Mr. Jerry Matsuda, P.E., Deputy Director  
State of Hawaii  
Department of Transportation  
Airports Division  
400 Rodgers Boulevard, Suite 700  
Honolulu, HI 96819  

Dear Mr. Matsuda:

Well Completion Report for Well No. 4462-05, 06, 07 and 4463-01, 02, 03  

We have received your Monitoring Well Installation Report for the Keahole International Monitor Wells W-11, 13 & 14 (Well No. 4462-05, 06, 07 and 4463-01, 02, 03) and acknowledge that it is complete.  

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

Sincerely,  

RAE M. LOUI  
Deputy Director  

RI:ss
May 6, 1997

Mr. Michael D. Wilson
Chairperson
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resources Management
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: SMA Permit No. 325 - Well Construction Permit for Well Nos. 4462-01 & 02 and 4463-01, 02, & 03
Keahole-Kona International Airport
Project No. AH2072-16

Transmitted is the report on the installation of ground water monitoring wells at Keahole-Kona International Airport. This report contains the well drilling logs and "as-built" sections of the monitoring wells recently completed.

In accordance with Special Condition 1 of the subject permit, data from all water quality sampling events will be submitted to your office and to the County of Hawaii Planning Department.

No aquifer testing is planned for the subject wells. The wells are intended for ground water quality monitoring and are constructed of a size that meaningful aquifer testing is not practical.

Thank you for your consideration in this matter. If you have any questions, please contact Guy Ichinotsubo, State Project Manager, at 838-8866.

Sincerely,

JERRY M. MATSUDA, P.E.
Deputy Director

Enclosure: Monitoring Well Installation Report

c: Virginia Goldstein - County of Hawaii
Mr. Michael D. Wilson  
Chairperson  
State of Hawaii  
Department of Land and Natural Resources  
Commission on Water Resource Management  
P. O. Box 621  
Honolulu, Hawaii 96809  

Dear Mr. Wilson:

Subject: Ground Water Monitoring Wells  
Keahole-Kona International Airport  
Project No. AH2072-16

RE: CWRM-SS dated June 25, 1996

Transmitted is the executed Well Construction Permit for the subject project monitoring wells W-11, W-13 and W-14 (Well Nos. 4462-02, 4462-04, 4462-06, 4462-08, 4462-10, 4463-01, 02, 03). It is understood that special conditions have been added and are made part of the permit under Standard Permit Condition 11.

In accordance with Special Condition 1 of the permit, data from all water quality sampling events will be submitted to the Department of Land and Natural Resources, Commission on Water Resource Management, on an annual basis.

With respect to Special Condition 2 of the permit, no aquifer pump testing is planned for the subject wells. The wells are intended for ground water quality monitoring and will be constructed of a size such that meaningful aquifer testing is not practical.

Hana Like No Ke Ala Aloha  
Working Together to Provide Gateways of Aloha
Please have your staff contact Guy Ichinotsubo, Project Manager, at 838-8866 to clarify any questions you may have. Thank you for your assistance in this matter.

Sincerely,

Jerry M. Matsuda
Deputy Director

Attachment: Well Construction Permit

c: Edward K. Noda & Associates (Dayton Fraim)
Keahole Associates, Inc. (Frank Sanpei)
**WELL CONSTRUCTION PERMIT**

W-11, W-13, W-14 Wells, Well Nos. 4462-02, 4462-03&04, 4463-01,02, &03

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 W-11, W-13, W-14 Wells (Well No. 4462-02, 4462-03&04, 4463-01,02, &03 respectively) at the Kona International Airport, Hawaii, TMK 7-3-043:003 & 042, subject to the following conditions:

**STANDARD PERMIT 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.

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. 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.

4. 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.

5. 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.

6. The following shall be submitted to the Commission within thirty (30) 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.

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

8. The well construction permit application information approved by the Chairperson is incorporated into the permit by reference.

9. 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.

10. 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.

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

Date of Approval: June 21, 1996
Expiration Date: June 21, 1998

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.

Applicant's Signature: Jerry M. Matsuda
Printed Name: Jerry M. Matsuda, Deputy Director
Firm or Title: Airports Division

Please sign both copies of this permit, return one to the Commission, and retain the other for your records.
Mr. Rudy Akiyoshi  
State of Hawaii  
Department of Transportation  
400 Rodgers Blvd. Suite 700  
Honolulu, Hawaii 96819

Dear Mr. Akiyoshi:

Well Construction Permit  
Keahole-Kona International Airport Monitor Wells W-11, 13, & 14  
(Well Nos. 4462-02, 4462-03 & 04, and 4463-01, 02, & 03) 

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s). As part of the Commission’s approval, the following special conditions were added and are part of your permit under Standard Permit Condition 11:

Special Conditions

1. Collection and recording of water data for the water use report requirement of this permit shall be done quarterly or every time sampling at these monitor wells occurs. These data shall be reported on an annual basis on the attached form.

2. Pump test requirements under Standard Condition 2 and 6.e are waived. However, if aquifer pump testing is performed then the permittee shall record and report such testing to the Commission according to Standard Condition 2 and 6.e.

Please sign the permit copies and return one for our files. Also, copies of the aquifer pump test procedure and the well completion report form are enclosed for your use.

If you have any questions, please call Rae M. Loui, Deputy Director, at 587-0214 or 1-800-468-4644, extension 70214.

Aloha,

MICHAEL D. WILSON  
Chairperson

Enclosures

c: Mr. Dayton Fraim
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 W-11, W-13, W-14 Wells (Well No. 4462-02, 4462-03&04, 4463-01,02,03 respectively) at the Keahole-Kona International Airport, Hawaii, TMK 7-3-043:003 & 042, subject to the following conditions:

STANDARD PERMIT 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.

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. 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.

4. 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 (587-0048) immediately.

5. 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.

6. The following shall be submitted to the Commission within thirty (30) 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.

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

8. The well construction permit application information approved by the Chairperson is incorporated into the permit by reference.

9. 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.

10. 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.

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

Michael D. Wilson, Chairperson
Commission on Water Resource Management

Date of Approval: June 21, 1996
Expiration Date: June 21, 1998

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.

Applicant's Signature: ___________________________ Date: __________

Printed Name: ___________________________ Firm or Title: ___________________________

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

Attachment

USGS
Department of Health/ Safe Drinking Water & Wastewater Branches
Hawaii Department of Water Supply
Mr. Rudy Akiyoshi  
State of Hawaii  
Department of Transportation  
400 Rodgers Blvd., Suite 700  
Honolulu, HI 96819  

Dear Mr. Akiyoshi:

Update to Well Construction Permit  
Keahole-Kona International Airport Monitor Wells W-11, 13, & 14  

We recently sent you a well construction permit for monitor well batteries 11, 13, & 14. Due to an oversight on our part, the State Well Nos. for Monitor Well Battery 11 should be corrected from 4462-02, 03, & 04 to 4462-05, 06, & 07. This letter shall constitute the update for the state well no. designations for your recent well construction permit.

Additionally, please be advised your existing Keahole Airport Exploratory Well #1 also should be changed from State Well No. 4462-01 to 4462-02. We also understand that you have not drilled Wells 4462-01, 03, & 04. The permits for these wells expired on September 8, 1994.

If you have any questions, please contact Roy Hardy at 587-0274 or 1-800-468-4644, extension 70274.

Sincerely,

RAE M. LOUI  
Deputy Director

RH:ss

c: Mr. Dayton Fraim
May 16, 1995

Ms. Rae M. Loui, P.E.
Deputy Director
Commission on Water Resources Management
P.O. Box 621
Honolulu, Hawaii 96809

Subject: Proposed Monitoring Wells
Keahole-Kona International Airport
Keahole, North Kona, Hawaii

Dear Ms. Loui:

Transmitted herewith, on behalf of the Department of Transportation, Airports Division, are the well permit applications for three (3) ground water monitoring wells to be constructed at the Keahole-Kona International Airport on the island of Hawaii. These wells will be used in conjunction with existing monitoring wells at the Hawaii Ocean Science and Technology (HOST) Park and Natural Energy Laboratory of Hawaii (NELH) to monitor ground water under the airport and the HOST/NELH complex as part of the HOST/NELH Comprehensive Environmental Monitoring Program (CEMP).

The wells will range in depth from about 25 feet to about 180 feet below the existing ground surface. The wells will be similar in construction to the existing monitoring wells at the HOST/NELH facility, i.e., 6-inch borehole with 2-inch PVC casing and well screen. The wells are used solely for monitoring purposes and annual withdrawals from each well is limited to only a few gallons for sampling.

The installation of these wells is consistent with requirements established in the Final Environmental Impact Statement for the HOST/NELH facilities and the SMA permit for the expansion of Keahole Airport.

The project plans and specifications have been included with the applications as supplemental information. The project is currently out to bid and construction work is anticipated to be scheduled for late July or August.

We thank you for your consideration in this matter. Please feel free to call me at 591-8553, Extension 209, if you have any questions or need more information.

Very truly yours,

Dayton E. Fram, P.E.
Project Manager

cc: DOTA (G. Ichinotsubo)
Keahole Associates (F. Sanpei)
1. **APPLICANT**: (may be a, b, or c, but all must be filled in)
   - **(a) WELL OWNER**
     - State of Hawaii
     - Dept. of Transportation-Airports Div.
     - Contact Person: Rudy Akikiishi
     - Phone: 838-8832
     - Address: 400 Rodgers Blvd., Suite 700
     - Honolulu, Hawaii 96819
   - **(b) LANDOWNER**
     - State of Hawaii
     - DOT - Airports Division
     - Contact Person: Rudy Akikiishi
     - Phone: 838-8832
     - Address: 400 Rodgers Blvd., Suite 700
     - Honolulu, Hawaii 96819
   - **(c) CONTRACTOR**
     - To be selected by public
     - Contractor's C-57 License No.
     - Address

2. **WELL LOCATION/NAME**: Keahole-Kona International Airport W-11
   - Island: Hawaii
   - Address: Keahole-Kona, Hawaii
   - Tax Map Key: 7-3-43:03

3. **(a) PROPOSED WORK**
   - Drill New Well
   - * After Location
   - Modify Existing Well
   - Redrill
   - Install New Pump
   - Replace Pump
   - * Be sure to complete and submit well abandonment report upon completion of work.
   - Deepen
   - * Abandon/Seal

   **(b) WELL TYPE**
   - Dug
   - Bored
   - Driven
   - Drilled
   - Radial
   - Is this well a part of a battery of wells? Yes
   - No
   - * (Briefly describe and fill in the diagram on the back of this form.)

4. **PROPOSED PUMP INFORMATION**: Rated Pump Capacity: __________ gallons per minute
   - Pump Type:
     - Deep Well Turbine
     - Submersible
     - Centrifugal
     - Rotary
     - Rotary-Displacement
     - Rotary-Gear
     - * Impulse
     - * XX Bladder
   - Motor:
     - Diesel
     - Gas
     - Electric, rated horsepower of __________

5. **PROPOSED USE**
   - Municipal (including hotels, stores, etc.)
   - Domestic (individual, noncommercial water use)
   - Irrigation (crop)
   - Other (explain): Water Quality Sampling

   **State Land Use District**
   - * Urban
   - Agriculture
   - Rural
   - Conservation

   **County Zoning (describe)**: 
   - Open

   **(If more space is needed, continue below under remarks, explanations.)

6. **(a) PROPOSED AMOUNT OF WITHDRAWAL**
   - gallons per day (Quarterly Sampling)
   - * (b) METHOD OF FLOW MEASUREMENT*
     - Flow-meter
     - Open-pipe
     - Office Plate
     - Weir

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

8. **REMARKS, EXPLANATIONS**: Provision of water monitoring wells is a condition of the terms of SMA Use Permit and Land Use Commission’s Decision and Order pertaining to the expansion of the Keahole-Kona International Airport. State of Hawaii, Department of Transportation, (over)

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

   **Owner**
   - State of Hawaii
   - DOT Airports Division
   - Signature
   - Date

   **Landowner**
   - State of Hawaii
   - DOT Airports Division
   - Signature
   - Date

   **Contractor**
   - N/A (see 1c)
   - Signature
   - Date

   **For Official Use Only**
   - Date Received
   - Date Accepted
   - Field Checked By
   - Date

   **Aquifer System Name**: Keahole
   - State Well No.
Airports Division (PDA) is required to participate in NEH/FOST's Comprehensive Environmental Monitoring Program (CEMP).

8. PROPOSED WELL SECTION

- Ground Elevation: 140.16 ft., msl
- Total Depth: 170 ft.
- Hole Diameter: 6 in.
- Solid Casing:
  - Material: Schedule 40 PVC
  - Length: 135'-0"
  - Diameter: 2" I.D.
  - Wall thickness
- Casing:
  - Perforated
  - Screen
  - Material: PVC/Schedule 40
  - Length: 35'-0"
  - Diameter: 2" I.D.
  - Wall thickness
- Openings: sq. in./L.F.
  - Slot Width: .040"
  - Spacing: .125"
- Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted. Final elevations of well components shall be submitted in the well completion/well abandonment reports.
APPLICATION FOR PERMIT

1. APPLICANT: (may be a, b, or c, but all must be filled in)
   (a) WELL OWNER
   Firm/Name: State of Hawaii
   Address: 140 Rodgers Blvd., Suite 700
   Honolulu, Hawaii 96819
   Contact Person: Rudy Ayoshi
   Phone: 838-8832

   (b) LANDOWNER
   Firm/Name: State of Hawaii
   Address: 140 Rodgers Blvd., Suite 700
   Honolulu, Hawaii 96819
   Contact Person: Rudy Ayoshi
   Phone: 838-8832

   (c) CONTRACTOR
   Firm/Name: To be selected by public bid.
   Address: Bid.
   Contractor’s C-57 License No.: _______________________

2. WELL LOCATION/NAME: Keahole-Kona International Airport W-13 Island: Hawaii
   Address: Keahole-Kona, Hawaii
   Tax Map Key: 7-3-43:00

   (Attach a USGS map, scale 1"=2000, and a property tax map showing well location referenced to established property boundaries.)

3. (a) PROPOSED WORK:
   • Drill New Well
   • Modify Existing Well
   • Redrill
   • Install New Pump
   • Replace Pump
   • Modify Pump
   • Be sure to complete and submit well abandonment report upon completion of work.

   (b) WELL TYPE:
   • Dug
   • Bored
   • Driven
   • Drilled
   • Radial
   Is this well a part of a battery of wells? Yes No
   (Briefly describe and fill in the diagram on the back of this form.)

4. PROPOSED PUMP INFORMATION: Rated Pump Capacity: __________________________ gallons per minute

   Pump Type:
   • Deep Well Turbine
   • Submersible
   • Centrifugal
   • Rotary
   • Centrifugal
   • Reciprocating
   • Impulse
   • Axial
   • Propeller
   • Electric, rated horsepower of

   Motor:
   • Diesel
   • Gas
   • Electric, rated horsepower of

5. PROPOSED USE:
   • Municipal (including hotels, stores, etc.)
   • Domestic (individual, noncommercial water sys.)
   • Residential
   • Irrigation (crop)
   • Other (explain)
   • Water Quality Sampling

   State Land Use District: Residential
   County Zoning (describe): Residential

   (If more space is needed, continue below under remarks, explanations.)

6. (a) PROPOSED AMOUNT OF WITHDRAWAL:
   • Flow-meter
   • Open-pipe
   • Office Plate
   • Weir
   • Other (explain)

7. PENDING ACTIONS:
   • CDA
   • SMA
   • ES
   • EA
   • None
   • Other (explain)

8. REMARKS, EXPLANATIONS:

   Provision of water monitoring wells is a condition of the terms of SMA Use Permit and Land Use Commission’s Decision and order pertaining to the expansion of the Keahole-Kona International Airport, State of Hawaii, Department of Natural Resources.

   (If more space is needed, continue on back)

   State of Hawaii
   DOT Airports Division
   Signature:______________________________
   Date: ____________________________

   State of Hawaii
   DOT Airports Division
   Signature:______________________________
   Date: ____________________________

   Contractor: N/A (see 1c)
   Signature:______________________________
   Date: ____________________________

   For Official Use Only:
   Date Received: ____________________________
   Date Accepted: ____________________________
   Field Checked By: ____________________________
   Date: ____________________________

   Longitude: ____________________________
   Latitude: ____________________________

   Aquifer System Name: Kea'au
   State Well No.: 5441-05-06 02.01
**9. PROPOSED WELL SECTION**

- **Elevation at top of casing:** 55.61 ft, msl.
- **Ground Elevation:** 55.61 ft, msl.

**Cement Grout:** 58' 41' ft.

**Sand & Rock Packing:** 18'-0".

**Hole Diameter:** 6 in.

**Total Depth:** 65+ 80+ ft.

**Solid Casing:**
- **Material:** PVC Schedule 40
- **Length:** 60', 43'
- **Diameter:** 2" I.D.
- **Wall thickness**

**Casing:**
- **Perforated**
- **Screen**
- **Material:** PVC Schedule 40
- **Length:** 15'-0"
- **Diameter:** 2" I.D.
- **Wall thickness**
- **Openings** sq. in./L.F.
  - **Slot Width:** 0.040
  - **Spacing:** 0.125"

**Open Hole:**
- **Length**
- **Diameter**

---

*Approximate elevation at time of filing application. Ground elevation above mean sea level (msl) by a surveyor licensed by the State must be submitted at start of construction. Final elevations of well components shall be submitted in the well completion/well abandonment reports.*
# 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 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 587-6225.

## 1. APPLICANT: (may be a, b, or c, but all must be filled in)

<table>
<thead>
<tr>
<th>(a) WELL OWNER</th>
<th>(b) LANDOWNER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm/Name</td>
<td>State of Hawaii DOT-Airports Division</td>
</tr>
<tr>
<td>State</td>
<td>State of Hawaii DOT-Airports Division</td>
</tr>
<tr>
<td>of Hawaii</td>
<td>DOT-Airports Division</td>
</tr>
<tr>
<td>Contact Person</td>
<td>Contact Person</td>
</tr>
<tr>
<td>Rudy Akiyoshi</td>
<td>Rudy Akiyoshi</td>
</tr>
<tr>
<td>Ph. 838-8832</td>
<td>Ph. 838-8832</td>
</tr>
<tr>
<td>Address</td>
<td>Address</td>
</tr>
<tr>
<td>400 Rodgers Blvd., Suite 700</td>
<td>400 Rodgers Blvd., Suite 700</td>
</tr>
<tr>
<td>Honolulu, Hawaii 96819</td>
<td>Honolulu, HI 96819</td>
</tr>
</tbody>
</table>

## 2. WELL LOCATION/NAME: Keahole-Kona International Airport W-14 Island Hawaii

Address Keahole-Kona, Hawaii

Tax Map Key 7-3-43:42

(Attach a USGS map, scale 1"=2000', and a property tax map showing well location referenced to established property boundaries.)

## 3. (a) PROPOSED WORK:

- Drill New Well
- Modify Existing Well
- Pedal
- Install New Pump
- Replace Pump
- Deepen
- Modify Pump
- Abandon/Seal
- Be sure to complete and submit well abandonment report upon completion of work.

(b) WELL TYPE:

- Dog
- Bored
- Driven
- Drilled
- Radial
- Is this well a part of a battery of wells? Yes
- No

(Briefly describe and fill in the diagram on the back of this form.)

## 4. PROPOSED PUMP INFORMATION:

- Signed Pump Capacity: ___________ gallons per minute

<table>
<thead>
<tr>
<th>Pump Type</th>
<th>Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Well Turbine</td>
<td>Diesel</td>
</tr>
<tr>
<td>Submersible</td>
<td>Gas</td>
</tr>
<tr>
<td>Centrifugal</td>
<td>Electric, rated horsepower of</td>
</tr>
<tr>
<td>Rotary</td>
<td>Rotary-Displacement</td>
</tr>
<tr>
<td>Reciprocating</td>
<td>Impulse</td>
</tr>
<tr>
<td>Rotary-Gear</td>
<td>Xx Bladder</td>
</tr>
</tbody>
</table>

## 5. PROPOSED USE:

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

Water Quality Sampling

State Land Use District: Urban

County Zoning (describe): MG-1a

(If more space is needed, continue below, under remarks, explanations.)

## 6. (a) PROPOSED AMOUNT OF WITHDRAWAL:

- Flow-meter
- Open-pipe
- Office Plate
- WELL

<table>
<thead>
<tr>
<th></th>
<th>4-4-20-00</th>
</tr>
</thead>
<tbody>
<tr>
<td>gals/yr</td>
<td>525.00</td>
</tr>
<tr>
<td>Quarterly Sampling</td>
<td></td>
</tr>
</tbody>
</table>

## 7. PENDING ACTIONS:

- CDUA
- SMA
- ES
- EA
- NONE
- Other (explain)

## 8. REMARKS, EXPLANATIONS:

Provision of water monitoring wells is a condition of the terms of the SMA Use Permit and Land Use Commission Decision and Order pertaining to the expansion of the Keahole-Kona International Airport, State of Hawaii, Department of...

(state of hawaii, D.O.T.-airports division)

(state of hawaii, D.O.T.-airports division)

(N/A (see lc.))

 statically analyzed

Akiyoshi, Rudy

Akiyoshi, Rudy

Matsuda, Rudy

Matsuda, Rudy

3-4-20-

4-4-20

Signatures

Date

For Official Use Only:

Date Received

Date Accepted

Field Checked By

Longitude

Aquiher System Name

State Well No.

Date

State of Hawaii

State of Hawaii
Transportation, Airports Division (DOT-A) is required to participate in NEAH/HOS's comprehensive Environmental Monitoring Program (CEMP).

8. PROPOSED WELL SECTION

- **Ground Elevation**: 20.92 ft., msl

- **Total Depth**: 40+ ft.

- **Hole Diameter**: 6" in.

- **Solid Casing**
  - Material: PVC Schedule 40
  - Length: 40', 30', 20'
  - Diameter: 2" I.D.
  - Wall thickness

- **Openings**
  - Slot Width: 0.040"
  - Spacing: 0.125"

- **Open Hole**
  - Length
  - Diameter

---

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