy Director

RI:ss
c: Turner Drilling
Ardythe Harms mentioned that she may be present at the meeting. However, there is no staff presentation because there is no action necessary at this time. She will probably ask for a reduction of the fine that the Commission imposed on her at the May meeting.

We have been advised by the AG’s office that in order for her to speak at the meeting, the Commission would have to amend the agenda to add an item under the Sunshine Law. It is totally discretionary with the Commission whether or not to do so. We have advised her to come to the July meeting, but she is insisting on coming to this meeting. We have advised her of the situation.
<table>
<thead>
<tr>
<th>No.</th>
<th>NAME</th>
<th>TELEPHONE NUMBER</th>
<th>ENTRY</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>BUDDY NOBRIGA</td>
<td>818082444108</td>
<td>OT11</td>
<td>OK</td>
</tr>
<tr>
<td>02</td>
<td>MONTY RICHARDS</td>
<td>818088244444</td>
<td>OT12</td>
<td>OK</td>
</tr>
<tr>
<td>03</td>
<td>BRUCE ANDERSON</td>
<td>64444</td>
<td>OT08</td>
<td>OK</td>
</tr>
<tr>
<td>04</td>
<td>BOBBY GIRALD</td>
<td>99551915</td>
<td>OT09</td>
<td>OK</td>
</tr>
<tr>
<td>05</td>
<td>BRIAN NISHIDA</td>
<td>96211213</td>
<td>OT10</td>
<td>OK</td>
</tr>
</tbody>
</table>
Ms. Ardythe Harms  
14-4196 Kapoho-Pahoa  
Pahoa, HI 96778  

RE: Your letter dated May 24, 2001  

Dear Ms. Harms:  

We are responding to your letter dated May 24, 2001, appealing for a waiver of the $5672 levied by the Commission on Water Resource Management (Commission) at their meeting on May 16, 2001. Unfortunately, neither the State Water Code nor our Administrative Rules provide for reconsideration of an action by the Commission made at a regular meeting. Appeals must be made directly to the Circuit Court and/or Supreme Court within thirty (30) days after the notice of action, pursuant to Chapter 91, Hawaii Revised Statutes. We advise that you may need to obtain legal counsel to fully advise you of your legal rights and options.  

However, we have also received your applications for the redrilling of the Vacationland #1 through 4 wells. We are still awaiting photos of the well sealing of the previous wells and the Well Abandonment Reports before we can accept these new applications for processing. Once they are complete, we are planning to take these applications to the Commission for action as soon as possible. We recommend that you attend the meeting to address any questions from the Commission and bring up questions of your own.  

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,  

[Signature]  
LINNEL T. NISHIOKA  
Deputy Director  

RI:sd  
c: Commissioners  
Turner Drilling
I am writing this letter at the suggestion of "Monty" Richards to explain some facts and to beg the Commission to consider my plea to reverse the fine which was levied against me in the amount of $5,780.00. It is his feeling that, had these facts been known, that the judgement would never have been handed down.

I am a 74 year old great grandmother with a heart problem. A pacemaker and a lot of medications keep me alive. I want to live to see my eighth grandchild finish college. Each grandchild has been given property upon completion of their college education. Of the eight grandchildren, seven have graduated. This leaves only one to finish. He is 17 years old and a sophomore at Cabrillo College in California. My husband, David Harms, died in a water accident in October of 1988 leaving me responsible to fulfill the promise we had made to the grandchildren. The promise is my legacy to my family and I am honor-bound to see it finished.

At the time of the meeting of the Commission I was attending a court trial as the plaintiff to recoup monies lost from the rental of a home which was burned four years ago. A minor was paid $300.00 by the person being sued to burn my house down. So, you see, I could not attend the Commission meeting, even if I had been notified of it....which I was not.

Now, to the facts:

I checked with the County of Hawaii Planning Department as to the necessity of a permit. No one there knew that one was required.

I then checked with the County of Hawaii Health and Water Department and was told yet again that there was no need for a permit. Only thing required by them was $25.00 fee, which I paid.
### FINES FOR DRILLER

#### DAILY FINES

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Finding of violation (min. $250)</th>
<th>Occurring in WMA (min $250)</th>
<th>Repeat violation (min $250)</th>
<th>Gravity component</th>
<th>Mitigative component</th>
<th>TOTAL DAILY FINES</th>
<th>Start date</th>
<th>End date</th>
<th>No. of days</th>
<th>Compliance within 30 days (yes/no)</th>
<th>Total duration of violation</th>
<th>Alternate settlement</th>
<th>Subtotal fine for one incident</th>
<th>No. of incidents</th>
<th>Subtotal fines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Well Construction Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55</td>
<td>yes</td>
<td>$250</td>
<td>1</td>
<td>$500</td>
<td>4</td>
<td>$2,000</td>
</tr>
<tr>
<td>2</td>
<td>No Pump Installation Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55</td>
<td>yes</td>
<td>$250</td>
<td>1</td>
<td>$500</td>
<td>4</td>
<td>$2,000</td>
</tr>
<tr>
<td>3</td>
<td>No Well Completion Reports completed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$225</td>
<td>$25</td>
<td>12/22/2000</td>
<td>4/18/2001</td>
<td>53</td>
<td>yes</td>
<td>$250</td>
<td>1</td>
<td>$250</td>
<td>12</td>
<td>$472</td>
</tr>
<tr>
<td>4</td>
<td>Annular space violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$225</td>
<td>$25</td>
<td>12/22/2000</td>
<td>4/18/2001</td>
<td>53</td>
<td>yes</td>
<td>$250</td>
<td>1</td>
<td>$250</td>
<td>12</td>
<td>$472</td>
</tr>
<tr>
<td>5</td>
<td>Concrete pad violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$225</td>
<td>$25</td>
<td>12/22/2000</td>
<td>4/18/2001</td>
<td>107</td>
<td>yes</td>
<td>$250</td>
<td>1</td>
<td>$500</td>
<td>12</td>
<td>$500</td>
</tr>
<tr>
<td>6</td>
<td>Flowmeter not installed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$225</td>
<td>$25</td>
<td>12/22/2000</td>
<td>4/18/2001</td>
<td>107</td>
<td>yes</td>
<td>$250</td>
<td>1</td>
<td>$500</td>
<td>12</td>
<td>$500</td>
</tr>
</tbody>
</table>

#### TOTAL FINES

The total fines calculated are $5,672.

### NOTES

- **A Item No.**
- **B Description** - description of the violation, see submittal text for specific rules violated
- **C Finding of violation (min. $250)** - where there is a violation, there is a minimum daily fine of $250
- **D Occurring in WMA (min. $250)** - When the violation is in a designated Water Management Area, there is a minimum additional daily fine of $250
- **E Repeat violation (min. $250)** - When the violator has committed violations in the past, there is a minimum additional daily fine of $250
- **F Gravity component** - allows for the increase of the daily fine
- **G Mitigative component** - allows for the decrease of the daily fine
- **H TOTAL DAILY FINES** - the sum of the values in columns C through G
- **I Start date** - the date where calculation of daily fines begins (date of notice of violation, or permit approval, or permit fully signed, or violation occurred, or CWRM order)
- **J End date** - the date of the end of the violation or latest CWRM meeting or completed permit application
- **K No. of days** - calculated between start and end dates
- **L Compliance within 30 days (yes/no)** - if the applicant complies with the Commission staff's notice of violation requirements within 30 days
- **M Total duration of violation** - if there was compliance with staff notice of violation within 30 days, the duration shall be one (1) day. If there was no compliance with staff notice of violation within 30 days, the duration shall be the total days of the violation.
- **N Alternate settlement (yes / no)** - an alternate settlement in lieu of the daily fine was recommended
- **O Subtotal fine for one incident** - per incident fine
- **P No. of incidents - of violation that occurred for this investigation
- **Q Subtotal fines - the subtotal of fines, calculated by multiplying (per incident fine) * (no. of incidents)

### EXHIBIT 1: Fine Schedule
I am writing this letter at the suggestion of “Monty” Richards to explain some facts and to beg the Commission to consider my plea to reverse the fine which was levied against me in the amount of $5,780.00. It is his feeling that, had these facts been known, that the judgement would never have been handed down.

I am a 74 year old great grandmother with a heart problem. A pacemaker and a lot of medications keep me alive. I want to live to see my eighth grandchild finish college. Each grandchild has been given property upon completion of their college education. Of the eight grandchildren, seven have graduated. This leaves only one to finish. He is 17 years old and a sophomore at Cabrillo College in California. My husband, David Harms, died in a water accident in October of 1988 leaving me responsible to fulfill the promise we had made to the grandchildren. The promise is my legacy to my family and I am honor-bound to see it finished.

At the time of the meeting of the Commission I was attending a court trial as the plaintiff to recoup monies lost from the rental of a home which was burned four years ago. A minor was paid $300.00 by the person being sued to burn my house down. So, you see, I could not attend the Commission meeting, even if I had been notified of it.....which I was not.

Now, to the facts:

I checked with the County of Hawaii Planning Department as to the necessity of a permit. No one there knew that one was required.

I then checked with the County of Hawaii Health and Water Department and was told yet again that there was no need for a permit. Only thing required by them was $25.00 fee, which I paid.
**Commission on Water Resource Management**  
**Route Slip for New Applications**

**FROM:** RYAN  
**DATE:** 31-May-01  
**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>BAUER, 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>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 acknow letter</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td>3</td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final, label new file folder</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td>4</td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>ICE, C.</td>
<td>5</td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<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:** 2979-01  
**WELL NAME:** Vacationland 1-4

- [ ] 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:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Please fill in the appropriate information and attach the necessary documents.**
PAY TO THE ORDER OF: Commission on Water Resource Management

Five Thousand Six Hundred Seventy Two Dollars

ISSUED BY: Pahoa Branch

Pay to the order of SOH DLNR COMM. ON WATER RESOURCE MANAGEMENT

Void after 90 days

$5,672.00

DEPARTMENT OF LAND AND NATURAL RESOURCES

<table>
<thead>
<tr>
<th>F</th>
<th>YR</th>
<th>APP</th>
<th>D</th>
<th>SRC/CTR</th>
<th>PROJECT</th>
<th>PH</th>
<th>ACT</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>326</td>
<td>C</td>
<td>1564</td>
<td>0752</td>
<td></td>
<td></td>
<td></td>
<td>$5,672.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$5,672.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$5,672.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$5,672.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL: $11,344.00</td>
</tr>
</tbody>
</table>

REMARKS: LINE (1) Violation for Vacation Land 1 to 4 Wells
LINE (2) (Well Nos. 2979-02 to 05)
LINE (2)(2) " " "
LINE (4)(4) " " "

NAME/DESCRIPTION (WANG INPUT)

Turner Drilling (Ck #1033)
Ardythe B. Harms (Cashier's Check - BOH)

May 30, 2001
<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>BAUER, G.</td>
<td></td>
<td>LUM, A.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox ___ copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: LINNEL
DATE: MAY 25 2001
SUSPENSE DATE:

TO: BAUER, G.
CHING, F.
DANBARA, S.
FUJII, N.
HARDY, R.
HIGA, D.
HIRANO, E.
ICE, C.
IMATA, R.
JINNAI, R.
KUNIMURA, I.

INIT.

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

INIT.

FOR: Approval
Signature
Information

PLEASE: See Me
Review & Comment
Take Action
Type Draft
Type Final
File
Xerox ___ copies

Note: Harms sent in check for same amount. Give to Kathy for deposit.
APPLICATION FOR PERMIT

WELL & PUMP INFORMATION:

1. WELL OWNER: Adythe Harms
   Mailing Address: 14-1176 Kapa'a-Pa'au, HI 96778
   Contact Person: Same
   Phone: 965-9925

2. WELL NAME: Vacation Land #1
   Island: Hi
   Address: Kapa'a Rd/Pa'au, HI
   Tax Map Key: 1-4-27-39
   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (b) a property tax map, showing well location referenced to established property boundaries.

3. PROPOSED WORK:
   - Construct New Well
   - Modify Existing Well
   - Abandon/Seal
   - Install New Pump
   - Modify Pump
   *State Well No.: 9979-02
   (If unknown, please call Commission at 587-0225)

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

5. PROPOSED PUMPING RATE:
   gallons per minute

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

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:
   - CDUP
   - SMAP
   - EIS
   - EA
   - None
   - Other (explain)

9. REMARKS, EXPLANATIONS:

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 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.

Well Owner: Adythe Harms
Landowner: Adythe Harms
Contractor: Turner Drilling

Signature: Adythe Harms
Signature: Adythe Harms
Signature: Turner Drilling

Date: 6-17-01
Date: 5-17
Date: 5-16-01

For official use only
Latitude
Longitude

Aquifer System No.
State Well No.
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Elevation at top of casing 22.7 ft., msl

Cement Grout: 15 ft. (min. 70% of distance from ground elevation to top of water surface or 50 ft., whichever is less.)

Annular space between hole and casing (min.3'):___ in.

Rock or Gravel Packing:
- Material: 6 Crushed Basalt
- 6 Crushed Gravel

Total Depth: 15 ft.

Estimated Water Level Elevation: ___ ft., msl

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

Ground Elevation: 5.44 ft., msl

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

Open Casing: [ ] Perforated [ ] Screen
- Total Length: _____________ ft.
- Nominal Diameter: _____________ in.
- Wall Thickness: _____________ in.
- Bottom Elevation: _____________ ft., msl

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

Open Hole: Length: _____________ ft.
- Diameter: _____________ in.
- Bottom Elevation: _____________ ft., msl

Solid Casing Material:
- Carbon Steel: 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 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): [ ] 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 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 shall not be deeper than 1/4 of aquifer thickness or,
Bottom Elevation of Well Limit = (Ground Elevation - 4 x Water Level Elevation)
Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 - 4 x Water Level Elevation) = -18.5 ft.
APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) § WELL OWNER: Andythe Harms  
Mailing Address: 46-470 Kapaohi Pahoa, HI 96778  
Phone: 965-8956

(b) § LAND OWNER: Same
Mailing Address: __________________________  
Contact Person: __________________________  
Phone: __________________________

(c) § CONTRACTOR: Turner Dallinger  
Mailing Address: 478-205 Schofield Village Rd, Sunnyvale, CA 96130  
Phone: 530-257-6250

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

2. WELL NAME: Vacation Land (#2)  
Address: Laura Dr., Pahoa, HI 96778  
Tax Map Key: 1-4-70-27  
Island: HI  
Mailing Address: __________________________  
Contact Person: __________________________  
Phone: __________________________

3. PROPOSED WORK: (check all that apply)
   □ Construct New Well  □ Install New Pump*  
   □ Modify Existing Well*  □ Modify Pump*  
   □ Abandon/Seal*  
   *State Well No.: 2619-03  (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: __________________________ gallons per minute

6. PROPOSED USE: (Check all that apply)
   □ Municipal (including hotels, stores, etc.)  □ Industrial  
   □ Domestic (individual, noncommercial water system)  
   □ Irrigation (crop)  □ No. of Acres: __________________________  
   □ Military  □ Other (explain): __________________________

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:  
   □ CDUP  □ SMAP  □ EIS  □ EA  □ None  □ Other (explain)

9. REMARKS, EXPLANATIONS: __________________________

(for official use only)

Well Owner Andythe Harms  
Landowner Andythe Harms  
Contractor Turner Dallinger  
Signature __________________________  Signature __________________________  Signature __________________________

Date 5/17/01  Date 5/17/01  Date 5/16/01

For official use only  
Latitude __________________________  Aquifer System No. __________________________

Longitude __________________________  State Well No. __________________________

WCPIPA Form 10/25/00
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Hole Diameter: _____ in.

Elevation at top of casing: _____ ft., msl*

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

Ground Elevation: _____ ft., msl*

Cement Grout: 21 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:

Material:

@ Crushed Basalt
@ Rounded Gravel

Estimated Water Level Elevation: _____ ft., msl*

Total Depth: 21 ft.

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

Total Length: _____ ft.

Nominal Diameter: _____ in.

Wall Thickness: _____ in.

Bottom Elevation: _____ ft., msl*

Open Casing: □ Perforated □ Screen

Total Length: _____ ft.

Nominal Diameter: _____ in.

Wall Thickness: _____ in.

Bottom Elevation: _____ ft., msl*

Open Hole:

Length: _____ ft.

Diameter: _____ in.

Bottom Elevation: _____ ft., msl*

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

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) / 4 = -18.5 ft.

Solid Casing Material:

Carbon Steel: compliant with (check one or more):

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

Stainless Steel: (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 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 C550
- 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 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 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 C550
- 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 - 41 x Water Level Elev.) / 4

Example: Estimated + 2 ft. Water Level Elev. — Bottom Elevation of Well Limit = (2 - 41 x 2) / 4 = -18.5 ft.
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 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. 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:  
Name: Adythe B. Harms  
Contact Person: Same  
Phone: 865-9885  
Mailing Address: 14-4146 Kapoho-Pahoa Rd., Pahoa, HI 96759  
Fax:  
E-mail:  
(b) LAND OWNER: Same  
Contact Person:  
Phone:  
Mailing Address:  
Fax:  
E-mail:  
(c) CONTRACTOR: Turner Davilla  
Contact Person: Same  
Phone: 853-6250  
Mailing Address: 478-205 Sebastianville Rd., Susannahville, CA 96130  
Fax:  
E-mail:  
Lic#: [ ] (circle one: C-5, C-57a, or A)

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

2. WELL NAME: Vacation Land (H-3)  
Island: HI  
Address: Maui St., Pahoa, HI 96759  
Tax Map Key: 1-4-20-15  
Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 2979-04  
(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: __________ gallons per minute

6. PROPOSED USE:  
(check all that apply)  
☐ Municipal (including hotels, stores, etc.)  ☐ Industrial  
☐ Domestic (individual, noncommercial water system)  
☐ No. of Acres:  
☐ No. of Service Connections:  
☐ Irrigation (crop)  
☐ Military  
☐ Other (explain):  
☐ Flowmeter  
☐ Open-pipe  
☐ Weir  
☐ Office  
☐ Other (explain):  

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:  
☐ CDUP  ☐ SMAP  ☐ EIS  ☐ EA  ☐ None  ☐ Other (explain)

9. REMARKS, EXPLANATIONS:  
(if more space is needed, please attach additional sheet)

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 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.

Well Owner:  
Adythe Harms  
(plt legibly)  
Signature:  
Date: 5-17-01

Landowner:  
Adythe Harms  
(plt legibly)  
Signature:  
Date: 5-17-01

Contractor:  
Turner Davilla  
(plt legibly)  
Signature:  
Date: 5-16-01

For official use only  
Latitude:  
[ ] Aquifer System No.  
Longitude:  
State Well No.  

WCPIPA Form 10/25/00
10. PROPOSED WELL SECTION (Please attach schematic different from diagram provided below)

**Hole Diameter:** _______ in.

**Elevation at top of casing:** _______ ft., msl*

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

**Ground Elevation:** _______ ft., msl*

**Cement Grout:** _______ 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):** _______ in.

**Rock or Gravel Packing:** _______ ft.

**Material:**
- Crushed Basalt
- Rounded Gravel

**Estimated Water Level Elevation:** _______ ft., msl*

**Open Casing:**
- Perforated
- Screen

**Total Length:** _______ ft.

**Nominal Diameter:** _______ in.

**Wall Thickness:** _______ in.

**Bottom Elevation:** _______ ft., msl*

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

**Total Length:** _______ ft.

**Nominal Diameter:** _______ in.

**Wall Thickness:** _______ in.

**Bottom Elevation:** _______ ft., msl*

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

---

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

**ABS Plastic:**
- Compliant with ASTM F480 and ASTM D1527. (check one) **Schedule 40** **Schedule 80**

**PVC Plastic:**
- Compliant with ASTM F480 and (ASTM D1785 or ASTM D2241): (check one) **Schedule 40** **Schedule 80** **Schedule 120**

**Thermoset Plastic:**
- Compliant with (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 B
- Other

**Stainless Steel:**
- Compliant with (check one):
  - ASTM A409 (production wells)
  - ASTM A312 (monitor wells)

**ABS Plastic:**
- Compliant with ASTM F480 and ASTM D1527. (check one) **Schedule 40** **Schedule 80**

**PVC Plastic:**
- Compliant with ASTM F480 and (ASTM D1785 or ASTM D2241): (check one) **Schedule 40** **Schedule 80** **Schedule 120**

**Thermoset Plastic:**
- Compliant with (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 - 41 ft. x Water Level Elev.)/4**

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2.00 ft. - 41 ft. x 0.5 ft.)/4 = -19.5 ft.
1. (a) WELL OWNER: Anderlyl Hamms
   Contact Person: Same
   Mailing Address: 14-4196 Kapoho-Poho, HT 96778
   Phone: 965-8985

(b) LAND OWNER: Same
   Contact Person: Phone: 
   Mailing Address: 
   Fax: E-mail: 

(c) CONTRACTOR: Taawen Dilling
   Contact Person: Adaime
   Phone: 59-257-6850
   Mailing Address: 472-205 Johnstonville Aiea, HI 96780
   Fax: E-mail: 

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: Vacationland #4
   Owner of Land: [Name]
   Island: HI
   Address: Owner of Land
   Tax Map Key: 1-4-170-38
   Zone: Sec: Plat: Parcel:
   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 3979-05 (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: ________________ gallons per minute

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

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:
   □ CDUP  □ SMAP  □ EIS  □ EA  □ None  □ Other (explain)

9. REMARKS, EXPLANATIONS:

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 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.

Well Owner: Anderlyl Hamms
Signature: [Signature]
Date: 5-17-01
Landowner: Anderlyl Hamms
Signature: [Signature]
Date: 5/17
Contractor: Taawen Dilling
Signature: [Signature]
Date: 5-16-01

For official use only
Latitude: ____________
Longitude: ____________
Aquifer System No.: ______________________
State Well No.: ______________________

WCPIP A Form 10/25/00
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Hole Diameter: ___________ in.

Elevation at top of casing: ___________ ft., msl

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

Ground Elevation: ___________ ft., msl

Cement Grout: 27 ft.

(min. 70% of distance from ground elevation to top of water surface of 50 ft., whichever is less)

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

Rock or Gravel Packing:

Material:

- Crushed Basalt
- Rounded Gravel

Total Depth: 27 ft.

Solid Casing: (≥ 90% of (Ground Elevation - Water Level Elevation))

Total Length: ___________ ft.

Nominal Diameter: ___________ in.

Wall Thickness: ___________ in.

Bottom Elevation: ___________ ft., msl

Open Casing:

- Perforated
- Screen

Total Length: ___________ ft.

Nominal Diameter: ___________ in.

Wall Thickness: ___________ in.

Bottom Elevation: ___________ ft., msl

Open Hole:

Length: ___________ ft.

Diameter: ___________ in.

Bottom Elevation: ___________ 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 Steel: (check one):

- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1257: (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 B
- Other

Stainless Steel: (check one):

- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1257: (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 + 4.1 x Water Level Elev.) / 4

Example: Estimated + 2 ft. Water Level Elev. → Bottom Elevation of Well Limit = (2 + 4.1 x 0.5) = 1.185 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.

1. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Hole Diameter: ___________ in.

Elevation at top of casing: ___________ ft., msl

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

Ground Elevation: ___________ ft., msl

Cement Grout: 27 ft.

(min. 70% of distance from ground elevation to top of water surface of 50 ft., whichever is less)

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

Rock or Gravel Packing:

Material:

- Crushed Basalt
- Rounded Gravel

Total Depth: 27 ft.

Solid Casing: (≥ 90% of (Ground Elevation - Water Level Elevation))

Total Length: ___________ ft.

Nominal Diameter: ___________ in.

Wall Thickness: ___________ in.

Bottom Elevation: ___________ ft., msl

Open Casing:

- Perforated
- Screen

Total Length: ___________ ft.

Nominal Diameter: ___________ in.

Wall Thickness: ___________ in.

Bottom Elevation: ___________ ft., msl

Open Hole:

Length: ___________ ft.

Diameter: ___________ in.

Bottom Elevation: ___________ 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 Steel: (check one):

- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1257: (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 B
- Other

Stainless Steel: (check one):

- ASTM A409 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1257: (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.
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

[Check the applicable box]
[ ] 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 521, 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 887-0228. 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):

(a) [ ] WELL OWNER: Ardyth Hamis Contact Person: SAME Phone: 965-8925
Mailing Address: 14-4196 Kapoho Pahoa Hi 96778
Fax: E-mail: ________________________
(b) [ ] LAND OWNER: SAME Contact Person: Phone: ________________________
Mailing Address: Fax: E-mail: ________________________
(c) [ ] CONTRACTOR: Turner Drilling Contact Person: Frank Phone: 982-8255
Mailing Address: PO Box 6947 Hi 96720
Fax: 982-8255 E-mail: ________________________
Lic #: 22529 (circle one: EC, C-57a, or A)

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

2. WELL NAME: Vacation Land #1 Island:
Address Kahekke Rd. Pahoa Hi
Tax Map Key: J-4 - 67 - 39
Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 2979-02 (if unknown, please call Commission at 587-0225)

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

5. PROPOSED PUMPING RATE: 15 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)
[ ] No. of Acres:
[ ] Military
[ ] Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
[ ] Flowmeter [ ] Open-pipe [ ] Weir [ ] Orifice [ ] Other (explain)

gallons per day

(b) METHOD OF FLOW MEASUREMENT:

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: [ ] CDUP [ ] SMAP [ ] EIS [ ] EA [ ] None [ ] Other (explain)

9. REMARKS, EXPLANATIONS:

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 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.

Well Owner
(print legibly)
Signature ________________________________ Date ____________________________

Landowner
(print legibly)
Signature ________________________________ Date ____________________________

Contractor
(print legibly)
Signature ________________________________ Date ____________________________

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

WCPIPA Form 10/25/00
**10. PROPOSED WELL SECTION** (Please attach schematic if different from diagram provided below)

**HOLE INFORMATION**
- **Casing Material:**
  - Carbon: compliant (check one):
    - ASTM A342
    - Type E
    - Other
  - Stainless Steel: (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):
  - Fiberglass Wound Resin Pipe conforming to ASTM D2296
  - 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 AWCA 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
  - Other

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

**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 Water Level Elev) / 4**

*Example:* Estimated Water Level Elev. = 2 ft., Water Level Elev. = 41 ft.
- **Bottom Elevation of Well Limit = (2 - (41 - 2) / 41) = -18.5 ft.

**SOLID CASING MATERIAL**
- **Carbon Steel:** compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
  - Other

**Minimum of 2' Radius & 4' Thick Concrete Pad (to contain benchmark and elevation control points).**

**Open Hole:**
- Depth:
  - Length:
  - Diameter:
  - Bottom Elevation:

**Approximate depth of drilling**
- 0 ft., 0 ft., 0 ft., 0 ft.

**Rock or Gravel Packing:**
- Material:
  - Crushed Basalt
  - Rounded Gravel

**Cement Grout:**
- Thickness:
  - (min. 3")

**Estimated Water Level Elevation:**
- 0 ft., ms1

**Total Depth:**
- 15 ft.

**Solid Casing:**
- Total Length:
  - Nominal Diameter:
  - Wall Thickness:
  - Bottom Elevation:

**Open Casing:**
- Total Length:
  - Nominal Diameter:
  - Wall Thickness:
  - Bottom Elevation:

**Open Hole:**
- Length:
  - Diameter:
  - Bottom Elevation:

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

**Note:** Neither bentonite nor mud should be used in saturated zone during drilling.

---

* 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 report and referenced to a benchmark which has been established by a surveyor licensed by the State.
State of Hawai'i
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

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

1. (a) □ WELL OWNER: Andythe Harms
   Contact Person: Same
   Phone: 965-8925
   Mailing Address: 14-4196 Kapoho - Pahoa, Hilo 96720
   Fax: E-mail:

   (b) □ LAND OWNER: Same
   Contact Person: Phone:
   Mailing Address: Fax:

   (c) □ CONTRACTOR: Turner Drilling
   Contact Person: Frank
   Phone: 982-9285
   Mailing Address: PO Box 6941
   Fax: 982-8255
   E-mail: Lic #: 22572

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

2. WELL NAME: Vacationland #3
   Island: Hi
   Address: Maille St. Pahoa, Hilo 96720
   Tax Map Key: 1/4-70-15
   Attache the relevant portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (b) a property tax map, showing well location referenced to established property boundaries.

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

   *State Well No.: 2979-04 (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: 15 gallons per minute

6. PROPOSED USE: ☐ Municipal (including hotels, stores, etc.) ☐ Industrial
   (check all that apply) ☐ 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) ☐ No. of Acres: ☐ Military ☐ Other (explain): ☐ Office ☐ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 250 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: ☐ Flowmeter ☐ Open-pipe ☐ Weir ☐ Orifice ☐ Other (explain):

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: ☐ CDUP ☐ SMAP ☐ EIS ☐ EA ☐ None ☐ Other (explain)

9. REMARKS, EXPLANATIONS:

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 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.

Well Owner (print legibly) Landowner (print legibly) Contractor (print legibly)

Signature Signature Signature

Date Date Date

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

WCPIPA Form 10/25/00
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

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 = \( \left\lfloor \frac{\text{Water Elevation} - 4 \times \text{Water Level Elev.}}{5} \right\rfloor \approx -18.5 ft. \)

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

- **Stainless Steel:** (check one):
  - ASTM A409 (production wells)
  - ASTM 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 B
  - Other

- **Stainless Steel:** (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 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.*
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 821, 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. For further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwrm.

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

1. (a) WELL OWNER: Ardyth Harms
   Contact Person: 
   Phone: 965-8925
   Mailing Address: 147-4196 Kapoho - Pahoa, Hi, 96778
   Fax:
   E-mail:
   (b) LAND OWNER: Same
   Contact Person: 
   Phone:
   Mailing Address:
   Fax:
   E-mail:
   (c) CONTRACTOR: Turner Drilling
   Contact Person: 
   Phone: 882-8255
   Mailing Address: P.O. Box 6941, Hilo, HI 96720
   Fax:
   E-mail:
   Lic #: 22522
   (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: Vacation Land
   Address: Corner of Koaia & Holopai
   Island: HI
   Map Key: (-14 - 30 - 38)
   Zone: Sec: Plat: Parcel:
   Attache the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 2979-05 (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: 15 gallons per minute

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 
   (b) METHOD OF FLOW MEASUREMENT:
   ☑ Flowmeter ☑ Open-pipe ☑ Weir ☑ Orifice ☑ Other (explain)

8. LEGAL REQUIREMENTS: 
   ☑ CDUP ☑ SMAP ☑ EIS ☑ EA ☑ None ☑ Other (explain)

9. REMARKS, EXPLANATIONS:

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

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 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.

Well Owner
(print legibly)

Ardyth Harms

Landowner
(print legibly)

Ardyth Harms

Contractor
(print legibly)

Turner Drilling

Signature

Signature

Date

Date

May 21-01

May 22-01

For official use only

Latitude

Aquifer System No.

Longitude

State Well No.

WCPIPA Form 10/25/00
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

Elevation at top of casing: 28 ft, msl

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

Ground Elevation: 27 ft, msl

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

Total Length: ___________ ft.
Nominal Diameter: ______ in.
Wall Thickness: ___________ in.
Bottom Elevation: ___________ ft, msl

Open Casing:

Perforated
Screen

Total Length: ________ ft.
Nominal Diameter: ________ in.
Wall Thickness: ________ in.
Bottom Elevation: ________ ft, msl

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

Open Hole:

Length: ________ ft.
Diameter: ________ in.
Bottom Elevation: ________ 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 A240 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (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 D5317
□ 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 A240 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (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 D5317
□ 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,

Bottom Elevation of Well Limit = (Water Elevation - 41 x Water Level Elev. )

Example: Estimated = 2 ft. Water Level Elev. ~ Bottom Elevation of Well Limit = (2 - 41 x 2) = -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.
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 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. For further information and updates to this application form, visit http://www.state.hi.us/lirlnr/cwrm.

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)
1. (☐) WELL OWNER: Ardyth Harms
Contact Person: Same
Mailing Address: 14-4196 Kapoho-Pahoa, HI 96778
Phone: 965-8455
Fax: ___________________________
E-mail: ___________________________

2. (☐) LAND OWNER: Same
Mailing Address: ___________________________
Fax: ___________________________
E-mail: ___________________________

3. (☐) CONTRACTOR: Turner Drilling
Contact Person: ___________________________
Fax: ___________________________
E-mail: ___________________________

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

2. WELL NAME: Vacation Land #2
Address: 138-142 Laupu Dr Pahoa, HI
Tax Map Key: 1-4-70-27-1
Zone Sec Plat Parcel
Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 2979-03 (if unknown, please call Commission at 587-0225)

4. CONSTRUCTION:
☐ Drilled ☐ Dog ☐ Shaft ☐ Tunnel

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

5. PROPOSED PUMPING RATE: 15 gallons per minute

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

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
☐ Flowmeter ☐ Open-pipe ☐ Weir ☐ Orifice ☐ Other (explain):

(b) METHOD OF FLOW MEASUREMENT:

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:
☐ CDUP ☐ SMAP ☐ EIS ☐ EA ☐ None ☐ Other (explain)

9. REMARKS, EXPLANATIONS:

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 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.

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

For Official Use Only:
RECEIVED
01 MAY 25 P1: 58

WCPIPA Form 10/25/00
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 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 B  □ Other
- Stainless Steel: (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 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/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 Level Elev. - 41 x (Ground Elev.-Water Level Elev.)) / 4

Example: Estimated + 2 fl. Water Level Elev. —+ Bottom Elevation of Well Limit = (2 - 41 x (-18.5)) / 4 = -18.5 ft.

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
  - And compliant with (check one or more): □ ASTM A242  □ Type E  □ Type S  □ Grade B  □ Other
- Stainless Steel: (check one): □ ASTM A409 (production 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 B  □ Other
- Stainless Steel: (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 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 installation is in compliance with applicable standards.
A surveyor was hired and performed a "rush" job to get the inspection through. The system installed was purchased from American Water Purification Systems. Each well includes state-of-the-art reverse osmosis, anti-bacteria unit, a 500 gallon holding tank and the best pump available with a pump house for each unit with a locked door. The four men who were sent out to check said they were impressed with our entire system. The cost of the entire system was $14,000.00.

I was depending on the Turner Drilling Company to say that I was the innocent in this drama. When I hired a licensed contractor, I assumed permits, if needed would be in place. I had been told I would be fined $800.00. I am willing to assume that much of the burden. The fact that I had checked with the County and been given misinformation leads me to beg and plead with you to remove this fine. (I am told that a person in Vacationland reported this because they were angry that I rented to "locals").

It is my fervent hope that the Commission, now knowing the history of this project, will reverse its finding and refund to me the amount of the fine.

Most respectfully,

Ardythe Harms

Copies to:

Bruce Anderson, State Department of Health
Gilbert S. Coloma-Agaran
Roy Hardy
Herbert M. Richards, Jr.
Turner Drilling
May 16, 2001

State of Hawaii
Commission on Water Resource Management
P.O Box 621
Honolulu, HI 96809

Dear Sirs:

Unfortunately, I am unable to attend today's meeting due to a previous commitment which I was unable to cancel. Please accept this letter in lieu of a personal appearance.

I have been in Hawaii since 1979 and have built 28 homes. I am aware of the proper planning before any major project commences. When the thought of drilling wells on my properties came up, I started planning. I went to Nani at the Building Department. She said I didn't need a permit and said to check with the Planning Department. I talked with a Planning Department Assistant and he said no permit was needed. I then called the Health Department. They also said a permit was not needed. I also talked with the Water Co. and a total of three County Department Heads for permit information. ALL said no permits were needed. I then hired Turner Drilling and told them that permits were not needed for my wells. They commenced drilling in December, 2000. After drilling was completed, we were contacted by the investigator and was told we needed permits. That was the first time we were aware of any permits needed. Since that time, Turner Drilling and I have made every effort, as expediently as possible, to correct the issues.

To date, the issues have been corrected. Plus, with the R.O. and Ultra-violet light systems that have been installed, we feel we have accommodated your Department.

I understand that we have made a mistake, but it was not intentional. I thought I had taken the correct steps to find out about permit requirements. I am still unclear as to why no one is aware that any permits are needed to drill a well. Please feel free to contact me with any questions.

Sincerely,

Ardythe Harms
KKWA meter

Ardythe Harms meter

Individual meters

DWS Waterline

KKWA Waterline

Waterline

Red Road

Private Road

Approx. 5000' to homes

WATERLINE SCHEMATIC
NOT TO SCALE
APPLICATION INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) ☐ WELL OWNER: Andythe Harris
   Contact Person: Same
   Phone: 965-8725
   Mailing Address: 14-4196 Kapoho - Pahoa HI 96778
   Fax: 
   E-mail: 
   (b) ☐ LAND OWNER: Same
   Contact Person: 
   Phone: 
   Mailing Address: 
   Fax: 
   E-mail: 
   (c) ☐ CONTRACTOR: Turner Dallin
   Contact Person: Frank
   Phone: 982-8755
   Mailing Address: P.O. Box 6441
   Fax: 982-8755
   E-mail: 
   Lic #: 60232

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

2. WELL NAME: Vacationland #3
   Island: Hi
   Address: Mail St. Pahoa HI 96778
   Tax Map Key: 1-4 70 15
   Zone Sec. Plat 
   Map Key:  
   Attach the relevant portion of (a) a 7.5-minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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: 2979-04 (if unknown, please call Commission at 808-0225)

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

5. PROPOSED PUMPING RATE: 15 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) ☐ No. of Acres: 
   ☑ Military ☑ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 250 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: ☑ Flowmeter ☑ Open-pipe ☑ Well ☑ Office ☑ Other (explain):

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:

   ☑ CDP   ☑ SMAP   ☑ EIS   ☑ EA   ☑ None   ☑ Other (explain):

9. REMARKS, EXPLANATIONS:

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

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

Well Owner
Signature
Date
Landowner
Signature
Date
Contractor
Signature
Date

For official use only

Latitute

Aquifer System No.

Longitude

State Well No.

WPAPA Form 192500
10. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

<table>
<thead>
<tr>
<th>Hole Diameter: 18 in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum of 2(\frac{1}{2}) Radius (\frac{1}{4}) Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)</td>
</tr>
<tr>
<td>Ground Elevation: 21 ft., mal*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connect Grout: 18 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annular space between hole and casing (min. 3): 3 ft.</td>
</tr>
<tr>
<td>Rock or Gravel Packing: 3 ft.</td>
</tr>
<tr>
<td>Material: 6 Crushed Basalt 6 Rounded Gravel</td>
</tr>
<tr>
<td>Estimated Water Level Elevation: 0 ft., mal*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Depth 21 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Casing: (5 90% x (Ground Elev. - Water Level Elev.))</td>
</tr>
<tr>
<td>Total Length: 23 ft.</td>
</tr>
<tr>
<td>Nominal Diameter: 6 in.</td>
</tr>
<tr>
<td>Wall Thickness: 0.187 in.</td>
</tr>
<tr>
<td>Bottom Elevation: 0 ft., mal*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open Casing:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Length:</td>
<td>23 ft.</td>
<td>23 ft.</td>
</tr>
<tr>
<td>Nominal Diameter:</td>
<td></td>
<td>6 in.</td>
</tr>
<tr>
<td>Wall Thickness:</td>
<td></td>
<td>0.187 in.</td>
</tr>
<tr>
<td>Bottom Elevation:</td>
<td>0 ft., mal*</td>
<td>0 ft., mal*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open Hole:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length: 23 ft.</td>
<td>23 ft.</td>
<td>23 ft.</td>
</tr>
<tr>
<td>Diameter:</td>
<td></td>
<td>6 in.</td>
</tr>
<tr>
<td>Bottom Elevation:</td>
<td>0 ft., mal*</td>
<td>0 ft., mal*</td>
</tr>
</tbody>
</table>

* 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 Wall Completion/Wall Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

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

Bottom Elevation of Well Limit = \(\frac{1}{4}\) of Aquifer Thickness

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

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 A409 (production welds) ASTM A512 (monitor welds)
- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one): Schedule 40 Schedule 80 Schedule 120
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2281): (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 D6987 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

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 A512 (monitor welds)
- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one): Schedule 40 Schedule 80 Schedule 120
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2281): (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 D6987 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

SECTION 01521: (Regulated)

HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

- To ensure that your site is in compliance with applicable standards.

**Note:** Neither bentonite nor mud should be used in saturated zone during drilling.
10. PROPOSED WELL SECTION

(please attach schematic if different from diagram provided below)

Hole Diameter: \( \frac{1}{2} \) in.

Minimum at top of casing: \( \frac{27}{2} \) ft., ma

Current Grade: \( 23 \) 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\( \frac{3}{8} \)): \( \frac{3}{8} \) in.

Rock or Gravel Packing:

Total Depth: \( 27 \) ft.

Solid Casing: (\( \geq 90\% \times \) [Ground Elev. - Water Level Elev.])

Total Length: \( 28 \) ft.

Nominal Diameter: \( \frac{3}{4} \) in.

Wall Thickness: \( \frac{1}{8} \) in.

Bottom Elevation: \( \frac{1}{2} \) ft., ma

Open Casing: [Perforated] [Screen]

Total Length: \( \frac{3}{4} \) ft.

Nominal Diameter: \( \frac{3}{4} \) in.

Wall Thickness: \( \frac{1}{8} \) in.

Bottom Elevation: \( \frac{1}{2} \) ft., ma

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

* 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 \( \frac{1}{4} \) of aquifer thickness or,

Bottom Elevation of Well Limit = \( \text{Water Level} - 2 \times \text{Water Level Elevation} \)

Example: Estimated water level \( = 2 \frac{1}{4} \) ft. Water Level Elevation: \( = \frac{1}{2} \) ft.

Bottom Elevation of Well Limit = \( 2 \frac{1}{4} \times \frac{1}{2} \) = \( 1.6 \) ft.

Solid Casing Material:

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

And compliant with (check one or more): [ASTM A242] [Type E] [Type S] [Grade B] [Other]

Stainless Steel: (check one): [ASTM A409 (production wells)] [ASTM A512 (monitor wells)]

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) [Schedule 10] [Schedule 80]

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2511): (check one) [Schedule 40] [Schedule 80] [Schedule 120]

Thermoplastic: (check one): [Filament Wound Resin Pipe conforming to ASTM D2996] [Centrifugally Cast Resin Pipe conforming to ASTM D3288] [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] [Other]

And compliant with (check one or more): [ASTM A242] [Type E] [Type S] [Grade B] [Other]

Stainless Steel: (check one): [ASTM A409 (production wells)] [ASTM A512 (monitor wells)]

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) [Schedule 10] [Schedule 80]

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2511): (check one) [Schedule 40] [Schedule 80] [Schedule 120]

Thermoplastic: (check one): [Filament Wound Resin Pipe conforming to ASTM D2996] [Centrifugally Cast Resin Pipe conforming to ASTM D3288] [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]
10. PROPOSED WELL SECTION

(Attach schematic if different from diagram provided below)

Hole Diameter: \( \frac{12}{2} \) in.

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

Ground Elevation: \( \frac{21}{2} \) ft., msl

**Solid Casing Material:**

- Carbon Steel: compliant with (check one or more):  
  - ANSI/AWWA C200  
  - API Spec. 5L  
  - ASTM A53  
  - ASTM A120
  - Other
- Stainless Steel: (check one):  
  - ASTM A409 (production welds)  
  - ASTM A312 (monel well)
- ABS Plastic conforming to ASTM F460 and ASTM D1527: (check one)  
  - Schedule 40  
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1765 or ASTM D2241): (check one):  
  - Schedule 40  
  - Schedule 80  
  - Schedule 120
- Thermoplastic: (check one):  
  - Filament Wound Resin Pipe conforming to ASTM D2996  
  - Centrifugally 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 D3286

**Open Casing Material:**

- Carbon Steel: compliant with (check one or more):  
  - ANSI/AWWA C200  
  - API Spec. 5L  
  - ASTM A53  
  - ASTM A120
  - Other
- Stainless Steel: (check one):  
  - ASTM A409 (production welds)  
  - ASTM A312 (monel well)
- ABS Plastic conforming to ASTM F460 and ASTM D1527: (check one)  
  - Schedule 40  
  - Schedule 80
- PVC Plastic conforming to ASTM F480 and (ASTM D1765 or ASTM D2241): (check one):  
  - Schedule 40  
  - Schedule 80  
  - Schedule 120
- Thermoplastic: (check one):  
  - Filament Wound Resin Pipe conforming to ASTM D2996  
  - Centrifugally 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 D3286

*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-self 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 - 0.25 Water Level Elevator)

Example: Estimated + 2 ft. Water Level Elev. \( \rightarrow \) Bottom Elevation of Well Limit = (12 - 12) = 10.5 ft.

For non-self 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 - 0.25 Water Level Elevator)

Example: Estimated + 2 ft. Water Level Elev. \( \rightarrow \) Bottom Elevation of Well Limit = (12 - 12) = 10.5 ft.
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

Hole Diameter: 13 in.

Elevation at top of casing: 17 ft., max

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

Ground Elevation: 15 ft., max

Ammonal space between hole and casing (min. 3):

Rock or Gravel Packing:

Total Depth: 15 ft.

Solid Casing: 10 x 0.090 x (Ground Elev-Water Level Elev)
Total Length: 17 ft., max
Nominal Diameter: 6 in.
Wall Thickness: 0.118 in.
Bottom Elevation: 0 ft., max

Open Casing:

Open Hole:

Total Length: 17 ft., max
Nominal Diameter: 6 in.
Wall Thickness: 0.118 in.
Bottom Elevation: 0 ft., max

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

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

For non-salt water basalt Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = (Water Elevation + 0.25 x Water Level Change) / 4,

Example: Estimated + 2 ft. Water Level Elev. - Bottom Elevation of Well Limit = (2 + 0.25 x 2) / 4 = 0.25 ft.

Solid Casing Material:
Carbon Steel: compliant with (check one or more): DIN/ASMEC200 (API Spec. 5L)
Stainless Steel: compliant with (check one or more): ASTM A242 Type E...

PVC Plastic conforming to ASTM F490 and ASTM D1527:
Schedule 40 Schedule 80

AS 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 D3296
Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
PTFE Fluorocarbon Tubing conforming to ASTM D3295
PE Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more): DIN/ASMEC200 (API Spec. 5L)
Stainless Steel: compliant with (check one or more): ASTM A480 Type E...

AS Plastic conforming to ASTM F490 and ASTM D1527:
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 D3296
Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
PTFE Fluorocarbon Tubing conforming to ASTM D3295
PE Fluorocarbon Tubing conforming to ASTM D3296
# INVOICE

**INVOICE NO:** 13659168

**DATE:** 05/23/01

**SHIPPED TO:** Turner Drilling Co.

**SHIPPED TO ADDRESS:**

**SHIP VIA:** C.F.R.

**USES/ACCT#/INVOICE#:** 136306

**DUE DATE:** 06/23/01

**ORDERED BY:** Frank

**REGISTER #:** 46

**INVOICE:** 13659168

<table>
<thead>
<tr>
<th>LN</th>
<th>ORDER</th>
<th>SHIP</th>
<th>U/M U-PRICE</th>
<th>ITEM NUMBER</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
<th>C</th>
<th>PRICE</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>15.00</td>
<td>15.00</td>
<td>BAG 8.79</td>
<td>CEMENT</td>
<td>CEMENT - 1100</td>
<td>15.00</td>
<td>BAG</td>
<td>8.79</td>
<td>131.85</td>
</tr>
</tbody>
</table>

**WEIGHT:** 1410

**FREIGHT**

<table>
<thead>
<tr>
<th>TAXABLE TOTAL</th>
<th>NONTAXABLE TOTAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>137.33</td>
<td>0.00</td>
<td>137.33</td>
</tr>
</tbody>
</table>

**Balance Due**

| 137.33 |

**TOTAL**

| 137.33 |

**TERMS:** MONTHLY CLOSING DATE IS LAST DAY OF MONTH. ANY CHARGES OR PAYMENTS MADE AFTER CLOSING DATE WILL SHOW ON NEXT MONTH'S STATEMENT. ALL CHARGES ARE DUE AND PAYABLE BY THE LAST DAY OF THE NEXT MONTH FOLLOWING DATE OF PURCHASE. ANY AMOUNT NOT PAID BY THIS DATE IS CONSIDERED PAST DUE AND WILL HAVE THE MAXIMUM LEGAL INTEREST APPLIED TO THE ACCOUNT. I UNDERSTAND HPMS RETURNS GOODS POLICY RETURNS MUST BE MADE WITHIN 30 DAYS AND IN ORIGINAL CONDITION. ORIGINAL INVOICE MUST ACCOMPANY ALL RETURNS.

**SIGNATURE**
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: Hirano

DATE: 5/22/01

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>BAUER, G.</td>
<td></td>
<td>LUM, A.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PLEASE:

- See Me
- Review & Comment
- Take Action
- Type Draft
- Type Final
- File
- Xerox copies
of national Hurricane Awareness Week:
- Know the storm surge history and elevation of your area;
- Learn safe routes inland;
- Review working condition of emergency equipment such as flashlights and radios, and replace batteries if needed;
- Have enough nonperishable food on hand to last at least two weeks;
- Check for loose and clogged rain gutters and vehicles;
- Inspect and secure mobile home tie-downs;
- Prepare to cover all window and door openings with shutters or shielding materials;
- Make sure at least two weeks of drinking water is available and stored in air-tight containers, stock up on canned foods, obtain a camping stove with fuel, and keep a cooler with frozen gel

See HURRICANE, B2

at Love’s Bakery

Landlord loses slander suit over fire

By Hugh Clark
ADVERTISER BIG ISLAND BUREAU

HILO, Hawai`i — A Big Island jury has rejected a landlord’s claim that her tenant burned a Puna home in 1997 and awarded the tenant $1.3 million in damages.

It was the third time Ardythe Harmes failed to find support for her claims of arson. Three of her many Puna rental properties burned in 1997 and 1998.

First she filed an insurance claim after a Leilani Estates home burned on Aug. 3, 1997. Allstate Insurance fought it and a federal jury in May 1999 concluded Harmes burned her own home.

Then Harmes said retired professor Herbert Jensen had someone torch a Vacationland home he was renting on Aug. 18, 1997. Jensen sued her for slander.

Last week, a jury in a civil trial awarded Jensen $300,000 for slander and $1 million in punitive damages.


at Love’s Bakery

RICHARD AMBO • The Honolulu Advertiser

Love’s Bakery employees were evacuated after a fire broke out in the company’s Middle Street plant.

In a span of minutes, flames reached an estimated 9 or 10 feet, enough to scare workers into calling 911, they said. Police opened Middle Street about one hour later.

RICHARD AMBO • The Honolulu Advertiser
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 3 copies and a non-refundable filing fee of $35.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 887-0225. For further information and updates to this application form, visit http://www.state.hi.us/wrm/wrmd.

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

1. (a) ☐ WELL OWNER: Audyth Ham 
Mailing Address: 14-4196 Kapoho Pahoa Hi 96778
Phone: 965-8825
(b) ☐ LAND OWNER: Same 
Mailing Address: 
Phone: 
(c) ☐ CONTRACTOR: Turner & Drilling 
Mailing Address: PO Box 6711 Hilo Hi 96720
Phone: 982-8255

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

2. WELL NAME: Vacation Land # 1 
Island: 
Address: 14-4196 Kapoho Pahoa Hi 
Tax Map Key: 
Zone: L-4 
Sec: 67 
Parcel: 39

Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 2979-02

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

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

5. PROPOSED PUMPING RATE: 15 gallons per minute

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 
☐ Flowmeter ☐ Open-pipe ☐ Weir ☐ Office ☐ Other
☐ None ☐ Other (explain)

(b) METHOD OF FLOW MEASUREMENT:

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:
☐ CDUP ☐ SMAP ☐ EIS ☐ EA ☐ None ☐ Other (explain)

9. REMARKS, EXPLANATIONS:

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

Well Owner 
(print legibly)
Signature 
Date
Landowner 
(print legibly)
Signature 
Date
Contractor 
(print legibly)
Signature 
Date

For official use only 
Latitude Aquifer System No.
Longitude State Well No.
## APPLICATION FOR PERMIT

### If "Well Construction and/or Pump Installation"

**State of Hawaii**

**COMMISSION ON WATER RESOURCE MANAGEMENT**

**Department of Land and Natural Resources**

**APPLICATION FOR PERMIT**

**If Well Construction and/or Pump Installation**

---

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

1. (a) **WELL OWNER:**
   - Name: Radthe Harmon
   - Address: 142-4196 Kapoho - Pahoa, Hilo, 96782
   - Contact Person: Phone: 965-8925
   - Fax: E-mail: 

2. **LAND OWNER:**
   - Name: Same

3. **CONTACTOR:**
   - Turner Drilling
   - Address: P.O. Box 4744, Hilo, HI 96720
   - Contact Person: Phone: 962-8255
   - Fax: E-mail: 

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

2. **WELL NAME:** Vacabon Land #4
   - Island: Hi
   - Address: Corner of Launa Mix-Hilt Map Key: 14-20-28
   - Zone Sec Plat: 

   ATTACH the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale: 1:24,000) and include the name of the quad map, and (b) a propery tax map, showing well location referenced to established property boundaries.

   - **PROPOSED WORK:**
     - Construct New Well
     - Modify Edging Well
     - Abandon/Seal
     - Install New Pump
     - Modify Pump
     - *State Well No.: 2979-05* (if unknown, please call Commission at 947-0225)

   - **CONSTRUCTION:**
     - Drilled
     - Dug
     - Shaft
     - Tunnel

   - **Is this well part of a battery of wells?** No

   - **PROPOSED PUMPING RATE:** ______ gallons per minute

   - **PROPOSED USE:**
     - 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?** No
     - **No. of Acres:**
     - **Military**
     - **No Other (explain):**

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

   - **OTHER IMPORTANT INFORMATION:**

   - **LEGAL REQUIREMENTS:**
     - **COUP**
     - **SNAP**
     - **EIS**
     - **FA**
     - **None**
     - Other (explain)

   - **REMARKS, EXPLANATIONS:**

---

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 and abandonment report within 80 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.

---

**Well Owner**
- **Landowner**
- **Contractor**

**Signature**
- **Date**
- **Date**

---

**For official use only**

**Latitude**

**Longitude**

**Aquifer System No.**

**State Well No.**

---

**WCPA Form 1025/00**
Vacation Land 1 to 4, Well No. 2979-02 to 05

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-165, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the abandonment/sealing of Vacation Land 1 to 4 (Well No. 2979-02 to 05) at Kahiku Rd, Laiali & Hollii, Maili St., and Kahuku Rd., Hawaii, TMR 1-4-067-027, 028, 39, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management, P.O. Box 221, Honolulu, Hawaii 96809, shall be notified in writing before any work covered by this permit commences.

2. The owner or operator of any well which has been determined by the department or voluntarily declared by the owner or operator to be abandoned as defined in §13-168-2, after written notification, shall be required, at owner's or operator's expense, to re-case, cement, plug back, capping, or otherwise repair the well or fill and seal the well with cement in manner approved by the commission.

3. 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: HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

4. The Well Abandonment Report form (attached) shall be submitted to the Commission on Water Resource Management within sixty (60) days after completion of the work.

5. The permittee shall comply with all applicable laws, rules, and ordinances.

6. The sealing shall be completed within two (2) years

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

Date of Approval: May 18, 2001
Expiration Date: None
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. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day.

Permittee's Signature: ___________________________ Date: May 22-01
Printed Name: FRANK TURNER Firm or Title: OWNER
Contractor's Signature: ___________________________ License #: 33592 Date: May 22-01
Printed Name: ___________________________ Firm or Title: OWNER

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
   Turner Drilling
<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Start</th>
<th>Mode</th>
<th>Identification</th>
<th>Page</th>
<th>Time</th>
<th>Code</th>
<th>Job No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>MAY-17</td>
<td>13:12</td>
<td>EMRR/T</td>
<td>ATTY GEN.LAND TRANS.</td>
<td>001</td>
<td>00:29</td>
<td>OK</td>
<td>039</td>
</tr>
<tr>
<td>02</td>
<td>MAY-17</td>
<td>13:14</td>
<td>G3/R</td>
<td>008 7355756</td>
<td>003</td>
<td>02:14</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>MAY-17</td>
<td>13:21</td>
<td>G3/R</td>
<td>Fred Rames</td>
<td>001</td>
<td>00:49</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>MAY-17</td>
<td>13:26</td>
<td>EMRR/R</td>
<td>008 732 2373</td>
<td>001</td>
<td>00:32</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>MAY-17</td>
<td>14:03</td>
<td>EMRR/R</td>
<td>18082429600</td>
<td>001</td>
<td>00:48</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>MAY-17</td>
<td>14:11</td>
<td>EMRR/T</td>
<td>96211213</td>
<td>002</td>
<td>00:40</td>
<td>OK</td>
<td>040</td>
</tr>
<tr>
<td>07</td>
<td>MAY-17</td>
<td>15:05</td>
<td>EMRR/T</td>
<td>008 2416699</td>
<td>005</td>
<td>02:03</td>
<td>OK</td>
<td>041</td>
</tr>
<tr>
<td>08</td>
<td>MAY-17</td>
<td>15:53</td>
<td>EMRR/T</td>
<td>1 008 553 5816</td>
<td>014</td>
<td>05:29</td>
<td>OK</td>
<td>042</td>
</tr>
<tr>
<td>09</td>
<td>MAY-17</td>
<td>16:09</td>
<td>EMRR/R</td>
<td>008 973 9613</td>
<td>004</td>
<td>01:12</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>MAY-17</td>
<td>16:13</td>
<td>EMRR/R</td>
<td>GOVERNORS OFFICE</td>
<td>001</td>
<td>00:30</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>MAY-18</td>
<td>08:11</td>
<td>ECM/R</td>
<td>9828255</td>
<td>006</td>
<td>05:33</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>MAY-18</td>
<td>09:08</td>
<td>EMRR/T</td>
<td>008 521 2279</td>
<td>009</td>
<td>03:38</td>
<td>OK</td>
<td>043</td>
</tr>
<tr>
<td>13</td>
<td>MAY-18</td>
<td>09:30</td>
<td>EMRR/T</td>
<td>1 008 531 6308</td>
<td>002</td>
<td>00:38</td>
<td>OK</td>
<td>044</td>
</tr>
<tr>
<td>14</td>
<td>MAY-18</td>
<td>10:40</td>
<td></td>
<td>95317181</td>
<td>000</td>
<td>00:00</td>
<td>009</td>
<td>045</td>
</tr>
<tr>
<td>15</td>
<td>MAY-18</td>
<td>10:46</td>
<td></td>
<td>95317181</td>
<td>000</td>
<td>00:00</td>
<td>009</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>MAY-18</td>
<td>11:12</td>
<td>EMRR/T</td>
<td>0085317181</td>
<td>003</td>
<td>01:09</td>
<td>OK</td>
<td>047</td>
</tr>
<tr>
<td>17</td>
<td>MAY-18</td>
<td>11:32</td>
<td>EMRR/R</td>
<td>008 270 7833</td>
<td>001</td>
<td>00:41</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>MAY-18</td>
<td>13:25</td>
<td>EMRR/R</td>
<td>008 828 1113</td>
<td>002</td>
<td>01:06</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>MAY-18</td>
<td>13:32</td>
<td></td>
<td>98484659</td>
<td>000</td>
<td>00:00</td>
<td>009</td>
<td>048</td>
</tr>
<tr>
<td>20</td>
<td>MAY-18</td>
<td>13:35</td>
<td>ECM/T</td>
<td>008 8484659</td>
<td>002</td>
<td>00:57</td>
<td>OK</td>
<td>049</td>
</tr>
<tr>
<td>21</td>
<td>MAY-18</td>
<td>14:40</td>
<td>ECM/R</td>
<td>0088200778</td>
<td>002</td>
<td>01:28</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>MAY-18</td>
<td>15:14</td>
<td>ECM/T</td>
<td>0088207778</td>
<td>001</td>
<td>00:24</td>
<td>OK</td>
<td>050</td>
</tr>
<tr>
<td>23</td>
<td>MAY-18</td>
<td>17:05</td>
<td>EMRR/T</td>
<td>95275703</td>
<td>005</td>
<td>01:29</td>
<td>OK</td>
<td>051</td>
</tr>
<tr>
<td>24</td>
<td>MAY-18</td>
<td>17:07</td>
<td>EMRR/T</td>
<td>1 008 878 2688</td>
<td>005</td>
<td>01:50</td>
<td>OK</td>
<td>052</td>
</tr>
<tr>
<td>25</td>
<td>MAY-21</td>
<td>06:19</td>
<td>G3/R</td>
<td></td>
<td>003</td>
<td>01:53</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>MAY-21</td>
<td>07:29</td>
<td>G3/R</td>
<td>Mktg Strat9725720440</td>
<td>001</td>
<td>00:46</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>MAY-21</td>
<td>08:47</td>
<td></td>
<td>95244243</td>
<td>000</td>
<td>00:00</td>
<td>009</td>
<td>053</td>
</tr>
<tr>
<td>28</td>
<td>MAY-21</td>
<td>08:49</td>
<td>G3/T</td>
<td>008 524 7924</td>
<td>003</td>
<td>01:56</td>
<td>OK</td>
<td>054</td>
</tr>
<tr>
<td>29</td>
<td>MAY-21</td>
<td>08:53</td>
<td>EMRR/T</td>
<td>+1 008 586 0354</td>
<td>001</td>
<td>00:26</td>
<td>OK</td>
<td>055</td>
</tr>
<tr>
<td>30</td>
<td>MAY-21</td>
<td>10:29</td>
<td>ECM/T</td>
<td>9828255</td>
<td>006</td>
<td>02:04</td>
<td>OK</td>
<td>056</td>
</tr>
<tr>
<td>31</td>
<td>MAY-21</td>
<td>10:34</td>
<td>EMRR/R</td>
<td>008 586 4370</td>
<td>002</td>
<td>01:10</td>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>MAY-21</td>
<td>10:35</td>
<td>EMRR/R</td>
<td>008 586 4370</td>
<td>006</td>
<td>02:40</td>
<td>OK</td>
<td></td>
</tr>
</tbody>
</table>
FACSIMILE TRANSMITTAL

To: Frank Turner
Company: Turner Drilling
Fax Number: 808-982-8255
Phone Number: 808-982-8255

From: Roy Hardy
Date: May 21, 2001

Pages Including Header: 6

Subject: Well Abandonment Permits

Notes/Comments:

Here are the abandonment permits that require your signature to be fully validated. Per our conversation, it's okay to take pictures of the sealing and submit the concrete receipts along with the well completion report for proof that the wells have been sealed according to the standards.
**MISSION ON WATER RESOURCE MANAGEMENT**  
**ROUTE SLIP FOR NEW APPLICATIONS**

**FROM:** RYAN  
**DATE:** 18-May-01  
**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>BAUER, G.</td>
<td></td>
<td>LUM, A.</td>
<td></td>
<td>3</td>
<td>Approval</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>3</td>
<td>Signature</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>4</td>
<td>Information</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td>1</td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td>5</td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KUNIMURA, I.</td>
<td>2</td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DATE:** Please findings for signature and fax to Turner at 808-982-8255

**WELL NUMBER**

**WELL NAME** Vacation Land 1 to 4

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

1. TRAN. 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:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Would like: Originals in the mail. To start on Monday

**Signatures:**

Frank  
808 982 8255
May 18, 2001

Ref: 2979-02.act

Ms. Ardythe B. Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

Dear Ms. Harms:

Notice of Action
Application for After-the-Fact Well Construction & Pump Installation
Vacation Land 1 to 4 Wells (Well Nos. 2979-02 to 05)
Kalapana Aquifer System, Hawaii

This letter serves as your official notice of the action taken by the Commission on Water Resource Management (Commission) on the subject applications. By a unanimous vote of the Commission at their meeting on May 16, 2000, the Commission:

A. Found you and driller in violation of the various rules and standards according to Exhibit 4.

B. Imposed a fine of $5,672 on Ardythe Harms, and $5,672 on Turner Drilling and Pump as summarized in Exhibit 4. For the violations under recommendation A.

C. Denied the issuance of after-the-fact Well Construction Permits for the Vacationland #1 through #4 Wells (Well Nos. 2979-02 to 05).

D. Denied the issuance of an after-the-fact Pump Installation Permit.

E. Ordered the applicant and driller to file an application and seal all four (4) wells within 60 days.

F. Suspend any current, pending or future applications until the fines are paid and the applicant/driller completes the permit process for these four wells.

If you have any questions, please contact Roy Hardy at 587-0274.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

RH:ky

Turner Drilling
May 18, 2001

Ms. Ardythe B. Harms  
14-4196 Kapoho-Pahoa  
Pahoa, HI 96778

Dear Ms. Harms:

Well Abandonment Permit  
Vacation Land 1 to 4 (Well No. 2979-02 to 05)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) which authorizes well abandonment/sealing activities. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 7:

**Special Conditions**

1. The permit is valid contingent upon our receipt of original application, fee, and fine.

To validate your permit, please sign and have the contractor sign both permit originals and return one for our files.

IMPORTANT - The well owner is responsible for all conditions of the permit. This includes ensuring that your licensed contractor, submits a completed Well Abandonment 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.

If you have any questions, please call Roy Hardy of the Commission staff at 587-0274.

Aloha,

[Signature]

GILBERT S. COLOMA-AGARAN  
Chairperson

Enclosures  
c. Turner Drilling
WELQNCSTRUCTION PERMIT TO ABANDAN SEAL

Vacation Land 1 to 4, Well No. 2979-02 to 05

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 abandonment/sealing of Vacation Land 1 to 4 (Well No. 2979-02 to 05) at Kaheka Rd, Luailia & Holili, Maile St., and Kahooka Rd., Hawaii, TMK 1-4-067:027, 028, 39, subject to the Hawaii Well Construction & Pump Installation Standards (1/23/97) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809, shall be notified in writing before any work covered by this permit commences.

2. The owner or operator of any well which has been determined by the department or voluntarily declared by the owner or operator to be abandoned as defined in §13-168-2, after written notification, shall be required, at owner's or operator's expense, to re-case, cement, plug back, cap, or otherwise repair the well or fill and seal the well with cement in a manner approved by the commission.

3. 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; HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

4. The Well Abandonment Report form (attached) shall be submitted to the Commission on Water Resource Management within sixty (60) days after completion of the work.

5. The permittee shall comply with all applicable laws, rules, and ordinances.

6. The sealing shall be completed within two (2) years

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

Date of Approval: May 18, 2001
Expiration Date: None

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

Permittee’s Signature: __________________________ Date: __________________________

Printed Name: ____________________________ Firm or Title: __________________________

Contractor’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.

Attachment:
USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
Turner Drilling
<table>
<thead>
<tr>
<th>PUBLIC RECORD DATA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Owner:</strong> HARMS, ARDYTHE</td>
<td><strong>Tenure:</strong> Fee Simple</td>
</tr>
<tr>
<td><strong>Tax Payer:</strong> HARMS, DONALD J/SALLY A</td>
<td></td>
</tr>
<tr>
<td><strong>Tax Bill:</strong> 144196 KAPOHO-PAHOA RD, PAHOA, HI 96778 USA</td>
<td><strong>Semi-Annual Tax:</strong> $418.63</td>
</tr>
<tr>
<td><strong>Assessed Value</strong></td>
<td><strong>Buildings:</strong> 1</td>
</tr>
<tr>
<td>Land: $24,400</td>
<td><strong>Dwellings:</strong> 1</td>
</tr>
<tr>
<td>Buildings: $74,100</td>
<td><strong>PITT Code:</strong> 100</td>
</tr>
<tr>
<td>Total: $98,500</td>
<td><strong>Zoning:</strong> RS-10</td>
</tr>
<tr>
<td><strong>Exemption</strong></td>
<td><strong>Land Use:</strong> 0</td>
</tr>
<tr>
<td>$0</td>
<td><strong>Nbhood Code:</strong> 1423</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td><strong>Subdivision:</strong> Kapoho Vacationland</td>
</tr>
<tr>
<td>Land: 8,098 sqft</td>
<td></td>
</tr>
<tr>
<td>Buildings: 2,496 sq ft</td>
<td></td>
</tr>
<tr>
<td><strong>Common property:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Floor:</strong> 0</td>
<td><strong>Condo interest:</strong> 0%</td>
</tr>
<tr>
<td><strong>View:</strong></td>
<td><strong>Parking spaces:</strong> 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SALES</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12/26/1979</td>
<td>DEED</td>
</tr>
<tr>
<td>9/29/1980</td>
<td>AS</td>
</tr>
<tr>
<td>10/26/1989</td>
<td>DEED</td>
</tr>
</tbody>
</table>

HARMS ARDYTHE
**PUBLIC RECORD DATA**

**TMK # 3-1-4-70-15**

**Owner:** HARMS, DAVID / ETAL

**Tax Payer:** HARMS, ARDYTHE

**Tax Bill:** 14-4196 KAPOHO-PAHOA RD, PAHOA, HI 96778 USA

<table>
<thead>
<tr>
<th>Assessed Value</th>
<th>Exemption</th>
<th>Size</th>
<th>Buildings: 1</th>
<th>Dwellings: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land: $20,500</td>
<td>$0</td>
<td>8,000 sqft</td>
<td>PITT Code: 100</td>
<td>Zoning: RS-10</td>
</tr>
<tr>
<td>Buildings: $73,100</td>
<td>$0</td>
<td>2464 sq ft</td>
<td>Land Use: 0</td>
<td>Nbhood Code: 1423</td>
</tr>
<tr>
<td>Total: $93,600</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Condo Name:**

**Condo Type:**

**Condo style:**

**Common property:**

**SALES**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/7/1980</td>
<td>AS</td>
<td>HARMS DAVID/ARDYTHE $20,000 B/P 14404/443</td>
</tr>
<tr>
<td>6/17/1993</td>
<td>TRANSD</td>
<td>HARMS ARDYTHE BROWN CARRIE B $0 Doc 93-096703</td>
</tr>
</tbody>
</table>

http://webresearch.hawaiiinformation.com/REsearch/FindCD.htm
<table>
<thead>
<tr>
<th>PUBLIC RECORD DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TMK # 3-1-4-70-28</strong></td>
</tr>
<tr>
<td><strong>Owner:</strong> HARMS, ARDYTHE B / ETAL</td>
</tr>
<tr>
<td><strong>Tax Payer:</strong> HARMS, ARDYTHE ETAL</td>
</tr>
<tr>
<td><strong>Tax Bill:</strong> 14-4196 KAPOHO-PAHOA RD, PAHOA, HI 96778 USA</td>
</tr>
<tr>
<td><strong>Tenure:</strong> Fee Simple</td>
</tr>
<tr>
<td><strong>Semi-Annual Tax:</strong> $758.63</td>
</tr>
<tr>
<td><strong>Assessed Value</strong></td>
</tr>
<tr>
<td>Land: $22,300</td>
</tr>
<tr>
<td>Buildings: $156,200</td>
</tr>
<tr>
<td>Total: $178,500</td>
</tr>
<tr>
<td><strong>Condo Name:</strong></td>
</tr>
<tr>
<td><strong>Common property:</strong></td>
</tr>
<tr>
<td><strong>SALES</strong></td>
</tr>
<tr>
<td>6/3/1980</td>
</tr>
<tr>
<td>12/28/1984</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>6/17/1993</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
# PUBLIC RECORD DATA

**TMK # 3-1-4-70-27**

**14-4907 LAUA'A ST**

**Owner:** HARMS, ARDYTHE B / ETAL

**Tax Payer:** HARMS, ARDYTHE ETAL

**Tenure:** Fee Simple

**Tax Bill:** 14-4196 KAPOHO-PAHOA RD, PAHOA, HI96778 USA

- **Semi-Annual Tax:** $513.83

<table>
<thead>
<tr>
<th>Assessed Value</th>
<th>Exemption</th>
<th>Size</th>
<th>Buildings</th>
<th>Dwellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land: $20,500</td>
<td>$0</td>
<td>8,000 sqft</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Buildings: $100,400</td>
<td>$0</td>
<td>2424 sq ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: $120,900</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Condo Name:**
- **Condo Type:**
- **Condo style:**
- **Common property:**
- **Floor:** 0
- **View:**

- **SALES**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Amount</th>
<th>Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/23/1986</td>
<td>DEED</td>
<td>$80,000 B/P 19979/90</td>
<td>HARMS, DAVID L/ ARDYTHE B</td>
</tr>
<tr>
<td>6/17/1993</td>
<td>TRANSD</td>
<td>$0 Doc 93-096698</td>
<td>HARMS ARDYTHE/ ETAL CLARK JEANNIE L</td>
</tr>
<tr>
<td>F YR</td>
<td>APP</td>
<td>D</td>
<td>SRC/CTR</td>
</tr>
<tr>
<td>------</td>
<td>-----</td>
<td>---</td>
<td>--------</td>
</tr>
<tr>
<td>S02</td>
<td>226</td>
<td>C</td>
<td>1026</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** $100.00

**REMARKS:** LINE (1) WAP Appl. for Well Nos. 2979-02 to 05

**NAME/DESCRIPTION (WANG INPUT):** Turner Drilling (Ck #1034)
8. LEGAL REQUIREMENTS:
   - D None
   - O Other (explain)

9. REMARKS, EXPLANATIONS:

   (if more space is needed, please attach additional sheet)

   (handwritten text)

   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 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.

   Well Owner: Habythe Harms
   Landowner: Habythe Harms
   Contractor: [signature]

   Signature: [signature]
   Date: 5-17-01

   Signature: [signature]
   Date: 5-16-01

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

   Latitude
   Longitude

   Turner Drilling
   P.O. BOX 8941
   Hilo, HI 96720-8936
   Ph: 962-6255

   May 16-01

   Pay to the order of Commission on Water Resource Management $56,724.00
   Five Thousand Six Hundred Seventy Two Dollars 00/100

   NPS Federal Credit Union
   Hilo, Hawaii 96720-8936
   Bank No. 55644

   Memo: Fine Sea Harms

   113 39'41.89" 00 D 1033

   Turner Drilling
   P.O. BOX 8941
   Hilo, HI 96720-8936
   Ph: 962-6255

   6-18-01

   Pay to the order of Commission on Water Resource Management $100.00
   One Hundred Dollars 00/100

   NPS Federal Credit Union
   Hilo, Hawaii 96720-8936
   Bank No. 55644

   Memo: [handwritten text]

   12 30'09.26" 00 D 1034
APPLICATION FOR PERMIT

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

2. WELL NAME: Vacation Land #1  Island: HT

Address: Ahuula Rd/Palena, HI  Tax Map Key: 1-9-67-39

Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quad map, and (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.: 2979-03 (if unknown, please call Commission at 587-0223)

4. CONSTRUCTION:

☐ Drilled
☐ Dug
☐ Shaft
☐ Tunnel

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

5. PROPOSED PUMPING RATE: __________ gallons per minute

6. PROPOSED USE: (check all that apply)

☐ Municipal (including hotels, stores, etc.)
☐ Domestic (individual, noncommercial water system)
☐ Industrial
☐ Irrigation (crop)
☐ 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

☐ No. of Acres: __________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:

☐ Flowmeter ☐ Open-pipe ☐ Woz ☐ Orifice ☐ Other (explain):

gallons per day

(b) METHOD OF FLOW MEASUREMENT:

OTHER IMPORTANT INFORMATION:
## APPLICATION FOR PERMIT

### WELL & PUMP INFORMATION:
- **Location:**
  - Island: *HT*
  - Address: Lawa'ring, Hilo, HI 96729
  - Tax Map Key: 1-Y-20-87
- **Proposed Work:**
  - (check all that apply)
    - Construct New Well
    - Modify Existing Well
    - Install New Pump
    - Modify Pump
    - Abandon/Seal
- **State Well No.:** 2879-03 (if unknown, please call Commission at 587-0225)
- **Construction:**
  - (check all that apply)
    - Drilled
    - Dug
    - Shaft
    - Tunnel
- **Proposed Pumping Rate:**
- **Proposed Use:**
  - (check all that apply)
    - Municipal (including hotels, stores, etc.)
    - Industrial
    - Domestic (individual, noncommercial water system)
    - Irrigation (crop)
    - Military
    - Other (explain)
- **Proposed Amount of Withdrawal:**
- **Method of Flow Measurement:**
  - (check all that apply)
    - Flowmeter
    - Open-pipe
    - Weir
    - Office
    - Other (explain)
- **Other Important Information:**
- **Legal Requirements:**
  - (check all that apply)
    - COUP
    - SMAP
    - EIS
    - EA
    - FIA
    - Other (explain)
- **Remarks, Explanations:**

---

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 60 days after the completion date of the permitted work; 3) all test or final water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of cumulative water rights and shall not guarantee the pump capacity of future use up to the permitted pump capacity.

---

**Well Owner:**  Andythe Hamms  
**Landowner:**  Andythe Hamms  
**Contractor:**  Tuana Dilling  
**Signature:**  
**Date:**  5/11/01

**Well Owner:**  Andythe Hamms  
**Landowner:**  Andythe Hamms  
**Contractor:**  Tuana Dilling  
**Signature:**  
**Date:**  5/14/01

---

For official use only

**Latitude:**  
**Longitude:**  
**Aquifer System No.:**  
**State Well No.:**
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT
☐ Well Construction and/or ☐ Pump Installation
APPLICATION FOR PERMIT

APPLICATION FOR CONSTRUCTION and/or INSTALLATION

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

1. (a) WELL OWNER: Rochelle Harms
   Mailing Address: 106-492 Kapoho-Palani, HI 96778
   Phone: 965-8985
   Fax: __________________________
   E-mail: __________________________

   (b) LAND OWNER: Same
   Mailing Address: __________________________
   Phone: __________________________
   Fax: __________________________
   E-mail: __________________________

   (c) CONTRACTOR: Taurance Davidson
   Mailing Address: 772-205 Sutherland Ave, Hilo, HI 96720
   Phone: 592-757-6850
   Fax: __________________________
   E-mail: __________________________
   Lic. #: 20557

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

2. WELL NAME: Ohaupou Land # 4
   Island: HI
   Address: Corona of Laupahoehoe: Tax Map Key: Zone: Sec: Plat: Parcel
   Tax Map Key: __________________________

3. PROPOSED WORK: (check all that apply)
   □ Construct New Well
   □ Modify Existing Well
   □ Install New Pump*
   □ Modify Pump*
   □ Abandon Well*
   *State Well No.: 2979-05 (if unknown, please call Commission at 808-222-3030)

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

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)
   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) □ No. of Acres: __________________________
   □ Military □ Other (explain): __________________________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: __________________________ gallons per day
   (b) METHOD OF FLOW MEASUREMENT: __________________________

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: □ CDUP □ SMAP □ EIS □ EA □ None □ Other (explain)

9. REMARKS, EXPLANATIONS:

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 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.

For official use only

Well Owner: Rochelle Harms
Landowner: Rochelle Harms
Contractor: Taurance Davidson
Signature: __________________________
Date: 5-17-01
Latitude: __________________________
Aquifer System No.: __________________________
State Well No.: __________________________

For official use only

Landowner: Rochelle Harms
Contractor: Taurance Davidson
Signature: __________________________
Date: 5-17-01
Latitude: __________________________
Aquifer System No.: __________________________
State Well No.: __________________________

WCPIPA Form 102500
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 821, Honolulu, Hawaii 96806. Application must be accompanied by 3 copies and a non-refundable filing fee of $28.50 payable to the Dept. of Land and Natural Resources. The commission may not accept incomplete applications. For assistance, call the Regulation Branch at 887-0228. For further information and updates to this application form, visit http://www.state. hi.us/dlnr/wm/

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

1. (a) □ WELL OWNER: Haddyth Haamoa Contact Person: Same Phone: 965-8825
   Mailing Address: 1107 W Kapoho Rd, Pahoa, HI 96783
   Fax: E-mail:

2. (b) □ LAND OWNER: Same Contact Person: Same Phone: 
   Mailing Address: 
   Fax: E-mail:

3. (c) □ CONTRACTOR: Turner Davis Contact Person: Haamoa Phone: 530-652-6350
   Mailing Address: 75780 Susanville Rd, Susanville, CA 17630
   Lic #: 

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

1. WELL NAME: Haamoa Island: NT
   Address: 1107 W Kapoho Rd, Pahoa, HI 96783
   Tax Map Key: 1-4-30-15- (If unknown, please call Commission at 887-0228)
   Zone: Sec: Parcel: 
   Attach the relevant portion of (a) a 7.5-Minute Series USGS topographic map (scale 1:24,000) and include the name of the quads map, and (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
   □ Install New Pump
   □ Modify Pump
   □ Abandon/Seal
   "State Well No.: 3299-04"

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

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

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS:
   □ COUP □ SMAP □ EI8 □ EA □ Other (explain)

9. REMARKS, EXPLANATIONS:
   (if more space is needed, please attach additional sheet)

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

Well Owner: Haddyth Haamoa Landowner: Haddyth Haamoa Contractor: Turner Davis
Signature: Signature: Signature
Date: 5-12-01 Date: 5-17-01 Date: 5-16-01

For official use only
Latitude
Longitude
State Well No.

WCPMPA Form 102500
APPLICATION FOR PERMIT

APPLICANT INFORMATION:
1. (a) I WEL! OWNER:
   Contact Person: Andrea Kamaka-Pakakatu
   Mailing Address: 44-324 Kapoho-Pahoa, HT 96778
   Phone: 965-8725

2. LAND OWNER: 
   Contact Person:
   Mailing Address:
   Phone:

3. CONTRACTOR: Tuanae Dailling
   Contact Person: Steve Hara
   Mailing Address: 179-205 Schenckville Rd, S. San Diego, CA 92130
   Phone: 530-257-6250

WELL & PUMP INFORMATION:
2. WELL NAME: Unamed (92)
   Island: HT
   Address: Laupahoehoe, HT 96777
   Tax Map Key: 1-1-70-827
   Zone: Sec: Plat: Parcel:

3. PROPOSED WORK:
   (check all that apply)
   - Construct New Well
   - Modify Existing Well
   - Abandon/Seal
   State Well No.: 2819-03
   (If unknown, please call Commission at 587-0225)

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

5. PROPOSED PUMPING RATE: _______ gallons per minute

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   - Flowmeter
   - Open-pipe
   - Weir
   - Office
   - Other:

8. LEGAL REQUIREMENTS:
   - COUP
   - SMAP
   - EIS
   - EA
   - None
   - Other:

9. REMARKS, EXPLANATIONS:

I understand that approval of this application attaches the following 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.

Well Owner: Andrea Kamaka-Pakakatu
Landowner: Andrea Kamaka-Pakakatu
Contractor: Tuanae Dailling

Signature: Andrea Kamaka-Pakakatu
Signature: Andrea Kamaka-Pakakatu
Signature: Tuanae Dailling

Date: 5/17/01
Date: 5/17/01
Date: 5/16/01

For official use only
Latitude: Aquifer System No.
Longitude: State Well No.
**State of Hawaii**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**Department of Land and Natural Resources**

**APPLICATION FOR PERMIT**

- Well Construction and/or Pump Installation

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

1. (a) **WELL OWNER:** Adrythe Harms  
   Contact Person: Same  
   Phone: 965-9925
   - Mailing Address: 14-1796 Kapoko-Pahoa, HI 96728
   - Tax Map Key: 14-6-7-39

2. **WELL NAME:** Vacation Land #1  
   Island: HT  
   Address: Kapoko/Pahoa, HI 96728
   - Tax Map Key: 14-6-7-39

3. **PROPOSED WORK:**
   (Check all that apply)
   - [ ] Construct New Well
   - [ ] Modify Existing Well
   - [ ] Install New Pump
   - [ ] Modify Pump
   - [ ] Abandon/Seal

   - *State Well No.: 9979-08 (If unknown, please call Commission at 587-6325)*

4. **CONSTRUCTION:**
   - [ ] Drilled
   - [ ] Dog
   - [ ] Shaft
   - [ ] Tunnel

   - Is this well part of a battery of wells? [ ] Yes [ ] No (Please describe)

5. **PROPOSED PUMPING RATE: **
   - __________ gallons per minute

6. **PROPOSED USE:**
   (Check all that apply)
   - [ ] Municipal (including hotels, stores, etc.)
   - [ ] Industrial
   - [ ] Domestic (individual, non-commercial water system)

   - Does this well serve 25 or more people at least 90 days per year or have 15 or more service connections? [ ] Yes [ ] No

   - [ ] Irrigation (crop)
   - [ ] No. of Acres: __________
   - [ ] Other (explain): __________

    - [ ] Military

7. **(a) PROPOSED AMOUNT OF WITHDRAWAL:**
   - __________ gallons per day

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

**OTHER IMPORTANT INFORMATION:**

8. **LEGAL REQUIREMENTS:**
   - [ ] COP
   - [ ] 6SMAP
   - [ ] EIS
   - [ ] EA
   - [ ] None
   - [ ] Other (explain): __________

9. **REMARKS, EXPLANATIONS:**
   - (If more space is needed, please attach additional sheet)

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 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.

**Well Owner:** Adrythe Harms  
**Landowner:** Adrythe Harms  
**Contractor:** Transfer Drilling

**Signature:** __________  
**Signatures:** __________  
**Date:** 5-17-01  
**Date:** 5-17-01  
**Date:** 5-16-01

**For official use only**

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

**WCPIPA Form 1025/00**
Commissioner Nishida recused himself from Item No. 5.

It was moved and seconded to defer Item No. 5 to the June 20, 2001 Commission meeting.

MOTION TO DEFER: (NOBRIGA/RICHARDS)
Deferred to June 20, 2001
UNANIMOUSLY APPROVED TO DEFER.

6. Ms. Ardith Harms / Turner Drilling and Pump, AFTER-THE-FACT WELL CONSTRUCTION / PUMP INSTALLATION PERMIT APPLICATIONS, Vacationland #1 through #4 Wells (Well No. 2979-02 through -05), Kapoho, Hawaii

PRESENTATION OF SUBMITTAL: Mr. Ryan Imata

AMENDED RECOMMENDATIONS:

That the Commission:

A. Find the applicant and driller in violation of the various rules and standards according to Exhibit 4.

B. Impose a fine of $800 $5,672 on Ardith Harms, and $5,672 on Turner Drilling and Pump as summarized in Exhibit 4. For the violations under recommendation A.

C. Approve Deny the issuance of after-the-fact Well Construction Permits for the Vacationland #1 through #4 Wells (Well Nos. 2979-02, 2979-03, 2979-04 and 2979-05). after the fine is paid, subject to standard conditions in Exhibits 5 & 6, and the following special conditions:

1. The well should not be used for drinking water unless it is properly tested and treated.

2. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.

D. Approve and issue Deny the issuance of an after-the-fact Pump Installation Permit. upon submission and acceptance of the aquifer pump test forms required in Well Construction Standard Condition 6e (Exhibit 5), subject to the Standard Pump Installation Conditions in Exhibit 6.

E. Approve the request for a variance of Hawaii Well Construction and Pump Installation Standards Section 2.6(d), from 3" to 2 1/2".
E. Seal all four (4) wells within sixty (60) days according to the Well Construction Standards; file an abandonment application. Suspend any current, pending or future applications until the fines are paid and the applicant/driller completes the permit process for these four wells complies with this Commission order.

Commissioner Anderson stated that according to Department of Health regulations residents in this area would be denied permits to drill wells for drinking water that are within 1,000 feet of a cesspool. He is concerned about giving approval to use the well, even with the fine, given the potential impacts on the adjacent property owners.

Commissioner Girald is concerned about the long-term impact if the Commission imposes a fine but yet approves this permit. He felt that if drillers are licensed, they should be more responsible in obtaining the necessary permits.

Commissioner Nishida is concerned about the integrity of the wells itself and the possibility of ground-water contamination. He does not feel comfortable that these wells are properly designed and constructed ground water wells.

Mr. Frank Turner of Turner Drilling apologized for the drilling and stated that he would like to correct the problem by abandoning and sealing the wells. They are not in use at this time and not hooked up or supplying water to anyone. One of the wells has a pump with an RO filter system but is also not hooked up and not being used. He stated that he should have known better and was very sorry for the mistake.

Chair Agaran asked if there was any interest that the Commission enters into executive session to confer with legal counsel on this item.

MOTION: (RICHARDS/NOBRIGA)
At 10:17 am the Commission went into Executive Session to confer with legal counsel.

The meeting was resumed at 10:50 am.

MOTION: (RICHARDS/GIRALD)
To approve the submittal as amended.
UNANIMOUSLY APPROVED AS AMENDED.


Mr. Ryan Imata of the Commission staff stated that staff is recommending deferral to the June 20, 2001 meeting in order to discuss alternative settlements with the Board of Water Supply (BWS).
May 16, 2001

State of Hawaii
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Dear Sirs:

Unfortunately, I am unable to attend today's meeting due to a previous commitment which I was unable to cancel. Please accept this letter in lieu of a personal appearance.

I have been in Hawaii since 1979 and have built 28 homes. I am aware of the proper planning before any major project commences. When the thought of drilling wells on my properties came up, I started planning. I went to Nani at the Building Department. She said I didn't need a permit and said to check with the Planning Department. I talked with a Planning Department Assistant and he said no permit was needed. I then called the Health Department. They also said a permit was not needed. I also talked with the Water Co. and a total of three County Department Heads for permit information. ALL said no permits were needed. Then hired Turner Drilling and told them that permits were not needed for my wells. They commenced drilling in December, 2000. After drilling was completed, we were contacted by the investigator and was told we needed permits. That was the first time we were aware of any permits needed. Since that time, Turner Drilling and I have made every effort, as expediently as possible, to correct the issues.

To date, the issues have been corrected. Plus, with the R.O. and Ultra-violet light systems that have been installed, we feel we have accommodated your Department.

I understand that we have made a mistake, but it was not intentional. I thought I had taken the correct steps to find out about permit requirements. I am still unclear as to why no one is aware that any permits are needed to drill a well. Please feel free to contact me with any questions.

Sincerely,

Ardythe Harms
STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

May 16, 2001
Honolulu, Oahu

Ms. Ardith Harms / Turner Drilling and Pump
AFTER-THE-FACT WELL CONSTRUCTION / PUMP INSTALLATION PERMIT
APPLICATIONS
Vacationland #1 through #4 Wells (Well No. 2979-02 through -05)
Kapoho, Hawaii

APPLICANT/LANDOWNER:
Ardith Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

DRILLER:
Turner Drilling and Pump (C-22597)
472-205 Johnstonville Road
Susanville, CA 96130

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

BACKGROUND:

On January 4, 2001, Commission Staff was informed that well drilling was occurring in the Kapoho/Vacationland area but found that no permits had been issued for this drilling activity.

Staff requested assistance from DLNR, Division of Conservation and Resource Enforcement (DOCARE), who later conducted an extensive investigation between January 5, 2001 and February 11, 2001. DOCARE determined that five wells were drilled by Turner Drilling and Pump (Contractor’s License Number C-22597) in the Kapoho area. Four of these are addressed under this submittal and their owner, and a fifth well owned by a different owner will be addressed in a subsequent submittal.

On February 3, 2001, staff contacted Turner Drilling and instructed them to submit After-the-Fact Well Construction and Pump Installation Permit applications.

On February 13, 2001, applications were submitted, though information provided was incomplete. When asked why Turner Drilling had not obtained the applicable permits prior to construction, they claimed that they were drilling test holes, which were exempt from permits according to the Hawaii Well Construction and Pump Installation Standards, but had forgotten to obtain permits when the wells were cased and converted from test holes to permanent wells.

Approved by Commission on
Water Resource Management
at the meeting held on
MAY 16 2001 (amended)
On March 22, 2000, staff conducted a follow up field investigation of the Vacationland wells. The field report is attached as Exhibit 3.

Staff confirmed the report by DOCARE, which indicated construction of these four wells and installation of four pumps. These four wells are the Vacationland #1, #2, #3 and #4 Wells, designated as 2979-02, 2979-03, 2979-04 and 2979-05 respectively. Refer to Exhibit 1 for locations.

In addition, staff confirmed that all four wells were in close proximity (<100 feet) to septic systems. The applicant had installed water purification systems that reduce the chloride content and incorporate UV treatment to disinfect the water.

Staff also confirmed that the wells were built without flowmeters, and that concrete pads with benchmarks had not been installed.

The after-the-fact permit applications for these wells indicated an annular space of 2". Staff saw grout around the casing at the surface of the Vacationland #2 well and when measured, it appeared that the annular space was 2 ½". Staff could not determine the annular space for the other three wells. On well completion reports for a previously drilled well, Turner Drilling had indicated an annular space of less than 3". When staff asked why the annular space was less than 3", Turner Drilling said they made a mistake in reporting the annular space, and that it was actually 3". However, when staff told Turner Drilling that the annular space was incorrect, Turner verbally requested a variance from the standards.

During the field investigation, staff instructed Turner Drilling to turn in Well Completion Reports for the four wells within 30 days. Since the field investigation was on March 22, 2001, the 30 day deadline for submission of Well Completion Reports was April 21, 2001.

ISSUES/ANALYSIS:

The primary analysis is the determination of the amount of violations in order to assess applicable penalties.

HAR §13-168-12(a) states that:

*No well shall be constructed, altered, or repaired and no pump or pumping equipment shall be installed, replaced, or repaired without an appropriate permit from the commission.*

Since there are four wells constructed without Well Construction Permits and four pumps installed without Pump Installation Permits, there are 8 violations of HAR §13-168-12(a).

No well completion report was filed for the Well Construction or Pump Installation within 60 days. This amounts to 8 violations of Section 2.10(b) of the Hawaii Well Construction and Pump Installation Standards (HWCPIS).

There were four wells reported to have annular spaces of less than 3" via the after-the-fact Well Construction/Pump Installation permit applications. Turner Drilling later claimed this was a mistake. Staff could only confirm the annular space deficiency for Vacationland #2 Well. This amounts to 1 violation of HWCPIS Section 2.6(d). However, staff feels that an annular space of 2 ½" is sufficient, given the already polluted nature of the existing ground water due to the proximity of the wells to the septic systems.

The proximity of less than 1000’ of each of the wells to a potential source of contamination is an issue. However, Section 2.3(b) of the HWCPIS, only provides a guideline for distances to potential contaminants. Therefore, the proximity issue is not a violation of the HWCPIS. The
Department of Health (DOH) does not regulate the location of wells built after sources of contamination are in place. DOH will only restrict the proximity of new septic systems to existing wells. DOH also does not have jurisdiction over water systems serving less than 25 people. However, the applicant was aware of the contamination risk and had purification units installed to treat the groundwater from the wells.

The lack of installation of concrete pads is a violation of Section 2.10(a)(4) of the HWCPIS. Therefore there is 1 violation for each well.

The lack of installation of flowmeters is a violation of Section 4.5 of the HWCPIS. Therefore there is 1 violation for each well.

Following is a summary of the amount of violations:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description of Violation</th>
<th>Amount of Violations</th>
<th>Rule violated</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Well Construction Permit obtained</td>
<td>4</td>
<td>§13-168-12(a)</td>
<td>Confirmed</td>
</tr>
<tr>
<td>2</td>
<td>No Pump Installation Permit obtained</td>
<td>4</td>
<td>§13-168-12(a)</td>
<td>Confirmed</td>
</tr>
<tr>
<td>3</td>
<td>No Well Completion Reports filed within 60 days</td>
<td>8</td>
<td>HWCPIS Section 2.10(b)</td>
<td>Confirmed</td>
</tr>
<tr>
<td>4</td>
<td>Annular space violation</td>
<td>1</td>
<td>HWCPIS Section 2.6(d)</td>
<td>Confirmed for only one well.</td>
</tr>
<tr>
<td>5</td>
<td>Concrete pad not installed</td>
<td>4</td>
<td>HWCPIS Section 2.10(a)(4)</td>
<td>Confirmed</td>
</tr>
<tr>
<td>6</td>
<td>Flowmeter not installed</td>
<td>4</td>
<td>HWCPIS Section 4.5</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

A summary of the recommended fines is attached as Exhibit 4.

The fines are being recommended in accordance with the Administrative and Civil Penalty Guideline (G99-01-Revised) (Exhibit 9).

FINES

The total recommended fine for Ardith Harms (applicant) is $800. The total recommended fine for Turner Drilling (driller) is $5,672.

Prior to the construction of the 5 wells in this area, Turner Drilling had signed as the driller for Island Dairy Well (6016-01), issued on 11/28/00, and the Kceau-May Well (3687-03), issued on 8/14/00. Staff had sent a copy of the Hawaii Administrative Rules, as well as the Hawaii Well Construction and Pump Installation Standards to Turner Drilling prior to the issuance of the permit for the Island Dairy Well. This has bearing on the gravity component for fines, which follow:

Items 1 & 2 – No Well Construction or Pump Installation Permits issued

For the violations where no well construction or pump installation permits have been issued (items 1 and 2 in both Table 1 and Exhibit 4), a base fine starts at $250. A gravity component of $750 has been applied because the disregard for the permit process is a significant violation and the driller should have known. A mitigative component of $900 was applied to the applicant, as she claimed to have called various agencies to determine required permits (though the Commission was not contacted), and she cooperated with staff on the field investigation. A $500
mitigative component has been applied to the driller’s fine because of the driller’s cooperation with staff during the investigation.

Since the applications were submitted within 30 days, the total duration of the violation is reduced to one day.

**Item 3 - No Well Completion Reports filed**

For item 3, the base fine starts at $250 per incident. A mitigative component of $250 is applied to the applicant, because the applicant has not gone through this procedure before. A mitigative component of $249 has been applied to the driller because of the driller’s good faith in filling out the well completion reports, attendance during filed investigations, and level of diligence and communication with staff.

**Item 4 – Annular space violation**

For item 4, the base fine starts at $250. Staff could only confirm one violation. A mitigative component of $225 is applied to the applicant, again because the applicant has not gone through the process before and was trying to provide water to tenants who are without water service except rain catchment. A mitigative component of $225 is applied to the driller because of their early request for a variance.

**Items 5 & 6 – Concrete pad and flowmeter violations**

For items 5 and 6, since the violations have occurred prior to the establishment of the procedure for imposing penalties, staff did not send a certified letter to notify the applicant of these violations. Therefore, there is no way to determine the total duration of the violation, and staff recommends the one time fine of $250 per incident. Because the violations had been corrected quickly and with diligence, staff is recommending a reduction of $250 for the applicant and driller for each incident. However, a gravity component of $25 is added to the driller’s fine since the company should have known about the requirements as they have been through the process before.

Lastly, at this time, staff is not recommending any alternative to the fines. The applicant and/or driller or the Commission is free to suggest any alternative in accordance with the G-01-01 Guideline.

**RECOMMENDATION:**

That the Commission:

A. Find the applicant and driller in violation of the various rules and standards according to Exhibit 4.

B. Impose a fine of $800 on Ardith Harms, and $5,672 on Turner Drilling and Pump as summarized in Exhibit 4. For the violations under recommendation A.

C. Approve the issuance of after-the-fact Well Construction Permits for the Vacationland #1 through #4 Wells (Well Nos. 2979-02, 2979-03, 2979-04 and 2979-05) after the fine is paid, subject to standard conditions in Exhibits 5 & 6, and the following special conditions:

1. The well should not be used for drinking water unless it is properly tested and treated.

2. If potable water is used to supply both domestic and irrigation purposes in a single system, the permittee 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.

D. Approve and issue an after-the-fact Pump Installation Permit upon submission and acceptance of the aquifer pump test forms required in Well Construction Standard Condition 6e (Exhibit 5), subject to the Standard Pump Installation Conditions in Exhibit 6.

E. Approve the request for a variance of Hawaii Well Construction and Pump Installation Standards Section 2.6(d), from 3” to 2 ½”.

F. Suspend any current, pending or future applications until the fines are paid and the applicant/driller completes the permit process for these four wells.

Respectfully submitted,

LINNEL T. NISHIOKA
Deputy Director

Exhibit(s):

1. (Location Map)
2. (Well Completion Reports)
3. (Field Report)
4. (Fine Schedule)
5. (Standard Well Construction Permit Conditions)
6. (Standard Pump Installation Permit Conditions)
7. (Pump Test Procedures)
8. (Water Use Report Form)
9. (Penalty Policy)
EXHIBIT 1: Location Map

Vacationland #1 through #4 Wells
Well Nos. 2979-02 though -05

SCALE: 1" = 2000'
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 mail 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 808-681-0442. For updates to this form or additional information, please visit our website at http://www.water.hawaii.gov/

1. State Well No.: 2979-08  
   Well Name: Vacation Land 1  
   Island: HT

2. Address: Nahua Rd / Pahoa HT  
   Tax Map Key: 1-1-67-39

3. Drilling Company: Turner Drilling & Pump

4. If drilled, type of Rig:  
   ☑ Rotary  ☐ Percussion

5. Date Well Construction (drilled, cased, grouted) completed: 18-26-00  
   Attach Driller's Log (7/28/88 Dr. Form)  
   In addition to the driller's log, if a geotextile bag was prepared, please submit this form.

6. Initial water-level encountered: 15 ft. below ground  
   Date and time of measurement: 18-30-00

7. Step-Drawdown Test completed?  
   ☑ No  ☐ Yes  
   Attach Step-Drawdown Test Form (12/17/87 SDPTD Form)

8. Constant Rate Aquifer Test completed?  
   ☑ No  ☐ Yes  
   Attach Constant Rate Aquifer Test form (12/17/87 CRPTD Form)

Parameters prior to pump test:
9. Water-level: 5 ft. above msl  
   Date and time of measurement: 18-30-00

10. Chloride: 250 ppm  
    Date and time of sampling: 18-30-00

11. Temperature: 70 °F  
    Date and time of measurement: 18-30-00

12. Fill in the ex-built section on the other side of this sheet.

13. Attach plot plan and surveyor's stamped elevation report.

14. 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.)

15. Remarks: a/f Pad is completed

Licensed Driller (print)  
Signed: [Signature]  
C-57 Lic. No. 22597  
Date: 4-6-01

Surveyor (print)  
Signed: [Signature]  
L.P.L.S. Lic. No. 9017  
Date: 4-23-01

EXHIBIT 2
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): ANSI/AWWA C200  O API Spec. 5L  O ASTM A53  O ASTM A139
  - And compliant with (check one or more):  O ASTM A242  O Type E  O Type S  O Grade B  O Other
- Stainless Steel: (check one):
  - ASTM A403 (production well)
  - ASTM A312 (monitor well)
- ABS Plastic conforming to ASTM F480 and ASTM D1567: (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 D2999
  - 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 C900
  - PTFE Fluorocarbon Tubing conforming to ASTM D3226
  - FEP Fluorocarbon Tubing conforming to ASTM D3228

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): ANSI/AWWA C200  O API Spec. 5L  O ASTM A53  O ASTM A139
  - And compliant with (check one or more):  O ASTM A242  O Type E  O Type S  O Grade B  O Other
- Stainless Steel: (check one):
  - ASTM A403 (production well)
  - ASTM A312 (monitor well)
- ABS Plastic conforming to ASTM F480 and ASTM D1567: (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 D2999
  - 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 C900
  - PTFE Fluorocarbon Tubing conforming to ASTM D3226
  - FEP Fluorocarbon Tubing conforming to ASTM D3228

**EXHIBIT 2**
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 96802. The Commission may not accept typewritten reports. This form shall be submitted within 60 days of the completion of work. For assistance, please contact the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-483-4228. For updates to this form or additional information, please visit our website at http://www.state.hi.gov/water/wr/  

1. State Well No.: 8079-03  
Well Name: Vacation Lane #2  
Island: HI  

2. Address: Lava Dr., Pahoa, HI  
Tax Map Key: 1-9-70-27  

3. Drilling Company: Turner Drilling & Pump  

4. If drilled, type of Rig: X Rotary □ Percussion  

5. Date Well Construction (drilled, cased, grouted) completed: 12-22-00  
Attach Driller's Log (12/99 DL Form)  

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

6. Initial water-level encountered 10 ft. below ground  
Date and time of measurement: 12-22-00  

7. Step-Drawdown Test completed? [□] No [□] Yes  
Attach Step-Drawdown Test form (12/99 DWPTD Form)  

8. Constant Rate Aquifer Test completed? [□] No [□] Yes  
Attach Constant Rate Aquifer Test form (12/97 CRPTD Form)  

Parameters prior to pump test:  

9. Water-level: 10 ft. above msl  
Date and time of measurement: 12-22-00  

10. Chloride: 850 ppm  
Date and time of sampling: 12-22-00  

11. Temperature: 70 °F  
Date and time of measurement: 12-22-00  

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

13. Attach plot plan and surveyor's stamped elevation report.  

14. 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.)  

15. Remarks: N/A  
Pad is completed  


Licensee Driller (print)  
Signature:  

Date: 4-6-01  

Surveyor (print)  
Niels Christensen  
L.P.L.S. Lic. No. 9077  
Date: 4-23-01  

Permittee (print)  
Signature:  

Date:  

EXHIBIT 2
13. AS-BUILT WELL SECTION

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

Elevation at top of casing: 13.44 ft.

Hole Diameter: 18 in.

Minimum of 2 Radius & 4" Thick Concrete Pad

Ground Elevation: 20 r. m.

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

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

Length: 81 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.187 in.
Bottom Elevation: 18 r. m.

Open Casing: • Perforated • Screen

Length: 81 ft.
Nominal Diameter: 6 in.
Wall Thickness: 0.187 in.
Bottom Elevation: 18 r. m.

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
• AWWA C200 • API Spec. 5L • A1M2 • A53 • A139

Stainless Steel: (check one):
• ASTM A403 (production wells)
• ASTM A12 (monitor wells)

 ABS Plastic conforming to ASTM F490 and ASTM D1582: (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 D2896
• Centrifugally Cast Resin Pipe conforming to ASTM D2967
• Reinforced Plastic Motor Pressure Pipe conforming to ASTM D3517
• Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900
• PTFE Fluorocarbon Tubing conforming to AWWA D3286
• FEP Fluorocarbon Tubing conforming to ASTM D3286

Open Casing Material:
Carbon Steel: compliant with (check one or more):
• AWWA C200 • API Spec. 5L • A1M2 • A53 • A139

Stainless Steel: (check one):
• ASTM A403 (production wells)
• ASTM A12 (monitor wells)

 ABS Plastic conforming to ASTM F490 and ASTM D1582: (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 D2896
• Centrifugally Cast Resin Pipe conforming to ASTM D2967
• Reinforced Plastic Motor Pressure Pipe conforming to ASTM D3517
• Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900
• PTFE Fluorocarbon Tubing conforming to AWWA D3286
• FEP Fluorocarbon Tubing conforming to ASTM D3286

EXHIBIT 2
# WELL COMPLETION REPORT - PART I

**Well Construction**

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

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 96808. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of wells. For assistance, please call the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-586-8280. For updates to this form or additional information, please visit our website at [http://www.hawaii.gov/water](http://www.hawaii.gov/water).

<table>
<thead>
<tr>
<th>1. State Well No.:</th>
<th>2219-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Well Name:</td>
<td>Vandian Land #3</td>
</tr>
<tr>
<td>3. Island:</td>
<td>HT</td>
</tr>
<tr>
<td>4. Address:</td>
<td>Mail St, Pahoa, HI</td>
</tr>
<tr>
<td>5. Tax Map Key:</td>
<td>1-7-70-10</td>
</tr>
<tr>
<td>6. Drilling Company:</td>
<td>Turner Drilling + Pump</td>
</tr>
</tbody>
</table>

**Drill Information**

- **Date of Drilling:**
  - 12/21/00

**Well Completion**

- **Date Well Construction (drilled, cased, grouted) completed:**
  - 12/21/00

**Initial Water Level**

- **Initial water level encountered:** 15 ft. below ground
- **Date of measurement:** 12/21/00

**Parameters Prior to Pump Test**

- **Water level:** 15 ft. above sea level
- **Chloride:** 250 ppm
- **Temperature:** 70 °F

**Step-Draindown Test**

- **Test completed:** No

**Constant Rate Aquifer Test**

- **Test completed:** No

**Remarks:** N/A

**Driller**

- **Name:** Frank Turner
- **License No.:** 22572

**Surveyor**

- **Name:** Niels Christensen
- **License No.:** 9077

**Permittee**

- **Signature:** [Signature]

---

**EXHIBIT 2**
13. AS-BUILT WELL SECTION

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

Elevation at top of casing: **24 ft. masl**

Hole Diameter: **18 in.**

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: **20 ft. masl**

Bench mark elevation:

- **12 ft. masl** (Survey to nearest 0.01 ft.)
- **12.15 ft. masl**

**Notes:**
- Hole depth: **166 ft. masl**
- Total depth: **21 ft. masl**
- Water Level Elevation: **5 ft. masl**

**Solid casing Material:**
- Carbon Steel, compliant with (check one or more):
  - ASTM A252
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
  - Other

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

Stainless Steel, (check one):
- ASTM A400 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic, conforming to ASTM F490 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80
- Schedule 120

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 D2985
- Centrifugally Cast Resin Pipe conforming to ASTM D2987
- 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):
  - ASTM A252
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
  - Other

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

Stainless Steel, (check one):
- ASTM A400 (production wells)
- ASTM A312 (monitor wells)

ABS Plastic, conforming to ASTM F490 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80
- Schedule 120

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 D2985
- Centrifugally Cast Resin Pipe conforming to ASTM D2987
- 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:**
- **Nominal Diameter:** 6 in.
- **Wall Thickness:** 1 in.
- **Bottom Elevation:** 18 ft. masl

**Open Casing:**
- **Perforated**
- **Screen**
- **Length:**
- **Nominal Diameter:**
- **Wall Thickness:**
- **Bottom Elevation:**

**Open Hole:**
- **Length:**
- **Diameter:**
- **Bottom Elevation:**

---

EXHIBIT 2
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 Resources Management, P.O. Box 821, Honolulu, Hawaii 96804. The Commission may not accept illegible 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 887-6328. For updates to this form or additional information, please visit our website at http://www.state.hi.us/watertown/

1. State Well No.: 297205
   Well Name: Vacation Land #4
   Island: HI

2. Address: Cearnor of Kauai Lin + Halili
   Tax Map Key: 1-4-20 - 87

3. Drilling Company: Turner Drilling + Pump

4. If drilled, type of Rig: ☑️ Rotary  ☐ Percussion

5. Date Well Construction (drilled,cased,grouted) completed: 10-22-00
   Attach Driller's Log (7/2000 DL Form)
   In addition to the driller's log, if a geologic log was prepared, please submit with this form.

6. Initial water-level encountered 90 ft. below ground
   Date and time of measurement: 10-22-00

7. Step-Drawdown Test completed? ☐ No  ☑️ Yes
   Attach Step-Drawdown Test form (13/7/97 SDPTD Form)

8. Constant Rate Aquifer Test completed? ☐ No  ☑️ Yes
   Attach Constant Rate Aquifer Test form (13/7/97 CRPTD Form)

Parameters prior to pump test:

9. Water-level: 20 ft. above msl
   Date and time of measurement: 10-22-00

10. Chloride: 250 ppm
    Date and time of sampling: 10-22-00

11. Temperature: 70 °F
    Date and time of measurement: 10-22-00

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

13. Attach plot plan and surveyor's stamped elevation report.

14. 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.)

15. Remarks: Pad is completed

Licensed Driller (print) Turner Drilling
Signature

Surveyor (print) Niels Christensen
Signature

Permittee (print)
Signature

EXHIBIT 2

For Official Use Only:

P.O. 0

APR-09-2001 12:03 PM TURNEK DRILLING PUMP 536 257 6250

P.04
13. AS-BUILT WELL SECTION

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

Elevation at top of casing: 27 ft. msl

Minimum of 2" Radius & 4" Thick Concrete Pad

Ground Elevation: 26 ft. msl

<table>
<thead>
<tr>
<th>Solid Casing Material:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139</td>
</tr>
<tr>
<td>Stainless Steel: (check one): □ ASTM A400 (production wells) □ ASTM A312 (monitor wells)</td>
</tr>
<tr>
<td>ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80</td>
</tr>
<tr>
<td>PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120</td>
</tr>
<tr>
<td>Thermoset Plastic: (check one) □ Filament Wound Resin Pipe conforming to ASTM D2996</td>
</tr>
<tr>
<td>□ Centrifugally Cast Resin Pipe conforming to ASTM D2997</td>
</tr>
<tr>
<td>□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517</td>
</tr>
<tr>
<td>□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900</td>
</tr>
<tr>
<td>□ PTFE Fluorocarbon Tubing conforming to ASTM D3296</td>
</tr>
<tr>
<td>□ FEP Fluorocarbon Tubing conforming to ASTM D3390</td>
</tr>
</tbody>
</table>

Open Casing Material:

<table>
<thead>
<tr>
<th>Open Casing Material:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139</td>
</tr>
<tr>
<td>Stainless Steel: (check one): □ ASTM A400 (production wells) □ ASTM A312 (monitor wells)</td>
</tr>
<tr>
<td>ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80</td>
</tr>
<tr>
<td>PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): □ Schedule 40 □ Schedule 80 □ Schedule 120</td>
</tr>
<tr>
<td>Thermoset Plastic: (check one) □ Filament Wound Resin Pipe conforming to ASTM D2996</td>
</tr>
<tr>
<td>□ Centrifugally Cast Resin Pipe conforming to ASTM D2997</td>
</tr>
<tr>
<td>□ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517</td>
</tr>
<tr>
<td>□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900</td>
</tr>
<tr>
<td>□ PTFE Fluorocarbon Tubing conforming to ASTM D3296</td>
</tr>
<tr>
<td>□ FEP Fluorocarbon Tubing conforming to ASTM D3390</td>
</tr>
</tbody>
</table>

EXHIBIT 2
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

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

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

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

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

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

EXHIBIT 2
**Solid Casing Material:**

<table>
<thead>
<tr>
<th>Carbon Steel: compliant with</th>
<th>ANSI/AWWA C200</th>
<th>API Spec. 5L</th>
<th>ASTM A53</th>
<th>ASTM A139</th>
</tr>
</thead>
<tbody>
<tr>
<td>And compliant with</td>
<td>ASTM A242</td>
<td>Type E</td>
<td>Type S</td>
<td>Grade B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stainless Steel: (check one):</th>
<th>ASTM A409 (production wells)</th>
<th>ASTM A312 (monitor wells)</th>
</tr>
</thead>
</table>

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 |

Thermoplastic: (check one) | Filament Wound Resin Pipe conforming to ASTM D2996 |

| Centrally Cased 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 D3290 |

| FEP Fluorocarbon Tubing conforming to ASTM D3286 |

**Open Casing Material:**

<table>
<thead>
<tr>
<th>Carbon Steel: compliant with</th>
<th>ANSI/AWWA C200</th>
<th>API Spec. 5L</th>
<th>ASTM A53</th>
<th>ASTM A139</th>
</tr>
</thead>
<tbody>
<tr>
<td>And compliant with</td>
<td>ASTM A242</td>
<td>Type E</td>
<td>Type S</td>
<td>Grade B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stainless Steel: (check one):</th>
<th>ASTM A409 (production wells)</th>
<th>ASTM A312 (monitor wells)</th>
</tr>
</thead>
</table>

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 |

Thermoplastic: (check one) | Filament Wound Resin Pipe conforming to ASTM D2996 |

| Centrally Cased 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 D3290 |

| FEP Fluorocarbon Tubing conforming to ASTM D3286 |

---

EXHIBIT 2
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Bench mark elevation surveyed to nearest 0.01 ft. = 11.54 ft. mean sea level

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

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

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

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

EXHIBIT 2
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing to nearest 0.01 ft.

Bench mark elevation:
-11.41 ft. msl
(Survey to nearest 0.01 ft.)

Cement Grout:
- 9 in.
(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:
- 2.90% (Ground Elev. - Water Level Elev.)
- Material:
  - Crushed Basalt
  - Rounded Gravel

Total Depth:
- 21 ft.

Water Level Elevation:
- 2.41 ft.

Hole Diameter: 12 in.

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation:
- 25' ft. msl

Solid Casing: (2: 90% x [Ground Elev. - Water Level Elev.])
- Length: 81 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 128 in.
- Bottom Elevation: 138 ft. msl

Open Casing:
- Perforated
- Screen

- Length:
- Nominal Diameter:
- Wall Thickness:
- Bottom Elevation:

Open Hole:
- Length:
- Diameter:
- Bottom Elevation:

Solid Casing Material:
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
  - Other
  - Stainless Steel: (check one):
    - ASTM A403 (production wells)
    - ASTM A312 (monitor wells)
    - API Spec. 5L
    - 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 D2968
    - 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
  - Other
  - Stainless Steel: (check one):
    - ASTM A403 (production wells)
    - ASTM A312 (monitor wells)
    - API Spec. 5L
    - 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 D2968
    - 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.

Solid = mean sea level

EXHIBIT 2
Bench mark elevation surveyed to nearest 0.01 ft. = __ ft. mean sea level

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

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

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

If airline installed, bottom of airline elevation = __ ft. mean sea level
13. AB-BUILT WELL SECTION (Please attach as built 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): □ ASTM A409 (production wells) □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F460 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80
- PVC Plastic conforming to ASTM F460 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 wells) □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F460 and ASTM D1527: (check one): □ Schedule 40 □ Schedule 80
- PVC Plastic conforming to ASTM F460 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
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Audith Harms

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

elevation of top of chase tube = __ ft. mean sea level

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

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

if airline installed, bottom of airline elevation = __ ft. mean sea level
13. AS-BUILT WELL SECTION

Elevation at top of casing: 14.01 ft, (to nearest 0.01 ft.)

Hole Diameter: 18 in.

Minimum of 2’ Radius & 4” Thick Concrete Pad

Ground Elevation: Depth, (to nearest 0.01 ft.)

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

Solid Casing Material:
Carbon Steel: compliant with (check one or more): ANSI/AWWA C200  □ API Spec. 5L  □ ASTM A53  □ ASTM A139
And compliant with (check one or more): □ ASTM A242  □ Type E  □ Type S  □ Grade B  □ Other
Stainless Steel: (check one):
□ ASTM A409 (production wells)  □ ASTM 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
Thermoplastic: (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 D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C850
□ PTFE Fluorocarbon Tubing conforming to ASTM D3298
□ FEP Fluorocarbon Tubing conforming to ASTM D3299

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 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
Thermoplastic: (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 D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C850
□ PTFE Fluorocarbon Tubing conforming to ASTM D3298
□ FEP Fluorocarbon Tubing conforming to ASTM D3299
Field Investigation Report

Date: Thursday March 22, 2001
Commission Staff: Ryan Imata, Roy Hardy, Glenn Bauer

Background

This field investigation was to follow up on:

An apparent violation of Hawaii Well Construction and Pump Installation Standards for the Keeau Well (owner - Jack May, well no. 3687-03) by Turner Drilling. Jack May obtained a permit for this well, but when the Well Completion Report was submitted, it was reported that the annular space was less than 3", which is in violation of Section 2.6 (d) of the Hawaii Well Construction and Pump Installation Standards. When we sent a letter to the applicant asking why the annular space was not in compliance, Turner sent a follow up letter stating that the annular space was misreported on the Well Completion Report and was actually 3".

After-the-fact Well Construction and Pump Installation Permit applications for the Vacationland #1 - #4 wells (owner - Ardith Harms, well nos. 2979-02 through -05), drilled by Turner Drilling. It was discovered that these wells were drilled in December of 2000, though permits had not been obtained through our office. This is a violation of HAR §13-168-12.

We had also hoped to investigate the Christensen well, which was another well drilled by Turner Drilling without obtaining a permit. This well is owned by Edna Christensen. The well number was not assigned as of the date of the investigation. However, Ms. Christensen was not available, so we couldn't visit her property.

Investigation

9:00 a.m. Keeau Well (Well No. 3687-03)

We met Jack May at his house (1-5-56: 99) in Keeau at 9:00 a.m. Naomi Turner from Turner Drilling was also there to meet us. Jack showed us the well. The concrete pad was installed (see Photo 1), so we couldn't determine what the annular space is. We measured the concrete pad, and it measured 4' x 4'. There was no cutting into the concrete pad to indicate a benchmark, but on the pad was inscribed "Elev. 53". We determined that this was a mistake, since the elevation was actually reported as 56.54' msl on the Well Completion Report.

We noticed that the well was located approximately 40' from a cesspool. Jack told us that there was a purification system that would filter out the bacteria (see Photo 2) and disinfect the remainder using UV light. Jack had mentioned to us what he thought was a coliform count, but it appeared he had mixed up another value (ppm) with coliform count (tds).

Jack told us that he was anxious to complete the permitting process because he wanted to sell the property, and that "people from Oahu and the Mainland don’t want to buy a property that gets their water from catchment".

When we left Jack May’s house, we said that everything appeared to be okay, except that he doesn’t have a flowmeter attached to his well. We told him that we would probably be able to issue the pump

EXHIBIT 3: Field Report
installation permit soon.

10:40 a.m. Vacationland #1 through 4 Wells (2979-02 to -05)

We then drove to Pahoa. Naomi Turner followed us because she didn’t know where Ardith Harms lived, nor where the wells were located. We first stopped at the Black Rock Café, since we were meeting DOCARE officer John Holley there. Since we were early, we decided to go over the permitting process and the applications and standards with Naomi. I gave Naomi a copy of all of the Administrative Rules, as well as copies of the Well Construction/Pump Installation Permit application and the Hawaii Well Construction and Pump Installation Standards. I had sent all of this information to her as well via mail prior to Turner Drilling installing these wells.

We met Officer Holley and drove to Ardith Harms’ house. We then went to the well sites. We were met by Robert Brigoli. The first well we visited was Vacationland #2 (2979-03) on TMK 1-4-70: 27. Glenn took a GPS reading of 19° 29’ 45.0” and 154° 49’ 24.2”. There was no concrete pad installed (see photo 3), and the annular space appeared to be approximately 2 ½” (see photo 4). There was no flowmeter installed. This well was located about 40’ from what appeared to be a cesspool. Ardith told us that she had a septic tank and leaching field, but we saw nothing that indicated that there was a septic tank. Ardith also told me that these wells had the infrastructure installed and that they were ready to be hooked up to the homes. Glenn sampled the input water (prior to filtration) and the output water. Staff is currently analyzing.

A purification system similar to the one at Jack May’s home was set up. From a previous investigation, it was determined that this well served approximately 12 people.

We then walked over to the Vacationland #4 Well (2979-05) on TMK 1-4-27:28. This well was in a property that was enclosed by a fence and there were dogs in the fenced area. Glenn took a GPS reading of 19°29’44.5” 154°49’25.9”. We decided to just take a picture of the well from the outside of the fence (see photo 5). There was no concrete pad installed, and we couldn’t determine the annular space, though Naomi told us that they were all the same. There was no flowmeter installed, and the same purification system was present, housed in an enclosure. From a previous investigation, it was determined that this well served approximately 5 people.

The third well we visited was the Vacationland #1 Well (2979-02) on TMK 1-4-67: 39 (see photo 6). Glenn took a GPS reading of 19°29’42.3” 154°49’21.4”. Again, there was no concrete pad installed, but there was concrete poured on the ground around the casing. There was what appeared to be a bucket that was broken off at the surface. Naomi later confirmed with me that this actually was a bucket that was encased by the concrete, to prevent children from throwing things down the well. The bucket was later cut at the surface to expose the casing. Because of this, we couldn’t determine the annular spacing. Again there was no flowmeter installed. From a previous investigation, it was determined that this well served approximately 11 people.

EXHIBIT 3: Field Report
The last well we visited was Vacationland #3 Well (2979-04) on TMK 1-4-27:28. Glenn took a GPS reading of 19°29'47.0" 154°49'23.3". There was no concrete pad installed though there was concrete around the casing which made it impossible for us to determine the annular spacing. No flowmeter was installed, and the amount of people serviced by this well was undetermined.

Naomi mentioned that Turner regularly pulls their surface casing prior to grouting. In basaltic areas (e.g. Kapoho) that would be okay as long as the 3" annulus was observed.

Conclusion

Keeau Well (Well No. 3687-03)

Since the concrete pad was in place, the annular space could not be determined. The proximity of the well to the cesspool is not under the jurisdiction of CWRM, so a referral will be made to the Department of Health’s Safe Drinking Water and Wastewater Branches. The applicant has apparently chosen to install his pump without obtaining a pump installation permit via Declaratory Ruling No. DEC-ADM98-G5. In other words, his installation of a pump is not in violation of HAR §13-168-12.

Vacationland #1 - #4 Wells (2979-02 through –05)

For each of these wells, both a well had been constructed and cased, and a pump had been installed. This amounts to 8 violations of HAR §13-168-12.

The annular spacing appeared to be 2 ¼" for each well. This amounts to 4 violations of Section 2.6(d) of the Hawaii Well Construction and Pump Installation Standards (HWCPIS).

Concrete pads had not been installed on any of the wells. This amounts to 4 violations of Section 2.10(a)(4) of the HWCPIS.

Wells 2979-03 and 2979-05 were within 1000 feet of a cesspool or septic tank, and 2979-02 and 2979-04 were probably well within 1000 feet of cesspools or septic tanks not on the respective properties. Since CWRM has no jurisdiction over the proximity of these wells to the cesspools/septic tanks, a referral will be made to the Department of Health’s Safe Drinking Water and Wastewater Branches.

Flowmeters were not installed in any of the wells. These will be described if/when the After-the-Fact Permits are issued.

Since the wells were drilled without obtaining the proper permits, this investigation will be referred to the Department of Commerce and Consumer Affairs.

These violations are only what was apparent at the time of the field investigation. Other violations may be revealed upon submission of a Well Completion Report by the applicant, and may be incorporated into any fines that are imposed on the applicant and the driller.

EXHIBIT 3: Field Report
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Finding of violation (min $250)</th>
<th>Occurring in WMA (min $250)</th>
<th>Repeat violation (min $250)</th>
<th>Gravity component</th>
<th>Mitigative component</th>
<th>TOTAL DAILY FINES</th>
<th>Start date</th>
<th>End date</th>
<th>No. of days</th>
<th>Compliance within 30 days (yes/no)</th>
<th>Total duration of violation</th>
<th>Alternate settlement</th>
<th>Subtotal fine for one incident</th>
<th>No. of incidents</th>
<th>Subtotal fines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Well Construction Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$900</td>
<td>$100</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55 yes</td>
<td>1</td>
<td>$100</td>
<td>4</td>
<td>$400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>No Pump Installation Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$900</td>
<td>$100</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55 yes</td>
<td>1</td>
<td>$100</td>
<td>4</td>
<td>$400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>No Well Completion Reports completed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$250</td>
<td>$0</td>
<td>2/18/2001</td>
<td>4/18/2001</td>
<td>59 no</td>
<td>59</td>
<td>$0</td>
<td>8</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Annual space violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$250</td>
<td>$0</td>
<td>12/22/2000</td>
<td>2/13/2001</td>
<td>53 yes</td>
<td>1</td>
<td>$0</td>
<td>1</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Concrete pad violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$250</td>
<td>$0</td>
<td>12/20/2000</td>
<td>4/6/2001</td>
<td>107 yes</td>
<td>1</td>
<td>$0</td>
<td>4</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Flowmeter not installed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>-$250</td>
<td>$0</td>
<td>12/20/2000</td>
<td>4/6/2001</td>
<td>107 yes</td>
<td>1</td>
<td>$0</td>
<td>4</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Exhibit 4: Fine Schedule**
## FINES FOR DRILLER

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Finding of violation (min $250)</th>
<th>Occurring in WMA (min $250)</th>
<th>Repeat violation (min $250)</th>
<th>Gravity component</th>
<th>Mitigative component</th>
<th>TOTAL DAILY FINES</th>
<th>Start date</th>
<th>End date</th>
<th>No. of days</th>
<th>Compliance within 30 days (yes/no)</th>
<th>Total duration of violation</th>
<th>Alternate settlement</th>
<th>No. of Incidents</th>
<th>Subtotal fines for one incident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Well Construction Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55</td>
<td>yes</td>
<td></td>
<td>1</td>
<td>$500</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>No Pump installation Permits issued</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>2/13/2001</td>
<td>55</td>
<td>yes</td>
<td></td>
<td>1</td>
<td>$500</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>No Well Completion Reports completed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>4/18/2001</td>
<td>59</td>
<td>no</td>
<td></td>
<td>1</td>
<td>$59</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Annular space violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/22/2000</td>
<td>2/13/2001</td>
<td>59</td>
<td>yes</td>
<td></td>
<td>1</td>
<td>$25</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Concrete pad violation</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>4/18/2001</td>
<td>107</td>
<td>yes</td>
<td></td>
<td>1</td>
<td>$25</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>Flowmeter not installed</td>
<td>$250</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
<td>-$500</td>
<td>$500</td>
<td>12/20/2000</td>
<td>4/18/2001</td>
<td>107</td>
<td>yes</td>
<td></td>
<td>1</td>
<td>$25</td>
<td>20</td>
</tr>
</tbody>
</table>

### TOTAL FINES

$5,672

### NOTES

**A** Item No

**B** Description - description of the violation, see submittal text for specific rules violated

**C** Finding of violation (min. $250) - where there is a violation, there is a minimum daily fine of $250

**D** Occurring in WMA (min. $250) - When the violation is in a designated Water Management Area, there is a minimum additional daily fine of $250

**E** Repeat violation (min. $250) - When the violator has committed violations in the past, there is a minimum additional daily fine of $250

**F** Gravity component - allows for the increase of the daily fine

**G** Mitigative component - allows for the decrease of the daily fine

**H** TOTAL DAILY FINES - the sum of the values in columns C through G

**I** Start date - the date where calculation of daily fines begins (date of notice of violation, or permit approval, or permit fully signed, or violation occurred, or CWRM order)

**J** End date - the date of the end of the violation or latest CWRM meeting or completed permit application

**K** No. of days - calculated between start and end dates

**L** Compliance within 30 days (yes/no) - if the applicant complies with the Commission staff's notice of violation requirements within 30 days

**M** Total duration of violation - if there was compliance with staff notice of violation within 30 days, the duration shall be one (1) day. If there was no compliance with staff notice of violation within 30 days, the duration shall be the total days of the violation.

**N** Alternate settlement (yes / no) - an alternate settlement in lieu of the daily fine was recommended

**O** Subtotal fine for one incident - per incident fine

**P** No. of incidents - of violation that occurred for this investigation

**Q** Subtotal fines - the subtotal of fines, calculated by multiplying (per incident fine) * (no. of incidents)

### EXHIBIT 4: Fine Schedule
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 Vacationland #1 through #4 Wells (Well No.2979-02 through -05) at Various, Hawaii, TMK Various, 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 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 one-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Commission, to accurately record water levels. The permittee shall coordinate with the Commission and conduct a pumping test in accordance with the attached Aquifer Pump Testing Procedure (attached). The permittee shall submit to the Commission 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 Commission.

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

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

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

6. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

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

8. The permittee shall comply with all applicable laws, rules, and ordinances.

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; HWCPIS). If the HWCPIS 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 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 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.

11. 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.

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. The well construction permit application and staff submittal approved by the Commission at its May 16, 2001 meeting are incorporated into the permit by reference.

EXHIBIT 5: Well Construction Permit Conditions
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 Vacationland #1 through #4 Wells (Well No.2979-02 through -05) at Various, Hawaii, TMK various, 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 various 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 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 May 16, 2001 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 applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

EXHIBIT 6: Pump Installation Permit Conditions
STEP-DRAWDOWN PUMP TEST DATA
(not required for wells producing < 100,000 gpd or 70 gpm)

Pumped Well No. ___________________  Observation well no. ___________________

Pumped Well Name ___________________  Distance between Obs. & Pumped Well _______ ft.

Target Q ___________________ gpm  Reference pt. for depth to water _______ ft. msl

Static Water Level @ start of test _______ ft. msl

Water level measurements by:  □ steel tape  □ pressure transducer  □ airline

START TEST  Date: _______  Time of day: _______

Flow Meter Reading Start: _______ gals

<table>
<thead>
<tr>
<th>Suggested Elapsed time (min)</th>
<th>Actual Elapsed Time (min)</th>
<th>Depth to water (nearest 0.1 ft)</th>
<th>Drawdown S (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate Q (at least 3 steps) (gpm)</th>
<th>EC (µhos)</th>
<th>Cl (mg/l)</th>
<th>Temp. °F or °C</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>-45</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-30</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-15</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Start pump</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Chloride sample taken</td>
</tr>
<tr>
<td>30²</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Step 2 begin?</td>
</tr>
</tbody>
</table>

EXHIBIT 7: Aquifer Pump Test Forms
## EXHIBIT 7: Aquifer Pump Test Forms

<table>
<thead>
<tr>
<th>Suggested Elapsed Time (min)</th>
<th>Actual Elapsed Time (min)</th>
<th>Depth of water (nearest 0.1 ft)</th>
<th>Drawdown (in feet, unadjusted to nearest 0.1 ft)</th>
<th>Pumping Rate (gpm)</th>
<th>TDS (milligrams/liter)</th>
<th>Date in this table is for</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>□ Pumped Well</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>□ Observation Well</td>
<td></td>
</tr>
<tr>
<td>Suggested Elapsed Time (min)</td>
<td>Actual Elapsed Time (min)</td>
<td>Depth to water (nearest 0.1 ft)</td>
<td>Drawdown S (unadjusted to nearest 0.1 ft)</td>
<td>Pumping rate Q (at least 3 steps) (gpm)</td>
<td>EC (μmhos)</td>
<td>Cl⁻ (mg/l)</td>
<td>Temp. of C</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------</td>
<td>---------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------</td>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Max possible duration, water level or quality did not stabilize for any 24 period

**Begin recovery data next page**

Flow meter reading at end of pumped period: ___________________ gals

1. starting pumping rate Q
2. minimum length of step period of constant pumping rate
3. minimum mandatory Chloride (Cl⁻) measurement/sampling at end of every step
4. Use same ending drawdown figure as start for recovery

**EXHIBIT 7: Aquifer Pump Test Forms**
### Aquifer Pump Test Forms

<table>
<thead>
<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to Water (nearest 0.1 ft)</th>
<th>Recovery Drawdown 8 (unadjusted to nearest 0.1 ft)</th>
<th>Pumping Rate Q (gpm)</th>
<th>EC (μmhos)</th>
<th>SI (mV)</th>
<th>TEMPERATURE (°F)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>2.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>70</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>80</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>90</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>150</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>200</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>250</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

END TEST  Date: ____________  Time of day: ____________  

ADDITIONAL REMARKS: ____________________________________________

Person in charge of pump test (print): ______________________________________

Signature: __________________________________________

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

EXHIBIT 7: Aquifer Pump Test Forms
## CONSTANT-RATE PUMP TEST DATA

Pumped Well No. ____________________  Observation well no. ____________________

Pumped Well Name ____________________  Distance between Obs. & Pumped Well ______ ft.

Target Q ___________ gpm  Reference pt. for depth to water ______ ft. msl

Target Q ___________ gpm  Reference pt. for depth to water ______ ft. msl

Water level measurements by:  
- ☐ steel tape
- ☐ pressure transducer
- ☐ airline

### START TEST

- Date: ____________  
- Time of day: __________

<table>
<thead>
<tr>
<th>Flow Meter Reading Start:</th>
<th>gals</th>
</tr>
</thead>
</table>
| Suggested elapsed time t (min) | Actual elapsed time t (min) | Depth to water (nearest 0.1 ft) | Drawdown (unadjusted to nearest 0.1 ft) | Pumping rate Q (gpm) | EC (μmhos) | Cl (mg/l) | Temp. of H₂O °F | Data in this table is for:  
|              |              |                |                         |                           |              |          |            | Pumped Well |
|              |              |                |                         |                           |              |          |            | Observation Well |

### EXHIBIT 7: Aquifer Pump Test Forms
<table>
<thead>
<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth (ft) with nearest ft</th>
<th>Drawdown (ft) (unadjusted to nearest ft.)</th>
<th>Pumping rate (gpm)</th>
<th>C (mg/l)</th>
<th>E (ml)</th>
<th>CI (mg/l)</th>
<th>Data in the column for</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>1500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>4000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>5000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>6000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>7000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>8000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>9000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>CI sample taken</td>
<td></td>
</tr>
<tr>
<td>10000</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>0</td>
<td>Max possible duration, water level or quality did not stabilize for any 24 period</td>
<td>Begin recovery data next page Flow meter reading at end of pumped period: ___________ gals</td>
</tr>
</tbody>
</table>

1 Chloride sampling required
2 Use same ending drawdown figure as start for recovery

EXHIBIT 7: Aquifer Pump Test Forms
<table>
<thead>
<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth to Water (nearest 0.5 ft)</th>
<th>Recovery Drawdown (unadjusted to nearest 0.1 ft)</th>
<th>Pumping rate (gpm)</th>
<th>EC (μmhos)</th>
<th>CI (mg/l)</th>
<th>Temp</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**END TEST**  Date: ___________  Time of day: ___________

**ADDITIONAL REMARKS:** ______________________________________________________

Person in charge of pump test (print): ______________________________________

Signature: ____________________________________________

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

**EXHIBIT 7: Aquifer Pump Test Forms**
**INSTRUCTIONS:** Please TYPE OR PRINT CLEARLY. Complete this form to report total monthly ground water use, and, if required, other information from each of your well sources. Mail to: Commission on Water Resource Management, P.O. Box 621, Honolulu HI 96809. For assistance, please call (808) 587-0264.

<table>
<thead>
<tr>
<th>State Well No.</th>
<th>Well Name</th>
<th>Period Begin Date (mm/dd/yy)</th>
<th>Period End Date (mm/dd/yy)</th>
<th>Quantity Pumped (gallons)</th>
<th>Method of Measurement</th>
<th>Chloride (mg/l)</th>
<th>Temp. (°F)</th>
<th>Non-Pumping Water Level (ft. above nail)**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- *Flow meter, electrical consumption, weir of flume, not metered (estimated).*
- **Measurement should be taken while pump is NOT running just prior to a pumping cycle; if measurement is taken while pump is running, please indicate so.**

Other comments or additional information (e.g. - date and method of chloride measurement; how pumpage amounts are estimated; etc...):

Submitted by (print) ___________________ Title _______________________

Signature ___________________ Date ___________ Telephone No. ___________

---

**EXHIBIT 8: Water Use Report Forms**
### Monthly Ground Water Delivery Report

**INSTRUCTIONS:** Please TYPE OR PRINT CLEARLY. Complete this form to report total monthly ground water use and other information from each of your well sources. Mail to: Commission on Water Resource Management, P.O. Box 621, Honolulu HI 96809. For assistance, please call (808) 587-0284.

**State Well No.** | **Delivery Begin Date (mm/dd/yy)** | **Delivery End Date (mm/dd/yy)** | **Quantity Delivered (gallons)** | **Type of Use** | **Field No(s)** | **Acres Irrigated** | **Crop Type** | **Method of Measurement**
---|---|---|---|---|---|---|---|---

**Use of water code:**
- AQ: Aquaculture
- C: Commercial
- D: Domestic
- ID: Irrigation - Drip
- IS: Irrigation - Sprinkle
- P: Agriculture non-irrigation use (livestock, cane wash, etc.)
- I: Industrial-manufacturing, construction, etc
- H: Hydroelectric power generation - indicate KWH of power generated
- F: Fuel power generation - cooling

**For estimated values use code:**
- P: Power consumption
- T: Total time of operation
- D: Comparison with past data
- X: Other means - (indicate method)

Other comments or additional information:

Submitted by (print) ___________________________ Title ___________________________

Signature ___________________________ Date __________ Phone No. _________________

---

**EXHIBIT 8: Water Use Report Forms**
This document does not include the changes made at the Commission's April 18, 2001 meeting because the minutes to that meeting have not been approved by the Commission.
ADMINISTRATIVE AND CIVIL PENALTY GUIDELINE (G99-01-Revised)
COMMISSION ON WATER RESOURCE MANAGEMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE OF HAWAII

I. GOALS
This penalty guideline seeks to provide a logical and consistent means to assess penalties and guide the settlement of Commission on Water Resource Management (Commission) enforcement cases. The Commission and staff should use this system to:

A. Deter violations;
B. Remove the economic benefit of violations;
C. Provide fair treatment of the regulated community; and
D. Offer the violator a chance to undertake a beneficial alternative, under proper conditions, in a partial or total replacement of a cash penalty.

II. LEGAL AUTHORITY
Hawaii Revised Statutes (HRS) § 174C-15 provides for fines of up to $1,000 for any violation of any provision of HRS § 174C. For a continuing offense, each day during which the offense is committed is a separate violation.

Administrative Rule § 13-167-10 provides for fines of up to $1,000 for any violation of any provision of Title 13, any permit condition or limitation established pursuant to Title 13, or for negligent or willful failure to comply with any final order of the Commission. For a continuing offense, each day during which the offense is committed is a separate violation.

III. APPLICABILITY
A. This guideline applies to the Commission programs, which include but are not limited to:

1. Measuring and reporting of water data;
2. Well Construction and Pump Installation Permits;
3. Stream Diversion Works Permits;
4. Stream Channel Alteration Permits;
5. Instream Use Protection Program;
6. Instream Flow Standards;
7. Water Use Permits;

EXHIBIT 9
8. Violations of any permit issued by the Commission;
9. Violations for failure to comply with final orders issued by the Commission; and

B. This guideline is only for use by Commission personnel. The guideline is not intended and cannot be relied upon to create rights, substantive or procedural, enforceable by any party in litigation with the Commission on Water Resource Management, Department of Land and Natural Resources or the State of Hawaii. The Commission’s staff reserves the right to act at variance with this guideline and to change it at any time without notice. The Commission’s staff expects to change this guideline as it gains experience with the guideline's implementation.

IV. PENALTY CALCULATION METHOD

A. The Commission’s staff shall calculate an initial minimum penalty figure for daily fines for settlement purposes based on the following:

1. Finding of willful violation = $250 per day/incident
   (A willful violation is deemed to occur when the violator has notice of the violation, given a reasonable timeframe to correct the violation, and fails to correct the violation within a reasonable timeframe or fails to exhibit good faith efforts to correct the violation.)

2. Occurring in Water Management Area = $250 per day/incident

3. Repeat Violation = $250 per day/incident
   (A repeat violation is deemed to occur when the party has previously been found to be a willful violator by the Commission. A repeat violation is tied to the party involved and is irrespective of the nature of the violation.)

B. Adjustments to Initial Minimum Penalty Figure in Section A: Mitigative and Gravity Factors.

Reduction or enhancement of any recommended fine will be made based on: (1) the degree of risk or actual harm to water resources, human health or the environment and (2) specific factors listed below. Where the risk or actual harm is slight, reduction of the recommended fine should be considered and where the risk or actual harm is great, enhancement of the recommended fine should be imposed.

1. Mitigation Component

Mitigative factors can be considered in the recommendation of any fine or alternative penalty. Presence of one or more mitigative factors can reduce or eliminate the fine or alternative penalty recommendation. Mitigative factors include: insignificant impact on the resource, attempt to remedy the violation without notice, good faith effort to remedy violation once noticed, and diligent and speedy effort to remedy the violation once noticed.
2. Gravity Component

Gravity factors can be considered in the recommendation of any fine or alternative penalty. Presence of one or more gravity factors can enhance the fine or alternative penalty recommendation. Gravity factors include: significant risk of or actual damage or harm to the water resources, human health or the environment, multiple or repeat violations of the code or regulations, evidence that the violator should have known about the violation, refusal to correct the violation once noticed, failure to meet deadlines as set by the Commission or its staff.

C. Calculation of the Number of Days for the Recommended Fine.

1. If one or more of the gravity components are met, a daily fine may be imposed. Those fines shall accrue on the following basis:

1. Violation where no permit is issued and no prior permits have been issued or no permit is required.

The date after which the violator has received written notice of the violation via certified mail or personal service, given a reasonable timeframe to correct the violation, and fails to correct the violation within a reasonable timeframe or fails to exhibit good faith efforts to correct the violation.

2. Violation where no permit is issued but prior permits have been issued

The date the violation has occurred.

3. Violation where permit has been issued

Either:
   a. The date the violation has occurred
   b. The date of permit approval
   c. The date permit issued
   d. The date of Commission meeting for conditions or deadlines imposed by the Commission not contained in a permit

4. Tolling. In calculating a recommendation for the imposition of a daily fine, the time may be tolled for upon the filing of a permit application, satisfactory progress in addressing the violation, or for good cause.

5. End. In calculating a recommendation for the imposition of a daily fine, the period of the violation ends upon: (1) satisfactory resolution of the violation, or (2) removal or remedy of the violation.

D. No staff recommendation shall not exceed the maximum amount allowable in Section 174C-15, HRS.

V. ALTERNATIVE SETTLEMENT

The following considerations will guide the Commission's staff recommendation in deciding whether to allow a project to substitute for or be credited against a cash penalty. However, any finding of a violation by the Commission shall result in a minimum one-time $500 cash fine in addition to an alternative settlement. Failure to successfully meet the alternative will result in re-institution of the fines as calculated in IV. A. and B. above.
1. The project must be something that the violator was not required to do anyway, either because of legal or other obligation. Projects committed to, or started before a settlement is finally agreed upon may be eligible for credit, but such projects must be carefully examined to determine the extent to which they resulted from the enforcement case or were due to other factors, or prior plans or commitments. In some cases, partial credit may be appropriate.

2. The project must result in new water resources (including aquatic biota) information, provide water resources education, or benefit the water resources of the state.

3. The project may consist of corrective action to be completed within a timeframe established by the Commission. Failure to abide by the timeframe will result in re-institution of the fines as calculated in IV. A. and B. above.

VI. FUTURE APPLICATIONS

Future applications from an applicant who has not paid fines or met alternative settlements or for a project with outstanding violations may be considered incomplete until sanctions are fulfilled and/or violations are corrected.

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

SUBJECT: After-the-fact Well Construction/Pump Installation Permit Application
Vacationland #1-#4 Wells (Well No. 2979-02 through -05)

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 26, 2001.

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 (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-2.

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

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

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

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

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

[ ] No comments/objections

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

Signed: Loni N. Kajiwara
Date: 4-26-2001
A cesspool survey card has been found in our files and a copy is attached below. The Department of Health (DOH) cannot guarantee the accuracy of the information nor the dimensions shown on the site plan on the survey card. In general, the DOH has accepted the information on the survey card as a verification that a cesspool was constructed and authorized to be used for wastewater disposal from a building.

**Sanitarian's Report of Cesspools**

**Property Owner:** Mark O'Tingtom  
**Address:** Kapoho Vacationland

**New Construction:** Yes  
**Intended for:** TMK 1-4-67-39-91

**Builder or Contractor:** R. Cercone

**Distance from building:** 12'  
**Boundary:** Over 9'  
**Stream or well:**

**Diameter (clear ft.):** 6'  
**Depth (ft.):** 5'  
**No. ft. down to water if any:** 3 1/2

**Capacity (Gallons):** 1057  
**Ground slope:**

**State soil or rock formation starting from surface:** 1'-Loose rock, 5'-Layered rock with cracks

**Kind of wall or curb:** Natural  
**Kind of cover:** Concrete

**Distance from surface of ground to top of cover:**

**Approved:** Aug 21, 1970  
**Sanitarian:**

---

**Diagram:**

- 1' Loose rock
- 5' Layered rock with cracks
- Water
- Vacationland Rd
- To Ocean
A cesspool survey card has been found in our files and a copy is attached below. The Department of Health (DOH) cannot guarantee the accuracy of the information nor the dimensions shown on the site plan on the survey card. In general, the DOH has accepted the information on the survey card as a verification that a cesspool was constructed and authorized to be used for wastewater disposal from a building.

STATE OF HAWAII - DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH DIVISION - SANITATION BRANCH

SANITARIAN'S REPORT OF CESSPOOLS

Property Owner: Artiste Homes
Address: Rank #2, Unit 70-15

New Construction: Intended for existing sewage

Builder or Contractor:

Distance from building: ___________ Boundary: ___________ Stream or well: ___________

Diameter (clear ft.): ___________ Depth (ft.): ___________ No. ft. down to water if any: ___________

Capacity (Gallons): ___________ Ground slope: ___________

State soil or rock formation starting from surface: 10' - LAYERED ROCK WITH CRACKS

Kind of wall or curb: mati rent ___________ Kind of cover: ___________

Distance from surface of ground to top of cover (ft.): ___________

Approved: ___________ 19

SANITARIAN

[Diagram of cesspool]

[Handwritten annotation: Unit 70-15]
A cesspool survey card has been found in our files and a copy is attached below. The Department of Health (DOH) cannot guarantee the accuracy of the information nor the dimensions down on the site plan on the survey card. In general, the DOH has accepted the information on the survey card as a verification that a cesspool was constructed and authorized to be used for wastewater disposal from a building.

Property Owner: Asten, Address: 14-4907 Lake St
Tax Map Key: 1-4-70-27
Island: Heaven
City: Vacation Land
Lot No.: 140
Builder or Contractor: A. Haynes
Intended For: Dwelling Service
Primary: Yes
Secondary: No

Distance From Building: 25'
Boundary: No
Stream, Well, Body of Water: None
Diameter (Clear): 6'
Depth: 60'
Capacity (Gal.): 200
No. Ft. Down to Water Table: 11:50
Ground Slope: Level
Soil Profile: Loose Gravel - Layered Rock

Type of Wall or Curb: Reinforced Concrete Cover
Distance from Finished Ground to Top of Cover (Ft.): 4'
Date Certificate Issued: ____________________
Date Approved: ____________________
Sanitarian: ____________________

Remarks:

Cesspool was checked before inspection.
1) Remove entire cover. Check
2) Put up 72" boundary cross for measurement. 8/19/69
U.G.: 1/2 ft deeper 8/16/69 OK
Book filled w/ sand to 8' head space
A cesspool survey card has been found in our files and a copy is attached below. The Department of Health (DOH) cannot guarantee the accuracy of the information nor the dimensions shown on the site plan on the survey card. In general, the DOH has accepted the information on the survey card as a verification that a cesspool was constructed and authorized to be used for wastewater disposal from a building.

### SANITARIAN'S REPORT OF CESSPOOLS

<table>
<thead>
<tr>
<th>Dist.</th>
<th>Maui</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Owner</td>
<td>KAPAA VACATIONLAND</td>
</tr>
<tr>
<td>New Construction</td>
<td>YES</td>
</tr>
<tr>
<td>Builder or Contractor</td>
<td>R. CRYSTAL</td>
</tr>
<tr>
<td>Distance from building</td>
<td>Boundary</td>
</tr>
<tr>
<td>Diameter (clear ft.)</td>
<td>6</td>
</tr>
<tr>
<td>Depth (ft.)</td>
<td>11</td>
</tr>
<tr>
<td>Ground slope</td>
<td></td>
</tr>
<tr>
<td>State soil or rock formation starting from surface</td>
<td>12' - LAYERED ROCK WITH CRACKS</td>
</tr>
<tr>
<td>Kind of wall or curb</td>
<td>NATURAL</td>
</tr>
<tr>
<td>Distance from surface of ground to top of cover (ft.)</td>
<td>1</td>
</tr>
</tbody>
</table>

**APPROVED**

SANITARIAN
<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>BAUER, G.</td>
<td></td>
<td>LUM, A.</td>
<td></td>
<td>Approval</td>
<td>See Me</td>
</tr>
<tr>
<td>CHING, F.</td>
<td></td>
<td>NAKAMA, L.</td>
<td></td>
<td>Signature</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>DANBARA, S.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td>Information</td>
<td>Take Action</td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>NISHIOKA, L.</td>
<td></td>
<td></td>
<td>Type Draft</td>
</tr>
<tr>
<td>HARDY, R.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td>Type Final</td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>SAKODA, E.</td>
<td></td>
<td></td>
<td>File</td>
</tr>
<tr>
<td>HIRANO, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td>Xerox ___ copies</td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>SWANSON, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMATA, R.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>YODA, K.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The handwritten note at the bottom reads: “Ryan – How do these pictures compare with yours?”*
From Turner Drilling

Re: Andy's farm

Date: 01 April 25

Dear Sir,

Enclosed are pictures of each of the four wells as per instruction from Mr. Turen.

I hope these are sufficient for your purposes.

Sincerely,

For Turner Drilling
This well house was locked — was not able to

Photo: Flowmeter, Location #1

Trak 1-41-70-38
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

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

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

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

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

If airline installed, bottom of airline elevation = ______ ft. mean sea level
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 12 in.

Hole Diameter: 12 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 12 in.

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

Length: __ in.
Nominal Diameter: __ in.
Wall Thickness: __ in.
Bottom Elevation: __ in.

Open Casing: [ ] Perforated  [ ] Screen

Length: __ in.
Nominal Diameter: __ in.
Wall Thickness: __ in.
Bottom Elevation: __ in.

Open Hole:

Length: __ in.
Diameter: __ in.
Bottom Elevation: __ in.

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): AO ANSI/AWWA C200  [ ] API Spec. 5L  AO ASTM A53  AO ASTM A139
  And compliant with (check one or more): [ ] ASTM A242  [ ] Type E  [ ] Type S  [ ] Grade B  [ ] Other
- Stainless Steel: (check one): [ ] ASTM A408 (production wells)  [ ] ASTM A512 (monitor wells)
- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) [ ] Schedule 40  [ ] Schedule 80
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one) [ ] Schedule 40  [ ] Schedule 80  [ ] Schedule 120
- Thermoplastic: (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): AO ANSI/AWWA C200  [ ] API Spec. 5L  AO ASTM A53  AO ASTM A139
  And compliant with (check one or more): [ ] ASTM A242  [ ] Type E  [ ] Type S  [ ] Grade B  [ ] Other
- Stainless Steel: (check one): [ ] ASTM A408 (production wells)  [ ] ASTM A512 (monitor wells)
- ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one) [ ] Schedule 40  [ ] Schedule 80
- PVC Plastic conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one) [ ] Schedule 40  [ ] Schedule 80  [ ] Schedule 120
- Thermoplastic: (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
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

**Bench mark**: elevation surveyed to nearest 0.01 ft. = \( \frac{10}{10} \) ft. mean sea level

**Elevation of top of chase tube**: \( \_ \_ \_ \_ \_ \_ \) ft. mean sea level

**Pump intake depth**: \( \_ \_ \_ \_ \_ \_ \) ft. (referenced to bench mark)

**Chase tube depth**: \( \_ \_ \_ \_ \_ \_ \) ft. (referenced to bench mark)

If airline installed, **bottom of airline elevation**: \( \_ \_ \_ \_ \_ \_ \) ft. mean sea level
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 15 ft. (to nearest 0.01 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): [ ] ASTM A242  [ ] Type E  [ ] Type S  [ ] Grade B  [ ] Other
- ABS Plastics 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) [ ] Fiberglass Reinforced 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 D3299  [ ] 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 Plastics 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) [ ] Fiberglass Reinforced 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 D3299  [ ] FEP Fluorocarbon Tubing conforming to ASTM D3296
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

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

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

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

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

If airline installed, bottom of airline elevation = ______ ft. mean sea level
13. AB-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 18 ft., msl (to nearest 0.01 ft.)

Hole Diameter: 12 in.

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation: 20 ft., msl

Cement Grout: 15 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:

Material: [ ] Crushed Basalt [ ] Rounded Gravel

Water Level Elevation: 5.15 ft., msl

Bench mark elevation:

19.18 ft., msl
(Survey to nearest 0.01 ft.)

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): [ ] AWWA C200 [ ] API Spec. 5L [ ] ASTM A53 [ ] ASTM A136
  And compliant with (check one or more): [ ] ASTM A242 [ ] Type E [ ] Type S [ ] Grade B [ ] Other
- Stainless Steel: (check one): [ ] ASTM A403 (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 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 D3298

Open Casing Material:
- Carbon Steel: compliant with (check one or more): [ ] AWWA C200 [ ] API Spec. 5L [ ] ASTM A53 [ ] ASTM A136
  And compliant with (check one or more): [ ] ASTM A242 [ ] Type E [ ] Type S [ ] Grade B [ ] Other
- Stainless Steel: (check one): [ ] ASTM A403 (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 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 D3298

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

- Length: __________ ft.
- Nominal Diameter: __________ in.
- Wall Thickness: __________ in.
- Bottom Elevation: __________ ft., msl

Open Casing: [ ] Perforated [ ] Screen

- Length: __________ ft.
- Nominal Diameter: __________ in.
- Wall Thickness: __________ in.
- Bottom Elevation: __________ ft., msl

Open Hole:

- Length: __________ ft.
- Diameter: __________ in.
- Bottom Elevation: __________ ft., msl

---

Solid material alt level = mean sea level

---

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to ensure that your as-built is in compliance with applicable standards.
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

Ardith Harms
#2979-05

Bench mark elevation surveyed to nearest 0.01 ft. = 26 ft. mean sea level

elevation of top of chase tube = ft. mean sea level

Pump intake depth = 23 ft. (referenced to bench mark)

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

if airline installed, bottom of airline elevation = ft. mean sea level
12. AS- BUILT WELL SECTION

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

Bench mark elevation:

Survey to nearest 0.01 ft.

Cement Grout:

20 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:

Material:

- Crushed Basalt
- Rounded Gravel

Water Level Elevation:

-2.08

Hole Diameter: 12

In.

Minimum of 2 Radius & 4" Thick Concrete Pad

Ground Elevation: 25

ft.

Solid Casing Material:

Carbon Steel: compliant with (check one or more):

- ANSI/WWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

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 D2097
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C650
- PTFE Fluorocarbon Tubing conforming to ASTM D3286
- FEP Fluorocarbon Tubing conforming to ASTM D3286

Open Casing Material:

Carbon Steel: compliant with (check one or more):

- ANSI/WWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

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 D2097
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C650
- PTFE Fluorocarbon Tubing conforming to ASTM D3286
- FEP Fluorocarbon Tubing conforming to ASTM D3286
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL COMPLETION REPORT - PART I

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 96808. The Commission may not accept incomplete reports. This form shall be submitted within 30 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-488-3122. For updates to this form or additional information, please visit our website at http://www.state.hawaii.gov/wwr/

1. State Well No.: 2879-01 Well Name: Vacation Land #3 Island: MT
2. Address: Maili St/Pahoa, MT Tax Map Key: 1-4-70-15
3. Drilling Company: Turner Drilling & Pump
4. If drilled, type of Rig: ☐ Rotary ☐ Percussion
5. Date Well Construction (drilled, cased, grouted) completed: 12-31-00
   In addition to the driller's log, if a geologic log was prepared, please submit with this form.
6. Initial water-level encountered: 15 ft. below ground
   Date and time of measurement: 12-31-00
7. Step-Drawdown Test completed? ☐ No ☐ Yes
   Attach Step-Drawdown Test form (12/17/07 SDPTD Form)
8. Constant Rate Aquifer Test completed? ☐ No ☐ Yes
   Attach Constant Rate Aquifer Test form (12/17/07 CRAPTD Form)
9. Parameters prior to pump test:
   Water-level: 15 ft. above sea level
   Date and time of measurement: 12-31-00
10. Chloride: 850 ppm
    Date and time of sampling: 12-31-00
11. Temperature: 70 °F
    Date and time of measurement: 12-31-00
12. Fill in the as-built section on the other side of this sheet.
13. Attach plot plan and surveyor's stamped elevation report.
14. 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.)
15. Remarks: N/A Pad is completed

Licensed Driller (print) Turner
Signature
C-57 Lic. No. 28572
Date 4-6-01

Surveyor (print) Niels Christensen
L.P.L.S. Lic. No. 9077
Date 4-23-01

WHR Perm 5260

APR-08-2001 12:00 PM TURNER DRILLING & PUMP 530 297 6520
15. AS-BUILT WELL SECTION

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

Elevation at top of casing: 9 ft, msl
(to nearest 0.01 ft)

Hole Diameter: 18 in.

Minimum of 2" radius & 4" thick concrete pad

Ground Elevation: 50 ft, msl

Total Depth: 21 ft

Solid Casing Material:
- Carbon Steel: compliant with (check one or more): AWWA C202, API Spec. 5L, ASTM A53, ASTM A106
- Stainless Steel: (check one or more): ASTM A321, Type E, Type S, Grade 8, Other
- AIG Pipe conforming to ASTM F490 and ASTM D1537: (check one): Schedule 40
- 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 D2296
  - Conduit Steel Casing Pipe conforming to ASTM D2297
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic Pressure Pipe conforming to AWWA C960
  - 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): AWWA C202, API Spec. 5L, ASTM A53, ASTM A106
- Stainless Steel: (check one or more): ASTM A321, Type E, Type S, Grade 8, Other
- AIG Pipe conforming to ASTM F490 and ASTM D1537: (check one): Schedule 40
- 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 D2296
  - Conduit Steel Casing Pipe conforming to ASTM D2297
  - Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - Glass Fiber Reinforced Plastic Pressure Pipe conforming to AWWA C960
  - PTFE Fluorocarbon Tubing conforming to ASTM D3298
  - FEP Fluorocarbon Tubing conforming to ASTM D3298

Open Hole:
- Length:_______________ ft
- Diameter:_______________ in.
- Bottom Elevation:_______________ ft, msl

Solid Casing: (x 0.90 x [Ground Elevation - Water Level Elev])
- Length:_______________ ft
- Nominal Diameter:_______________ in.
- Wall Thickness:_______________ in.
- Bottom Elevation:_______________ ft, msl

Open Casing: [Perforated Screen]
- Length:_______________ ft
- Nominal Diameter:_______________ in.
- Wall Thickness:_______________ in.
- Bottom Elevation:_______________ ft, msl

Solid casing (per 90% x [Ground Elevation - Water Level Elev] + AWWA C960)
- Length:_______________ ft
- Nominal Diameter:_______________ in.
- Wall Thickness:_______________ in.
- Bottom Elevation:_______________ ft, msl

* msl = mean sea level
13. AS-BUILT WELL SECTION

Elevation at top of casing: 144 ft. R. mal
Minimum of 2 Radii 4" Thick Concrete Pad

Hole Diameter: 12 in.
Ground Elevation: 10 ft. R. mal

Bench mark elevation: 144 ft. R. mal
(Survey to nearest 0.01 ft.)

Cement Grout: 5 ft.
(min. 70% of distance from
ground elevation to top of
water surface or 500 ft.,
whichever is less.)

Annual space between
hole and casing (min.3):
3 in.

Rock or Gravel Packing:

Total Depth: 21 ft.

Water Level Elevation:
10 ft. R. mal

Solid Casing Material:
Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A63
- ASTM A129

Stainless Steel: (check one):
- ASTM A242
- 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

Thermoplastic Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrally Cured Resin 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 D3298
- 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 A63
- ASTM A129

Stainless Steel: (check one):
- ASTM A242
- 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

Thermoplastic Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrally Cured Resin 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 D3298
- FEP Fluorocarbon Tubing conforming to ASTM D3296

**ml = mean sea level**
**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 221, Honolulu, Hawaii 96806. 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 Water Construction and Pump Installation Standards or call the Regulation Branch at 808-586-0829. For updates to this form or additional information, please visit our website at [http://dxwbi.org/](http://dxwbi.org/)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Well No.</td>
<td>9799-02</td>
</tr>
<tr>
<td>2. Well Name</td>
<td>Vac</td>
</tr>
<tr>
<td>3. Location</td>
<td>L</td>
</tr>
<tr>
<td>4. Tax Map Key</td>
<td>1-9-67-39</td>
</tr>
<tr>
<td>5. Drilling Company</td>
<td>Turner Drilling &amp; Pump</td>
</tr>
<tr>
<td>6. Drilled, type of Rig</td>
<td>Rotary</td>
</tr>
<tr>
<td>7. Date Well Construction (drilled, cased, grouted) completed</td>
<td>19-20-00</td>
</tr>
<tr>
<td>8. Initial water level encountered</td>
<td>15 ft below ground</td>
</tr>
<tr>
<td>9. Step-Drawdown Test completed?</td>
<td>No</td>
</tr>
<tr>
<td>10. Constant Rate Aquifer Test completed?</td>
<td>No</td>
</tr>
<tr>
<td>11. Water level</td>
<td>5 ft above msl</td>
</tr>
<tr>
<td>12. Chloride</td>
<td>250 ppm</td>
</tr>
<tr>
<td>13. Temperature</td>
<td>70 °F</td>
</tr>
<tr>
<td>14. Remarks</td>
<td>Pad is completed</td>
</tr>
<tr>
<td>15. Licensed Driller (print)</td>
<td>Frank Turner</td>
</tr>
<tr>
<td>16. License No.</td>
<td>22597</td>
</tr>
<tr>
<td>17. Date</td>
<td>4-6-01</td>
</tr>
<tr>
<td>18. Surveyor (print)</td>
<td>Niel Christensen</td>
</tr>
<tr>
<td>19. L.P.L.S. No.</td>
<td>9017</td>
</tr>
<tr>
<td>20. Date</td>
<td>4-23-01</td>
</tr>
</tbody>
</table>
13. AS BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 5.77 ft. (to nearest 0.01 ft.)

Cement Grout: 2 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: Material:

Solid Casings: Q Crushed Gravel
Q Round Gravel

Water Level Elevation: 5.77 ft. (to nearest 0.01 ft.)

Total Depth: 15 ft.

Hole Diameter: 16 in.

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation: 14 ft. (to nearest 0.01 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): □ ASTM A420 (production wells) □ ASTM A312 (monitor wells)
- ABS Plastic conforming to ASTM F490 and ASTM D1827: (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 Miter Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ PEP Fluorocarbon Tubing conforming to ASTM D3298

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 F490 and ASTM D1827: (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 Miter Pressure Pipe conforming to ASTM D3517
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ PEP Fluorocarbon Tubing conforming to ASTM D3298
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Well No.:</td>
<td>2972-05</td>
<td>Well Name:</td>
<td>Vernal Lane #4</td>
<td>Island:</td>
<td>HI</td>
</tr>
<tr>
<td>2. Address:</td>
<td>Corner of Lawn Line + Halili</td>
<td>Tax Map Key:</td>
<td>1-4-20-27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Drilling Company:</td>
<td>Turner Drilling &amp; Pump</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. If drilled, type of Rig:</td>
<td>0 Rotary</td>
<td>1 Percussion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Date Well Construction (drilled,cased,grouted) completed:</td>
<td>12-19-00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Initial water-level encountered:</td>
<td>20 ft. below ground</td>
<td>Date and time of measurement:</td>
<td>10-25-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Step-Drawdown Test completed?</td>
<td>☐ No</td>
<td>☐ Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Constant Rate Aquifer Test completed?</td>
<td>☐ No</td>
<td>☐ Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Water-level:</td>
<td>20 ft. above msl</td>
<td>Date and time of measurement:</td>
<td>10-25-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Chloride:</td>
<td>250 ppm</td>
<td>Date and time of sampling:</td>
<td>10-25-00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Temperature:</td>
<td>70 °F</td>
<td>Date and time of measurement:</td>
<td>10-25-00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

13. Attach plot plan and surveyor's stamped elevation report.

14. 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.)

15. Remarks: Z/P Pad is completed

---

**Licensed Driller (print):** Frank Turner  
**C-57 Lic. No.:** 82597  
**Date:** 4-6-01

**Surveyor (print):** Niels Christensen  
**L.P.L.S. Lic. No.:** 9077  
**Date:** 4-23-01
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing: 12.2 ft
Hole Diameter: 12 in.
Minimum of 2' Radius & 4' Thick Concrete Pad
Ground Elevation: 12 ft

Cement Grout: 20 ft
(3 min. 70% of distance from
ground elevation to top of
water surface or 600 ft,
whichever is less.)

Annular space between
hole and casing (min. 3):
3 in.

Rock or Gravel Packing:
Material:
 Crushed Basalt
 Rounded Gravel

Water Level Elevation:
6 ft

Total Depth:
22 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 A362  Type E  Grade B  Other
Stainless Steel: (check one):
ASTM A403 (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 D1765 or ASTM D2241): (check one)  Schedule 40  Schedule 80  Schedule 120
Thermoplast Plastic: (check one):
Flame retardant (compliant with ASTM D2966)
Centrifugally Cast Resin Pipe conforming to ASTM D2967
Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D2917
Glass Fiber Reinforced Plastic Mortar Pressure Pipe conforming to ANSI A980
PTFE Fluorocarbon Tubing conforming to ASTM D2846
FEP Fluorocarbon Tubing conforming to ASTM D2846

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 A362  Type E  Grade B  Other
Stainless Steel: (check one):
ASTM A403 (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 D1765 or ASTM D2241): (check one)  Schedule 40  Schedule 80  Schedule 120
Thermoplast Plastic: (check one):
Flame retardant (compliant with ASTM D2966)
Centrifugally Cast Resin Pipe conforming to ASTM D2967
Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D2917
Glass Fiber Reinforced Plastic Mortar Pressure Pipe conforming to ANSI A980
PTFE Fluorocarbon Tubing conforming to ASTM D2846
FEP Fluorocarbon Tubing conforming to ASTM D2846
Vice President

George Ciervo

SMA Permit required

965-8116
13. AS-BUILT WELL SECTION

Elevation at top of casing: 12.01 ft. mal
Hole Diameter: 12 in.
Minimum of 2' Radius & 4" Thick Concrete Pad
Ground Elevation: 26 ft. mal

Solids Casing: (2 90° x (Ground Elevation - Water Level Elev))
Length: __________ ft.
Nominal Diameter: __________ ft.
Wall Thickness: __________ in.
Bottom Elevation: __________ ft. mal

Open Casing: [ ] Perfomted [ ] Screen
Length: __________ ft.
Nominal Diameter: __________ ft.
Wall Thickness: __________ in.
Bottom Elevation: __________ ft. mal

Open Hole:
Length: __________ ft.
Diameter: __________ in.
Bottom Elevation: __________ ft. mal

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 A352
- Type E
- Grade B
- Other

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

ABS Plastic conforming to ASTM F460 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

Thermoplastic: (check one)
- FEP Fluorocarbon Tubing conforming to ASTM D3226
- PTFE Fluorocarbon Tubing conforming to ASTM D3226

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 A352
- Type E
- Type B
- Grade B
- Other

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

ABS Plastic conforming to ASTM F460 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

Thermoplastic: (check one)
- FEP Fluorocarbon Tubing conforming to ASTM D3226
- PTFE Fluorocarbon Tubing conforming to ASTM D3226

*mal = mean sea level
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

- Bench mark elevation surveyed to nearest 0.01 ft. = __ ft. mean sea level
- Elevation of top of chase tube = __ ft. mean sea level
- Pump intake depth = __ ft. (referenced to bench mark)
- Chase tube depth = __ ft. (referenced to bench mark)
- If airline installed, bottom of airline elevation = __ ft. mean sea level
13. AB-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing:

Hole Diameter: ___________ in.

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation:

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

Length: ___________ ft.
Nominal Diameter: ___________ in.
Wall Thickness: ___________ in.
Bottom Elevation: ___________ ft., msl

Open Casing:

□ Perforated
□ Screen

Length: ___________ ft.
Nominal Diameter: ___________ in.
Wall Thickness: ___________ in.
Bottom Elevation: ___________ ft., msl

Open Hole:

Length: ___________ ft.
Diameter: ___________ in.
Bottom Elevation: ___________ ft., msl

Solid Casing Material:

- Carbon Steel: compliant with (check one or more): □ AWWA C200 □ API Spec. 5L □ ASTM A53
- Stainless Steel: (check one or more): □ ASTM A422 □ 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
- Thermoplastic: (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 Plastic Pressure Pipe conforming to AWWA C950
  □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □ FEP Fluorocarbon Tubing conforming to ASTM D3298

Open Casing Material:

- Carbon Steel: compliant with (check one or more): □ AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
- Stainless Steel: (check one or more): □ ASTM A422 □ 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
- Thermoplastic: (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 Plastic Pressure Pipe conforming to AWWA C950
  □ PTFE Fluorocarbon Tubing conforming to ASTM D3296
  □ FEP Fluorocarbon Tubing conforming to ASTM D3298
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 531, Honolulu, Hawaii 96808. The Commission may not accept handwritten reports. This form shall be submitted within 60 days of the completion of work. For assistance, please contact the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-586-3254. For updates to this form or additional information, please visit our website at http://www.state.hi.us/lndnat/.

1. State Well No.: 2229-04
   Well Name: Radium Land #3
   Island: HI

2. Address: Mail St/Pahoa, HI
   Tax Map Key: 1-1-70-15

3. Drilling Company: Turner Drilling & Pump

4. If drilled, type of Rig: □ Rotary  □ Percussion

5. Date Well Construction (drilled, cased, grouted) completed: 12-21-00
   Attach Driller's Log (W6989 DL Form)

6. Initial water-level encountered: 15 ft. below ground
   Date and time of measurement: 12-21-00

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

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

Parameters prior to pump test:

9. Water-level: 15 ft. above msl
   Date and time of measurement: 12-21-00

10. Chloride: 250 ppm
    Date and time of sampling: 12-21-00

11. Temperature: 70 °F
    Date and time of measurement: 12-21-00

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

13. Attach plot plan and surveyor's stamped elevation report.

14. 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.)

15. Remarks: N/A  Pad is completed

Licensed Driller (print)  Turner
Signature  Date  4-6-01

Surveyor (print)  Christensen
Signature  Date  4-23-01

Permittee (print)  Turner
Signature  Date  4-23-01
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

- Bench mark elevation surveyed to nearest 0.01 ft. = [ ] ft. mean sea level
- elevation of top of chase tube = [ ] ft. mean sea level
- Pump intake depth = [ ] ft. (referenced to bench mark)
- Chase tube depth = [ ] ft. (referenced to bench mark)
- If airline installed, bottom of airline elevation = [ ] ft. mean sea level
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

Elevation at top of casing (to nearest 0.01 ft)

Hole Diameter: 12 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 20 ft., msll

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

Solid Casing: (z 90% x [Ground Elev.-Water Level Elev])

<table>
<thead>
<tr>
<th>Length:</th>
<th>ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Diameter:</td>
<td>6 in.</td>
</tr>
<tr>
<td>Wall Thickness:</td>
<td>in.</td>
</tr>
<tr>
<td>Bottom Elevation:</td>
<td>ft., msll</td>
</tr>
</tbody>
</table>

Open Casing:
- □ Perforated
- □ Screen

<table>
<thead>
<tr>
<th>Length:</th>
<th>ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Diameter:</td>
<td>in.</td>
</tr>
<tr>
<td>Wall Thickness:</td>
<td>in.</td>
</tr>
<tr>
<td>Bottom Elevation:</td>
<td>ft., msll</td>
</tr>
</tbody>
</table>

Open Hole:
- □ Length: | ft. |
| □ Diameter: | in. |
| □ Bottom Elevation: | ft., msll |

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: □ ASTM A408 (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 D3298

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: □ ASTM A408 (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 D3298

*msll = mean sea level
Date: 4-23-01

State of Hawaii
Commission on Water Resource Management
Department of Land and Natural Resources
The Independent Hawaii

APR-09-2001 12:01 PM TURNER DRILLING & PUMP 530 257 6250 P.02
13. AS-BUILT WELL SECTION (Please attach as-built if different from diagram provided below)

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): O ANSI/WWWA C200  O API Spec. 5L  O ASTM A53  O ASTM A139
- Stainless Steel: (check one): O ASTM A 400 (production wells)  O ASTM A 312 (mimber wells)
- ABS Plastic conforming to ASTM F 490 and ASTM D 1527: (check one)  O Schedule 40  O Schedule 80
- PVC Plastic conforming to ASTM F 490 and (ASTM D1785 or ASTM D2241): (check one): O Schedule 40  O Schedule 80  O Schedule 120
- Thermoset Plastic: (check one)
  - O Filament Wound Resin Pipe conforming to ASTM D2398
  - O Centrifugally Cast Resin Pipe conforming to ASTM D2397
  - O Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - O Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900
  - O PTFE Fluorocarbon Tubing conforming to ASTM D3298
  - O FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): O ANSI/WWWA C200  O API Spec. 5L  O ASTM A53  O ASTM A139
- Stainless Steel: (check one): O ASTM A 400 (production wells)  O ASTM A 312 (mimber wells)
- ABS Plastic conforming to ASTM F 490 and ASTM D 1527: (check one)  O Schedule 40  O Schedule 80
- PVC Plastic conforming to ASTM F 490 and (ASTM D1785 or ASTM D2241): (check one): O Schedule 40  O Schedule 80  O Schedule 120
- Thermoset Plastic: (check one)
  - O Filament Wound Resin Pipe conforming to ASTM D2398
  - O Centrifugally Cast Resin Pipe conforming to ASTM D2397
  - O Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
  - O Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C900
  - O PTFE Fluorocarbon Tubing conforming to ASTM D3298
  - O FEP Fluorocarbon Tubing conforming to ASTM D3296
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

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

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

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

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

If airline installed, bottom of airline elevation = ______ ft. mean sea level
**Solid Casing Material:**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon steel</td>
<td>compliant with (check one or more): ANSI/WWA C200, API Spec. 5L, ASTM A53, ASTM A139</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>compliant with (check one or more): ASTM A242, Type E, Type S, Grade B, Other</td>
</tr>
</tbody>
</table>

**Open Casing Material:**

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon steel</td>
<td>compliant with (check one or more): ANSI/WWA C200, API Spec. 5L, ASTM A53, ASTM A139</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>compliant with (check one or more): ASTM A242, Type E, Type S, Grade B, Other</td>
</tr>
</tbody>
</table>

---

**Open Hole:**

<table>
<thead>
<tr>
<th>Length:</th>
<th>Diameter:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bottom Elevation:**

<table>
<thead>
<tr>
<th>Length:</th>
<th>Diameter:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>DOCUMENT NO.</td>
<td>UAC OR ATTACHED WORKSHEET</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>F YR</td>
<td>APP</td>
</tr>
<tr>
<td>S 01</td>
<td>326</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS: LINE (1) ATF WC/PIP Appl. for Well No. 2979-02 through 05
LINE (2) 
LINE (3) 
LINE (4) 04/23/01 #0038# CHECK 100.00
TO:       Dean Y. Uchida, Administrator  
Land Division
FROM:    Linnel T. Nishioka, Deputy Director  
Commission on Water Resource Management
SUBJECT: After-the-fact Well Construction/Pump Installation Permit Application  
Vacationland #1-#4 Wells (Well No. 2979-02 through -05)

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

We would appreciate your comments on the captioned application with regard to the programs,  
plans, and objectives specific to your division. Please respond by returning this cover memo form by  
April 26, 2001.

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 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: Original source of private title is Land Commission Award 8559: 1 issued between 1845 and 1855.

Contact Person:    Gary Martin                   Phone: 587-0421
Signed:                 Gary Martin                  Date: APR 27 2001
TO:  RYAN IMATA

FROM:  NAOMI TURNER
        TURNER DRILLING & PUMP

SUBJ:  PROGRESS REPORT

PAGES:  2

DATE:  4-19-01

Ryan:

Here is the letter you requested. I talked with Waimea Water Co. about the Pending Actions and now I feel very comfortable about my decision.

You should be receiving Jack May's finished paperwork shortly. When Ardie Harm's survey is complete, I will forward information on the wells.
April 19, 2001

Mr. Ryan Imata  
State of Hawaii  
Commission on Water Resource Management  
P.O. Box 621  
Honolulu, HI 96809

Dear Ryan:  

I would like to submit a progress report on behalf of the issues indicated in the letter dated April 6, 2001.

Since our March 22, 2001 meeting, we have completed and submitted the Well Completion Reports Parts I and II for each well. The concrete pads have also been completed with the flow meters installed.

Mrs. Harms has contacted Mr. Niels Christensen, the surveyor. He has received permission to proceed. The scheduled date for the survey is April 20, 2001. If you would like to verify this, you may call Mr. Niels Christensen at 959-0360.

If you have any questions, please feel free to call.

Sincerely,

TURNER DRILLING & PUMP

Naomi Turner

NT:lab
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 4/12
SUSPENSE DATE: 

TO: BBAUER, G.
TO: LUM, A.
TO: NAKAMA, L.
TO: NAKANO, D.
TO: HIRANO, E.
TO: SAKODA, E.
TO: SUBIA, S.
TO: SWANSON, S.
TO: JINNAI, R.
TO: IMATA, R.
TO: KUNIMURA, I.

INIT. INIT. FOR: Approval
INIT. FOR: Signature
INIT. FOR: Information
INIT. FOR: 

Please:
1. Review & Comment
2. Take Action
3. Type Draft
4. Type Final
5. File
6. Xerox copies

DATE: __-__

SUSPENSE DATE: __-__

PLEASE:
1. Review & Comment
2. Take Action
3. Type Draft
4. Type Final
5. File
6. Xerox copies

WELL NUMBER 2079-02
WELL NAME Vacant Lot 1-4

☐ 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.
8 FILING

FOLDER:
☐ MAKE NEW FOLDER
☒ FOLDER ALREADY MADE

INCOMPLETE APPLICATION DATES:

DATE ACTION

☐ MAKE NEW FOLDER
☒ FOLDER ALREADY MADE

DATE ACTION

☐ MAKE NEW FOLDER
☒ FOLDER ALREADY MADE

DATE ACTION

☐ MAKE NEW FOLDER
☒ FOLDER ALREADY MADE

DATE ACTION

☐ MAKE NEW FOLDER
☒ FOLDER ALREADY MADE

DATE ACTION
<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>BAUER, G.</td>
<td></td>
<td>CHING, F.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUJII, N.</td>
<td></td>
<td>HARDY, R.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGA, D.</td>
<td></td>
<td>HIRANO, E.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICE, C.</td>
<td></td>
<td>IMATA, R.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JINNAI, R.</td>
<td></td>
<td>KUNIMURA, I.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAKAMA, L.</td>
<td></td>
<td>NAKANO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NISHIOKA, L.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAKODA, E.</td>
<td></td>
<td>SUBIA, S.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWANSON, S.</td>
<td></td>
<td>UYENO, D.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WELL NUMBER</th>
<th>WELL NAME</th>
</tr>
</thead>
</table>

- [ ] WELL CONSTRUCTION
- [ ] PUMP INSTALLATION

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

- [ ] Xerox copies

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

DATE: ___________ SUSPENSE DATE: ___________
April 20, 2001

Ms. Ardith Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

Dear Ms. Harms:

After-the-fact Well Construction/Pump Installation Permit Application for
Well Nos. 2979-02 through -05

We acknowledge receipt, on April 6, 2001, of your completed After-the-fact Well Construction/Pump Installation permit applications and filing fee for the Vacationland #1-#4 Wells (Well No. 2979-02 through -05). 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 or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), 984-2400 (Maui), or 1-800-468-4644 (Lanai & Molokai) extension 70255.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

Rt:ky
c. Turner Drilling
TO: Honorable Bruce S. Anderson, Director
   Department of Health
   Attention: Dennis Tulang, Wastewater Branch
   William Wong, Safe Drinking Water Branch

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

SUBJECT: After-the-fact Well Construction/Pump Installation Permit Application
          Vacationland #1-#4 Wells (Well No. 2979-02 through -05)

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 26, 2001.

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

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

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

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

[ ] For the applicant's information, a source of possible wastewater contamination [] is [] 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: After-the-fact Well Construction/Pump Installation Permit Application
       Vacationland #1-#4 Wells (Well No. 2979-02 through -05)

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

We would appreciate your comments on the captioned application with regard to the programs,
plans, and objectives specific to your division. Please respond by returning this cover memo form by
April 26, 2001.

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.

[ ] 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: _________________________
### DEPARTMENT OF LAND AND NATURAL RESOURCES

**UAC OR ATTACHED WORKSHEET**

<table>
<thead>
<tr>
<th>DOCUMENT NO.</th>
<th>SRC/CTR</th>
<th>COST</th>
<th>PROJECT</th>
<th>PH</th>
<th>ACT</th>
<th>AMOUNT</th>
<th>NAME/DESCRIPTION (WANG INPUT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. Q.</td>
<td>326</td>
<td>1026</td>
<td>0752</td>
<td></td>
<td></td>
<td>(1) $100.00</td>
<td>A. Harms (Money Order)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$100.00</td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS:**
- LINE (1) ATF WC/PIP Appl. for Well No. 2879-02 through 05
- LINE (2)
- LINE (3)
- LINE (4)

**DATE:** APR 20 2001
EXHIBIT 1: Location Map
2/1/01

To: Commission of Water Management
Mr. Roy Hardy

Enclosed is money Order of $100.00 for 4E of application permit.
Please expediting permit soon as you receive this letter.

Thank you
A. Haines
WATER RESOURCE MANAGEMENT
Land and Natural Resources

APPLICATION FOR PERMIT

For Official Use Only:

Date: 03/13/01

I. WELL LOCATION INFORMATION:

- WELL OWNER: Adolph Haarm
  - Address: 4-415 Kahoe Pl, Honolulu, HI 96813
  - Phone: 965-8925
  - Fax:
  - Contact Person: Same
  - E-mail:

- LAND OWNER: Same
  - Contact Person: Phone:
  - Fax:
  - E-mail:

- CONTRACTOR: Turner Drilling
  - Address: 422-802 South Avenue, LA, Omaha, CA 96130
  - Phone: 522-297-3719
  - Fax:
  - Contact Person: Naomi Turner
  - E-mail:
  - Lic #: 22497

II. WELL & PUMP INFORMATION:

- WELL NAME: Vacation Land (4) (14)
- Island: HI
- Address: Kahoe Rd, Pahoa, HI 96777
- Tax Map Key: 1-62-37-01
- Describe well location referenced to established property boundaries:

III. PROPOSED WORK:

- Dug
- Bored
- Drilled
- Radial
- Drill No. Well
- Install New Pump
- Modify Existing Well
- Redrill
- Modify Pump
- Abandon/Seal
- Replace Pump

IV. CONSTRUCTION:

- Dug
- Bored
- Drilled
- Radial
- Is this well a part of a battery of wells? Yes No (Please describe.)

V. PROPOSED PUMP INFORMATION:

- Pump Type (Check all that apply):
  - Deep Well Turbine
  - Submersible
  - Centrifugal
  - Rotary
  - Rotary-Displacement
  - Reciprocating
  - Propeller
  - Impulse
  - Diesel
  - Gas
  - Electric, rated horsepower: 3/4 HP

- Rated Pump Capacity: 3/4 HP
- Flow: 120 gallons per minute

VI. PROPOSED USE:

- Municipal (including hotels, stores, etc.)
- Domestic (individual, noncommercial water system)
- Irrigation (crop)
- Military

- No. of Dwelling Units:
- No. of Acres:
- Other (explain):

VII. PROPOSED AMOUNT OF WITHDRAWAL:

- (a) Domestic Withdrawal:
  - 200 gallons per day
- (b) Industrial Withdrawal:
  - 0 gallons per day

VIII. METHOD OF FLOW MEASUREMENT:

- Flowmeter
- Open-pipe
- Weir
- Office
- Other (explain):

IX. OTHER IMPORTANT INFORMATION:

- Pending Actions:
  - CDUA
  - SMA
  - EIS
  - EA
  - NONE

X. REMARKS, EXPLANATIONS:

- Field Checked By ____________
- Long. Aquifer System Name ____________
- Date ____________
- Lat. State Well No. ____________

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of cumulative water rights and shall not guarantee the pump capacity or future use to the permitted pump capacity.

Well Owner: Adolph Haarm
Landowner: Adolph Haarm
Contractor: Turner Drilling

Signature: 
Date: 3-5-01

Signature: 
Date: 3-5-01

Signature: 
Date: 3-5-01

Field Checked By ____________
Date ____________
Lat. ____________

State Well No. ____________

WCFORM (3/1/00)
11. PROPOSED WELL SECTION

- Hole Diameter: 12 in.
- Ground Elevation: 10 ft., msi

Solid Casing: (2 x 90% x (Ground Elev. - Water Level Elev.))
Material: 
- Material Standard: 
- Length: 
- Diameter: 
- Wall Thickness: 
- Bottom Elevation: 

Open Casing: 
- Material: 
- Material Standard: 
- Length: 
- Diameter: 
- Wall Thickness: 
- Bottom Elevation: 

Open Hole: 
- Length: 
- Diameter: 
- Bottom Elevation: 

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) = -1.0 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
  - Other
  - Stainless Steel: (check one): 
    - ASTM A409
    - ASTM A312
- ABS Plastic complying to ASTM F480 and ASTM D1527: (check one) 
  - Schedule 40
  - Schedule 80
- PVC Plastic complying to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one) 
  - Schedule 40
  - Schedule 80
- Thermoset Plastic: (check one) 
  - Centrifugally Cast Resin Pipe complying to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe complying to ASTM D3317
  - Glass Fiber Reinforced Resin Pressure Pipe complying to AWWA C950
  - PTFE Fluorocarbon Tubing complying to ASTM D3296
  - FEP Fluorocarbon Tubing complying to ASTM D3296

Open Casing Material:
- Steel: compliant with (check one or more): 
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
  - Other
  - Stainless Steel: (check one): 
    - ASTM A409
    - ASTM A312
- ABS Plastic complying to ASTM F480 and ASTM D1527: (check one) 
  - Schedule 40
  - Schedule 80
- PVC Plastic complying to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one) 
  - Schedule 40
  - Schedule 80
- Thermoset Plastic: (check one) 
  - Centrifugally Cast Resin Pipe complying to ASTM D2997
  - Reinforced Plastic Mortar Pressure Pipe complying to ASTM D3317
  - Glass Fiber Reinforced Resin Pressure Pipe complying to AWWA C950
  - PTFE Fluorocarbon Tubing complying to ASTM D3296
  - FEP Fluorocarbon Tubing complying to ASTM D3296

---

**HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS**

Please refer to the standards to ensure that your construction plans are in compliance with all existing regulations.

---

**Surveys**

Pre-Submission in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

---

**Material Standard**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Wall Thicknass**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Diameter**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Length**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Well Components**

- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Elevation**

- Water Surface Elevation
- Minimum Bottom Elevation
- Maximum Bottom Elevation
- Elevation of Well
- Water Level Elev.
- Ground Elevation

---

**Concrete Pad**

- 4" Thick Concrete Pad
- 6" Thick Concrete Pad
- 8" Thick Concrete Pad
- 10" Thick Concrete Pad

---

**Steel**

- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
- Other

---

**Stainless Steel**

- ASTM A409
- ASTM A312

---

**ABS Plastic**

- Schedule 40
- Schedule 80

---

**PVC Plastic**

- Schedule 40
- Schedule 80

---

**Thermoset Plastic**

- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Material Standard**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Diameter**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Length**

- Schedule 40
- Schedule 80
- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing

---

**Well Components**

- Centrifugally Cast Resin Pipe
- Reinforced Plastic Mortar Pressure Pipe
- Glass Fiber Reinforced Resin Pressure Pipe
- PTFE Fluorocarbon Tubing
- FEP Fluorocarbon Tubing
OSMONICS:

Pre-Engineered for Performance, Simplicity

A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS Autotrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units – a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components – ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit – unlike the limited service and support offered by competitive RO sellers. In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 - 2,535 GPD</td>
<td>2.5 Inch TLC®</td>
<td>Stainless Steel</td>
<td>Rotary Valve</td>
<td>1/3 - 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 - 330 LPH</td>
<td>63.5mm TLC®</td>
<td>Stainless Steel</td>
<td>Rotary Valve</td>
<td>25 - 35 KW, 1 Phase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 - 10,800 GPD</td>
<td>4 Inch TLC®</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase - 5 HP, 3 Phase</td>
</tr>
<tr>
<td>235 - 1,700 LPH</td>
<td>101.6mm TLC®</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1.10KW, 1 Phase - 3.70 KW, 3 Phase</td>
</tr>
</tbody>
</table>
ARO Kit

Specifications

Model: ARO-3600
Performance: at 77 °F (25 °C), 2000 ppm TDS

<table>
<thead>
<tr>
<th></th>
<th>50% Recovery</th>
<th>75% Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permeate Rate</td>
<td>2.50 gpm</td>
<td>2.50 gpm</td>
</tr>
<tr>
<td>Concentrate Rate</td>
<td>2.50 gpm</td>
<td>0.83 gpm</td>
</tr>
<tr>
<td>Feed Rate</td>
<td>5.00 gpm</td>
<td>3.33 gpm</td>
</tr>
</tbody>
</table>

* Maximum Recovery: 75%

Operating Pressure: 200 to 220 psi (13.8 to 15.0 Bar)
Typical Ionic Rejection: 95 to 98%
Membrane: (2) 4.0" x 40" "TLC, FASTEK S4040
Membrane Housing: (2) 304 SS, 3/8" (9.5 mm) ports, End Entry
Array: 1-1 (1 element per housing)
High Pressure Piping: 1/2" Tubing, Nylon (FDA approved)
Pump: TEEL, Multi-Stage Centrifugal
Motor: 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available)
Control Circuit: 115 VAC, Single Phase
Frame: Painted Carbon Steel, 50" H x 30" W x 22" D
Approximate Weight: 185 lbs. (with Free Standing Frame)
Connections: 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate
Instrumentation Features: Permeate Flow Meter, Concentrate Pressure Gauge, Concentrate Flow Meter, Five Micron Prefilter, Flow Control Center, Inlet Shut Off Valve

Option(s):
- Stainless Steel Pump
- Low Inlet Pressure Switch
- Electrical Upgrade Package: incl.
  - Autoflush
  - Conductivity Meter
  - Low Inlet Pressure Switch
APPLICATION FOR PERMIT

State of Hawai'i
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, Hawai'i 96809. Application must be accompanied by filing fee of $25.00 payable to the Dept. of Land and Natural Resources. For further information and up-to-date application fee information, visit http://www.state.hi.us/dlnr/cmwm.

APPLICANT INFORMATION: (Fill out in block form, if applicable, and place a check next to the applicable box. For Official Use Only:

1. (a) [ ] WELL OWNER
   [ ] LAND OWNER
   [ ] CONTRACTOR

2. WELL LOCATION:
   Address:    Vacation Land #2 (20)       Island:    HT
   Phone:    965-5915

3. PROPOSED WORK:
   (Check all that apply)
   [ ] Drill New Well
   [ ] Deepen
   [ ] Install New Pump
   [ ] Modify Existing Well
   [ ] Redrill
   [ ] Modify Pump
   [ ] Abandon/Seal
   [ ] Replace Pump

4. CONSTRUCTION:
   [ ] Dug
   [ ] Bored
   [ ] Driven
   [ ] Drilled
   [ ] Radial

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 12 HP 12 gpm
   Gallons per minute

   Pump Type (Check one):
   [ ] Deep Well Turbine
   [ ] Rotary
   [ ] Submersible
   [ ] Centrifugal
   [ ] Rotary-Displacement
   [ ] Rotary-Gear
   [ ] Propeller
   [ ] Reciprocating
   [ ] Impulse
   [ ] Gas
   [ ] Diesel
   [ ] Electric, rated horsepower:

6. PROPOSED USE:
   (Check all that apply)
   [ ] Municipal (including hotels, stores, etc.)
   [ ] Domestic (individual, noncommercial water system)
   [ ] Irrigation (crop)
   [ ] Military
   [ ] No. of Dwelling Units:
   [ ] No. of Acres:
   [ ] Industrial
   [ ] Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   (b) METHOD OF FLOW MEASUREMENT:
   Flowmeter
   Open-pipe
   Well
   Other (explain):

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

9. REMARKS, EXPLANATIONS:

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 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 consumptive water rights and shall not guarantee a pump capacity or future use up to the permitted pump capacity.

Well Owner:

Landowner:

Contractor:

Signature: ____________________________

Date: ____________________________

Field Checked By ____________________________

Longitude ____________ Aquifer System Name ____________

Date: ____________________________

Latitude ____________ State Well No. ____________

WCP/FORM (3/1/00)
11. PROPOSED WELL SECTION

Hole Diameter: \[ \text{\textit{10}}, \text{\textit{in.}} \]

Minimum of 2' Radius & 4' Thick Concrete Pad

Ground Elevation: \[ \text{\textit{10}}, \text{\textit{ft.}}, \text{\textit{m.a.l.}} \]

Solid Casing: \( \pm 90\% \) (Ground Elevation - Water Level Elev.)

Material: \( \text{\textit{PVC}}, \text{\textit{Plastic}} \)

Length: \[ \text{\textit{6}}, \text{\textit{ft.}}, \text{\textit{m.a.l.}} \]

Diameter: \[ \text{\textit{6}}, \text{\textit{in.}} \]

Wall Thickness: \[ \text{\textit{0}}, \text{\textit{99}}, \text{\textit{in.}} \]

Bottom Elevation: \[ \text{\textit{\pm 79}}, \text{\textit{ft.}}, \text{\textit{m.a.l.}} \]

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to assure that your construction plans are in compliance with all existing regulations.

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. \( \rightarrow \) Bottom Elevation of Well Limit = \[ 2, (1,143,2) = 16.5 \text{ ft.} \]

* 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.

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 F490 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F490 and (ASTM D1885 or ASTM D2241): (check one)
- Schedule 40
- Schedule 80

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2906
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3317
- 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
  - Other

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

ABS Plastic conforming to ASTM F490 and ASTM D1527: (check one)
- Schedule 40
- Schedule 80

PVC Plastic conforming to ASTM F490 and (ASTM D1885 or ASTM D2241): (check one)
- Schedule 40
- Schedule 80

Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2906
- Centrifugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3317
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296
A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS Autotrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units - a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components — ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit — unlike the limited service and support offered by competitive RO sellers.

In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 – 2,535 GPD</td>
<td>2.5 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>1/3 – 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 – 330 LPH</td>
<td>63.5mm TLC*</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>.25 – .55 KW, 1 Phase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 – 10,800 GPD</td>
<td>4 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase – 6 HP, 3 Phase</td>
</tr>
<tr>
<td>235 – 1,700 LPH</td>
<td>101.6mm TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1.10KW, 1 Phase – 3.70 KW, 3 Phase</td>
</tr>
</tbody>
</table>
Specifications

Model: ARO-3600

Performance: at 77 °F (25 °C), 2000 ppm TDS

<table>
<thead>
<tr>
<th>Recovery</th>
<th>50% Recovery</th>
<th>75% Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permeate Rate</td>
<td>2.50 gpm</td>
<td>2.50 gpm</td>
</tr>
<tr>
<td>Concentrate Rate</td>
<td>2.50 gpm</td>
<td>0.83 gpm</td>
</tr>
<tr>
<td>Feed Rate</td>
<td>5.00 gpm</td>
<td>3.33 gpm</td>
</tr>
</tbody>
</table>

* Maximum Recovery: 75%

Operating Pressure: 200 to 220 psi (13.8 to 15.0 Bar)
Typical Ionic Rejection: 95 to 98%
Membrane: (2) 4.0" x 40" TLC, FASTEK S4040
Membrane Housing: (2) 304 SS, 3/8" (9.5 mm) ports, End Entry
Array: 1-1 (1 element per housing)
High Pressure Piping: 1/2" Tubing, Nylon (FDA approved)
Pump: TEEL, Multi-Stage Centrifugal
Motor: 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available)
Control Circuit: 115 VAC, Single Phase
Frame: Painted Carbon Steel, 50" H x 30" W x 22" D
Approximate Weight: 185 lbs. (with Free Standing Frame)
Connections: 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate
Instrumentation Features: Permeate Flow Meter, Concentrate Pressure Gauge, Concentrate Flow Meter, Five Micron Prefilter, Flow Control Center, Inlet Shut Off Valve

Option(s):
- Stainless Steel Pump
- Low Inlet Pressure Switch
- Electrical Upgrade Package: incl.
- Autoflush
- Conductivity Meter
- Low Inlet Pressure Switch
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

- Well Construction 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 521, Honolulu, Hawaii 96802. 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 587-4225. For further information and updates to this application form, visit http://www.state.hi.us/dlnr.

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

1. (a) WELL OWNER: Judith B. Harms  
Mailing Address: 14-9192 Kapoho-Pahoa Rd, Pahoa, HI 96778  
Phone: 965-9785

(b) LAND OWNER: Same  
Mailing Address:  
Phone: 

(c) CONTRACTOR: Turner Drilling  
Mailing Address:  
Phone: 530-857-6250

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

2. WELL LOCATION/NAME: Vacation Land #3 (80)  
Island: HI  
Address: Mail St, Pahoa, HI 96778  
Tax Map Key: 4-70-16  
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: (Check all that apply)  
- Drill New Well  
- Deepen  
- Install New Pump

- Modify Existing Well  
- Rechill  
- Modify Pump

- Abandon/Seal  
- Replace Pump

*Well No: Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:  
- Dug  
- Bored  
- Driven  
- Drilled  
- Radial

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

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 1/2 HP 12 gallons per minute

- Pump Type (Check one):  
  - Deep Well Turbine  
  - Submersible  
  - Centrifugal

- Powered by:  
  - Rotary  
  - Rotary-Displacement  
  - Rotary-Gear

  - Propeller  
  - Reciprocating  
  - Impulse

  - Diesel  
  - Gas  
  - Electric, rated horsepower. 1/2 HP

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

- Irrigation (crop)  
- Military

- No. of Dwelling Units:  
- No. of Acres:  
- Industrial  
- Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 300 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:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________

Well Owner: Judith Harms  
Signature: ____________  
Date: 2-5-01

__________________________________________  
Landowner: Judith Harms  
Signature: ____________  
Date: 2-5-01

__________________________________________  
Contractor: Turner Drilling  
Signature: ____________  
Date: 2-5-01

Field Checked By:  
Longitude:  
Aquifer System Name:  
Date:  
Latitude:  
State Well No:  

WCPIFORM (3/1/00)
A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS AutoTrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units — a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components — ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit — unlike the limited service and support offered by competitive RO sellers. In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 - 2,535 GPD</td>
<td>2.5 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>1/3 - 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 - 330 LPH</td>
<td>63.5mm TLC*</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>.25 - .55 KW, 1 Phase</td>
</tr>
<tr>
<td>1,800 - 10,800 GPD</td>
<td>4 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase - 5 HP, 3 Phase</td>
</tr>
<tr>
<td>235 - 1,700 LPH</td>
<td>101.6mm TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1.10KW, 1 Phase - 3.70 KW, 3 Phase</td>
</tr>
</tbody>
</table>
Model: ARO-3600

Performance:

at 77°F (25°C), 2000 ppm TDS

<table>
<thead>
<tr>
<th>Recovery</th>
<th>Permeate Rate</th>
<th>Concentrate Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>2.50 gpm</td>
<td>0.83 gpm</td>
</tr>
<tr>
<td>75%</td>
<td>2.50 gpm</td>
<td>3.33 gpm</td>
</tr>
</tbody>
</table>

Maximum Recovery: 75%

Operating Pressure: 200 to 220 psi (13.8 to 15.0 Bar)

Typical Ionic Rejection: 95 to 98%

Membrane: (2) 4.0" x 40" TLC, FASTEK S4040

Membrane Housing: (2) 304 SS, 3/8" (9.5 mm) ports, End Entry

Array: 1-1 (1 element per housing)

High Pressure Piping: 1/2" Tubing, Nylon (FDA approved)

Pump: TEEL, Multi-Stage Centrifugal

Motor: 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available)

Control Circuit: 115 VAC, Single Phase

Frame: Painted Carbon Steel, 50" H x 30" W x 22" D

Approximate Weight: 185 lbs. (with Free Standing Frame)

Connections: 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate

Instrumentation Features:

Permeate Flow Meter
Concentrate Pressure Gauge
Concentrate Flow Meter
Five Micron Prefilter
Flow Control Center
Inlet Shut Off Valve

Option(s):

- Stainless Steel Pump
- Low Inlet Pressure Switch
- Electrical Upgrade Package; incl.
  - Autoflush
  - Conductivity Meter
  - Low Inlet Pressure Switch
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Dept. of Land and Natural Resources
APPLICATION FOR PERMIT

Well Construction or Pump Installation

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

1. (a) WELL OWNER
   ◆ Judith B. Haams
   Contact Person: Same
   Phone: 965-8705
   Mailing Address: 18-4179 Kapaha-Pahoa Rd / Pahoa, HI 96778
   Fax: 
   E-mail: 

2. LAND OWNER:
   ◆ Same
   Contact Person: 
   Phone: 
   Mailing Address: 
   Fax: 
   E-mail: 

3. CONTRACTOR:
   ◆ Turana Drilling
   Contact Person: 
   Phone: 
   Mailing Address: 
   Fax: 
   E-mail: 
   Lic #: 22527

B. WELL & PUMP INFORMATION:

1. WELL LOCATION NAME: Vacation Land (44) (89)
   Island: HI
   Address: 18-4179 Kapaha-Pahoa Rd / Pahoa, HI
   Fax: 
   E-mail: 
   Tax Map Key: H-7.4-70-28

2. Proposed Pump Information:

   Proposed Pump Capacity: 3/4 HP, 93.6 gpm
   Gallons per minute

   Pump Type: Deep Well Turbine

   Pumped by: Gas

   Proposed Use:
   ◆ Municipal (including hotels, stores, etc.)
   ◆ Domestic (individual, noncommercial water system)
   ◆ Irrigation (crop)
   ◆ Military

   Proposed Method of Flow Measurement:
   ◆ Flowmeter
   ◆ Open pipe
   ◆ Water Level Gauge

C. OTHER IMPORTANT INFORMATION:

1. PENDING ACTIONS:
   ◆ Undet (e)
   ◆ Permit 1
   ◆ Work
   ◆ PUMP WORK:
     - Drill New Well
     - Deepen
     - Install New Pump
     - Modify Existing Well
     - Redrill
     - Modify Pump
     - Abandon Well
     - Replace Pump

2. REMARKS, EXPLANATIONS:
   (If more space is needed, please attach additional sheet)

3. 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 thirty (30) days of 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 intrinsic water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

   Well Owner
   Judith Haams
   Signature: 
   Date: 2-5-01

   Landowner
   Judith Haams
   Signature: 
   Date: 2-5-01

   Contractor
   Turana Drilling
   Signature: 
   Date: 2-5-01

   Field Checked: 
   Longitude: 
   Aquifer System Name: 
   Date: 
   Latitude: 
   State Well No: 

WCPFORM (3/100)
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 Elev. Bottom Elevation of Well Limit = (2 x 0.25) = -1.0 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 F120 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

**Thermoset Plastic:** (check one)
- Filament Wound Resin Pipe conforming to ASTM D2995
- 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
- 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

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 F120 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

**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
- FEP Fluorocarbon Tubing conforming to ASTM D3296
A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS Autotrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units — a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components — ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit — unlike the limited service and support offered by competitive RO sellers.

In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 - 2,535 GPD</td>
<td>2.5 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>1/3 - 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 - 330 LPH</td>
<td>63.5mm TLC*</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>.25 - .55 KW, 1 Phase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 - 10,800 GPD</td>
<td>4 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase</td>
</tr>
<tr>
<td>235 - 1,700 LPH</td>
<td>101.6mm TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>110KW, 1 Phase</td>
</tr>
</tbody>
</table>

Capacity               | Membrane In. | Housing     | Pump          | Motor          |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 - 10,800 GPD</td>
<td>4 Inch TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase</td>
</tr>
<tr>
<td>235 - 1,700 LPH</td>
<td>101.6mm TLC*</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>110KW, 1 Phase</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Model: ARO-3600
Performance: at 77 °F (25 °C), 2000 ppm TDS

<table>
<thead>
<tr>
<th>Recovery</th>
<th>Permeate Rate</th>
<th>Concentrate Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% Recovery</td>
<td>2.50 gpm</td>
<td>2.50 gpm</td>
</tr>
<tr>
<td>75% Recovery</td>
<td>2.50 gpm</td>
<td>0.83 gpm</td>
</tr>
<tr>
<td>Maximum Recovery</td>
<td>2.50 gpm</td>
<td>3.33 gpm</td>
</tr>
</tbody>
</table>

Operating Pressure: 200 to 220 psi (13.8 to 15.0 Bar)
Typical Ionic Rejection: 95 to 98%
Membrane: (2) 4.0" x 40" TLC, FASTEK S4040
Membrane Housing: (2) 304 SS, 3/8" (9.5 mm) ports, End Entry
Array: 1-1 (1 element per housing)
High Pressure Piping: 1/2" Tubing, Nylon (FDA approved)
Pump: TEEL, Multi-Stage Centrifugal
Motor: 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available)
Control Circuit: 115 VAC, Single Phase
Frame: Painted Carbon Steel, 50" H x 30" W x 22" D
Approximate Weight: 185 lbs. (with Free Standing Frame)
Connections: 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate
Instrumentation Features: Permeate Flow Meter, Concentrate Pressure Gauge, Concentrate Flow Meter, Five Micron Prefilter, Flow Control Center, Inlet Shut Off Valve
Option(s):
- Stainless Steel Pump
- Low Inlet Pressure Switch
- Electrical Upgrade Package; incl.
- Autoflush
- Conductivity Meter
- Low Inlet Pressure Switch
Hi Ryan,

You should have 17 pages faxed to you.

Pads on all of Ardie's wells are built and
on Jack Major's.

I will call you shortly.

Thanks
Naomi
Bench mark elevation surveyed to nearest 0.01 ft. = 13 ft. mean sea level.

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

Pump intake depth = 12 ft. (referenced to bench mark)

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

If airline installed, bottom of airline elevation = _____ ft. mean sea level.
13. AS-BUILT SECTION

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

Elevation at top of casing: 15 ft. ma

Hole Diameter: 10 in.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: ____________ ft. ma

Bench mark elevation: 13 ft. ma

(Survey to nearest 0.01 ft.)

Cement Grout: 2 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:

Total Depth: 15 ft.

Water Level Elevation: 5' ft. ma

*ma = mean sea level

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

Length: 15 ft.

Nominal Diameter: ____________ in.

Wall Thickness: ____________ in.

Bottom Elevation: ____________ ft. ma

Open casing:

Length: ____________ ft.

Nominal Diameter: ____________ in.

Wall Thickness: ____________ in.

Bottom Elevation: ____________ ft. ma

Open hole:

Length: ____________ ft.

Diameter: ____________ in.

Bottom Elevation: ____________ ft. ma

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 welds) ☐ ASTM A312 (monel pipes)

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

Thermosetting 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 WWA 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):

☐ 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 welds) ☐ ASTM A312 (monel pipes)

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

Thermosetting 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 WWA C950

☐ PTFE Fluorocarbon Tubing conforming to ASTM D3298

☐ FEP Fluorocarbon Tubing conforming to ASTM D3298
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

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

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

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

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

If airline installed, bottom of airline elevation = ______ ft. mean sea level
Solid Casing Material:
Carbon Steel: compliant with (check one or more): □ ANSI/AWWA C200 □ API Spec. 5L □ ASTM A53 □ ASTM A139
And compliant with (check one or more): □ ASTM A242 □ Type E □ Type S □ Grade B □ Other
Stainless Steel: (check one):
□ ASTM A409 (production wells) □ ASTM 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 D2441): (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 D3817
□ 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 B □ Other
Stainless Steel: (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 D2441): (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 D3817
□ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
□ PTFE Fluorocarbon Tubing conforming to ASTM D3296
□ FEP Fluorocarbon Tubing conforming to ASTM D3296
9. AS-BUILT PUMP SECTION (Please attach as-built if different from diagram provided below)

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

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

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

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

If airline installed, bottom of airline elevation = _ ft. mean sea level
13. AS-BUILT WELL SECTION

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

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): C ANSI/AWWA C200  C API Spec. 5L  C ASTM A53  C ASTM A139
- Stainless Steel: (check one): C ASTM A409 (production wells)  C ASTM A312 (monitor wells)
- ABS Plastic: conforming to ASTM F490 and ASTM D1527: (check one)  C Schedule 40  C Schedule 80
- PVC Plastic: conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):  C Schedule 40  C Schedule 80  C Schedule 120
- Thermoset Plastic: (check one)  C Filament Wound Resin Pipe conforming to ASTM D2996  C Centrifugally Cast Resin Pipe conforming to ASTM D2997  C Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517  C Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950  C PTFE Fluorocarbon Tubing conforming to ASTM D3296  C FEP Fluorocarbon Tubing conforming to ASTM D3288

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): C ANSI/AWWA C200  C API Spec. 5L  C ASTM A53  C ASTM A139
- Stainless Steel: (check one): C ASTM A409 (production wells)  C ASTM A312 (monitor wells)
- ABS Plastic: conforming to ASTM F490 and ASTM D1527: (check one)  C Schedule 40  C Schedule 80
- PVC Plastic: conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):  C Schedule 40  C Schedule 80  C Schedule 120
- Thermoset Plastic: (check one)  C Filament Wound Resin Pipe conforming to ASTM D2996  C Centrifugally Cast Resin Pipe conforming to ASTM D2997  C Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517  C Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950  C PTFE Fluorocarbon Tubing conforming to ASTM D3296  C FEP Fluorocarbon Tubing conforming to ASTM D3288

---

**Solid Casing Data:**
- Elevation at top of casing: 21 ft. msl
- Hole Diameter: 12 in.
- Minimum of 2 radius & 4 thick concrete pad
- Ground Elevation: 20 ft. msl
- Hole Diameter: 12 in.

---

**Open Casing Data:**
- Length: ___________ ft.
- Nominal Diameter: ___________ in.
- Wall Thickness: ___________ in.
- Bottom Elevation: ___________ ft. msl

---

**Open Hole Data:**
- Length: ___________ ft.
- Diameter: ___________ in.
- Bottom Elevation: ___________ ft. msl

---

**Notes:**
- Bench mark elevation: 19 ft. msl
- Water Level Elevation: 5 ft. msl
- Annular space between hole and casing (min.3): 3 in.
- Rock or Gravel Packing: ___________ ft.
- Material: C Crushed Basalt  C Rounded Gravel
- Solid Casing: (≥ 80% x [Ground Elevation - Water Level Elevation])
  - Length: ___________ ft.
  - Nominal Diameter: ___________ in.
  - Wall Thickness: ___________ in.
  - Bottom Elevation: ___________ ft. msl

---

**Cement Grout:**
- (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)
- Total Depth: 21 ft.
- Water Level Elevation: 5 ft. msl

---

**Material:**
- mean sea level

---

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more): C ANSI/AWWA C200  C API Spec. 5L  C ASTM A53  C ASTM A139
- Stainless Steel: (check one): C ASTM A409 (production wells)  C ASTM A312 (monitor wells)
- ABS Plastic: conforming to ASTM F490 and ASTM D1527: (check one)  C Schedule 40  C Schedule 80
- PVC Plastic: conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):  C Schedule 40  C Schedule 80  C Schedule 120
- Thermoset Plastic: (check one)  C Filament Wound Resin Pipe conforming to ASTM D2996  C Centrifugally Cast Resin Pipe conforming to ASTM D2997  C Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517  C Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950  C PTFE Fluorocarbon Tubing conforming to ASTM D3296  C FEP Fluorocarbon Tubing conforming to ASTM D3288

---

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more): C ANSI/AWWA C200  C API Spec. 5L  C ASTM A53  C ASTM A139
- Stainless Steel: (check one): C ASTM A409 (production wells)  C ASTM A312 (monitor wells)
- ABS Plastic: conforming to ASTM F490 and ASTM D1527: (check one)  C Schedule 40  C Schedule 80
- PVC Plastic: conforming to ASTM F490 and (ASTM D1785 or ASTM D2241): (check one):  C Schedule 40  C Schedule 80  C Schedule 120
- Thermoset Plastic: (check one)  C Filament Wound Resin Pipe conforming to ASTM D2996  C Centrifugally Cast Resin Pipe conforming to ASTM D2997  C Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517  C Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950  C PTFE Fluorocarbon Tubing conforming to ASTM D3296  C FEP Fluorocarbon Tubing conforming to ASTM D3288
Bench mark elevation surveyed to nearest 0.01 ft. = _ ft. mean sea level

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

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

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

If airline installed, bottom of airline elevation = _ ft. mean sea level
13. AS-BUILT WELD SECTION

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

Elevation at top of casing: 27 ft. mean
(to nearest 0.01 ft.)

Bench mark elevation: 20 ft. mean
(Survey to nearest 0.01 ft.)

Cement Group: 20 ft.
(min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Total Depth: 27 ft.

Minimum of 2' Radius & 4" Thick Concrete Pad

Ground Elevation: 26 ft. mean

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

Length: 27 ft.
Nominal Diameter: 6 in.
Well Thickness: 18 in.
Bottom Elevation: ____________ ft. mean

Open Casing: ☐ Perforated ☐ Screen

Length: ____________ ft.
Nominal Diameter: ____________ in.
Well Thickness: ____________ in.
Bottom Elevation: ____________ ft. mean

Open Hole:

Length: ____________ ft.
Diameter: ____________ in.
Bottom Elevation: ____________ ft. mean

Water Level Elevation: 6 ft. mean

By mean sea level

Solid Casing Material:

Carbon Steel: compliant with (check one or more): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A138
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 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): ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☐ ASTM A53 ☐ ASTM A138
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 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

HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

Please refer to the above standards to ensure that your as-built is in compliance with applicable standards.
State of Hawai'i
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 821, Honolulu, Hawai'i 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 808-692-2285. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwm/.

1. State Well No.: 2979-05
   Well Name: Vacationland #4
   Island:

2. Address: Corner of Kaumilani & Halili
   Tax Map Key:

3. Drilling Company: Turner Drilling & Pump

4. If drilled, type of Rig: 
   ☐ Rotary  ☐ Percussion

5. Date Well Construction (drilled, cased, grouted) completed:
   12-22-00
   Attach Driller's Log (7/2000 DL Form)
   In addition to the driller's log, if a geologic log was prepared, please submit with this form.

6. Initial water-level encountered: 20 ft. below ground
   Date and time of measurement:

7. Step-Drawdown Test completed?
   ☐ No  ☐ Yes
   Attach Step-Drawdown Test form (12/17/87 SDPTD Form)

8. Constant Rate Aquifer Test completed?
   ☐ No  ☐ Yes
   Attach Constant Rate Aquifer Test form (12/17/87 CRPTD Form)

Parameters prior to pump test:

9. Water-level: 20 ft. above msl
   Date and time of measurement:

10. Chloride: 250 ppm
    Date and time of sampling:

11. Temperature: 70 °F
    Date and time of measurement:

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

13. Attach plot plan and surveyor's stamped elevation report.

14. 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.)

15. Remarks: N/A  Pad is completed

Licensed Driller (print)  Frank Turner  C-57 Lic. No. 82597
Signature

Surveyor (print)  [Signature]
L.P.L.S. Lic. No.

Permittee (print)  [Signature]

For Official Use Only:

WCR1 Form 5200

APR-06-2001 03:16 PM  TURNER DRILLING & PUMP  530 257 8250
## 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 Hawai'i Well Construction and Pump Installation Standards or call the Regulation Branch at 808-586-0913. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dln/wrm/

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Well No.:</td>
<td>2979-05</td>
</tr>
<tr>
<td>2. Well Name:</td>
<td>Vacation Lane #4</td>
</tr>
<tr>
<td>3. Island:</td>
<td>HI</td>
</tr>
<tr>
<td>4. Address:</td>
<td>Corner of Lavin Lin + Hālili</td>
</tr>
<tr>
<td>5. Tax Map Key:</td>
<td>1-4-70-29</td>
</tr>
<tr>
<td>7. Date Pump Installed:</td>
<td>12-22-00</td>
</tr>
<tr>
<td>8. PERMANENT PUMP INFORMATION</td>
<td></td>
</tr>
<tr>
<td>Pump Type, Make, Serial No.:</td>
<td>Sub. Myers 12007-23</td>
</tr>
<tr>
<td>Rated Capacity:</td>
<td>18 gpm</td>
</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm:</td>
<td>Franklin 3/4 HP 230V 3450</td>
</tr>
<tr>
<td>Type of flow meter:</td>
<td>Darmession which measures in GPH</td>
</tr>
<tr>
<td>9. Method of flow measurement:</td>
<td></td>
</tr>
<tr>
<td>☐ Flowmeter Manufacturer Same Make Size</td>
<td></td>
</tr>
<tr>
<td>☐ Well* ☐ Open Pipe* ☐ Orifice* ☐ Other*, explain below</td>
<td></td>
</tr>
<tr>
<td>*attach schematic</td>
<td></td>
</tr>
<tr>
<td>10. Fill in the as-built section on the other side of this sheet.</td>
<td></td>
</tr>
<tr>
<td>11. Other remarks/comments:</td>
<td>N/A Pad is completed</td>
</tr>
<tr>
<td>Pump Installation Contractor (print):</td>
<td>Frank Turner</td>
</tr>
<tr>
<td>C-57/C-57A/L Lic. No.</td>
<td>22597</td>
</tr>
<tr>
<td>Signature</td>
<td>Frank Turner</td>
</tr>
<tr>
<td>Date</td>
<td>4-6-01</td>
</tr>
<tr>
<td>Permittee (print):</td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

WCR2 Form 5/2000
# 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 821, Honolulu, Hawaii 96819. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please contact the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 808-586-2220. For updates to this form or additional information, please visit our website at [http://www.state.hi.us/dlnr/cwm/](http://www.state.hi.us/dlnr/cwm/).

### 1. State Well No.: 2929-04 Well Name: Vandamland #3 Island: HI

### 2. Address: Mail St, Pahoa, HI Tax Map Key: 1-4-70-15

### 3. Drilling Company: Turner Drilling + Pump

### 4. If drilled, type of Rig: 
- [ ] Rotary 
- [ ] Percussion

### 5. Date Well Construction (drilled, cased, grouted) completed: **12-21-00** Attach Driller's Log (7/20/99 DL Form)

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

### 6. Initial water-level encountered **15** ft. below ground Date and time of measurement: **12-21-00**

### 7. Step-Drawdown Test completed? 
- [ ] No 
- [ ] Yes Attach Step-Drawdown Test form (12/17/97 SDPTD Form)

### 8. Constant Rate Aquifer Test completed? 
- [ ] Yes Attach Constant Rate Aquifer Test form (12/17/97 CRPTD Form)

### 9. Parameters prior to pump test:
- Water-level: **15** ft. above msl Date and time of measurement: **12-21-00**
- Chloride: **250** ppm Date and time of sampling: **12-21-00**
- Temperature: **70** °F Date and time of measurement: **12-21-00**

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

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

### 14. 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.)

### 15. Remarks: **N/A Pad is completed**

---

**Licensed Driller (print):** Frank Turner  
C-57 Lic. No. **28597**

**Signature**

**Date:** 4-6-01

**Surveyor (print):** L.P.I.S. Lic. No.

**Signature**

**Date**

**Permittee (print):**

**Signature**

**Date**

---

APR-06-2001 03:17 PM TURNER DRILLING & PUMP 530 257 6250

P.03
## 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 96802. 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 808-586-0925. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cmrm/

<table>
<thead>
<tr>
<th>1. State Well No.:</th>
<th>2979-04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Name:</td>
<td>Vaca...</td>
</tr>
<tr>
<td>Island:</td>
<td>HI</td>
</tr>
<tr>
<td>2. Address:</td>
<td>Mail...</td>
</tr>
<tr>
<td>Tax Map Key:</td>
<td>1-4-70-15</td>
</tr>
<tr>
<td>3. Pump Installation Company:</td>
<td>Turner Dri...</td>
</tr>
<tr>
<td>4. Date Pump Installed:</td>
<td>12-31-00</td>
</tr>
<tr>
<td>5. PERMANENT PUMP INFORMATION</td>
<td></td>
</tr>
<tr>
<td>Pump Type, Make, Serial No.:</td>
<td>Sub Hays #12025-23</td>
</tr>
<tr>
<td>Rated Capacity:</td>
<td>12 gpm</td>
</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm:</td>
<td>Fram...</td>
</tr>
<tr>
<td>Type of flow meter:</td>
<td>Parc...</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Method of flow measurement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Flowmeter  Manufacturer Same Make Size</td>
</tr>
<tr>
<td>□ Weir* □ Open Pipe* □ Orifice* □ Other*, explain below</td>
</tr>
</tbody>
</table>

*attach schematic

6. Method of flow measurement:

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

8. Other remarks/comments:

   **01/19 Pad is completed**

---

**Pump Installation Contractor (print):** Frank Turner C-57/C-57A Lic. No. 22587

**Signature:** 

**Date:** 4-6-01

**Permittee (print):** 

**Signature:** 

**Date:**

---

WCR2 Form 8/9/00
<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Well No.</td>
<td>2079-03</td>
</tr>
<tr>
<td>Well Name</td>
<td>Vacant Island #2</td>
</tr>
<tr>
<td>Island</td>
<td>HT</td>
</tr>
<tr>
<td>Address</td>
<td>Hanapepe, HI</td>
</tr>
<tr>
<td>Tax Map Key</td>
<td>1-4-70-27</td>
</tr>
<tr>
<td>Drilling Company</td>
<td>Turner Drilling &amp; Pump</td>
</tr>
<tr>
<td>Type of Rig</td>
<td>Rotary</td>
</tr>
<tr>
<td>Date Well Construction (drilled, cased, grouted) completed</td>
<td>12-22-00</td>
</tr>
<tr>
<td>Initial water-level encountered</td>
<td>10 ft below ground</td>
</tr>
<tr>
<td>Date and time of measurement</td>
<td>12-22-00</td>
</tr>
<tr>
<td>Step-Drawdown Test completed?</td>
<td>No</td>
</tr>
<tr>
<td>Constant Rate Aquifer Test completed?</td>
<td>No</td>
</tr>
<tr>
<td>Water-level</td>
<td>10 ft above msl</td>
</tr>
<tr>
<td>Date and time of measurement</td>
<td>12-22-00</td>
</tr>
<tr>
<td>Chloride</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Date and time of sampling</td>
<td>12-22-00</td>
</tr>
<tr>
<td>Temperature</td>
<td>70°F</td>
</tr>
<tr>
<td>Date and time of measurement</td>
<td>12-22-00</td>
</tr>
<tr>
<td>Remarks</td>
<td>N/A Pad is completed</td>
</tr>
</tbody>
</table>

**Licensed Driller (print)**

Frank Turner  
C-57 Lic. No. 32597  
Date 4-6-01

**Surveyor (print)**

Signature  
L.P.L.S. Lic. No.  
Date

**Permittee (print)**

Signature  
Date
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Well No.</td>
<td>2979-03</td>
</tr>
<tr>
<td>Well Name</td>
<td>Vacation Land #2</td>
</tr>
<tr>
<td>Island</td>
<td>HT</td>
</tr>
<tr>
<td>Address</td>
<td>Laun De Parking, HT</td>
</tr>
<tr>
<td>Tax Map Key</td>
<td>1-4-70-37</td>
</tr>
<tr>
<td>Pump Installation Company</td>
<td>Turner Drilling &amp; Pump</td>
</tr>
<tr>
<td>Date Pump Installed</td>
<td>12-31-00</td>
</tr>
<tr>
<td>PERMANENT PUMP INFORMATION</td>
<td></td>
</tr>
<tr>
<td>Pump Type, Make, Serial No.</td>
<td>Submersible #/250-23</td>
</tr>
<tr>
<td>Rated Capacity</td>
<td>12 gpm</td>
</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm</td>
<td>Franklin 1/2 HP 230 V 3450</td>
</tr>
<tr>
<td>Type of flow meter</td>
<td>Precision which measures in 6 gpm</td>
</tr>
<tr>
<td>Method of flow measurement</td>
<td></td>
</tr>
<tr>
<td>□ Flowmeter</td>
<td>Manuafacter: Same Make Size</td>
</tr>
<tr>
<td>□ Weir                     □ Open Pipe  □ Orifice  □ Other, explain below</td>
<td></td>
</tr>
<tr>
<td>*attach schematic</td>
<td></td>
</tr>
<tr>
<td>Fill in the as-built section on the other side of this sheet</td>
<td></td>
</tr>
<tr>
<td>Other remarks/comments</td>
<td>W/A Pad is completed</td>
</tr>
<tr>
<td>Pump Installation Contractor (print)</td>
<td>Frank Turner C-57/C-57A/A Lic No. 32592</td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Permitee (print)</td>
<td></td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
</tbody>
</table>

WCR2 Form 9/00
## WELL COMPLETION REPORT - PART I

### Construction

1. **State Well No.:** 2979-02  
2. **Well Name:** Lualualei Land #1  
3. **Island:** HI  
4. **Address:** Kahauka Rd, Pahoa, HT  
5. **Drilling Company:** Turner Drilling & Pump  
6. **If drilled, type of Rig:**  
   - (x) Rotary  
   - ( ) Percussion  
7. **Date Well Construction (drilled, cased, grouted) completed:** 18-20-00  
   - Attach Driller's Log (7/30/99 DL Form)  
8. **Initial water-level encountered:** 15 ft. below ground  
   - Date and time of measurement: 18-20-00  
9. **Step-Drawdown Test completed?**  
   - ( ) No  
   - (x) Yes  
   - Attach Step-Drawdown Test form (12/17/87 SDPTD Form)  
10. **Constant Rate Aquifer Test completed?**  
    - ( ) No  
    - (x) Yes  
    - Attach Constant Rate Aquifer Test form (12/17/87 CRPTD Form)  
11. **Parameters prior to pump test:**  
12. **Fill in the as-built section on the other side of this sheet.**  
13. **Attach plot plan and surveyor's stamped elevation report.**  
14. **If a pump is not planned to be installed, please describe (below in the remarks section) how well is it secured to prevent unauthorized access (example: lockable cover, threaded coupling, etc.)**  
15. **Remarks:** Pad is completed  

---

### Driller Information

- **Licensed Driller (print):** Frank Turner  
- **C-57 Lic. No.:** 22597  
- **Signature:**  
- **Date:** 4-6-01  

### Surveyor Information

- **Surveyor (print):**  
- **L.P.L.S. Lic. No.:**  
- **Signature:**  
- **Date:**  

---

**MCR1 Form 5/2000**
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 96802. 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 808-587-4226. For updates to this form or additional information, please visit our website at http://www.state.hi.us/dlnr/cwrm/

<table>
<thead>
<tr>
<th>1. State Well No.:</th>
<th><strong>9779-02</strong></th>
<th>Well Name:</th>
<th>Vacation Land #1</th>
<th>Island:</th>
<th>HI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Address:</td>
<td>Mahalo Rd./Ahuina Rd.</td>
<td>Tax Map Key:</td>
<td>1-4-67-39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Date Pump Installed:</td>
<td><strong>12-30-00</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. PERMANENT PUMP INFORMATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump Type, Make, Serial No.:</td>
<td>Sub. Haus 12075-23</td>
<td>Rated Capacity:</td>
<td>10 gpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Type, H.P., Voltage, rpm:</td>
<td>Franklin 3/4 HP 230 V 3450</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of flow meter:</td>
<td>Permanente which measures in 60 gpm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Method of flow measurement:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Flowmeter Manufacturer Same Make Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Weir □ Open Pipe □ Orifice □ Other*, explain below</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*attach schematic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Fill in the as-built section on the other side of this sheet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Other remarks/comments:</td>
<td>N/A Pad is completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pump Installation Contractor (print) | **Frank Turner** | C-57/C-57a/A Lic. No. | **32577** |
Signature | **Frank Turner** | Date | **4-6-01** |
Permittee (print) | | Signature | |
Permittee (print) | | Date | |
GROUP 2  WAIAHOLE

JOB No.  583

<table>
<thead>
<tr>
<th>No.</th>
<th>NAME</th>
<th>TELEPHONE NUMBER</th>
<th>ENTRY</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>OSHIMA/IZU-WIC</td>
<td>95318466</td>
<td>SD19</td>
<td>OK</td>
</tr>
<tr>
<td>02</td>
<td>ACHITOFF/HONG</td>
<td>95216041</td>
<td>SD05</td>
<td>OK</td>
</tr>
<tr>
<td>03</td>
<td>BUTSON/MAKAKILO</td>
<td>95318628</td>
<td>SD06</td>
<td>OK</td>
</tr>
<tr>
<td>04</td>
<td>KAEO/DHHI</td>
<td>72938</td>
<td>SD12</td>
<td>NG</td>
</tr>
<tr>
<td>05</td>
<td>CALLIES/LURF</td>
<td>95360132</td>
<td>SD07</td>
<td>OK</td>
</tr>
<tr>
<td>06</td>
<td>GINO GABRIOL</td>
<td>95405029</td>
<td>SD45</td>
<td>OK</td>
</tr>
<tr>
<td>07</td>
<td>YAMASHIRO/CITY</td>
<td>95234583</td>
<td>SD24</td>
<td>OK</td>
</tr>
<tr>
<td>08</td>
<td>KIPPEI</td>
<td>95941865</td>
<td>SD46</td>
<td>OK</td>
</tr>
<tr>
<td>09</td>
<td>KUDO/TSUJIMURA</td>
<td>95281419</td>
<td>SD13</td>
<td>OK</td>
</tr>
<tr>
<td>10</td>
<td>MAU/ROBINSON</td>
<td>95210497</td>
<td>SD15</td>
<td>NG</td>
</tr>
<tr>
<td>11</td>
<td>MURAKAMI</td>
<td>95374268</td>
<td>SD17</td>
<td>NG</td>
</tr>
<tr>
<td>12</td>
<td>PAUL/1000</td>
<td>95281654</td>
<td>SD20</td>
<td>OK</td>
</tr>
<tr>
<td>13</td>
<td>EMERSON</td>
<td>61205</td>
<td>SD48</td>
<td>OK</td>
</tr>
<tr>
<td>14</td>
<td>SLOVIN/DOLE</td>
<td>95475880</td>
<td>SD21</td>
<td>OK</td>
</tr>
<tr>
<td>15</td>
<td>SULLIVAN(PAUL)</td>
<td>94710611</td>
<td>SD23</td>
<td>OK</td>
</tr>
<tr>
<td>16</td>
<td>YAMAMURA</td>
<td>95230842</td>
<td>SD18</td>
<td>OK</td>
</tr>
<tr>
<td>17</td>
<td>CONNET/NAVY</td>
<td>94744090</td>
<td>SD25</td>
<td>OK</td>
</tr>
</tbody>
</table>
April 6, 2001

Ms. Naomi Turner
Turner Drilling and Pump
472-205 Johnstonville Road
Susanville, CA 96130

Via certified mail

Dear Ms. Turner:

After-the-fact Well Construction / Pump Installation Permit application for Well Nos. 2979-02 through -05

This is to reiterate the deficiencies that we indicated to you at our meeting on March 22, 2001, for the Vacationland #1 through #4 wells (State Well Numbers 2979-02 through 2979-05). The deficiencies are as follows:

1. No Well Completion Reports Parts I & II were submitted.
2. The annular space for the Vacationland #2 well (well no. 2979-03) is 2".
3. There are no concrete pads on any of the wells.
4. There are no flowmeters installed on any of the wells.
5. There are no elevation surveys for any of the wells.

If you resolve these issues within 30 days of the date that we first notified you of the deficiencies, your fine for these violations may be significantly decreased. Since we notified you of these deficiencies on March 22, 2001, your 30 day deadline to comply is April 21, 2001.

You will also need to let us know at least one week in advance of when these will be corrected, so we can have a representative from our office present during construction.

The list above does not necessarily indicate the only violations committed. They are the violations that we are currently aware of.

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,

[Signature]
LINNEL T. NISHIOKA
Deputy Director
April 6, 2001

Ms. Ardith Harms
14-4196 Kapoho-Pahoa
Pahoa, HI 96778

Via certified mail

Dear Ms. Harms:

After-the-fact Well Construction / Pump Installation Permit application for Well Nos. 2979-02 through -05

This is to reiterate the deficiencies that we indicated to you at our meeting on March 22, 2001, for the Vacationland #1 through #4 wells (State Well Numbers 2979-02 through 2979-05). The deficiencies are as follows:

1. No Well Completion Reports Parts I & II were submitted.
2. The annular space for the Vacationland #2 well (well no. 2979-03) is 2".
3. There are no concrete pads on any of the wells.
4. There are no flowmeters installed on any of the wells.
5. There are no elevation surveys for any of the wells.

If you resolve these issues within 30 days of the date that we first notified you of the deficiencies, your fine for these violations may be significantly decreased. Since we notified you of these deficiencies on March 22, 2001, your 30 day deadline to comply is April 21, 2001.

You will also need to let us know at least one week in advance of when these will be corrected, so we can have a representative from our office present during construction.

The list above does not necessarily indicate the only violations committed. They are the violations that we are currently aware of.

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,

[LINNEL T. NISHIOKA]
Deputy Director

Ri:ky
FACSIMILE TRANSMITTAL

To: Naomi Turner  
Company: Turner Drilling  
Fax Number: 530-257-6250  

From: Ryan Imata  
Date: March 27, 2001  
Pages Including Header: 9  

Subject: Ardith Harms Wells

Notes/Comments:

Naomi -
Please fill in the following:

1) All of the information on the applications that you didn't fill in (I circled them in bold pen, attached)
2) Completely fill out the Well Completion Reports Parts I and II for each well.
3) Please also send in a property tax map showing the wells as requested in item 2 on the applications.
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.: ________ Well Name: __________________________ Island: ________
2. Address: _________________________________________________ Tax Map Key: ____________________
3. Drilling Company: __________________________________________
4. Drilling method used during construction: ☐ Rotary ☐ Percussion ☐ Other (describe)
5. Date Well Construction (drilled, cased, grouted) completed: ________/_______/_______ 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 _______ ft. below ground Date and time of measurement: _______/_______/_______ _______/_______/_______
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: ________________ ft. above msl Date and time of measurement: _______/_______/_______ _______/_______/_______
11. Chloride: ________________ ppm Date and time of sampling: _______/_______/_______ _______/_______/_______
12. Temperature: ________________ °F Date and time of measurement: _______/_______/_______ _______/_______/_______

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) __________________________________________ C-57 Lic. No. __________
Signature __________________________________________________________ Date __________

Surveyor (print) ________________________________________________ L.P.L.S. Lic. No. __________
please attach stamped report
Signature __________________________________________________________ Date __________

Permittee (print) _________________________________________________
Signature __________________________________________________________ Date __________
Solid Casing Material:
Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242
- Type E
- Type S
- Grade B
- Other
Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM 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 B
- Other
Stainless Steel: (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 D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296
WELL COMPLETION REPORT - PART II
Pump Installation

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

1. State Well No.: ____________ Well Name: __________________ Island: ____________
2. Address: ____________________________ Tax Map Key: __________________
3. Pump Installation Company: ____________________________
4. Date Pump Installed: ________________ month/day/year
5. PERMANENT PUMP INFORMATION
   Pump Type, Make, Serial No.: ____________________________ Rated Capacity: __________ gpm
   Motor Type, H.P., Voltage, rpm: ____________________________
   Type of flow meter: ____________________________ which measures in ____________________________
6. Method of flow measurement:
   □ Flowmeter       Manufacturer __________ Make __________ Size __________
   □ Weir* □ Open Pipe* □ Orifice* □ Other*, explain below
   *attach schematic
7. Fill in the as-built section on the other side of this sheet.
8. Other remarks/comments:
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

Pump Installation Contractor (print) ____________________________ C-57/C-57a/A Lic. No. __________
Signature ____________________________ Date ________________

Permittee (print) ____________________________
Signature ____________________________ Date ________________
9. AS-BUILT PUMP SECTION

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

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

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

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

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

If airline installed, bottom of airline elevation = _____ ft. mean sea level
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

Well Construction 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 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 808-643-4500. For further information and updates to this application form, visit http://www.state.hi.us/dlnr/wrm.

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

1. (a) WELL OWNER: Arthur B. Haeons Contact Person: Same Phone: 966-8725
   Mailing Address: 14-4178 Kaho'ono Pahoa, HI 96778
   Fax: ____________________________
   E-mail: ____________________________
   (b) LAND OWNER: Same Contact Person: Same Phone: ____________________________
   Mailing Address: ____________________________
   Fax: ____________________________
   E-mail: ____________________________
   (c) CONTRACTOR: Turner Drilling Contact Person: Same Phone: 530-257-626
   Mailing Address: 18-288 Kahonaue Rd. Pahoa, HI 96778
   Fax: ____________________________
   E-mail: ____________________________

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

2. WELL LOCATION NAME: Vacation Land (2) (14') Island: HI
   Address: Kaho'ono Rd. Pahoa, HI 96778
   Tax Map Key: 1-6-32-29
   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: (Check all that apply)
   (a) Drill New Well (b) Install New Pump (c) Modify Existing Well (d) Modify Pump
   (e) Deep Well Turbine (f) Replace Pump (g) Submersible (h) Drilled
   (i) Centrifugal (j) Radial
   * Well No.: ____________________________ Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION: ☐ Dug ☐ Bored ☐ Driven ☐ Drilled
   Is this a pump a part of a battery of wells? ☐ Yes ☐ No (Please describe.)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 3/4 HP 12 gpm gallons per minute
   Pump Type (Check one):
   ☐ Deep Well Turbine ☐ Centrifugal
   ☐ Proponent ☐ Impulse
   Powered by:
   ☐ Rotary-Displacement ☐ Gas
   ☐ Electric, rated horsepower: 3/4 HP
   ☐ Reciprocating
   ☐ Diesel
   ☐ Impulse
   ☐ Other (explain): ____________________________

6. PROPOSED USE: (Check all that apply)
   ☐ Domestic (individual, non-commercial water system) ☐ Irrigation (crop)
   ☐ Municipal (including hotels, stores, etc.) ☐ Military
   ☐ Other (explain): ____________________________
   No. of Dwelling Units:______________________
   No. of Families:__________________________
  或其他 (explain): ____________________________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 200 gallons per day
   (b) METHOD OF FLOW MEASUREMENT: ☐ Flowmeter ☐ Open-pipe ☐ Wier ☐ Orifice ☐ Other (explain)

OTHER IMPORTANT INFORMATION:

8. PENDING ACTIONS: ☐ COMA ☐ SMA ☐ EIS ☐ EA ☐ NONE ☐ Other (explain)

9. REMARKS, EXPLANATIONS:

   ____________________________________________________

   ____________________________________________________

   ____________________________________________________

   ____________________________________________________

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

Well Owner: Arthur B. Haeons
Landowner: Arthur B. Haeons
Contractor: Turner Drilling

Signature: ____________________________ Date: 2-5-01

State Well No.: 2079-02
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT
☐ We Construction or ☐ Pump Installation

Instructions: Please print in this form. Please type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 221, Honolulu, Hawaii 96826. Application must be accompanied by 3 copies and a non-refundable filing fee of $50.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For further information and up-to-date information visit http://www.state.hi.us/cowrm.

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)
1. (a) WELL OWNER:
   Name:  Health, B. Morris
   Contact Person: Same
   Phone: 965-9935
   Mailing Address: 14-407 Kupopo, Pahoa, HI 96778
   Fax:
   E-mail:

   (b) LAND OWNER:
       Name: Same
       Contact Person:
       Phone:
       Mailing Address:
       Fax:
       E-mail:

   (c) CONTRACTOR:
       Name: Twana Dayley
       Contact Person: Naomi
       Phone: 530-857-6950
       Mailing Address:
       Fax:
       E-mail:
       Lic #: 22,577

WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form.)
2. WELL LOCATION:
   Well No.: 17-1-10-10 (30)
   Island: HI
   Address: Mauna Dr., Pahoa, HI 96778
   Tax Map Key: F-2-20-22

   Attach the relevant portion of a 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:
   (Check all that apply)
   ☐ Drill New Well
   ☐ Deepen
   ☐ Install New Pump
   ☐ Modify Existing Well
   ☐ Redrill
   ☐ Modify Pump
   ☐ Abandon/Seal
   ☐ Replace Pump

   Well No.: Be sure to complete and submit well abandonment report upon completion of work.

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

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 3/4 HP @ 125 rpm gallons per minute
   Pump Type (Check one):
   ☐ Deep Well Turbine
   ☐ Submersible
   ☐ Centrifugal
   ☐ Rotary
   ☐ Rotary-Displacement
   ☐ Reciprocating
   ☐ Propeller
   ☐ Impulse
   ☐ Diesel
   ☐ Gas
   ☐ Electric, rated horsepower:
   ☐ Industrial
   ☐ No. of Dwelling Units:
   ☐ No. of Acres:
   ☐ Other (explain):

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

7. PROPOSED AMOUNT OF WITHDRAWAL:
   (b) METHOD OF FLOW MEASUREMENT:
   ☐ Flowmeter
   ☐ Open-pipe
   ☐ Well
   ☐ Orifice
   ☐ Other (explain):

8. OTHER IMPORTANT INFORMATION:

9. REMARKS, EXPLANATIONS:

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 proposed work, 3) monthly water use data shall be submitted to the Commission, 4) such approval shall not constitute a determination of conveyance of water rights and shall not guarantee the pump capacity or future use up to the approved pump capacity.
APPLICATION FOR PERMIT

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

APPLICATION FOR PERMIT
☐ Well Construction or  ☐ Pump Installation

Instructions: Please print in ink or type and send completed application with attachment to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96803. Application must be accompanied by 3 copies and a non-refundable filing fee of $25.00 payable to the State of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 587-0225.

For further information and updates to this application form, visit http://www.state.hawaii.gov/wr.

APPLICANT INFORMATION:

1. (a) WELL OWNER: Audith B. Harms  Contact Person: Same  Phone: 765-8988
   Mailing Address: 14-4126 Kapoho-Pahoa Rd, Pahoa, HI 96778
   Fax: 
   E-mail: 

2. LAND OWNER: Same
   Contact Person: 
   Phone: 
   Address: 
   Mailing Address: 
   Fax: 
   E-mail: 

3. CONTRACTOR: Turner Drilling  Contact Person: Nanu  Phone: 530-257-6250
   Mailing Address: 
   Fax: 
   E-mail: 

WELL & PUMP INFORMATION:

(Please fill in the diagram on the back of this form.)

2. WELL LOCATION/NAME: Vacation Leal (53) (30)  Island: HI
   Address: Mau-le St, Pahoa, HI 96778
   Tax Map Key: 1T-20-16

3. PROPOSED WORK:
   (Check all that apply)
   - Drill New Well
   - Deepen
   - Install New Pump
   - Modify Existing Well
   - Redrill
   - Modify Pump
   - Abandon/Seal
   - Replace Pump

   *Well No: Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:
   - Dug
   - Bored
   - Driven
   - Radial

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 
   Pump Type (Check one):
   - Deep Well Turbine
   - Submersible
   - Centrifugal
   - Rotary
   - Rotary-Displacement
   - Rotary-Gear
   - Impulse

   - Propeller
   - Reciprocating
   - Impulse
   - Gas
   - Diesel
   - Electric, rated horsepower:

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

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 300 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   - Flowmeter
   - Open-pipe
   - Weir
   - Orifice
   - Other (explain):

8. OTHER IMPORTANT INFORMATION:
   - Pending Actions:
   - CDUA
   - SMA
   - EIS
   - EA
   - NONE
   - Other (explain):

9. REMARKS, EXPLANATIONS:

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

I understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 30 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of cumulative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: Audith Harms
Landowner: Audith Harms
Contractor: Turner Drilling

Signature: Audith Harms
Signature: Audith Harms
Signature: Turner Drilling

Date: 2-5-01
Date: 2-5-01
Date: 2-5-01

Field Checked By __________________________
Longitude __________________________
Aquifer System Name: __________________________
Date: __________________________
Latitude: __________________________
State Well No: __________________________

WCPIFORM (3/1/00)
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

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

I. (a) WELL OWNER: Audeth B. Harms
    Contact Person: Same
    Phone: 965-8765
    Mailing Address: 17-4363 Keapoha-Paho Rd, Pahoa, HT 96784
    Fax: __________________________
    E-mail: __________________________

II. LAND OWNER: Same
    Contact Person: Phone: __________________________
    Mailing Address: __________________________
    Fax: __________________________
    E-mail: __________________________

III. CONTRACTOR: Turmer Drilling
    Contact Person: Phone: __________________________
    Mailing Address: __________________________
    Fax: __________________________
    E-mail: __________________________

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

2. WELL LOCATION NAME: Vacation Land (4) (9G)
   Island: HT
   Address: Corner of Lihu & Holi
   Tax Map Key: 1-74-70-28
   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: (Check all that apply)
   - Drill New Well
   - Deepen
   - Install New Pump
   - Modify Existing Well
   - Redrill
   - Modify Pump
   - Abandon/Seal
   - Replace Pump
   - *Well No.: __________________________
   - Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION: __________ Dug __________ Bored __________ Driven __________ Drilled __________ Radial
   - Is this well part of a battery of wells? __________ Yes __________ No
   - (Please describe.)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: __________________________ gallons per minute
   - Pump Type (Check one):
     - Deep Well Turbine
     - Submersible
     - Centrifugal
   - Powered by:
     - Rotary
     - Rotary-Displacement
     - Reciprocating
     - Impulse
   - Electric, rated horsepower: __________________________

6. PROPOSED USE: (Check all that apply)
   - Municipal (including hotels, stores, etc.)
   - Industrial
   - Domestic (individual, non-commercial water system)
   - Irrigation (crop)
   - Military
   - No. of Dwelling Units: __________________________
   - No. of Acres: __________________________
   - Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: __________________________ 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:

______________________________________________________________
______________________________________________________________

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 constitute a determination of cumulative water rights and shall not guarantee the pump capacity or future use up to the permitted pump capacity.

Well Owner: __________________________
Signature: __________________________
Date: __________________________

Landowner: __________________________
Signature: __________________________
Date: __________________________

Contractor: __________________________
Signature: __________________________
Date: __________________________

Field Checked By: __________________________
Longitude: __________________________
Latitude: __________________________
Aquifer System Name: __________________________
State Well No: __________________________

WCPFORM (3/1/00)
### Chloride Titration Record

**For**

**Alcyth Harms #2**

**Island**

**Hawaii**

**Project or Job No.**

**N. Ouse**

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Date Taken</th>
<th>Sample (ml)</th>
<th>Burette Rdg Before</th>
<th>AgNO₃ (ml)</th>
<th>AgNO₃ Factor</th>
<th>Chlorides (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>March 22, 1961</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>neat treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1100</td>
<td>10</td>
<td>17.90</td>
<td>22.90</td>
<td>6.0</td>
<td>300</td>
</tr>
<tr>
<td>post treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1105</td>
<td>10</td>
<td>4.50</td>
<td>7.40</td>
<td>2.90</td>
<td>50</td>
</tr>
</tbody>
</table>

**Notes:**
- Sol. 1 ml = 5.0 ml Cl (Strong)
- Sol. 1 ml = 0.5 ml Cl (Weak)
Hi Ryan - I am sending paperwork. The well completion report will follow this work. Please call to verify you received paperwork. Also I need Well # for each. What has Randall decided on Young Soo Kim? What about Jack May be his permit done yet? Please call ASAP.

Thanks,
Naomi

530-257-6250
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

APPLICANT INFORMATION: (Fill out all boxes, if applicable, and place a check mark in the primary contact)

1. (a) WELL OWNER: Audith B. Hoens
   Contact Person: Same
   Phone: 296-9735
   Fax:
   Address: 44-936 Kapaka-Pahoa, Pahoa, HI 96778

2. (b) LAND OWNER: Same
   Contact Person: Same
   Phone:

3. (c) CONTRACTOR: Turner Drilling
   Contact Person: Same
   Phone: 570-236-2650
   Fax:
   License #: R-557
   (Check one: C/H, C/C)

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

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

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 3/4 HP 13 gpm
   gallons per minute
   Powered by: [ ] Gas
   [ ] Electric, rated horsepower:

6. PROPOSED USE:
   Municipal (including hotels, stores, etc.)
   [ ] Indirect
   [ ] Domestic (individual, noncommercial water system)
   [ ] Irrigation (crop)
   [ ] Military

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 200 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   [ ] Flowmeter
   [ ] Open pipe
   [ ] Weir
   [ ] Office
   [ ] Other (explain):

8. OTHER IMPORTANT INFORMATION:
   Pending actions:
   [ ] Under
   [ ] Other (explain):

9. REMARKS, EXPLANATIONS:

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 completion data shall be submitted to the Commission; 3) the completed well shall be listed as a Commission well; 4) the well shall be used for the purpose for which it was approved.

Well Owner
Signature Date 2/1/10

Landowner
Signature Date 2/1/10

Contractor
Signature Date

WQP/CRF (1/09)
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

[Form Instructions]

1. (a) WELL OWNER: Audith B. Haans
   Contact Person: Same
   Mailing Address: 11-774 Kepeho Pl, Hilo, HI 96722
   Phone: 965-2965

2. WELL LOCATION NAME: Vacation Land (#3) (Ac)
   Address: Halemau 54, Hilo, HI 96722
   Island: Hi
   Tax Map No: 1-10-15

3. PROPOSED WORK:
   (Check all that apply)
   - Drill New Well
   - Deepen
   - Install New Pump
   - Modify Existing Well
   - Redevelop
   - Modify Pump
   - Abandon/Seal
   - Reuse Pump

   *Well No:______________
   *Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:
   - Dig
   - Bored
   - Driven
   - Produced
   - Radiial

5. PROPOSED PUMP INFORMATION:
   - Rated Pump Capacity: 11/2 HP; 12 gallons per minute
   - Pump Type: Deep Well Turbine
   - Rotary
   - Submersible
   - Condenser
   - Rotary-Drive

   Powered by:
   - Diesel
   - Gas
   - Electric, rated horsepower: 11/2 HP

6. PROPOSED USE:
   (Check if applicable)
   - Municipal (including hotels, stores, etc.)
   - Industrial
   - Domestic (individual, noncommercial water system)
   - Irrigation (crop)
   - Military
   - Other (specify): ______________________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 300 gallons per day
   - Method of Flow Measurement: \[\text{Gallons per day}\]
   - Open Pipe
   - Well
   - Office
   - Other (specify)

8. OTHER IMPORTANT INFORMATION:
   - Pending Actions: SPA
   - SMA
   - RIS
   - EA
   - None
   - Other (specify): ______________________

9. REMARKS, EXPLANATIONS:

   [additional remarks]

[Signature and Date]

Well Owner: Audith Haans
Contractor: Turner Drilling

[Field Checked By]

[Information on the bottom]

[APR-02-2001 01:40 PM TUNDR DRILLING & PUMP 530.257.9569]
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT
A Well Construction or A Pump Installation

Instructions: Please print in ink or type and send completed application with all information to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96823. Application must be accompanied by $50.00 and a non-refundable filing fee of $50.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For more information and updates to this application form, visit http://www.hawaii.gov/zw/. For further information, call the Water Branch at 808-681-6025.

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

1. WELL OWNER:
   Name: Jodi B. Harris
   Address: Kakaako Rd/Pahoa, HI 96778
   Phone: 965-8745
   Fax: 965-8745

2. LAND OWNER:
   Name: Jodi B. Harris
   Address: Kakaako Rd/Pahoa, HI 96778
   Contact Person: Phone: 965-8745
   Fax: 965-8745

3. CONTRACTOR:
   Name: Turner Drilling
   Address: P.O. Box 605, Saffordville Rd./Saffordville, CA 92370
   Phone: 800-727-6720
   Fax: 22572

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

WELL LOCATION NAME: Kilauea Land (1.1) (1)
Address: Kakaako Rd/Pahoa, HI 96778
Inland: HT
Tax Map: L-4-67-32

3. PROPOSED WORK:
   (Check all that apply)
   • Well New Well
   • Deep Well
   • Modified Existing Well
   • Injection
   • Other (please describe)

4. CONSTRUCTION:
   • Dug
   • Bored
   • Drilled
   • Radial

5. PROPOSED PUMP INFORMATION:
   Rated Pump Capacity: 3/4 HP 12 gpm

6. PROPOSED USE:
   Domestic (including baths, showers, etc.)
   • No. of Sheds/Units: 1
   • Other (please explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   200 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:

8. REMARKS, EXPLANATIONS:

For official use only:
RECEIVED: 1 FEB 13 2:52 P.M.

REMARKS:

I understand that approval of this application attaches the following 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 proposed work;
3. Monthly water use data shall be submitted to the Commission; and
4. Such approval shall not constitute a determination of compliance with water quality standards and shall not preclude the pump capacity or future use up to the permitted pump capacity.

Well Owner: Jodi B. Harris
Landowner: Jodi B. Harris
Contractor: Turner Drilling

Signature: Jodi B. Harris
Signature: Jodi B. Harris
Signature: Turner Drilling

Date: 2-5-01
Date: 2-5-01
Date: 2-5-01

APR-02-2001 01:05 PM TURNER DRILLING & PUMP 530 257 6250

WPCORE PRINTS

File Checkered By: Longitude: Aquifer System Name: Date:

Latitude: State Water No.: 2519-02
STATE OF HAWAII
COMMISSION ON WATER RESOURCE MANAGEMENT
DEPT. OF LAND AND NATURAL RESOURCES
APPLICATION FOR PERMIT

1. WELL CONSTRUCTION OR PUMP INSTALLATION:
   (Enter the type of construction or installation)

   APPLICANT INFORMATION:
   (Print or type all names, if applicable, and place a check mark in the primary contact)
   1. (a) WELL OWNER: Audris B. Haams
      Contact Person: Same
      Phone: 965-8725
      Mailing Address: 14-Vl389 Kapoho-Pahoa Rd, Pahoa, HI 96778
   2. (b) LAND OWNER: Same
      Contact Person: Phone:
      Mailing Address:
      Email:
   3. (c) CONTRACTOR: Turner Daniel
      Contact Person: Phone:
      Mailing Address:
      Email:
      Fax: 225-97

   2. WELL LOCATION NAME:
      (Complete the information on the back of the form)
      Island:
      Tax Map Key:

   3. PROPOSED WORK:
      (Check all that apply)
      (Please fill in the diagram on the back of this form)
      Proposed Work:
      D New Well
      D New Pump
      D Modify Existing Well
      D Modify Pump
      D Abandon/Restore

   4. CONSTRUCTION:
      (Check all that apply)
      D Dig
      D Bound
      D Drive
      D Drill
      D Replace

   5. PROPOSED PUMP INFORMATION:
      Rated Pump Capacity:

   6. PROPOSED USE:
      (Check all that apply)
      Domestic (including homes, stores, etc.)
      Industrial
      Agricultural
      Other (specify)

   7. (a) PROPOSED AMOUNT OF WITHDRAWAL:
      (b) METHOD OF FLOW MEASUREMENT:

   OTHER IMPORTANT INFORMATION:
   (Attach any necessary information and/or diagrams)
   (Required information and/or diagrams)

   PENDING ACTIONS:
   (Check all that apply)
   D DWA
   D BMA
   D EIS
   D EA
   D NONE
   D Other (explain)

   REMARKS, EXPLANATIONS:

   I understand that approval of this application attaches the following standard conditions:
   1) The proposed work is to be completed within 120 days of the approval date.
   2) The contractor shall submit to the Commission a final completion/bonding report within 30 days after completion of the proposed work.
   3) Any other conditions specified in the Commission's regulations.

   Well Owner: Audris Haams
   Landowner: Audris Haams
   Contractor: Turner Daniel
   Date: 2-5-01

   Field Checked By: ____________________________
   Long Litude: ____________________________
   Aquifer System Name: ____________________________
   Date: 2-5-01

   SIGNATURES:
   ____________________________
   ____________________________
   ____________________________
Field Investigation Report

Date: Thursday March 22, 2001
Commission Staff: Ryan Imata, Roy Hardy, Glenn Bauer

Background

This field investigation was to follow up on:

1) An apparent violation of Hawaii Well Construction and Pump Installation Standards for the Keeau Well (owner - Jack May, well no. 3687-03) by Turner Drilling. Jack May obtained a permit for this well, but when the Well Completion Report was submitted, it was reported that the annular space was less than 3", which is in violation of Section 2.6 (d) of the Hawaii Well Construction and Pump Installation Standards. When we sent a letter to the applicant asking why the annular space was not in compliance, Turner sent a follow up letter stating that the annular space was misreported on the Well Completion Report and was actually 3".

2) Field verification and follow up to after-the-fact Well Construction and Pump Installation Permit applications for the Vacationland #1 - #4 wells (owner – Ardith Harms, well nos. 2979-02 through 05), drilled by Turner Drilling. It was discovered that these wells were drilled in December of 2000, though permits had not been obtained through our office. This is a violation of HAR §13-168-12.

We had also hoped to investigate the Christensen well, which was another well drilled by Turner Drilling without obtaining a permit. This well is owned by Edna Christensen. The well number was not assigned as of the date of the investigation. However, Ms. Christensen was not available, so we couldn’t visit her property.

Investigation

9:00 a.m. Keeau Well (Well No. 3687-03)

We met Jack May at his house (1-5-56: 99) in Keeau at 9:00 a.m. Naomi Turner from Turner Drilling was also there to meet us. Jack showed us the well. The concrete pad was installed (see Photo 1), so we couldn’t determine what the annular space is. We measured the concrete pad, and it measured 4’ x 4’. There was no cutting into the concrete pad to indicate a benchmark, but on the pad was inscribed “Elev. 53”. We determined that this was a mistake, since the elevation was actually reported as 56.54’ msl on the Well Completion Report.

We noticed that the well was located approximately 40’ from a cesspool. Jack told us that there was a purification system that would filter out the bacteria (see Photo 2) using UV light.

Jack told us that he was anxious to complete the permitting process because he wanted to sell the property, and that "people from Oahu and the Mainland don’t want to buy a property that gets their water from catchment".

When we left Jack May’s house, we said that everything appeared to be okay, except that he doesn’t have a flowmeter attached to his well. We told him that we would probably be able to issue the pump installation permit soon.
10:40 a.m. Vacationland #1 through 4 Wells (2979-02 to -05)

We then drove to Pahoa. Naomi Turner followed us because she didn't know where Ardith Harms lived, nor where the wells were located. We first stopped at the Black Rock Café, since we were meeting DOCARE officer John Holley there. Since we were early, we decided to go over the permitting process and the applications and standards with Naomi. I gave Naomi a copy of all of the Administrative Rules, as well as copies of the Well Construction/Pump Installation Permit application and the Hawaii Well Construction and Pump Installation Standards. I had sent all of this information to her as well via mail prior to Turner Drilling installing these wells.

We met Officer Holley and drove to Ardith Harms' house. We then went to the well sites. We were met by Robert O. The first well we visited was Vacationland #2 (2979-03) on TMK 1-4-70:27. Glenn took a GPS reading of 19° 29' 45.0" and 154° 49' 24.2". There was no concrete pad installed (see photo 3), and the annular space appeared to be approximately 2 1/2" (see photo 4). There was no flowmeter installed. This well was located about 40' from what appeared to be a cesspool. Ardith told us that she had a septic tank and leaching field, but we saw nothing that indicated that there was a septic tank. Ardith also told me that these wells had the infrastructure installed and that they were ready to be hooked up to the homes.

A purification system similar to the one at Jack May's home was set up. From a previous investigation, it was determined that this well served approximately 12 people.

We then walked over to the Vacationland #4 Well (2979-05) on TMK 1-4-27:28. This well was in a property that was enclosed by a fence and there were dogs in the fenced area. Glenn took a GPS reading of 19°29'44.5" 154°49'25.9". We decided to just take a picture of the well from the outside of the fence (see photo 5). There was no concrete pad installed, and we couldn't determine the annular space, though Naomi told us that they were all the same. There was no flowmeter installed, and the same purification system was present, housed in an enclosure. From a previous investigation, it was determined that this well served approximately 5 people.

The third well we visited was the Vacationland #1 Well (2979-02) on TMK 1-4-67:39 (see photo 6). Glenn took a GPS reading of 19°29'42.3" 154°49'21.4". Again, there was no concrete pad installed, but there was concrete poured on the ground around the casing. There was what appeared to be a bucket that was broken off at the surface. Naomi later confirmed with me that this actually was a bucket that was encased by the concrete, to prevent children from throwing things down the well. The bucket was later cut at the surface to expose the casing. Because of this, we couldn't determine the annular spacing. Again there was no flowmeter installed. From a previous investigation, it was determined that this well served approximately 11 people.
The last well we visited was Vacationland #3 Well (2979-04) on TMK 1-4-27:28. Glenn took a GPS reading of 19°29'47.0" 154°49'23.3". There was no concrete pad installed though there was concrete around the casing which made it impossible for us to determine the annular spacing. No flowmeter was installed, and the amount of people serviced by this well was undetermined.

Conclusion

Since the concrete pad was in place, the annular space could not be determined. The proximity of the well to the cesspool is not under the jurisdiction of CWRM, so a referral will be made to the Department of Health’s Safe Drinking Water and Wastewater Branches. The applicant has apparently chosen to install his pump without obtaining a pump installation permit via Declaratory Ruling No. DEC-ADM98-G5. In other words, his installation of a pump is not in violation of HAR §13-168-12.

Vacationland #1 - #4 Wells (2979-02 through -05)

For each of these wells, both a well had been constructed and cased, and a pump had been installed. This amounts to 8 violations of HAR §13-168-12.

The annular spacing appeared to be 2 ½” for each well, which is a violation of Section 2.6(d) of the Hawaii Well Construction and Pump Installation Standards (HWCPIS).

Concrete pads had not been installed on any of the wells. This is in violation of Section 2.10(a)(4) of the HWCPIS.

Wells 2979-03 and 2979-05 were within 1000 feet of a cesspool or septic tank, and 2979-02 and 2979-04 were probably well within 1000 feet of cesspools or septic tanks not on the respective properties. Since CWRM has no jurisdiction over the proximity of these wells to the cesspools/Septic tanks, a referral will be made to the Department of Health’s Safe Drinking Water and Wastewater Branches.

Flowmeters were not installed in any of the wells. These will be described if/when the After-the-Fact Permits are issued.

Since the wells were drilled without obtaining the proper permits, this investigation will be referred to the Department of Commerce and Consumer Affairs.

These violations are only what was apparent at the time of the field investigation. Other violations may be revealed upon submission of a Well Completion Report by the applicant, and may be incorporated into any fines that are imposed on the applicant and the driller.
Facsimile Request & Cover Sheet
Wastewater Branch
919 Ala Moana Blvd Room 309
Honolulu, HI 80814-4920

Date: 3-19-2001

To: Jl Post-it Fax Note 7671
From: Ll Ryan Iwata

Subject: Request for Information

Do you have any IWS files or records for the following:

(3) 4-67:30P39

| [ ] sewered |
| [ ] no record |
| [ ] cesspool record date: |
| [ ] septic tank submit date: |
| [ ] plan approval date: |
| [ ] inspection date: |
| [ ] system app for use date: |
| [ ] aerobic unit |
| [ ] other |

# of Bedrooms

> If cesspool, please provide plot plan.
Facsimile Request & Cover Sheet
Wastewater Branch
919 Ala Moana Blvd Room 309
Honolulu, HI 96814-4920

Date 3-10-2001

To: Jerry Nunogawa, Hawaii District Health Office (Hllo)
   Phone 833-0401 Fax 933-0400

From: Lori Kajiwara, Wastewater Branch
   Phone 586-4290 Fax 586-4300
   Email: LKAJIWARA@aha.health.state.hi.us

Subject: Request for Information

do you have any IWS files or records for the following:

(3: 1-4-70: 15)

- I sewered
- I no record
- I cesspool
- I septic tank

- record date:
- submit date:
- plan approval date:
- inspection date:
- system app for use date:
- aerobic unit
- I other

# of Bedrooms

> if cesspool, please provide plot plan:
AQUA/WASTE ENGINEERS

SITE PLAN
TMK 1-4-70 : 15

SCALE : 1 : 20

L-3

JULY 15 1990
Facsimile Request & Cover Sheet
Wastewater Branch
819 Ala Moana Blvd Room 309
Honolulu, HI 96814-4920

Date: 3-19-2001

To: Jerry Nunogawa, Hawaii District Health Office (Hilo)
Phone 833-0401 Fax 833-0400

From: Lori Kajiwara, Wastewater Branch
Phone 586-4280 Fax 586-4300
Email: LKAJIWARA@oha.health.state.hi.us

Subject: Request for Information

Do you have any IWS files or records for the following:

(3) 1-4-70:27

[ ] Sewered
[ ] No record
[√] Cesspool

[ ] Septic tank

[ ] Aerobic unit

[ ] Other

# of Bedrooms

> If cesspool/ST，请 provide pit and plan
Cesspool Survey

Property Owner: John Smith
Address: 123 Main St
Tax Map Key: 456-789-012
Island: Long Island
City: New York
Lot No.: 12
District: East End
Permit No.: 0123456

Distance From Building: 50 ft
Boundary: 75 ft
Stream, Well, Body of Water, etc.: 100 ft
Depth in ft: 15

Soil Profile (Starting from Surface): Entisols

Type of Well or Curb: Reinforced Concrete Curb

Date Certificate Issued: 03/15/2007
Date Approved: 04/10/2007

Remarks:

General was issued before inspection.

Exercise caution.

Cover. (Check)

Rainfall: 0.25 inches.

Drawdown: 0.15 feet.

Date: 04/15/2007

Book closed out manual.

End of space.
Facsimile Request & Cover Sheet
Wastewater Branch
819 Ala Moana Blvd Room 309
Honolulu, HI 96814-4620

Date: 3-19-2001

To: Jerry Nunogawa, Hawaii District Health Office (Hilo)
Phone 833-0401 Fax 833-0400

From: Lori Kajiwara, Wastewater Branch
Phone 886-4290 Fax 886-4300
Email: LKAJIWARA@aha.health.state.hi.us

Subject: Request for Information

do you have any IWS files or records for the following:

(3) 1 4 27 28

[] sawered
[ ] no record
[] cesspool record date:
[] septic tank submit date:
plan approval date:
inspection date:
system app for use date:

[] aerobic unit
[ ] other

# of Bedrooms

> If cesspool/ST- please provide plant plan.
Facsimile Request & Cover Sheet
Wastewater Branch
919 Ala Moana Blvd Room 309
Honolulu, HI 96814-4920

Date: 3-19-2001
Total Pages: 1 of 5

To: Jerry Nunogawa, Hawaii District Health Office (Hilo)
Phone 833-0401 Fax 933-0400

From: Lori Kajiwara, Wastewater Branch
Phone 586-4290 Fax 586-4300
Email: LKAJIWARA@sha.health.state.hi.us

Subject: Request for Information

Do you have any IWS files or records for the following:

(3) [ ] 4-27-26

[ ] Sewered
[ ] No record
[ ] Cesspool
[ ] Septic tank
[ ] Aerobic unit
[ ] Other

# of Bedrooms

> If cesspool/septic, please provide plot plan.
Attn: Ryan Imata

Re: Wells for,

Edna Christensen
Artie Harmes
MISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR NEW APPLICATIONS

FROM: RYAN
DATE: 16-Feb-01
SUSPENSE DATE: 

TO: INIT. TO: INIT. FOR: PLEASE:
BAUER, G. LUM, A. 3 Approval 1 Review & Comment
CHING, F. NAKAMA, L. 3 Signature
FUJII, N. NAKANO, D. 
HARDY, R. 3 NISHIOKA, L. 
HIGA, D. 4 OHYE, M. 
HIRANO, E. SAKODA, E. 
ICE, C. SUBIA, S. 
IMATA, R. SWANSON, S. 
JINNAI, R. UYENO, D. 
KUNIMURA, I. YODA, K. 

WELL NUMBER 
WELL NAME Vacationland 1 & 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:

DATE ACTION 

MISSING WCPA for TAK 1-4-70-15
WCPA 1-4-70-20
1-4-70-38

see attached DECARE report & counsel directions.

combine this with Christian WCPA

my.msg
COMMISSION ON WATER RESOURCE MANAGEMENT

FROM: LINNEL
DATE: FEB 15 2001

TO: BAUER, G.
INIT: ______
TO: LUM, A.
INIT: ______
FOR: Approval
PLEASE: See Me

TO: CHING, F.
INIT: ______
TO: NAKAMA, L.
INIT: ______
FOR: Signature
PLEASE: Review & Comment

TO: DANBARA, S.
INIT: ______
TO: NAKANO, D.
INIT: ______
FOR: Information
PLEASE: Take Action

TO: FUJII, N.
INIT: ______
TO: NISHIOKA, L.
INIT: ______
FOR: Type Draft
PLEASE: Type Final

TO: HARDY, R.
INIT: ______
TO: OHYE, M.
INIT: ______
FOR: File
PLEASE: Xerox copies

TO: HIGA, D.
INIT: ______
TO: SAKODA, E.
INIT: ______
FOR: _____
PLEASE: _____

TO: HIRANO, E.
INIT: _____
TO: SUBIA, S.
INIT: _____
FOR: _____
PLEASE: _____

TO: ICE, C.
INIT: _____
TO: SWANSON, S.
INIT: _____
FOR: _____
PLEASE: _____

TO: IMATA, R.
INIT: __________
TO: UYENO, D.
INIT: _______
FOR: _____
PLEASE: _____

TO: JINNAI, R.
INIT: _______
TO: YODA, K.
INIT: _______
FOR: _____
PLEASE: _____

TO: KUNIMURA, I.
INIT: _______
TO: _____
INIT: _____
FOR: _____
PLEASE: _____

Please prepare:
1. Refer to DCCA
2. Enforcement action submitted
3. refer Dott (but we have some oral copy of this)

Looks like a very comprehensive job by MCCARE. This is really bad.
CLASSIFICATION
LAND USE: DRILL WELL W/O PERMIT

5. COMPLAINANT (Name. If Business)
STAHR, Lorraine

10. LOCATION OF OFFENSE AND CLOSEST INTERSECTING STREET
Corner of Wailani st/Alapaki point road Beach lots Kapoho, Hi.

12. DATE/TIME/DAY OCCURRED
01-04-01/1330 Hrs.

15. HOW REPORTED
Empty corner lot TMK: 1-4-27-26 Kapoho Bch Lots, Kapoho

17. BOAT INVOLVED

18. REGISTERED OWNER

20. NAME
Edna CHRISTENSEN

21. INVESTIGATION:
1. Insert a synopsis of the crime or incident.
2. Summarize detail of the crime or incident.
3. Denote persons from whom statements taken and who took them. Identify additional suspects and witnesses. Identify additional investigator. 6 Use opposite side for continuation of report, if necessary.

ASSIGNMENT/ARRIVAL: 01-05-01/1300 Hrs: I was assigned to this case by T/A East Hawaii supervisor Alan AKAU. After making contact with the reporting party, arrangements had been made for an interview on the following day.

01-06-01: 1500 Hrs: I arrived at the residence of the complainant Lorraine and Howard STAHR. It was then that STAHR related that on the 4th of January 2001, a Turner Drilling and Pump Company drill rig had been observed to be digging a well on the property of An Edna CHRISTENSEN, tmk: 1-4-27-26. After the interview I made an on site inspection and confirmed the fact that a well had been drilled and that the trucks had left the area, prior to my arrival. STAHR, had made contact with Ryan IMATA of the water commission who related that no permits were issued to Turner Drilling and pump Co. thus being in violation of section 13-168-12 (a) Hawaii Administrative rules.

MASTER REPORT: This report HA 01-378/LAND USE: DRILL WELL W/O PERMIT is the master report to connect up reports:
HA 01-379/LAND USE: DRILL WELL W/O PERMIT
HA 01-380/LAND USE: DRILL WELL W/O PERMIT
HA 01-381/LAND USE: DRILL WELL W/O PERMIT

Please refer to the master report for all investigative purposes.

INV CONTINUING
Search Results

Assessed Values reflect the year 2000.

<table>
<thead>
<tr>
<th>PUBLIC RECORD DATA</th>
<th>TMK # 3-1-4-27-26</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Owner:</strong> CHRISTENSEN, EDNA</td>
<td><strong>Tenure:</strong> Fee Simple</td>
</tr>
<tr>
<td><strong>Tax Payer:</strong> CHRISTENSEN EDNA</td>
<td><strong>Semi-Annual Tax:</strong> $323.85</td>
</tr>
<tr>
<td><strong>Tax Bill:</strong> 485 WAIANUENUE AVE #250, HILO, HI 96720 USA</td>
<td><strong>Buildings:</strong> 0</td>
</tr>
<tr>
<td><strong>Assessed Value</strong></td>
<td><strong>Exemption</strong></td>
</tr>
<tr>
<td>Land: $76,200</td>
<td>$0</td>
</tr>
<tr>
<td>Buildings: $0</td>
<td>$0</td>
</tr>
<tr>
<td>Total: $76,200</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<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.

ASSIGNMENT/ARRIVAL

01-05-01: 1400 Hrs: I was assigned to respond to a complaint of a well being drilled illegally in the Kapoho Beach lots subdivision, further located on the corner of Wailani Street and Alapaki Point road. The land owned by an Edna CHRISTENSEN OF 1235 Kumukoa Street Hilo, Hawaii, TMK: 1-4-27:26.

REPORTING PARTIES STATEMENT

01-06-01: 1500 Hrs: I made contact with the reporting parties identified as:

Howard STAHR, M-69
DOB: 03-11-31
SSN: 554-38-3947
14-4932 Kapoho Beach Road
Kapoho, Hawaii
RR2 Box 3902
Pahoa, Hawaii
Retired Agricultural Consultant
Residence: 965-0176

Lorraine STAHR, F-66
DOB: 03-18-33
SSN: 5634-38-1863
Retired Water Resource Supervisor/Oregon
Same as above

when Lorraine stated that on January 4, 2001 a skip THOMPSON had related that a drilling rig was setting up on the corner lot located at the Wailani/Alapaki Point Road intersection on lot TMK: 1-4-27:26. Lorraine STAHR then called Ryan IMATA of the Water Resources commission in Honolulu, Hawaii. STAHR inquired as to the permits needed for drilling a water well in this area, and further had any permits been issued to a “TURNER DRILLING AND PUMP CO”. IMATA related that no permits were issued and that the TURNER DRILLING AND PUMP CO. was fairly a new comer to Hawaii. For further information please refer to the Neighborhood watch report submitted by Lorraine STAHR, and labeled as Exhibit “A” under this official investigators report.

STAHR also related that their were several more wells which were drilled last week on properties of an Ardythe HARMS in the Vacationland subdivision, several miles to the south.
Lorraine then stated that the drilling rig had left yesterday, and it was believed to be stored at Ardythe HARMS house located at the 5.0 mile maker on route 132 on the south side of the road, further described as a white house with a blue tile roof and swimming pool, surrounded by coconut trees.

PHOTOGRAPHIC RECORD

01-06-01: 1530 Hrs: I recovered a roll of 35 mm film from Lorraine STAHR. On this film were three pictures of the suspect drilling rig and vehicles in the area. When the film has been processed it will be submitted under this report as Exhibit “B”.

01-06-01: 1600 Hrs: I took a series of five pictures (35mm) of the well head at the corner Wailani and Alapaki point roads, when the film is processed it will also be submitted under this report as exhibit “C”.

OFFICERS OBSERVATIONS

01-06-01: 1600 Hrs: Howard STAHR and I went to the suspect site and confirmed that a well had been drilled, and the drill rig had left the area. Five pictures were taken please refer to the Photographic record submitted as Exhibit “C”.

I observed very wide tracks of the drill rig in the grass leading to the well head. The well head appeared to be a six inch diameter black iron pipe protruding approximately two feet above the ground, capped with what appeared to be a eight inch square flat piece of black iron. Howard STAHR stated that this well was just the casing, and that pumps and tanks, and valves and a water line would be needed to pump the water. I related “A well in its infant stage”.

Surrounding the drill area was a gray dust which covered the grass and the two soda cans left behind. The amount of dust didn’t appear excessive, suggesting a possibly shallow well. There were no larger type rocks or fragments which appeared to come from this well.

01-06-01: 1630 Hrs: I made checks within the Vacationland subdivision. I traveled East on Kapoho Kai drive making a left turn on Ho’ola’i road, I then made a right turn on Lau’ae road. It was there at the first house on the left that I observed what appeared to be the same type black iron pipe I observed previously. I knew from previous Police experience that this was the house of Ardythe HARMS, and that she had many rental units in this area.
As I traveled further I observed one more, and as I went on an adjoining street I observed another, totaling three wells. They all had two white PVC pipe leading from the top of the well head. My observation was brief however I do remember what appeared to be a pressure tank, blue in color standing approximately thirty inches high and an approximate diameter of eighteen inches. The equipment was not dirty and appeared to be recently installed. There was an excessive amount of sediment at the base of the well head, suggesting recent excavation.

As I traveled through the subdivision I encountered several piles of crushed blue rock on the edge of the road in several different locations. Heavy equipment was noted in the area. It also appeared that the road had been trenched in a fashion that would suggest a waterline installation. It was later determined that LOEFFLER Construction Company, were trenching alongside of the road to install a waterline for the Kapoho Kai Community associations, water board. The trenching was not related to the recent wells being drilled.

01-10-01: 1000 Hrs: I contacted a:

Hans “Skip” THOMSEN
DOB: 06-02-37
SSN: 569-46-2767
RR 2 Box 4056
Pahoa, Hawaii
14-5001 Ho’ola’i Street
Kapoho, Hawaii
Res: 965-0003

who stated that right after Christmas, for three to four days, a large drill rig had been drilling what appeared to be water type wells on the rental properties of Ardythe HARMS located within the Vacationland subdivision. THOMSEN, further stated that on the morning of January 1, 2001 the drill rig resumed its drilling. THOMSEN related that he called Ardythe HARMS, and complained about the noise from the drill rig. Ardythe HARMS responded that they were near completion, and would stop when completed. THOMSEN, related that this went on for a few more hours.

THOMSEN, also stated that the foreman of the LOEFFLER Construction Company, known as “Nick” was working in the area, and had seen the drill rig employees installing the well
heads and pumps on the wells. I had asked THOMSEN, if he was aware that another had been drilled in the Beach lots area, and he related yes. He stated that he heard and saw the rig on or about January 5, 2001 drilling a well in the Beach lots subdivision.

I asked if THOMSEN had any incite on this problem. THOMSEN related that the Vacationland Community had decided to improve their water system, by placing meters and installing water mains and sub water mains. Thomsen said that according to James CROZIER (President of the Kapoho Kai Water Association) the Dept of Water Supply requested that meters not be sold to Ardythe HARMS, due to an outstanding debt. And before New Years, Ardythe HARMS had requested a refund from the Vacationland Water board. Thomsen related that a letter was sent to Ardythe HARMS refunding all of the money less deposit to her.


who related that he lives at the residence behind him (NE corner of Lau’ae/Walea street). I asked about the wells being drilled in the area, and he related that they were being drilled by TURNER DRILLING AND PUMP, for Ardythe HARMS. That they were drilling after Christmas for a couple of days. BRIGOLI also related that four wells were drilled with four pumps to supply seven houses (Breakdown: 1 pump for 1 house/BLACK residence, 1 pump for 2 houses/KELIIKULI residence and unidentified neighbor, 1 pump for 3 houses/BRIGOLI’s, SULPRIZIO’s, and the BUTRAM residence, 1 pump for 1 house located on Malio Street).

BRIGOLI, also related that they drilled approximately 15'-20' deep, and that the water is to be filtered by an Aqua purifier filtration system. This concluded our interview.
PERSONS INTERVIEWED—cont’d...

01-12-01: 0945: I contacted a:

Nick MOORE
DOB: 10-27-65
SSN: 264-39-5775
Res: 7th/Jade street
Maunaloa Estates
Volcano, Hawaii
Res: 967-7279
Loeffler Construction Co/Field Foreman
Bus: 981-0203

who stated he was working on the water line for the Kapoho Kai Water Association when the drill rig came. MOORE stated that several trucks described as a Red or maroon cab on the drill rig, black from the cab back, with the name TURNER on the door, secondly he noticed two Caucasian males described as M-40's, 6' tall with a dark beard and a M-50's possibly a father and son. MOORE further noticed a Red Dodge Ram Pick up truck possibly with a duel rear end with drums in the back. MOORE stated that he observed the same company installing the well heads.

WATER COMMISSION CONTACTED

01-17-01: I left several messages for Ryan IMATA of the Water Commission to contact me, no answer.

02-01-01: 1000 Hrs: I contacted the office of Linnel T. NISHIOKA Deputy Director, who referred me to a Roy HARDY. It was at this time that we made computer checks to see if any permits were drawn for well drilling in the Kapoho Beach lots or Vacationland Subdivision in Kapoho, Hawaii. It was related to me by HARDY that no one had pulled a permit in that area, with the prefix of TMK 1-4-70 or TMK 1-4-67.

I also asked who can apply for the permit, and he stated the applicant, landowner or the driller. However no one had pulled the permits to drill in this area.

TURNER DRILLING AND PUMP CONTACTED

02-02-01: 1200 Hrs: I called the Local telephone number displayed on the side of the TURNER drill rig (982-8255). I introduced myself and began to discuss the wells drilled in the Kapoho area, I was then put on hold. Approximately 30 seconds later a different female party
TURNER DRILLING AND PUMP CONTACTED-cont'd...

answered the phone. I asked to talk to Mister TURNER, and she stated that he is not in. The female party identified herself as Naomi TURNER wife of Mister TURNER. I began asking her if Mister TURNER was on the Big Island and she stated no. She further related that they were all on the mainland, and that there was no TURNERS on the Big Island, at this time.

Naomi TURNER, related that they send a crew over when the jobs have been awarded. I then asked where they store their vehicles and she stated that she does not know. I then made arrangements to call back on Monday.

02-02-01: 1600 Hrs: I found what appeared to be a white truck, and a Reddish pick up truck previously described, and believed to belong to TURNER DRILLING AND PUMP in Hawaiian Paradise Park, further located down Makua Drive, right on 31st avenue parked in a garage on the east side of the road at the utility pole #6. No contact was made at this time.

ARDYTHE HARMS CONTACTED

02-02-01: 1215 Hrs: I telephonically contacted a:

Ardythe B. HARMS F-73
DOB: 10-09-27
SSN: 471-26-3675
14-4196 Kapoho-Pahoa Road
Pahoa, Hawaii
Res: 965-8925

and I identified myself, and stated that I was calling in regards to the wells that were drilled on her lots in the Vacationland subdivision. Mrs. HARMS related that she had put in four wells and that they had found water in the fifteen foot to eighteen deep, and that the water was brackish. However, Mrs. HARMS was so excited about this new Aqua purifier she had purchased from American water purification in Hilo, and how it will make the water as clean as distilled water, Mrs. HARMS related that she has four purifiers filters on the way and that they will be here in ten days. I could barely get a word in edgewise.

Mrs. HARMS further stated that the well has a one and one half horse power submersible pump, which will pump at 35 gallons a minute. I then asked Mrs. HARMS if she had acquired a permit to drill the well. Mrs. HARMS then said that she had checked with a "Nani" (last name unknown) from county water, who related no permit was necessary if she didn’t sell the water
ARDTHE HARMS CONTACTED—cont’d...

and supplied less than 15 people per well. I asked to check out the wells and photograph them and she stated that “Absolutely no problem”. I said that I would check with her or Bob BRIGOLI when I went down, and she said fine.

Mrs. HARMS wanted to show me the filtration system and we arranged time to review it at her residence at the 5 mile marker on route 132. She related that she was entertaining some friends from the mainland, and that around 9:00 a.m. tomorrow would be fine. She further stated that she was so happy about it that she should kick herself for not thinking of this sooner. Mrs. HARMS stated that she has spent over fifty thousand dollars on this already. Mrs. HARMS said that two nosey ladies had already reported her to the Dept of Water Supply (DWS).

I asked what the TURNER DRILLING AND PUMP personnel said about the permits, and she stated that TURNER (unknown who at TURNER) stated that you don’t need a permit if your not a water company, supply less than 15 people, and something to the effect that no more than two hook ups per well. Mrs. HARMS again mentioned the name “Nani” at the County Building permits, who has been there for 21 years said under these conditions she would need no permit. Mrs. HARMS further stated that when the purifiers arrive in ten days TURNER will return to finish the installation. I asked how much does TURNER charge per foot to drill a well and she stated that its $100 a foot. When asked if she knew an Edna CHRISTENSEN In Kapoho Beach lots she said no. When asked about a well being drilled there, she had no idea who ordered the drilling.

EDNA CHRISTENSEN CONTACTED

02-01-01: 1315 Hrs: I telephonically contacted a:

Edna CHRISTENSEN F-Unk  
1235 Kumukoa Street 
Hilo, Hawaii 
Res: 935-4649

and inquired about the recent well which was drilled on her property in the Kapoho Beach lots subdivision. CHRISTENSEN, related that it was a test well to see if the water was drinkable. CHRISTENSEN related that it was found to be brackish. I asked if she had applied for a permit to drill the well. She stated that a Tom HELFRICH had made the arrangements for the drilling. I asked how she paid for the drilling and to whom, and she stated that she paid $2,600 dollars for the well, and it was paid by check to Tom HELFRICH, not TURNER DRILLING and PUMP.
**ATTEMPTED CONTACT**

02-03-01: 0850 Hrs: I drove into the driveway at the HARMS residence, and parked near the kitchen door. I waited for 3-5 minutes to see if anyone was awake, and I saw no motion in the house, and decided not to wake the occupants.

02-03-01: 0920 Hrs: I went to Robert BRIGOLI’s residence located on Lau’ae street, to meet with him, and he was not at home. I then drove through the neighborhood, and made contact with one of the residents.

**PERSONS INTERVIEWED**

02-03-01: 0925 Hrs: I contacted a:

Rodney BLACK M-48  
DOB: 12-12-52  
SSN: 543-64-5976  
Lau’ae Street 1st on left  
Vacationland, Kapoho, Hi.

Who stated that the wells were drilled by TURNER DRILLING AND PUMP, using a mobile drill rig red in color, and the well head was installed on approximately January 2, 2001. BLACK stated that as soon as Ardy HARMS hooks up the wells and begins to pump water he and his family will move out. They fear that the water table, has become contaminated with fecal matter from the old cesspools and leaky septic tanks, common to the area. He related that he has five people living in this residence at this time. BLACK showed me the cesspool area located on the west side of the residence, which appeared to be approximately 60' from the well head. The occupants of this residence TMK: 1-4-70-28 are:

1. Rodney BLACK M-48  
2. Debbie BLACK F-45  
3. Mary COLOSACCO F-82  
4. Shane BLACK M-17  
5. Shawnee BLACK F-13

A series of five (4) photo’s were taken of this property, please refer to the Photo record submitted under this report number as exhibit “D 1 through 4..
PERSONS INTERVIEWED-cont’d...

02-03-01: 1000 Hrs: I contacted a:

Susan SULPRIZIO F-45
DOB: 01-24-55
SSN: 530-52-0235
POB 1579
Pahoa, Hawaii
Res TMK: 1-4-70-27

who was located in the rear residence on the aforementioned lot. It was at this time that Ms. SULPRIZIO showed me the well which had been drilled after Christmas, she further stated that the gray sediment surrounding the wellhead was soap, used to lubricate while drilling.

I asked if the well was functioning at this time and she stated no. I observed that there appeared to have no pipes installed to transport water to existing water lines. However I did observe a gray colored romex type wire leading under the house. I followed the wire and it was determined to exit on the north side of the residence and was spliced, and covered with black tape to what appeared to be a 220 volt cord, and plugged into a 220 volt outlet used for an electric dryer, I could not determine if the outlet was live. Refer to Photo record Ex: D: 5 through 13.

SULPRIZIO stated that she had seven members of her family living in this residence:

1. Boa KAHOOKAULANA —42
2. Susan SULPRIZIO F-45
3. Christopher SULPRIZIO —13
4. Avery SULPRIZIO —11
5. Joshua SULPRIZIO —9
6. Francis SULPRIZIO —6
7. Emily SULPRIZIO F-6

The occupants living in the front house were not home, however were described as:

1. Scott BUTTRAN M-?
2. Joyce BUTTRAN F-?
3. Jessica BUTTRAN F-18
4. Anthony BUTTRAN —16
5. Jan BUTTRAN F-15
SULPRIZIO, had related that the wellhead in their yard is supposed to supply both houses and families stated above and the residence of Robert BRIGOLI and its occupants, unknown at this time. Susan SULPRIZIO, likewise stated her concern as to the quality of the water after HARMS begins to pump this water for human consumption.

02-03-01: 1020 Hrs: I contacted a:

Gayle AKANA F-48
DOB: 03-04-52
SSN: 576-60-8470
RES: 965-6125
State Dept. of Adult Mental Health

had stated that she is aware of the wells being drilled and is skeptical as to the quality of the water. AKANA, had stated that the well drilled in the driveway is going to supply both residences (TMK: 1-4-67-38 and 1-4-67-39) and that the Dept of Health had already tested the water and the bacteria content is to high for human consumption. I then related that Mrs. HARMS is bringing in a water purification system for each well that would filter the water and take out 99.9 percent of all bacteria, leaving a distilled type water for consumption, she still was skeptical, as were the other tenants I had recently talked to.

AKANA related that her son rents this house and that they live at their in laws more than they do here, and that she is moving out as soon as possible. Occupants of 1-4-67-38 are:

1. Nathan KELIIULI M-30
2. Kepola KELIIKULI F-22
3. Female child -4
4. Male child-2.5
5. Gayle AKANA F-48

AKANA estimated that the residence next door (TMK:1-4-67-39) had a total of six occupants, names unknown at this time. For further information please refer to the Photo record submitted as Exhibit: D: 14 through 19. For the Mali'o street residence TMK: 1-4-70:15 please refer to Exhibit D: 20 through 24.
ARYTHE HARMS RECONTACTED

02-03-01: 1430 Hrs: I was telephonically contacted by an irate Ardythe HARMS who stated that she was told that all her tenants where moving out because I had condemned the wells she had drilled. Further she stated that she was going to sue me and that I should call her Lawyer at the Law offices of Harry E. ELIASON at 934-0461. She was complaining that she was an elderly woman with a heart condition, and how could I go down to well sights without her, she ranted and raved until I had to interject. I reiterated that she gave me permission in our prior conversation, and I related that I would contact or attempt to contact her or Bob BRIGOLI, which I did.

I asked Mrs. HARMS what she was told and from whom. She stated that she was told that I had condemned the wells and that all the tenants had to move out. I asked who said such a thing and she stated "Gayle" meaning Gayle AKANA. She further told me to talk to "Bobby" BRIGOLI (her resident manager), he said that Gayle was walking down the road screaming that every one has got to move, and we aren't paying any rent, and things to that effect.

I then attempted to talk to Mrs. HARMS. I explained to her first, that I don't have the power or the authority to condemn her wells, secondly what I did say was that a cease and desist order may come down from the water commission pending a well permit application. Further I was told by Gayle AKANA that the Dept. of health had taken water samples and that they had an abundant amount of bacteria in the ground water. Where the tests were taken, and when, or even if they were from the same wells was never established.

02-05-01: 0801 Hrs: Three messages were left on the answering machine at our office, pleading for me to call her, and that she was sorry that she exploded on me several days prior. I explained that it was not my intention to upset her and that she should verify her story prior to punishing the wrong party. I further stated that my job is to verify that the wells were drilled.

02-05-01: 1000 Hrs: Or there about, I was contacted by a female representative of the Law Offices of Harry E. ELIASON. Who attempted to what I felt was pressure me in regards to her client Ardythe HARMS. I explained the situation, and that she had called three times and later apologized for her outbursts. She asked my name and work address and location of our office complex, I do not appreciate legal intimidation at any level.

TURNER DRILLING AND PUMP CONTACTED

02-05-01: 1100 Hrs: I contacted Naomi TURNER of TURNER DRILLING AND PUMP. Who stated that she has been on the telephone with Ardythe HARMS, Edna CHRISTENSEN,
and Roy HARDY of the Water commission. Naomi TURNER related that she was told by Roy HARDY to bring in the permit applications maps and money to me. I felt odd, that Roy HARDY would have me collect, process, any monies or applications. I stated that is not my job. I will contact Roy HARDY about this.

Naomi TURNER at this point began to imply that these wells were all test wells, and perhaps would not require a permit. Through this discussion it was my opinion that a test well would use a temporary well head, to be placed on to draw water, and removed. In this incident each well had installed a submersible pump, pressure tank and in some instances electrical connections. I further stated that it was the owners contention to incorporate an elaborate filter system to obtain drinkable water from the existing brackish ground water.

02-05-01: 1400 Hrs: A lady named Muilan AU-HELFRICH of Mountain View representing Edna CHRISTENSEN came in to sign the applications and pay the fees, however I told them that I will not accept any fees or applications and that they may contact Roy HARDY at Water Resource Management 808-587-0274.

02-05-01: 1500 Hrs: An Ardythe HARMS came into sign a permit application and to pay the fees required however I again stated that they must contact Roy HARDY at the Water Resource Management. I related that this would be documented as an attempt to apply for the necessary permits.

INVESTIGATORS ANALYSIS

My investigation reveals that on 01-05-01 it was reported that there were wells being drilled in the Kapoho Beach lots, and the Vacationland areas. Area checks and interviews revealed this to be true. One well was discovered in the Kapoho Beach lots S/D, and four in the Vacationland S/D. Further investigation revealed that no permits had been applied for in that area. TURNER DRILLING AND PUMP, was contacted and Naomi TURNER had stated that they may be construed as test bores, not needing permits.

Nick MOORE of LOEFFLER Construction Co. observed the TURNER DRILLING AND PUMP employees placing the pumps and well head equipment in place on the four wells in Vacationland. Further, four purification systems were en route as stated by owner Ardythe HARMS, and should arrive by mid February. TURNER would then send over personnel to install these systems.

Solutions for a small planet™

Solutions for a small planet™
INVESTIGATORS ANALYSIS-cont’d...

The tenants of these rental units are deeply concerned over the use of brackish water for personal use, with or without a purification system. The well placements are extremely close to cesspools and septic tanks. Their concern echoed back to Ardythe HARMS and she returned to me threatening a lawsuit. The law offices of Harry E. ELAISON contacted me and requested information which would indicate the possible service of some type of legal documents.

Let it be noted that there was no permits at the time of drilling for the aforementioned wells (one under CHRISTENSEN, and four under HARMS), although CHRISTENSEN’s well may be construed as a test bore, as it has been capped. The question remains, If there was a residence on the property would they have capped it.

The initial attempt at acquiring well permits can be documented as 02-03-01: 1400 Hrs for CHRISTENSEN (1), and 02-03-01: 1500 for HARMS (4).

MASTER REPORT

This report HA 01-378/LAND USE: DRILL WELL W/O PERMIT is the master report to connect up reports:

HA 01-379/LAND USE: DRILL WELL W/O PERMIT
HA 01-380/LAND USE: DRILL WELL W/O PERMIT
HA 01-381/LAND USE: DRILL WELL W/O PERMIT
HA 01-471/LAND USE: DRILL WELL W/O PERMIT

please refer to the master report for all investigative purposes in conjunction with this investigation.

DISPOSITION

I recommend that this case and its connect up cases be referred to the Water Resource Management/Dept of Land and Natural Resources. Attention Roy HARDY, Ryan IMATA, for their review and final disposition.

CLOSED REFERRED OTHER AGENCY
STATE OF HAWAII
35 Holomua Street
Hilo, Hawaii

01-04-01

01-378

HA 01-378

LAND USE:
WELL DRILLING PROHIBITED

PAGE 14 OF 14 PAGES

cc: LINNEL T. NISHIOKA, DEPUTY DIRECTOR/DLNR/CWRM
GARY MONIZ, ENFORCEMENT CHIEF/DLNR/DOCARE
ROY HARDY, WATER RESOURCES MANAGEMENT/DLNR
DEPT. OF HEALTH/HAWAII BRANCH
DEPT OF WATER SUPPLY/HAWAII BRANCH

APPROVED

John P. HOLLEY #86

DATE 02-11-01 0640 HRS
Bryan SUGIYAMA
CREO III
02-08-01
EAST HAWAII
1141 Hrs.
EXHIBIT LIST

A. Neighborhood watch report, from Lorraine STAHR, dated 01-04-01

B. Photo record submitted by J. HOLLEY, received from Lorriane STAHR.

C. Photo record taken and submitted by J. HOLLEY, dated 01-06-01.

D. Photo record taken and submitted by J. HOLLEY, dated 02-03-01. Photo's of four non permitted wells in the Vacationland subdivision. Numbered 1 through 24.

E. Three page diagram of the Kapoho area as it relates to this case.

F. A copy of the section 13-168-12 and its related subsections.

DISPOSITION

CLOSED REFERRED OTHER AGENCY

APPROVED
Bryan SUGIYAMA

DATE_02-10-01

John P. HOLLEY
CREO III
#86
EAST HAWAII
0821 Hrs.
**Exhibit B**

**STATE OF HAWAII**
**DLNR/DOCARE**

**PHOTOGRAPHIC RECORD**

**Classification**

**LAND USE:**

**Report # HA 01-378**

**Page 1 of 1 Pages**

**DATE/TIME:**

01-04-01/140

**PHOTOGRAPHER:**

L. STAHR

**NUMBER OF PHOTOS TAKEN:**

(4) Four

**CAMERA USED:**

Unknown

**WEATHER:**

Clear/Sunny

**PHOTO #**

**DESCRIPTION**

1. Photo depicts a side view of TURNER drill rig and equipment truck.

2. Photo depicts front view of Drill rig and tool rig, note the license plate Ca.-4Y 68328.

3. Photo depicts mid range view of the drill tool rig, and the Cadillac of Edna CHRISTENSEN.

4. Photo depicts a close range view of the drill rig, tool rig and cadillac, note the Lic #HUC-982

**OFFICER:** John P. HOLLEY

**BADGE NO.** #86

**DATE/TIME** 02-08-01/0932 Hrs.

**SUPERVISOR APPROVAL** Bryan SUGIYAMA #1

**DATE/TIME** 02-11-01

Form HB106
Exhibit C

STATE OF HAWAII
DLNR/DOCARE

PHOTOGRAPHIC RECORD

Report # HA 01-378

Classification LAND USE:

DRILL WELL W/O PERMIT

Page 1 of 1

DATE/TIME: 01-06-01/1600

PHOTOGRAPHER: John P. HOLLEY #86

NUMBER OF PHOTOS TAKEN: (6) Six

CAMERA USED: Canon 80af

WEATHER: Clear/Sunny DAY XXX NIGHT

<table>
<thead>
<tr>
<th>PHOTO #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Photo depicts a mid range view of the tracks left behind by the TURNER drill rig.</td>
</tr>
<tr>
<td>2</td>
<td>Photo depicts a close range view of the above mentioned view.</td>
</tr>
<tr>
<td>3</td>
<td>Photo depicts long range view of the well head located on the CHRISTENSEN property TMK 1-4-27-26.</td>
</tr>
<tr>
<td>4</td>
<td>Photo depicts a mid range view of the well head located on the CHRISTENSEN property TMK 1-4-27-26.</td>
</tr>
<tr>
<td>5</td>
<td>Photo depicts a close up view of the aforementioned.</td>
</tr>
<tr>
<td>6</td>
<td>Photo depicts wellhead, Pressure tank, electrical lines and water lines entering the wellhead TMK 1-4-70-28.</td>
</tr>
</tbody>
</table>

OFFICER: John P. HOLLEY BADGE NO. #86 DATE/TIME 02-08-01/0952 Hrs.

SUPERVISOR APPROVAL Bryan SUGIYAMA #1 DATE/TIME 02-11-01

Form HB106
### PHOTOGRAPHIC RECORD

**Exhibit D**

**Date/Time:** 02-03-01/1600

**Photographer:** John P. HOLLEY #86

**Number of Photos Taken:** (24) Twenty four

**Camera Used:** Canon 80AF

**Weather:** Clear/Sunny

<table>
<thead>
<tr>
<th>PHOTO #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Photo depicts a mid range view of the Pump installation on TMK: 1-4-70:28. BLACK residence.</td>
</tr>
<tr>
<td>2</td>
<td>Photo depicts a close range view of the above mentioned view.</td>
</tr>
<tr>
<td>3</td>
<td>Photo depicts a mid range view of the west side of the BLACK residence. Note the electrical line stubbed out for future tie in.</td>
</tr>
<tr>
<td>4</td>
<td>Photo depicts a mid range view of the cesspool/septic area on the west side of the BLACK residence, property TMK 1-4-70-28</td>
</tr>
<tr>
<td>5</td>
<td>Photo depicts a close up view of the pump installation at the SULPRIZIO residence, TMK 1-4-70:20</td>
</tr>
<tr>
<td>6</td>
<td>Photo depicts Pressure tank, electrical lines attached to the well head at SULPRIZIO residence TMK 1-4-70-20. View looking East. Note the house in the back round, TMK 1-4-70-25.</td>
</tr>
<tr>
<td>7</td>
<td>Photo depicts Pump installation attached to the well head at SULPRIZIO residence TMK 1-4-70-20. View looking East.</td>
</tr>
<tr>
<td>8</td>
<td>Photo depicts Pump installation attached to the well head at SULPRIZIO residence TMK 1-4-70-20. View looking North.</td>
</tr>
<tr>
<td>9</td>
<td>Photo depicts the electrical line emanating from the pump leading under the SULPRIZIO residence. TMK 1-4-70-20 Looking in a Westerly direction.</td>
</tr>
<tr>
<td>10</td>
<td>Photo depicts the electrical line emanating from the pump leading under the SULPRIZIO residence. TMK 1-4-70:20 Protruding out the North side of the residence in the Laundry area.</td>
</tr>
<tr>
<td>11</td>
<td>Photo depicts the aforementioned electrical line on the North side of the SULPRIZIO residence, note the splice to the 220 volt outlet. TMK 1-4-70-20.</td>
</tr>
<tr>
<td>12</td>
<td>Photo depicts the black sewer line leading to the cesspool/septic area. South side of the SULPRIZIO residence. TMK 1-4-70-20</td>
</tr>
<tr>
<td>13</td>
<td>Photo depicts what appears to be an old cesspool cover depicting its location between the SULPRIZIO residence TMK 1-4-70-20 and the BUTRAN residence TMK 1-4-70-27.</td>
</tr>
</tbody>
</table>

**Officer:** John P. HOLLEY BADGE NO. #86 DATE/TIME 02-08-01/1048 Hrs.

**Supervisor Approval** Bryan SUGIYAMA#1 DATE/TIME 02-11-01

Form HB106
**STATE OF HAWAII**  
**DLNR/DOFACRE**

**Exhibit D**  
**PHOTOGRAPHIC RECORD**  
**Report # HA 01-378**

**Classification**  
**LAND USE:**

**DRILL WELL W/O PERMIT**

**Page 2 of 2 Pages**

**DATE/TIME:** 02-03-01/1600

**PHOTOGRAPHER:** John P. HOLLEY #86

**NUMBER OF PHOTOS TAKEN:** (24) Twenty four

**CAMERA USED:** Canon 80af

**WEATHER:** Clear/Sunny  
**DAY XXX**  
**NJ**

<table>
<thead>
<tr>
<th>PHOTO #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Photo depicts a mid range view of the Pump installation on TMK: 1-4-70:38. KELIikuI</td>
</tr>
<tr>
<td>15</td>
<td>Photo depicts a close range view of the above mentioned view.</td>
</tr>
<tr>
<td>16</td>
<td>Photo depicts a mid range view of the pump installation on the South side of the KELIikuI TMK: 1-4-70:38</td>
</tr>
<tr>
<td>17</td>
<td>Photo depicts a mid range view of the pump installation at the KELIikuI residence TMK 1-4-70:38, looking in a Northerly direction.</td>
</tr>
<tr>
<td>18</td>
<td>Photo depicts a close up view of the pump installation at the KELIikuI residence TMK: 1-4-70:38, looking in a Northerly direction.</td>
</tr>
<tr>
<td>19</td>
<td>Photo depicts electrical lines attached to the main electrical panel at the KELIikuI residence TMK 1-4-70-38. View looking North.</td>
</tr>
<tr>
<td>20</td>
<td>Photo depicts Pump installation attached to the well head at TMK 1-4-70-15. View looking South West.</td>
</tr>
<tr>
<td>21</td>
<td>Photo depicts Pump installation attached to the well head at TMK 1-4-70-15. View looking North.</td>
</tr>
<tr>
<td>22</td>
<td>Photo depicts the electrical line emanating from the pump leading towards the electrical panel. TMK 1-4-70:15, looking in a Westerly direction.</td>
</tr>
<tr>
<td>23</td>
<td>Photo depicts the electrical line emanating from the pump leading towards the electrical panel. TMK 1-4-70:15, looking in a Easterly direction.</td>
</tr>
<tr>
<td>24</td>
<td>Photo depicts the aforementioned electrical line leading into the electrical panel. TMK 1-4-70-15.</td>
</tr>
</tbody>
</table>

**OFFICER:** John P. HOLLEY  
**BADGE NO.** #86  
**DATE/TIME** 02-08-01/1106 Hrs.

**SUPERVISOR APPROVAL** Bryan SUGIYAMA #1  
**DATE/TIME**

Form HB106
alteration or repairs of an existing well, but excluding the installation of pumps and pumping equipment.

"Well driller" means any person licensed in the State of Hawaii to construct, alter, or repair wells.

"Well seal" means an approved arrangement or device used to cap a well or to establish and maintain a junction between the casing or curbing of a well and the piping or equipment installed therein, the purpose or function of which is to prevent pollutants from entering the well at the other terminal. [Eff. MAY 27 1988] (Auth: HRS §§ 91-2, 174C-8) (Imp: HRS §§ 91-2, 174C-3, 174C-81, 174C-91)

§13-169-3 Penalties. (a) Any person who violates any provision of this chapter or any permit condition or who fails to comply with any order of the commission may be subject to a fine imposed by the commission. Such fine shall not exceed $1,000 per violation. For a continuing offense, each day's continuance is a separate violation.

(b) No provision of this chapter shall bar the right of any injured person to seek other legal or equitable relief against a violator of this chapter. [Eff. MAY 27 1988] (Auth: HRS §174C-8) (Imp: HRS §174C-15)

Subchapter 2
Water Use

§13-168-5 Declaration of water use. (a) Any person making a use of water from a well or stream diversion works in existence on the effective date of these rules in any area of the state shall file a declaration of the person's use with the commission within one year from the effective date of these rules.

(b) The commission shall cause notice of the rules to be published on three separate days in a newspaper of general circulation statewide and in a newspaper of areawide or countywide circulation. The commission shall also cause notice of the rules to be given by mail to any person required to file of whom the commission has or could readily obtain knowledge or who has requested mailed notice to be given when the commission adopts rules requiring the filing of declarations.

(c) Declarations by the user shall be made on forms provided by the commission and shall contain information including, but not limited to, the location of the water sources and all usage-related facts, or information within his knowledge or possession. The user shall include
§13-168-5

a declaration of the manner, purposes, and time in which the water source is being used and operated, the rate and volume of water being withdrawn or diverted therefrom, and the method or means of measuring and controlling the water taken or used. Each declaration shall contain a statement, signed and sworn to by the person required to file the declaration, or by some other person duly authorized in the person's behalf, to the effect that the contents thereof are true to the best of the person's knowledge and belief.

(d) If no declaration is filed, the commission, in its discretion, may conclusively determine the extent of the uses required for declaration.


§13-168-6 Certificate of water use. (a) When a declaration has been filed in accordance with this chapter and the commission has determined that the use declared is a reasonable and beneficial use, the commission shall issue or cause to be issued a certificate describing the use. The certificate shall be deemed to constitute a description of the use declared, but shall not constitute a property right or interest nor a determination that the use declared therein is a legal one. The certificate shall give rise to a rebuttable presumption in favor of the certificate holder that the use declared therein is reasonable and beneficial. Each certificate shall show the amount of water use declared, but such declared use shall be subject to verification and updating before being recognized by the commission in resolving claims relating to existing water rights and uses, including appurtenant rights, riparian and correlative use.

(b) The commission shall hold a hearing upon an appropriate request by any person adversely affected by the certification or the refusal to certify the amount of water being used.

(c) Whenever a certified use of water is terminated, the person with the certificate shall file a report with the commission, providing all information required on forms provided by the commission. [Eff. MAY 27 1988] (Auth: HRS §174C-8) (Imp: HRS §§91-2, 174C-27, 174C-60).

§13-168-7 Report of water use. (a) The owner or operator of any well or stream diversion works from which water is being used shall provide and maintain an approved meter or other appropriate device or means for measuring and reporting total water usage on a monthly (calendar or work schedule) basis. If a well or stream diversion works is one of a battery of interconnected water sources, a
centralized measuring device or facility may be approved by the commission.

(b) The owner or operator of any well or stream diversion works or battery of such water sources shall file a report of total water usage on a regular monthly (calendar or work schedule) basis to the commission on forms provided by the commission on or before the end of the month following the month for which water usage is to be reported. The reports may include other use-related information such as type of use, salinity, and water level, as may be deemed appropriate and reasonable by the commission.

(c) At the discretion of the commission, requirements for measuring and reporting monthly water usage may be lessened, modified, or exempted for owners or operators of small, individual wells or stream diversion works. The lessening, modification, or exemption of such requirements shall be approved, disapproved, or otherwise decided by the commission on a case-by-case basis.

Subchapter 3
—Wells

§ 13-168-11 Registration of existing wells. (a) Within one year from the effective date of these rules, the owner or operator of any well in existence on the effective date of these rules shall register the well with the commission on forms provided by the commission. The owner or operator shall disclose the location of such well and all other facts or information related to its geology, hydrology, and construction. Registration shall include, but not be limited to, such information as water use permit number, if any; location and dimensions of the well; state-assigned well number; depths and diameters of drilled hole and casing; range of water level and salinity; pumping test results, if any; installed pump description and operating capacity; method of measuring water usage; method of construction; and well driller, if known.

(b) The commission may deny the issuance of a water use permit as provided for under chapter 13-171 until such time as the applicant registers all wells which the applicant owns or operates.
§13-168-12 Well construction and pump installation permits.

(a) No well shall be constructed, altered, or repaired and no pump or pumping equipment shall be installed, replaced, or repaired without an appropriate permit from the commission. An application for a well construction or pump installation permit shall be accompanied by a non-refundable filing fee of $25.00, excepting government agencies, and shall be required for all areas of the state, including water management areas. The owner of a well shall make application or cause an application to be made by the well driller who will construct the well or by the pump installation contractor who will install the pump and pumping equipment, as the case may be.

(b) Applications for a well construction or pump installation permit shall be made on forms provided by the commission. The commission shall approve or disapprove an acceptably completed application within ninety calendar days of receipt by the commission. Each application shall contain the name of owner or operator; location; contractor's license number; purpose of well construction or pump installation; proposed withdrawal and use of water; water use permit information if applicable; type, size, and expected capacity of the well or pump; and such other information as the commission may require.

(c) The commission may issue or cause to be issued a permit only if the proposed construction complies with all applicable laws, rules, and standards. Before an application for a well construction permit is approved, the commission shall cause such application to be reviewed by the department of health for compliance with their rules and standards concerning, among other things, the appropriateness of the well location.

(d) Every well construction or pump installation permit for a new well or well without a previous pumping test shall require a pumping test to be performed. Measurements of time, pumping rate, drawdown, and chloride content, as appropriate and approved, shall be recorded and reported as required in §13-168-13.

(e) Every well construction and pump installation permit shall direct the well driller or pump installation contractor to file a well completion report, as provided in §13-168-13. The permit shall be prominently displayed at the site of the well at all times until the well construction or the pump installation is completed.

(f) The holder of a well construction permit, with the approval of the commission, may change the location of the well before construction is completed. An application to change the location shall state the location, proposed depth, method of construction, size, and expected capacity of the new well. The application to change the location shall also state the manner of sealing or plugging the abandoned well. The commission shall cause all such applications to be reviewed by the department of health for compliance with their rules and standards concerning, among other things, the appropriateness of the location of the well.
(g) An amended well construction permit may be issued by the commission if it determines that the proposed new well location will serve the same use as the original well, draw upon the same supply of water, and will not be contrary to any applicable law, rule, order, or regulation; and that the incomplete and abandoned well will be sealed or plugged in an approved manner.

(h) An applicant for a well construction or pump installation permit whose application or amended application is rejected may obtain a hearing before the commission by filing within thirty days of the mailing of the notice of rejection a written petition requesting such a hearing. The hearing shall be conducted pursuant to chapter 13-167.

(i) The commission may modify, suspend, or revoke a permit, after notice and hearing, on any of the following grounds:

1. Material misstatement or misrepresentation in the application for a permit;
2. Failure to comply with the provisions set forth in the permit;
3. Willful disregard or violation of any provision of this part or any rule adopted pursuant thereto; or
4. Material change of circumstances or conditions existing at the time the permit was issued.

(j) Every well construction and pump installation permit issued or caused to be issued by the commission shall be for a specified period not to exceed two years, unless otherwise specified in the permit and shall contain the commencement and completion dates for the permitted activity. In determining the commencement and completion dates of the activity, the commission shall take into consideration the:

1. Cost and magnitude of the project;
2. Engineering and physical features involved;
3. Existing conditions; and
4. Public interest affected.

(k) The commission may extend the completion dates of the activity prescribed in any permit upon a showing of good cause and good-faith performance. If the commencement or completion date is not complied with, the commission shall cause the permittee to be notified by certified mail that the permit shall be revoked within sixty days unless the permittee can show good cause that it should not be revoked. [Eff. MAY 2 7 1988 ] (Auth: HRS §174C-8)

(Imp: HRS §§91-2, 174C-48, 174C-53, 174C-84)

$13-168-13 Well completion report. Within thirty days after the completion of any well, the well driller or pump installation contractor, as the case may be, shall file with the commission on forms provided by the commission a well completion report containing as appropriate:

1. State well number;
2. Date of completion;
3. Tax map key;
APPLICATION FOR PERMIT

(a) Well Construction or (b) 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 96813. Application must be accompanied by 3 copies and a non-refundable filing fee of $125.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-587-0225.

For further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwm.

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

1. (a) WELL OWNER: Judith B. Hamms
   Contact Person: Same
   Mailing Address: 18-4186 Kapoho-Pahoa Rd., Pahoa, HI 96778
   Phone: 965-8785
   Fax:
   E-mail:

2. LAND OWNER: Same
   Contact Person: Phone
   Mailing Address:
   Fax:
   E-mail:

3. CONTRACTOR: Turner Drilling
   Contact Person: Phone
   Mailing Address:
   Fax:
   E-mail:

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

2. WELL LOCATION NAME: Vacant Lot Land Lot #1 (6')
   Island: HI
   Address: Corner of Ana Laa and Hilo
   Tax Map Key: 1-470-2S
   Tax Map:

3. PROPOSED WORK: (Check all that apply)
   - Drill New Well
   - Decon
   - Install New Pump
   - Modify Existing Well
   - Redrill
   - Modify Pump
   - Abandon/Seal

   * Well No:_____, Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:
   - Dug
   - Bored
   - Driven
   - Drilled
   - Radial
   - Is this well part of a battery of wells? Yes
   - No
   (Please describe.)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 3/4 HP 12 gpm, gallons per minute
   Powered by:
   - Deep Well Turbine
   - Submersible
   - Centrifugal
   - Rotary
   - Rotary-Displacement
   - Reciprocating
   - Radial
   - Impulse
   - Diesel
   - Gas
   - Electric, rated horsepower: 3/4 HP

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

   No. of Dwelling Units:
   No. of Acres:
   Other:

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 200 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   - Flowmeter
   - Open pipe
   - Wot
   - Orifice
   Other:

OTHER IMPORTANT INFORMATION:

8. PENDING ACTIONS: 
   - COU
   - SCA
   - EIS
   - EA
   - NONE
   Other:

9. REMARKS, EXPLANATIONS:

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 coninitative water rights and shall not manage the pump capacity or future use up to the permitted pump capacity.

Well Owner: Judith Hamms
Landowner: Judith Hamms
Contractor: Turner Drilling

Signature
Date 2-5-01

State Well No.
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 Water Level Elevation)
Example: Estimated + 2 ft. Water Level Elev. = Bottom Elevation of Well Limit = (2.51 ft.) = 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
- Stainless Steel: compliant with (check one or more):
  - ASTM A409
  - ASTM A312
- ABS Plastic: conforming to ASTM F490 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic: conforming to ASTM F980 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

**Open Casing Material:**
- 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 A409
  - ASTM A312
- ABS Plastic: conforming to ASTM F490 and ASTM D1527: (check one)
  - Schedule 40
  - Schedule 80
- PVC Plastic: conforming to ASTM F980 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
**REVERSE OSMOSIS:**

Pre-Engineered for Performance, Simplicity

A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS Autotrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units — a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components — ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit — unlike the limited service and support offered by competitive RO sellers. In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 - 2,535 GPD</td>
<td>2.5 inch TLC</td>
<td>Stainless</td>
<td>Rotary Vane</td>
<td>1/3 - 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 - 330 LPH</td>
<td>63.5mm TLC</td>
<td>Stainless</td>
<td>Rotary Vane</td>
<td>25 - 55 KW, 1 Phase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 - 10,800 GPD</td>
<td>4 inch TLC</td>
<td>Stainless</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase</td>
</tr>
<tr>
<td>235 - 1,700 LPH</td>
<td>101.6mm TLC</td>
<td>Stainless</td>
<td>Centrifugal</td>
<td>1.10KW, 1 Phase</td>
</tr>
</tbody>
</table>

1.10KW, 1 Phase | 3.70 KW, 3 Phase |
### ARO Kit Specifications

<table>
<thead>
<tr>
<th>Model:</th>
<th>ARO-3600</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance:</strong></td>
<td>at 77 °F (25 °C), 2000 ppm TDS</td>
</tr>
<tr>
<td>Permeate Rate: 50% Recovery</td>
<td>2.50 gpm</td>
</tr>
<tr>
<td>Concentrate Rate: 50% Recovery</td>
<td>0.83 gpm</td>
</tr>
<tr>
<td>Feed Rate:</td>
<td>3.33 gpm</td>
</tr>
<tr>
<td>Permeate Rate: 75% Recovery</td>
<td>2.50 gpm</td>
</tr>
<tr>
<td>Concentrate Rate: 75% Recovery</td>
<td>2.50 gpm</td>
</tr>
</tbody>
</table>

- **Maximum Recovery:** 75%

| Operating Pressure: | 200 to 220 psi (13.8 to 15.0 Bar) |
| Typical Ionic Rejection: | 95 to 98% |
| Membrane: | (2) 4.0" x 40" TLC, FASTEK S4040 |
| Membrane Housing: | (2) 304 SS, 3/8" (9.5 mm) ports, End Entry |
| Array: | 1-1 (1 element per housing) |
| High Pressure Piping: | 1/2" Tubing, Nylon (FDA approved) |
| Pump: | TEEL, Multi-Stage Centrifugal |
| Cast Iron Inlet and Discharge, Plastic impellers |
| Motor: | 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available) |
| Control Circuit: | 115 VAC, Single Phase |
| Frame: | Painted Carbon Steel, 50" H x 30" W x 22" D |
| Approximate Weight: | 185 lbs. (with Free Standing Frame) |
| Connections: | 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate |
| Instrumentation Features: | Permeate Flow Meter, Concentrate Pressure Gauge |
| Concentrate Flow Meter | Five Micron Prefilter |
| Flow Control Center | Inlet Shut Off Valve |
| Option(s): | |<br>Stainless Steel Pump<br>Low Inlet Pressure Switch<br>Electrical Upgrade Package, incl.<br>Autoflush<br>Conductivity Meter<br>Low Inlet Pressure Switch |
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

Instructions: Please print on Water Resource Manager:\n3 copies and a non-refundable
Commission may not accept:
For further information and up

APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)
1. [ ] WELL OWNER: Name: Phone: Address:
   Mailing Address: Fax: Email: Phone: Phone: Phone: 
2. [ ] LANDOWNER: Name: Contact Person: Phone: Address: Fax: Email: 
3. [ ] CONTRACTOR: Name: Contact Person: Phone: Address: Fax: Email: 

WELL & PUMP INFORMATION: (Please fill in the diagram on the back of this form)
2. WELL LOCATION: Name: Phone: Address: 
   LUPA Dr./Pahoa, HT 96778 
   Island: HT 
   Tax Map Key: 1-4-20-22 
   [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: (Check all that apply)
   [ ] Drill New Well [ ] Deepen [ ] Install New Pump
   [ ] Modify Existing Well [ ] Redrill [ ] Modify Pump
   [ ] Abandon/Seal [ ] Replace Pump
   * Well No.: Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:
   [ ] Dug [ ] Bored [ ] Driven [ ] Drilled [ ] Radial
   Is this well a part of a battery of wells? [ ] Yes [ ] No (Please describe.)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity gallons per minute
   [ ] Deep Well Turbine [ ] Rotary [ ] Propeller [ ] Diesel
   [ ] Submersible [ ] Rotary-Displacement [ ] Reciprocating [ ] Gas
   [ ] Centrifugal [ ] Rotary-Gear [ ] Impulse [ ] Electric, rated horsepower:

6. PROPOSED USE: (Check all that apply)
   [ ] Municipal (including hotels, stores, etc.) [ ] Domestic (including non-commercial water system)
   [ ] Irrigation (crop) [ ] Industrial [ ] No. of Dwelling Units: 
   [ ] Military [ ] Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 
   (b) METHOD OF FLOW MEASUREMENT: 

   OTHER IMPORTANT INFORMATION:

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

9. REMARKS, EXPLANATIONS: 

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

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 constitute a determination of commensurate water rights and shall not guarantee pump capacity or future use up to the permitted pump capacity.

Well Owner: Name: Phone: Address: 
Landowner: Name: Phone: Address: 
Contractor: Name: Phone: Address: 

Signature: Date:
Signature: Date:
Signature: Date:

Field Checked By: 
Longitude: 
Aquifer System Name: 
Date: 
Latitude: 
State Well No. 

WCPIFORM (3/100)
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 F900 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
- 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
  - FPE 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 F900 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
- 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
  - FPE 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 assure that your construction plans are in compliance with all existing regulations.
A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS Autotrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units — a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components — ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit — unlike the limited service and support offered by competitive RO sellers. In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 – 2,535 GPD</td>
<td>2.5 Inch TLC</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>1/3 – 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 – 330 LPH</td>
<td>63.5mm TLC</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>25 – 55 KW, 1 Phase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 – 10,800 GPD</td>
<td>4 Inch TLC</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase – 5 HP, 3 Phase</td>
</tr>
<tr>
<td>235 – 1,700 LPH</td>
<td>101.6mm TLC</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1.10KW, 1 Phase – 3.70 KW, 3 Phase</td>
</tr>
</tbody>
</table>
### ARO Kit Specifications

<table>
<thead>
<tr>
<th>Model:</th>
<th>ARO-3600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance:</td>
<td>at 77 °F (25°C), 2000 ppm TDS</td>
</tr>
<tr>
<td>Permeate Rate</td>
<td>50% Recovery: 2.50 gpm, 75% Recovery: 2.50 gpm</td>
</tr>
<tr>
<td>Concentrate Rate: 2.50 gpm, 0.83 gpm</td>
<td></td>
</tr>
<tr>
<td>Feed Rate:</td>
<td>5.00 gpm, 3.33 gpm</td>
</tr>
</tbody>
</table>

* Maximum Recovery: 75%

| Operating Pressure: 200 to 220 psi (13.8 to 15.0 Bar) |
| Typical Ionic Rejection: 95 to 98%                   |
| Membrane: (2) 4.0" x 40" TLC, FASTEK S4040          |
| Membrane Housing: (2) 304 SS, 3/8" (9.5 mm) ports, End Entry |
| Array: 1-1 (1 element per housing)                   |
| High Pressure Piping: 1/2" Tubing, Nylon (FDA approved) |
| Pump: TEEL, Multi-Stage Centrifugal                  |
| Motor: 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available) |
| Control Circuit: 115 VAC, Single Phase               |
| Frame: Painted Carbon Steel, 50" H x 30" W x 22" D  |
| Approximate Weight: 185 lbs. (with Free Standing Frame) |
| Connections: 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate |
| Instrumentation Features: Permeate Flow Meter, Concentrate Pressure Gauge |
|                        Concentrate Flow Meter, Five Micron Prefilter |
|                        Flow Control Center, Inlet Shut Off Valve |

**Option(s):**
- [x] Stainless Steel Pump
- Low Inlet Pressure Switch
- Electrical Upgrade Package; incl.
  - [x] Autoflush
  - * Conductivity Meter
  - * Low Inlet Pressure Switch
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

☐ Well Construction 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 96810. 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 808-587-0225.

For further information and updates to this application form, visit http://www.state.hawaii.gov/wrm/waterpermits.

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

1. (a) [ ] WELL OWNER: Addthis B. Harms Contact Person: Same Phone: 965-3985
   Mailing Address: 14-926 Kapoho-Pahoa Rd, Pahoa, HI 96778
   Fax: __________ Phone: __________
   Email: __________

   (b) [ ] LAND OWNER: Same Contact Person: __________ Phone: __________
   Mailing Address: __________ Fax: __________
   Email: __________

   (c) [ ] CONTRACTOR: Timmer Dailing Contact Person: Naomi Phone: 530-857-6250
   Mailing Address: __________ Fax: __________
   Email: __________

2. WELL LOCATION/NAME: Vacation Land (#3) (91) Island: HI
   Address: Mail St, Pahoa, HI 96778 Tax Map Key: 14-20-65
   Attach the relevant portion of (a) a 7-4/20 SSG topographic map (scale 1:24,000), and (b) a property tax map, showing well location referenced to established property boundaries.

3. PROPOSED WORK: (Check all that apply)
   (a) New Well
   (b) [ ] Deep Well
   (c) [ ] Install New Pump
   (d) [ ] Modify Existing Well
   (e) [ ] Radial
   (f) [ ] Modify Pump
   (g) [ ] Replace Pump
   * Well No.: __________ Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION:
   (a) [ ] Dug
   (b) [ ] Bored
   (c) [ ] Driven
   (d) [ ] Drilled
   (e) [ ] Radial
   Is this well a part of a battery of wells? [ ] Yes [ ] No
   (Please describe)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 1/2 HP 12 gallons per minute
   (a) Pump Type (Check one): ☐ Deep Well Turbine
   (b) ☐ Submersible
   (c) ☐ Centrifugal
   (d) [ ] Rotary
   (e) [ ] Rotary-Displacement
   (f) [ ] Reciprocating
   (g) [ ] Impulse
   (h) [ ] Other (explain)
   (i) [ ] Electric, rated horsepower: 1/2 HP

6. PROPOSED USE: (Check all that apply)
   (a) Municipal (including hotels, stores, etc.)
   (b) Domestic (individual, noncommercial water system)
   (c) Irrigation (crop)
   (d) Military
   (e) [ ] Industrial
   (f) [ ] Other (explain)
   No. of Dwelling Units: __________
   No. of Acres: __________
   No. of Wells: __________
   No. of Wells: __________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: __________ gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   (c) Flowmeter (Check one): [ ] Open-pipe [ ] Well [ ] Orifice [ ] Other (explain)

OTHER IMPORTANT INFORMATION:

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

9. REMARKS, EXPLANATIONS:

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

I understand that approval of this application attaches following standard conditions: 1) the proposed work is to be completed within 2 years of the approval date; 2) the contractor shall submit a Completion packet within 30 days after the completion date of the proposed well; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of consumptive water rights and shall not guarantee the pump capacity or future use of the permitted pump capacity.

Well Owner: Addthis Harms Landowner: Addthis Harms Contractor: Timmer Dailing
Signature: __________ Signature: __________ Signature: __________
Date: 2-5-01 Date: 2-5-01 Date: 2-5-01

Field Checked By __________________________ Longitude __________ Aquifer System Name __________
Date __________________________ Latitude __________ State Well No. __________________________

WCPFIRM (3/1/00)
11. PROPOSED WELL SECTION

Minimum of 2' Radius & 4" Thick Concrete Pad

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 = \( \frac{4}{3} \times \text{Water Level Elevation} \)

Example: Estimated \( \times 2.8 \text{ ft. Water Level Elev.} \rightarrow \text{Bottom Elevation of Well Limit} = (2.8 \times 10) = 18.5 \text{ ft.} \)

* 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 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

ABB Plastic conforming to ASTM F1520 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

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 D3286

**Open 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

ABB Plastic conforming to ASTM F1520 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

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 D3286

Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to assure that your construction plans are in compliance with all existing regulations.

Solid Casing: \( \pm 2.00 \text{ ft} \) (Ground Elev. - Water Level Elev.)

Material:
- Length: __________ ft.
- Diameter: __________ in.
- Wall Thickness: __________ in.
- Bottom Elevation: __________ ft., msl

Open Casing:
- Perforated
- Screen

Material:
- Length: __________ ft.
- Diameter: __________ in.
- Wall Thickness: __________ in.
- Openings: __________ eq. in./A.F.
- Bottom Elevation: __________ ft., msl

Open Hole:
- Length: __________ ft.
- Diameter: __________ in.
- Bottom Elevation: __________ ft., msl

Ground Elevation: __________ ft., msl
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

1. (a) WELL OWNER: Health B. Haems
   Contact Person: Same
   Mailing Address: 14-4114 Kapoho-Pahoa, Pahoa, HI 96778
   Phone: 965-3725
   Fax: ____________________

2. LAND OWNER: Same
   Contact Person: ____________________
   Mailing Address: ____________________
   Phone: ____________________
   Fax: ____________________

3. CONTRACTOR: Turner Drilling
   Contact Person: Naom TRaney
   Mailing Address: 1228-205 Schoonover Rd, Sunnyvale, CA 94089
   Phone: 520-252-6222
   Fax: ____________________

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

   Island: HT
   Address: Kaoheka Rd, Pahoa, HI 96778

   Permit Key: 1-67-39-91

3. PROPOSED WORK:
   (Check all that apply)
   □ Drill New Well  □ Deepen  □ Install New Pump
   □ Modify Existing Well  □ Redrill  □ Modify Pump
   □ Abandon/Seal  □ Replace Pump

   * Well No.: ____________________
   Be sure to complete and submit well abandonment report upon completion of work.

4. CONSTRUCTION: □ Dug  □ Bored  □ Driven  □ Drilled  □ Radial
   Is this well part of a battery of wells?  □ Yes  □ No  (Please describe: ____________________)

5. PROPOSED PUMP INFORMATION: Rated Pump Capacity: 3/4 HP 12 GPM gallons per minute
   Pump Type (Check one):
   □ Deep Well Turbine  □ Rotary  □ Propeller  □ Diesel
   □ Submersible  □ Rotary-Displacement  □ Reciprocating  □ Gas
   □ Centrifugal  □ Rotary-Gear  □ Impulse  □ Electric, rated horsepower 3/4 HP

6. PROPOSED USE:
   (Check all that apply)
   □ Municipal (including hotels, stores, etc.)  □ Industrial
   □ Domestic (individual, non-commercial water system)  □ No. of Dwelling Units: ____________
   □ Irrigation (crop)  □ No. of Acres: _______
   □ Military  □ Other (explain): ____________________

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 800 gallons per day
   (b) METHOD OF FLOW MEASUREMENT:
   □ Flowmeter  □ Open-pipe  □ weir  □ Office  □ Other (explain): ____________________

OTHER IMPORTANT INFORMATION:
8. PENDING ACTIONS: □ CDUA  □ SMA  □ EIS  □ EA  □ NONE  □ Other (explain): ____________________

9. REMARKS, EXPLANATIONS:
   __________________________________________________
   __________________________________________________
   __________________________________________________

Well Owner Health B. Haems
Signature __________________________
Date 2-5-01

Landowner Health B. Haems
Signature __________________________
Date 2-5-01

Contractor Turner Drilling
Signature __________________________
Date 2-5-01

Field Checked By __________________________
Latitude __________________________
Date __________________________

Longitude __________________________
Aqaurifer System Name __________________________
Aqaurifer System Name __________________________
Well No. __________________________

WCPFORM (3/1/00)
Please refer to the HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS to assure that your construction plans are in compliance with all existing regulations.

Solid Casing Material:
- Steel compliance: [check one or more]:
  - ANSI/AWWA C200
  - API Spec 5L
  - ASTM A53
  - ASTM A139
  - Other

- Stainless Steel: [check one]:
  - ASTM A409
  - ASTM A312

- ABS Plastic: [check one or more]:
  - Schedule 40
  - Schedule 80

- PVC Plastic: [check one or more]:
  - Schedule 40
  - Schedule 80

Thermoset Plastic: [check one]:
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTMD3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3298

Open Casing Material:
- Steel compliance: [check one or more]:
  - ANSI/AWWA C200
  - API Spec 5L
  - ASTM A53
  - ASTM A139
  - Other

- Stainless Steel: [check one]:
  - ASTM A409
  - ASTM A312

- ABS Plastic: [check one or more]:
  - Schedule 40
  - Schedule 80

- PVC Plastic: [check one or more]:
  - Schedule 40
  - Schedule 80

Thermoset Plastic: [check one]:
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTMD3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3298

Open Hole: [check one]:
- Diameter: [ ]
- Length: [ ]

Bottom Elevation: [ ]
REVERSE OSMOSIS:

Pre-Engineered for Performance, Simplicity

A perfect fit for every flow requirement.

With flow rates ranging from 215 to 10,800 gallons per day, OSMONICS Autotrol offers a quality RO system or kit configuration to fit any high-purity water application — all in a pre-engineered package that comes ready to install with the help, guidance and expertise of a qualified water conditioning professional.

Simple, adjustable flow controls allow for set up and configuration of RO units for optimum performance and provides you with the versatility to make easy adjustments.

Extremely quiet centrifugal pumps minimize noise in larger RO units — a big advantage in installations where low noise levels are required.

High-quality construction featuring stainless steel membrane housings and other durable, long-lasting components — ensures years of dependable performance.

Expandable design lets you enlarge your basic unit by adding more FASTEK membrane elements and, in some cases, a larger pump. You don’t need to buy a whole new unit to increase pure water production.

Space-saving configuration keeps all components within the supporting frame for compact, space-efficient installations, especially for larger applications.

Optional electrical and hydraulic upgrades can be easily added to your RO unit to enhance its performance and efficiency.

Unmatched product and technical support is available on every reverse osmosis kit — unlike the limited service and support offered by competitive RO sellers.

In addition, excellent documentation comes standard with our RO kits.

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 - 2,535 GPD</td>
<td>2.5 Inch TLC'</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>1/2 - 3/4 HP, 1 Phase</td>
</tr>
<tr>
<td>35 - 330 LPH</td>
<td>63.5mm TLC'</td>
<td>Stainless Steel</td>
<td>Rotary Vane</td>
<td>25 - 55 KW, 1 Phase</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Membrane In.</th>
<th>Housing</th>
<th>Pump</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 - 10,800 GPD</td>
<td>4 Inch TLC'</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>1-1/2 HP, 1 Phase - 5 HP, 3 Phase</td>
</tr>
<tr>
<td>235 - 1,700 LPH</td>
<td>101.6mm TLC'</td>
<td>Stainless Steel</td>
<td>Centrifugal</td>
<td>110KW, 1 Phase - 3.70 KW, 3 Phase</td>
</tr>
</tbody>
</table>
Specifications

Model: ARO-3600
Performance: at 77°F (25°C), 2000 ppm TDS

<table>
<thead>
<tr>
<th>Recovery</th>
<th>Permeate Rate</th>
<th>Concentrate Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>2.50 gpm</td>
<td>2.50 gpm</td>
</tr>
<tr>
<td>75%</td>
<td>2.50 gpm</td>
<td>0.83 gpm</td>
</tr>
</tbody>
</table>

* Maximum Recovery: 75%

Operating Pressure: 200 to 220 psi (13.8 to 15.0 Bar)
Typical Ionic Rejection: 95 to 98%
Membrane: (2) 4.0" x 40" TLC, FASTEK S4040
Membrane Housing: (2) 304 SS, 3/8" (9.5 mm) ports, End Entry
Array: 1-1 (1 element per housing)
High Pressure Piping: 1/2" Tubing, Nylon (FDA approved)
Pump: TEEL, Multi-Stage Centrifugal Cast Iron Inlet and Discharge, Plastic Impellers
Motor: 1 1/2 HP, ODP, 115 VAC, 60 Hz (220 VAC also available)
Control Circuit: 115 VAC, Single Phase
Frame: Painted Carbon Steel, 50" H x 30" W x 22" D
Approximate Weight: 185 lbs. (with Free Standing Frame)
Connections: 3/4" Inlet, 1/2" Permeate, 1/2" Concentrate
Instrumentation Features: Permeate Flow Meter, Concentrate Pressure Gauge, Concentrate Flow Meter, Five Micron Prefilter, Flow Control Center, Inlet Shut Off Valve

Option(s):
- Stainless Steel Pump
- Low Inlet Pressure Switch
- Electrical Upgrade Package; incl.
  - Autoflush
  - Conductivity Meter
  - Low Inlet Pressure Switch
January 9, 2001

Mr. Hoy Hardy
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Hardy:

After consulting with my husband, he informed me that I have been stating the wrong hole diameter in wells for Jack May, Ardith Harms and Edna Christensen. The correct hole diameter is 12". This is due to the fact that he used a larger size bit than I was aware of.

I am sorry for any inconvenience this may have caused you. If you have any questions or need further information, please call me at 982-8255.

Sincerely,

TURNER DRILLING & PUMP

Naomi Turner

NT:lab