PUMP INSTALLATION PERMIT
Maunaoni Well, Well No. 2052-01

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Maunaoni Well (Well No. 2052-01) at TMK 8-7-002:002, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules (HAR).
2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.
3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.
4. The pump installation permit shall be for installation of a 45 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.
5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.
6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.
7. Well Completion Report Part II shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm for current form).
8. The permittee, well operator, and/or well owner shall comply with all applicable laws, rules, and ordinances, and non-compliance may be grounds for revocation of this permit.
9. The pump installation permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.
10. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.
11. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.
12. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.
13. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.
14. Special conditions in the attached cover transmittal letter are incorporated herein by reference.

Date of Approval: December 9, 2009
Expiration Date: December 9, 2011

LAURA H. THIELEN, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer, have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer's Signature: Derrick Moreira
C-57, C-57a, or A License #: C-28001
Firm or Title: Derrick's Well Drilling and Pump Service

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

Attachments
December 21, 2009

Mr. Derrick Moreira
Derrick's Well Drilling and Pump Service
P.O. Box 2187
Keeau, HI 96749

Dear Mr. Moreira:

Pump Installation Permit
Maunaoni Well (Well No. 2052-01)

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) that authorize permanent pump installation work for your well(s). As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 14:

Special Conditions

1. If the elevation benchmark needs to be altered, the permittee, well operator, and/or well owner shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

2. Attached for your information are copies of the Department of Health's (DOH) review comments. Please note DOH's requirements related to discharge of effluent from well drilling and testing activities. Also, please contact the Noise Radiation and Indoor Air Quality Branch at [phone number] to check compliance with construction noise permit requirements for this project.

The permittee is responsible for all conditions of the permit. This includes ensuring the submission of a completed Well Completion Report Part II form within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign both permit originals and return one copy to the Commission office for our files.

IMPORTANT - Pump installation shall not commence until a fully signed permit is returned to the Commission.

If you have any questions, please call Ryan Imata of the Commission staff at [phone number] or toll-free at [phone number] (Hawaii), extension 70255.

Sincerely,

[Signature]
Chairperson

Enclosure

c: Phil Johnson Cascade Coffee (with applicable comments – DOH SDWB, WWB, CWB)
USGS
Hawaii DWS
PUMP INSTALLATION PERMIT
Maunaoni Well, Well No. 2052-01

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the pump installation for Maunaoni Well (Well No. 2052-01) at TMK 8-7-002:002, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules (HAR).

2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

4. The pump installation permit shall be for installation of a 45 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within sixty (60) days after completion of work (please contact staff or visit www.hawaii.gov/dlnr/cwrm/resources_permits.htm for current form).

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

9. The pump installation permit application and, if relevant, any related staff submittal approved by the Commission are incorporated into this permit by reference.

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

11. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

12. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

13. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: December 9, 2009
Expiration Date: December 9, 2011

Commission on Water Resource Management
LAURAH THIELEN, Chairperson

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer's Signature: Derrick Moreira  C-57, C-57a, or A License #: C-28001  Date: 
Printed Name: Derrick Moreira  Firm or Title: Derrick's Well Drilling and Pump Service.

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

Attachments
COMMISSION ON WATER RESOURCE MANAGEMENT
ROUTE SLIP FOR PERMIT ISSUANCE 6/25/08

FROM: RYAN
DATE: 12/18/09
TO: 
INIT. TO: INIT. FOR: PLEASE:

CHENG, C. KIMURA, J. Approval See Me
CHING, F. KUNIMURA, I. 3 Signature 1 Review & Comment
CHONG, R. LEROUX, E. 4 Information Take Action
DANBARA, S. MILLS, D. Type Draft
ENGLAND, D. OHYE, L. 2 Type Final
FUJII, N. OHYE, M. File
1 HARDY, R. SAKODA, E. Xerox copies
2 HOAGBIN, S. SWANSON, S.
ICE, C. UYENO, D.
IMATA, R. YODA, K.
3 KAWAHARA, K. YOSHINAGA, M.

WELL NUMBER 2052-01 WELL NAME Maunaoni

application type PUMP
1 WCP COVER LETTER x pump only, not necessary
2 WCP x pump only, not necessary
3 WELL CHECK PRINTOUT x pump only, not necessary

proposed well section issues?


4 PIP COVER LETTER 
5 PIP 

COMMENTS: date rec'd issues?

6 SDWB 
7 WWB
8 CWB 
9 HEER
10 LD
11 HP
12 LUC 
13 OCCL 
14 SMA
15 BWS (Oahu)

if checked, send to applicant

NOTES:

DRILLER Derrick Moreira
Derrick's Drilling and Pump Service
28002
P.O. Box 2187
Keeau HI 96749

phone 982-7629
fax 982-7696

TMK

PUMP CAPACITY 8-7-002:002
WELL OWNER Phil Johnson Cascade Company
LAND OWNER 0
COMMENT DEADLINE 3/30/00
<table>
<thead>
<tr>
<th>TO:</th>
<th>INIT.</th>
<th>TO:</th>
<th>INIT.</th>
<th>FOR:</th>
<th>PLEASE:</th>
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<tbody>
<tr>
<td>CHING, F.</td>
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<td>KUNIMURA, I.</td>
<td></td>
<td>1 Approval</td>
<td>See Me</td>
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<tr>
<td>FUJI, N.</td>
<td></td>
<td>OHYE, M.</td>
<td></td>
<td>2 Signature</td>
<td>Review &amp; Comment</td>
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<tr>
<td>GOODING, K.</td>
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<td>SAKODA, E.</td>
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</tr>
<tr>
<td>HARDY, R.</td>
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<td>SWANSON, S.</td>
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<td>Type Draft, acknow letter</td>
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<tr>
<td>HIGA, D.</td>
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<td>UYENO, D.</td>
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<td>Type Final, label file folder, update People.db</td>
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<tr>
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<td></td>
<td>YODA, K.</td>
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<td>5 File</td>
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<tr>
<td>ICE, C.</td>
<td></td>
<td>YOSHINAGA, M.</td>
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<td>6 Xerox copies</td>
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<td>IMATA, R.</td>
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<td>KAWAHARA, K.</td>
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**WELL NUMBER** 2052 - 01  **WELL NAME** Maunanoni  **WUP Number** na

- **PUMP INSTALLATION**

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

- 1 TRANS. LETTER
- 2 PERMIT PROCESS TABLE
- 3 CWRM MAP
- 4 APPL. FORM (11 COPIES)
- 5 USGS MAPS (11 COPIES)
- 6 TAX MAPS (11 COPIES)
- 7 PARCEL OWNER VERIF.
- 8 CONTRACTOR VERIF.
- 9 ALL INFO FILLED IN
- 10 BACKGROUND CHECK
- 11 $25 FEE DEPOSIT SLIP
- 12 DHP/COP/SMA pre-screen

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

**INCOMPLETE ACTION DATES:**

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Pending WCR's accept</td>
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<tr>
<td></td>
<td>Rainbow Serpent Survey?</td>
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<td></td>
<td>Cancel letter</td>
</tr>
<tr>
<td></td>
<td>ATP 13/and dying</td>
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<td>Name change?</td>
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<td>Well No.</td>
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<td>APP</td>
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</tbody>
</table>

**TOTAL $100.00**

**REMARKS:**

LINE (1) Maunamoni Well
LINE (2) Johnson Well
LINE (3) Zierk Well
LINE (4) Nahm Well
LINE (5)  
LINE (6)  
LINE (7)  
LINE (8)  
LINE (9)  
LINE (10)
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 6 copies and a non-refundable filing fee of $250 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Commission Branch at 1-808-983-8000. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION
1. STATE WELL NO. (if already assigned) 2. WELL NAME Maunamani Well 3. ISLAND Hawaii 4. TMI

The following be attached before this application is accepted as complete (check off if attached):
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad number
- Tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and fresh grades

5. WELL OPERATOR'S NAME/COMPANY Well Operator's Contact
Phil Johnson Cascade Coffee Phil Johnson

6. LANDOWNER'S NAME/COMPANY Same Landowner's Contact

Well Operator's Mailing Address
Kaiulani-Kona, HI 96740

Well Operator's Phone
4258739895

Well Operator's Fax
4253475076

Well Operator's E-Mail

PROPOSED WELL CONSTRUCTION
7. Proposed Work

<table>
<thead>
<tr>
<th>Work</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>Drilled</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td></td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td></td>
</tr>
</tbody>
</table>

8. Construction Type

9. Is this well part of a battery of wells? [ ] Yes [ ] No

PROPOSED PUMP INSTALLATION
10. Proposed Work

<table>
<thead>
<tr>
<th>Work</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Install New Pump</td>
<td></td>
</tr>
<tr>
<td>Replace Pump</td>
<td></td>
</tr>
</tbody>
</table>

11. Proposed Pumping Rate, gpm

Other (explain):

12. Proposed Amount of Withdrawal, gpd (gallons per day)

13. Method of flow measurement

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

SITe PHOTO

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)

16. Domestic - Number of units to be served:

17. Industrial (describe)

18. Irrigation (describe crop and no. of acres)

19. Military (describe)

20. Other (describe)

OTHER LEGAL REQUIREMENTS
If required, items 21, 22, and 23 must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)

[ ] Required, CDUP # ______ date approved ______

[ ] Not Required (attach documentation from OCCL)

[ ] I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Well in Conservation District

[ ] I have not checked if well is in or out Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

[ ] Special Management Area Permit (SMA) ______ date approved ______

[ ] Not Required (attach documentation from applicable County agency)

[ ] I have not checked with the County about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPDS) of the Department of Land and Natural Resources

[ ] I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.

[ ] I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that following the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.


NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon approval: 1) the proposed work is to be completed within 2 (years) of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) 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 $5000 per day.

24. WELL DRILLER (Must be listed if application is for Well Construction)

Derrick's Well Drilling & Pump Svc C-28001

License business name C-57 License No.

Signature Print Date

25. PUMP INSTALLER (Must be listed if application is for Pump Installation)

Derrick's Well Drilling & Pump Svc C-28001

License business name C-57/51 License No.

Signature Print Date
WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 2052-01
2. WELL NAME: Maunanoii Well
3. ISLAND: Hawaii
4. TMK 8 7 2 2
   zone sec plat para

The following be attached before this application is accepted as complete (check off if attached):
[ ] A photogrammetric solid model of the proposed well site, accuracy better than 3 feet.
[ ] Soil boring and sample reports originating from a soil boring
[ ] Portion of the proposed well site USGS 7.5-Minute Series labeled and include the name of the quad map
[ ] Property tax map, showing well location referenced to established property boundaries
[ ] Photograph of the proposed well site
[ ] A schematic diagram showing the well site, access road and proposed well infrastructure
[ ] For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR'S NAME/COMPANY Well Operator's Contact
   Phil Johnson Cascade Coffee
6. LANDOWNER'S NAME/COMPANY Landowner's Contact
   Same
   Phil Johnson
   Same
   Landowner's Mailing Address
   Kailua-Kona, HI 96740

Well Operator's Phone 4253473956
Well Operator's Fax 4253473976
Well Operator's E-mail

PROPOSED WELL CONSTRUCTION

7. Proposed Work: [ ] Construct New Well [ ] Modify Existing Well [ ] Abandon/Seal Well
   [ ] Dig [ ] Shaft [ ] Tunnel

8. Construction Type
   [ ] Drilled
   [ ] Install New Pump
   [ ] Replace Pump
   [ ] Other

9. Proposed Amount of Withdrawal
   [ ] Gallons per minute
   [ ] Milligrams per liter
   [ ] GPM
   [ ] MMG/L
   [ ] MLR
   [ ] MGD

10. Proposed Pumping Rate, gpm 11. Proposed Amount of Withdrawal, gpd (gallons per day)
    45 21,000

13. Method of flow measurement
    [ ] Flowmeter
    [ ] Other (explain)

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

OTHER LEGAL REQUIREMENTS

If required, items 21 and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
[ ] Permit required
[ ] CDUP #_________________________ date approved
[ ] Not Required (attach documentation from DOC)
[ ] I have not checked with DOC about whether or not a CDUP is required. I understand that checking with DOC prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. State Historic Preservation District (SHPD) Permit
[ ] Permit required
[ ] SMAP #_________________________ date approved
[ ] Not Required (attach documentation from applicable State agency)
[ ] I have not consulted with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

ADDITIONAL INFORMATION


NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought to compliance, and any work done while the permit is in suspension may result in fines of up to $50,000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
   Derrick's Well Drilling & Pump Svc C-28001
   License business name C-57C License No. C-57C-57a License No.
   Signature Print
   Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
   Derrick's Well Drilling & Pump Svc C-28001
   License business name C-57C-57a License No.
   Signature Print
   Date

For Official Use Only: RECEIVED COMMISSION ON WATER RESOURCES MANAGEMENT 2009 OCT 20 AM: 11: 21
# STATE OF HAWAII
## DEPARTMENT OF LAND AND NATURAL RESOURCES
### COMMISSION ON WATER RESOURCE MANAGEMENT
#### APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

**Instructions:** Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96809. Application must be accompanied by 6 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 974-0830. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

---

## WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 2052-01
2. WELL NAME  Maunanoii Well
3. ISLAND  Hawaii
4. TMK  8 - 7 - 2 : 2

The following be attached before this application is accepted as complete (check off if attached):
- Section of 7.5-Minute Series USGS topographic map (scale of 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finishing grades

5. WELL OPERATOR'S NAME/COMPANY  Phil Johnson Cascade Coffee
WEL Operator's Contact  Phil Johnson
6. LANDOWNER'S NAME/COMPANY  Same
Landowner's Contact  Same

Well Operator's Mailing Address  98 Mile Marker Mialalihana Highway Kailua-Kona, HI 96740

Well Operator's Phone  4253475905
Well Operator's Fax  4253475905

---

## PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th>Proposed Work</th>
<th>Proposed Construction Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>Drilled</td>
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<tr>
<td>Modify Existing Well</td>
<td></td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td></td>
</tr>
</tbody>
</table>

10. Proposed Work  Replace Pump
11. Proposed Pumping Rate, gpm (gallons per minute)  45
12. Proposed Amount of Withdrawal, gpd (gallons per day)  21,000
13. Method of flow measurement  Flowmeter
Other (explain)

---

## PROPOSED PUMP INSTALLATION

14. Proposed Pumping Rate, gpm (gallons per minute)  45
15. Proposed Amount of Withdrawal, gpd (gallons per day)  21,000

---

## OTHER LEGAL REQUIREMENTS

If required, items 21 and 22 must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
- Required, CDUP #  date approved
- Not Required (attach documentation from OCCL)

22. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- Required, SMA #  date approved
- Not Required (attach documentation from applicable County agency)

---

## SITE PHOTO

- Municipal (water systems serving greater than 25 individuals or 15 service connections)
- Domestic - Number of units to be served:
- Irrigation (describe crop and no. of acres) Coffee
- Military (describe)
- Other (describe)

---

## DOCUMENTS AND COMMENTS ON APPLICATION

For Official Use Only: RECEIVED COMMISSION ON WATER RESOURCE MANAGEMENT 205 OCT 20 AM 11:21

---

## SIGNATURES

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Derrick's Well Drilling & Pump Svc C-28001
Signature  Print  Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Derrick's Well Drilling & Pump Svc C-28001
Signature  Print  Date
# WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) | 2. WELL NAME | 3. ISLAND | 4. TMK | 5. 8 - 7 - 2 - 2 zone - sec - min - sec
|--------------------------------------|-------------|----------|--------|---------------------
| 2002-01 | Maunaroni Well | Hawaii | | |

The following be attached before this application is accepted as complete (check off if attached):
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

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<tbody>
<tr>
<td>Phil Johnson Cascade Coffee</td>
<td>Phil Johnson</td>
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</tr>
<tr>
<td>Well Operator's Mailing Address</td>
<td></td>
<td></td>
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<tr>
<td>Well Operator's Phone</td>
<td></td>
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<tr>
<td>Well Operator's Fax</td>
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</tr>
</tbody>
</table>

## PROPOSED WELL CONSTRUCTION

### 7. Proposed Work
- Construct New Well
- Modify Existing Well
- Abandon/Seal Well

### 8. Construction Type
- Drilled
- Contrib New Pump
- Shaft
- Tunnel

### 10. Proposed Work
- Install New Pump
- Replace Pump

### 11. Proposed Pumping Rate, gpm
- 45

### 12. Proposed Amount of Withdrawal, gpd
- 21,000

## PROPOSED PUMP INSTALLATION

### 13. Method of flow measurement
- Flowmeter
- Other (explain)

## PROPOSED USE

- Municipal (water systems serving greater than 25 individuals or 15 service connections)
- Domestic - Number of units to be served:
- Irrigation (describe crop and no. of acres)
- Military (describe)
- Other (describe)

## SITE PHOTO

### 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)

### 16. Domestic - Number of units to be served:

### 17. Irrigation (describe crop and no. of acres)

### 19. Military (describe)

### 20. Other (describe)

## OTHER LEGAL REQUIREMENTS

- Conservation District Use Permit (CDUP)
- Well is in Conservation District
- Required, CDUP # date approved
- Not Required (attach documentation from OCC)
- I have not consulted with OCC about whether or not a CDUP is required. I understand that checking with OCC prior to making this application will expedite my review. I further understand that if issues arise raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
- Required, SMA # date approved
- Not Required (attach documentation from applicable County agency)
- I have not consulted with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
- Special Management Area Permit (SIMAP)
- Required, SMA # date approved
- Not Required (attach documentation from applicable County agency)
- I have not consulted with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
- State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

## Licensing Information

### 24. WELL DRILLER (Must be filled out if application is for Well Construction)
- Derrick’s Well Drilling & Pump Svc
- C-28001

### 25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
- Derrick’s Well Drilling & Pump Svc
- C-28001

**NOTE:** Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) 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 $300/day.

**For Official Use Only:**

**RECEIVED**

**COMMISSION ON WATER RESOURCE MANAGEMENT**

**APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT**

**STATE OF HAWAII**

**DEPARTMENT OF LAND AND NATURAL RESOURCES**

**COMMISSION ON WATER RESOURCE MANAGEMENT**

**For further information and updates to this application form, visit: [http://www.hawaii.gov/dlnr/cwrm](http://www.hawaii.gov/dlnr/cwrm).**
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Application must be accompanied by 6 copies and a non-refundable filing fee of $28.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 425-3473 or 425-3475. For further information and updates to this application, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 2052-01 2. WELL NAME Maunanoi Well 3. ISLAND Hawaii 4. TMK 8 - 7 - 2 : 2

The following be attached before this application is accepted as complete (check off if attached):
Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quadrangle
Property tax map, showing well location referenced to established property boundaries
Photograph of the proposed well site
A schematic diagram showing the well site, access road and proposed well infrastructure
For the wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR'S NAME/COMPANY
Phil Johnson
6. LANDOWNER'S NAME/COMPANY
Phil Johnson

Well Operator's Contact
Same

Landowner's Contact
same

Well Operator's Mailing Address
98 Mile Marker Malahaihoa Highway
Wahiawa, Hi 96740

Landowner's Mailing Address


PROPOSED WELL CONSTRUCTION

7. Proposed Work
- Construct New Well
- Modify Existing Well
- Abandon/Seal Well

8. Construction Type
- Drilled
- Dug
- Shaft Tunnel
- Flowmeter
- Other (explain)

9. Is this well part of a battery of wells? Yes No

10. Proposed Work
- Install New Pump
- Replace Pump

11. Proposed Pumping Rate, gpm (gallons per minute) 45

12. Proposed Amount of Withdrawal, gpd (gallons per day) 21,000

13. Method of flow measurement


PROPOSED PUMP INSTALLATION

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

SITE PHOTO

15. Municipal (water systems serving greater than 25 individuals or 15 service connections

16. Domestic - Number of units to be served:

17. Irrigation (describe crop and no. of acres)

18. Military (describe)

19. Other (describe)

OTHER LEGAL REQUIREMENTS

If required, items 21 and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
- Well is in Conservation District
- Required, CDUP # date approved
- Not Required (attach documentation from OCCL)
- I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)
- Required, SMAP # date approved
- Not Required (attach documentation from applicable County agency)
- I have not checked with the County about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.


NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) 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 result is in suspension may result in fines of up to $5000/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Derrick's Well Drilling & Pump Svc C-28001

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Derrick's Well Drilling & Pump Svc C-28001

Signature
Print
Date

Signature
Print
Date
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 821, Honolulu, Hawaii 96809. Application must be accompanied by 6 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-586-0794. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) 2052-01
2. WELL NAME Maunananui Well
3. ISLAND Hawaii
4. TMK

The following be attached before this application is accepted as complete (check off if attached):
- Portion of 7.5-Minute Series USGS topographic map (scale of 1:24,000) with well location labeled and include the name of the quadrats
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR'S NAME/COMPANY
Phil Johnson Cascade Coffee
6. LANDOWNER'S NAME/COMPANY
Phil Johnson

Well Operator's Contact
Landowner's Contact

Landowner's Mailing Address
Kaliau-Kona, HI 96740

7. Proposed Work
- Construct New Well
- Modify Existing Well
- Abandon/Seal Well

8. Construction Type
- Drilled
- Installation New Pump

9. Is this well part of a battery of wells? Yes No

10. Proposed Work
- Replace Pump

11. Proposed Pumping Rate, gpm
- (gallons per minute) 10
- (gallons per day) 20

12. Proposed Amount of Withdrawal, gpd (gallons per day)
- 50

13. Method of flow measurement
- Flowmeter
- Other (explain)

PROPOSED WELL CONSTRUCTION

PROPOSED PUMP INSTALLATION

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

PROPOSED USE

- 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- 16. Domestic - Number of units to be served:
- 17. Industrial (describe)
- 18. Irrigation (describe crop and no. of acres) Coffee
- 19. Military (describe)
- 20. Other (describe)

SITE PHOTO

- 21. Conservation District Use Permit (CDUP)
- Well is in Conservation District
- Required, CDUP # date approved
- Not Required (attach documentation from OCCL)
- I have checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
- Well is not in Conservation District
- I have not checked if the well is in Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

OTHER LEGAL REQUIREMENTS

- 22. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Item 23: Reference May 17, 2004 letter on file. Items 21 & 22 documents and comments on file. Permit expires 11/29/06.

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event the application is not completed correctly, any permit may be suspended until the item is brought to compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filled out if application is for Well Construction)
Derrick's Well Drilling & Pump Svc C-28001
Licensee business name C-57 License No.
Signature Print 10/15/09 Date

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
Derrick's Well Drilling & Pump Svc C-28001
Licensee business name C-57/c-57a License No.
Signature Print 10/15/09 Date
## WELL LOCATION INFORMATION

1. **STATE WELL NO. (if already assigned)**
   - 2005-01
2. **WELL NAME**
   - Maunanoii Well
3. **ISLAND**
   - Hawaii
4. **TMK**
   - 8: 7 - 2: 2

The following be attached before this application is accepted as complete (check off attached):
- [ ] Plot of conservation District using USGS topographic map (scale of 1:24,000) with well location labeled and include the name of the quadrangle
- [ ] Property tax map, showing well location referenced to established property boundaries
- [ ] Photograph of the proposed well site
- [ ] A schematic diagram showing the well site, access road and proposed well infrastructure
- [ ] For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

<table>
<thead>
<tr>
<th>WELL OPERATOR’S NAME/COMPANY</th>
<th>Well Operator’s Contact</th>
<th>LANDOWNER’S NAME/COMPANY</th>
<th>Landowner’s Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil Johnson Cascade Coffee</td>
<td>Phil Johnson</td>
<td>Same</td>
<td>Same</td>
</tr>
</tbody>
</table>

Well Operator’s Mailing Address:
- 98 Mile Marker Mamalahoa Highway
  - Kailua-Kona, HI 96740

Well Operator’s Phone:
- 4253475995

Well Operator’s Fax:
- 4253475076

Well Operator’s E-mail:
- [ ] Landowner’s Phone
- [ ] Landowner’s Fax
- [ ] Landowner’s E-mail

## PROPOSED WELL CONSTRUCTION

7. Proposed Work:
   - Construct New Well
   - Modify Existing Well
   - Abandon/Seal Well

8. Construction Type:
   - [ ] Drilled
   - [ ] Dug
   - [ ] Shaft
   - [ ] Tunnel

## PROPOSED PUMP INSTALLATION

10. Proposed Work:
   - [ ] Replace Pump

11. Proposed Pumping Rate, gpm
   - (gallons per minute)
   - 45

12. Proposed Amout of Withdrawal, gpd (gallons per day)
   - 21,000

13. Method of flow measurement:
   - [ ] Flowmeter
   - [ ] Other

9. Is this well part of a battery of wells? [ ] Yes [ ] No

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

## PROPOSED USE

- [ ] 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- [ ] 16. Domestic - Number of units to be served:
- [ ] 17. Industrial (describe)
- [ ] 18. Irrigation (describe crop and no. of acres) Coffee [ ] acres
- [ ] 19. Military (describe)
- [ ] 20. Other (describe)

## SITE PHOTO

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)

## OTHER LEGAL REQUIREMENTS

If required, items 21 and 22. must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
   - [ ] Well is in Conservation District
   - [ ] Required, CDUP # [ ] date approved
   - [ ] Not Required (attach documentation from OCCL)
   - [ ] I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.
   - [ ] Well is not in Conservation District
   - [ ] I have not checked if well is in or out Conservation District. I understand that checking if the well is in a Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)
   - [ ] Required, SMA # [ ] date approved
   - [ ] Not Required (attach documentation from applicable County agency)
   - [ ] I have not consulted with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

## ADDITIONAL REMARKS

- Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

## LICENSEE BUSINESS NAME

24. WELL DRILLER (Must be filled out if application is for Well Construction)
   - Derrick’s Well Drilling & Pump SVC C-28001

25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)
   - Derrick’s Well Drilling & Pump SVC C-28001

## SIGNATURES

-  [ ] Signature [ ] Print
  - [ ] Date
  - [ ] For Official Use Only: RECEIVED COMMISSION ON WATER RESOURCE MANAGEMENT 2003 OCT 20 AM 11:21

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Item 23: Reference May 17, 2004 letter on items 21 & 22 documents and comments on file. Permit expired 11/29/08.

**NOTE:** Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted well; 3) 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 $5000/day.

<table>
<thead>
<tr>
<th>Licensee business name</th>
<th>C-57 License No.</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derrick Moreira</td>
<td>10/15/09</td>
<td></td>
</tr>
</tbody>
</table>
### WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) | Mauanani Well
---|---
2. WELL NAME | Mauanani Well
3. ISLAND | Hawaii
4. TMK | 2052-01

The following be attached before this application is accepted as complete (check off if attached):
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finished grades

5. WELL OPERATOR'S NAME/COMPANY | Phil Johnson Cascade Coffee
---|---
6. LANDOWNER'S NAME/COMPANY | Same

Well Operator's Contact | Landowner's Contact
Phil Johnson | Same

Well Operator's Mailing Address | Landowner's Mailing Address
Kailua-Kona, HI 96740 | same

Well Operator's Phone | Well Operator's E-mail
4253473995 | 4253475076

### PROPOSED WELL CONSTRUCTION

7. Proposed Work | Modify Existing Well
---|---
8. Construction Type | Drilled
9. Is this well part of a battery of wells? | Yes
10. Proposed Work | Construct New Well
11. Proposed Pumping Rate, gpm | 45

### PROPOSED PUMP INSTALLATION

12. Proposed Amount of Withdrawal, gpd (gallons per day) | 21,000

### PROPOSED USE

13. Method of flow measurement | Other (explain)
---|---
14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

### SITE PHOTO

15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
---|---
16. Domestic - Number of units to be served | 1
17. Irrigation (describe crop and no. of acres) | Coffee
18. Other (describe) | 1

### OTHER LEGAL REQUIREMENTS

If required, Items 21 and 22.

must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
---|---
Required, CDUP # | date approved
Not required (attach documentation from OCCL) | 59902
I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMA)
---|---
Required, SMA # | date approved
Not required (attach documentation from applicable County agency) | 3-738-0085-005-001
I have not checked with the county about whether or not an SMA Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
---|---
I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Item 23: Reference May 17, 2004 letter on file. Items 21&22 documents and comments on file. Permit expired 11/28/06.

### 24. WELL DRILLER (Must be filled out if application is for Well Construction)

Derrick's Well Drilling & Pump Svc
C-28001

Licensee business name | C-57 License No.
---|---
Derrick Moreira | 10/15/09

### 25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Derrick's Well Drilling & Pump Svc
C-28001

Licensee business name | C-57/C-57a License No.
---|---
Derrick Moreira | 10/15/09

Signature | Print
---|---
Derrick Moreira | Date

For Official Use Only:

RECEIVED COMMISSION ON WATER RESOURCE MANAGEMENT

2003 OCT 20 AM:11:21
### WELL LOCATION INFORMATION

1. STATE WELL NO. (if already assigned) | 2. WELL NAME | 3. ISLAND | 4. TMK
--- | --- | --- | ---
0205-01 | Maunananui Well | Hawaii | 8 - 7 - 2 - 2

The following be attached before this application is accepted as complete (check off if attached):
- Portion of 7.5-Minute Series USGS topographic map (scale: 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR’S NAME/COMPANY | 6. LANDOWNER’S NAME/COMPANY | 7. LANDOWNER’S CONTACT
--- | --- | ---
Phil Johnson Cascade Coffee | Phil Johnson | Landowner’s Contact
Well Operator’s Mailing Address | Landowner’s Mailing Address | 
98 Mile Marker Malaekahana Highway | same | 
Kailua-Kona, HI 96740 | same | 

### PROPOSED WELL CONSTRUCTION

<table>
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<tbody>
<tr>
<td></td>
<td>Construct New Well</td>
<td>Drilled</td>
<td>Install New Pump</td>
<td>(gallons per minute)</td>
</tr>
<tr>
<td>9.</td>
<td>Modify Existing Well</td>
<td>Shaft</td>
<td>Replace Pump</td>
<td>45</td>
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<td>Abandon/Seal Well</td>
<td>Tunnel</td>
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13. Method of flow measurement: Flowmeter

### PROPOSED PUMP INSTALLATION

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<thead>
<tr>
<th>Item</th>
<th>12. Proposed Amount of Withdrawal, gpd (gallons per day)</th>
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<td>21,000</td>
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</tbody>
</table>

### PROPOSED USE

- 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- 16. Domestic - Number of units to be served:
- 17. Industrial (describe):
- 18. Irrigation (describe crop and no. of acres)
- 19. Military (describe):
- 20. Other (describe):

### SITE PHOTO

- 100,000

### OTHER LEGAL REQUIREMENTS

If required, items 21, 22, and 23 must be obtained before the Commission can legally issue a permit:

21. Conservation District Use Permit (CDUP)
- Well is in Conservation District
- Required, CDUP # date approved
- Not Required (attach document from applicable County)

22. Special Management Area Permit (SMAP)
- Required, SMA # date approved
- Not Required (attach documentation from applicable County agency)

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources
- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites.

Additional remarks, explanations, etc. (attach additional sheet if more space is needed) Item 23: Reference May 17, 2004 letter on file. Items 21 & 22 documents and comments on file. Permit expired 11/28/06.

### STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

For Official Use Only:

2005 OCT 20 AM 11:21

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 6 copies and a non-refundable filing fee of $25.00 payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at 808-587-1681. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

### PROPOSED SOURCER SITE installation

Derrick's Well Drilling & Pump Svcs
Licensee business name - C-57 License No.

Derrick Moreira
Signature
Print Date

10/15/09

C-28001

### 25. PUMP INSTALLER (Must be filled out if application is for Pump Installation)

Derrick's Well Drilling & Pump Svcs
Licensee business name - C-57/C-57a License No.

Derrick Moreira
Signature
Print Date

10/15/09
## WELL LOCATION INFORMATION

<table>
<thead>
<tr>
<th>1. STATE WELL NO. (if already assigned)</th>
<th>2. WELL NAME</th>
<th>3. ISLAND</th>
<th>4. TMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>2052-01</td>
<td>Maunaroni Well</td>
<td>Hawaii</td>
<td></td>
</tr>
</tbody>
</table>

The following be attached before this application is accepted as complete (check off if attached):
- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with well location labeled and include the name of the quad map
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure

For dug wells, attach a grading plan with cross section profiles showing existing and finish grades

5. WELL OPERATOR'S NAME/COMPANY

<table>
<thead>
<tr>
<th>Phil Johnson Cascade Coffee</th>
<th>Well Operator's Contact</th>
<th>6. LANDOWNER'S NAME/COMPANY</th>
<th>Landowner's Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil Johnson</td>
<td></td>
<td>Same</td>
<td>Same</td>
</tr>
</tbody>
</table>

Well Operator's Mailing Address
98 Mile Marker Mamalahoa Highway
Kailua-Kona, HI 96740

Well Operator's Phone: 4253473995
Well Operator's Fax: 425347076

Landowner's Phone: same
Landowner's Fax: same
Landowner's E-mail: same

## PROPOSED WELL CONSTRUCTION

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct New Well</td>
<td>Drilled</td>
<td>Install New Pump</td>
</tr>
<tr>
<td>Modify Existing Well</td>
<td></td>
<td>Replace Pump</td>
</tr>
<tr>
<td>Abandon/Seal Well</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Is this well part of a battery of wells? **Yes** **No**

14. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

## PROPOSED USE

- 15. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- 16. Domestic - Number of units to be served: __________
- 17. Industrial (describe)
- 18. Irrigation (describe crop and no. of acres) Coffee 10 acres
- 19. Military (describe)
- 20. Other (describe)

## OTHER LEGAL REQUIREMENTS

If required, Items 21 and 22

21. Conservation District Use Permit (CDUP)

- Well is in Conservation District
- Required, CDUP # __________ date approved __________
- Not Required (attach documentation from OCCL)
- I have not checked with OCCL about whether or not a CDUP is required. I understand that checking with OCCL prior to making this application will expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

- Well is not in Conservation District
- I have not checked if well is in or out Conservation District. I understand that checking if the well is in Conservation District may expedite my review. I further understand that issues raised may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

22. Special Management Area Permit (SMAP)

- Required, SMAP # __________ date approved __________
- Not Required (attach documentation from applicable County agency)
- I have not checked with the County about whether or not an SMAP Permit is required. I understand that checking with the County prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued.

23. State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources

- I have consulted with the HPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- I have not consulted with the HPD regarding potential impacts of well construction activities on historic sites. I understand that checking with the HPD prior to making this application may expedite my review. I further understand that issues raised by this agency may delay or result in denial of the permit issuance, or revocation of the permit after it is issued. Additionally, the history of past land use is attached.


## PROPOSED PUMP INSTALLATION

<table>
<thead>
<tr>
<th>11. Proposed Pumping Rate, gpm (gallons per minute)</th>
<th>12. Proposed Amount of Withdrawal, gpd (gallons per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>21,000</td>
</tr>
</tbody>
</table>

13. Method of flow measurement

- ______________ (PIrometer)
- ______________ (Other explain)

## SITE PHOTO

- ______________

## PERMIT FEES

- ______________ (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)

Additional notes or comments...

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in compliance, and any work done while the permit is in suspension may result in fines of up to $500/day.

24. WELL DRILLER (Must be filed out if application is for Well Construction)

Derrick's Well Drilling & Pump SVC C-28001

Licensee business name: C-57 License No.

Signature: Derrick Moreira 10/15/09

Print: Date

25. PUMP INSTALLER (Must be filed out if application is for Pump Installation)

Derrick's Well Drilling & Pump SVC C-28001

Licensee business name: C-57/C-57A License No.

Signature: Derrick Moreira 10/15/09

Print: Date
MEMO and ROUTE SLIP (ver. 1/10/07)

WCR 1 Check for Well No. 2052-01 (survey to regulation memo)

1. **Pump Tests Check**

   **Roy Hardy**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   **If no, describe deficiency**

   **Step-Drawdown Test:**

   - Followed WCPI Stds
   - Analysis attached
   - Proposed pump cap o.k.

   **Aquifer Pump Test:**

   - Followed WCPI Stds
   - T & S analysis attached

   **Well Interference:**

   - Estimated Steady-State drawdown at 1-mile radius is **0.02 ft.**
   - Analysis attached

   **Stream Surface Water Impacted:**

   - If yes, identify most probable stream

2. **Well Log Check**

   **Geology Code for Well Index:** PKC

   **Jeremy Kimura**

3. **Construction Check**

   **Mitch Ohye**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   **If no, describe deficiency**

   - Data complete
   - Followed Special Cond & elevations
   - Well database updated

   **Latitude**
   - NAD27
   - NAD83

4. **Charley/Lenore/Ryan**

   **(initial) take action based on above analysis**

   **ATTACHMENTS FOR PUMP INSTALLATION PERMIT (2x):**

   - Cover Letter
   - County Comments (DWS/SMA)
   - DOH Comments
   - DLNR Comments (LD/OCCL/DHP)
   - WCR 1 Accept
   - 6WELL Const. Completion Certificate
   - USGS Map Updated
   - Parcel Check
   - 9WELL Database Input Check
   - 10Glenny's Pump Test Worksheet
   - 11WELL As-Built Checklist

   Not necessary – only WCP or BOTH.

   **To Landowner**

   **Staff Internal Checks**

5. **Roy**

   **(initial) check (Entered WCR 1/WCCC accept date into database)**

6. **Susan Hoagbin**

   **(initial) finalize**

7. **Mitch**

   **(initial) signature (Entered PIP issue date if required)**

8. **Charley/Lenore/Ryan File**
Ref: 2052-01.wcp

Mr. Michael Robertson  
Wailani Drilling, Inc.  
P.O. Box 790299  
Paia, HI 96779

Dear Mr. Robertson:

Pump Installation Permit  
Maunanoni Well (Well No. 2052-01)  

Enclosed are two (2) originals of your approved Pump Installation Permit for the captioned well(s) that authorize permanent pump installation work for your well(s). As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 11:

**Special Conditions**

1. If the elevation benchmark needs to be altered, the permittee, well operator, and/or well owner shall ensure that the benchmark is transferred (or the well resurveyed) and documentation of the new benchmark shall be submitted to the Commission within sixty (60) days after the pump is installed.

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

The permittee is responsible for all conditions of the permit. This includes ensuring the submission of a completed Well Completion Report Part II form within sixty (60) days after the pump installation work is completed. Be advised that you may be subject to fines of up to $5,000 per day for any violations of your permit conditions starting from the permit approval date.

Please sign both permit originals and return one for our files.

**IMPORTANT** - Pump installation shall not commence until a fully signed permit is returned to the Commission.

Finally, this letter is notice that we have accepted your Well Completion Report - Part I as complete as of November 29, 2006.

If you have any questions, please call Ryan Imata of the Commission staff at [ ] or toll-free at [ ] (Hawaii), [ ] (Kauai), [ ] (Maui), or [ ] (Lanai & Molokai), extension 70255.

Sincerely,

Peter T. Young  
Chairperson

Enclosure

c: Mauna Loa Land LLC  
USGS  
Hawaii DWS
PUMP INSTALLATION PERMIT
Maunanoni Well, Well No. 2052-01

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management’s Administrative Rules, Section 13-168, entitled “Water Use, Wells, and Stream Diversion Works”, this document permits the pump installation for Maunanoni Well (Well No. 2052-01) at TMK 8-7-002:002, Hawaii, subject to the Hawaii Well Construction & Pump Installation Standards (HWCPIS - February 2004) which include but are not limited to the following conditions:

1. The Chairperson to the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work covered by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules

2. No withdrawal of water shall be made other than for testing until a Certificate of Pump Installation Completion has been issued by the Commission.

3. This permit shall be prominently displayed, or made available, at the site of construction work until work is completed.

4. The pump installation permit shall be for installation of a 120 gpm rated capacity, or less, pump in the well. This permanent capacity may be reduced in the event that the pump test data does not support the capacity.

5. A water-level measurement access shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels.

6. The permittee shall install an approved meter or other appropriate means for measuring and reporting withdrawals and appropriate devices or means for measuring chlorides and temperature at the well head.

7. Well Completion Report Part II shall be submitted to the Chairperson within 60 days after completion of work. This form can be obtained by contacting staff or on the internet at www.hawaii.gov/dlnr/cwrm.

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

9. The pump installation permit application and any related staff submittal approved by the Commission are incorporated into this permit by reference. This permit is also subject to the HWCPIS. If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result. Any variances from the HWCPIS shall be approved by the Chairperson prior to invoking the variance.

10. The work proposed in the pump installation permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than the date the permit expires.

11. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: November 29, 2006
Expiration Date: November 29, 2008

PETER T. YOUNG, Chairperson
Commission on Water Resource Management

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the pump installer have signed, dated, and returned the permit to the Commission. I understand that this permit is not to be transferred to any other entity. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $5,000 per day starting from the permit date of approval.

Installer’s Signature: ___________________________ C-57, C-57a, or A License #: C-20115 Date: _______________

Printed Name: Michael Robertson Firm or Title: Wailani Drilling Inc.

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

Attachments
Ms. Rachel Nack
Mauna Loa Land, LLC
P.O. Box 599
Makawao, HI 96768

Dear Ms. Nack:

Certificate of Well Construction Completion for Well No. 2052-01

We are pleased to inform you that the Well Construction work permitted for the Maunaoni Well (Well No. 2052-01) is complete and acceptable and welcome you as a new member to the community of well owners and groundwater users in Hawaii.

To protect Hawaii’s natural ground water resources for the benefit of all, the following requirements apply to the use of your well:

1. Before this well can be pumped on a regular basis, a certificate of pump installation completion must be obtained.
2. If the well is not in use it must be properly capped.
3. If the well is to be abandoned then the landowner must cause a licensed contractor to apply for a well abandonment permit in accordance with §13-168-12(f) prior to any well sealing or plugging work.
4. In the event that the well operator and/or landowner changes, the Commission shall be notified of the change prior to the change, and all forms shall be transferred to the new owner.
5. In the event the benchmark in the concrete base of the well is altered in any way, an updated elevation survey (page 5 of the Well Completion Report Part I) shall be submitted to the Commission. The Well Completion Report Part I can be obtained by contacting staff or at www.hawaii.gov/dlnr/cwrm/forms.htm

Because groundwater in Hawaii is a public trust, and adverse effects at one well may affect other water resources, any violation of the above conditions, or any other provision of the Hawaii Administrative Rules, may be subject to fines of up to $5,000/day. The Commission needs your help and asks that you do your part in utilizing this shared resource. We prefer to work with you in meeting the goal of protecting our ground water resources together.

If you have any questions, please contact Ryan Imata of the Commission staff at [contact information] or toll-free at [contact information] (Hawaii), [contact information] (Kauai), [contact information] (Maui), or [contact information] (Lanai & Molokai).

Sincerely,

W. Roy Hardy
Hydrologic Program Manager

Hawaii Department of Water Supply
Wailani Drilling, Inc.
### Well Check Program
4/1/04 - Revised for update to Well Standards (February 2004)

#### Data Input

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<tr>
<th>Data Input</th>
<th>2052-01</th>
<th>Maunaoni</th>
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<tbody>
<tr>
<td>Well Number</td>
<td>2052-01</td>
<td></td>
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<tr>
<td>Well Name</td>
<td>Maunaoni</td>
<td></td>
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<tr>
<td>Ground Elevation</td>
<td>1134.76</td>
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</tr>
<tr>
<td>Cement Grout</td>
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<td>Solid Casing Speciation</td>
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<td>Solid Casing Diameter</td>
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#### Results

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<th>50.1225</th>
<th>-30.24 okay</th>
<th>Section 2.2</th>
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<td>Theoretical Thickness of Aquifer</td>
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<td>1/4 Aquifer Thickness</td>
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<td>Depth of Well below Sea Level</td>
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<td>Material</td>
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<td>Minimum Thickness per standards</td>
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<td>Wall Thickness Provided</td>
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<td>Minimum Length of Solid Casing</td>
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<tr>
<td>90% of ground to top of aquifer</td>
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<td>3.25</td>
<td>okay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Return Receipt Fax Memo

Charley,

Enclosed are the following items:

_____ WCR 1 for Maunaoni Well No. 2052-01
_____ WCR 1 for Spell Well No. 5514-11
_____ WCR 2 for Spell Well No. 5514-11

Please confirm receipt by checking off the enclosed items and faxing a copy of this memo to me at.

Thank you,

Michael Robertson
WAILANI DRILLING, INC.
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
WELL COMPLETION REPORT - PART I
Well Construction

Instructions: Please print in ink or type and send completed report (with attachments, if applicable) to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. The Commission may not accept incomplete reports. This form shall be submitted within 60 days of the completion of work. For assistance, please consult the Hawaii Well Construction and Pump Installation Standards or call the Regulation Branch at __________ For updates to this form or additional information, please visit our website at http://www.hawaii.gov/dlnr/cwrrm/

1. State Well No.: 2052-01 Well Name: Maunaoni Well Island: Hawaii

2. Address: 98 Mile Marker Mamalahoa Hwy Tax Map Key: 8-7-002: 002

3. Drilling Company: Waianae Drilling Inc

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

5. Date Well Construction (drilled,cased,grouted) completed: 12/30/05

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

7. Initial water-level encountered 1155 ft. below ground Date and time of measurement: __________ month/day/year time

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

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

Parameters prior to pump test:

10. Water-level: 4.29 ft. above msl Date and time of measurement: __________ month/day/year time

11. Chloride: 1800 ppm Date and time of sampling: __________ month/day/year time

12. Temperature: 71 °F Date and time of measurement: __________ month/day/year time

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

14. Fill in attached surveyor's report.

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

16. The proposed manufacturer's rated pump capacity is 280 gpm at a head of 1236 ft. (Attach pump specifications and rating curve)

17. Remarks: ____________________________

Licensed Driller (print) MICHAEL ROBERTSON C-57 Lic. No. C57-20115

Signature ____________________________ Date 9/15/06

Permittee (print) MAAKA LOA LAND LLC

Signature ____________________________ Date 9/15/06
13. AS-BUILT WELL SECTION (Please attach as-built if different from what is provided below)

Elevation at top of casing: 135.7 ft., msl*
(to nearest 0.01 ft.)

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

Cement Grout: 2.6 cft. (min. 70% of distance from
ground elevation to top of
water surface or 500 ft., whichever is less.)

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

Rock or Gravel Packing:
N/A ft.
Material:
- Crushed Basalt
- Rounded Gravel

Water Level Elevation:
4.81 ft., msl*

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
Length: 114.6 ft.
Nominal Diameter: 8 in.
Wall Thickness: .25 in.
Bottom Elevation: -q, 24 ft., msl

Open Casing:
- Perforated
- Screen
Length: 20 ft.
Nominal Diameter: 8 in.
Wall Thickness: .25 in.
Bottom Elevation: 29.24 ft., msl

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

Solid Casing Material:
B - 2052-01 MAUNAONI
Carbon Steel: compliant with (check one or more):
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242
- Type E
- Type S
- Grade B
- Other
Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D5127: (check one)
- Schedule 40
- Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
- Schedule 40
- Schedule 80
- Schedule 120
Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrífugally Cast Resin Pipe conforming to ASTM D2997
- Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:
Carbon Steel: compliant with (check one or more):
- ANSI/WWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139
And compliant with (check one or more):
- ASTM A242
- Type E
- Type S
- Grade B
- Other
Stainless Steel: (check one):
- ASTM A409 (production wells)
- ASTM A312 (monitor wells)
ABS Plastic conforming to ASTM F480 and ASTM D5127: (check one)
- Schedule 40
- Schedule 80
PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one)
- Schedule 40
- Schedule 80
- Schedule 120
Thermoset Plastic: (check one)
- Filament Wound Resin Pipe conforming to ASTM D2996
- Centrífugally Cast Resin Pipe conforming to ASTM D2997
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- Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- PTFE Fluorocarbon Tubing conforming to ASTM D3296
- FEP Fluorocarbon Tubing conforming to ASTM D3296

*msl = mean sea level

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

**WELL NUMBER:** __________

<table>
<thead>
<tr>
<th>Depths (ft.)</th>
<th>Rock Description, Water Level, etc.</th>
<th>Dates</th>
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<td>Blue Rock</td>
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<td>30 to 50</td>
<td>Cave with boulders</td>
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<td>50 to 75</td>
<td>Weathered basalt</td>
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<td>75 to 105</td>
<td>Dense blue rock</td>
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**Remarks:**

\[ACR1 \text{ Form} \ 11/12/02 \ \text{Page} \ 3 \ of \ 4\]
ELEVATION AND GEODETIC LOCATION CERTIFICATION
of New Water Well Site
Within Grant 1971
At Maunaoi 1st to 6th, South Kona, County of Hawaii, State of Hawaii
TMK: (3) 8-7-002:002

I CERTIFY that the following elevation and geodetic location was obtained by referring to
WAIAKULU 4 RESET NAD 83(1993) 19°18'30.86171"N, 156°52'30.15434"W, ELEVATION
1131.97 FEET LOCAL TIDAL. G.P.S. static observation was made and base lines derived from
CORS ID MLO1 and CORS ID UPO1, geoid height determined by GEOID03.

The new Water Well site location point marked with "X" on concrete by well head is:
LAT. 19°20'12.8781"N, LONG. 155°52'20.1965"W, ELEVATION =1135.785' LOCAL TIDAL

THIS CERTIFICATION made in the field by me on July 18th, 2008 and is recorded in my records
as Job No. 6242

THOMAS G. PATTISON
Licensed Professional Land Surveyor
No. 10743

Thomas G. Pattison L.P.L.S. No. 10743
Kailua-Kona, Hawaii 96740
Job No. 6242
Revised July 18th, 2008
**STEP-DRAWDOWN PUMP TEST DATA**
(not required for wells producing < 100,000 gpd or 70 gpm)

<table>
<thead>
<tr>
<th>Distance between Obs. &amp; Pumped Well</th>
<th>113.8 ft. msl</th>
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<td>Reference pt. for depth to water</td>
<td>113.7 ft. msl</td>
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<tr>
<td>Static Water Level @ start of test</td>
<td>4.8 ft. msl</td>
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<td>Water level measurements by:</td>
<td>electrical sounder</td>
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<tr>
<td></td>
<td>pressure transducer</td>
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<td>airline</td>
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**START TEST Date:** 8/10/06  **Time of day:** 8:00 a.m.

Flow Meter Reading Start: 5 gallons

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<th>Actual Elapsed Time (min)</th>
<th>Depth to water (unadjusted nearest 0.1 ft)</th>
<th>Drawdown (unadjusted nearest 0.1 ft)</th>
<th>Pumping rate Q (at least 3 steps) (gpm)</th>
<th>EC (µhos)</th>
<th>Cl⁻ (mg/l)</th>
<th>Temp. °F or °C</th>
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Remarks

- Start test/ Step 1
- Start pump
- Chloride sample taken
- Step 2 begin?
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<th>Suggested Elapsed Time (min)</th>
<th>Actual Elapsed Time (min)</th>
<th>Depth to water (unadjusted to nearest 0.1 ft)</th>
<th>Drawdown S</th>
<th>Pumping rate Q (at least 3 steps) (gpm)</th>
<th>EC (mhos)</th>
<th>Cl⁻ (mg/l)</th>
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Data in this table is for: Pumped Well ☒ Observation Well ☐
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<th>Actual Elapsed Time (min)</th>
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</table>

Max possible duration, water level or quality did not stabilize for any 24 period.

Begin recovery data next page.

Flow meter reading at end of pumped period: \[1423.20\] gals

1. Starting pumping rate Q
2. Minimum length of step period of constant pumping rate
3. Minimum mandatory Chloride (Cl⁻) measurement/sampling at end of every step
4. Use same ending drawdown figure as start for recovery.
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<tr>
<th>Suggested elapsed time (min)</th>
<th>Actual elapsed time (min)</th>
<th>Depth To Water (nearest 0.1 ft)</th>
<th>Recovery Drawdown S (unadjusted to nearest 0.1 ft)</th>
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END TEST Date: 8/1/06 Time of day: 10:55 AM
ADDITIONAL REMARKS: 

Person in charge of pump test (print): Michael Robertson

Signature: Michael Robertson

The signature above indicates that the data reported on this form is accurate and true to the best of the person's knowledge who operated this pump test.
## CONSTANT-RATE PUMP TEST DATA

### Pumped Well Information
- **Pumped Well No.**: 2052-01
- **Pumped Well Name**: Maunaoni Well
- **Target Q**: 270 gpm

### Observation Well Information
- **Observation Well No.**: N/A

### Additional Details
- **Distance between Obs. & Pumped Well**: N/A ft.
- **Reference pt. for depth to water**: 116.7 ft. msl
- **Static Water Level @ start of test**: 4.89 ft. msl
- **Water level measurements by**: □ electrical sounder □ pressure transducer □ airline

### Test Information
- **START TEST Date**: 8/02/00
- **Time of day**: 8:00 AM
- **Flow Meter Reading Start**: 16220 gallons

### Drawdown Data

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1 Chloride sampling required
2 Use same ending drawdown figure as start for recovery

Max possible duration, water level or quality did not stabilize for any 24 period

Begin recovery data next page
Flow meter reading at end of pumped period: 46820 gals
Suggested Actual Depth Recovery Data in this table is for:

classification

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END TEST  Date:  8/18/xx  Time of day:  6:40 AM

ADDITIONAL REMARKS: ____________________________________________________________

Person in charge of pump test (print):  Michael Robertson

Signature:  [Signature]

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

Submersible 60 Hz

--- Data Point ---

Flow: 250 US gpm  
Head: 1280 ft  
Eff: 78.7%  
Power: 102 bhp  
NPSHr: 14.3 ft

--- Design Curve ---

Shutoff Head: 1461 ft  
Shutoff dP: 631 psi  
Min Flow: -- US gpm  
BEP: 79.6% eff  
@ 281 US gpm  
NOL Pwr: 114 bhp  
@ 333 US gpm

--- Max Curve ---

Max Pwr: 114 bhp  
@ 333 US gpm

**Catalog:** Goulds Sub 60Hz vers 2.38

**Pump:** 7WAHC (11 stages)  
**Type:** Submersible  
**Synch speed:** 3800 rpm  
**Speed:** 3600 rpm  
**Dia:** 5.4 in  
**Curve no.:** E6207WAPCO

**Specific Speeds**  
Ns: 1684  
Nss: --

**Dimensions:**  
Suction: -- in  
Discharge: -- in

**Vertical Turbine:**  
Bowl size: 7.13 in  
Max lateral: 0.5 in  
Thrust K factor: 2.63 lb/ft

**Pump Limits:**  
Temperature: 120 °F  
Pressure: 365 psi g  
Sphere size: 0.29 in  
Power: -- bhp

**Motor:** 125 hp  
Speed: 3600  
Frame: "8"  
Standard: NEMA  
Endoswe: SUB  
Sizing criteria: Max Power on Design Curve

--- Discharge Sizes 4",5",6" ---

Turbine Pump Selection vers 7.1
**THEIS DRAWDOWN CALCULATION**

FILE NAME = Maunaoni 2052-01
TEST NAME = Long-Term Test
DATE = Aug-06

**INPUT PARAMETERS**

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**GREEN VALUES**

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**CALCULATED VALUES ARE RED**

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<th>Time t</th>
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<tr>
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<td>0.00 7.38506251 0.57</td>
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**OBSERVATION WELL**

Radial distance r from pumping well = 5,280 ft

**Theis Curve s vs. r @ time t**

**Theis Curve s vs t @ observation r**
**By USGS**

**WELL ID: 2052-01**

**Local ID: 5327-01**

**Date:** 8/2/2006  
**Time:** 0:00

### INPUT

<table>
<thead>
<tr>
<th>Construction</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing dia. (d_c)</td>
<td>8 Inch</td>
</tr>
<tr>
<td>Annulus dia. (d_w)</td>
<td>14.5 Inch</td>
</tr>
<tr>
<td>Screen Length (L)</td>
<td>20 Feet</td>
</tr>
<tr>
<td>Depths to:</td>
<td></td>
</tr>
<tr>
<td>Water level (DTW)</td>
<td>1130 Feet</td>
</tr>
<tr>
<td>Top of Aquifer</td>
<td>1130 Feet</td>
</tr>
<tr>
<td>Base of Aquifer</td>
<td>1326 Feet</td>
</tr>
<tr>
<td>Annular Fill:</td>
<td></td>
</tr>
<tr>
<td>Across screen -- Open Hole</td>
<td></td>
</tr>
<tr>
<td>Above screen -- Open Hole</td>
<td></td>
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<tr>
<td>Aquifer Material -- Permeable Basalt</td>
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**COMPUTED**

Aquifer thickness = 200 Feet  
Slope = 0.235897 Feet/log10

Input is consistent.

<table>
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<th>Value</th>
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<tr>
<td>K = 200 Feet/Day</td>
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<tr>
<td>T = 40,000 Feet²/Day</td>
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</tbody>
</table>

**FLOW RATE** 270 GPM

**REMARKS:** Cooper-Jacob recovery analysis of single-well aquifer test  
Hypothetical recovery test

\[ K = 200 \text{ is greater than likely maximum of 100 for Permeable Basalt} \]

Adjust slope of line to estimate \( T \)
### Reduced Data

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<tr>
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<th>Date Hr:Min:Sec</th>
<th>Water Level</th>
<th>Feet</th>
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<td>1131.22</td>
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<tr>
<td>4</td>
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<td>1131.20</td>
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<tr>
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<td>1/1/00 1:02:00</td>
<td></td>
<td>1131.17</td>
</tr>
<tr>
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<td>1/1/00 1:02:30</td>
<td></td>
<td>1131.15</td>
</tr>
<tr>
<td>7</td>
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<td>1131.13</td>
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<tr>
<td>8</td>
<td>1/1/00 1:04:00</td>
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</tr>
<tr>
<td>9</td>
<td>1/1/00 1:05:00</td>
<td></td>
<td>1131.08</td>
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<tr>
<td>10</td>
<td>1/1/00 1:06:00</td>
<td></td>
<td>1131.05</td>
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<tr>
<td>11</td>
<td>1/1/00 1:07:00</td>
<td></td>
<td>1131.03</td>
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<tr>
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<td>1/1/00 1:08:00</td>
<td></td>
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<tr>
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</table>
Project: Maunaoni  
Number: 2052-01  

Test conducted by: Mike Robertson  
Analysis performed by: 2052-01 - with Well Effects  
Aquifer Thickness: 200.00 ft  
Discharge rate: 270 [U.S. gal/min]  

Calculation after Papadopulos & Cooper  

<table>
<thead>
<tr>
<th>Observation well</th>
<th>Transmissivity [ft²/d]</th>
<th>K [ft/d]</th>
<th>Well-bore storage coefficient</th>
<th>Radial distance to PW [ft]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2052-01</td>
<td>$9.30 \times 10^2$</td>
<td>$4.65 \times 10^5$</td>
<td>$1.00 \times 10^{-4}$</td>
<td>0.33</td>
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</tbody>
</table>
### Pumping Test Analysis Report

**Project:** Maunaoni  
**Number:** 2052-01  
**Client:**  

**Location:** Big Island  
**Pumping Test:** Pumping Test 1  
**Pumping well:** 2052-01  
**Test conducted by:** Mike Robertson  
**Test date:** 8/2/2006  

**Aquifer Thickness:** 200.00 ft  
**Discharge rate:** 270 [U.S. gal/min]  

<table>
<thead>
<tr>
<th>Analysis Name</th>
<th>Analysis performed</th>
<th>Date</th>
<th>Method name</th>
<th>Well</th>
<th>T [ft³/d]</th>
<th>K [ft/d]</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>2052-01 - with Well Effects</td>
<td>1/11/2007</td>
<td>Papadopulos &amp; Co 2052-01</td>
<td>9.30 x 10²</td>
<td>4.65 x 10⁵</td>
<td>1.00 x 10⁻⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2052-01 - with Well Effects</td>
<td>1/11/2007</td>
<td>Papadopulos &amp; Co 2052-01</td>
<td>9.30 x 10²</td>
<td>4.65 x 10⁵</td>
<td>1.00 x 10⁻⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.30 x 10²</td>
<td>4.65 x 10⁵</td>
<td>1.00 x 10⁻⁴</td>
</tr>
</tbody>
</table>
BY USGS  
WELL ID: 2052-01

**INPUT**

<table>
<thead>
<tr>
<th>Construction:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing dia. (d_c)</td>
<td>8 inch</td>
</tr>
<tr>
<td>Annulus dia. (d_w)</td>
<td>14.5 Inch</td>
</tr>
<tr>
<td>Screen Length (L)</td>
<td>20 Feet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depths to:</th>
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</thead>
<tbody>
<tr>
<td>water level (DTW)</td>
<td>1130 Feet</td>
</tr>
<tr>
<td>Top of Aquifer</td>
<td>1130 Feet</td>
</tr>
<tr>
<td>Base of Aquifer</td>
<td>1326 Feet</td>
</tr>
</tbody>
</table>

**Computation**

Aquifer thickness = 200 Feet

**Computed Values**

- \(K = 400\) Feet/Day
- \(T = 70,000\) Feet²/Day
- \(S = 0.2\) d'less
- \(K_{annular} = 4000\) Feet/Day
- Skin = -0.5 d'less

**Remarks:**

Step-drawdown analysis of single-well aquifer test

Test from South Vekol Valley, AZ, WSP 2453

\[ K_{annular} \text{ is estimated by fitting simulated drawdowns to measured drawdowns in a secondary plot. A reasonable storage value must be assigned by the user because storage and } K_{annular} \text{ cannot be estimated independently. The estimate of } T \text{ is not affected by changes in estimates of storage and } K_{annular}. \]
<table>
<thead>
<tr>
<th>Entry</th>
<th>Time, Hr:Min:Sec</th>
<th>Water Level, Feet</th>
<th>Entry</th>
<th>Time, Hr:Min:Sec</th>
<th>Water Level, Feet</th>
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</thead>
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USGS

WELL ID: 2052-01

**INPUT**

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<tr>
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<tr>
<td>Annulus dia. (d_w)</td>
<td>14.5 Inch</td>
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<td>Screen Length (L)</td>
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</table>

**Depths to:**

- water level (DTW): 1130 Feet
- Top of Aquifer: 1130 Feet
- Base of Aquifer: 1326 Feet

**Annular Fill:**

- across screen -- Open Hole
- above screen -- Open Hole
- Aquifer Material -- Permeable Basalt

**FLOW RATE**

270 GPM

**COMPUTED**

\[
K = 400 \text{ Feet/Day}
\]

\[
T = 70,000 \text{ Feet}^2/\text{Day}
\]

Aquifer thickness = 200 Feet

Slope = 0.131776 Feet/log10

Input is consistent.

K = 400 is greater than likely maximum of 100 for Permeable Basalt

**REMARKS:**

Cooper-Jacob analysis of single-well aquifer test
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</table>
May 17, 2004

MEMORANDUM

TO: Resource Management, DLNR
FROM: The applicant through their info.
SUBJECT: Historic Preservation Review Well Construction/Pump Station Maunaoni Well (Well No. 2052-01)

[DLNR/Water Resources]
Pahoehee 1st 0 Makuu, South Kona, Hawaii
TMK: (3) 8-7-002:002

Historic Preservation Program Concerns:

Thank you for your letter dated March 15, 2004 and your request for comments on the above mentioned well permit application, which we received March 22, 2004. Our response is late, but we hope our comments can still be considered.

The subject property is situated in an area where historic sites are likely to be present. We have no record of an archaeological inventory survey having been conducted for the affected area. Therefore, we recommend that prior to approving this application, the applicant should have a qualified archaeologist inspect the property in order to determine whether historic sites are present, and if so, recommend an appropriate course of action, including inventory survey and how to mitigate any potential adverse effects of the well construction.

If you have any questions, contact MaryAnne Maigret in our Hawaii Island office at [redacted] or Dr. Pat McCoy, Hawaii Island Archaeologist at (808) [redacted]

MM:jen

cc: Christopher J. Yuen, Director, Planning, 101 Pauahi Street, Suite 3, Hilo, HI 96720-3043
May 4, 2004

Ref: 2052-01.wcp

Ms. Rachel Nack
P.O. Box 727
Brookline, NH 03033

Dear Mr. Nack:

Well Construction Permit
Maunaoni Well (Well No. 2052-01)

Enclosed are two (2) copies of your approved Well Construction Permit for the captioned well(s) that authorize well construction activities but excludes installation work for your permanent pump. As part of the Chairperson's approval, the following special conditions were added and are part of your permit under Permit Condition 13:

Special Conditions

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

This permit does not authorize work for your permanent pump installation. Approval and issuance of your pump installation permit is contingent upon completed application and information provided to and accepted by Commission staff as required in the Well Construction & Pump Installation Standards (February 2004) and any special conditions performed under this permit. However, a permanent pump may be installed prior to the permanent pump installation permit issuance in accordance with the Commission's April 15, 1998 Declaratory Ruling No. DEC-ADM98-G5, which states that:

"Permanent pump installation for capacities between 0-70 gpm and where the proposed use is for private individual needs in non-ground-water management areas may be allowed prior to the final pump installation permit issuance. When required as a condition of the well construction permit, subsequent pumping tests shall validate the acceptability of the permanent pump. The permanent pump installed prior to final pump installation permit issuance is subject to removal if the testing shows that a smaller pump is required to reduce the potential of affecting neighboring wells and localized upconing at the applicant's well."
Mr. Rachel Nack  
Page 2  
May 4, 2004

If you qualify and wish to take advantage of this ruling, please include a written request to install the permanent pump prior to final pump installation permit issuance when you return to us your signed well construction permit.

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

**IMPORTANT** - Drilling work shall not commence until a fully signed permit is returned to the Commission. Please provide all the information in this packet to your well drilling contractor. The permittee, well operator, and/or well owner are responsible for all conditions of the permit. This includes ensuring that the well construction contractor, or other party who constructs the well(s), submits a completed Part I of the Well Completion Report form (enclosed) within sixty (60) days after the well construction work is completed. Be advised that you may be subject to fines of up to $1000 per day for any violations of your permit conditions starting from the permit approval date.

If you have any questions, please call Ryan Imata of the Commission staff at [redacted] or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), [redacted] (Maui), or [redacted] (Lanai & Molokai), extension 70255.

Sincerely,

[Signature]

Peter T. Young  
Chairperson

Enclosures
WELL CONSTRUCTION PERMIT
Maunaoni Well, Well No. 2052-01

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

In accordance with Department of Land and Natural Resources, Commission on Water Resource Management's Administrative Rules, Section 13-168, entitled "Water Use, Wells, and Stream Diversion Works", this document permits the construction and testing of Maunaoni Well (Well No. 2052-01) at 98 Mile Marker Mamalahoa Hwy, Hawaii, TMK 8-7-2: 002, subject to the Hawaii Well Construction & Pump Installation Standards (February 2004) which include but are not limited to the following conditions:

1. The Chairperson of the Commission on Water Resource Management (Commission), P.O. Box 621, Honolulu, HI 96809, shall be notified, in writing, at least two (2) weeks before any work authorized by this permit commences and staff shall be allowed to inspect installation activities in accordance with §13-168-15, Hawaii Administrative Rules.

2. The well construction permit shall be for construction and testing of the well only. A minimum 1¼-inch diameter monitor tube shall be permanently installed, in a manner acceptable to the Chairperson, to accurately record water levels. The permittee, well operator, and/or well owner shall coordinate with the Chairperson and conduct a pumping test in accordance with the Standards (a pump testing worksheet is attached). The permittee, well operator, and/or well owner shall submit to the Chairperson the test results as a basis for supporting an application to install a permanent pump and withdraw water for use. No permanent pump may be installed until a pump installation permit is approved and issued by the Chairperson.

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

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

5. In the event that subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal are encountered during construction, the permittee, well operator, and/or well owner shall stop work and contact the Department's Historic Preservation immediately.

6. The proposed well construction shall not adversely affect existing or future legal uses of water in the area, including any surface water or established instream flow standards. This permit or the authorization to construct the well shall not constitute a determination of correlative water rights.

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

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

9. The well construction permit application is incorporated into this permit by reference and is subject to the Hawaii Well Construction & Pump Installation Standards (February 2004, HWCPIS). If the HWCPIS are not followed and as a consequence water is wasted or contaminated, a lien on the property may result.

10. The permit may be revoked by the Commission if work is not started within six (6) months after the date of approval or if work is suspended or abandoned for six (6) months, unless otherwise specified. The work proposed in the well construction permit application shall be completed within two (2) years from the date of permit approval, unless otherwise specified. The permit may be extended by the Chairperson upon a showing of good cause and good-faith performance. A request to extend the permit shall be submitted to the Chairperson no later than three (3) months prior to the date the permit expires. If the commencement date is not met, the Commission may revoke the permit after giving the permittee, well operator, and/or well owner notice of the proposed action and an opportunity to be heard.

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

12. The permittee, its successors, and assigns shall indemnify, defend, and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, or death arising out of any act or omission of the applicant, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit.

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

Date of Approval: April 23, 2004
Expiration Date: April 23, 2006

I have read the conditions and terms of this permit and understand them. I accept and agree to meet these conditions as a prerequisite and underlying condition of my ability to proceed and understand that I shall not commence work until I and the driller have signed, dated, and returned the permit to the Commission. I also understand that non-compliance with any permit condition may be grounds for revocation and fines of up to $1000 per day starting from the permit date of approval.

Permittee's Signature: ___________________________ Date: __________

Printed Name: ___________________________ Firm or Title: ___________________________

Driller's Signature: ___________________________ C-57 License #: ___________________________
Date: __________

Printed Name: ___________________________ Firm or Title: ___________________________

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

C: USGS
Department of Health / Safe Drinking Water, Wastewater, and Clean Water Branches
Hawaii Department of Water Supply
**Commission on Water Resource Management**

**Route Slip for Permit Issuance**

**FROM:** Ryan  
**DATE:** 4/8/04  
**Suspense Date:**

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**Well Number** 2052-01  
**Well Name** Mauiwani well

- **Well Construction**
  - **Attachments for Well Construction Permit:**
    1. Cover Letter
    2. Permit (2x)
    3. SDWB
    4. WWB
    5. CWB
    6. HEER
    7. LD
    8. HP
    9. Pump Test
    10. WCR I Form
    11. Well Check Printout

- **Pump Installation**
  - **Attachments for Pump Installation Permit:**
    1. Cover Letter
    2. Permit (2x)
    3. SDWB
    4. WWB
    5. CWB
    6. HEER
    7. LD
    8. HP
    9. WCR II Form
    10. WUR Form

**4/23**

Called Rachel

Need For Correct Address.

1/26 Got Address.
Well Check Program  
4/1/04 - Revised for update to Well Standards (February 2004)

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| Results | Well Depth | Theoretical Thickness of Aquifer | 410 |
|         |            | 1/4 Aquifer Thickness | 102.5 |
|         |            | Depth of Well below Sea Level | -30 okay Section 2.2 |
| Well Casing | Minimum Wall Thickness | Material | steel |
|            | Minimum Thickness per standards | #N/A |
|            | Wall Thickness Provided | 0.28 #N/A Section 2.4(b) |
|            | Minimum Length of Solid Casing | 90% of ground to top of aquifer | 1116 |
|            | Length of solid casing Provided | 1231 okay Section 2.4(c) |
|            | Casing Material | ASTM A53 In compliance Section 2.4(d) |
|            | (for pvc only - check for 200' limit) | okay Section 2.4(d) |
| Annular Space | Depth of Grouting | Calculated Depth of Grouting | 500 |
|            | Depth of Grouting provided | 1000 okay Section 2.6(c) |
|            | Minimum Annular Space required | 2 |
|            | Thickness of Annular Space | 3.25 okay Section 2.6(d) |
March 15, 2004

TO:       Honorable Chiyome L. Fukino, M.D., Director
          Department of Health
          Attention: Harold Yee, Wastewater Branch
          William Wong, Safe Drinking Water Branch
          Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
          Alec Wong, Clean Water Branch

FROM:     Peter T. Young, Chairperson
          Commission on Water Resource Management

SUBJECT:  Well Construction/Pump Installation Permit Application
          Maunaoni Well (Well No. 2052-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 30, 2004. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 808-725-0255.

RI: ss
Attachment(s)

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-203-39. [See page 1]

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation. [See page 1]

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spouts with warning signal to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested. [See page 1]

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations. [See page 1]

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

An NPDES permit is required. [See page 1]

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

No comments/objections

Contact Person: William Wong
Phone:

Signed: William Wong
Date: MAR 31 2004
The Department of Health, Safe Drinking Water Branch has the following additional comments for the Well Construction / Pump Installation Permit Application for the Maunaoni Well (Well No. 8-2052-01 Hawaii):

Please be advised that the Department of Health has experienced drinking water and groundwater contamination by submersible pumps containing mercury. Specifically, the failure of the seals of the pumps allowed mercury to leak out into the well shaft resulting in contamination of the well and the water served by the well. If you intend to install a submersible pump, please review your pump specifications to be sure that the submersible pump(s) you propose to use does not contain materials which could result in either groundwater contamination or drinking water contamination.
March 15, 2004

Ms. Rachel Nack
Mauna Loa Land LLC
P.O. Box 599
Makawao, HI 96768

Dear Ms. Nack:

Well Construction/Pump Installation Permit Application for Well No. 2052-01

We acknowledge receipt, on March 10, 2004, of your completed Well Construction/Pump Installation permit application and filing fee for the Maunaoni Well (Well No. 2052-01). You can expect your application to be processed within ninety (90) days from this date.

For your information, the process of constructing a well is normally regulated and permitted in two (2) steps. First, a well construction permit is issued for drilling and testing purposes only. Based upon information provided by you through a Well Completion Report Part 1 (Well Construction), a pump installation permit (upon completed application) may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at [redacted] or toll-free at 974-4000 (Hawaii), 274-3141 (Kauai), [redacted] (Maui), or [redacted] (Lanai & Molokai), extension 70255.

Sincerely,

ERNEST Y.W. LAU
Deputy Director

RI:ss

c: Wailani Drilling
TO: Dede Mamiya, Administrator  
Land Division  
FROM: Ernest Y.W. Lau, Deputy Director  
Commission on Water Resource Management  
SUBJECT: Well Construction/Pump Installation Permit Application  
Maunaoni Well (Well No. 2052-01)  

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We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. **Please respond by returning this cover memo form by April 30, 2004.** If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at [ ]

RI:ss  
Attachment(s)  
RESPONSE:  

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

[ ] A water lease/permit is **not** required of this applicant.

[ ] A water lease/permit has been obtained by the applicant through lease no. [ ]

[ ] This well project **requires** does **not require** a CDUP. If a CDUP is required it [ ] has [ ] has **not** been approved and [ ] is [ ] is **not** currently active.

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

[ ] No objections  

[ ] Other comments: **Original source of private title is Grant No. 1971 issued prior to Statehood.**

Contact Person: Gary Martin  
Phone: [ ]

Signed: Gary Martin  
Date: MAR 19 2004
March 15, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
Commission on Water Resource Management

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Maunaoni Well (Well No. 2052-01)

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Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at 587-0255.

Rlss
Attachment(s)

RESPONSE:

[1] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 90 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (WAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-20.

[1] This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 90 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

[1] If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

[1] It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

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

[1] An NPDES permit is required.

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

[1] No comments/objections

Contact Person: Alec Wong
Phone: [REDACTED]

Signed: Alec Wong
Date: 3/22/04
The Department of Health, Clean Water Branch has the following comments:

1. For Well-Drilling Activities

Any discharge to State waters of treated process wastewater effluent associated with well drilling activities is regulated by Hawaii Administrative Rules, Title 11, Chapter 55, Appendix I, effective September 22, 1997. Treated process wastewater effluent covered by this general permit includes well drilling slurries, lubricating fluids wastewaters, and well purge wastewaters. This general permit does not cover well pump testing. The applicable Notice of Intent Forms and filing fee shall be submitted at least thirty (30) days before the start of discharge to the Department of Health, Clean Water Branch at 919 Ala Moana Boulevard, Room 301, Honolulu, Hawaii 96814-4520 or P.O. Box 3378, Honolulu, Hawaii 96801-3378. Inquiries may be directed to the Clean Water Branch at [redacted] or by fax at (808) 586-4352.

2. For Well Pump Testing

The discharger shall take all measures necessary to prevent the discharge of pollutants from entering State waters. Such measures shall include, if necessary, containment of the initial discharge until the discharge is essentially free of pollutants. If the discharge is entering a stream or river bed, best management practices shall be implemented to prevent the discharge from disturbing the clarity of the receiving water. If the discharge is entering a storm drain, the discharger must obtain written permission from the owner of that storm drain prior to discharge. Furthermore, best management practices shall be implemented to prevent the discharge from collecting sediments and other pollutants prior to entering the storm drain.

JS/cr
STATE MESSENGER DELIVERY

Date: March 22, 2004

To: Commission on Water Resource Management
   Department of Land & Natural Resources
   State of Hawaii

Attn: Ryan Imada

From: Lori Kajiwara
   Planning & Design Section
   Phone [redacted] direct line
   Fax [redacted]
   Email: Lkajiwara@eha.health.state.hi.us

Subject: Well Construction/Pump Installation Permit/Water Use Permit for

Well No. 2052-01  Maunaoni Well (R1)
Well No. 5731-06  Waiha Equestrian (C1)

Please find enclosed the application of the above subject project.

STATE MESSENGER DELIVERY
March 15, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director
   Department of Health
   Attention: Harold Yee, Wastewater Branch
               William Wong, Safe Drinking Water Branch
               Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
               Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
      Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         Maunaoni Well (Well No. 2052-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 30, 2004. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at

RESPONSE:

This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

This well does not qualify as a source serving a public water system (serves less than 25 people or more people at least 60 days per year or 15 service connections) and if the well water is used for drinking, the private owner should test for bacteriological and chemical presence before initiating such use and routinely monitor the water quality thereafter. However, if future planned use from this source increases to meet the public water system definition then Director of Health approval is required prior to implementation.

If the well is used to supply both potable and non-potable purposes in a single system, the user shall eliminate cross-connections and backflow connections by physically separating potable and non-potable systems by an air gap or an approved backflow preventer, and by clearly labeling all non-potable spigots with warning signs to prevent inadvertent consumption of non-potable water. Backflow prevention devices should be routinely inspected and tested.

It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

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

An NPDES permit is required.

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

No comments/objections.

Contact Person: Lani N. Kajiwara

Signed: Lani N. Kajiwara

Phone: [redacted]

Date: 3-22-2004
**MISSION ON WATER RESOURCE MANAGEMENT**

**ROUTE SLIP FOR NEW APPLICATIONS**

**FROM:** RYAN  
**DATE:** 8-May-03  
**SUSPENSE DATE:**

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**WELL NUMBER** 2052-01  
**WELL NAME** Maunaoni

- [ ] WELL CONSTRUCTION  
- [  ] PUMP INSTALLATION  
- [  ] BOTH

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

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

**FOLDER**
- [ ] MADE NEW FILE FOLDER, ATTACHED
- [ ] FILE FOLDER ALREADY MADE, IN FILE CABINET

**INCOMPLETE ACTION DATES:**

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**3/10/04** - Sent file in.

*Note: please deposit check.*

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*Note: deposit check.*
March 15, 2004

Ms. Rachel Nack
Mauna Loa Land LLC
P.O. Box 599
Makawao, HI 96768

Dear Ms. Nack:

Well Construction/Pump Installation Permit Application for Well No. 2052-01

We acknowledge receipt, on March 10, 2004, of your completed Well Construction/Pump Installation permit application and filing fee for the Maunaoni Well (Well No. 2052-01). You can expect your application to be processed within ninety (90) days from this date.

For your information, the process of constructing a well is normally regulated and permitted in two (2) steps. First, a well construction permit is issued for drilling and testing purposes only. Based upon information provided by you through a Well Completion Report Part 1 (Well Construction), a pump installation permit (upon completed application) may then be issued to authorize pump work. If a pump is installed then a Well Completion Report Part 2 (Pump Installation) is required.

If you have any questions about your permit application, please contact Ryan Imata of the Commission staff at [Contact Information] or toll-free at [Contact Information] (Hawaii), [Contact Information] (Kauai), [Contact Information] (Maui), or [Contact Information] (Lanai & Molokai), extension 70255.

Sincerely,

ERNEST Y.W. LAU
Deputy Director

Rt:ss

c: Wallani Drilling
March 15, 2004

TO: Honorable Chiyome L. Fukino, M.D., Director
Department of Health
Attention: Harold Yee, Wastewater Branch
William Wong, Safe Drinking Water Branch
Dr. Keith Kawaoka, Hazardous Evaluation and Emergency Response
Alec Wong, Clean Water Branch

FROM: Peter T. Young, Chairperson
Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
Maunaoni Well (Well No. 2052-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application for any conflicts or inconsistencies with the programs, plans, and objectives specific to your department. Please respond by returning this cover memo form by April 30, 2004. If we do not receive comments or a request for additional review time by this date, we will assume that you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at __________________________.

RI:ss
Attachment(s)

RESPONSE:

[ ] This well qualifies as a source which will serve as a source of potable water to a public water system (defined as serving 25 or more people at least 60 days per year or has 15 or more service connections) and must receive Director of Health approval prior to its use to comply with Hawaii Administrative Rules (HAR), Title 11, Chapter 20, Rules Relating to Potable Water Systems, §11-20-29.

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[ ] It does not appear that this well will be used for consumptive purposes and is not subject to Safe Drinking Water Regulations.

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

[ ] An NPDES permit is required.

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

[ ] No comments/objections

Contact Person: __________________________ Phone: ________________

Signed: __________________________ Date: ________________
March 15, 2004

TO: Dede Mamiya, Administrator
   Land Division

FROM: Ernest Y.W. Lau, Deputy Director
       Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
          Maunaoni Well (Well No. 2052-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. **Please respond by returning this cover memo form by April 30, 2004.** If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at [phone number]

Attachment(s)

RESPONSE:

- [ ] A water lease/permit is required of this applicant and an application for such will be requested by our division.
- [ ] A water lease/permit is **not** required of this applicant.
- [ ] A water lease/permit has been obtained by the applicant through lease no. [lease number].
- [ ] This well project [ ] **requires** [ ] **does not require** a CDUP. If a CDUP is required it [ ] **has** [ ] **has not** been approved and [ ] **is** [ ] **is not** currently active.
- [ ] Other relevant Land Division rules/regulations, information, or recommendations are attached.
- [ ] No objections
- [ ] Other comments:

Contact Person: ____________________________  Phone: ________________

Signed: ___________________________________  Date: ________________
March 15, 2004

TO: Holly McEldowney, Acting Administrator
    Historic Preservation

FROM: Ernest Y.W. Lau, Deputy Director
      Commission on Water Resource Management

SUBJECT: Well Construction/Pump Installation Permit Application
         Maunaoni Well (Well No. 2052-01)

Transmitted for your review and comment is a copy of the captioned Well Construction/Pump Installation permit application.

We would appreciate your comments on the captioned application with regard to the programs, plans, and objectives specific to your division. Please respond by returning this cover memo form by April 30, 2004. If we do not receive comments or a request for additional review time by this date, we will assume you have no comments.

Please find the attached maps to locate the proposed well. If you have any questions about this permit application, request additional information, or request additional review time, please contact Ryan Imata of the Commission staff at [

RESPONSE:
[ ] There may be areas in the vicinity of the well site that contain subsurface cultural remains such as artifacts, burials or concentrations of shells or charcoal.
[ ] Other relevant Historic Preservation rules/regulations, information, or recommendations are attached.
[ ] No objections
[ ] Other comments:

Contact Person: __________________________ Phone: ___________

Signed: __________________________ Date: ___________
## Search Results

Click the Detail to get the license screen.  
[Look up License Type Codes->]

There was 1 match to your search!

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<td>655 KULIKE RD HAiku HI 96708</td>
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<-Back  New Search->

Copyright © 2002 Professional and Vocational Licensing Division

Hawaii State homepage || DCCA|| Professional and Vocational Licensing Division
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This information has been supplied by third parties and has not been independently verified by Hawaii Information Service and is, therefore, not guaranteed.
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REMARKS:  
LINE (1) Well No. 2052-01  
LINE (2)  
LINE (3)  
LINE (4)  
LINE (5)  
LINE (6)  
LINE (7)  
LINE (8)  
LINE (9)  
LINE (10)
TO: RYAN IMATA

FAX: 587-0219

RYAN,

Following is map for well site located on parcel 2. If you have any questions, please contact me at 808-370-8800.

Thank you,

RACTER NACK
Lot I = 12 + 16.
Lot 24-3 = Single Lot
State of Hawaii
COMMISSION ON WATER RESOURCE MANAGEMENT
Department of Land and Natural Resources
APPLICATION FOR PERMIT

For Official Use Only:

RECEIVED

03 MAY 7 8:50

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

1. (a) □ WELL OWNER: Mauna Loa Land LLC
   Contact Person: Rachel Nuck
   Mailing Address: PO Box 59, Kahului, HI 96732
   Phone: (808) 670-8800
   Fax: (808) 679-6455
   Email: 

2. □ LAND OWNER: Same as above
   Contact Person: 
   Mailing Address: 
   Phone: 
   Fax: 
   Email: 

3. □ CONTRACTOR: Wailei Dzulich
   Mailing Address: 555 Kuli Rd, Hauhau, HI 96708
   Phone: 808 572-2673
   Fax: 
   Email: 

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

2. WELL NAME: Mauna Loa
   Island: Hawaii
   Address: 98 Waa Street, Kaunakakai, HI 96748
   Tax Map Key: 8-7-23-02
   (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)

3. PROPOSED WORK: (check all that apply)
   □ Construct New Well
   □ Install New Pump*
   □ Modify Existing Well
   □ Modify Pump*
   □ Abandon/Relate
   *State Well No.: __________________________ (If unknown, please call Commission at 587-0225)

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

5. PROPOSED PUMPING RATE: 
   120 gallons per minute

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

   Does this well serve 25 or more people at least 60 days per year or have 15 or more service connections? □ Yes □ No
   □ No of Acres:
   □ Military
   □ Other (explain):

7. (a) PROPOSED AMOUNT OF WITHDRAWAL: 72000 gallons per day

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

OTHER IMPORTANT INFORMATION:

8. LEGAL REQUIREMENTS: If required, these permits must be obtained before the Commission can legally issue a permit.
   Conservation District Use Permit (CDUP): To find out if a CDUP is necessary, call DLNR Land Division at ___________
   If Not Required If required, date approved ___________
   Environmental Impact Statement (EIS) or Environmental Assessment (EA): To determine if an EIS or EA is necessary, call OSGO at ___________
   If Not Required If required, date published in OSGO bulletin ___________
   Special Management Area Permit (SMA): To determine if an SMA is necessary, call DLNR on Oahu, call ___________
   for Maui county, call __________
   If Not Required If required, date approved ___________

9. REMARKS, EXPLANATIONS:

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

NOTE: Signing below indicates the signatures understand and agree that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatures understand that approval of this application attaches the following standard conditions: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within 60 days after the completion date of the permitted work; 3) monthly water use data shall be submitted to the Commission; 4) such approval shall not constitute a determination of correlative water rights and shall not guarantee the pump capacity of future use up to the permitted pump capacity; and 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 any form of renewal of form of renewal is at the owner's expense.

Well Owner
(print legibly)
Signature: __________________
Date: __________

Landowner
(print legibly)
Signature: __________________
Date: __________

Contractor
(print legibly)
Signature: __________________
Date: __________

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

WCTPA Form 82101
18. PROPOSED WELL SECTION

(Please attach schematic if different from diagram provided below)

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

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

Solid Casing:
- External Diameter:
- Total Length: 1280 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.280 in.
- Bottom Elevation: -10 ft., msl*

Open Casing:
- Type:
- Length: N ft.
- Diameter: m in.
- Bottom Elevation: m ft., msl*

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

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

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

HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS

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

Cement Grout: 10.00 ft. (min. 70% of distance from ground elevation to top of surface water or 500 ft., whichever is less.)

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

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

Estimated Water Level Elevation: 10 ft., msl*

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

Ground Elevation: 1280 ft., msl*

If Open: Please refer to:

- Sand or Gravel
- Bentonite
- Other

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

Casing:
- Schedule 40
- Schedule 80
- Schedule 120

Pressurized Pipe conforming to ASTM D2996

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

Steel:
- Type:
- Grade:
- Other

Thermoplastic:
- Type:
- Grade:
- Other

ABS Plastic conforming to ASTM F480 and ASTM D1785 or ASTM D2241 (check one):
- Schedule 40
- Schedule 80
- Schedule 120

Other:
- Other

Open Casing Material:
- Check one or more:
- ANSI/AWWA C200
- API Spec. 5L
- ASTM A53
- ASTM A139

Steel:
- Type:
- Grade:
- Other

Thermoplastic:
- Type:
- Grade:
- Other

ABS Plastic conforming to ASTM F480 and ASTM D1785 or ASTM D2241 (check one):
- Schedule 40
- Schedule 80
- Schedule 120

Other:
- Other

Other:
- Other
REQUEST for VARIANCE

Wailani Drilling Inc.

Bill Steele  
655 Kulike Road  
Haiku, Maui, Hawaii 96708

To: State of Hawaii Water Resource Commission
From: Wailani Drilling

Well name: Maunaoni  
Well Number:

Variance Type: Procedural
Variance Requested:

1. Do not remove the pump that was installed for testing the well and use it as permanent pump.

Variance Procedure:

1. To leave “test pump only” in well after pump test and DO NOT leave or install any power supply or pump controllers at well site or with owner.
2. To secure wellhead with lock and/or seal to prevent any possible use while pump test data is reviewed and evaluated for issuance of pump permit. (usually 60-90 day period)
3. Sign Pump Installation Permit
4. Remove lock and seal, install pump controller, hard wire pump for permanent use.

State Standard Procedure:

1. To remove pump after testing
2. Pump test data is reviewed and evaluated for issuance of pump permit
3. Sign Pump Installation Permit
4. Reinstall pump for permanent use.

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REQUEST for VARIANCE

Comments/Remarks:

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Mike Robertson, President
Wailani Drilling

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Reason for Variance:

In this case the well owner has requested to purchase the test pump for use as their permanent pump. Prime reasons for requesting to leave the pump in the well during the pump test data evaluation verses pulling and reinstalling the pump are:

1. When considering, this is a 1250 ft. well, this variance will eliminate the procedure of pulling and reinstalling a pump, thus tremendously reducing the risks, hazards and liabilities associated with a pump installation process.

2. The procedural variance will give an estimated cost savings to the well owner of $18,000.00 to $22,000.00 dollars.

3. Also the well can be brought online and producing approximately 10-14 days sooner once the pump permit is issued and signed.

Possible Risks and Liabilities associated with approval of Variance for:

Well Contractor: None, actually decreases risks since it would eliminate a procedure.

Well Owner: After pump test data is reviewed there is a minimum possibility the pump would not be suitable for the well/aquifer. In such case the owner would assume the responsibility and cost to install and re-test recommended pump for their application. But, based on data from current wells in Maui county of this size and output, and “all things equal” there is a very minimal, if not, virtually a zero probability of this occurring.

There can be risk of the additional use and wear associated with the test pump, within a newly drilled well, and that the warranty on the pump starts on date of pump test. To reduce wear caused by testing, the well will be thoroughly cleaned of cuttings, there will be no open hole (perforated casing set on bottom), and pump intake set maximum distance from bottom.

State Water Commission: No apparent risks or liabilities, since this is a variance for procedure and will not affect the aquifer. Please review request and comment.

Aquifer: None

Other: Since the pump will be in the well for up to 90 days prior to pump permit approval, there is the risk and temptation of unauthorized use of water/aquifer during that time. To assure this will not happen Wailani Drilling:

1. “WILL NOT “ install or leave any power supply or pump controller at well site or with owner.
2. To prevent easy access we will secure wellhead with “LOCK and/or SEAL”
3. “WILL REPORT “ immediately any apparent use of the well prior to issuance of Pump permit to State Water Commission
4. *NOTE: SEE VARIANCE PROCEDURE, page 1

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