Mr. Yoshi Tanabe  
Waialua Sugar Company  
1116 Whitmore Avenue  
Wahiawa, HI 96786

Dear Mr. Tanabe:

Notice of Action
Revocation of Water Use Permits

Pump 10 (Well Nos. 3306-01 to 12; WUP No. 135), TMK 6-5-1:002
Mill Pumps (Well Nos. 3407-07 to 10, 13, 16, 17, 20 & 21; WUP No. 47), TMK 6-7-01:5

Waialua Ground Water Management Area, Oahu

This letter serves as your official notice of action by the Commission on Water Resource Management (Commission) on the above-referenced water use permits.

By a unanimous vote of the Commission at their meeting on September 18, 2002, the Commission:

1. Revoked WUP Nos. 47 and 135.

2. Commended Waialua Sugar Company for their voluntarily actions to expend the effort and financial resources to seal former agricultural wells that are no longer needed and may pose water resource threats, and also for their voluntary relinquishment of unused water allocations so that new reasonable-beneficial uses may proceed.

If you have any questions, please contact Lenore Nakama at 587-0218.

Sincerely,

LINNEL T. NISHIOKA  
Deputy Director

LN:ss
2. 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.

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

6. Waialua Sugar Company REVOCATION OF WATER USE PERMITS, Pump 10 (Well Nos. 3306-01 to 12; WUP No. 135), Mill Pumps (Well Nos. 3407-07 to 10, 13, 16, 17, 20 & 21; WUP No. 47), TMK 6-7-01:5, Waialua Ground Water Management Area, Oahu

PRESENTATION OF SUBMITTAL: Lenore Nakama

RECOMMENDATIONS:
Staff recommends that the Commission:

1. Revoke WUP Nos. 47 and 135.

2. Commend WSCO for their voluntarily actions to expend the effort and financial resources to seal former agricultural wells that are no longer needed and may pose water resource threats, and also for their voluntary relinquishment of unused water allocations so that new reasonable-beneficial uses may proceed.

MOTION: (DELA CRUZ/NISHIDA)
To approve the submittal.
UNANIMOUSLY APPROVED.


PRESENTATION OF SUBMITTAL: Edwin Sakoda

AMENDED RECOMMENDATIONS:
That the Commission:

1. Find that ADC has shown diligence in proceeding with the project.

2. Extend the deadline for ADC to complete the project, from September 21, 2002 to November 22, 2002.

3. A report on the status of the project be made at the next Commission meeting in October 2002.
STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

September 18, 2002
Honolulu, Oahu

Waialua Sugar Company
REVOCATION OF WATER USE PERMITS
Pump 10 (Well Nos. 3306-01 to 12; WUP No. 135), TMK 6-5-1:002
Mill Pumps (Well Nos. 3407-07 to 10, 13, 16, 17, 20 & 21; WUP No. 47), TMK 6-7-01:5
Waialua Ground Water Management Area, Oahu

PERMITTEE: Waialua Sugar Company
LANDOWNER: Same
1116 Whitmore Avenue
Wahiawa, HI 96786

LOCATION MAP: See Exhibit 1

BACKGROUND:

On September 11, 1981, the Board of Land and Natural Resources approved the certification of Waialua Sugar Company's (WSCO) existing use of 6.620 mgd and 4.630 mgd from Pump 10 (Well Nos. 3306-01 to 12) and Mill Pumps (Well Nos. 3407-07 to 10, 13, 16, 17, 20 & 21), respectively. The water was used for sugarcane agriculture.

On June 2, 1993, the Commission on Water Resource Management (Commission) approved WSCO's voluntary reduction in permitted use from the Waialua Ground Water Management Area. This action resulted in the reduction of the allocation for Pump 10 from 6.620 mgd to 5.0 mgd (WUP No. 135). There was no change in the allocation for the Mill Pumps, which remained at 4.630 mgd (WUP No. 47).

On April 25, 2002, WSCO submitted an application to abandon/seal the Pump 10 battery of wells.
On May 9, 2002, a Well Abandonment Permit was issued for the Pump 10 battery, and on August 5, 2002, Well Abandonment Reports were received and accepted by the Commission.

On August 12, 2002, WSCO submitted an application to abandon/seal the Mill Pump battery of wells.

On August 28, 2002, a Well Abandonment Permit was issued for the Mill Pump battery. The permit cover letter notified WSCO that the staff was planning to recommend that the CWRM revoke the water use permit for the source because the source was to be abandoned and sealed.

On or about August 30, 2002, the staff contacted the WSCO representative and confirmed that WSCO has no objections to these proposed revocations.

RECOMMENDATION:
Staff recommends that the Commission:

1. Revoke WUP Nos. 47 and 135.

2. Commend WSCO for their voluntarily actions to expend the effort and financial resources to seal former agricultural wells that are no longer needed and may pose water resource threats, and also for their voluntary relinquishment of unused water allocations so that new reasonable-beneficial uses may proceed.

Respectfully submitted,

LINNEL T. NISHIOKA
Deputy Director

Exhibit 1 (Location Map)
ITEM 1 MINUTES OF THE MAY 19, 1993 MEETING

Unanimously approved as submitted (Cox/Nakata).

ITEM 2 OLD BUSINESS/REPORTS

Ms. Loui reported on two follow up items:

1) Guidelines for modification of the water use permits

   Staff finds that Administrative Rules 171-23 are clear regarding changes that require modification. Therefore, it was felt that guidelines are not necessary.

2) Guidelines for Emergency permits

   Still being worked on. Eventually, amendments to the Administrative Rules will be made to more clearly address emergency permits.

ITEM 3 WAIALUA SUGAR COMPANY, VOLUNTARY REDUCTION OF PERMITTED WATER USE IN THE WAIALUA GROUND WATER MANAGEMENT AREA, WAIALUA, OAHU

Mr. Sakoda submitted amended recommendations for the Commission review and action (see attached).

Mr. Cox had the following questions:

1) Are the statements regarding "dry years and "wet years" correct for that area and time?

   Rainfall data provided by Climate Center was utilized, it was jointly determined that these were wet and dry years based on actual rainfall information.

2) In terms of the water level in the aquifer, what has happened during the periods noted?

   The water level data for the Waialua Aquifer is not that good. No problems have been expressed. USGS is drilling in that area to get more data.

3) What length of time is being discussed in Waialua Sugar Company's (Waialua Sugar) statement: "We cannot afford to short ourselves of water. As we understand, we can exceed the permitted use during dry periods as may be required."

   No specifics have been set, it would be on a case by case basis.

Mr. Nakata asked:

1) Why was there a discrepancy in the amount of pumpage?

   Mr. Sakoda replied that Waialua Sugar was still in the process of converting from furrow to drip. During that time, fields lie fallow longer than normal.

2) What percentage of the acreage was under drip irrigation?

   - 2 -
Milton Agadar, Waialua Sugar Irrigation Superintendent stated that approximately 90% is fed by drip irrigation from the Waialua Aquifer.

Mr. Martin provided testimony (see Commission file) urging the Commission to review all data presently available and consider imposing further allocation reductions. He also felt specific quantitative guidelines and protocols for administering dry period extractions need to be part of the State Water Resource Protection Plan and water use permit conditions.

Mr. Cox commented that unless more information was available he would be uncomfortable in trying set a time for the dry period because it would vary considerably from aquifer to aquifer. Mr. Sakoda agreed that a generalized guideline would be difficult to make because every situation would be different.

In regards to the word "voluntary", Mrs. Black suggested "agreement" because if there is no water, how could it be a "voluntary reduction". Mr. Sakoda stated that it is voluntary because the Water Code provides that a water user can voluntarily give up or reduce their allocation without going through the public hearing process.

Mr. Ing asked how the data was obtained for the graph and if all the active pumps were metered. Mr. Sakoda said data was submitted monthly by Waialua Sugar. Mr. Agadar responded that all the pumps are metered.

Mr. Ing asked why the 12-month moving average of pumping was used and if this was an industry practice. In Hawaii, 12-month moving averages have been used by the water industry.

Unanimously approved as amended (Cox/Nakata).

**ITEM 4**

**HOUSING FINANCE AND DEVELOPMENT CORPORATION, APPLICATION FOR A WELL CONSTRUCTION PERMIT, KEOPU-HFDC WELL 1 (WELL NO. 3957-03), NORTH KONA, HAWAII**

The following items were discussed:

1) The nearby Haseko Well is not being pumped but is proposed to be pumped at 700 gallons per minute.

2) This well would be required to follow the CWRM’s pump test protocol, which is a seven day test. The best data possible will be obtained for input into the Groundwater Model currently being developed jointly by USGS/CWRM.

3) If the HFDC wells interfere with the Haseko well, the Hawaii County BWS would not award the full amount of water commitments to the wells.

4) There have been mixed results of the testing of the high level wells. Some have stabilized quickly while others have not.

Mr. Martin expressed concerns regarding ceded lands, the effects on other wells due to a first come-first serve process, and requirements for a water license.

Mr. Tam said public lands are set aside by executive order for county and other state department uses. Setting aside or transferring water to a sub-agency of the state for public purposes is not a transfer to a private entity. Therefore, the use by the counties of state lands for providing municipal water supply does not require a license under the Land Board or the Commission.

Unanimously approved (Cox/Nakata).
Chairperson and Members
Commission on Water Resource Management
State of Hawaii
Honolulu, Hawaii

Gentlemen:

Waialua Sugar Company
Voluntary Reduction of Permitted Water Use in the
Waialua Aquifer System, Waialua Ground Water Management Area
Waialua, Oahu

Background: Present authorized uses of ground water in the Waialua Aquifer System of the Waialua Ground Water Management Area (GWMA) total 43.114 mgd. The sustainable yield for the Waialua Aquifer System (formerly called the Waialua Subarea) was originally 60 mgd when the Board of Land and Natural Resources adopted the sustainable yield in July 1981. The Commission on Water Resource Management, in October 1991, accepted an updated table of sustainable yields for Oahu. Under the updated table, the sustainable yield for the Waialua Aquifer System was reduced from 60 mgd to 40 mgd. The new sustainable yield was formally adopted by the Commission on March 17, 1993. Authorized uses now exceed the sustainable yield by 3.114 mgd.

The Commission staff has reviewed the authorized uses versus the actual uses in the entire Waialua GWMA. Allocations in the Waialua Aquifer System are as follows:

<table>
<thead>
<tr>
<th>Allocations</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waialua Sugar Company</td>
<td>39.940 mgd</td>
</tr>
<tr>
<td>Honolulu BWS</td>
<td>2.730 mgd</td>
</tr>
<tr>
<td>Private Users</td>
<td>0.444 mgd</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>43.114 mgd</strong></td>
</tr>
</tbody>
</table>

Preliminary review of Waialua Sugar Company's pumpage data indicates that they have used less than 30 mgd of their 40 mgd allocation over the last five years (see attached graph). Water use by the Honolulu BWS and private users has not changed significantly.

Waialua Sugar Company calculated their irrigation requirements using the same methodology that Oahu Sugar Company used to determine their irrigation requirements in the Pearl Harbor area. Irrigation requirements were calculated for dry years (1983 - 1986) and wet years (1988 - 1991). Pumping required was calculated to be about 46 to 48 mgd for dry years and about 35 to 36 mgd for wet years.

Waialua Sugar Company has reviewed their water use over the past 20 years and, based on historical water use, conversion to drip irrigation, and other factors, has voluntarily reduced its permitted water use in the Waialua Aquifer System from 39.9 mgd to 36.0 mgd effective June 1, 1993. This voluntary reduction reduces the allocations in the Waialua Aquifer System to 39.174 mgd, which is less than the sustainable yield of 40 mgd, and allows an additional 0.826 mgd to be allocated.

In voluntarily reducing its allocation, Waialua Sugar Company states that they "want to be on record that sugar production is highly dependent upon water; without adequate water, yields will suffer. We cannot afford to short ourselves of water. As we understand, we can exceed the permitted use during dry periods as may be required" (See attached letter).
Chairperson and Members  
Commission on Water Resource Management  
State of Hawaii  
Honolulu, Hawaii  

Gentlemen:

Additional Recommendations  
Waialua Sugar Company  
Voluntary Reduction of Permitted Water Use in the  
Waialua Aquifer System, Waialua Ground Water Management Area  
Waialua, Oahu

RECOMMENDATIONS:

1. That the Commission accept Waialua Sugar Company's voluntary reduction of permitted use in the Waialua Aquifer System, from 39.940 to 36.0 mgd, from the following sources:

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>WELL NUMBER</th>
<th>EXISTING ALLOCATION</th>
<th>PROPOSED ALLOCATION</th>
<th>REDUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump 3</td>
<td>3505-01 to 20</td>
<td>3.052 mgd</td>
<td>1.552 mgd</td>
<td>-1.500 mgd</td>
</tr>
<tr>
<td>Pump 7</td>
<td>3407-11, 12</td>
<td>3.750 mgd</td>
<td>2.930 mgd</td>
<td>-0.820 mgd</td>
</tr>
<tr>
<td>Pump 10</td>
<td>3306-01 to 12</td>
<td>6.620 mgd</td>
<td>5.000 mgd</td>
<td>-1.620 mgd</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td>13.422 MGD</td>
<td>9.482 MGD</td>
<td>3.940 MGD</td>
</tr>
</tbody>
</table>

2. That the Commission consider giving Waialua Sugar Company priority to reobtain its permitted level of water usage over any other application should more water become available in the future. This recommendation is based on Section 13-171-19(d) of the Water Code administrative rules which states:

"A permitted user of water in an existing water management area, with a continuous reduced water usage, shall be given priority to reobtain its permitted level of water usage over any other application; provided that the use remains the same and is reasonable and beneficial and water is available."
Chairperson and Members  
Commission on Water Resource Management  

June 2, 1993

RECOMMENDATION:

That the Commission accept Waialua Sugar Company's voluntary reduction of permitted use in the Waialua Aquifer System, from 39.940 to 36.0 mgd. The 3.94 mgd reduction will be taken from sources in the Waialua Aquifer System presently being determined by Waialua Sugar Company. Staff will be working with them to determine the source-by-source reductions and will bring the results to the Commission for approval.

Respectfully submitted,

RAE M. LOUI  
Deputy Director

Attach.

APPROVED FOR SUBMITTAL

KEITH W. AHUE, Chairperson
WAIALUA AQUIFER SYSTEM
WSCO. Use Vs. Allocation

--- monthly use   --- 12-mon mov ave

WUP = 39.940 mgd
11.418 mgd

1/80 1/82 1/84 1/86 1/88 1/90 1/92

mgd
Ms. Rae Loui  
Deputy Director  
State Water Commission  
P. O. Box 621  
Honolulu, Hawaii 96809  

Dear Ms. Loui:

We have had several meetings over the past months to discuss Waialua Sugar Company's permitted water use from the Waialua aquifer. Waialua Sugar has a permitted use of 39.9 million gallons per day. When you add the permitted use of the City Water Department, you have a combined use which is higher than the sustainable yield.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Waialua Sugar Company</td>
<td>39.9</td>
</tr>
<tr>
<td>Board of Water Supply</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>43.1</td>
</tr>
<tr>
<td>Total Sustainable Yield</td>
<td>40.0</td>
</tr>
<tr>
<td>Over Permitted Use</td>
<td>(3.1)</td>
</tr>
</tbody>
</table>

We have reviewed our water use over the past 20 years and while we have peaked at times over our permitted use, it appears we could reduce the permitted use given recent historical water use, conversion to drip irrigation and other factors.

Before going further, we want to be on record that sugar production is highly dependent upon water; without adequate water, yields will suffer. We cannot afford to short ourselves of water. As we understand, we can exceed the permitted use during dry periods as may be required.

Based on the above discussions and research into this matter, Waialua Sugar Company is voluntarily reducing its permitted water use in the Waialua aquifer from our current 39.9 million gallons per day to 36.0 million gallons per day effective June 1/93.

Sincerely,

Michael F. O'Brien  
President  
Dole Food Hawaii

cc: M. Agader  
    J. A. Russell  
    G. Yim
State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Water and Land Development
Honolulu, Hawaii

September 11, 1981

Chairman and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Gentlemen:

Certification of Ground Water Withdrawals and Uses,
Wai'alu Ground Water Control Area, Oahu

The Wai'alua Ground Water Control Area was designated by the Board of Land and Natural Resources on February 27, 1981 under authority of Chapter 177, HRS, and Chapter 198 of Title 13, Administrative Rules entitled "Rules for the Control of Ground Water Use in the State of Hawaii". The Department's regulatory procedures provide for water users to declare their existing water uses within a ninety-day period which ended June 4, 1981 and allows the Board 180 days to certify the declared uses.

The recommended certification of total annual, average daily, and maximum daily withdrawals for individual wells and/or well fields is tabulated in the attachment. "Certification of Ground Water Withdrawals and Uses, Wai'alua Ground Water Control Area", for the Wai'alua, Mokuleia, and Kawailoa Subareas. A comparison of the recommended quantity for certification and the sustainable yield adopted by the Board on July 24, 1981 is tabulated below:

<table>
<thead>
<tr>
<th>Subarea</th>
<th>Sustainable Yield (mgd)</th>
<th>Recommended Certification (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wai'alua</td>
<td>60</td>
<td>51.512</td>
</tr>
<tr>
<td>Mokuleia</td>
<td>20</td>
<td>7.753</td>
</tr>
<tr>
<td>Kawailoa</td>
<td>10</td>
<td>5.280</td>
</tr>
</tbody>
</table>

The remaining ground water supplies may be withdrawn by obtaining permits from the Board of Land and Natural Resources.

RECOMMENDATION:

That the Board certify the existing withdrawals and uses for each well tabulated on the attached "Certification of Ground Water Withdrawals and Uses, Wai'alua Ground Water Control Area" dated September 11, 1981, subject to any special conditions and applicable laws, rules and regulations.

Respectfully submitted,

[Signature]

ROBERT T. CHEUCK
Manager-Chief Engineer

APPROVED FOR SUBMITTAL:

[Signature]

SUSUMU ONO, Chairman

Approved by the Board of Land & Natural Resources at the meeting held on 9/14/81

C8
<table>
<thead>
<tr>
<th>User/Source</th>
<th>State Well No.</th>
<th>Total Wells</th>
<th>Source Capacity (mgd)</th>
<th>5-yr. Ave Withdrawal (mgd)</th>
<th>Maximum Daily Withdrawal (mgd)</th>
<th>Total Annual Withdrawal (mgd)</th>
<th>Average Daily Withdrawal (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WAIALUA Subarea</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Waialua Sugar Co.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump 1</td>
<td>3407-04, 05...</td>
<td>5</td>
<td>Agr. 6.0</td>
<td>2.33</td>
<td>Agr. 6.0</td>
<td>650.45</td>
<td>2.33</td>
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<tr>
<td>Pump 2</td>
<td>3307-01 to 24</td>
<td>9</td>
<td>Agr./Dom. 10.0</td>
<td>4.37</td>
<td>Agr./Dom. 10.0</td>
<td>1,595.05</td>
<td>4.37</td>
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<td>3307-07, 11 to 14</td>
<td>5</td>
<td>Agr./Dom. 7.0</td>
<td>4.45</td>
<td>Agr./Dom. 7.0</td>
<td>1,308.90</td>
<td>3.54</td>
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<td>Pump 3</td>
<td>35-5-01 to 20</td>
<td>20</td>
<td>Agr./Dom. 7.0</td>
<td>2.16</td>
<td>Agr./Dom. 7.0</td>
<td>30.42</td>
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<td>Pump 7</td>
<td>3407-11, 12,</td>
<td>4</td>
<td>Agr./Dom. 5.5</td>
<td>3.53</td>
<td>Agr./Dom. 5.5</td>
<td>1,360.75</td>
<td>3.53</td>
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<td>Pump 8</td>
<td>3506-03, 04</td>
<td>2</td>
<td>Agr./Dom. 3.0</td>
<td>1.66</td>
<td>Agr./Dom. 3.0</td>
<td>605.90</td>
<td>1.66</td>
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<td>Pump 9</td>
<td>3406-02</td>
<td>1</td>
<td>Agr. 0.75</td>
<td>0.16</td>
<td>Agr. 0.75</td>
<td>58.4</td>
<td>0.16</td>
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<td>Pump 10</td>
<td>3306-01 to 12</td>
<td>12</td>
<td>Agr. 12.0</td>
<td>6.62</td>
<td>Agr. 12.0</td>
<td>2,416.30</td>
<td>6.62</td>
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<td>3404-02</td>
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<td>Agr./Dom. 15.0</td>
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<td>2,992.37</td>
<td>8.19</td>
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<td>Mill Pumps</td>
<td>3407-07 to 20</td>
<td>8</td>
<td>Agr. 10.0</td>
<td>4.63</td>
<td>Agr. 10.0</td>
<td>1,649.95</td>
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<td>Pump 24</td>
<td>3102-02</td>
<td>1</td>
<td>Agr. 4.50</td>
<td>2.52</td>
<td>Agr. 4.50</td>
<td>941.70</td>
<td>2.52</td>
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<td>Pump 25</td>
<td>2203-01</td>
<td>1</td>
<td>Agr. 4.50</td>
<td>3.10</td>
<td>Agr. 4.50</td>
<td>1,131.50</td>
<td>3.10</td>
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<td>Pump 26</td>
<td>2203-02</td>
<td>1</td>
<td>Agr. 4.50</td>
<td>2.76</td>
<td>Agr. 4.50</td>
<td>1,007.40</td>
<td>2.76</td>
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<td><strong>Subtotal (Waialua Sugar Co.)</strong></td>
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<td>10</td>
<td></td>
<td></td>
<td></td>
<td>89.75</td>
<td>48.38</td>
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<tr>
<td><strong>Board of Water Supply</strong></td>
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<tr>
<td>Waialua Wells</td>
<td>3405-01, 02</td>
<td>2</td>
<td>Mun. 4.32</td>
<td>1.73</td>
<td>Mun. 4.32</td>
<td>621.65</td>
<td>1.73</td>
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<tr>
<td><strong>Private Users</strong></td>
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<tr>
<td>Kawaguchi, Howard</td>
<td>3506-07</td>
<td>1</td>
<td>Agr. 0.188</td>
<td>0.068</td>
<td>Agr. 0.188</td>
<td>21.17</td>
<td>0.068</td>
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<tr>
<td>Kawamura, Kongo</td>
<td>3406-03</td>
<td>1</td>
<td>Agr. Nat. flow No data</td>
<td>Agr. No data</td>
<td>Agr. No data</td>
<td>36.5</td>
<td>0.1</td>
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<tr>
<td>Kunihiro, Shizuo</td>
<td>3406-06, 3407-02</td>
<td>2</td>
<td>Agr. Nat. flow No data</td>
<td>Agr. No data</td>
<td>Agr. No data</td>
<td>72.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Oceanic Properties</td>
<td>3405-03, 04</td>
<td>2</td>
<td>Mun. 2.016</td>
<td>No data</td>
<td>Mun. 2.016</td>
<td>365.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Polynesian Shares</td>
<td>3406-08</td>
<td>1</td>
<td>Oth. 0.144</td>
<td>0.144</td>
<td>Oth. 0.144</td>
<td>52.56</td>
<td>0.144</td>
</tr>
<tr>
<td><strong>Subtotal (Private Users)</strong></td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>2.36</td>
<td>1.502</td>
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<td>96.41</td>
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*For Agr./Dom. uses, specific quantities for each use are to be prorated when additional information becomes available.
## Wai'Alae GWCA

<table>
<thead>
<tr>
<th>User/Source</th>
<th>State Well No.</th>
<th>Total Wells</th>
<th>Source Capacity (mgd)</th>
<th>5-yr. Ave. Withdrawal (mgd)</th>
<th>Maximum Daily Withdrawal (mgd)</th>
<th>Total Annual Withdrawal (mgd)</th>
<th>Average Daily Withdrawal (mgd)</th>
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<tr>
<td><strong>MOKULEIA Subarea</strong></td>
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<tr>
<td>Wai'Alae Sugar Co.</td>
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<td>Pump 3</td>
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<td>8 Agr.</td>
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<td>3409-13</td>
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<td>Army - Dillingham</td>
<td>3412-02</td>
<td>1 Dom.</td>
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<td>Air Force - Kaneohe Pt.</td>
<td>3311-03</td>
<td>1 Utl.</td>
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<td>Mokuleia Assoc.</td>
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<td>3610-01</td>
<td>1 Agr./ Dom.</td>
<td>Nat. flow</td>
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<td>3610-05</td>
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<td>To be sealed</td>
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<td>Pump 4</td>
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<td>5.53 Agr.</td>
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<td>Meadow Gold Farm</td>
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<td>14.648</td>
<td>2,175.40</td>
<td>5.960</td>
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*For Agr./Dom. uses, specific quantities for each use are to be prorated when additional information becomes available.
August 28, 2002

Mr. Bill Moore  
Beylik Drilling, Inc.  
91-259-A Olai Street  
Kapolei, HI 96707

Dear Mr. Moore:

Well Abandonment Reports for Well Nos. 3306-01 to 12

We received your Well Abandonment Reports for the sealing of the Waialua Sugar Pump 10 Battery (Well Nos. 3306-01 to 12) on August 5, 2002 and acknowledge that it is complete. Thank you for your attention to this matter.

If you have any questions, please contact Lenore Nakama of the Commission staff at 587-0218.

Sincerely,

LINNEL T. NISHIOKA
Deputy Director

LN:ss

c: Yoshi Tanabe, Waialua Sugar Co.
TO COMMISSION ON WATER RESOURCE MANAGEMENT

P.O. BOX 621
HONOLULU, HI. 96809

WE ARE SENDING YOU the following items:

☐ Attached
☐ Under separate cover via ____________________________

☐ Shop drawings
☐ Prints
☐ Plans
☐ Samples
☐ Specifications

☐ Copy of letter
☐ Change order
☐ REPORTS

COPY OF TRANSMITTAL

DATE 8/2/02 JOB NO. 1247M
ATTENTION LENORE NAKAMA
RE: WAIALUA SUGAR
WELL ABANDONMENT PUMP 10
BATTERY WELLS 3306-01-12

WE ARE SENDING YOU the following items:

☐ Attached
☐ Under separate cover via ____________________________

☐ Shop drawings
☐ Prints
☐ Plans
☐ Samples
☐ Specifications

☐ Copy of letter
☐ Change order
☐ REPORTS

COPY OF TRANSMITTAL

DATE 8/2/02 JOB NO. 1247M
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☐ Change order
☐ REPORTS

COPIES  DATE NO. DESCRIPTION

12 8/2/02 ABANDONMENT REPORTS

1 8/2/02 PERMIT

THESE ARE TRANSMITTED as checked below:

☐ For approval
☐ Approved as submitted
☐ Resubmit ______ copies for approval

☐ For your use
☐ Approved as noted
☐ Submit ______ copies for distribution

☐ As requested
☐ Returned for corrections
☐ Return ______ corrected prints

☐ For review and comment

☐ FOR BIDS DUE ________________________________
☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

ALL WELLS WERE SUCCESSFULLY SEALED. WE WERE SURPRISED BY THE QUANTITIES.
THE LOWER FORMATIONS WERE CAVERNOUS AND REQUIRED REPEATED TOPPING OFF.
GOOD THING WE QUOTED TIME AND MATERIAL.

COPY TO 1247M/C FILE

SIGNED: Michelle Hoof

If enclosures are not as noted, kindly notify us at once.

WILLIAM C. MOORE
WELL CONSTRUCTION PERMIT TO ABANDON/SEAL

Waialua Sugar Pump 10 Battery, Well No. 3306-01 to 12

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 Waialua Sugar Pump 10 Battery (Well Nos. 3306-01 to 12) along Poamoho Stream, Oahu, TMK 6-5-1:002, 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: April 25, 2002
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: 05/22/02
Printed Name: Yoshiaki Tanabe Firm or Title: Waialua Sugar Company - VP
Contractor's Signature: ___________________________ License #: AC-21896 Date: 5-23-02
Printed Name: WILLIAM C. MOORE Firm or Title: BEYLIK DRILLING, INC. - RME

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

Attachment c:
USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Honolulu Board of Water Supply
Yoshi Tanabe, Waialua Sugar Co.
**State of Hawai‘i**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
**Department of Land and Natural Resources**

**WELL ABANDONMENT REPORT**

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 further information and updates to this application form, visit [http://www.state.hi.us/dlnr/cwrm.](http://www.state.hi.us/dlnr/cwrm).

---

1. **State Well No.** 33006-01 / **Well Name** WAIALUA SUGAR PUMP 10 BATTERY
2. **Location / Address** ALONG POAMOHO STREAM / Island OAHU / TMK 6-5-1:002
3. **Contractor** BEYLIK DRILLING INC / Name of driller who performed work JOHN MOLE
4. **Type of Rig / Construction** 15 TON BOOM TRUCK / Date of well sealing completion 5/22/02

---

**Finished Grade Elevation** 1.5 ft.  
**Casing Diameter** 12 in.  
**Total Measured Depth** 312.7 ft.

---

**Check Material Used**  
**Grout Seal:**  
- Cement  
- Sand/Cement Ratio 1/1  
**Finished Grade Elevation** 1.5 ft.

---

**Measured Depth of Blank Casing** 112.67 ft.  
**Measured Depth of Perforated Casing** N/A ft.  
**Measured Depth of Open Hole** 200.3 ft.

---

**Remarks:**  
GRAVEL FILL 312.7 TO 252.7 60'  
SAND FILL 252.7 TO 247.7 5'  
1:1 GROUT 247.7 TO TOP OF TEE 247.7'  

---

**GRAVEL 13 TONS**  
1:1 GROUT 21 CU. YARDS

---

**Well Abandonment**  
**Contractor (print)** BEYLIK DRILLING INC.  
**C-57 Lic. No.** AC-21896  
**Signature** [Signature]  
**Date** 7/26/02

---

**Applicant (print)** WAIALUA SUGAR CO. YOSHI HIRAIHARA  
**Signature** [Signature]  
**Date** 7/26/02

---

WAR Form (2.8/00)
1. State Well No. 3306-02  
2. Location / Address ALONG POAMOHO STREAM  
3. Contractor BEYLIK DRILLING, INC.  
4. Type of Rig / Construction 15 TON BOOM TRUCK  

- Finished Grade Elevation 1.5 ft.
- Casing Diameter 12 in.
- Measured Depth of Blank Casing 114 ft.
- Measured Depth of Perforated Casing N/A ft.
- Measured Depth of Open Hole 206.6 ft.

- Remarks:
  - GRAVEL FILL 320.6 TO 278.6 42'
  - SAND PLUG 278.6 TO 273.6 5'
  - 1:1 GROUT 273 to TOP OF TEE 273.6'
  - GRAVEL 11 TONS
  - 1:1 GROUT 21 CU. YARDS

Well Abandonment Contractor (print) BEYLIK DRILLING, INC.  
Signature [Signature]

Applicant (print) WAIALUA SUGAR CO. YOSHI TANAKA  
Signature [Signature]
1. State Well No. 3306-03 Well Name WAIALUA SUGAR PUMP 10
2. Location / Address ALONG POAMOHO STREAM Island OAHU TPK 6-5-1:002
3. Contractor BEYLIS DRILLING INC. Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK Date of well sealing completion 5/28/02

Finished Grade Elevation 1.5 ft.

Check Material Used
Grout Seal: ☑️ Cement ☑️ Sand/Cement Ratio 1 / 1

Total Measured Depth 318.9 ft.

Casing Diameter 12 in.

Measured Depth of Blank Casing 110.8 ft.

Measured Depth of Perforated Casing N/A ft.

Measured Depth of Open Hole 210.6 ft.

Remarks:
GRAVEL FILL 318.9 TO 265.9 53'
SAND PLUG 265.9 TO 260.9 5'
1:1 GROUT 260.9 TO TOP OF TEE 260.9'
GRAVEL FILL 18 TONS
1:1 GROUT 56 CU. YARDS

Well Abandonment
Contractor (print) BEYLIS DRILLING INC C-57 Lic. No. AC-21896
Signature [Signature]
Date 7/26/02

Applicant (print) WAIALUA SUGAR CO. YOSHI TANABE
Signature [Signature]
Date 7/31/02

WAR Form (2/00)
WELL ABANDONMENT REPORT

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 further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwrm.

1. State Well No. 3306-04 / Well Name WAIALUA SUGAR PUMP 10
2. Location / Address ALONG POAMOHO STREAM Island OAHU TMK 6-5-1:002
3. Contractor BEYLIK DRILLING INC. Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK Date of well sealing completion 5/29/02

![Diagram of well abandonment]

### Remarks:
- GRAVEL FILL 342 TO 280.2 62'
- SAND PLUG 280.2 TO 275.2 5'
- 1:1 GROUT 275 TO TOP OF TEE 275'
- GRAVEL FILL 11 TONS
- 1:1 GROUT 24 CU. YARDS

### Well Abandonment

<table>
<thead>
<tr>
<th>Contractor (print)</th>
<th>BEYLIK DRILLING INC.</th>
<th>C-57 Lic. No.</th>
<th>AC-21896</th>
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<tbody>
<tr>
<td>Signature</td>
<td>William C. Moore</td>
<td>Date 07/26/02</td>
<td></td>
</tr>
<tr>
<td>Applicant (print)</td>
<td>WAIALUA SUGAR CO. YOSHI TANABE</td>
<td>Signature</td>
<td>Date 07/21/02</td>
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</tbody>
</table>

WAR Form (2/8/00)
WELL ABANDONMENT REPORT

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 further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwrm.

1. State Well No. 3306-05 / Well Name WAIALUA SUGAR PUMP 10
2. Location / Address ALONG POAMOHO STREAM Island OAHU TMK 6-5-1:002
3. Contractor BEYLIK DRILLING INC. Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK Date of well sealing completion 5/29/02

Casing Diameter 12 in.

Finished Grade Elevation 1.5 ft.

Check Material Used
Grout Seal: ☐ Cement ☑ Sand/Cement Ratio 1 / 1

Measured Depth of Blank Casing 110.2 ft.

Total Measured Depth 315.2 ft.

Measured Depth of Perforated Casing NA ft.

Measured Depth of Open Hole 204.9 ft.

Remarks:
GRAVEL FILL 315.2 TO 253.2 62'
SAND PLUG 253.2 TO 248.2 5'
1:1 GROUT 248.2 TO TOP OF TEE 248.2'
GRAVEL FILL 10 TONS
1:1 GROUT 21 CU. YARDS

Well Abandonment
Contractor (print) BEYLIK DRILLING INC.
Signature
Date 5/29/02

Applicant (print) YOSHIN TAKABE
Signature
Date 5/29/02

WAR Form (2/00)
### WELL ABANDONMENT REPORT

**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 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 further information and updates to this application form, visit [http://www.state.hi.us/dlnr/cwrm](http://www.state.hi.us/dlnr/cwrm).

1. **State Well No.** 3306-06  
   **Well Name** WAIALUA SUGAR PUMP 10

2. **Location / Address** ALONG POAMOHO STREAM  
   Island OAHU  
   **TMK** 6-5-1:002

3. **Contractor** BEYLIK DRILLING INC.  
   **Name of driller who performed work** JOHN MOLE

4. **Type of Rig / Construction** 15 TON BOOM TRUCK  
   **Date of well sealing completion** 5/30/02

---

### Remarks:

- **GRAVEL FILL**  
  320.5 TO 256.5  
  256.5 TO 251.5  
  251.5 TO TOP OF TEE  
  21 TONS

- **1:1 GROUT**  
  21 CU. YARDS

---

### Well Abandonment

**Contractor (print)** BEYLIK DRILLING INC.  
**C-57 Lic. No.** AC-21896

**Signature**  
**Date** 7/26/02

**Applicant (print)** WAIALUA SUGAR CO. YOSHI TERAURA

**Signature**  
**Date** 07/1/02
State of Hawai‘i
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL ABANDONMENT REPORT

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at 587-0225. For further information and updates to this application form, visit http://www.state.hi.us/dlnr/cwrm.

1. State Well No. 3306-07
   Well Name WAIALUA SUGAR PUMP 10
2. Location / Address ALONG POAMOHO STREAM Island OAHU TMK 6-5-1:002
3. Contractor BEYLIK DRILLING INC.
   Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK
   Date of well sealing completion 5/30/02

Finished Grade Elevation 1.5 ft.
Casing Diameter 12 in.

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

Total Measured Depth 306.1 ft.

Remarks:
GRAVEL FILL 306.1 TO 256.1 50'
SAND PLUG 256.1 0'
1:1 GROUT 256.1 TO TOP OF TEE 256.1'

GRAVEL FILL 12 TONS
1:1 GROUT 21 CU. YARDS

Well Abandonment
Contractor (print) BEYLIK DRILLING INC.
C-57 Lic. No. AC-21896
Signature

Applicant (print) WAIALUA SUGAR CO YOSHI TANWAR
Signature

Date 7/26/02
Date 07/21/02

WAR Form (2/00)
1. State Well No. 3306-08 / Well Name WAILUA SUGAR PUMP 10
2. Location / Address ALONG POAMHO STREAM Island OAHU TMK 6-5-1 002
3. Contractor BEYLIK DRILLING INC. Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK Date of well sealing completion 6/10/02

Finished Grade Elevation 1.5 ft. Casing Diameter 12 in.

Check Material Used
Grout Seal: 
- Cement
- Sand/Cement Ratio 1 / 1

Total Measured Depth 315.8 ft.

Measured Depth of Blank Casing 109.25 ft.

Measured Depth of Perforated Casing N/A ft.

Measured Depth of Open Hole 206.5 ft.

Remarks:
- GRAVEL FILL 315.8 TO 271.8 44'
- SAND PLUG 271.8 TO 269.8 2'
- 1:1 GROUT 269.8 TO TOP OF TEE 269'
- GRAVEL FILL 10 TONS
- 1:1 GROUT 22 CU. YARDS

Well Abandonment
Contractor (print) BEYLIK DRILLING INC.
C-57 Lic. No. AC-21896
Signature
Date 7/26/02

Applicant (print) WAILUA SUGAR CO. YOSHI Y. TANIGASHIMA
Signature
Date 6/7/01
State of Hawai‘i
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources

WELL ABANDONMENT REPORT

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1. State Well No. 3306-09 / Well Name WAI'ALUA SUGAR PUMP 10

2. Location/Address ALONG POAMHO STREAM Island OAHU TMK 6-5-1:002

3. Contractor BEYLIK DRILLING INC. Name of driller who performed work JOHN MOLE

4. Type of Rig/Construction 15 TON BOOM TRUCK Date of well sealing completion 6/10/02

Finished Grade Elevation 1.5 ft. Casing Diameter 12 in.

Check Material Used
Grout Seal: □ Cement Sand/Cement Ratio 1 / 1

Total Measured Depth 316.6 ft.

- Measured Depth of Blank Casing 107.6 ft.
- Measured Depth of Perforated Casing N/A ft.
- Measured Depth of Open Hole 209 ft.

Remarks:
- GRAVEL FILL 316.9 TO 246 70'
- SAND PLUG 246 TO 243 3'
- 243 TO TOP OF TEE 243.6'
- GRAVEL FILL 9 TONS
- 1:1 GROUT 22 CU. YARDS

Well Abandonment
Contractor (print) BEYLIK DRILLING INC.
Signature

Applicant (print) WAI'ALUA SUGAR CO. YOSH TANAKA
Signature

C-57 Lic. No. AC-21896

Date 7/26/02

Signature

Date 07/11/02
1. State Well No. 3306-10 / Well Name WAI'ALUA SUGAR PUMP 10
2. Location / Address ALONG POAMoho STREAM / Island OAHU / TMK 6-5-1:002
3. Contractor BEYLIK DRILLING INC. / Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK / Date of well sealing completion 6/12/02

Finished Grade Elevation 1.5 ft.

Check Material Used
Grout Seal: [ ] Cement [ ] Sand/Cement Ratio 1 / 1

Total Measured Depth 309.2 ft.

Measured Depth of Blank Casing 116.8 ft

Measured Depth of Perforated Casing N/A ft

Measured Depth of Open Hole 192.4 ft

Remarks:

- GRAVEL FILL 309.2 TO 261.2 48'
- SAND PLUG 261.2 TO 258.2 3'
- 1:1 GROUT 258 TO TOP OF TEE 238'
- GRAVEL FILL 11 TONS
- 1:1 GROUT 22 CU. YARDS

Well Abandonment
Contractor (print) BEYLIK DRILLING INC. C-57 Lic. No. AC-21896
Signature [Signature] Date 7/26/02

Applicant (print) WAI'ALUA SUGAR CO YOSHITAKA
Signature [Signature] Date 07/31/02
1. State Well No. 3306-11  
2. Location / Address ALONG POAMOHO STREAM Island OAHU TMK 6-5-1:002  
3. Contractor BEYLIK DRILLING INC.  
4. Type of Rig / Construction 15 TON BOOM TRUCK  

- Casing Diameter 12 in.  
- Finished Grade Elevation 1.5 ft.  
- Total Measured Depth 305.7 ft.  
- Measured Depth of Blank Casing 20.65 ft.  
- Measured Depth of Perforated Casing N/A ft.  
- Measured Depth of Open Hole 185 ft.  
- Remarks:  
  - GRAVEL FILL 305.7 TO 255.7 50'  
  - SAND PLUG 255.7 TO 252.7 3'  
  - 1:1 GROUT 252.7 TO TOP OF TEE 252'  
  - GRAVEL FILL 12 TONS  
  - 1:1 GROUT 22 CU. YARDS  

Well Abandonment  
Contractor (print) BEYLIK DRILLING INC.  
C-57 Lic. No. AC-21896  
Signature W.C. MOORE Date 7/26/02  
Applicant (print) WAIALUA SUGAR CO. YOSHITANAGA  
Signature Date 07/31/02
1. State Well No. 3306-12
2. Location / Address ALONG POAMOHO STEAM Island OAHU TMK 6-5-1:002
3. Contractor BEYLIK DRILLING INC. Name of driller who performed work JOHN MOLE
4. Type of Rig / Construction 15 TON BOOM TRUCK Date of well sealing completion 6/14/02

Finished Grade Elevation 1.5 ft
Casing Diameter 12 in.

Check Material Used
Grout Seal: □ Cement
□ Sand/Cement Ratio 1 / 1

Total Measured Depth 315.8 ft

315.8 TO
-314.3 MSL
Measured Depth of Blank Casing 112.9 ft

315.8 TO 251.8
Measured Depth of Perforated Casing N/A ft

251.8 TO 248.8
248.8 TO TOP OF TEE 248

Remarks:
GRAVEL FILL 315 TO 251.8 64'
SAND PLUG 251.8 TO 248.8 3'
1:1 GROUT 248.8 TO TOP OF TEE
GRAVEL FILL 15 TON
1:1 GROUT 28 CU. YARDS

Well Abandonment Contractor (print) BEYLIK DRILLING INC. C-57 Lic. No. AC-21896
Signature
Date 7/26/02

Applicant (print) WAIALUA SUGAR CO. YOSHI TANAKA
Signature
Date 7/31/02
WELL CONSTRUCTION PERMIT TO ABANDON/SEAL

Waialua Sugar Pump 10 Battery, Well No. 3306-01 to 12

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 Waialua Sugar Pump 10 Battery (Well Nos. 3306-01 to 12) along Poamoho Stream, Oahu, TMK 6-5-1:002, 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: April 25, 2002
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: 05/22/02
Printed Name: Yoshiaki Tanabe Firm or Title: Waialua Sugar Company - VP
Contractor's Signature: ____________ License #: AC-21896 Date: 5-23-02
Printed Name: WILLIAM C. MOORE Firm or Title: BEYLIK DRILLING, INC. - RME

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

Attachment c: USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Honolulu Board of Water Supply
Yoshi Tanabe, Waialua Sugar Co.
TO: STATE OF HAWAII - DLNR
P.O. BOX 621
HONOLULU, HI 96809

WE ARE SENDING YOU	☒ Attached	☐ Under separate cover via

☐ Shop drawings	☐ Prints	☐ Plans	☐ Samples	☐ Specifications
☐ Copy of letter	☐ Change order	☐

COPYES	DATE	NO.
1		WELL CONSTRUCTION PERMIT

THESE ARE TRANSMITTED as checked below:

☐ For approval	☐ Approved as submitted	☐ Resubmit ______ copies for approval
☐ For your use	☐ Approved as noted	☐ Submit ______ copies for distribution
☒ As requested	☐ Returned for corrections	☐ Return ______ corrected prints
☐ For review and comment

☐ FOR BIDS DUE __________________________
☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO YOSHI TANABE WAIALUA SUGAR CO

SIGNED: WILLIAM C. MOORE

If enclosures are not as noted, kindly notify us at once.
FACSIMILE TRANSMISSION

DATE: May 17, 2002  
# OF PAGES TO FOLLOW: 0

TO: Enron - OIL  
ATTN: Lenore Nakama

FROM: Bill More  
FAX NO.: 501-9714 -0293

REF: WELL 43 BORROWMENT [PERMIT NO. 3306-017012]

LENORE: This letter is to notify

The Commission of our intent to

Begin boring the referenced wells

Commencing May 20, 2002.

Schedule of Events:

1. Gravel Fill (PERMIT APPLICATION)

2. 1:1 Grout Filling to Surface

Note: Gravel 3/8 - 1/2" Basaltic Material

Grout 1:1 - 6 Omron Mix 5514x Reg.

We intend to begin boring of

One well Wednesday May 22. There
After, Grouting and Filling is done

Concurrently (ie. Grouting and Graveling)

Work is completed.
To: George Ushimura

From: Hiram Young

Please review and comment on Hawaiian Dredging and Construction comments. If appropriate, I'll include in an addendum.

Hiram
May 9, 2002

Mr. Bill Moore
Beylick Drilling, Inc.
91-259-A Olai Street
Kapolei, HI 96707

Dear Mr. Moore:

Well Abandonment Permit
Waialua Sugar Pump 10 Battery (Well Nos. 3306-01 to 12)

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 sealing of the wells may be done on the basis of the salinity profiles, as shown in Table 2 of the application.

2. A separate Well Abandonment Report shall be filed for each well in the battery.

To validate your permit, please sign and have the landowner 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 the 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 Lenore Nakama of the Commission staff at 587-0218.

Aloha,

GILBERT S. COLOMA-AGARAN
Chairperson

Enclosures

c: Yoshi Tanabe, Wailua Sugar Co.
WELL CONSTRUCTION PERMIT TO ABANDON/SEAL

Waialua Sugar Pump 10 Battery, Well No. 3306-01 to 12

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 Waialua Sugar Pump 10 Battery (Well Nos. 3306-01 to 12) along Poamoho Stream, Oahu, TMK 6-5-1:002, 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: April 25, 2002
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: ____________________________ 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

USGS
Department of Health/ Safe Drinking Water, Wastewater, and Clean Water Branches
Honolulu Board of Water Supply
Yoshi Tanabe, Waialua Sugar Co.
<table>
<thead>
<tr>
<th>F</th>
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<th>APP</th>
<th>D</th>
<th>SRC/ CTR</th>
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<td>TOTAL $25.00</td>
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**REMARKS:**
LINE (1) Well No. 3306-01 to 12 (WCPA)
LINE (2) 
LINE (3) 
LINE (4) 

**PAY TO THE ORDER OF DEPT. OF LAND & NATURAL RESOURCES**

$25.00

TWENTY-FIVE AND 00/100 DOLLARS
<table>
<thead>
<tr>
<th>Approved Well No.</th>
<th>Well Name</th>
<th>Applicant</th>
<th>Driller</th>
<th>Type</th>
<th>Well Construction</th>
<th>Pump Installation</th>
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<tr>
<td>12/12/2001</td>
<td>Hawi 1</td>
<td>Hawaii DWS</td>
<td>AC-21896</td>
<td>PUMP</td>
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<td>2/18/2002</td>
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</table>
Ms. Linnel T. Nishioka - Deputy Director  
Commission on Water Resource Management  
Department of Land and Natural Resources  
State of Hawaii  
P. O. Box 621  
Honolulu, Hawaii  96809  

Dear Ms. Nishioka:  

Application to Seal the Waialua Sugar Company Pump 10 Well Battery,  
State Nos. 3306-01 to 12 - Waialua, Oahu, Hawaii  

Attached are an application to seal Wells 3306-01 to 12 in Waialua, Oahu and $25 filing fee. The proposed sealing of the wells would utilize a combination of gravel, sand seal, and cement similar to the recently completed sealing of the WP-4 wells in Waikele Gulch. Although Bulletin 4, Records of the Drilled Wells on the Island of Oahu, Hawaii indicates the "depth to top of aquifer" varies from 147 to 169 feet, CTD profiles show that the producing zones in the unweathered volcanics are about 100 feet deeper (these profiles are appended to the application). The proposed gravel fill is based on the CTD profiles.

Sincerely,

Tom Nance  

Attachments  

cc:   Yoshi Tanabe - Waialua Sugar Co. [Fax only: 1 page]  
     Bill Moore - Beylik Drilling, Inc. [Fax only: 1 page]
APPLICANT INFORMATION: (Fill out all three, if applicable, and place a check next to the primary contact)

1. (a) □ WELL OWNER:  Waialua Sugar Co.  
   Contact Person: Yoshi Tanabe  
   Mailing Address: 1116 Whittmore Avenue  
   Wahia, Hawaii 96786  
   Phone: 621-3220

   Fax: 621-7410

   (b) □ LAND OWNER:  Waialua Sugar Co.  
   Contact Person: Yoshi Tanabe  
   Mailing Address: 1116 Whittmore Avenue  
   Wahia, Hawaii 96786  
   Phone: 621-3220

   Fax: 621-7410

   (c) □ CONTRACTOR:  Beylik Drilling, Inc.  
   Contact Person: Bill Moore  
   Mailing Address: 91-259-A Olai Street  
   Kapolei, Hawaii 96707  
   Phone: 682-5554

   Fax: 682-5866

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

2. WELL NAME:  Waialua Sugar Pump 10 Battery  
   Island:  Oahu

   Address: Along Poamoho Stream

   Tax Map Key: 6 5 1 : 002

   Attach: (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadr map

   (b) a property tax map, showing well location referenced to established property boundaries

3. PROPOSED WORK: (check all that apply)

   □ Construct New Well  
   □ Modify Existing Well  
   □ Install New Pump*  
   □ Modify Pump*  

   *State Well No.: 3906-01 to 12

   (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)  
   All wells manifolded together.

5. PROPOSED PUMPING RATE:  N/A  

   gallons per minute

6. PROPOSED USE: (check all that apply)

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

   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:  

   Other (explain):  

7. (a) PROPOSED AMOUNT OF WITHDRAWAL:  N/A  

   gallons per day

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

OTHER IMPORTANT INFORMATION:

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

   Conservation District Use Permit (CDUP) To find out if a CDUP is necessary, call DLNR Land Division at 587-0414

   □ Not Required  
   If required, data approved

   Environmental Impact Statement (EIS) or Environmental Assessment (EA) To determine if an EIS or EA is necessary, call OECQ at 586-4185

   □ Not Required  
   If required, date published in OECQ bulletin

   Special Management Area Permit (SMAP) To determine if an SMAP is necessary: on Oahu, call 527-3374; on Hawaii, call 981-8288; for Maui county, call 270-7235; on Kauai, call 241-6077.

   □ Not Required  
   If required, date approved

9. REMARKS, EXPLANATIONS:

   Refer to Attached Sheets

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

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

   Well Owner  
   Waialua Sugar Co.  
   Signature  
   Date  

   Landowner  
   Waialua Sugar Co.  
   Signature  
   Date  

   Contractor  
   Beylik Drilling, Inc.  
   Signature  
   Date

For official use only

   Latitude  
   Aquifer System No.  

   Longitude  
   State Well No.  

   WCPA Form 821/01
10. PROPOSED WELL SECTION (Please attach schematic if different from diagram provided below)

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*

**Solid Casing:**

<table>
<thead>
<tr>
<th>(≥ 90% x (Ground Elev.-Water Level Elev.))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Diameter: ____________ in.</td>
</tr>
<tr>
<td>Wall Thickness: ____________ in.</td>
</tr>
<tr>
<td>Bottom Elevation: __________ ft., msl*</td>
</tr>
</tbody>
</table>

**Open Casing:**

| (check one): |
| 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* |

---

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of wet 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 shall not be deeper than 1/4 of aquifer thickness or, Bottom Elevation of Well Limit = \( \frac{4}{3} \times (\text{Water Level Elev.} - \text{Ground Elev.}) \)

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

**Solid Casing Material:**

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

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

ABS Plastic conforming to ASTM F490 and ASTM D1627: (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:**

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

**Open Casing Material:**

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

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---

Refer to the Attached Tables and Descriptions.
### 10. PROPOSED WELL SECTION

**Refer to the Attached Tables and Descriptions**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tbody>
<tr>
<td>Hole Diameter</td>
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<tr>
<td>Elevation at top of casing</td>
<td>ft., msl*</td>
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<tr>
<td>Cement Grout</td>
<td>ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)</td>
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<tr>
<td>Annular space between hole and casing (min.3):</td>
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<tr>
<td>Rock or Gravel Packing:</td>
<td>ft.</td>
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<td>Material:</td>
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<tr>
<td>Crushed Basalt</td>
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<td>Rounded Gravel</td>
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<tr>
<td>Estimated Water Level Elevation:</td>
<td>ft., msl*</td>
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<td>Solid Casing:</td>
<td>(2.90% x (Ground Elev.-Water Level Elev))</td>
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<td>Nominal Diameter:</td>
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<td>Wall Thickness:</td>
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<td>Bottom Elevation:</td>
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</table>

* The approximate elevation must be referenced to mean sea level (msl)

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 = \(\frac{\text{Water Elevation} - \text{Minimum of} \ 2' \ \text{Radius and} \ 4'' \ \text{Thick Concrete Pad}}{4} \cdot \text{distance from well to nearest} \ 70'' \ \text{radius} \)

**Solid Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: compliant with (check one or more):
  - ASTM A242
  - API Spec. 5L
  - ASTM A53
  - ASTM A139

**ABS Plastic Conforming to ASTM F480 and ASTM D1527:**
- (check one): Schedule 40
- Schedule 80
- Schedule 120
- Other

**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 ANSI/AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

**Open Casing Material:**
- Carbon Steel: compliant with (check one or more):
  - ANSI/AWWA C200
  - API Spec. 5L
  - ASTM A53
  - ASTM A139
- Stainless Steel: compliant with (check one or more):
  - ASTM A242
  - API Spec. 5L
  - ASTM A53
  - ASTM A139

**PVC Plastic Conforming to ASTM F480 and ASTM D1785:**
- (check one): Schedule 40
- Schedule 80
- Schedule 120
- Other

**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 ANSI/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 application is in compliance with applicable standards.*

---

**Ground Elevation:** ft.

---

**Example:** Estimated + 2 ft. Water Level

---

**Minimum of 2’ Radius & 4” Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)**
**State of Hawaii**
**COMMISSION ON WATER RESOURCE MANAGEMENT**
Department of Land and Natural Resources

**APPLICATION FOR PERMIT**

**4-12-02**

**01-74**

**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:** Waialua Sugar Co.
   - **Contact Person:** Yoshi Tanabe
   - **Mailing Address:** 1116 Whitmore Avenue
   - **City:** Wahiawa
   - **Zip Code:** 96786
   - **Phone:** 621-3220
   - **Fax:** 621-7410

2. **(b)**
   - **LAND OWNER:** Waialua Sugar Co.
   - **Contact Person:** Yoshi Tanabe
   - **Mailing Address:** 1116 Whitmore Avenue
   - **City:** Wahiawa
   - **Zip Code:** 96786
   - **Phone:** 621-3220
   - **Fax:** 621-7410

3. **(c)**
   - **CONTRACTOR:** Beylik Drilling, Inc.
   - **Contact Person:** Bill Moore
   - **Mailing Address:** 91-259-A Olai Street
   - **City:** Kapolei
   - **Zip Code:** 96707
   - **Phone:** 662-5554
   - **Fax:** 682-5866

**WELL & PUMP INFORMATION:**

(When filling in the diagram on the back of this form)

2. **WELL NAME:** Waialua Sugar Pump 10 Battery
   - **Island:** Oahu
   - **Address:** Along Paomoho Stream
   - **Tax Map Key:**
     - **Zone:** 6
     - **Sector:** 5
     - **Plot:** 1
     - **Parcel:** 002
   - **Attach:**
     - (a) portion of a 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
     - (b) a property tax map, showing well location referenced to established property boundaries

3. **PROPOSED WORK:**
   - (check all that apply)
     - Construct New Well
     - Modify Existing Well
     - Install New Pump*
     - Modify Pump*
   - *State Well No.: 3306-01 to 12 (if unknown, please call Commission at 587-0225)

4. **CONSTRUCTION:**
   - (check if more space is needed. please attach additional sheet)
   - **Drill**
   - **Dug**
   - **Shaft**
   - **Tunnel**

5. **PROPOSED PUMPING RATE:**
   - **Rate:** N/A
gallons per minute

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

7. **PROPOSED AMOUNT OF WITHDRAWAL:**
   - (a) N/A
gallons per day
   - (b) **METHOD OF FLOW MEASUREMENT:**
     - Flowmeter
     - Open-pipe
     - Weir
     - Orifice
     - Other (please specify): N/A

8. **LEGAL REQUIREMENTS:**
   - If required, these permits must be obtained before the Commission can legally issue a permit.
   - **Conservation District Use Permit (CDUP)**
     - To find out if a CDUP is necessary, call DLNR Land Division at 587-0414
   - **Environmental Impact Statement (EIS) or Environmental Assessment (EA)**
     - To determine if an EIS or EA is necessary, call OEQC at 586-4165
   - **Special Management Area Permit (SMAP)**
     - To determine if a SMAP is necessary: on Oahu, call 527-5374; on Maui, call 682-8268; for Molokai, call 241-6677.
   - **Water Source Protection Area Permit (WSPA)**
     - To find out if a WSPA is necessary: contact the relevant county's water resource management authority.

9. **REMARKS, EXPLANATIONS:**
   - Refer to Attached Sheets

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

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

- **Well Owner**
  - **Name:** Waialua Sugar Co.
  - **Print Legibly:**
  - **Signature:**
  - **Date:**

- **Landowner**
  - **Name:** Waialua Sugar Co.
  - **Print Legibly:**
  - **Signature:**
  - **Date:**

- **Contractor**
  - **Name:** Beylik Drilling, Inc.
  - **Print Legibly:**
  - **Signature:**
  - **Date:**

For official use only

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

**For Official Use Only:**

WCPIPA Form 9/21/01
Proposed Sealing of the Waialua Sugar Pump 10 Wells
(State Nos. 3306-01 to 12)
Waialua, Oahu, Hawaii

After Beylik Drilling, Inc. had cleared access to each of the 12 wells and milled 6-inch holes through the flanges at the top of the well casings, measurements of the well depths and CTD profiles of each well were made (Table 1 and the attached graphs). The sharp salinity breaks evident in almost all of the CTD profiles occur at depths significantly deeper than the "Depth to top of aquifer" designations in "Records of Drilled Wells on the Island of Oahu, Hawaii," Bulletin 4 of the Division of Hydrography (Old Well Nos. 323 A to L, also attached).

Sealing of the wells would be based on the CTD profiles. As compiled in Table 2, the lower 42 to 70 feet would be filled with gravel, followed by a 5-foot sand seal and then cement grouting to the top of the casing flanges.
Table 1

Measured Well Depths and Approximate Elevations

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Approximate Ground Elevation (Feet MSL)</th>
<th>Total Depths (Feet)</th>
<th>Elevation at Bottom (Feet MSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below Ground</td>
<td>Below Top Flange of Tee</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>55.6</td>
<td>366.8</td>
<td>312.7</td>
</tr>
<tr>
<td>2</td>
<td>55.5</td>
<td>374.6</td>
<td>320.6</td>
</tr>
<tr>
<td>3</td>
<td>56.2</td>
<td>373.6</td>
<td>318.9</td>
</tr>
<tr>
<td>4</td>
<td>57.9</td>
<td>398.6</td>
<td>342.2</td>
</tr>
<tr>
<td>5</td>
<td>55.9</td>
<td>369.6</td>
<td>315.2</td>
</tr>
<tr>
<td>6</td>
<td>50.3</td>
<td>369.3</td>
<td>320.5</td>
</tr>
<tr>
<td>7</td>
<td>48.8</td>
<td>353.4</td>
<td>306.1</td>
</tr>
<tr>
<td>8</td>
<td>48.1</td>
<td>362.3</td>
<td>315.8</td>
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<tr>
<td>9</td>
<td>47.1</td>
<td>362.2</td>
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<tr>
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<td>49.4</td>
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<td>309.2</td>
</tr>
<tr>
<td>11</td>
<td>50.2</td>
<td>354.4</td>
<td>305.7</td>
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<tr>
<td>12</td>
<td>53.9</td>
<td>368.2</td>
<td>315.8</td>
</tr>
</tbody>
</table>

Note: All elevations based on the flange on the top of all tees being at 1.50 feet (MSL).
Table 2
Proposed Sealing of the Wells Based on the Salinity Profiles

<table>
<thead>
<tr>
<th>Well No.</th>
<th>Gravel Fill</th>
<th>Sand Seal</th>
<th>Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depths (Feet)</td>
<td>Linear Feet</td>
<td>Depths (Feet)</td>
</tr>
<tr>
<td>1</td>
<td>Bottom to 307</td>
<td>60</td>
<td>307 to 302</td>
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<tr>
<td>2</td>
<td>Bottom to 333</td>
<td>42</td>
<td>333 to 328</td>
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<tr>
<td>3</td>
<td>Bottom to 321</td>
<td>53</td>
<td>321 to 316</td>
</tr>
<tr>
<td>4</td>
<td>Bottom to 337</td>
<td>62</td>
<td>337 to 332</td>
</tr>
<tr>
<td>5</td>
<td>Bottom to 308</td>
<td>62</td>
<td>308 to 303</td>
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<tr>
<td>6</td>
<td>Bottom to 305</td>
<td>64</td>
<td>305 to 300</td>
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<tr>
<td>7</td>
<td>Bottom to 303</td>
<td>50</td>
<td>303 to 298</td>
</tr>
<tr>
<td>8</td>
<td>Bottom to 318</td>
<td>44</td>
<td>318 to 313</td>
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<tr>
<td>9</td>
<td>Bottom to 292</td>
<td>70</td>
<td>292 to 287</td>
</tr>
<tr>
<td>10</td>
<td>Bottom to 309</td>
<td>48</td>
<td>309 to 304</td>
</tr>
<tr>
<td>11</td>
<td>Bottom to 304</td>
<td>50</td>
<td>304 to 299</td>
</tr>
<tr>
<td>12</td>
<td>Bottom to 304</td>
<td>64</td>
<td>304 to 299</td>
</tr>
</tbody>
</table>

Note: All depths are from the present ground surface and are rounded to the nearest foot.
WAILUA SUGAR WELL 3306-06 (OLD 323-F)
APRIL 5, 2002

The graph shows the conductivity and temperature data for Wailua Sugar Well 3306-06 (Old 323-F) on April 5, 2002. The conductivity (in microsiemens/cm) decreases with depth into the well, while the temperature (in degrees Fahrenheit) decreases as well, with a noticeable drop near the bottom of the graph.
WAILUA SUGAR WELL 3306-08 (OLD 323-H)
APRIL 5, 2002

CONDUCTIVITY (MICROSIEMENS/CM)

TEMPERATURE (DEG F)

DEPTH INTO WATER (FEET)
WAILUA SUGAR WELL 3306-11 (OLD 323-K)
APRIL 5, 2002

The graph shows the change in conductivity and temperature with depth into the water. The conductivity values range from 100 to 460 microsiemens/cm. The temperature values range from 71.0 to 75.0 degrees Fahrenheit. There is a significant increase in conductivity and temperature at a depth of approximately 275 feet, indicating a change in the water characteristics or a boundary layer.
Records of the Drilled Wells on the Island of Oahu, Hawaii

By Harold T. Stearns
Geologist in Charge
Hawaiian Ground-Water Investigations
U. S. Geological Survey

and

Knute N. Vaksvik
Artesian Well Engineer, U. S. Geological Survey

Prepared in cooperation with the Geological Survey,
United States Department of Interior

Printed in the
Territory of Hawaii, United States of America
August 1938

Distributed by the U. S. Geological Survey, Honolulu, Oahu, and Spreckelsville, Maui, T. H.
### Records of Drilled Wells on Oahu

#### Observations—Well 322 (Continued)

<table>
<thead>
<tr>
<th>Chloride (p.p.m.)</th>
<th>Date</th>
<th>Head (ft.)</th>
<th>Wells A-I</th>
<th>Wells J-N</th>
<th>Date</th>
<th>Head (ft.)</th>
<th>Chloride (p.p.m.)</th>
<th>Wells A-I</th>
<th>Wells J-N</th>
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<td>244</td>
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<td>168</td>
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<td>July 1933</td>
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<td>372</td>
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<td>375</td>
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<td>400</td>
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<td>511</td>
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<td>6</td>
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</table>

#### Logs

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<thead>
<tr>
<th>Well</th>
<th>Depth (ft.)</th>
<th>Date</th>
<th>Head (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-I</td>
<td>0-15</td>
<td>Mar. 13</td>
<td>12.0</td>
</tr>
<tr>
<td>A-I</td>
<td>15-163</td>
<td>May 1934</td>
<td>12.0</td>
</tr>
<tr>
<td>B</td>
<td>163-380</td>
<td>May 1934</td>
<td>12.0</td>
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<tr>
<td>B</td>
<td>0-15</td>
<td>Mar. 13</td>
<td>12.0</td>
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<tr>
<td>B</td>
<td>15-164</td>
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<tr>
<td>B</td>
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<td>12.0</td>
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<tr>
<td>A-I</td>
<td>163-380</td>
<td>May 1934</td>
<td>12.0</td>
</tr>
</tbody>
</table>

#### Observations

Bench mark, top of priming plug on any pump; altitude, 4.61 ft.

<table>
<thead>
<tr>
<th>Wells A to D</th>
<th>Date</th>
<th>Head (ft.)</th>
<th>Chloride (p.p.m.)</th>
<th>Date</th>
<th>Head (ft.)</th>
<th>Chloride (p.p.m.)</th>
<th>Date</th>
<th>Head (ft.)</th>
<th>Chloride (p.p.m.)</th>
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<td>Nov. 16, 1933</td>
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<td>May 17</td>
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